



**REGULAR MEETING & WORK SESSION
OF THE CITY COUNCIL**

April 24, 2018

ADDISON TOWN HALL

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

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 on a matter in which the duty of the attorney 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:

- **The ponds or lakes at Vitruvian Park located within the vicinity and east of the intersection of Vitruvian Way and Ponte Ave., and Farmers Branch Creek**
- **The letter from the City of Farmers Branch terminating the unmetered sanitary sewer flow for the Sanitary Sewer Basin I that is located in the vicinity west of Inwood Road, south of Belt Line Road, and along Beltway Drive to Midway Road effective May 25, 2018**

Section 551.074, Tex. Gov. Code, to deliberate the appointment, employment, evaluation, reassignment, duties, discipline or dismissal of a public officer or employee, pertaining to:

- **City Secretary**

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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 matters discussed in Executive Session.
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WORK SESSION

3. Present and Discuss the **Town of Addison's Joint Effort with the Cities of Carrollton, Coppell, and Farmers Branch to Solicit Two Requests for Proposals (RFPs) for Debris Removal and Debris Monitoring Services.**
 4. Present and Discuss the **Process for Updating the Town's Development Regulations.**
-

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.
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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 Action to Approve the **Minutes from the April 10, 2018 Council Meeting and the April 16, 2018 Town Meeting.**
 7. Consider Action to Approve a **Resolution for an Agreement with Meggitt Training Systems, Inc. for the Indoor Shooting Range Improvements Located at the Addison Police Station and Authorize the City Manager to Execute the Agreement in an Amount not to Exceed \$95,368.65.**
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8. Consider Action to Approve a **Resolution Finding that Oncor Electric Delivery Company LLC's Application for Approval of a Distribution Cost Recovery Factor Pursuant to 16 Tex. Admin. Code § 25.243 to Increase Distribution Rates within the City Should be Denied; Finding that the City's Reasonable Rate Case Expenses Shall be Reimbursed by the Company; Finding that the Meeting at Which this Resolution is Passed is Open to the Public as Required by Law; Requiring Notice of this Resolution to the Company and Legal Counsel.**
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9. Consider Action to Approve the **Quarterly Update from the Finance Committee to the City Council for the Period from January 2018 to March 2018.**
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10. Consider Action to Approve a **Resolution for Turnkey Landscape and Irrigation Maintenance of the Vitruvian Way Medians, Vitruvian Development Savoye 1 Streetscape, Park Road Right-of-way and Parking Lot Island, Vitruvian Development Savoye 2 Streetscape, Vitruvian Development Fiori Streetscape and related areas, Spring Valley Road/Loos Right-of-way, Spring Valley Road Medians, Redding Trail Connector and George W. Bush Elementary School to Carruther's Landscape Management and Authorize the City Manager to Execute the Agreement in an Amount not to Exceed \$57,600.**
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Regular Items

11. Present, Discuss, and Consider Action on a **Resolution to Ratify the Agreement to Settle the Lawsuit between the Town of Addison and Landmark Structures I, L.P., Urban Green Energy, and Freese and Nichols, Inc.**
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12. Hold a Public Hearing, Present, Discuss, and Consider Action on an **Ordinance Establishing Standards of Care for Youth Recreation Programs Conducted by the Town for Elementary Age Children Ages 5 Through 13; Providing for Compliance with Section 42.041(b)(14) of the Texas Human Resources Code.**
-
13. Present, Discuss, and Consider the **Schematic Design and Funding Alternatives for the Customs and Border Protection Federal Inspection Services Facility and Whether to Include the Airport Administration Offices in the Final Design.**
-

14. Present, Discuss, and Consider Action on the **Design of Improvements to Sanitary Sewer Basin I that is Located in the Vicinity West of Inwood Road, South of Belt Line Road, and along Beltway Drive to Midway Road.**

15. Present, Discuss, and Consider Action on an **Ordinance to Amend the Town's Annual Budget for the Fiscal Year Ending September 30, 2018 to Provide Funding for Construction of the Wing Aviation Apron Connector and the Claire Chennault Street Driveway Reconstruction at Addison Airport.**

16. Present, Discuss, and Consider Action on a **Resolution to Approve an Agreement with Advanced Transol Consultants, LLC, for the Construction of the Wing Aviation Apron Connector at 4555 Glenn Curtiss to Taxiway Uniform and 4554 Claire Chennault Street Driveway Reconstruction at Addison Airport and to Authorize the City Manager to Execute the Agreement in an Amount not to Exceed \$385,804.**

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:
Christie Wilson, April 19, 2018 by 5:00 p.m.

**THE TOWN OF ADDISON IS ACCESSIBLE TO PERSONS WITH DISABILITIES. PLEASE
CALL (972) 450-7090 AT LEAST
48 HOURS IN ADVANCE IF YOU NEED ASSISTANCE.**

Work Session and Regular Meeting**Meeting Date:** 04/24/2018**Department:** Infrastructure- Development Services

AGENDA CAPTION:

Present and Discuss the **Town of Addison's Joint Effort with the Cities of Carrollton, Coppell, and Farmers Branch to Solicit Two Requests for Proposals (RFPs) for Debris Removal and Debris Monitoring Services.**

BACKGROUND:

In January 2017, Carrollton's Emergency Management Coordinator asked the Town to participate in an effort to solicit Debris Removal and Debris Monitoring Services. Since that time, staff has been researching the need for these services and working with staff from Carrollton, Coppell, and Farmers Branch on the development of the Request for Proposals (RFP) for these services. Addison staff took the lead in developing the draft RFPs, using the RFPs that were issued by Tarrant County for the same services as a model. Staff from the four cities are ready to move forward with procurement, pending Council's direction to do so.

Because disasters often affect multiple jurisdictions in a single incident, working with our neighboring cities improves coordination and continuity by having a single contractor for each of the two services. A benefit to having a joint RFP allows the member cities to have greater buying power to compete with larger cities for contractor resources should a disaster be widespread in the Dallas/Fort Worth region. The joint RFP release also allows the member cities to work in unison to allocate available resources equitably versus competing to obtain them in a time of crisis. In addition to being able to quickly respond to needs during a disaster, having these contracts in place will assist the Town in maximizing potential FEMA reimbursement funds if the Town chooses to elect their financial assistance during a federally declared disaster. The Town however, is not required to request reimbursement from FEMA if it chooses to absorb the cost for debris management activities from Town funds.

The RFPs will be posted on BidSync and the top firms will be selected for interviews. The selection committee will include a minimum of three (3) staff members from each member city. The selection committee will reach a consensus as to the two (2) most qualified proposers for each service after grading them on the criteria described in the RFP. Although the same contractors will be selected by all of the member cities, each city will execute its own contract for Debris Removal and Debris Monitoring Services. The selected Debris Removal contractor will be responsible for the clearance, demolition, removal, reduction, and disposal of disaster debris. The Debris Monitoring contractor will be responsible for supervising and documenting the removal and lawful disposal of eligible debris in compliance with State and Federal regulations.

RECOMMENDATION:

Staff requests direction from Council.

Attachments

Presentation - Debris Management

Metrocrest Quad Cities (MQC) Debris Management

April 24, 2018

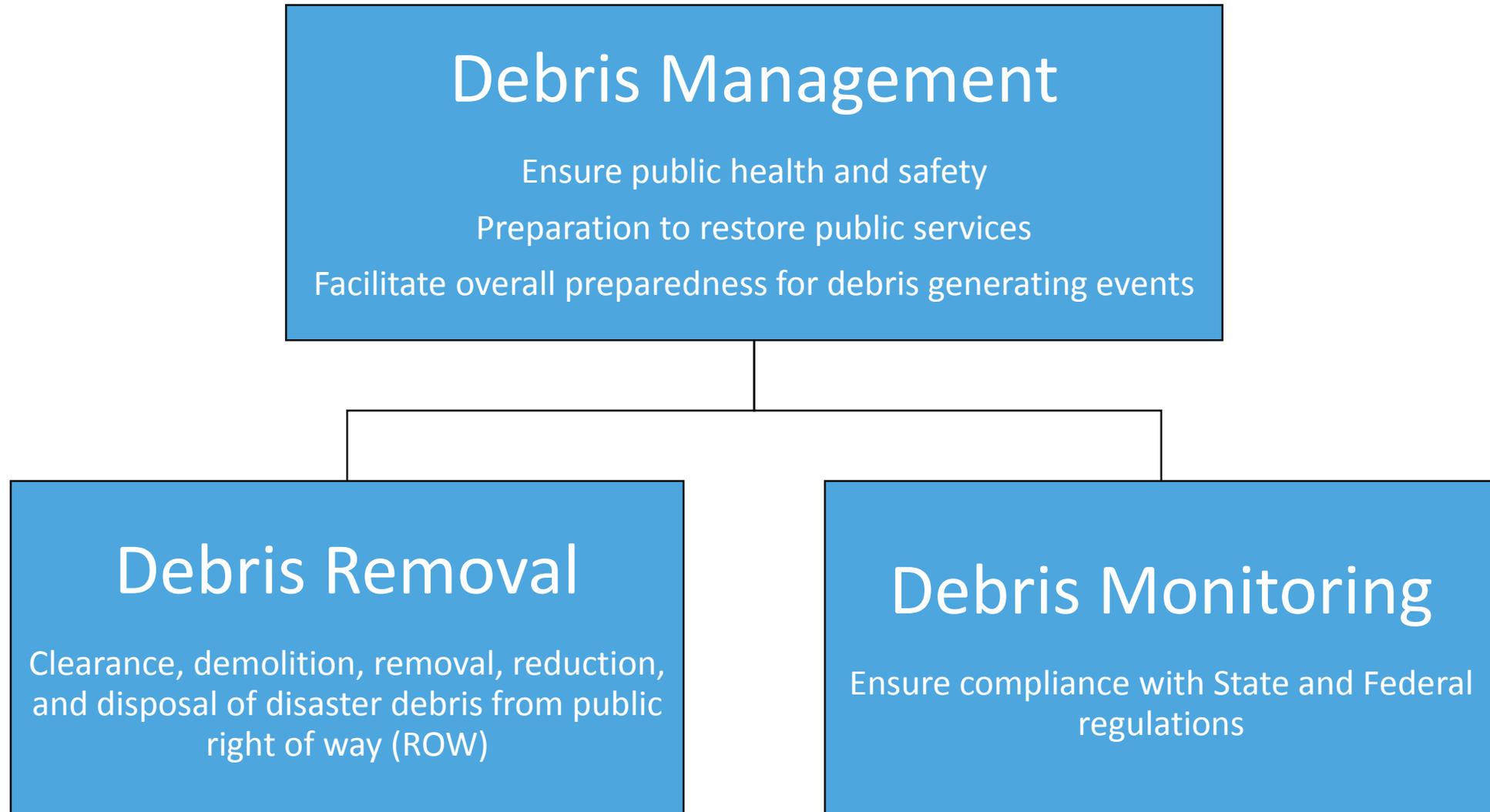
ADDISON



**FARMERS
BRANCH**

- In January of 2017, staff began pursuing coordinated efforts to release two joint Request for Proposals (RFPs) with Carrollton, Coppell, and Farmers Branch to acquire individual standby contracts for Debris Removal and Debris Monitoring Services
- Having these contracts in place:
 - Increases the Town's preparedness in providing services during emergency situations
 - Enhances the goal of protecting life, property, and the general welfare of the community

What is Debris Management?



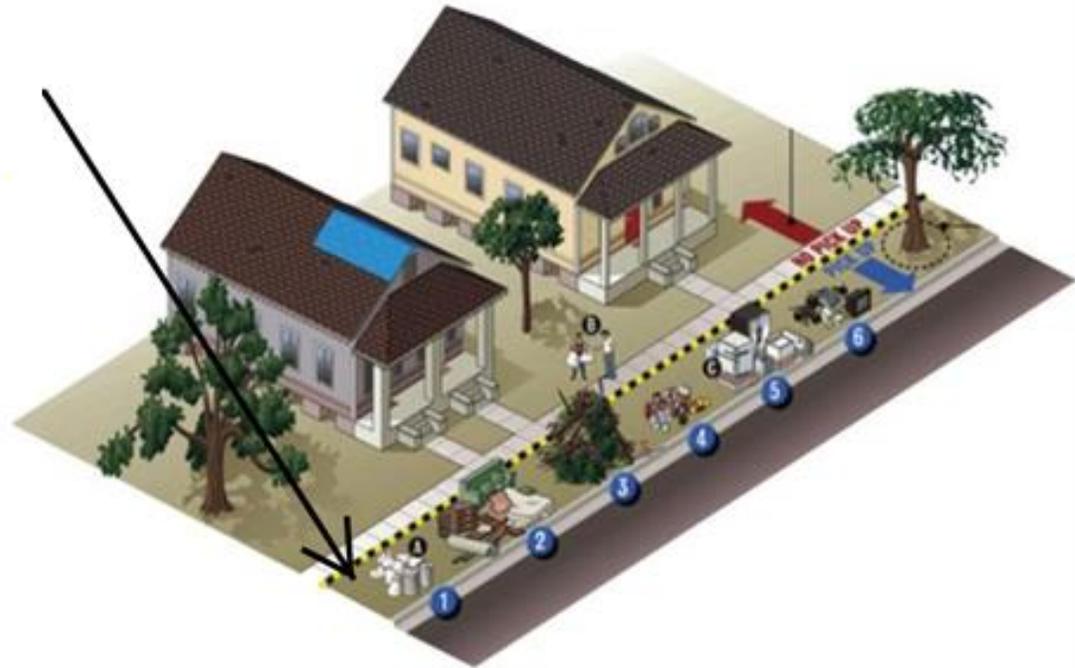
Debris Management Incidents

- Manmade Disaster
 - Terrorist attack
- Natural Disaster
 - Tornado
 - Ice storm
 - Flood
 - Earthquake
 - Hurricane



Debris Removal

- Hauling, reduction, and transport of debris picked up from public ROW
- Various types of debris:
 - Concrete and Demolition
 - Vegetation
 - Household Hazardous Waste
 - White Goods
 - Electronic Waste
- Reduced by:
 - Incineration
 - Chipping and Grinding
 - Crushing
- May be taken to a temporary debris management site for sorting/reduction, a recycling facility, and/or directly to a landfill for disposal



Debris Monitoring

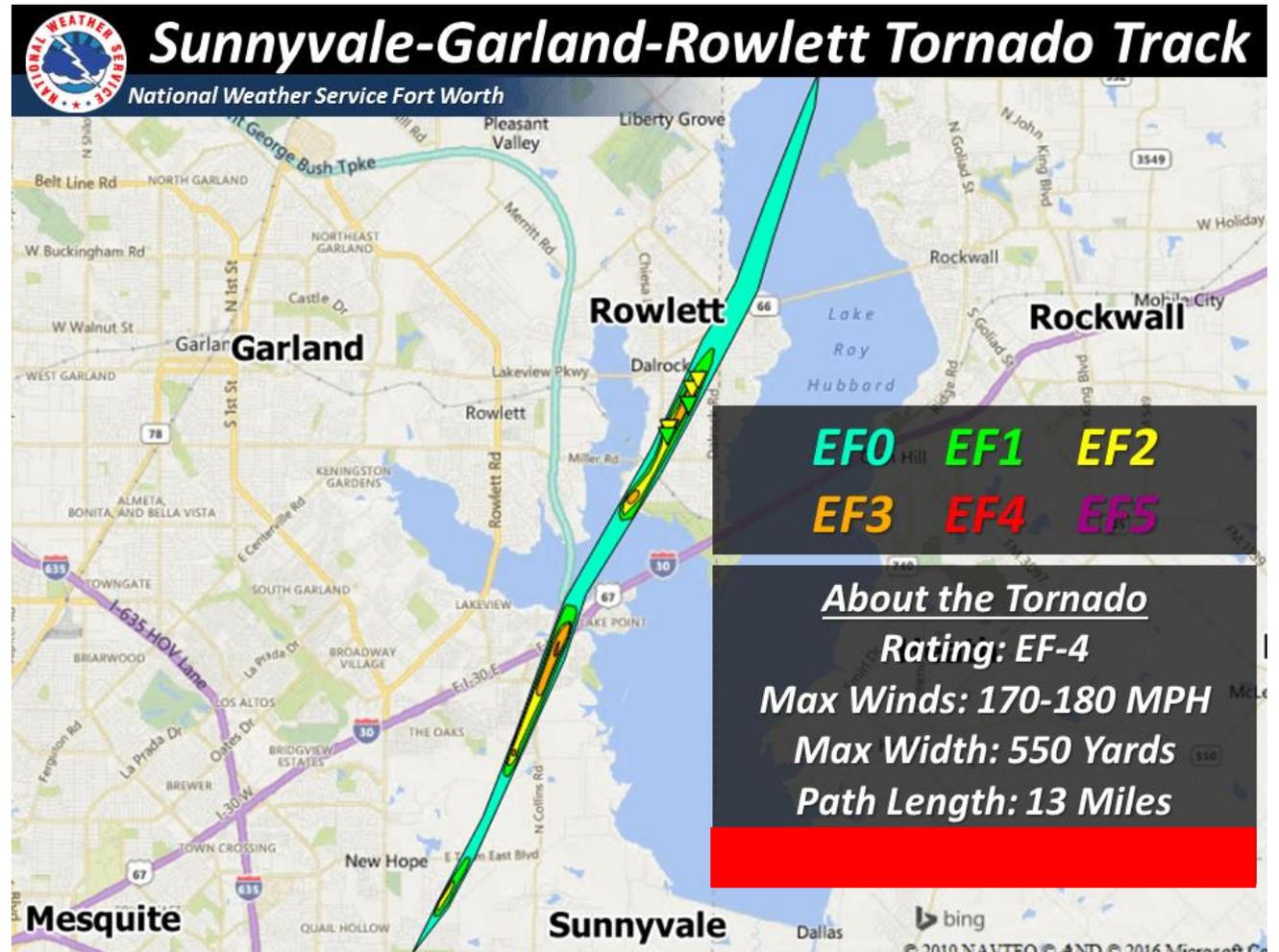
- Costs for debris removal activities are **reasonable**
- Contract and procurement processes are **appropriate**
- Quantification of debris is **accurate**
- Tracking of debris from the point of collection to final disposal is **in compliance** with all regulatory requirements
- Debris operations are **eligible for FEMA reimbursement** during a federally declared disaster if the Town requests public assistance



Learning from Our Neighboring Cities

ADDISON

- December 26, 2015
- Half mile wide debris field
- About 1,300 homes affected
- 290,000 cubic yards of debris generated
 - 88 Olympic sized swimming pools
- 13 fatalities



Disaster Impacts on Communities

ADDISON



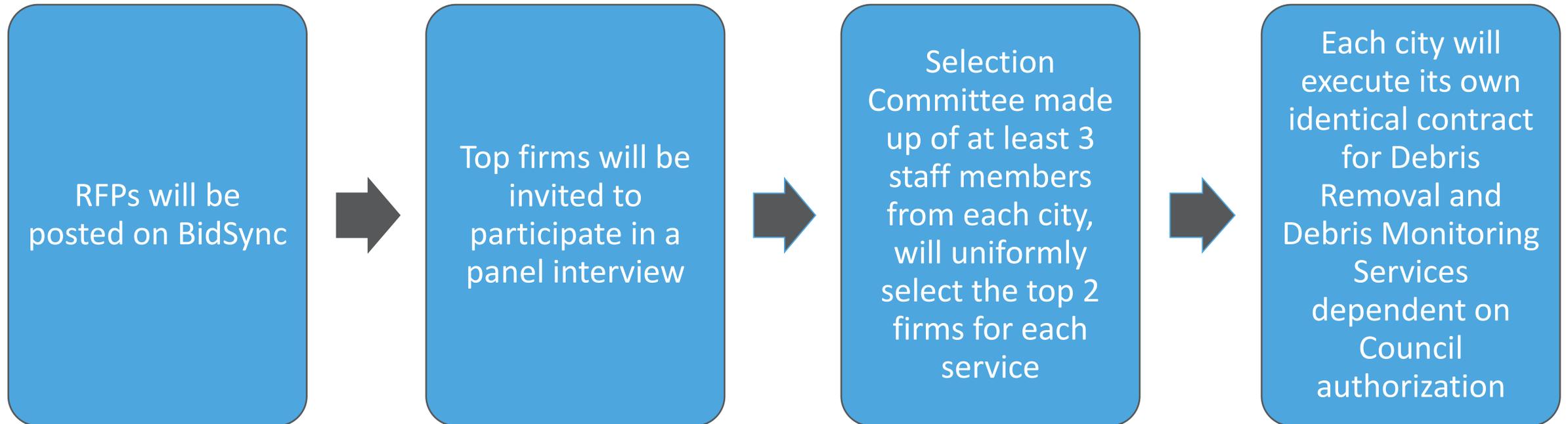
Benefits of Standby Contracts

- Improve response time by simply issuing a Notice to Proceed instead of writing and issuing RFPs, selecting Service Providers and complying with the procurement process
 - Proactive rather than reactive during a disaster
- Increase level of service to residents by expediting recovery efforts
 - The Addison Way

Benefits of Joint RFP Release

- **Greater buying power** to compete with larger cities for contractor resources should a disaster be widespread in the Dallas/Fort Worth region
- **Share available resources** among member cities
- **Improve coordination** of removal and monitoring services by selecting the same Service Providers for continuity purposes

RFP and Contract Process Next Steps



Questions?

ADDISON



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Work Session and Regular Meeting**Meeting Date:** 04/24/2018**Department:** Infrastructure- Development Services**Pillars:** Entrepreneurship and Business Hub
Excellence in Transportation Systems
Optimize the Addison Brand**Milestones:** Review town ordinances and regulations with a focus on modernization in order to facilitate redevelopment
Improve connectivity around Addison with a focus on economic development

AGENDA CAPTION:Present and Discuss the **Process for Updating the Town's Development Regulations.****BACKGROUND:**

The City Council's Strategic Plan for Fiscal Year (FY) 2018 includes a milestone to review Town ordinances and regulations with a focus on modernization in order to facilitate redevelopment. It was estimated that \$350,000 would be needed over two years to complete such a project. Accordingly, \$175,000 was budgeted in the current fiscal year with the same amount contemplated to be budgeted for FY2019.

Once the budget was approved, staff released a Request for Qualifications (RFQ) to update the Town's Zoning, Landscaping, Subdivision and Signage regulations. The RFQ stated that the Town desires a development code that achieves the following:

- Reflects current trends and best practices in the various development regulations, while keeping Addison as a desired location for investment.
- Uses illustrations and form code provisions to simplify the ordinance, to make it more understandable to readers, and to promote well-designed neighborhoods and places.
- Includes mixed-use zoning districts and accompanying regulations for both built-up areas of the city as well as undeveloped properties.
- Includes provisions that link land use and transportation with an emphasis on protecting traditional neighborhood development while encouraging transit-oriented development in the future.
- Promotes and supports alternative forms of transportation, including walking, biking, and transit.
- Provides for a sustainable built and natural environment.
- An ordinance that will meet the needs of the City both now and in the future.

Based on the responses to the RFQ, staff selected a preferred consultant and began discussions with them regarding the scope of this project. During the scope discussion, the importance of a future land use map became evident. A future land use map identifies desirable locations for different types of uses and suggests high level design standards for areas within the city. The map serves to provide general direction for both new development as well as redevelopment. Typically, future land use maps are included as part of a Comprehensive Plan. Addison's Comprehensive Plan does not include a future land use map. According to the preferred consultant, the lack of a detailed future land use map would require a more conservative and generic approach in updating the Town's zoning standards. Staff is requesting direction from the City Council on how to move forward.

Creating a future land use map will cost approximately \$85,000. Should the Council choose to proceed with the future land use map, staff and the consultant will develop the map and review possible revisions to the sign code by early FY2019. Once the map is complete, then the zoning, subdivision, and landscape regulations will be addressed during the remainder of FY2019 and in to FY2020.

With the addition of the future land use map and the revised schedule, the estimated cost of the project will be \$440,000. As noted above, the current year's budget includes \$175,000 for this project. By focusing on a future land use map and sign code revisions, staff estimates that the cost for this year would be approximately \$160,000. The remainder of the project costs would be included in the FY2019 and FY2020 budget proposals.

Staff believes that the process to update the Town's development regulations will be better served if the Town has a future land use map. That said, the project can be completed without the map. Staff sees three options regarding this project:

- Continue the development regulation review without a future land use map.
- Revise the scope of the development regulation review to incorporate development of a future land use map.
- Do nothing, meaning do not complete the future land use map or development regulation review at this time.

The attached presentation lists the pros and cons of each option. Staff will discuss the presentation with Council during the Work Session and request direction.

RECOMMENDATION:

Staff requests direction from Council.

Attachments

Presentation - Development Code Update

Updating the Town's Development Regulations

April 24, 2018



ADDISON

Background

- Zoning ordinance was first approved in 1965
- Various additions and amendments since then, but bulk of ordinance is based in dated references and approaches
- Current land uses, development trends, and best practices are not contemplated in current ordinance
- Numerous sections need to be reviewed and adjusted to clarify the intent
- Ordinance is not well suited to anticipate and encourage high-quality infill and redevelopment projects

Strategic Pillar

Entrepreneurship
& Business Hub

Milestone

Review Town Ordinances and Regulations with a focus on modernization in order to facilitate redevelopment

Initiative

Begin process of reviewing and updating the Town's development regulations

Decision Package

\$350,000 to rewrite zoning, landscaping, platting and signage regulations

Request for Proposals

- The RFQ stated that the Town desires a development code that achieves the following:
 - Reflects current trends and best practices in the various development regulations, while keeping Addison as a desired location for investment
 - Uses illustrations and form code provisions to simplify the ordinance, to make it more understandable to readers, and to promote well-designed neighborhoods and places
 - Includes mixed-use zoning districts and accompanying regulations for both built-up areas of the city as well as undeveloped properties

Request for Proposals

- The RFQ stated that the Town desires a development code that achieves the following:
 - Includes provisions that link land use and transportation with an emphasis on protecting traditional neighborhood development while encouraging transit-oriented development in the future
 - Promotes and supports alternative forms of transportation, including walking, biking, and transit
 - Provides for a sustainable built and natural environment.
 - An ordinance that will meet the needs of the City both now and in the future

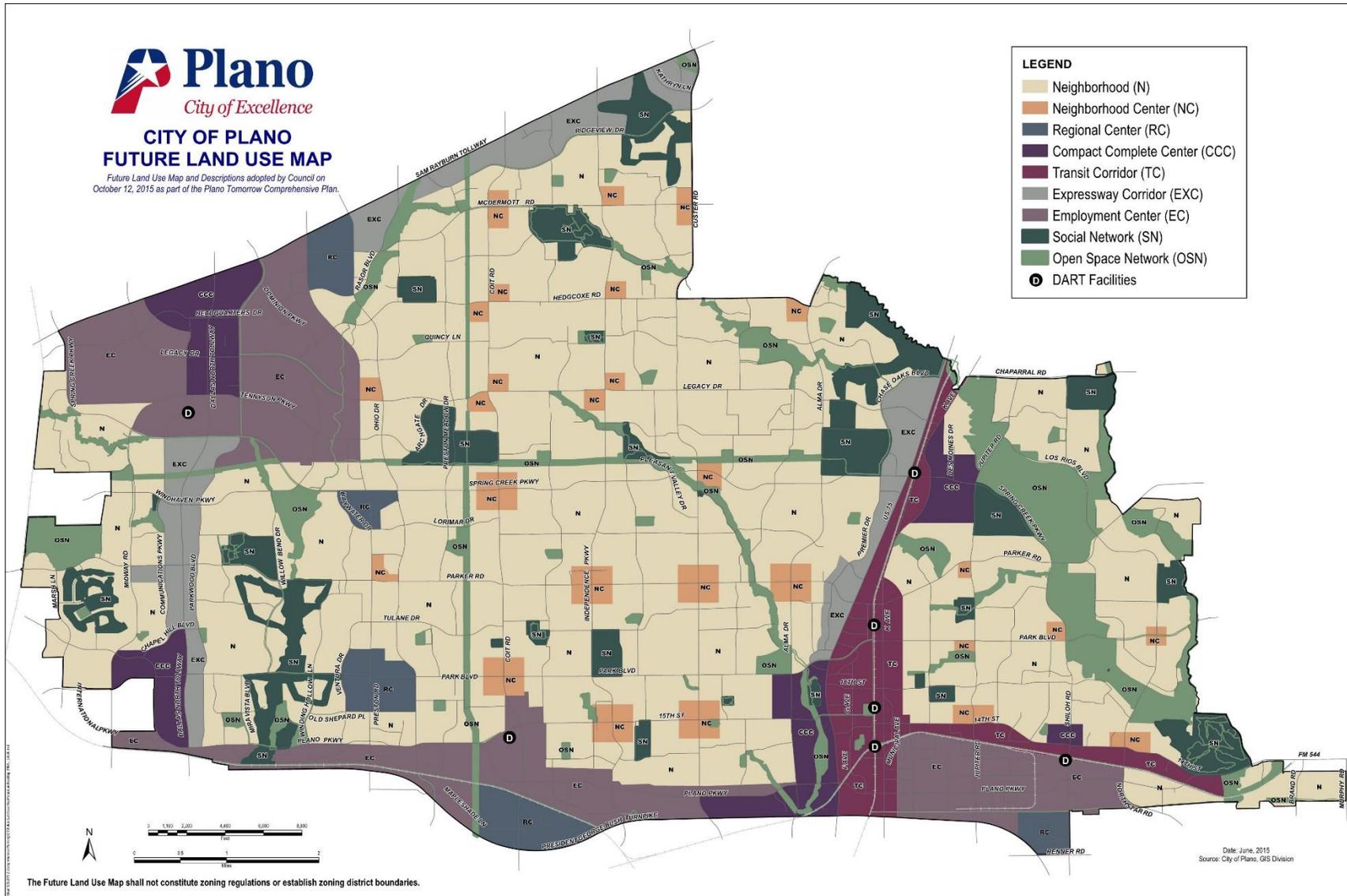
Request for Proposals

- 4 Responses
- Staff selected the preferred consultant
- During scoping discussions, preferred consultant expressed that having a Future Land Use Map would help in the development of new code requirements that were more refined to Addison's goals for future development.
- Addison does not have a Future Land Use Map

What is a Future Land Use Map?

- Identifies desirable locations for different types of uses
- Provides general direction for both new development as well as redevelopment
- Directs future growth and identifies areas for preservation
- Can suggest high level design standards
- Typically included as part of a City's Comprehensive Plan
- 20 year time horizon

What is a Future Land Use Map?



What is a Future Land Use Map?



Plano Tomorrow

FUTURE LAND USE DESCRIPTIONS

Purpose

The purpose of the Future Land Use Map is to determine appropriate locations for future uses and activities while establishing a set of design characteristics for distinct areas within the city. The map shall not constitute zoning regulations or establish zoning district boundaries, but should provide general direction for new development and redevelopment projects.

Neighborhoods (N)

The Neighborhoods future land use category consists primarily of residential areas focused on sustaining a high quality of life through clear, well-maintained infrastructure, housing, open space, schools, and limited service/institutional uses. Single-family residential should remain the primary use within neighborhoods. It is the intention to preserve and enhance these uses and to regulate the design of new residential infill products to be within the context of the surrounding environment. Institutional, light office, and service uses are considered secondary uses and may be located along the frontage of arterial streets and intersections. Adequate building setbacks must be considered when development is proposed near neighborhoods.



Neighborhood Centers (NC)

The Neighborhood Center future land use category applies to corner retail sites along major arterials. Redevelopment of existing retail centers is strongly encouraged and should reduce retail square footage, focus on quality design and pedestrian access, and increase the mix of uses. Neighborhood Center uses are typically located in low-rise buildings with retail, service, and office uses that serve the adjacent neighborhoods. The introduction of residential uses within Neighborhood Centers is recommended where it can be accomplished in a context-sensitive manner and integrated into the center. When residential is introduced, single-family uses are desired for compatibility with existing adjacent neighborhoods. Neighborhood centers will be based on the concepts of mixed-use, community design, and transit-oriented design, where possible. Adequate building setbacks must be considered when development is proposed near neighborhoods. Useable open space will be included within the centers to create active and interesting public spaces.



Regional Centers (RC)

The Regional Center future land use category applies to large commercial developments within high traffic corridors. Regional Center uses are typically located in low to mid-rise buildings and include retail, service, and office uses that serve a regional population. Regional centers are intended to have a mixture of large shopping centers, restaurants, theaters, offices, and other supporting uses. Residential development is supported in these centers and should be incorporated within mixed-use or transit-oriented developments. Adequate building setbacks must be considered when development is proposed near neighborhoods. Useable open space will be included within the centers to create active and interesting public spaces.



Plano Tomorrow

FUTURE LAND USE DESCRIPTIONS

Compact Complete Centers (CCC)

The Compact Complete Centers future land use category applies to areas that may see new growth or experience significant redevelopment. Compact Complete Centers should include mid-rise buildings with office, retail, service, entertainment, and residential uses, which are based on the concepts of mixed-use, community design, and where possible, transit-oriented design. Uses should be integrated within the development and should create self-contained neighborhoods that are navigable by walking or using bicycles. Uses should also be serviced by parking structures to reduce surface parking and encourage efficient use of land. Useable open space will be included within the centers to create active and interesting public spaces.



Transit Corridor (TC)

The Transit Corridor future land use category applies to the Downtown Plano core and the adjoining rail corridor linking the Dallas Area Rapid Transit (DART) red/orange line and the future Cotton Belt line. It is the intention to continue the transformation of the Downtown Plano core into a distinct and authentic urban center and expand the vision for transit-oriented development within the entire corridor. Major uses within Transit Corridor include housing, retail, cultural facilities, hotels, and government offices. Infill and redevelopment projects should be compatible with the historical character of the area and transit-oriented residential, employment, retail, and civic uses should be located between one-quarter to one-half mile walking distance of a transit stop. Uses should be serviced by parking structures to reduce surface parking and encourage efficient use of land. Street, bike trail, and sidewalk improvements will be emphasized to create a more accessible, walkable, and unified corridor. Useable open space will be included to create active and interesting public spaces. Commercial and residential uses within the corridor shall be designed to acknowledge visibility from rail, especially where elevated, as a gateway to the community.



Expressway Corridors (EXC)

The Expressway Corridor future land use category applies to development along major expressways serving regional and interstate commerce. Development in these corridors is expected to include a mix of retail, service, office, restaurant, medical, hotel, and technology based uses. Uses should be serviced by parking structures to reduce surface parking and encourage efficient use of land. Due to noise and health impacts of expressways, residential development is generally not appropriate in these corridors. Adequate building setbacks must be considered when development is proposed near neighborhoods.



Plano Tomorrow

FUTURE LAND USE DESCRIPTIONS

Employment Centers (EC)



The Employment Center future land use category applies to business centers. The primary uses for employment centers are commercial uses which provide corporate office campuses, medical centers, educational facilities, technology centers, and research facilities. Limited manufacturing and warehouse uses may be allowed to support the employment centers. Adequate building setbacks must be considered when development is proposed near neighborhoods. Residential development is not appropriate within these centers in order to ensure the city's ability to attract and maintain employment generating uses.

Social Network (SN)

The Social Network future land use category includes a wide range of public and private uses such as colleges, universities, major public schools (high school/senior high schools) athletic complexes, recreational facilities, libraries, golf courses, country clubs, and large private open spaces. These areas are intended to retain their character to provide regional recreation and social opportunities.



Open Space Network (OSN)

The Open Space Network future land use category includes major public open space preserves, community parks, neighborhood parks, linear parks, and trails. These areas are intended to retain their character to provide regional recreation and leisure opportunities.

Options

- Continue the development regulation review without a Future Land Use Map
- Revise the scope of the development regulation review to incorporate development of a Future Land Use Map
- Do nothing

- Continue the development regulation review without a Future Land Use Map
 - Justification: The Future Land Use Map is important, but the project can be completed without a Future Land Use Map.

Pros:

- Avoids difficult discussions and decisions right now
- Avoids spending an additional \$85,000
- Does not delay the project further

Cons:

- Fewer opportunities for community input
- Direction about future growth based on current zoning only
- Regulations more generic

- Revise the scope of the development regulation review to incorporate development of a Future Land Use Map
 - Justification: The Future Land Use Map establishes a vision that will guide the creation of new development regulations resulting in a better end product.

Pros:

- Establishes clear direction for staff and property owners
- Provides additional opportunity for community input and buy-in
- Allows for development regulations that are more particularly suited to Addison
- Assists in other planning efforts

Cons:

- Forces difficult discussions and decisions
- Will add approximately \$85,000 to cost and delay the project

- Do nothing
 - Justification: The Best Management Practice is to do the development regulation review with a Future Land Use Map, but now is not the right time. Therefore, do not proceed with the development regulation review.

Pros:

- Avoids difficult discussions and decisions in the near term
- Saves \$350,000 in planned expenditures

Cons:

- Delays important policy discussions
- Does not address issues with current development regulations

- How would the Council like to proceed?
 - Continue the development regulation review without a Future Land Use Map
 - Revise the scope of the development regulation review to incorporate development of a Future Land Use Map
 - Do nothing

AI-2666

6.

Work Session and Regular Meeting

Meeting Date: 04/24/2018

Department: City Secretary

AGENDA CAPTION:

Consider Action to Approve the **Minutes from the April 10, 2018 Council Meeting and the April 16, 2018 Town Meeting.**

BACKGROUND:

City Secretary prepared meeting minutes for approval.

RECOMMENDATION:

Administration recommends approval.

Attachments

Minutes- April 10, 2018

Minutes- April 16, 2018

DRAFT

OFFICIAL ACTIONS OF THE ADDISON CITY COUNCIL

April 10, 2018

Addison Town Hall, 5300 Belt Line Rd., Dallas, TX 75254

5:00 p.m. Executive Session & Work Session

7:30 Regular Meeting

Present: Mayor Joe Chow; Mayor Pro Tempore Ivan Hughes; Deputy Mayor Pro Tempore Jim Duffy; Councilmember Al Angell; Councilmember Tom Braun; Councilmember Paul Walden; Councilmember Lori Ward

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 on a matter in which the duty of the attorney 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, L.P., Urban Green Energy, Freese and Nichols, Inc. v. SWG Energy, Inc. - Cause No. DC-15-07691 44th Judicial Court, Dallas County**
- **The ponds or lakes at Vitruvian Park located within the vicinity and east of the intersection of Vitruvian Way and Ponte Ave., and Farmers Branch Creek**

Executive Session convened at 5:02 p.m.

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 matters discussed in Executive Session.

Open Session reconvened at 6:40 p.m.

There was no action taken on **Town of Addison v. Landmark Structures, L.P., Urban Green Energy, Freese and Nichols, Inc. v. SWG Energy, Inc. - Cause No. DC-15-07691 44th Judicial Court, Dallas County.**

The following motion was made on **The ponds or lakes at Vitruvian Park located within the vicinity and east of the intersection of Vitruvian Way and Ponte Ave., and Farmers Branch Creek-**

I move to direct outside counsel and staff to pursue mediation with the City of Farmers Branch regarding the Farmers Branch Creek matter- MPT Hughes; second by

Councilmember Walden; motion passed with a vote of 6-0. [Councilmember Angell left meeting at 5:10 p.m. due to a family emergency and was not present for this vote.]

Work Session began at 6:45 p.m.

WORK SESSION

3. Present and Discuss an **Update on the Internal Control Program for the Town of Addison.**

Chief Financial Officer Olivia Riley updated the Council on the Internal Controls Program. She reviewed that the Program includes documentation of policies and processes, improvement of the internal control processes and monitoring the internal controls. Components of the the Program include Control Environment, Risk Assessment, Control Activities, Information and Communication, and Monitoring.

CFO Riley reviewed the Program schedule that was developed during the period of January - March 2018. From April to June 2018 the Consultant will review the Town staff's computer access, develop a scope for the Airport finance system and internal controls, and the Finance Department will document the policies and processes for cash collections. From July to September 2018 the Town audit firm, BKD, will conduct a review of the Airport financial system and internal controls, and Finance will begin monitoring departmental cash collection policies. During the period of October- December 2018 the Town auditors will review the controls and issue a report. Any improvements recommended will be implemented and the next area for review will be determined.

MPT Hughes inquired about the use of best practices software. Ms. Riley advised that Contract Module training was held that day and described how it will be used. She added that updated Utility Billing software will be implemented later in 2018.

City Manager Wes Pierson reminded the Council that this project is one that he said he would work on when he came to Addison and that he and staff will continue to work on this. He said this is just the beginning and that he will continue to work toward providing assurance that the Town is handling things in an appropriate manner.

4. Present and Discuss the **Format for the Town Meeting on April 16, 2018.**

Mayor Joe Chow told the Council that some citizens had contacted him concerned with the format for the Town Meeting that had previously been decided upon. Councilmember Braun stated that since different people may have some of the same questions, having a portion of the meeting set up as an open-mic format might be beneficial and then have Council members be available for individual questions toward the end of the meeting as well. Council members agreed to change the format.

5. Present and Discuss an **Update on Taste Addison 2018.**

Special Events Manager Shelbi Stofer provided an update on the Taste Addison event scheduled for May 18-20, 2018 at Addison Circle Park. She stated that ticket pre-sales are up from last year and provided the ticket types and costs. It was noted that children under 12 are admitted free each day during the event. The entertainment includes the Eli Young Band and well as others throughout the event. Programming includes family friendly activities such as shopping, the Talley Amusement Carnival, Family Fun Zone with complimentary games and activities for all ages, and Pinot's Palette is providing hands-on painting demonstrations on Saturday and Sunday. There will be cooking demonstrations, a wine garden and a craft beer hall. Several local restaurants will be on hand to offer a variety of food choices. Ms. Stofer reviewed the many ways the Town plans to advertise the event. The City Council members will receive VIP packages that includes guest tickets, general admission tickets, and a parking pass.

Work Session concluded at 7:06 p.m.

[Councilmember Angell returned to the meeting prior to the start of Regular Session.]

Regular Session convened at 7:30 p.m.

REGULAR MEETING

Pledge of Allegiance

Announcements and Acknowledgements regarding Town and Council Events and Activities

City Manager Pierson announced that a promotional ceremony was held today for Police Sergeant Brian Pietsch who promoted to Lieutenant. Porcino's Restaurant opened today, and today is Councilmember Braun's birthday. He also offered condolences to Councilmember Angell on the passing of his brother-in-law.

Discussion of Events/Meetings

City Manager Pierson also announced that the WALK MS event is scheduled for Saturday, April 14th, around Addison Circle. Traffic closures will occur from 6 a.m. - 11 a.m. The Addison Town meeting is scheduled for Monday, April 16th, at 7 p.m. at the Addison Conference Centre.

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.

There were no speakers.

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.

7. Consider Action to Approve the **March 27, 2018 City Council Meeting Minutes**.
8. Consider Action to Approve a **Resolution for Construction Management Services with UDR, Inc. in Connection with the Construction of the Public Infrastructure Improvements for Phase 8 of the Vitruvian Development located at Marsh Lane and Spring Valley Road and Authorize the City Manager to Execute the Agreement in an Amount not to Exceed \$187,956.24.**
9. Consider Action to Approve a **Resolution for a Construction Agreement with Flow Line Construction, Inc., for the Construction of the Public Infrastructure Associated with the Vitruvian Phase 8 Commercial Development and Authorize the City Manager to Execute the Agreement in an Amount not to Exceed \$2,349,453.**
10. Consider Action to Approve a **Resolution for an Amendment to the Policy for Naming and Recognition Elements for the Spruill Dog Park.**
11. Consider Action to Approve an **Award of Bid for Rental of Stage, Sound Equipment and Lighting for Special Events to Onstage Systems in an Amount not to Exceed \$192,900 Annually.**

Motion to approve the Consent Agenda items- MPT Hughes; second by Councilmember Angell; motion passed with a vote of 7-0.

Regular Items

12. Hold a Public Hearing, Present, Discuss, and Consider Action on an **Ordinance Changing the Zoning on the Vacant Parcel, Directly to the East of Springhill Suites by Marriott, at the Southwest Corner of Edwin Lewis Drive and Quorum Drive, Which Property is Currently Zoned Planned Development (PD) Through Ordinance No. O92-020, to a New PD in Order to Allow the Development of a One Story Single-Tenant Office Building.** Case 1773-Z/Western International Offices.

Assistant Director of Development Services Charles Goff presented this item. He advised that this request is to change the planned development zoning on a vacant parcel located at the southeast corner of Edwin Lewis Drive and Quorum Drive. Approval of this item will create a new planned development (PD) to allow a one-story office building. Mr. Goff reviewed the proposed building's size,

elevations, streetscape and exterior stone finish. Other development in the area has followed the Urban Center (UC) zoning standards which would require 90% brick on the building exterior. The applicant has requested to pursue a stone exterior finish. The applicant would be required to have 67 parking spaces for a building size of 20,050 square feet, however, the plan submitted includes 63 parking spaces due to relocating a transformer to the parking area. On-street parking will satisfy the remainder of the parking requirement.

The Planning and Zoning Commission met on March 20, 2018 and recommended approval with conditions. Those include a patio size reduction in order to provide a straight 8 foot walking path fronting Edwin Lewis Drive, to relocate a transformer out of the public sidewalk area, and to replat the property to dedicate adjacent areas as public right-of-way or as easements. Administration is recommending approval with these conditions as well as revising the exterior to comply with the 90% brick requirement for the Urban Center district.

The general discussion among Council members was in favor of allowing the stone exterior. City Manager Pierson reminded the Council that standards have been set by Council and that staff makes their recommendations according to the ordinances. MPT Hughes inquired about the bus stop location being moved. Mr. Goff explained that the relocation will actually position it closer to a new east-west trail, however, DART still has to approve the location change.

Mayor Chow opened the public hearing at 7:52 p.m. A representative of the developer, Bill Dalstrom, presented a depiction of the proposed building. He reiterated that they have agreed to all the Town's requested changes except for the stone exterior, which the developer does not want to change to brick due to it being the theme of the Western International buildings across the country. The project should be finished in 12-18 months. The public hearing was closed at 7:57 p.m.

Motion to approve subject to the three (3) conditions made by P&Z - Councilmember Angell; second by Councilmember Ward; motion passed with a vote of 7-0. [Note that P&Z recommendations did not include the brick exterior finish as a condition.]

-
13. Hold A Public Hearing, Present, Discuss, and Consider Action on an **Ordinance Changing the Zoning on Property Located at 15003 Inwood Road, Which Property is Currently Zoned Commercial-1 (C-1), by Approving a Special Use Permit for a Dog Kennel.** Case 1774-SUP/Camp Run A Mutt.

Charles Goff briefly reviewed the location, building size, and plans for the building. Landscaping and parking spaces will be added. Mr. Goff further explained that the applicant is requesting to keep two of the three driveways currently on the property. The two driveways would be 80 feet apart. Current development standards require 200 feet in between driveways. Staff is recommending the northern drive be closed. The applicant opted not to have a traffic study be done due to the volume of traffic being too low to warrant two drives, however, the applicant believes having only one driveway would have a negative impact on the business. It was noted the third driveway is too close to the property line.

Mayor Chow opened the public hearing at 8:05 p.m. Applicant Roger Degregori spoke in favor of having two driveways on the property. The public hearing was closed at 8:13 p.m.

Motion to approve with the condition that the north driveway be removed- DMPT Duffy; second by Councilmember Ward; motion passed with a vote of 6-1 with Mayor Chow voting no.

-
14. Present, Discuss, and Consider Action on an **Ordinance Granting a Meritorious Exception for Fresh Image, Located at 17311 Dallas Parkway, from the Code of Ordinances, Chapter 62 Section 62-163. – Area in Order to Permit a Sign Exceeding the Allowed Letter/Logo Height Requirement.**

Charles Goff reviewed the location and sign requirements for the subject building. The applicant installed a sign that included a 36 inch logo that did not comply with requirements for signs installed below 37 feet and less than 100 feet back from the curb line. The text portion of the sign did meet requirements and was approved in January 2018. During a brief discussion several Council members expressed that they had no objection to the logo/sign as it was installed.

Motion to approve- DMPT Dufy; second by MPT Hughes; motion passed with a vote of 7-0.

-
15. Present, Discuss, and Consider Action on **Change Order Number 1 to Teague, Nall, and Perkins, Inc., for the Midway Road Revitalization Design Project in an Amount not to Exceed \$778,500.**

Assistant Director of Infrastructure Jason Shroyer provided the background on the Midway Road project and reviewed the expenditures and funding source to date. He explained that work on the project began in October 2014 after Addison voters approved a bond sale of \$16M. The design segment was later put on hold due to cost estimates being \$38M. During this time, the design consultant was asked to perform several out-of-scope items to aid the Town in the decision whether to continue with the project. The Change Order costs are associated with the project being delayed for 2.5 years.

During the discussion of how the Change Order funds are to be used, several Council members expressed concern with the Contingency of \$100,000 being included as part of this contract. City Manager Pierson advised the Council that it is still at the Town's discretion as to how the contingency funds would be used. Assistant City Manager Ashley Mitchell added that staff is working with Dallas County to help pay for this project and it is unknown yet whether their involvement might result in the need for a quick change to the design plans. Mr. Pierson followed by advising the contingency amount will be removed from this change order. Mr. Shroyer advised that after the change order is approved the project will be ready to bid in one year.

Motion to approve Change Order No. 1 with the exception of moving the owner contingency out of this change order and applying it to the budget for this project- Councilmember Braun; second by DMPT Duffy; motion passed with a vote of 7-0.

16. Present, Discuss, and Consider Action on an **Ordinance to Amend the Town's Annual Budget for the Fiscal Year Ending September 30, 2018.**

Chief Financial Officer Olivia Riley reviewed the Revenues and Expenditures in various funds and how this mid-year budget amendment request impacts them. One component of the amendment is to provide funding for the compensation and certification pay changes that were previously adopted by Council. Other projects include the Airport customs facility design, and the Athletic Center HVAC and elevator upgrades. It was noted that \$81,294 in revenues is included as a result of a grant to the Fire Department from the Metrocrest Hospital Authority.

[Councilmember Angell stepped out of the meeting from 8:47 p.m. to 8:50 p.m.]

Motion to approve- Councilmember Walden; second by Councilmember Braun; motion passed with a vote of 7-0.

Adjourn Meeting

Meeting Adjourned at 8:55 p.m.

Mayor-Joe Chow

Attest:

Interim City Secretary- Christie Wilson

DRAFT

THE ADDISON CITY COUNCIL 2018 SPRING TOWN MEETING

April 16, 2018

7:00 P.M.

Addison Conference & Theatre Centre
15650 Addison Road
Addison, Texas 75001

Present: Mayor Joe Chow; Mayor Pro Tempore Ivan Hughes; Deputy Mayor Pro Tempore Jim Duffy; Councilmember Al Angell; Councilmember Tom Braun; Councilmember Paul Walden; Councilmember Lori Ward

Mayor Joe Chow began the meeting at 7:10 p.m. by introducing members of the City Council, the City Manager and Deputy City Managers, and recognized city staff who were present. He also recognized members of the city's boards and committees who were present. He added that April is National Volunteer Month and provided statistics for the volunteer hours worked in 2017. He expressed his appreciation to Volunteer Coordinator Stacy Love. Mayor Chow then provided budget highlights. Lastly, Mayor Chow gave an update on the current status of two legal matters that Addison has been dealing with. He advised one of those, the wind turbine matter, has been settled. The Town has requested mediation on the Farmer's Branch Creek issue and expects a response in the next few days. Following the Mayor's remarks each Council member gave updates and information as follows:

Lori Ward- Economic Development (new Strategic Plan, status of development projects and new restaurants)

Tom Braun- Infrastructure Projects (reviewed Cottonbelt Railway and Belt Line Overlay)

Ivan Hughes- Parks (provided statistics, reviewed recent and upcoming park improvements, quarterly photo contest winners including the grand prize winner)

Paul Walden- Asset Management Plan and Public Safety (provided an overview of the Asset Management Plan and its purpose, plus an update on public safety statistics and projects; he recognized the Fire Department for receiving the Lone Star Achievement Award)

Jim Duffy- Airport Update and Communication With Residents (provided information on the future Customs Facility and the Southeast Quadrant T Hanger tenants being relocated; Communication methods include website redesign, a Fix It app, Citizen Survey, and new resident fliers)

Al Angell- Special Events (reviewed Town sponsored events as well as three signature events: Taste Addison, to be held May 18-20, including restaurants and programs for 2018, Kaboom Town held annually on July 3rd, and Octoberfest held annually in September)

During each Council member's presentation, the various committee members were recognized for their role in helping the Town establish its programs.

Mayor Chow then recognized out-going Council members Jim Duffy and Al Angell. He also provided the names of the candidates who will be on the election ballot in May. Lastly, Mayor Chow recognized Interim Special Events Director/Communications Director Mary Rosenbleeth who was largely responsible for the presentations and information provided by the Council during this meeting.

The question and answer portion of the meeting included inquiries from residents regarding the Farmers Branch Creek matter, the recently burned Super 8 Hotel, traffic signal coordination, and restaurant vacancies to name a few.

The meeting concluded at 9:00 p.m.

Mayor Joe Chow

Attest:

Christie Wilson, Interim City Secretary

Work Session and Regular Meeting**Meeting Date:** 04/24/2018**Department:** Police**Pillars:** Gold Standard in Public Safety**Milestones:** Maximize use of cutting edge technology to enhance public safety**AGENDA CAPTION:**

Consider Action to Approve a **Resolution for an Agreement with Meggitt Training Systems, Inc. for the Indoor Shooting Range Improvements Located at the Addison Police Station and Authorize the City Manager to Execute the Agreement in an Amount not to Exceed \$95,368.65.**

BACKGROUND:

The current equipment in the indoor shooting range located at the Addison Police Station was installed in 1983 with many of the components still in place from the original system. The range consists of six (6) 25-yard long shooter lanes with pistol rated ballistic shooting stalls and a tiered backstop utilizing Grantex, a rubber bullet trap material. The moveable targets and control system have reached the end of their useful life. As part of the Fiscal Year (FY) 2018 budget process, the Police department requested \$100,000 to replace the mechanical components of the range. This request was approved and included in the FY2018 budget in the Self-Funded Special Projects Fund.

A Request for Proposal (RFP) was posted to Bidsync on January 4, 2018 and closed on February 1, 2018. Two vendors submitted bids. The proposal included a base amount for the Target Retrieval System and three (3) alternatives:

- Alternative #1: Ballistic Protection
- Alternative #2: Noise Abatement
- Alternative #3: Shooting Stalls

The Police department has decided to move forward with the base system plus alternative #2 (noise abatement). Meggitt Training Systems, Inc. submitted the total lowest bid for both the base system and alternative #2 in the amount of \$95,368.65. Below is a summary of the bid amounts for the base system and alternative #2:

Vendor	Bid Amount
Meggitt Training Systems, Inc.	\$95,368.65
Action Target	\$150,900

The budgeted amount for this item is \$100,000 in the Self-Funded Special Projects Fund. The cost will not exceed \$95,368.65.

RECOMMENDATION:

Administration recommends approval.

Resolution - Indoor Shooting Range Improvements

Bid Packet - Indoor Shooting Range Improvements

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 MEGGITT TRAINING SYSTEMS, INC., FOR CONSTRUCTION SERVICES RELATED TO THE INDOOR SHOOTING RANGE IMPROVEMENTS IN AN AMOUNT NOT TO EXCEED \$95,368.65 AUTHORIZING THE CITY MANAGER TO EXECUTE THE AGREEMENT, 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 Meggitt Training Systems, Inc., for construction services related to the Indoor Shooting Range Improvements in an amount not to exceed \$95,368.65, 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, Instruction 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 24th day of April, 2018.

Joe Chow, Mayor

ATTEST:

By: _____
Christie Wilson, Interim City Secretary

APPROVED AS TO FORM:

By: _____
Brenda N. McDonald, City Attorney

EXHIBIT A

CONTRACT AGREEMENT

STATE OF TEXAS

COUNTY OF DALLAS

THIS AGREEMENT is made and entered into this 24th the day of April, 2018, 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 Meggitt Training Systems, Inc., of the City of Suwanee, County of Gwinnett, State of Georgia, 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 the services of your response to our bid:

RFP 18-29 Indoor Shooting Range Upgrade

and all extra work in connection therewith, under the terms as stated in the General and Specific Provisions 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 service, in accordance with the conditions and prices stated in the Bid attached hereto and in accordance with the Advertisement for Bids, Instructions to Bidders 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 Bid and the General Provisions, all of which are made a part hereof and collectively evidence and constitute the entire AGREEMENT.

The OWNER agrees to pay the CONTRACTOR \$95,368.65 in current funds for the performance of the Contract in accordance with the Bid 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
(OWNER)

ATTEST:

By: _____
Wesley S. Pierson, City Manager

City Secretary

Date: _____

EXHIBIT A

MEGGITT TRAINING SYSTEMS, INC.
(Contractor)

By: Amy Krebsbach

Printed Name: Amy Krebsbach

Title: Senior Contracts Administrator

Date: 4/12/2018

ATTEST:

By: Marjorie Wright

Printed Name: Marjorie Wright

Title: Contracts Administrator

Date: 4/12/2018

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

I, Ronda Butler, certify that I am the Sr. Manager, Commercial & Contracts of the corporation named as CONTRACTOR herein; that Amy Krebsbach, who signed this Contract on behalf of the CONTRACTOR is the Senior Contracts Administrator of said corporation; that said (official title) 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: Ronda Butler

Corporate Seal

Solicitation 18-29

Indoor Shooting Range Upgrade

Bid Designation: Public



Town of Addison

Bid 18-29
Indoor Shooting Range Upgrade

Bid Number	18-29
Bid Title	Indoor Shooting Range Upgrade
Bid Start Date	Jan 4, 2018 4:06:36 PM CST
Bid End Date	Feb 1, 2018 2:00:00 PM CST
Question & Answer End Date	Jan 29, 2018 12:00:00 PM CST
Bid Contact	Wil Newcomer Purchasing Manager
Bid Contact	Michele Womack Accounting Specialist I Finance
Pre-Bid Conference	Jan 16, 2018 9:00:00 AM CST Attendance is optional Location: Addison Police Department 4799 Airport Parkway Addison, Tx 75001

Description

*NO FAX OR EMAIL SUBMITTALS ACCEPTED.



Town of Addison, Texas

Request for Proposal (RFP)

RFP 18-29

Indoor Shooting Range Upgrade

for

Addison Police Department Firearms Range

Proposals are due by February 1, 2018

2:00 P.M. local time

**FINANCE DEPARTMENT / PURCHASING DIVISION**

5350 Belt Line Road, Post Office Box 9010, Addison, Texas 75001
(972) 450-7091 – Fax (972) 450-7065

REQUEST FOR PROPOSALS

The Town of Addison Police Department is accepting proposals from all qualified and interested parties for the upgrade of a 6-lane indoor shooting range located at 4799 Airport Parkway, Addison, TX 75001. Vendor will provide all applicable equipment and services to install and make operable a system that is compliant with all Federal, State of Texas and Town of Addison codes.

Proposal Number: 18-29

Proposal Name: Indoor Shooting Range Upgrade

Pre-Bid Conference: Addison Police Department
January 16, 2018 9:00 AM.
4799 Airport Parkway
Addison, Texas 75001

Note: All bidders are **STRONGLY** encouraged to attend the pre-bid conference and tour the indoor shooting range to be upgraded. Questions from bidders will be addressed at the pre-bid conference. No one will be admitted after the conference begins, so please plan to arrive fifteen minutes early.

*Any bidder who submits a bid without attending the scheduled pre-bid conference does so at his/her own risk. Bidder who submit a bid and does not attend the scheduled pre-bid conference waives any right to assert claims due to undiscovered conditions.

Proposals Due: February 1, 2018, 2:00 pm local time
Addison Finance Building
5350 Belt Line Road
Addison Texas 75254

Late proposals will be returned unopened, and unsigned proposals may be rejected as non-responsive. If submitting in hard copy, please submit one original and one USB electronic version.

Questions concerning the RFP shall be asked via www.Bidsync.com. This insures everyone sees the same questions and answers.

**TOWN OF ADDISON
REQUEST FOR PROPOSALS #18-29
INDOOR SHOOTING RANGE UPGRADE**

INTENT

The Town of Addison Police Department is soliciting sealed written proposals from qualified vendors for the upgrade of a 6 lane Indoor Shooting Range for the Addison Police Department located at 4799 Airport Parkway, Addison, TX 75001. All Equipment proposed for this project shall be specified in the proposal. In addition, vendors shall submit an estimated timeframe to complete the installation in number of business days.

AWARD

Award shall be made to the responsible vendor whose proposal is determined to be the most advantageous to the Town. Once awarded by Council, the vendor will be notified to proceed with work.

**REQUIREMENTS FOR RFP NO. 18-29
INDOOR SHOOTING RANGE UPGRADE: ADDISON POLICE DEPARTMENT**

All proposals shall be in compliance with all Federal, State of Texas and Town of Addison codes. All proposals shall comply with current Town of Addison requirements for submittals.

PROPOSAL EVALUATION PROCESS

Proposals will be consistently evaluated and scored using the following weighted criteria:

- Proposer's reputation based on reference checks and examination of reference properties
- Experience in performance of comparable engagements
- Conformance with the terms of this Request for Proposal
- Proposed system
- Reasonableness of costs to install and operate

Proposals shall be kept confidential until a contract is awarded.

MAXIMUM PROPOSAL GRADE IS 100 POINTS

30 Points:

- Ability of the equipment to meet the Town's requirements. Ease of use and operation of the system.

30 Points:

- Total cost, with consideration of both acquisition cost as well as ongoing operational costs.

40 Points:

- Experience in performance in comparable projects, ability to support user's needs, results of reference checks, level, quality and type of training and technical assistance provided.

Evaluation Criteria

- The evaluation committee may also contact the references provided in response to the Section identified as Company Background and References; contact any vendor to clarify any response; contact any current users of a vendor's services; solicit information from any available source concerning any aspect of a proposal; and seek and review any other information deemed pertinent to the evaluation process. The evaluation committee shall not be obligated to accept the lowest priced proposal, but shall make an award in the best interests of the Town of Addison.
- Each vendor must include in its proposal a complete disclosure of any alleged significant prior or ongoing contract failures, contract breaches, any civil or criminal litigation or investigations pending with involves the vendor or in which the vendor has been judged guilty or liable. Failure to comply with the terms of this provision may disqualify any proposal. The Town of Addison reserves the right to reject any proposal based upon the vendor's prior history with the Town or with any other party, which documents, without limitation, unsatisfactory performance, adversarial or contentious demeanor, significant failure(s) to meet contract milestones or other contractual failures.
- Clarification discussions may, at the Town's sole option, be conducted with vendors who submit proposals determined to be acceptable and competitive.

INSTRUCTIONS TO PROPOSERS

1.0 RECEIPT AND PREPARATION OF THE PROPOSAL

- 1.1 **Respondents are required to submit one (1) original, three (3) copies and one (1) electronic version on a USB memory stick.** Proposals shall be delivered to Purchasing in the Finance Building of the Town of Addison located at 5350 Belt Line Rd., Addison, TX 75254 to the attention of Wil Newcomer by the ending date and time per this solicitation. Proposals must be received by the specified time in order to be considered, and proposals submitted after this closing time will not be considered and will be returned unopened.
- 1.2 Each proposal shall be enclosed in a sealed envelope, addressed to the Purchasing Manager, Town of Addison, 5350 Belt Line Road, Dallas, Texas, 75254. Proposals must be labeled in the lower left-hand corner with the Proposal Number and Name. Proposers must also include their company name and address on the outside of the envelope.
- 1.3 Respondents are responsible for making certain proposals are delivered to the purchasing division. Mailing of a proposal does not insure the proposal will be delivered on time or delivered at all. If respondent does not hand deliver their submittal, it is suggested that he/she use some sort of delivery service that provides a receipt.
- 1.4 Proposals may be withdrawn prior to the above scheduled time set for closing of the solicitation. Any proposal received after the time and date specified will not be considered.
- 1.5 The Town of Addison reserves the right to postpone the date and time for opening proposals through an addendum.
- 1.6 No changes to submittals, including pricing structure, time to completion, and references may be made following submission of the proposal packet.

2.0 ADDENDA AND EXPLANATIONS

- 2.1 Any addendums will be posted via www.Bidsync.com. It is the sole responsibility of the vendors to check for addendums.

3.0 TAXES

- 3.1 All proposals are required to be submitted **without** State Sales tax. The Town of Addison is exempt from payment of such taxes.

4.0 SCOPE OF WORK

- 4.1 The work under this contract shall consist of the services contained in the proposal, including all materials, equipment, labor and other items/services necessary to complete said work in accordance with the bid documents. List all items in the proposal that vendor intends to reuse from the old system, if any. The scope of

work consists of a base with additional alternatives (options). The Town reserves the right to choose the base, any or all alternatives in the best interest of the Town.

- 4.2 The indoor shooting range currently uses the MEGGITT RTS 360 Targeting System which was installed in approximately 2003. The range consists of 6 shooter lanes 25 yards long, with pistol rated ballistic shooting stalls, and a tiered backstop utilizing Grantex.
- 4.3 **Target Retrieval System** - Vendor shall propose a wireless target retrieval system capable of 360° turning, which is easily programmable through a wireless touchscreen controller for shooter lanes. System must have the capability of individual lanes, grouped lanes or all lanes being controlled through a master control system. Must have the capability of targets being controlled locally using a touchscreen controller. Must have multiple user interfaces to support the operator's preferred courses of fire, whether basic qualifications or more advanced reactive and decision-making shooting exercises. Must allow the transport and target control up to 100 meters from the firing line with no cables or wires. Carriers must be powered by internal direct-drive, dual motor systems, with anti-static wheels, and be made with 3/8" AR500 steel facing the shooter to limit damage from bullet impacts.

Demo - Existing RTS 360 target retrieval system.

Install – New target retrieval system.

Training – New target retrieval system.

Manuals & Warranty –

Freight - Freight and Delivery shall be freight on board, delivered pricing, jobsite (Addison, TX)

- 4.4 **Ballistic Protection (Alternative 1)** - Vendor shall propose the following ballistic protection:

-Enclosure Guard – Rifle ¼" AR500 with rubber panel face (1 row/12 panels each, 98 SF)

-Containment Baffles – Rifle ¼" AR500 / plywood face FTW (5 rows/12 panels each, 490 SF)

-Containment Ceiling – Rifle ¼" AR500 / plywood face FTW (294 SF)

Demo – Existing ballistic protection.

Install – New ballistic protection.

Manuals & Warranty –

Freight - Freight and Delivery shall be freight on board, delivered pricing, jobsite (Addison, TX)

- 4.5 **Noise Abatement (Alternative 2)** – Vendor shall propose 2’X4’X2”, charcoal, Sonex Class 1 FR foam panels. (878 SF)

Install – Noise abatement.

Manuals & Warranty –

Freight - Freight and Delivery shall be freight on board, delivered pricing, jobsite (Addison, TX)

- 4.6 **Shooting Stalls (Alternative 3)** - Vendor shall propose rifle ballistic shooting stalls for 6 shooting lanes:

Demo – Existing shooting stalls.

Install – New shooting stalls.

Manuals & Warranty –

Freight - Freight and Delivery shall be freight on board, delivered pricing, jobsite (Addison, TX)

5.0 PROPOSING

- 5.1 Proposers are instructed to consider the following factors in preparation of your proposal:

- a. Proposals shall remain firm for a period of 60 calendar days after the scheduled solicitation opening.
- b. Proposers are instructed to include all necessary charges, related to this proposal.
- c. All costs incurred in responding to the RFP shall be the responsibility of the entity submitting the proposal.
- d. The contract will be governed by the laws of the State of Texas. Venue shall be exclusively in Dallas County.

- 5.2 Proposers shall mark any information, which is a trade secret or confidential, as "CONFIDENTIAL" on each page. Pricing of goods and services is not considered as confidential information. Proposals shall be opened so as to avoid disclosure of contents to competing proposers. The contents will not be disclosed during the process of evaluation, revision, and negotiation. All proposals shall be open to the public after contract award, except for information marked "confidential."

6.0 AWARD OF CONTRACT

- 6.1 The Town of Addison reserves the right to reject any or all proposal, reject any particular item on a proposal and to waive immaterial formalities.

- 6.2 The Town of Addison will evaluate all qualifying proposals. All requirements in this RFP must be satisfied to ensure that the proposal will qualify for consideration.
- 6.3 The Town of Addison requests that only qualified firms submit proposals. Proposals from unqualified firms or proposals that fail to address all requirements listed in this RFP will be rejected.

7.0 PROPOSAL FORMAT

- 7.1 To assure consistency, proposals must conform to the following format:

Introduction

This section should contain your understanding of the Town's needs and objectives.

Descriptive Literature

Describe, in detail, the Indoor Shooting Range System you propose to install. Provide complete descriptive literature for the substantial items in the system. Include a detail list of the scope of work to be performed. Outline the timeframe you propose to complete the project. Note any equipment that you intend to reuse, if any, from the existing system.

References

This section shall contain names of at least five organizations, most preferable local governmental entities for which you have provided a similar system. Please include organization name, address, telephone number and contact person.

Current and previous clients of any firm that submits a proposal may be approached with specific questions regarding vendor's performance and reliability. Responses to these questions will be considered in the evaluation process.

Fee Structure

In addition to the initial cost as described within the RFP, please provide a fee schedule for your services to include maintenance

Contract

Enclose a copy of your standard contract. Indicate any clause(s) that are conditional or non-negotiable.

8.0 INSURANCE REQUIREMENTS

- 8.1 See attached.

9.0 NON-DISCRIMINATION POLICY

- 9.1 It is the policy of the Town of Addison to afford all people an equal opportunity to bid or propose on any contract being led by the Town.

- 9.2 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.
- 9.3 The Town of Addison will require its employees, agents, and contractors to adhere to this policy.

REQUEST FOR PROPOSAL STATEMENT AND SUBMISSION CHECKLIST

PROPOSER: _____
Company Name

ADDRESS: _____
Number & Street City, State, Zip Code

PROJECT: RFP No. 18-29 Indoor Shooting Range Upgrade: Addison Police Department

All Proposers must provide the following information: (Those proposers failing to complete the Qualifications of Proposer Statement packet may be disqualified.)

Pursuant to Contract Documents and information for prospective proposers for above mentioned proposed project, 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 qualifications of this organization to perform the type and magnitude of work included; and further, guarantee the trust and accuracy of all statements hereinafter made, and will accept your determination of qualifications without prejudice. The surety herein name, and any other bonding company, bank, subcontractor, supplier, or any other persons, firms or corporations 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 me/us, including, but not limited to information 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.

Signature _____
Contractor/Proposer

Date _____

Print Name _____
Contractor/Proposer

Title _____

Items to be furnished (included with each copy):

- A. Request for Proposal Statement**
- B. Qualification of Proposer Statement**
- C. Information and Instruction form with terms and conditions of RFP (completed & signed)**
- D. Customer/Reference List (Enclosed in sealed envelope marked "Confidential")**
- E. Proposed Scope of Work**
- F. Bid Bond**
- G. All forms identified within the RFP**

CERTIFICATION OF COMPLIANCE WITH TERMS AND CONDITIONS OF REQUEST FOR PROPOSAL / EXCEPTIONS

I have read, understand, and agree to comply with the terms and conditions specified in this Request for Proposal.

Checking "YES" indicates acceptance of all terms and conditions, while checking "NO" denotes non-acceptance and vendor's exceptions should be detailed below. In order for any exceptions to be considered they MUST be documented.

YES_____ I agree. NO_____ Exceptions noted below:

Signature_____ Date_____

Contractor/Proposer

Print Name_____

Contractor/Proposer

Title_____

EXCEPTION SUMMARY FORM

RFP SECTION #	RFP PAGE #	EXCEPTION (Provide a Detailed Explanation)

REFERENCE LIST

(Enclose in a sealed envelope marked "Reference List – Confidential")
Minimum five (5)

<u>NAME OF ORGANIZATION</u>	<u>CONTACT NAME</u>	<u>PHONE #</u>	<u>SQ. FEET</u>	<u>TYPE*</u>
-----------------------------	---------------------	----------------	-----------------	--------------

1.

2.

3.

4.

5.

6.

7.

8.

9.

10.

PROPOSED SCOPE OF WORK

(Attach proposal and fees)

Base

Target Retrieval System (Reference Sec. 4.3)		\$
Demo		\$
Install		\$
Training		\$
Manuals & Warranty		\$
Freight		\$

Alternate 1

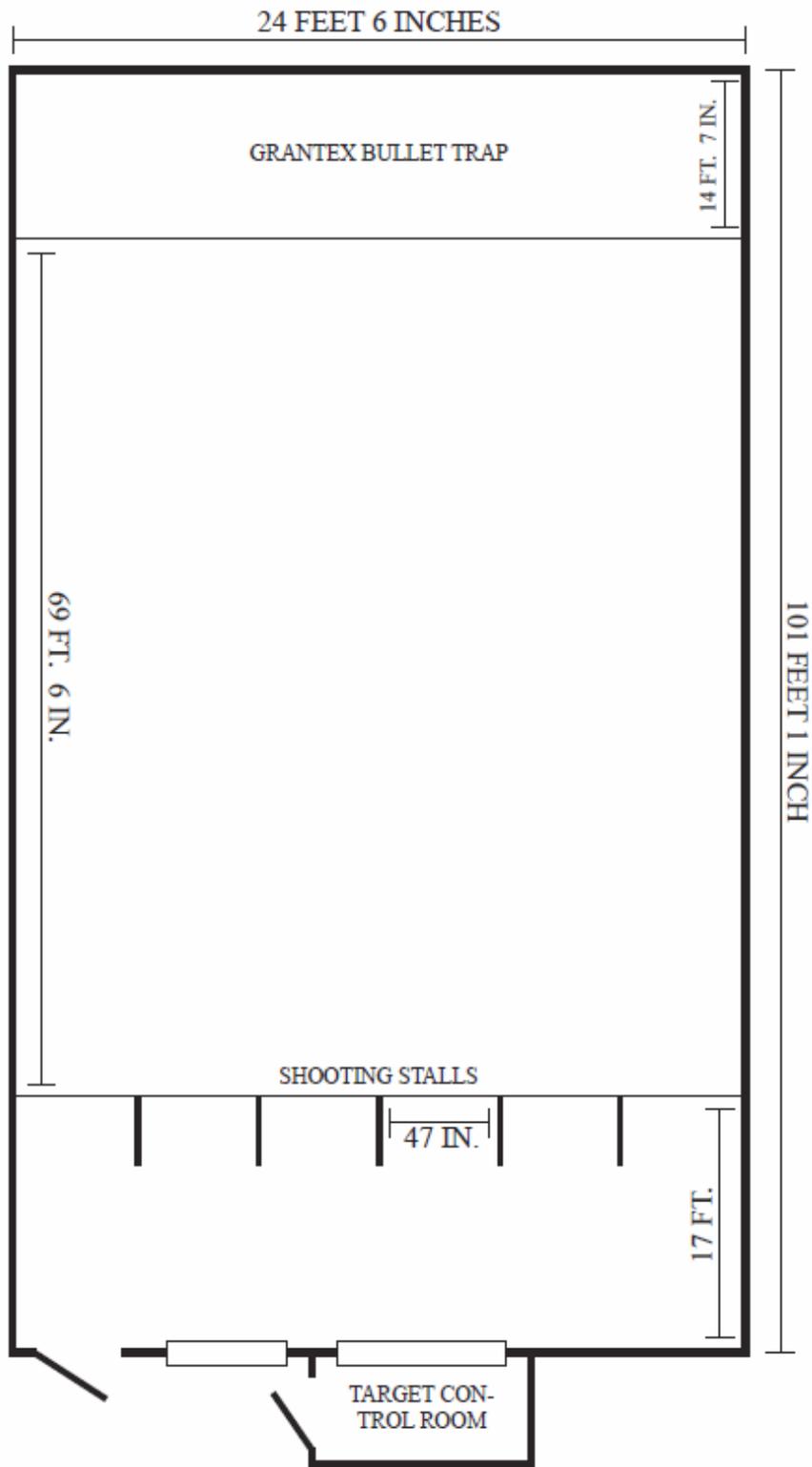
Ballistic Protection (Reference Sec. 4.4)		\$
Demo		\$
Install		\$
Training		\$
Manuals & Warranty		\$
Freight		\$

Alternate 2

Noise Abatement (Reference Sec. 4.5)	\$
Demo	\$
Install	\$
Training	\$
Manuals & Warranty	\$
Freight	\$

Alternate 3

Shooting Stalls (Reference Sec. 4.6)	\$
Demo	\$
Install	\$
Training	\$
Manuals & Warranty	\$
Freight	\$



Indoor Shooting Range

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 be submitted electronically with the executed original provided immediately upon request.

CITY OF ADDISON, TEXAS
CONTRACTOR INSURANCE REQUIREMENTS & AGREEMENT

REQUIREMENTS

Contractors performing work on CITY OF ADDISON property or public right-of-way shall provide the CITY OF ADDISON a certificate of insurance or a copy of their insurance policy(s) (and including a copy of the endorsements necessary to meet the requirements and instructions contained herein) evidencing the coverages and coverage provisions identified herein within ten (10) days of request from CITY OF ADDISON. Contractors shall provide CITY OF ADDISON evidence that all subcontractors performing work on the project have the same types and amounts of coverages as required herein or that the subcontractors are included under the contractor’s policy. Work shall not commence until insurance has been approved by CITY OF ADDISON.

All insurance companies and coverages must be authorized by the Texas Department of Insurance to transact business in the State of Texas and must have a A.M. Best’s rating A-:VII or greater.

Listed below are the types and minimum amounts of insurances required and which must be maintained during the term of the contract. CITY OF ADDISON reserves the right to amend or require additional types and amounts of coverages or provisions depending on the nature of the work.

TYPE OF INSURANCE	AMOUNT OF INSURANCE	PROVISIONS
1. Workers’ Compensation Employers’ Liability to include: (a) each accident (b) Disease Policy Limits (c) Disease each employee	Statutory Limits per occurrence Each accident \$1,000,000 Disease Policy Limits \$1,000,000 Disease each employee \$1,000,000	<u>CITY OF ADDISON to be provided a WAIVER OF SUBROGATION AND 30 DAY NOTICE OF CANCELLATION</u> or material change in coverage. Insurance company must be A-:VII rated or above.
2. Commercial General (Public) Liability to include coverage for: a) Bodily Injury b) Property damage c) Independent Contractors d) Personal Injury e) Contractual Liability	Bodily Injury/Property Damage per occurrence \$1,000,000, General Aggregate \$2,000,000 Products/Completed Aggregate \$2,000,000, Personal Advertising Injury per occurrence \$1,000,000, Medical Expense 5,000	<u>CITY OF ADDISON to be listed as ADDITIONAL INSURED and provided 30 DAY NOTICE OF CANCELLATION</u> or material change in coverage. Insurance company must be A-:VII rated or above.
3. Business Auto Liability to include coverage for: a) Owned/Leased vehicles b) Non-owned vehicles c) Hired vehicles	Combined Single Limit \$1,000,000	<u>CITY OF ADDISON to be listed as ADDITIONAL INSURED and provided 30 DAY NOTICE OF CANCELLATION</u> or material change in coverage. Insurance company must be A-:VII-rated or above.

Certificate of Liability Insurance forms (together with the endorsements necessary to meet the requirements and instructions contained herein) may be **faxed** to the Purchasing Department: **972-450-7074** or **emailed to: purchasing@addisontx.gov**. Questions regarding required insurance should be directed to the Purchasing Manager.

With respect to the foregoing insurance,

1. All liability policies shall contain no cross liability exclusions or insured versus insured restrictions applicable to the claims of the City of Addison.

2. All insurance policies shall be endorsed to require the insurer to immediately notify the City of Addison, Texas of any material change in the insurance coverage.
3. All insurance policies shall be endorsed to the effect that the City of Addison, Texas will receive at least thirty (30) days' notice prior to cancellation or non-renewal of the insurance.
4. All insurance policies, which name the City of Addison, Texas as an additional insured, must be endorsed to read as primary coverage regardless of the application of other insurance.
5. Insurance must be purchased from insurers that are financially acceptable to the City of Addison and licensed to do business in the State of Texas.

All insurance must be written on forms filed with and approved by the Texas Department of Insurance. Upon request, Contractor shall furnish the City of Addison with complete copies of all insurance policies certified to be true and correct by the insurance carrier.

This form must be signed and returned with your quotation. You are stating that you do have the required insurance and if selected to perform work for CITY OF ADDISON, will provide the certificates of insurance (and endorsements) with the above requirements to CITY OF ADDISON within 10 working days.

A CONTRACT/PURCHASE ORDER WILL NOT BE ISSUED WITHOUT EVIDENCE AND APPROVAL OF INSURANCE.

AGREEMENT

I agree to provide the above described insurance coverages within 10 working days if selected to perform work for CITY OF ADDISON. I also agree to require any subcontractor(s) to maintain insurance coverage equal to that required by the Contractor. It is the responsibility of the Contractor to assure compliance with this provision. The City accepts no responsibility arising from the conduct, or lack of conduct, of the Subcontractor.

Project/Bid# _____

Company: _____

Printed Name: _____

Signature: _____ **Date:** _____

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 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. 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:



Interested Parties

In 2015, the Texas Legislature adopted [House Bill 1295](#), which added section 2252.908 of the Government Code. The law states that a governmental entity or state agency may not enter into certain contracts with a business entity unless the business entity submits a disclosure of interested parties to the governmental entity or state agency at the time the business entity submits the signed contract to the governmental entity or state agency. The law applies only to a contract of a governmental entity or state agency that either (1) requires an action or vote by the governing body of the entity or agency before the contract may be signed or (2) has a value of at least \$1 million. The disclosure requirement applies to a contract entered into on or after January 1, 2016.

The Texas Ethics Commission was required to adopt rules necessary to implement that law, prescribe the disclosure of interested parties form, and post a copy of the form on the commission's website. The commission adopted the Certificate of Interested Parties form (Form 1295) on October 5, 2015. The commission also adopted new rules (Chapter 46) on November 30, 2015, to implement the law.

Filing Process

On January 1, 2016, the commission made available on its website a new filing application that must be used to file Form 1295. A business entity must use the application to enter the required information on Form 1295 and print a copy of the completed form, which will include a certification of filing that will contain a unique certification number. An authorized agent of the business entity must sign the printed copy of the form and have the form notarized. The completed Form 1295 with the certification of filing must be filed with the governmental body or state agency with which the business entity is entering into the contract.

The governmental entity or state agency must notify the commission, using the commission's filing application, of the receipt of the filed Form 1295 with the certification of filing not later than the 30th day after the date the contract binds all parties to the contract. The commission will post the completed Form 1295 to its website within seven business days after receiving notice from the governmental entity or state agency.

Information regarding how to use the filing application will be available on this site by January 1, 2016. https://www.ethics.state.tx.us/whatsnew/elf_info_form1295.htm, please follow Instructional Video for Business Entities.

Town of Addison

REQUEST FOR PROPOSAL TERMS AND CONDITIONS

1. **APPLICABILITY:** These standard Terms and Conditions and the Terms and Conditions, Specifications, Drawings and other requirements included in the Town of Addison's Request for Proposal (collectively, "Terms and Conditions") are applicable to Contracts/Purchase Orders issued by the Town of Addison (hereinafter referred to as the "Town" or "Buyer") and the Seller (herein after referred to as the "Seller," "Proposer," "Contractor," or "Supplier"). Any deviations must be in writing and signed by a representative of the Town's Purchasing Department and the Supplier. No Terms and Conditions contained in the Seller's Proposal, Invoice or Statement shall serve to modify the terms set forth herein. If there is a conflict between the Terms and Conditions and the provisions on the face of the Contract/Purchase Order, the Terms and Conditions will take precedence and control.
2. **OFFICIAL PROPOSAL NOTIFICATION:** The Town utilizes the following for official notifications of proposal opportunities: www.bidsync.com and the Dallas Morning News of Dallas County. These are the only forms of notification authorized by the Town. The Town is not responsible for receipt of notifications or information from any source other than those listed. It shall be the Supplier's responsibility to verify the validity of all Request for Proposal information received from any source other than the Town. There will be NO COST to the Seller for using BidSync for its Bids/Proposals.
3. **PRIOR OR PENDING LITIGATION OR LAW SUITS:** Each Proposer must include in its proposal a complete disclosure of any alleged significant prior or ongoing contract failures, any civil or criminal litigation or investigation pending which involves the Proposer or in which the Proposer has been judged guilty or liable.
4. **COST OF RESPONSE:** Any cost incurred by the Supplier in responding to the Request for Proposal is the responsibility of the supplier and cannot be charged to the Town.
5. **PROHIBITION AGAINST PERSONAL INTEREST IN CONTRACTS:** No Town of Addison employee shall have a direct or indirect financial interest in any contract with the Town, or be directly or indirectly financially interested in the sale of land, materials, supplies or services to the Town.
6. **COMPETITIVE PRICING:** It is the intent of the Town to consider Interlocal Cooperative Agreements and State/Federal contracts in determining the best value for the Town.
7. **INTERLOCAL AGREEMENT:** The successful Proposer agrees to extend prices to all entities that have entered into or will enter into joint purchasing interlocal cooperation agreements with the Town. The Town is a participating member of several interlocal cooperative purchasing agreements. As such, the Town has executed interlocal agreements, as permitted under Chapter 791 of the Texas Government Code, with certain other political subdivisions, authorizing participation in a cooperative purchasing program. The successful Supplier may be asked to provide products/services based upon terms and conditions of award, to any other participant in a cooperative purchasing program.
8. **CORRESPONDENCE:** The proposal number must appear on all correspondence and inquiries pertaining to the Request for Proposal. The Purchase Order number must appear on all invoices or other correspondence relating to the contract.
9. **INDEMNITY/INSURANCE:** See attached Town of Addison minimum requirements.
10. **ERROR-QUANTITY:** Proposals must be submitted in units of quantity specified, extended, and totaled. In the event of discrepancies in extension, the unit prices shall govern.
11. **ACCEPTANCE:** The right is reserved to accept or reject all or part of the proposal or offer, and to accept the proposal or offer considered most advantageous to the Town by line item or total offer or proposal.
12. **PROPOSAL LIST REMOVAL:** The Town reserves the right to remove a Supplier from any Proposal list for: (1) continued failure to be responsive to the Town, (2) failure to deliver merchandise within promised time, (3) delivery of substandard merchandise, or (4) failure to comply with the Contract/Purchase Order requirements.
13. **CONTRACT RENEWAL OPTIONS:** In the event a clause for option to renew for an additional period is included in the Request for Proposal, all renewals will be based solely upon the option and agreement between the Town and the Supplier. Either party dissenting will terminate the contract in accordance with its initial specified term.
14. **TAXES-EXEMPTION:** All quotations are required to be submitted LESS Federal Excise and State Sales Taxes. Tax Exemption Certificate will be executed for the successful Supplier.
15. **ASSIGNMENT AND SUCCESSORS:** The successful Supplier shall not assign, transfer, pledge, subcontract, or otherwise convey, in any manner whatsoever, any contract resulting from this proposal, in whole or in part, without the prior written consent of the Town of Addison.
16. **INVOICING:** Send ORIGINAL INVOICE to address indicated on the contract/purchase order. If invoice is subject to cash discounts the discount period will begin on the day invoices are received. So that proper cash discount may be computed, invoice should show amount of freight as a separate item, if applicable; otherwise, cash discount will be computed on total amount of invoice.

17. ELECTRONIC SIGNATURE – UNIFORM ELECTRONIC TRANSACTION ACT: The Town adopts Texas Business and Commerce Code Chapter 322, Uniform Electronic Transactions Act, allowing individuals, companies, and governmental entities to lawfully use and rely on electronic signatures.

18. FUNDING OUT CLAUSE: This agreement or contract may be terminated by the Town without notice and without penalty or liability in the event that (1) the Town lacks sufficient funds for this agreement or contract; (2) funds for this agreement or contract are not appropriated by the Town Council of the Town; and (3) funds for this agreement or contract that are or were to be provided by grant or through an outside service are withheld, denied or are otherwise not available to the Town.

19. DISPUTE RESOLUTION: Pursuant to subchapter I, Chapter 271, TEXAS LOCAL GOVERNMENT CODE, Contractor agrees that, prior to instituting any lawsuit or other proceeding arising from any dispute or claim of breach under this Agreement (a "Claim"), the parties will first attempt to resolve the Claim by taking the following steps: (i) A written notice substantially describing the factual and legal basis of the Claim shall be delivered by the Contractor to the Town within one-hundred eighty (180) days after the date of the event giving rise to the Claim, which notice shall request a written response to be delivered to the Contractor not less than fourteen (14) business days after receipt of the notice of Claim; (ii) if the response does not resolve the Claim, in the opinion of the Contractor, the Contractor shall give notice to that effect to the Town whereupon each party shall appoint a person having authority over the activities of the respective parties who shall promptly meet, in person, in an effort to resolve the Claim; (iii) if those persons cannot or do not resolve the Claim, then the parties shall each appoint a person from the highest tier of managerial responsibility within each respective party, who shall then promptly meet, in person, in an effort to resolve the Claim.

20. DISCLOSURE OF CERTAIN RELATIONSHIPS: Chapter 176 of the Texas Local Government Code requires that any person, as defined in the statute, considering doing business with a local government entity disclose in the Questionnaire Form CIQ, the supplier or person's affiliation or business relationship that might cause a conflict of interest with a local government entity. By law, this questionnaire must be filed with the Records Administrator of the Town not later than the 7th business day after the later of (a) the date the person (i) begins discussions or negotiations to enter into a contract with the local governmental entity, or (b) submits to the local governmental entity an application, response to a request for proposals or bids, correspondence, or another writing related to a potential contract with the local governmental entity, or (b) the date the person becomes aware (i) of an employment or other business relationship with a local government officer, or a family member of the officer, described by the statute, or (ii) that the person has given one or more gifts described in the statute. See Section 176.006, Local Government Code. A person commits an offense if the person violates Section 176.006, Local Government Code. An offense under this section is a Class C misdemeanor. The questionnaire may be found at www.ethics.state.tx.us/forms/CIQ.pdf. By submitting a response to this request, Supplier represents that it is in compliance with the requirements of Chapter 176 of the Texas Local Government Code.

21. PATENTS: Seller agrees to **indemnify and hold harmless** the Buyer against all costs and expenses, including but not limited to attorneys fees, and undertakes and **agrees to defend** at seller's own expense, all suits, actions or proceedings in which Buyer or the users of Buyer's products are claimed to have conducted in, or are made defendants of, actual or alleged infringement of any U.S. or foreign patent or other intellectual property right resulting from the use or sale of the items purchased hereunder and further agrees to pay and discharge any and all judgments or decrees which may be rendered in any such suit, action or proceeding.

22. APPLICABLE LAW: This agreement shall be governed by the laws of the State of Texas, including but not limited to the Uniform Commercial Code as adopted by the State of Texas, as effective and in force on the date of this agreement, without regard to its conflict of laws rules or the conflict of law rules of any other jurisdiction.

23. VENUE: This agreement is performable in Dallas County, Texas, and venue for any suit, action, or legal proceeding under or in connection with this agreement shall lie exclusively in Dallas County, Texas. Proposer submits to the exclusive jurisdiction of the courts in Dallas County, Texas for purposes of any such suit, action, or proceeding hereunder, and waives any claim that any such suit, action, or legal proceeding has been brought in an inconvenient forum or that the venue of that proceeding is improper.

24. TERMINATION FOR CAUSE OR CONVENIENCE: The Town at any time after issuance of this agreement, by 30 days written notice to the Supplier, has the absolute write to terminate this agreement for cause or for convenience (that is, for any reason or no reason whatsoever). "Cause" shall be the Supplier's refusal or failure to satisfactorily perform or complete the work within the time specified, or failure to meet the specifications, quantities, quality and/or other requirements specified in the Contract/Purchase Order. In such case the Supplier shall be liable for any damages suffered by the Town. If the agreement is terminated for convenience, the Supplier has no further obligation under the agreement. Payment shall be made to cover the cost of material and work in process or "consigned" to the Town as of the effective date of the termination.

25. FORCE MAJEURE: To the extent either the Town or Proposer shall be wholly or partially prevented from the performance of this agreement or of any obligation or duty under this agreement placed on such party, by reason of or through work strikes, stoppage of labor, riot, fire, flood, acts of war, insurrection, court judgment, act of God, or other specific cause reasonably beyond the party's control and not attributable to its malfeasance, neglect or nonfeasance, then in such event, such party shall give notice of the same to the other party (specifying the reason for the prevention) and the time for performance of such obligation or duty shall be suspended until such disability to perform is removed.

26. BAFO: During evaluation process Town reserves the right to request a best and final offer upon completion of negotiations.

27. PROTECTION OF TRADE SECRETS OR PROPRIETARY INFORMATION: Proposals will be received and publicly acknowledged at the location, date, and time stated. Sellers, their representatives and interested persons may be present. The proposals shall be received and acknowledged only so as to avoid disclosure of the contents to competing sellers and kept secret

during negotiation. However, all proposals shall be open for public inspection after the contract is awarded. Trade secrets and confidential information contained in the proposal and identified by Seller in writing as such will be treated as confidential by the Town to the extent allowable in the Texas Public Information Act and other law.

28. SILENCE OF SPECIFICATIONS: The apparent silence of these specifications as to any detail or to the apparent omission from it of a detailed description concerning any point, shall be regarded as meaning that only the best commercial practices are to prevail. All interpretations of these specifications shall be made on the basis of this statement.

29. PROPOSAL RESPONSE CONTRACTUAL OBLIGATION: This proposal, submitted documents, and any negotiations, when properly accepted by the Town, shall constitute a contract equally binding between the successful Proposer and the Town. No different or additional terms will become part of this contract except as properly executed in an addendum or change order.

30. No Boycotting Israel. The entity contract with the Town of Addison does not boycott Israel and will not boycott Israel during the term of the contract. Reference HB 89 as it relates to Chapter 2270 of the Texas Government Code. Boycott Israel means refusing to deal with, terminating business activities with, or otherwise taking any action that is intended to penalize, inflict economic harm on, or limit commercial relations specifically with Israel or with a person or entity doing business in Israel or in an Israeli-controlled territory, but does not include an action made for ordinary business purposes.

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 be 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.

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 be 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.

MAINTENANCE 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 be 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 one (1) 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 one (1) 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

My Commission Expires: _____

2-4-13 1 yr

Information and Instruction Form

RESPONSES THAT DO NOT CONTAIN THIS COMPLETED FORM MAY NOT BE COMPLIANT

Section I Company Profile

Name of Business:

Business Address:

Contact Name:

Phone#:

Fax#:

Email:

Name(s) Title of Authorized Company Officers:

Federal ID #: W-9 Form: A W-9 form will be required from the successful bidder.

DUN #:

Remit Address: If different than your physical address:

Section II Instructions to Bidders

Electronic Bids: The Town of Addison uses BidSync to distribute and receive bids and proposals. There will be **NO COST** to the Contractor/Supplier for Standard bids or proposals. For **Cooperative Bids and Reverse Auctions ONLY**, the successful contractor/supplier agrees to pay BidSync a transaction fee of one percent (1%) of the total amount of all contracts for goods and/or services. **Cooperative Bids and Reverse Auctions** will be clearly marked on the bid documents. To assure that all contractors/suppliers are treated fairly, the fee will be payable whether the bid/proposal is submitted electronically, or by paper means. Refer to www.bidsync.com for further information.

Contractor/Supplier Responsibility: It is the contractor/suppliers responsibility to check for any addenda or questions and answers that might have been issued before bid closing date and time. Contractors/Suppliers will be

notified of any addenda and Q&A if they are on the invited list, they view the bid, or add themselves to the watch list.

Acknowledgement of Addenda: #1 #2 #3 #4 #5

Delivery of Bids: For delivery of paper bids our physical address is:

Town of Addison

5350 Beltline Road

Addison, TX 75001

Attn: Purchasing Department

Contractor/Supplier Employees: No Contractor/Supplier employee shall have a direct or indirect financial interest in any contract with the town, or be directly or indirectly financially interested in the sale of land, materials, supplies or services to the town.

Deliveries: All deliveries will be F.O.B. Town of Addison. All Transportation Charges paid by the contractor/supplier to Destination.

Payment Terms: A Prompt Payment Discount of % is offered for Payment Made Within Days of Acceptance of Goods or Services. If Prompt Payments are not offered or accepted, payments shall be made 30 days after receipt and acceptance of goods or services or after the date of receipt of the invoice whichever is later.

Delivery Dates: Delivery Dates are to be specified in Calendar Days from the Date of Order.

Bid Prices: Pre-Award bid prices shall remain Firm and Irrevocable for a Period of _____ Days.

Exceptions: Contractor/Supplier does not take Exception to Bid Specifications or Other Requirements of this Solicitation. If neither exceptions box is checked, default shall be "No Exceptions"

Contractor/Supplier take the following Exception(s) to the Bid Specifications or Other Requirements of this Solicitation (Explain in Detail). If box checked but no exceptions are listed, default shall be "No Exceptions"

Historically Underutilized Business (HUB): It is the policy of the Town of Addison to involve HUBs in the procurement of goods, equipment, services and construction projects. Prime Contractors/Suppliers are encouraged to provide HUBs the opportunity to compete for sub-contracting and other procurement opportunities. A listing of HUBs in this area may be accessed at the following State of Texas Website.
<http://www.window.state.tx.us/procurement/cmb/cmbhub.html>.

HUB Owned Business Yes No Include a current copy of your HUB certification with your response or insert Certification number _____ and expire date _____.

Other Government Entities: Would bidder be willing to allow other local governmental entities to participate in this contract, if awarded under the same Terms and Conditions? Yes No

Bid Bond: Is Bid Bond attached if applicable? Yes No

Termination: The town at any time after issuance of this agreement, by 30 days written notice, has the absolute right to terminate this agreement for cause or convenience. Cause shall be the contractor/supplier's refusal or failure to satisfactorily perform or complete the work within the time specified, or failure to meet the specifications, quantities, quality and/or other requirements specified in the contract/purchase order. In such case the supplier shall be liable for any damages suffered by the town. If the agreement is terminated for convenience, the supplier has no further obligation under the agreement. Payment shall be made to cover the cost of material and work in process or "consigned" to the town as of the effective date of the termination.

Bidder Compliance: Bidder agrees to comply with all conditions contained in this Information and Instruction Form and the additional terms and conditions and specifications included in this request. The undersigned hereby agrees to furnish and deliver the articles or services as specified at the prices and terms herein stated and in strict accordance with the specifications and conditions, all of which are made a part of your offer. Your offer is not subject to withdrawal after the award is made.

The Town of Addison reserves the right to reject all or part of the offer and to accept the offer considered most advantageous to the town by item or total bid.

The Town of Addison will award to the lowest responsible bidder or to the bidder who provides goods or services at the best value for the Town.

I hereby certify that all of the information provided in sections I and II are true and accurate to the best of my knowledge.

Signature: Date:

Title:

Signature certifies no changes have been made to the content of this solicitation as provided by the Town of Addison.

10/17/17

Question and Answers for Bid #18-29 - Indoor Shooting Range Upgrade

Overall Bid Questions

There are no questions associated with this bid.

Work Session and Regular Meeting**Meeting Date:** 04/24/2018**Department:** City Manager**Pillars:** Gold Standard for Financial Health**Milestones:** Improve connectivity around Addison with a focus on economic development

AGENDA CAPTION:

Consider Action to Approve a **Resolution Finding that Oncor Electric Delivery Company LLC's Application for Approval of a Distribution Cost Recovery Factor Pursuant to 16 Tex. Admin. Code § 25.243 to Increase Distribution Rates within the City Should be Denied; Finding that the City's Reasonable Rate Case Expenses Shall be Reimbursed by the Company; Finding that the Meeting at Which this Resolution is Passed is Open to the Public as Required by Law; Requiring Notice of this Resolution to the Company and Legal Counsel.**

BACKGROUND:

The purpose of this resolution is to deny the Distribution Cost Recovery Factor application filed by Oncor Electric Delivery Company LLC (Oncor) which will increase distribution rates for its customers. The Public Utility Commission (PUC) of Texas's rules allow for cities 60 days to act on this application. That deadline is June 4, 2018. This denial is standard practice as this time allows for our consultants adequate time to review the rate request.

On April 5, 2018, Oncor filed an application for approval of a Distribution Cost Recover Factor (DCRF) to increase distribution rates with each of the cities in their service area. In the filing, the Company asserts that it is seeking an increase in distribution revenues of \$19,002,177 for the period of September 1, 2018 to August 31, 2019. The attached resolution authorizes the City to join with the Steering Committee of Cities Served by Oncor (Steering Committee) to hire a consultant to evaluate the filing, determine whether the filing complies with law, and if lawful, to determine what further strategy, including settlement, to pursue.

Listed below is an explanation of the actions that will be taken with the resolution:

- Section 2: Authorizes the Town to participate with the Steering Committee as a party in the Oncor's DCRF filing, PUC Docket No. 48231. Negotiating clout and efficiency are enhanced by the Town when cooperating with the Steering Committee in a common review and purpose.
- Section 3: Authorizes the Steering Committee to hire the firm of Lloyd, Gosselink, Rochelle & Townsend, P.C. and a rate expert consultant to review the filing. Rate case expenses are minimized when the Steering Committee hires one set of attorneys and experts who work under the guidance and control of the Executive Committee of the Steering Committee.
- Section 4: Finds that Oncor's application for a rate increase to be unreasonable and should be denied. Once a case is filed with the PUC, cities have 60 days to act on a DCRF application. Denial of the application allows for the Steering Committee the ability to hire a rate expert consultant to review the filing and report their findings.
- Section 5: States that Oncor will continue to charge its existing rates to customers until the rate filing is resolved.

- Section 6: Oncor will reimburse the Steering Committee for its reasonable rate case expenses. Legal counsel and consultants approved by the Steering Committee will submit invoices that will be forwarded to Oncor for reimbursement. No individual city incurs liability for payment of rate case expenses by adopting a suspension resolution.
- Section 7: This section recites that the Resolution was passed at a meeting that was open to the public and that the consideration of the Resolution was properly noticed.
- Section 8: This section provides that both Oncor and Steering Committee counsel will be notified of the City's action by sending a copy of the approved and signed resolution to certain designated individuals.

RECOMMENDATION:

Administration recommends approval.

Attachments

Resolution- Oncor Denial

Oncor Steering Committee List of Cities

RESOLUTION NO. _____

A RESOLUTION OF THE TOWN OF ADDISON, TEXAS FINDING THAT ONCOR ELECTRIC DELIVERY COMPANY LLC'S APPLICATION FOR APPROVAL OF A DISTRIBUTION COST RECOVERY FACTOR PURSUANT TO 16 TEX. ADMIN. CODE § 25.243 TO INCREASE DISTRIBUTION RATES WITHIN THE CITY SHOULD BE DENIED; FINDING THAT THE CITY'S REASONABLE RATE CASE EXPENSES SHALL BE REIMBURSED BY THE COMPANY; FINDING THAT THE MEETING AT WHICH THIS RESOLUTION IS PASSED IS OPEN TO THE PUBLIC AS REQUIRED BY LAW; REQUIRING NOTICE OF THIS RESOLUTION TO THE COMPANY AND LEGAL COUNSEL; AND PROVIDING AN EFFECTIVE DATE

WHEREAS, the Town of Addison, Texas ("City") is an electric utility customer of Oncor Electric Delivery Company LLC ("Oncor" or "Company"), and a regulatory authority with an interest in the rates and charges of Oncor; and

WHEREAS, the City is a member of the Steering Committee of Cities Served by Oncor ("OCSC"), a membership of similarly situated cities served by Oncor that have joined together to efficiently and cost effectively review and respond to electric issues affecting rates charged in Oncor's service area; and

WHEREAS, on or about April 5, 2018 Oncor filed with the City an Application for Approval of a Distribution Cost Recovery Factor ("DCRF"), PUC Docket No. 48231, seeking to increase electric distribution rates by approximately \$19,002,177.00; and

WHEREAS, all electric utility customers residing in the City will be impacted by this ratemaking proceeding if it is granted; and

WHEREAS, Cities are coordinating its review of Oncor's DCRF filing with designated attorneys and consultants to resolve issues in the Company's application; and

WHEREAS, Cities members and attorneys recommend that members deny the DCRF.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE TOWN OF ADDISON, TEXAS:

Section 1. The findings set forth above are incorporated herein as if set forth verbatim.

Section 2. That the City is authorized to participate with Cities in PUC Docket No. 48231.

Section 3. That subject to the right to terminate employment at any time, the Town of Addison hereby authorizes the hiring of the law firm of Lloyd, Gosselink, Rochelle & Townsend, P.C. and consultants to negotiate with the Company, make recommendations to the City regarding reasonable rates, and to direct any necessary administrative proceedings or court litigation associated with an appeal of this application filed with the PUC.

Section 4. That the rates proposed by Oncor to be recovered through its DCRF charged to customers located within the City limits, are hereby found to be unreasonable and shall be and are hereby denied.

Section 5. That the Company shall continue to charge its existing rates to customers within the City.

Section 6. That the City's reasonable rate case expenses shall be reimbursed in full by Oncor within 30 days of presentation of an invoice to Oncor.

Section 7. That it is hereby officially found and determined that the meeting at which this Resolution is passed is open to the public as required by law and the public notice of the time, place, and purpose of said meeting was given as required.

Section 8. That a copy of this Resolution shall be sent to Stephen N. Ragland, 1616 Woodall Rodgers Freeway, Dallas, Texas 75202 and to Thomas Brocato, General Counsel to the Cities, at Lloyd, Gosselink, Rochelle & Townsend, P.C., P.O. Box 1725, Austin, Texas 78767-1725.

Section 9. This Resolution shall take effect upon its passage and approval.

PASSED AND APPROVED this _____ day of _____, 2018.

Joe Chow, Mayor

ATTEST:

Christie Wilson, Interim City Secretary

APPROVED AS TO FORM:

Brenda N. McDonald, City Attorney

STEERING COMMITTEE CITIES SERVED BY ONCOR (Total 156)

Addison	Fate	Oak Leaf
Allen	Flower Mound	Oak Point
Alvarado	Forest Hill	Odessa
Andrews	Fort Worth	O'Donnell
Anna	Frisco	Ovilla
Archer City	Frost	Palestine
Argyle	Gainesville	Pantego
Arlington	Garland	Paris
Azle	Glenn Heights	Plano
Bedford	Grand Prairie	Pottsboro
Bellmead	Granger	Prosper
Belton	Grapevine	Ranger
Benbrook	Haltom City	Rhome
Beverly Hills	Harker Heights	Richardson
Big Spring	Haslet	Richland
Breckenridge	Heath	Richland Hills
Bridgeport	Henrietta	River Oaks
Brownwood	Hewitt	Roanoke
Buffalo	Highland Park	Robinson
Burkburnett	Honey Grove	Rockwall
Burleson	Howe	Rosser
Caddo Mills	Hurst	Rowlett
Cameron	Hutto	Sachse
Canton	Iowa Park	Saginaw
Carrollton	Irving	Sansom Park
Cedar Hill	Jolly	Seagoville
Celina	Josephine	Sherman
Centerville	Justin	Snyder
Cleburne	Kaufman	Southlake
Coahoma	Keller	Springtown
Colleyville	Kennedale	Stephenville
Collinsville	Kerens	Sulphur Springs
Colorado City	Killeen	Sunnyvale
Comanche	Krum	Sweetwater
Commerce	Lake Worth	Temple
Coppell	Lakeside	Terrell
Copperas Cove	Lamesa	The Colony
Corinth	Lancaster	Trophy Club
Crowley	Lewisville	Tyler
Dallas	Lindale	University Park
Dalworthington Gardens	Little Elm	Venus
DeLeon	Little River Academy	Waco
De Soto	Malakoff	Watauga
Denison	Mansfield	Waxahachie
Duncanville	McKinney	Westover Hills
Early	Mesquite	White Settlement
Eastland	Midland	Wichita Falls
Edgecliff Village	Midlothian	Willow Park
Ennis	Murchison	Woodway
Euless	Murphy	Wylie
Everman	New Chapel Hill	
Fairview	North Richland Hills	
Farmers Branch	Northlake	

Work Session and Regular Meeting**Meeting Date:** 04/24/2018**Department:** City Manager**Pillars:** Gold Standard for Financial Health

AGENDA CAPTION:

Consider Action to Approve the **Quarterly Update from the Finance Committee to the City Council for the Period from January 2018 to March 2018.**

BACKGROUND:

The Finance Committee (Committee) serves in an advisory capacity to the City Council. The Committee includes: Mayor Pro Tempore Ivan Hughes, Council Member Tom Braun, and Council Member Al Angell. The Committee reviews and make recommendations to the City Council regarding the following matters:

- Quarterly financial reports
- Comprehensive financial annual report (CAFR)
- Long-term debt capacity of the Town
- Engagement of independent accounting firms to audit the financial statements
- Review the adequacy and implementation of any internal audit function

The Committee meets monthly and is required to provide quarterly reports to the Council. The attached report cover topics discussed at the Committee meetings from January 2018 to March 2018.

RECOMMENDATION:

Administration recommends approval.

Attachments

Finance Committee Report Jan - Mar 2018



Finance Committee Report

March 2018

The Finance Committee shall serve solely in an advisory capacity to the City Council. Among other matters that may be requested from time to time by the Council, the Finance Committee may review and make recommendations to the City Council regarding the following matters:

- quarterly financial reports,
- comprehensive financial annual report (CAFR),
- long term debt capacity of the Town,
- engagement of independent accounting firms to audit the financial statements,
- review the adequacy and implementation of any internal audit function.

Finance Committee members:

- Al Angell, Council Member
- Tom Braun, Council Member
- Ivan Hughes, Mayor Pro-Tempore

This document covers the topics discussed by the Committee from January to March 2018.

January 3, 2018

Topic	Discussion
4th quarter financial report review (ending Sept 2017)	Staff reviewed the quarterly report presented at the January 23, 2018 Council meeting. Staff incorporated a color coding methodology to better identify financial condition of revenues/expenditures.
Future Finance Committee meeting dates	The next Finance Committee meeting date is February 12, 2018.

Attendees: Al Angell, Tom Braun, Ivan Hughes, Wes Pierson, Olivia Riley, Cheryl Delaney

February 12, 2018

Topic	Discussion
FY2017 annual audit review with BKD, LLC	Members for BKD, LLC staff presented the FY2017 annual audit. BKD has issued an unmodified opinion, which means that financial statements are presented, in all material respects, in accordance with applicable financial reporting framework. An unmodified opinion is a clean opinion. The Comprehensive Annual Financial Report (CAFR) was presented at the March 6, 2018 council meeting.
1 st quarter financial report review (ending Dec 2017)	Staff reviewed the quarterly which was presented at the February 27, 2018 Council meeting.
Future Finance Committee meeting dates	The next Finance Committee meeting date is April 9, 2018. The original date was March 26, 2018 but was moved to April 9, 2018 due to scheduling conflicts.

Attendees: Al Angell, Tom Braun, Ivan Hughes, Wes Pierson, Amanda Turner, Cheryl Delaney, Deborah Beams (Accounting & Auditing Assistant Director (BKD)), Synetra Richards, CPA (Audit Senior Associate II) (BKD)

March 2018

No meeting held

Work Session and Regular Meeting

Meeting Date: 04/24/2018

Department: Parks & Recreation

AGENDA CAPTION:

Consider Action to Approve a **Resolution for Turnkey Landscape and Irrigation Maintenance of the Vitruvian Way Medians, Vitruvian Development Savoye 1 Streetscape, Park Road Right-of-way and Parking Lot Island, Vitruvian Development Savoye 2 Streetscape, Vitruvian Development Fiori Streetscape and related areas, Spring Valley Road/Loos Right-of-way, Spring Valley Road Medians, Redding Trail Connector and George W. Bush Elementary School to Carruther's Landscape Management and Authorize the City Manager to Execute the Agreement in an Amount not to Exceed \$57,600.**

BACKGROUND:

The Parks department manages the contract for landscape maintenance for Vitruvian Way Medians, Savoye 1 Streetscape, Park Road Right-of-way and Parking Lot Island, Savoye 2 Streetscape, Fiori Streetscape and related areas, Spring Valley Road/Loos Right-of-way, Spring Valley Road Medians, Redding Trail Connector and George W. Bush Elementary School . The scope of work involved under this contract includes turnkey landscape maintenance of all planted trees, shrubs, turf, groundcover, annuals, perennials, and irrigation .

A bid was posted to Bidsync on January 15, 2018 and was closed on February 15, 2018. Seven (7) vendors submitted bids:

Vendor	Bid Amount
Abescape Group LLC	\$30,000.48
Carruthers Landscape Management, Inc.	\$57,600.00
Greener Pastures Landscape, LLC	\$63,800.04
Keane Landscaping	\$111,600.00
American Landscape Systems, Inc.	\$165,292.20
Brightview Landscape Services, Inc.	\$184,512.00
Jba Land Management	\$228,216.96

Abescape Group LLC was the lowest responsible bidder. After checking references and confirming the bid amount with the contractor, the Town entered into a maintenance contract with Abescape Group LLC (effective 4/1/2018) in the amount not to exceed \$30,000.48. On April 6, 2018, Abescape asked the Town to dissolve the contract due to a misunderstanding of unit pricing and funding.

Carruthers Landscape Management is the next responsible low bidder in the amount of \$57,600. Carruthers has maintained the areas listed above for the 6 years prior to Abescape. Staff recommends awarding the contract to Carruthers Landscape Maintenance.

This is an annual renewable contract that can be extended for five (5) twelve-month periods under the same terms and conditions as the original contract.

The total annual cost will not exceed \$57,600. The budgeted amount for this item is \$55,000 in the Parks Department Budget in the General Fund. The additional \$2,600 can be absorbed in the department's budget.

RECOMMENDATION:

Administration recommends approval.

Attachments

Resolution - Vitruvian Park Landscape Maintenance

Bid Packet - Vitruvian Park Landscape Maintenance

TOWN OF ADDISON, TEXAS

RESOLUTION NO. _____

A RESOLUTION OF THE CITY COUNCIL OF THE TOWN OF ADDISON, TEXAS APPROVING A CONTRACT AGREEMENT BETWEEN THE TOWN OF ADDISON AND CARRUTHERS LANDSCAPE MANAGEMENT, INC., FOR LANDSCAPE MAINTENANCE OF THE VITRUVIAN WAY MEDIANS, SAVOYE 1 STREETScape, PARK ROAD RIGHT-OF-WAY AND PARKING LOT ISLAND, SAVOYE 2 STREETScape, FIORI STREETScape AND RELATED AREAS, SPRING VALLEY ROAD/LOOS RIGHT-OF-WAY, SPRING VALLEY ROAD MEDIANS, REDDING TRAIL CONNECTOR AND GEORGE W. BUSH ELEMENTARY SCHOOL IN AN AMOUNT NOT TO EXCEED \$57,600.00 ANNUALLY, AUTHORIZING THE CITY MANAGER TO EXECUTE THE AGREEMENT, 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 Carruthers Landscape Management, Inc. for Landscape Maintenance of Vitruvian Way Medians, Savoye 1 Streetscape, Park Road Right-of-Way and Parking Lot Island, Savoye 2 Streetscape, Fiori Streetscape and related areas, Spring Valley Road/Loos Right-of-Way, Spring Valley Road Medians, Redding Trail Connector and George W. Bush Elementary School in an amount not to exceed \$57,600.00 annually, 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, Instruction 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 24th day of April 2018.

Joe Chow, Mayor

ATTEST:

By: _____
Christie Wilson, Interim City Secretary

APPROVED AS TO FORM:

By: _____
Brenda N. McDonald, City Attorney

EXHIBIT A

CONTRACT AGREEMENT

STATE OF TEXAS

COUNTY OF DALLAS

THIS AGREEMENT is made and entered into this 24th day of April, 2018, 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 Carruthers Landscape Management, Inc., of the City of Dallas, 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 the services of your response to our bid:

Vitruvian Landscape Maintenance Bid #1710-002

and all extra work in connection therewith, under the terms as stated in the General and Specific Provisions 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 service, in accordance with the conditions and prices stated in the Bid attached hereto and in accordance with the Advertisement for Bids, Instructions to Bidders 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 Bid and the General Provisions, all of which are made a part hereof and collectively evidence and constitute the entire AGREEMENT.

The OWNER agrees to pay the CONTRACTOR \$57,600.00 in current funds for the performance of the Contract in accordance with the Bid 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
(OWNER)

ATTEST:

By: _____
Wesley S. Pierson, City Manager

City Secretary

Date: _____

CARRUTHERS LANDSCAPE MANAGEMENT, INC.

EXHIBIT A

(Contractor)

By: [Signature]

Printed Name: Ben Carruthers

Title: PRESIDENT

Date: 4.12.2018

ATTEST:

[Signature]
By:

Printed Name: David Carruthers

Title: Account Manager

Date: 4/12/18

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

I, Ben Carruthers, certify that I am the secretary of the corporation named as CONTRACTOR herein; that Ben Carruthers, who signed this Contract on behalf of the CONTRACTOR is the President of said corporation; that said **Vitruvian Landscape Maintenance Bid #1710-002** 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: [Signature]



Corporate Seal

Solicitation 1710-002

Vitruvian Landscape Maintenance

Bid Designation: Regional



Town of Addison

Bid 1710-002

Vitruvian Landscape Maintenance

Bid Number 1710-002
 Bid Title Vitruvian Landscape Maintenance

Bid Start Date Jan 15, 2018 4:27:29 PM CST
 Bid End Date Feb 15, 2018 2:00:00 PM CST
 Question & Answer End Date Feb 12, 2018 12:00:00 PM CST

Bid Contact Wil Newcomer
 Purchasing Manager

Bid Contact Michele Womack
 Accounting Specialist
 Finance

Contract Duration 1 year
 Contract Renewal 5 annual renewals
 Prices Good for 1 year
 Pre-Bid Conference Jan 31, 2018 9:00:00 AM CST
 Attendance is optional
 Location: Town of Addison Service Center
 16801 Westgrove Dr., Addison, TX 75001

Bid Comments **Landscape Maintenance -
 Vitruvian Way Medians, Vitruvian Development Savoye 1 Streetscape and Park Rd.
 Right-of-way and Parking Lot Island, Vitruvian Development Savoye 2 Streetscape, Vitruvian Development
 Fiori Streetscape and Related Areas, Spring Valley Rd./Loos Right-Of-Way, Spring Valley Rd. Medians,
 Redding Trail Connector, and George W. Bush Elementary School
 Provide the highest quality turnkey professional landscape and irrigation maintenance at the specified
 locations while strictly adhering to the bid specifications. All work to be performed within the scope of
 these specifications shall be strictly managed, executed and performed by experienced personnel using
 only sound horticultural and irrigation practices. Take special note of the designation of Organic Only Areas
 and the 'Alternates' for the use of organic products specified for the maintenance of all the properties, not
 designated as organic only, in this bid.**

Item Response Form

Item 1710-002--01-01 - Vitruvian Way Medians
 Quantity 1 month
 Unit Price
 Delivery Location **Town of Addison**
Addison Service Center
 16801 Westgrove Drive
 Addison TX 75001

Qty 1

Description

Provide the turnkey professional maintenance of the Vitruvian Way Medians while strictly adhering to the bid specifications.

Item **1710-002--01-02 - Savoye 1 Streetscape and Park Rd. ROW & Parking Lot**

Quantity **1 month**

Unit Price

Delivery Location **Town of Addison**

Addison Service Center

16801 Westgrove Drive

Addison TX 75001

Qty 1

Description

Provide the turnkey professional maintenance of the Savoye 1 Streetscape and the Park Rd. ROW and Parking Lot Island while strictly adhering to the bid specifications.

Item **1710-002--01-03 - Savoye 2 Streetscape**

Quantity **1 month**

Unit Price

Delivery Location **Town of Addison**

Addison Service Center

16801 Westgrove Drive

Addison TX 75001

Qty 1

Description

Provide the turnkey professional maintenance of the Savoye 2 Streetscape while strictly adhering to the bid specifications.

Item **1710-002--01-04 - Fiori Streetscape**

Quantity **1 month**

Unit Price

Delivery Location **Town of Addison**

Addison Service Center

16801 Westgrove Drive

Addison TX 75001

Qty 1

Description

Provide the turnkey professional maintenance of the Fiori Streetscape while strictly adhering to the bid specifications.

Item **1710-002--01-05 - Spring Valley Rd./Loos ROW**

Quantity **1 month**

Unit Price

Delivery Location **Town of Addison**

Addison Service Center

16801 Westgrove Drive

Addison TX 75001

Qty 1

Description

Provide the turnkey professional maintenance of the Spring Valley Rd./Loos ROW while strictly adhering to the bid specifications.

Item **1710-002--01-06 - Spring Valley Rd. Medians**

Quantity **1 month**

Unit Price

Delivery Location **Town of Addison**

Addison Service Center

16801 Westgrove Drive

Addison TX 75001

Qty 1

Description

Provide the turnkey professional maintenance of the stipulated Spring Valley Rd. Medians while strictly adhering to the bid specifications.

Item **1710-002--01-07 - Redding Trail Connector**

Quantity **1 month**

Unit Price

Delivery Location **Town of Addison**

Addison Service Center

16801 Westgrove Drive

Addison TX 75001

Qty 1

Description

Provide the turnkey professional maintenance of the Redding Trail Connector while strictly adhering to the bid specifications.

Item **1710-002--01-08 - George W. Bush Elementary School**

Quantity **1 month**

Unit Price

Delivery Location **Town of Addison**

Addison Service Center

16801 Westgrove Drive

Addison TX 75001

Qty 1

Description

Provide the turnkey professional maintenance of the George W. Bush Elementary School site while strictly adhering to the bid specifications.

Item **1710-002--01-09 - Hourly Rate - Irrigation**

Quantity **1 hour**

Unit Price

Delivery Location **Town of Addison**

Addison Service Center

16801 Westgrove Drive

Addison TX 75001

Qty 1

Description

Provide an hourly rate for irrigation repairs that are not included in the bid specifications' scope of services.

Item **1710-002--01-10 - Hourly Rate - Irrigation**

Quantity **1 hour**

Unit Price

Delivery Location **Town of Addison**

Addison Service Center

16801 Westgrove Drive

Addison TX 75001

Qty 1

Description

Provide an hourly rate for irrigation repairs not included in the scope of services outlined in the bid specifications.

Item **1710-002--01-11 - Irrigation Parts Mark-Up**

Quantity **1 parcel**

Unit Price

Delivery Location **Town of Addison**

Addison Service Center

16801 Westgrove Drive

Addison TX 75001

Qty 1

Description

Provide a percentage mark-up on irrigation parts used for repairs not included in the scope of services outlined in the bid specifications.

Item **1710-002--01-12 - Vitruvian Park & Development Leaf & Acorn Removal**

Quantity **1 each**

Unit Price

Delivery Location **Town of Addison**

Addison Service Center

16801 Westgrove Drive

Addison TX 75001

Qty 1

Description

Provide a line item cost for a one time visit to remove leaves and acorns at Vitruvian Park and the entire Vitruvian Development only while adhering to the bid specifications.

Item **1710-002--01-13 - Leaf & Acorn Removal on Remainder of Properties**

Quantity **1 each**

Unit Price

Delivery Location **Town of Addison**

Addison Service Center

16801 Westgrove Drive

Addison TX 75001

Qty 1

Description

Provide a line item cost for a one time visit to remove leaves and acorns on all the properties within the bid other than Vitruvian Park and the Vitruvian development while adhering to the bid specifications..

Item **1710-002--01-14 - Alternate - Use of Organic Products**

Quantity **1 month**

Unit Price

Delivery Location **Town of Addison**
Addison Service Center
16801 Westgrove Drive
Addison TX 75001
Qty 1

Description

Provide a monthly cost to utilize the organic products specified within the bid specifications for the maintenance of all the properties not designated as organic only.



FINANCE DEPARTMENT / PURCHASING DIVISION 5350 Belt Line Road
 (972) 450-7071 – Facsimile (972) 450-7074 Post Office Box 9010 Addison, Texas 75001

INVITATION TO BID

The Town of Addison is accepting bids from all interested parties for

Bid No: 1710-002

Bid Name: Landscape Maintenance – Vitruvian Way Medians, Vitruvian Development Savoye 1 Streetscape and Park Rd. Right-of-way and Parking Lot Island, Vitruvian Development Savoye 2 Streetscape, Vitruvian Development Fiori Streetscape and Related Areas, Spring Valley Rd./Loos Right-Of-Way, Spring Valley Rd. Medians, Redding Trail Connector, and George W. Bush Elementary School

Voluntary Pre- Bid: Wednesday, January 31, 2018 at 9:00 a.m.
 Town of Addison Service Center
 16801 Westgrove Dr., Addison, Texas 75001

Bid Closing: Thursday, February 15, 2018 at 2:00 p.m.
 Finance Department
 Town of Addison
 5350 Belt Line
 Dallas, Texas 75254

SCOPE OF WORK:

The work involves providing the highest quality turnkey professional landscape and irrigation maintenance at the specified locations while strictly adhering to the bid specifications. All work to be performed within the scope of these specifications shall be strictly managed, executed and performed by experienced personnel using only sound horticultural and irrigation practices.

Take special note of the designation of Organic Only Areas and the ‘Alternates’ for the use of the organic products specified for the maintenance of all the properties, not designated as organic only, in this bid.

Since Bidsync.com maintains the vendor files for the Town of Addison, bidders do not need to notify the Town if they do not intend to bid on this project. For vendors that would like to be removed from the bidder’s list, please notify the Town of Addison in writing.

Please pay particular attention to Receipt and Preparation of the bid.

Questions concerning the bidding process shall be posted through BidSync. Questions will be answered in a timely manner. All participating vendors will be able to see all answers.

**TOWN OF ADDISON PARKS DEPARTMENT
- LANDSCAPE MAINTENANCE -**

**Vitruvian Way Medians, Vitruvian Development Savoye 1 Streetscape and Park Rd.
Right-of-way and Parking Lot Island, Vitruvian Development Savoye 2 Streetscape, Vitruvian Development
Fiori Streetscape and Related Areas, Spring Valley Rd./Loos Right-Of-Way, Spring Valley Rd. Medians,
Redding Trail Connector, and George W. Bush Elementary School
Bid 1710-002**

PART1 - GENERAL

1.1 STATEMENT OF INTENT

The Maintenance Contractor is hereby made aware that both the Owner and the Contractor require that the landscape and irrigation maintenance at these sites shall be of the highest quality. All work to be performed within the scope of these specifications shall be strictly managed, executed and performed by experienced personnel using only sound horticultural and irrigation practices. The elementary school site shall require the use of IPM pesticides/herbicides and proper notification in adherence to Structural Pest Control Board (SPCB) and Dallas Independent School District (DISD) requirements.

Take special note of the designation of Organic Only Areas and the 'Alternates' for the use of the organic products specified for the maintenance of all the properties, not designated as organic only, in this bid.

1.2 SCOPE OF WORK

- A. The Landscape and Irrigation Maintenance specifications shall include the complete care as defined within these specifications of all planted trees, shrubs, turf, groundcover, annuals, perennials, and irrigation within the limits of work for the following general areas: (See the Attached Addison Street Map)
1. **Vitruvian Way Medians** – Approximately 0.83 acres of groundcover and trees on the islands in the middle of Vitruvian Way between Spring Valley Rd. and Marsh Ln.
 2. **Savoye 1 Streetscape and Park Rd. Right-of-way and Parking Lot Island** – Trees and plantings in the streetscape along the west side of Ponte Ave. and north of the bridge, the south side of Vitruvian Way west of Ponte Ave., the west side of Park Rd. and the island in the Park Rd. parking lot. All these locations are on the east, west, south, and north sides of the Vitruvian Development Savoye 1 building.
 3. **Savoye 2 Streetscape** – Trees and plantings in the streetscape along the east side of Ponte Ave. and north of the bridge, and the south side of Vitruvian Way east of Ponte Ave. All these locations are on the west and north sides of the Vitruvian Development Savoye 2 building.
 4. **Fiori Streetscape** – Trees and plantings in the streetscape along the north, south, and east sides of the Fiori building. Also included are the streetscape trees and plantings along the east side of Vitruvian Way from the Fiori building to the plaza at Spring Valley Rd. plus the trees, turf, and plantings on the east side of Bella Ln. from approximately the midpoint of the block wall to the Bella Ln. bridge and from south of the bridge to the water well housing with the aerial structure and the associated components.
 5. **Spring Valley Rd./Loos Right-Of-Way** – Rights-of-way streetscape trees and turf along both the north and south sides of Spring Valley Rd. from the Redding Trail Extension to Woodway Dr. on the north side and from the fire station just east of Vitruvian Way to the shopping center on the south side. The plazas at the southeast and southwest corners of the intersection of Spring Valley Rd. and Vitruvian Way are to be included.
 6. **Spring Valley Rd. Medians** – Trees, turf, and beds on the medians in the middle of Spring Valley Rd. from Woodway Dr. to the end of the first median east of Vitruvian Way.
 7. **Redding Trail Connector** – Approximately 1.93 acres of trees, turf and beds along the pedestrian trail between Spring Valley Rd. and the 90-degree bend at the intersection of the Easement Extension trail and the Les Lacs Linear Park Phase 3 Jogging Trail at the far northwest corner of the Greenhill School property. The north end of the trail connector is also the location of the 'Alphabet D' cream colored metal sculpture.
 8. **George W. Bush Elementary School *Designated Organic Only Property*** – Approximately 7.6 acres on the north side of Spring Valley Rd. and due north of Vitruvian Way bounded by the Dallas Independent School District Loos Athletic Complex to the west, the Oncor electrical transmission easement with the Redding Trail Connector to the east, Spring Valley Rd. right-of-way to the south, and the Les Lacs Linear Park Phase 3 Jogging Trail to the north.

NOTE: MAJOR PRUNING, CANOPY THINNING AND RAISING, ARE INCLUDED IN THE SCOPE OF SERVICES FOR THIS CONTRACT.

NOTE: MAJOR LEAF AND ACORN REMOVAL IS INCLUDED IN THE SCOPE OF SERVICES FOR THIS CONTRACT. Reference Section 3.96 'Leaf And Acorn Removal'.

NOTE: Line item pricing for certain aspects of this bid will be requested. Such pricing will be used to determine monetary payments for additional work requested by the owner and performed by the contractor or for monetary deduction of work not performed by the contractor.

- B. The Contractor shall provide all materials, equipment and labor required and/or inferred to perform all tasks identified within these specifications.
- C. The work under this contract includes, but is not limited to, watering, fertilization, pruning, spraying of pesticides, weeding, herbicide applications, bed cultivation, edge trenching, mowing, edging, line trimming, irrigation checks and repairs in all landscape areas listed in section 1.2 – A. above, litter removal (*including pet waste*) and emptying and relining of trash cans, aeration of all turf areas once during the growing except for the turf areas behind the elementary school which shall require this task to be performed three (3) times, and major leaf/acorn removal.
- D. The successful bidder shall quote firm prices that shall prevail throughout the entire term of the agreement. This landscape maintenance contract is for a one-year period and shall commence at contract award and ends 365 calendar days from award of the contract with options to renew for five (5) additional one-year periods under the same terms and conditions.

1.3 GUARANTEE

- A. The Contractor shall replace, at the Contractor's expense, all plant material, that, in the opinion of the Owner, fails to maintain a healthy, vigorous condition as a result of the Contractor's negligence or failure to perform the work specified herein.
- B. It is the responsibility of the Contractor to notify the Town of Addison Parks Department of any conditions beyond the control of the Contractor or scope of work of these specifications that may result in the damage and/or loss of plant material. This responsibility includes, but is not limited to, notifying the owner of the following:
 1. Damage by others to the irrigation system and/or landscaping.
 2. Vandalism and/or other abuse of the property that results in damage to the plant material.
 3. Areas of the site that continually hold water or are excessively wet.
 4. Areas of the site that appear too dry.

(Note: The contractor shall be responsible for notifying the Town of Addison Parks Department verbally immediately upon observation, and in writing on a weekly basis of conditions where the site is either too wet or too dry. This shall also apply to damaged irrigation, vandalism or graffiti.)

The Contractor shall list any such items on the Landscape Management Report, along with recommended solutions and related costs. Failure of the Contractor to report such items shall cause the Contractor to incur full responsibility and cost for repair of such items. A copy of the required Landscape Management Report is included with these specifications.

1.4 SCHEDULING

- A. Timing
 1. The Town of Addison shall determine scheduling of maintenance visits based upon input from the Contractor and school personnel. The Town of Addison shall be contacted forty-eight (48) hours ahead of time when service cannot be performed on schedule and an alternate time shall be determined.

Note: Maintenance activities at the school shall be restricted to times when school is not in session.

2. The Town of Addison may at any time request alterations to the general maintenance service provided that the Contractor can accomplish the request without additional equipment, labor or man-hours.

1.5 LANDSCAPE MAINTENANCE INSPECTION

A. Monthly Inspections by the Contractor and the Town of Addison Representative

The Contractor shall be responsible for a monthly inspection of all the properties under the contract in the company of a Town of Addison designated representative and to review compliance with the specifications, identify problem areas, and to check for the performance of all items required and referred to in these specifications.

B. Landscape Maintenance Report

The Contractor shall be responsible for notifying the Town of Addison via the Landscape Maintenance Report of any problems. This signed worksheet must be delivered to the offices of the Town of Addison Parks Department within twenty-four (24) hours of the day of the maintenance. Faxed Copies with a signature are acceptable (Fax 972/450-2834). These forms are very important in protecting both the Owner and Contractor when discrepancies or any issues arise. Any items not called to the attention of the Owner that result in any damage to the property shall fall under the liability of the Contractor. The Contractor shall use the form provided in this specification.

C. Frequency Chart

All items listed on the Maintenance Frequency Chart must be executed as specified unless an alternate schedule is approved by the Town in writing. If the Contractor does not perform any item listed, that item shall then be deducted from that month's billing.

1.6 ADDITIONAL REQUIRED CONTRACTOR REPORTING

A. Pesticide Application Reports

Written notification to the Town of Addison and posting of Chemical Application, by law, must occur within forty-eight (48) hours prior to application for all properties other than the elementary school. Any application to be performed on school property must be submitted to the Town of Addison, the designated elementary School Representative, and the DISD Integrated Pest Management (IPM) Coordinator within a minimum of forty-eight (48) hours prior to the application. All such notifications must conform to the State of Texas Structural Pest Control Board (SPCB) requirements.

All applications on school property must adhere to State of Texas Integrated Pest Management (IPM) best practices and adhere to all SPCB regulations and standards.

Applications on school property shall be confined to certain times of the day and/or week. ***Applications shall be required after school hours, when school is not in session, or on weekends.*** Timing of applications must receive prior authorization from the Town of Addison, DISD IPM Coordinator, and School Representative.

A completed Chemical Application Report shall be submitted to the Town within twenty-four (24) hours following all pesticide or fertilizer applications. This report shall contain pertinent weather conditions, exact time of application, chemicals and dilution rates used, MSDS sheets, as well as, the signature of the Applicator involved. Only current SPCB forms shall be used for such reporting.

Pesticide applications shall comply with all laws and regulations of the State of Texas Structural Pest Control Board (SPCB), and DISD requirements.

For fertilization reporting, always include the total number of pounds of fertilizer applied and indicate an approximate percentage of completion, if activity is not completed within a single day.

B. Irrigation Reports

All irrigation system inspections shall include an Irrigation Report submitted to the Town of Addison within twenty-four (24) hours following the completion of each inspection. This report shall contain the following information:

1. Inspection date and duration, in time, of the inspection.
2. List by controller and zone number the type of repairs made and/or problems found.
3. Status of controller program after completion (on, off, rain mode, etc.). ***All controller programming shall be done by and coordinated through a Town of Addison Parks Irrigation Technician.***
4. Repairs or replacements performed due to Contractor damage.

C. Required Notifications

The Contractor shall notify the Town of Addison in writing at least forty-eight (48) hours in advance of the performance of the following activities:

1. Pesticide, herbicide, fungicide, or fertilizer applications.
2. Irrigation system inspections.

The Contractor shall also notify to the Town of Addison, the DISD IPM Coordinator and School Representative in writing at least forty-eight (48) hours in advance of the performance of the following activities on school property:

1. Pesticide, herbicide, fungicide, or fertilizer applications.

D. Situations requiring immediate notification to the Town of Addison by the Contractor include:

- I. All situations concerning safety, health, or property damages.
2. All situations involving issues with electric or water utilities where an immediate response is needed.
3. Changes to the Contractor's schedule.
4. Breaks in the irrigation system mainline piping, hung valves, etc. where water is continually running.

1.7 CONTRACTOR'S GENERAL PERFORMANCE

A. Personnel Requirements

1. All maintenance personnel shall be uniformed and neat in appearance.
2. It is mandatory that an English-speaking Foreman be present on site at all times.
3. Appropriate safety equipment shall be utilized at all times.
4. All lunch and break periods taken by maintenance personnel shall be within areas approved by the Town. Litter is to be removed and no loud or inappropriate music shall be allowed.
5. While on site, all personnel must behave in a professional manner
6. If during school hours, while present on the school site, the Foreman or Applicator must check in at

the school office upon arrival and then back out upon leaving. The Foreman must also supply the number, names, and IDs of the workers that will be on campus.

7. The Contractor shall have emergency response personnel available 24 hours a day, seven days a week. Contractor shall provide Owner with "after hours" contact names and numbers.

B. Maintenance and Support Equipment

- I. Only the appropriate equipment, in proper working order and properly maintained, shall be utilized for maintenance operations.
2. Repair, servicing, or fueling of equipment is not permitted within landscaped areas.
3. Equipment shall be operated in a safe and effective manner at all times.
4. Do not operate equipment within close proximity to pedestrians, cyclists, pets, or wildlife.
5. Mower blades shall be sharp and set to the proper heights.

PART 2 - PRODUCTS

2.1 FERTILIZER:

1. See section 3.3 below.

2.2 HERBICIDES

A. Weed control in turf areas, ornamental beds, and mulched areas shall include:

1. Post-emergent weed control: As needed.
Note: 'Roundup' and other glyphosates type products shall not be allowed under this contract.
2. Pre-emergent weed control: The Contractor shall control weeds with a year-round pre-emergent program to be applied a minimum of two times per year. See Section 3.6 A. for specified products.
3. Pre-emergent applications shall not be combined with fertilization unless approved by the Town of Addison.
4. All herbicides must be approved well in advance for use on school property by the Town of Addison and additionally by the DISD IPM coordinator and School Representative.
5. ***All herbicides for the school property shall be applied only when students and staff are not present and must strictly adhere to SPCB guidelines and requirements.***
6. Of the utmost importance in selection of products to be utilized is the aroma during applications and the visual evidence of product application afterwards.

2.3 PESTICIDES/FUNGICIDES

- A. Provide as needed for the safe control of insect and/or disease problems. This shall include preventative applications.
- B. All products must be approved well in advance for use on school property by the Town of Addison, and additionally by the DISD IPM coordinator and School Representative.
- C. ***All pesticides for the school property shall be applied only when students and staff are not present and must adhere to all SPCB IPM guidelines.***

- D. Of the utmost importance in selection of products to be utilized is the aroma during applications and the visual evidence of product application afterwards.

2.4 MULCH

- A. Landscape Beds and Tree Wells: Twice ground premium grade shredded hardwood bark mulch as supplied by Living Earth Technology Co., or approved equal. Apply as often as necessary to **maintain mulch at minimum three (3) inches thick at all times.** **The Town of Addison shall inspect the quality of the mulch prior to distribution.**
- B. Trenching of curbs and sidewalks prior to mulching shall take place to provide a minimum 1" lip for mulch retention.

PART 3 - EXECUTION

3.1 NOTIFICATION/REPORTING

- A. Notification for applications of herbicides, pesticides, fungicides, fertilizers, etc., shall be required.
1. George Bush Elementary School
 - a. Forms which are to be used shall comply with current SPCB and DISD standards. Posting shall take place on fencing both on the east and west sides of the school along with the appropriate paper forms filled out by the Contractor taped to the front doors of the building. All posting shall comply with SPCB, DISD, and Town of Addison requirements. Advance notice of a minimum of forty-eight (48) hours must be provided.
 2. Savoye 1 & 2, Fiori & related areas, Redding Trail connector, Vitruvian Way medians
 - a. Notice of application must be provided at all other locations per current SPCB guidelines and requirements. Application signage must be provided at the time of the application either notifying the general public of re-entry times or to stay off until dry depending on the product being utilized.
 3. SPCB and DISD Requirements
 - a. A schedule of applications must be provided to the DISD IPM coordinator and to the Town of Addison per SPCB requirements.
 - b. All notices of applications must be provided at least forty-eight (48) hours in advance.
 - c. Proof of valid current licensing by all applicators must be provided.
 - d. All trucks providing applications must adhere to current SPCB requirements and have licensing numbers and company logo clearly displayed.

3.2 IRRIGATION SYSTEM AND WATERING

- A. Irrigation System Inspection and Maintenance:
1. Inspection by the Town's representative and the contractor's **licensed irrigation technician(s)** shall be performed on all zones of irrigation in accordance with the schedule of activities on the school property. Controllers shall be operated and a visual inspection performed to verify proper operation of all system components under this contract.
 2. Maintenance and repair activities to be performed as needed include:
 - a. Head height adjustments.
 - b. Head and/or riser repair, including nipples, and replacements.
 - c. Unclogging, adjustment, and replacement of nozzles.
 - d. Adjustments to flow control devices on electric valves

- e. Replacement of damaged and missing valve boxes and/or covers and lids.
 - f. Adjustments to irrigation controller settings or programs (coordinated with the Town).
 - g. Elimination of any pests such as ants, spiders, geckos, or mice from controller cabinets and/or valve, DCA and meter boxes.
 - h. Repair of lateral lines, drip lines, and fittings within confines of maintenance areas.
 - i. Repair of mainline piping, valves, and wiring not outlined in 'a-h' above based upon a time and materials basis. **Note: No mark up of wholesale prices of materials is allowed. – SEE BID FORM to supply hourly rate.**
3. Only irrigation repairs of the highest quality shall be accepted. This includes renovation of disturbed landscape/turf areas to their existing or better condition.
 4. Repairs found to be needed outside the scope of the specified inspection, maintenance, and repairs shall be reported to the Town of Addison immediately. A cost estimate for such repairs must be supplied to the Town's representative for approval prior to commencement of work. Such work will be paid for at the hourly rate and the mark-up percentage on parts, based upon wholesale pricing, to be supplied with this bid.
 6. All damages to irrigation system components caused by the Contractor's operations shall be repaired immediately at his own cost.
 7. All damages to other components, such as lighting, or landscapes caused by the Contractor's operations shall be repaired within seventy-two (72) hours at no cost to the owner.
 8. All irrigation repair work must be performed by an individual currently licensed in the State of Texas as a repair technician or irrigator within forty-eight (48) hours of an inspection.
 9. All repairs and products shall conform with the current Town of Addison Irrigation Specifications.
 10. All irrigation repairs shall be inspected by one of the Town's Irrigation Technicians prior to backfilling.
- B. Irrigation System - Controller Programming:
1. The Contractor shall make recommendations for controller programming as conditions warrant.
 2. Controller programs shall take into consideration specific site conditions as well as seasonal needs and anticipated weather conditions along with adhering to any water restrictions.
 3. Landscape areas should receive a minimum of one (1) inch of water, including rain, per week.
 4. The Contractor shall provide the Owner with written documentation of the initial irrigation program and updating of this program when changes are needing to be made.
 5. The Contractor is responsible for coordinating, with the Town of Addison representative, all required manual operations of irrigation controllers, such as turning off controllers prior to freezing or rainy periods, as well as the adjustments required in conjunction with chemical and fertilizer applications. A rainy period is defined as one (1) day of continuous rain or one inch (1") of rainfall within 24 hours, and freezing conditions shall be actual or forecasted temperatures of 35 degrees or less.
- C. Plant Material & Tree Watering:
1. Hand water as needed. Water those trees and/or plantings showing heat or drought stress. Be alert to over watering and discontinue applications if required.
 2. Areas needing supplemental hand watering due to irrigation malfunction or extreme drought conditions shall be watered by the Contractor on an as needed basis to maintain plant health and vigor.

D. Turf, Shrub, Perennial, and Groundcover Automatic Watering:

1. Monitor and notify the Town's representative, in writing, of needed adjustments.

3.3 FERTILIZER

A. Trees:

1. **Designated Standard Properties:** Fertilize all trees two (2) times per year in September and again in March according to the following specifications:
 - a. One 40-pound bag of ARBOR-GREEN fertilizer, as manufactured by Davey Tree, per 200 gallons of water,
 - b. One gallon of Chelated Micro-Mix, as manufactured by Lesco, Inc., per 200 gallons of water.
 - c. The two products shall be mixed together in a tank no smaller than 200-gallon capacity. The tank shall have mechanical agitation. The pump shall be able to supply a minimum operating pressure of 150 psi.
 - d. The solution shall be applied to the trees at a rate of one gallon per caliper inch. Injections shall be made every 36" equally spaced around the drip line of the tree or according to the manufacturer recommendations.
2. **Designated Organic Properties:** Fertilize all trees two (2) times per year in September and again in March according to the following specifications:
Per 100 gallons of water
 - a. Add two Gallons of MicroLife Bio-Matrix 7-1-2 liquid organic fertilizer concentrate.
 - b. Add one 6 oz. package of Rhizanova Endo-Ecto Mycorrhizal inoculant
 - c. The two products shall be mixed together in a tank no smaller than 200-gallon capacity. The tank shall have an agitation system. The pump shall be able to supply a minimum operating pressure of 150 psi.
 - d. The solution shall be applied to the trees at a rate of five gallon per caliper inch. Injections shall be made every 30" equally spaced around the drip line of the tree or according to the manufacturer recommendations.

B. Shrubs, perennials, and Groundcover:

1. **Designated Standard Properties:** Fertilize in April, June and September. The contractor shall use Lesco brand fertilizer or its equivalent that has a 21-0-0 element percentage with a minimum 7% sulfur and 4% iron plus trace elements applied at 1.0 pound of actual nitrogen per 1,000 square feet of application. The nitrogen source shall be a minimum of 50% slow release urea formaldehyde (UF), sulfur coated urea (SCU), or other slow release method/coating approved by the Town's representative. If requested, the Contractor shall return empty bags of fertilizer to verify quantities applied. **Fertilizer ratios are subject to change and shall be pre-approved by the Town of Addison Parks Department in advance.**
2. **Designated Organic Properties:** Fertilize in April, June and September. The contractor shall use MicroLife Ultimate 8-4-6 or approved equal. Apply at rate of 30 lb. per square feet of bed area. If requested, the Contractor shall return empty bags of fertilizer to verify quantities applied. **Fertilizer ratios are subject to change and shall be pre-approved by the Town of Addison Parks Department.**

C. Turf

1. **Designated Standard Properties:** Fertilize the first part of April, mid-June, and the first part of September with a nitrogen only fertilizer with iron and sulfur at 1.0 pounds of actual nitrogen per 1,000 square feet of application. The Nitrogen source shall be at least 50% slow release urea formaldehyde (UF), sulfur coated urea (SCU), or other slow release method/coating approved by the Town's representative. **Fertilizer ratios are subject to change and shall be pre-approved by the Town of Addison Parks Department in advance.**

2. **Designated Organic Properties:** Fertilize the first part of April, mid-June, and the first part of September with MicroLife Hybrid or approved equal fertilizer with a 20-0-5 ratio at 6 pounds of fertilizer per 1,000 SF of lawn area. **Fertilizer ratios are subject to change and shall be pre-approved by the Town of Addison Parks Department.**

3.4 PRUNING

A. Shade and Ornamental Trees:

1. Tree Care Pruning: Winter pruning shall be done during the months of December and January and possibly into February. Depending upon the temperatures, this time frame may vary. During winter pruning, the contractor shall remove all diseased, dead, or dying branches. Additionally, crossing branches not consistent with standard form, low hanging or broken limbs, limbs posing a safety hazard, and limbs promoting poor light and air penetration shall be removed/thinned by the contractor. Pruning may also need to occur to allow for dispersion of street lighting and for signage and/or building clearance. Ordinance requirements for clearances are 9' over sidewalks and 14' over streets.

Note: Major thinning is a part of this contract.

Red Oaks and Live Oaks shall not be pruned during the months of March through May.

Pruning techniques shall be in accordance with the latest edition of *Tree Pruning Guidelines published by the International Society of Arboriculture and the American National Standards (A.N.S.I) A300 – Pruning Standards.*

Broken limbs, dead wood, suckers, water sprouts, and limbs contacting, in close proximity to, or coming into contact during stormy or windy conditions with lighting systems (light poles), regulatory signs, awnings, windows, balconies, any portions of the buildings, electrical lines, lighting systems, regulatory signs, etc., shall be removed as detected or when brought to the contractor's attention and such removal is authorized at any time. If such removals are on oaks during the months of March through May, a pruning paint approved by the Town's representative must be applied to all cuts greater than 1" in diameter immediately at the time of pruning.

2. When pruning, the Contractor shall make no flush cuts or apply pruning paint to cuts, except during the months of March through May on oaks only.

Note: The Vitruvian developer wraps the Town owned trees in the park and streetscape starting in September with Christmas lights and removal will not begin until the first part of January. Pruning of the wrapped trees must take place immediately after removal of the lights.

B. Shrubs and Roses:

1. Prune all shrubs and ground covers as needed to encourage healthy growth and to create a natural appearance based upon the plant's placement and growth habit. All roses shall be cut back by 1/3 in the middle of February of each year.

C. Groundcovers:

1. Trim edges of beds and any errant growth as needed during the growing season. **DO NOT** use line trimmers to trim groundcovers. **DO NOT** trim vertically. Cut at a 45-degree angle. Keep appropriate groundcovers 'topped' to promote lateral growth.

D. Perennials:

1. The perennials will require cutting back to encourage new growth. Coordinate this practice with the Town of Addison representative. Ornamental grasses will require pruning in late winter/early spring whereas other perennials may require earlier attention.

3.5 PESTICIDES

- A. **Designated Standard Properties:** Provide insect, fire ant and disease control on an as needed basis. Supply the Town with a minimum forty-eight (48) hour written notice prior to any applications. *All pesticides for the school property shall be applied only when students and staff are not present and must adhere to all SPCB IPM guidelines.* This most likely shall necessitate applications to be done late in the day or on weekends. All pesticides at the school location must receive prior approval by both the Town of Addison and the DISD IPM Coordinator and School Representative. Follow SPCB guidelines and post appropriately. **All pesticides shall be applied only by a current Texas Structural Pest Control licensed applicator.** Of the utmost importance in selection of products to be utilized is the aroma during applications and the visual evidence of product application afterwards.
- B. **Designated Organic Properties:** Provide insect, fire ant and disease control on an as needed basis. Supply the Town with a minimum forty-eight (48) hour written notice prior to any applications. Only Utilize products labeled as organic and containing natural products. Within thirty days of notice to proceed supply owner with the proposed list of organic insecticides for approval. Follow SPCB guidelines and post appropriately. Follow all label and manufacturer recommendations. **All pesticides shall be applied only by a current Texas Structural Pest Control licensed applicator.** Of the utmost importance in selection of products to be utilized is the aroma during applications and the visual evidence of product application afterwards. Pre-Approved Products include:
- a. Monterey Neem Oil 70%
 - b. Bacillus Thuringiensis
 - c. Orange Oil

3.6 HERBICIDES

Supply the Town with a minimum forty-eight (48) hour written notice prior to any applications. *All herbicides for the school property shall be applied only when students and staff are not present and must adhere to all SPCB IPM guidelines.* This most likely shall necessitate applications to be done late in the day or on weekends. All herbicides at this location must receive prior approval by both the Town of Addison and the DISD IPM Coordinator and School Representative. Follow SPCB Guidelines and post appropriately. **All Herbicides shall be applied only by a current Texas Structural Pest Control licensed applicator.** Of the utmost importance in selection of products to be utilized is the aroma during applications and the visual evidence of product application afterwards.

- A. Pre-emergent:
1. **Designated Standard Properties:** The Contractor shall control weeds with a year-round pre-emergent program that includes applications during March and September. Apply a liquid mix of **Gallery** for broadleaf weeds and **Barricade** for grassy weeds at the manufacturer's recommended rates. Substitution of other chemicals must be submitted for prior approval by the Town of Addison.
 2. **Designated Organic Properties:** The Contractor shall control weeds with a year-round pre-emergent program that includes applications during Early March and Late September. Apply corn gluten pre-emergent at the rate recommended by the manufacturer. Substitution of other chemicals must be submitted for approval by the Town of Addison.
- B. Post-emergent:
1. **Designated Standard Properties:** Apply post-emergent herbicides according to label instructions and as needed to control weeds in beds, lawns, crushed granite, pavers, curb lines, along chain link fencing, expansion joints, and mulched areas. All herbicides to be used must be approved by the Town of Addison. Applications made within twelve hours of predicted rainfall shall be subject to re-application at no additional expense to the Town.
Note: 'Roundup' and other glyphosates type products shall not be allowed under this contract.
 2. **Designated Organic Properties:** Apply Mirimichi Green, or approved equal, post-emergent

herbicide according to label instructions and as needed to control weeds in beds, crushed granite, pavers, curb lines, expansion joints, along chain link fencing, and mulched areas. Apply AgraLawn, or approved equal, post-emergent herbicide according to label instructions and as needed to control weeds in lawns. All herbicides to be used must be approved by the Town of Addison. Applications made within twelve hours of predicted rainfall shall be subject to re-application at no additional expense to the Town.

- C. All liquid herbicide applications shall contain a water-soluble dye (blue or green) used in a strength adequate for visual verification. Care shall be taken to avoid excessive overspray of dyed solutions onto walks, curbs, walls, signs, or other features. Any overspray shall be removed from these areas immediately.
- D. All post-emergent herbicides shall be applied with a suitable surfactant additive mixed uniformly in solution.
- E. Use chemical and/or mechanical means to maintain all pavement lines, expansion joints, pavers, and cracks in a weed-free condition.

3.7 FIRE ANT CONTROL

A. **Designated Standard Properties:**

1. **Total control of fire ants is crucial and is of the utmost importance on the school grounds.**
2. All areas (including but not limited to beds, mulch areas and turf) shall receive one spring application of 'TopChoice' for fire ants.
3. A systematic approach of utilizing 'green' baits for fire control at the school will be discussed with the DISD IMP Coordinator and School Representative and implemented by the Contractor. Such products may include, but not be limited to, Amdro and Logic.
4. Use Ground Assault, or approved non-aromatic equal, for individual mound treatment on an as-needed basis, but only on school property with prior approval.
Note: Injections may be deemed necessary if immediate control is needed, especially on school property.

B. **Designated Organic Properties:**

1. All areas (including but not limited to beds, mulch areas and turf) shall receive one spring application of 'Extinguish Plus', or approved equal.
2. Use 'Extinguish Plus' or other approved non-aromatic equal for individual mound treatment on an as-needed basis.

3.8 MULCHING/TRENCHING

- A. Vender shall install (3) inches of mulch within 30 days of notice to proceed. ***Mulch all shrub beds and tree wells as often as necessary to maintain a year-round minimum 3-inch depth of twice ground hardwood bark mulch.*** Mulch is to be spread such that none of the previously laid mulch is visible and shall be moistened at the time of placement to prevent wind displacement.

3.9 WEEDING/CULTIVATING

- A. Remove weeds as needed to maintain all areas in a weed free condition. Cultivate beds only prior to application of pre-emergent herbicide. **DO NOT** cultivate beds after pre-emergent herbicide has been applied.

3.91 LITTER CONTROL (*Includes Pet Waste*)

- A. The contractor shall be responsible for picking up trash (***including pet waste***) during each site visit. Trash receptacles on the school property and along trails, street corners, sidewalks, rest area, plazas, and rights-of-ways shall be emptied and relined with heavy duty and appropriately sized plastic bags during each visit.

3.92 MOWING

- A. The contractor shall be responsible for mowing the Spring Valley Rd./Loos rights-of-ways, Spring Valley

Rd. medians, Redding Trail connector, the Park Rd. right-of-way, portions of the Fiori site, and the George W. Bush elementary school approximately 35 times during the year.

- B. Mowing of all areas shall be done using mulching rotary-type mowers. Any excess grass clumps shall be removed after each mowing and all sidewalks, streets, etc. shall be blown clean.
- C. Note: Mowing is weather dependent and the number of mowings and/or frequency may be more or less than that in 'A' above.
- D. Exercise care when performing operations in close proximity to pedestrians, cyclists, pets, wildlife, etc.
- E. DO NOT mow during wet conditions to eliminate rutting and tracking.

3.93 TURF AERIFICATION

- A. All turf areas shall be aerated once during the growing season, except at the Bush Elementary School which shall receive a total of (3) aerations, utilizing core-type or shatter tine type units.
- B. When providing this service, the Contractor shall make a minimum of two (2) passes at 90 degrees to each other.
- C. The contractor shall flag all irrigation heads, valve boxes, and obstacles to prevent damage. Coordinate this activity with the Town's Irrigation Technicians.
- D. The Contractor is responsible for any damages that occur during this process.

3.94 NOISE ORDINANCE

- A. The Town of Addison Ordinances do not allow the starting or operation of any motorized equipment prior to 8:00 a.m. and after 5:00 p.m. during any day of the week. This statute will be strictly enforced and failure to comply may result in the issuance of citations.
- B. Work may begin at 7:00 a.m. and extend to 7:00 p.m. so long as no noise is created.

3.95 BLOWERS

- A. For the same reasons as stipulated in 4.2 A. above, the use of blowers is restricted from 8:00 a.m. to 5:00 p.m. during any day of the week. No variance will be made for these restrictions.
- B. ***Due to the sensitive nature of the Bush Elementary School and so as not to disturb the classrooms, the use of blowers shall be limited to times when school is not in session; typically, this will be after hours or on weekends.***
- C. While in close proximity to residences, blowers must not be operated in the 'wide open' throttle position to lessen the noise created by their use.
- D. ***Do Not blow grass clippings, leaves, trash, or other debris into the storm sewer inlets or into the street at any time as this is a violation of Town of Addison Ordinance and is subject to fine. Blowing of such material into the waterways and fountains is also strictly forbidden.***

3.96 LEAF AND ACORN REMOVAL

- A. The contractor shall remove leaves, trash, debris and acorns from walks, lawns, and planting beds during each visit.
- B. **During heavy leaf drop:** For a minimum of three (3) times per week during the fall months for deciduous trees and spring months for Live Oaks, removal of the large volume leaf and/or acorn accumulations from roadways, walkways, and landscaped areas during times of high leaf/acorn drop shall be required within the Vitruvian development. In other areas, such service shall be provided a minimum of once (1) per week.

Typically, such leaf drop for deciduous trees begins the month of September and extends through the month of November and for Live Oaks during the months of March into May but all are climate dependent. Typically, acorn drop occurs during the fall months of September into November but this too is climate dependent.

For the purpose of this bid, use ten (10) weeks as the number of weeks for deciduous tree major leaf and for acorn removal and six (6) weeks for Live Oak major leaf removal.

Note: Provide a unit cost per visit task for major leaf/acorn removal. This will be used for billing purposes if the number of visits exceeds those listed above. See the line item in the bid to include this pricing.

- C. Accomplish leaf and acorn removals by mechanical means or gas-powered equipment. If blowers are utilized, do not run them under full power adjacent to residences. ***Use of blowers on elementary school property is restricted to times when school is not in session.***
- D. ***Do Not blow grass clippings, leaves, acorns, trash, or debris into the storm sewer inlets or into the street at any time as this is a violation of Town of Addison Ordinance and is subject to fine. Blowing of such material into the waterways and fountains is also strictly forbidden.***
- E. **Note: As a part of this bid, requests for line item pricing are provided for a per each visit for leaf and acorn removal. A line item will be provided for just Vitruvian Park and the Vitruvian development and a separate line item for all of the remaining sites under the contract.**

PART 4 - ALTERNATES

Provide alternate pricing for all the properties listed below to utilize organic maintenance as described under items listed as “Designated Organic Properties” in lieu of the “Standard Property” specifications above.

1. **Vitruvian Way Medians** – Approximately 0.83 acres of groundcover and trees on the islands in the middle of Vitruvian Way between Spring Valley Rd. and Marsh Ln.
2. **Savoie 1 Streetscape and Park Rd. Right-of-way and Parking Lot Island** – Trees and plantings in the streetscape along the west side of Ponte Ave. and north of the bridge, the south side of Vitruvian Way west of Ponte Ave., the west side of Park Rd. and the island in the Park Rd. parking lot. All these locations are on the east, west, south, and north sides of the Vitruvian Development Savoie 1 building.
3. **Savoie 2 Streetscape** – Trees and plantings in the streetscape along the east side of Ponte Ave. and north of the bridge, and the south side of Vitruvian Way east of Ponte Ave. All these locations are on the west and north sides of the Vitruvian Development Savoie 2 building.
4. **Fiori Streetscape** – Trees and plantings in the streetscape along the north, south, and east sides of the Fiori building. Also included are the streetscape trees and plantings along the east side of Vitruvian Way from the Fiori building to the plaza at Spring Valley Rd. plus the trees, turf, and plantings on the east side of Bella Ln. from approximately the midpoint of the block wall to the Bella Ln. bridge and from south of the bridge to the water well housing with the aerial structure and the associated components.
5. **Spring Valley Rd./Loos Right-Of-Way** – Rights-of-way streetscape trees and turf along both the north and south sides of Spring Valley Rd. from the Redding Trail Extension to Woodway Dr. on the north side and from the fire station just east of Vitruvian Way to the shopping center on the south side. The plazas at the southeast and southwest corners of the intersection of Spring Valley Rd. and Vitruvian Way are to be included.
6. **Spring Valley Rd. Medians** – Trees, turf, and beds on the medians in the middle of Spring Valley Rd. from Woodway Dr. to the end of the first median east of Vitruvian Way.
7. **Redding Trail Connector** – Approximately 1.93 acres of trees, turf and beds along the pedestrian trail between Spring Valley Rd. and the 90-degree bend at the intersection of the Easement Extension trail and the Les Lacs Linear Park Phase 3 Jogging Trail at the far northwest corner of the Greenhill School property. The north end of the trail connector is also the location of the ‘Alphabet D’ cream colored metal sculpture.
8. **George W. Bush Elementary School** – Approximately 7.6 acres on the north side of Spring Valley Rd. and due north of Vitruvian Way bounded by the Dallas Independent School District Loos Athletic Complex to the west, the Oncor electrical transmission easement with the Redding Trail Connector to the east, Spring Valley Rd. right-of-way to the south, and the Les Lacs Linear Park Phase 3 Jogging Trail to the north.

LANDSCAPE MAINTENANCE -

VITRUVIAN WAY MEDIANS, VITRUVIAN DEVELOPMENT SAVOYE 1 STREETSCAPE AND PARK RD. RIGHT-OF-WAY AND PARKING LOT, VITRUVIAN DEVELOPMENT SAVOYE 2 STREETSCAPE, VITRUVIAN DEVELOPMENT FIORI STREETSCAPE AND RELATED AREAS, SPRING VALLY RD./LOOS RIGHT-OF-WAY, SPRING VALLEY RD. MEDIANS, REDDING TRAIL CONNECTOR, AND GEORGE W. BUSH ELEMENTARY SCHOOL

**LANDSCAPE AND IRRIGATION MAINTENANCE AND LANDSCAPE MANANGEMENT
FREQUENCY CHART**

GENERAL SITE MAINTENANCE**FREQUENCY PER YEAR**

A.	Trash, pet waste, leaf, acorn, debris removal *	Each visit
B.	Vitruvian Major Leaf/Acorn Removal	Min. 3 times per week during specified times
C.	All other locations Major Leaf Removal	Min. 1 per week during specified times
D.	Grounds Inspections	12
E.	Turf Aeration	All once during the growing season, except (3) times behind the elementary school

SHRUB. PERENNIAL AND GROUNDCOVER CARE**FREQUENCY PER YEAR**

A.	Weed/Insect control	Minimal weekly and as needed
B.	Ground cover control/edging	Monthly and as needed
C.	Pruning/Trimming	Monthly and as needed
D.	Mulch application	As needed to maintain 3" depth
E.	Fertilizer applications	3
F.	Pre-emergent	2

TREE CARE**FREQUENCY PER YEAR**

A.	Pruning: Clearance, suckers & water sprouts	As needed
B.	Pruning: Winter pruning	1 (December-January; possibly into February)
C.	Mulch application	As needed to maintain 3" depth
D.	Fertilizer applications	2
E.	Removal of dead or broken limbs	As needed

MOWING**FREQUENCY PER YEAR**

A.	Mowing, edging, line trimming	35
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IRRIGATION**FREQUENCY PER YEAR**

A.	Irrigation Inspections	12
B.	Irrigation Maintenance & Repair	As needed

* **Trash pickup and removal shall consist of emptying trash and placing new liners in trash receptacles on the trails, street corners, sidewalks, rest areas, plazas, rights-of-ways, and the school property during each visit as well as removing all litter within the confines of the landscaped areas of this contract.**

LANDSCAPE MANAGEMENT REPORT

(Required to be completed after each visit)

Drop form by Parks Dept., 16801 Westgrove, 2nd floor or Fax to 972/450-2834

Date: _____ Location _____ Inspected by: _____

General Site Maintenance

- Trash, Debris, Leaf, Acorn, and Pet Waste Removal _____
- Major Leaf/Acorn Removal _____
- Grounds Inspections _____

Shrub, Perennials & Groundcover Care

- Weed Control _____
- Pest Control _____
- Groundcover Control/Edging _____
- Pruning/Trimming _____
- Mulch Application _____
- Pre-Emergent _____

Tree Care

- Pruning: Clearance, Sucker & Water Sprouts _____
- Pruning: Winter Pruning _____
- Mulch Application _____
- Fertilizer Applications _____
- Dead/Broken Limb Removal _____

Mowing, Edging, Line Trimming

Aeration of Turf

Irrigation

- Head height adjustment _____
- Head/Riser - repair/replace _____
- Nozzles unclog/adjust/replace _____
- Adjust flow control devices on electric valves _____
- Replace damaged/missing valve box/covers _____
- Adjust controller settings/programs (coordinate with Town) _____
- Eliminate pests in controller cabinets _____
- Lateral line piping/fittings repair _____
- Mainline piping repair _____
- Valve repair/replace _____
- Station wiring repair _____

Additional Comments:

IRRIGATION REPORT

(Required to be submitted with 24 hours of inspection)

Drop form by Parks Dept., 16801 Westgrove, 2nd floor or Fax to 972/450-2834

Date: _____ Location: _____ Applicator: _____ TX Irrigator lic# _____

Duration in time: _____

Controller	Zone	Repairs/Problems/Comments	Controller Status (on, off, rain mode, etc.)

Repairs/replacement performed due to Contractor damage:

PESTICIDE/FERTILIZER APPLICATION REPORT

(Required to be submitted within 24 hours of pesticide or fertilizer application)

Drop form by Parks Dept., 16801 Westgrove, 2nd floor or Fax to 972/450-2834

Date: _____ Location: _____ Applicator: _____ SPCB# _____

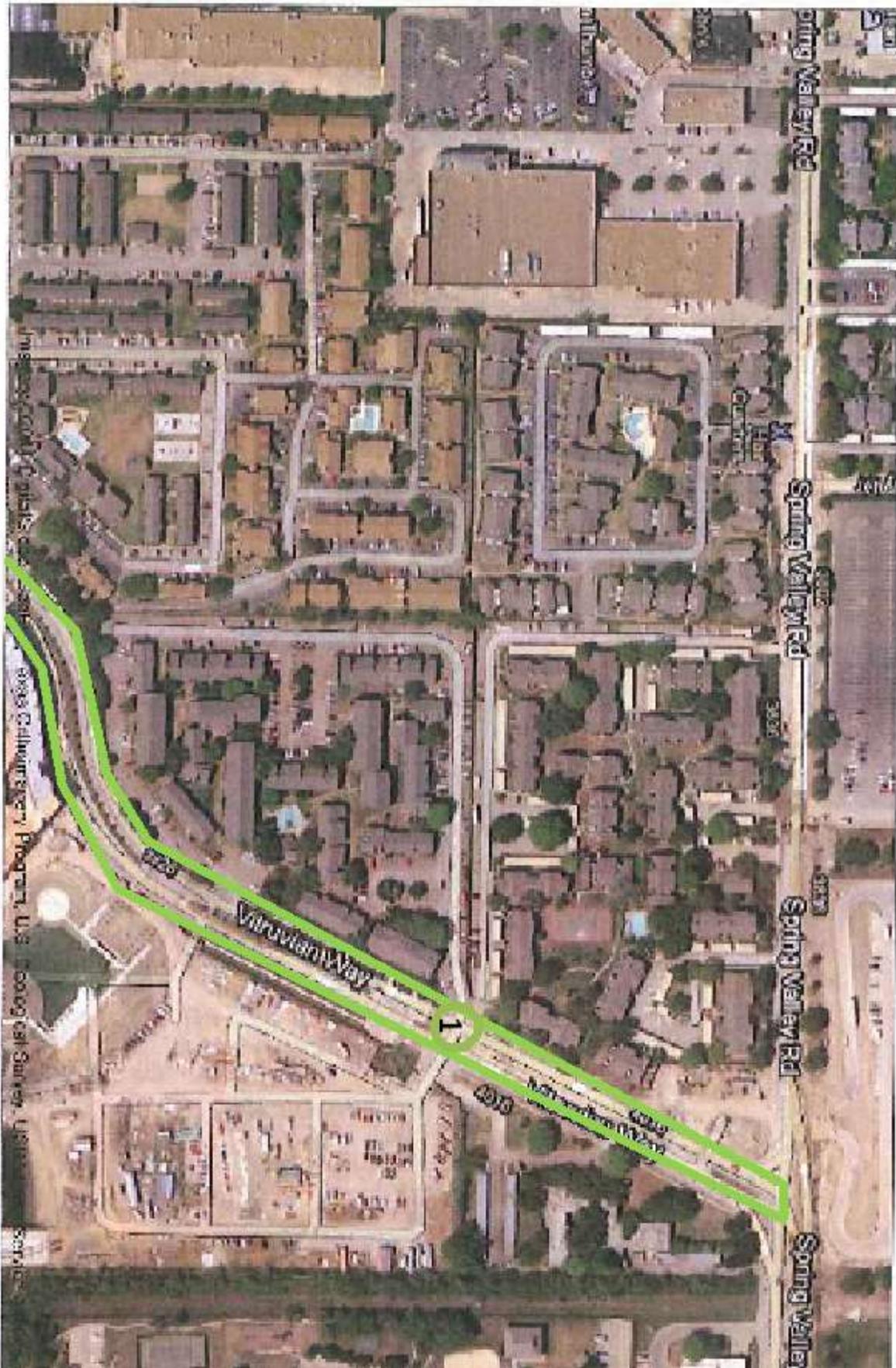
Weather conditions: _____

Exact time of application: _____

Chemical and dilution rates used: _____

Fertilizer: Ratio _____ # of lbs applied _____ % of completion _____

Comments:





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3. **Savoie 2 Streetscape** – Trees and plantings in the streetscape along the east side of Ponte Ave. and north of the bridge, and the south side of Vitruvian Way east of Ponte Ave. All these locations are on the west and north sides of the Vitruvian Development Savoie 2 building.
4. **Fiori Streetscape** – Trees and plantings in the streetscape along the north, south, and east sides of the Fiori building. Also included are the streetscape trees and plantings along the east side of Vitruvian Way from the Fiori building to the plaza at Spring Valley Rd. plus the trees, turf, and plantings on the east side of Bella Ln. from approximately the midpoint of the block wall to the Bella Ln. bridge and from south of the bridge to the water well housing with the aerial structure and the associated components.
5. **Spring Valley Rd./Loos Right-Of-Way** – Rights-of-way streetscape trees and turf along both the north and south sides of Spring Valley Rd. from the Redding Trail Extension to Woodway Dr. on the north side and from the fire station just east of Vitruvian Way to the shopping center on the south side. The plazas at the southeast and southwest corners of the intersection of Spring Valley Rd. and Vitruvian Way are to be included.
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8. **George W. Bush Elementary School** – Approximately 7.6 acres on the north side of Spring Valley Rd. and due north of Vitruvian Way bounded by the Dallas Independent School District Loos Athletic Complex to the west, the Oncor electrical transmission easement with the Redding Trail Connector to the east, the Spring Valley Rd. right-of-way to the south, and the Les Lacs Linear Park Phase 3 Jogging Trail to the north.

QUALIFICATION AND REFERENCE STATEMENT

BIDDER:

COMPANY INFORMATION:

Number of years in business?

Number of years at current location?

Do you maintain a permanent commercial business office?

Have you or any present partners or officers failed to complete a contract: If yes, give name of owner and/or surety?

Can you be reached 24 hours a day (in an emergency)?

Pager# Cell Phone#

Answer Svc# Other#

CUSTOMER REFERENCES

Please provide 3 to 5 users you have provided with this product or service. Use comparable projects and government entities, if any;

Company Name	Contact Name	Phone	Email
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Town of Addison
GENERAL TERMS AND CONDITIONS

By submitting an Offer in response to the Solicitation, the Contractor/Seller (hereafter called Seller) agrees the Contract/Purchase Order shall be governed by the following terms and conditions for goods and services.

1. Applicability: These General Terms and Conditions and the Terms and Conditions, Specifications, Drawings and other requirements included in the Town of Addison's Request for Bid (collectively, "Terms and Conditions") are applicable to Contracts/Purchase Orders issued by the Town of Addison (hereinafter referred to as the "Town" or "Buyer") and the Seller (hereinafter referred to as the "Seller"). Any deviations must be in writing and signed by a representative of the Town's Purchasing Department and the Seller. No terms and conditions contained in the Seller's Proposal, Invoice or Statement shall modify the Terms and Conditions. If there is a conflict between the Terms and Conditions and Seller's response to the Town's request for bids or proposals documents (including the provisions of the Seller's form of contract/purchase order), the Terms and Conditions will take precedence and control.
2. Official Solicitation Notification: The Town utilizes the following for official notifications of solicitation opportunities: www.bidsync.com and the Dallas Morning News of Dallas County. These are the only forms of notification authorized by the Town for notifications of solicitation opportunities. The Town is not responsible for receipt of notifications or information from any source other than those listed. It shall be the Seller's responsibility to verify the validity of all solicitation information received from any source other than the Town. There will be NO COST to the Seller for using BidSync to respond to Town of Addison solicitations.
3. Seller to Package Goods: Seller shall package goods in accordance with good commercial practice. Each shipping container, shall be clearly and permanently marked as follows: (a) Seller's name and address; (b) consignee's name, address and purchase order or purchase change order number; (c) container number and total number of containers, e.g., "box 1 of 4 boxes"; and (d) number of the container bearing the packing slip. Seller shall bear cost of packaging unless otherwise provided and agreed to in writing by Buyer. Goods shall be suitably packed to secure lowest transportation costs and to conform to requirements of common carriers and any applicable specifications. Town's count or weight shall be final and conclusive on shipments not accompanied by packing list. Unless otherwise stated in the Town's solicitation, all goods will be new, not used, rebuilt, reconditioned or recycled, will be in first class condition, and will be in containers suitable for site.
4. Shipment Under Reservation Prohibited: Seller is not authorized to ship the goods under reservation and no tender of a bill of lading will operate as a tender of goods.
5. Title and Risk of Loss: Title and risk of loss of the goods will not pass to the Town until the Town actually receives, takes possession of, and inspects and accepts the goods at the point or points of delivery.

6. Delivery Terms and Transportation Charges: Goods shall be shipped F.O.B. point of delivery; prices bid and quoted shall be F.O.B. point of delivery, and shall include all freight, delivery and packaging costs. Town shall have the right to designate what method of transportation shall be used to ship the goods. Town assumes and shall have no liability for goods damaged while in transit and or delivered in a damaged condition or that otherwise don't conform to the Terms and Conditions. Seller shall be responsible for and handle all claims with carriers, and in case of damaged or non-conforming goods shall ship replacement goods immediately upon notification by the Town of the same, and the Town may return such damaged or non-conforming goods at Seller's sole cost and expense, including costs and expense for freight, delivery, packaging, and shipping.

7. Right of Inspection and Rejection; Backorders: The Town shall have the right, and expressly reserves all rights under law, including, but not limited to the Uniform Commercial Code, to inspect the goods at delivery before accepting them, and to reject defective or non-conforming goods. Backorders delayed beyond a reasonable period of time, as determined by the Town Purchasing Manager, may be cancelled by the Town without liability of any kind whatsoever, and payment will not be made for such cancellations.

8. Acceptance of Incomplete or Non-Conforming Goods: If, instead of requiring immediate correction or removal and replacement of defective or non-conforming goods, Town prefers to accept such goods, Town may do so. Seller shall pay all claims, costs, losses and damages attributable to Town's evaluation of and determination to accept such defective or non-conforming deliverables. If any such acceptance occurs prior to final payment, Town may deduct such amounts as are necessary to compensate Town for the diminished value of the defective or non-conforming deliverables. If the acceptance occurs after final payment, such amount will be refunded to Town by Seller.

9. Substitution: Every delivery of goods by the Seller must comply with all provisions of this bid including the specifications, delivery schedule, quantity and quality, and the Terms and Conditions. Any delivery which does not conform to the Buyer's requirements shall constitute a breach of contract. Seller does not have authorization to make or tender substitute goods unless it is agreed to in writing by the Buyer and signed by an authorized representative of Buyer.

10. Payment:

(a) All proper invoices received by the Town will be paid within thirty (30) days of the Town's receipt and acceptance of the goods or of the invoice, whichever is later, unless other terms are specified on the face of the purchase order in the original printing. If payment is not timely made, interest shall accrue on the unpaid balance at the lesser of one percent per month or the maximum lawful rate; except, if payment is not timely made for a reason for which the Town may withhold payment hereunder, interest shall not accrue until ten (10) days after the grounds for withholding payment have been resolved.

(b) If partial shipments or deliveries are authorized by the Town, Seller will be paid for the partial shipment or delivery, as stated above, provided that the invoice matches the shipment or delivery.

(c) The Town may withhold or set off the entire payment or part of any payment otherwise due Seller to such extent as may be necessary on account of: (i) delivery of defective or non-conforming goods by Seller, or (ii) failure of the Seller to submit proper invoices with all required attachments and supporting documentation, or (iii) failure of Seller to deliver quantity of goods ordered (payment will be made for actual quantities delivered).

(d) The Town's payment obligations are payable only and solely from funds appropriated, budgeted, and available for the purpose of this purchase. The absence of appropriated and budgeted or other lawfully available funds shall render the Contract/Purchase Order null and void to the extent funds are not appropriated and budgeted or available and any goods delivered but unpaid shall be returned to Seller. The Town shall provide the Seller written notice of the failure of the Town to make an adequate appropriation and budget for any fiscal year to pay the amounts due under the Contract/Purchase Order, or the reduction of any appropriation to an amount insufficient to permit the Town to pay its obligations under the Contract/Purchase Order.

11. Invoicing: Send ORIGINAL INVOICE to address indicated on the purchase order. If invoice is subject to cash discounts the discount period will begin on the day invoices are received. So that proper cash discount may be computed, invoice should show amount of freight as a separate item, if applicable; otherwise, cash discount will be computed on total amount of invoice.

12. Taxes - Exemption: All quotations are required to be submitted LESS Federal Excise and State Sales Taxes. Tax Exemption Certificate will be provided by the Town for the successful Seller

13. Warranty - Price:

(a) Seller warrants the prices quoted in its bid are no higher than Seller's current prices on orders by others for like goods under similar terms of purchase.

(b) Seller certifies that the prices in Seller's bid have been arrived at independently without consultation, communication, or agreement for the purpose of restricting competition, as to any matter relating to such fees with any other firm or with any competitor.

(c) In the event of any breach of this warranty, the prices of the items will be reduced to Seller's current prices on orders by others, or in the alternative, the Town may cancel this Contract/Purchase Order without liability to Seller of any kind whatsoever. In addition to any other remedy available, the Town may deduct from any amounts owed to Seller, or otherwise recover, any amounts paid for items in excess of Seller's current prices on orders by others for like goods under similar terms of purchase.

14. Warranty – Title: Without limiting any provision of law, Seller warrants that it has good and indefeasible title to all goods furnished hereunder, and that the goods are free and clear of all liens, claims, security interests and encumbrances. **Seller shall indemnify and hold the Town harmless from and against all adverse title claims to the goods.**

15. Warranty (goods): If goods are sold and furnished to Seller in connection with these Terms and Conditions, Seller represents and warrants that the goods sold and furnished to the Town will be (i) free from defects in design, manufacture, materials and workmanship, (ii) be of merchantable quality and fit for ordinary use, (iii) be in full conformance with Buyer's specifications, drawings and data, with Seller's samples or models furnished in connection herewith, with Seller's express warranties, and with the terms and conditions of the Town's solicitation, and (iv) conform to all applicable Federal, State, and local laws, ordinances, rules, regulations, codes, and to all applicable standards and industry codes and standards. These warranties are in addition to all others given to the Buyer by the Seller or by law. Seller shall not limit, disclaim, or exclude these warranties or any implied warranties, and any attempt to do so shall render this Contract/Purchase Order voidable at the option of the Buyer, and any such limitations, disclaim, or exclusions shall be void and without force or effect.

Unless otherwise specified in a Contract/Purchase Order and approved by the Town in writing, the warranty period shall be at least one year from the date of acceptance of the goods or from the date of acceptance of any replacement goods. If during the warranty period, one or more of the above warranties are breached, Seller shall promptly upon receipt of demand either repair the defective or non-conforming goods, or replace the non-conforming or defective goods with fully conforming and non-defective goods, at the Town's option and at no additional cost to the Town. All costs incidental to such repair or replacement, including but not limited to, any packaging and shipping costs, shall be borne exclusively by Seller. The Town shall endeavor to give Seller written notice of the breach of warranty within thirty (30) days of discovery of the breach of warranty, but failure to give timely notice shall not impair the Town's rights hereunder.

If Seller is unable or unwilling to repair or replace defective or non-conforming goods as required by Town, then in addition to any other available remedy, Town may reduce the quantity of goods it may be required to purchase under the Contract/Purchase Order from Seller, and purchase conforming goods from other sources. In such event, Seller shall pay to Town upon demand the increased cost, if any, incurred by the Town to procure such goods from another source.

If Seller is not the manufacturer, and the goods are covered by a separate manufacturer's warranty, Seller shall transfer and assign such manufacturer's warranty to Town. If for any reason the manufacturer's warranty cannot be fully transferred to Town, Seller shall assist and cooperate with Town to the fullest extent to enforce such manufacturer's warranty for the benefit of Town.

16. Warranty (services): If services are provided to Seller in connection with these Terms and Conditions, Seller represents and warrants that all services to be provided to the Town will be fully and timely performed in a good and workmanlike manner in accordance with generally accepted industry standards and practices, the terms, conditions, and covenants of this Contract/Purchase Order, and all applicable Federal, State and local laws, ordinances, rules, regulations and codes. These warranties are in addition to all others given to the Buyer by the Seller or by law. Seller shall not limit, disclaim, or exclude these warranties or any implied warranties, and any attempt to

do so shall render this Contract/Purchase Order voidable at the option of the buyer, and any such limitations, disclaim, or exclusions shall be void and without force or effect.

Unless otherwise specified in the Contract/Purchase Order, the warranty period shall be at least one year from the date of final acceptance of the services by the Town. If during the warranty period, one or more of the above warranties are breached, Seller shall promptly upon receipt of demand perform the services again in accordance with above standard at no additional cost to the Town. All costs incidental to such additional performance shall be borne by the Seller. The Town shall endeavor to give the Seller written notice of the breach of warranty within thirty (30) calendar days of discovery of the breach warranty, but failure to give timely notice shall not impair the Town's rights under this section.

If the Seller is unable or unwilling to perform its services in accordance with the above standard as required by the Town, then in addition to any other available remedy, the Town may reduce the amount of services it may be required to purchase under the Contract/Purchase Order from the Seller, and purchase conforming services from other sources. In such event, the Seller shall pay to the Town upon demand the increased cost, if any, incurred by the City to procure such services from another source.

17. Right to Assurance: Whenever one party to the Contract/Purchase Order in good faith has reason to question the other party's intent to perform, demand may be made to the other party for written assurance of the intent to perform. In the event that no assurance is given within the time specified after demand is made, the demanding party may treat this failure as an anticipatory repudiation of this Contract/Purchase Order.

18. Default: Seller shall be in default under this Contract/Purchase Order if Seller (a) fails to fully, timely and faithfully perform any of its material obligations under this Contract/Purchase Order (whether or not an obligation is "material" shall be determined by the Town), (b) fails to provide adequate assurance of performance as provided for herein, (c) becomes insolvent or seeks relief under the bankruptcy laws of the United States, or (d) makes a material misrepresentation in Seller's offer or response to Buyer's solicitation, or in any report or deliverable required to be submitted by Seller to the Town.

19. Termination for Cause or Convenience: The Town, at any time, by 30 days written notice to the Seller, has the absolute right to terminate this Contract/Purchase Order, in whole or in part, for cause or for convenience (that is, for any reason or for no reason whatsoever). "Cause" means the Seller's refusal or failure to perform or complete its obligations under this Contract/Purchase Order within the time specified and to the Town's satisfaction, or failure to meet the specifications, quantities, quality and/or other requirements specified in the Contract/Purchase Order. If the Town terminates this Contract/Purchase Order for cause, the Seller shall be liable for any damages suffered by the Town. If the agreement is terminated for convenience, the Seller has no further obligation under this Contract/Purchase Order. Upon receipt of a notice of termination, Seller shall promptly cease all further work pursuant to the Contract/Purchase Order, with such exceptions, if any, specified in the notice of termination. Payment shall be made to cover the cost of goods delivered and services performed and obligations incurred prior to the date of termination in accordance with the terms hereof.

20. Delay: Town may delay scheduled delivery or other due dates by written notice to Seller if the Town deems it is in its best interest. If such delay causes an increase in the cost of the work under the Contract/Purchase Order, the Town and the Seller shall negotiate an equitable adjustment for costs incurred by Seller in the Contract/Purchase Order price and execute an amendment to the Contract/Purchase Order. Seller must assert its right to an adjustment within thirty (30) days from the date of receipt of the notice of delay. Failure to agree on any adjusted price shall be handled under the Dispute Resolution process specified herein. However, nothing in this provision shall excuse Seller from delaying the delivery as notified. For purposes of these Terms and Conditions, "days" means calendar days.

21. **SELLER'S INDEMNITY OBLIGATION; INSURANCE**: See attached Town of Addison minimum requirements.

22. Gratuity: Town may, by written notice to Seller, cancel this Contract/Purchase Order without liability to Town if it is determined by Town that any gratuity, in the form of entertainment, gifts, or otherwise, was offered or given by Seller, or any officer, employee, agent or representative of Seller, to any officer, employee, or representative of Town with a view toward securing a contract or securing favorable treatment with regard to the awarding or amending, or the making or any determinations with respect to the performance of, a contract. In the event this Contract/Purchase Order is canceled by the Town pursuant to this provision, the Town shall be entitled, in addition to any other rights and remedies, to recover or withhold the amount of the cost incurred by the Seller in providing such gratuities.

23. Notices: Unless otherwise specified, all notices, requests, or other communications required or appropriate to be given under this Contract/Purchase Order shall be in writing and shall be deemed delivered upon being hand-delivered or upon three (3) business days after postmarked if sent by U.S. Postal Service certified or registered mail, return receipt requested. Notices to Seller shall be sent to the address as specified by Seller. Notices to the Town shall be addressed to Town at 5300 Belt Line Road, Dallas, Texas 75254 and marked to the attention of the Town Finance Director.

24. No Warranty By Town Against Infringement: Seller represents and warrants to the Town that: (i) Seller shall provide the Town good and indefeasible title to all goods being sold and/or supplied to the Town, and (ii) such goods in accordance with the specifications in this Contract/Purchase Order will not infringe, directly or indirectly, any patent, trademark, copyright, trade secret, or any other intellectual property right of any kind of any third party; that no claims have been made by any person or entity with respect to the ownership or operation of such goods and the Seller does not know of any valid basis for any such claims. The Town's specifications regarding the goods shall in no way diminish Seller's warranties or obligations under this paragraph, and the Town makes no warranty that the production, development, or delivery of goods according to the specifications will not give rise to such a claim or will not will not impact such warranties of Seller, and in no event will Town be liable to Seller, its officers, employees, or agents (together, "Seller Parties") for indemnification or otherwise if Seller Parties or any of them is sued on the grounds of infringement or the like. If Seller is of the opinion that an infringement or the like will or may result, Seller shall promptly notify Town of that opinion. If Seller in good

faith ascertains, prior to production of the goods, that production of the goods according to the specifications will result in infringement or the like, this Contract/Purchase Order will be null and void, and neither Town nor Seller shall have any liability one to the other.

25. Assignment and Successors: The successful Seller shall not assign, transfer, pledge, subcontract, or otherwise convey (collectively, “assign” or “assignment”), in any manner whatsoever, any rights, duties, obligations, or responsibilities of Seller under or in connection with this Contract/Purchase Order, in whole or in part, without the prior written consent of the Town of Addison (and any such assignment without the prior written consent of the Town shall be null and void). Any person or entity to whom Seller assigns any right, duty or obligation shall, as a condition of such assignment, agree to comply with and abide by all provisions of this Contract/Purchase Order, and Seller shall promptly give the Town a true and correct copy of such agreement.

This Contract/Purchase Order shall be binding upon and inure to the benefit of the City and the Seller and their respective successors and authorized assigns, provided however, that no right or interest in the Contract/Purchase Order shall be assigned and no obligation shall be delegated by the Contractor without the prior written consent of the City. This Contract/Purchase Order does not and is not intended to confer rights or benefits on any person, firm or entity not a party hereto; it being the intention of the parties that there be no third party beneficiaries to this Contract/Purchase Order.

26. Waiver; Rights, Remedies: All waivers must be in writing and signed by the waiving party. The rights or remedies under this Agreement are cumulative to any other rights or remedies, which may be granted by law.

27. Modifications: This contract can be modified or amended only by a writing signed by both parties. No pre-printed or similar terms on any Seller invoice, order or other document shall have any force or effect to change the terms, covenants, and conditions of this Contract/Purchase Order.

28. Independent Contractor: Seller shall operate hereunder as an independent contractor and not as an officer, agent, servant or employee of the Town. Seller shall have exclusive control of, and the exclusive right to control, the details of its operations hereunder, and all persons performing same, and shall be solely responsible for the acts and omissions of its officers, agents, employees, contractors, subcontractors and consultants.

29. Interpretation: This Contract/Purchase Order is intended by the parties as a final, complete and exclusive statement of the terms of their agreement. No course of prior dealing between the parties or course of performance or usage of the trade shall be relevant to supplement or explain any term used in this Contract/Purchase Order. Although the Contract/Purchase Order may have been substantially drafted by one party, it is the intent of the parties that all provisions be construed in a manner to be fair to both parties, reading no provisions more strictly against one party or the other. Whenever a term defined by the Uniform Commercial Code, as enacted by the State of Texas, is used in this contract, the UCC definition shall control, unless otherwise defined in this Contract/Purchase Order.

30. Competitive Pricing: It is the intent of the Town to consider Interlocal Cooperative Agreements and State/Federal contracts in determining the best value for the Town.
31. Interlocal Agreement: Successful bidder (Seller) agrees to extend prices for the goods and/or services to be provided by Seller described in this Contract/Purchase Order to all entities that have entered into or will enter into joint purchasing interlocal cooperation agreements with the Town. The Town is a participating member of several interlocal cooperative purchasing agreements. As such, the Town has executed interlocal agreements, as permitted by law, including under Chapter 791 of the Texas Government Code, with certain other political subdivisions, authorizing participation in a cooperative purchasing program. The successful bidder (Seller) may be asked by the Town to provide products/services based upon the bid price to any other participant to a cooperative purchasing agreement, and the Seller agrees to do so (such provision will be pursuant to an agreement between Seller and such other participant, and the Town will have no liability or responsibility in connection therewith).
32. Right to Audit: The city shall have the right to examine and audit after reasonable notice any and all books and records, in any form or format whatsoever (including electronic), of Seller that may relate to this Contract/Purchase Order including, without limitation, the performance of Seller, its employees, agents, and subcontractors. Such books and records will be maintained in accordance with generally accepted accounting principles and shall, upon request and at the Town's request, be made available at a location designated by the Town. Seller shall, except for copying costs, otherwise bear all costs of producing such records for examination and copying by the Town. Unless otherwise agreed by the Town, such books and records must be made available to the Town within five business days after the Seller's receipt of a written notice from the Town requesting the same. The provisions of this paragraph shall survive the termination of this agreement. Seller shall retain all such books and records for a period of three (3) years after final payment on this Contract/Purchase Order or until all audit and litigation matters that the Town has brought to the attention of the Seller are resolved, whichever is longer. The Seller agrees to refund to the Town any overpayments disclosed by any such audit. The Seller shall include a similar audit right on behalf of the Town in all subcontractor agreements entered into in connection with this Contract/Purchase Order.
33. Correspondence: The Bid number must appear on all correspondence and inquiries pertaining to the Request for Bid or to quotes. The Purchase Order number must appear on all invoices or other correspondence relating to the Contract/Purchase Order.
34. Easement Permission: The contractor shall not enter or use private property except as allowed by easements shown on the contract documents or if the contractor obtains specific written permission from the property owner.
35. Alternates - Samples: If bidding on other than the item solicited by the Town, Seller's bid must identify the item's Trade Name, Manufacturer's Name and/or Catalog Number, and certify the item offered is equivalent to the item solicited by the Town. Descriptive literature must be submitted with alternate brands. Samples shall be furnished free of expense to the Town and if requested, may be returned at bidder's expense.

36. Error - Quantity: Bids must be submitted in units of quantity specified, extended, and totaled. In the event of discrepancies in extension, the unit prices shall govern.
37. Acceptance: The right is reserved to the Town to accept or reject all or part of the bid, and to accept the offer considered most advantageous to the Town by line item or total bid.
38. Term Contracts: Except as otherwise provided herein, prices must remain firm for the entire Contract/Purchase Order period, including any periods of extension or renewal. At the time of any renewal or extension of the Contract/Purchase Order, the Town or the Seller may request a price adjustment based upon the economy. All requests for a price adjustment must include detailed documentation and rationale to support the requested adjustment. The party to whom a request for price adjustment is made may, in its sole discretion, accept or reject the request. Any price adjustment must be mutually agreed upon in writing by the parties, and shall be effective for the applicable renewal term.
39. Term Contract Quantities: The quantities (if any) in the request for bid are estimated requirements and the Town reserves the right to increase or decrease the quantities or cancel any item to be furnished. The successful bidder (Seller) shall have no claim against the Town for anticipated profits for quantities diminished or deleted.
40. Term Contract Shipments: The Seller will make shipments under this Contract/Purchase Order only when requested and only in the quantities requested. Seller shall comply with minimum shipments or standard packaging requirements (if any) included in the Contract/Purchase Order.
41. Contract Renewal Options: In the event a clause for option to renew for an additional period is included in the request for bid, all renewals will be based solely upon the option and agreement between the Town and the Seller. Either party dissenting will terminate the Contract/Purchase Order in accordance with its initial specified term.
42. Electronic Signature – Uniform Electronic Transactions Act: The Town adopts Texas Business and Commerce Code Chapter 322, Uniform Electronic Transactions Act, allowing individuals, companies, and governmental entities to lawfully use and rely on electronic signatures.
43. Funding Out Clause: This Contract/Purchase Order may be terminated by the Town without notice and without penalty or liability in the event that (1) the Town lacks sufficient funds for this Contract/Purchase Order; (2) funds for this Contract/Purchase Order are not appropriated and/or budgeted by the City Council of the Town; and (3) funds for this Contract/Purchase Order that are or were to be provided by grant or through a third party are withheld, denied or are otherwise not available to the Town.
44. Dispute Resolution: Pursuant to subchapter I, Chapter 271, Texas Local Government Code, Seller agrees that, prior to instituting any lawsuit or other proceeding arising from any dispute or claim of breach under this Contract/Purchase Order (a “Claim”), the parties will first attempt to resolve the Claim by taking the following steps: (i) A written notice substantially describing the factual and legal basis of the Claim shall be delivered by the Seller to the Town within one-hundred eighty (180) days after the date of the event giving rise to the Claim, which notice shall request a

written response to be delivered to the Seller not less than fourteen (14) business days after receipt of the notice of Claim; (ii) if the response does not resolve the Claim, in the opinion of the Seller, the Seller shall give notice to that effect to the Town whereupon each party shall appoint a person having authority over the activities of the respective parties who shall promptly meet, in person, in a effort to resolve the Claim; (iii) if those persons cannot or do not resolve the Claim, then the parties shall each appoint a person from the highest tier of managerial responsibility within each respective party, who shall then promptly meet, in person, in an effort to resolve the Claim.

45. Disclosure of Certain Relationships: Chapter 176 of the Texas Local Government Code requires that any person, as defined in the statute, considering doing business with a local government entity disclose in the Questionnaire Form CIQ, the person's affiliation or business relationship that might cause a conflict of interest with a local government entity. By law, this questionnaire must be filed with the Records Administrator of the Town not later than the 7th business day after the later of (a) the date the person (i) begins discussions or negotiations to enter into a contract with the local governmental entity, or (b) submits to the local governmental entity an application, response to a request for proposals or bids, correspondence, or another writing related to a potential contract with the local governmental entity, or (b) the date the person becomes aware (i) of an employment or other business relationship with a local government officer, or a family member of the officer, described by the statute, or (ii) that the person has given one or more gifts described in the statute. See Section 176.006, Local Government Code. A person commits an offense if the person knowingly violates Section 176.006, Local Government Code. An offense under this section is a Class C misdemeanor. The questionnaire may be found at www.ethics.state.tx.us/forms/CIQ.pdf By submitting a response to this request, Seller represents that it is in compliance with the requirements of Chapter 176 of the Texas Local Government Code.

46. Force Majeure: To the extent either the Town or Seller shall be wholly or partially prevented or delayed from the performance of this Contract/Purchase Order or of any obligation or duty under this Contract/Purchase Order placed on such party, by reason of or through work strikes, stoppage of labor, riot, fire, flood, acts of war, insurrection, court judgment, act of God, or other specific cause reasonably beyond the party's control and not attributable to its malfeasance, neglect or nonfeasance, then in such event, such party shall give notice of the same to the other party (specifying the reason for the prevention) and the time for performance of such obligation or duty shall be suspended until such disability to perform is removed.

47. BAFO: During evaluation process Town reserves the right to request a best and final offer upon completion of negotiations.

48. Silence of Specifications: The apparent silence of these specifications as to any detail or to the apparent omission from it of a detailed description concerning any point, shall be regarded as meaning that only the best commercial practices are to prevail. All interpretations of these specifications shall be made on the basis of this statement.

49. Applicable Law: This agreement shall be governed by the laws of the State of Texas, including, when applicable, the Uniform Commercial Code as adopted by the State of Texas (excluding any rule or principle that would refer to and apply the substantive law of another state or jurisdiction), as effective and in force on the date of this Contract/Purchase Order, without regard

to its conflict of laws rules or the conflict of law rules of any other jurisdiction. The foregoing, however, shall not be construed or interpreted to limit or restrict the right or ability of the City to seek and secure injunctive or any other relief from any competent authority as contemplated herein.

50. Venue: This Contract/Purchase Order is performable in Dallas County, Texas, and venue for any suit, action, or legal proceeding under or in connection with this Contract/Purchase Order shall lie exclusively in Dallas County, Texas. Seller submits to the exclusive jurisdiction of the courts in Dallas County, Texas for purposes of any such suit, action, or proceeding hereunder, and waives any claim that any such suit, action, or legal proceeding has been brought in an inconvenient forum or that the venue of that proceeding is improper.

51. Cost of Response: Any cost incurred by the Seller in responding to the Request for Proposal is the responsibility of the Seller and cannot be charged to the Town.

52. Prohibition Against Personal Interest in Contracts: No Town of Addison officer or employee shall have a direct or indirect financial interest in any contract with the Town, or be directly or indirectly financially interested in the sale of land, materials, supplies or services to the Town.

53. Prior or Pending Litigation or Lawsuits: Each Seller must include in its proposal a complete disclosure of any alleged significant prior or ongoing contract failures, any civil or criminal litigation or investigation pending which involves the Seller or in which the Seller has been judged guilty or liable.

54. Severability: The invalidity, illegality, or unenforceability of any provision of this Contract/Purchase Order shall in no way affect the validity or enforceability of any other portion or provision of this Contract/Purchase Order. Any void or invalid provision shall be deemed severed from this Contract/Purchase Order and the balance of the Contract/Purchase Order shall be construed and enforced as if the Contract/Purchase Order did not contain the particular portion or provision held to be void. The parties further agree to reform the Contract/Purchase Order to replace any stricken provision with a valid provision that comes as close as possible to the intent of the stricken provision. The provisions of this section shall not prevent this entire Contract/Purchase Order from being void should a provision which is the essence of the Contract/Purchase Order be determined to be void.

55. Headings; "Includes": The headings of this Contract/Purchase Order are for convenience of reference only and shall not affect in any manner any of the terms and conditions hereof. The words "includes" and "including" are terms of enlargement and not of limitation or exclusive enumeration, and use of the terms does not create a presumption that components not expressed are excluded.

56. Conflict: When there is a conflict between the this purchase order (including, without limitation, these Terms and Conditions) and the Seller's invoice, this purchase order shall prevail.

57. Response Contractual Obligation; Waiver: This response, submitted documents, and any negotiations, when properly accepted by the Town, shall constitute a contract equally binding

between the successful Seller and the Town. No different or additional terms will become part of this Contract/Purchase Order except as properly executed in an addendum or change order. **By submitting a bid, Seller waives any claim it has or may have against the Town, its officials, officers, employees, and agents, arising out of or in connection with the administration, evaluation, or recommendation of any bid, acceptance or rejection of any bid, and the award of a contract.**

58. No Waiver of Immunity. Notwithstanding any other of this Contract/Purchase Order, nothing in this Contract/Purchase Order shall or may be deemed to be, or shall or may be construed to be, a waiver or relinquishment of any immunity, defense, or tort limitation to which the Town, its officials, officers, employees, representatives, and agents are or may be entitled, including, without limitation, any waiver of immunity to suit.

59. No Boycotting Israel. The entity contract with the Town of Addison does not boycott Israel and will not boycott Israel during the term of the contract. Reference HB 89 as it relates to Chapter 2270 of the Texas Government Code. Boycott Israel means refusing to deal with, terminating business activities with, or otherwise taking any action that is intended to penalize, inflict economic harm on, or limit commercial relations specifically with Israel or with a person or entity doing business in Israel or in an Israeli-controlled territory, but does not include an action made for ordinary business purposes.

TOWN OF ADDISON, TEXAS
CONTRACTOR INSURANCE REQUIREMENTS & AGREEMENT

REQUIREMENTS

Contractors performing work on TOWN OF ADDISON property or public right-of-way shall provide the TOWN OF ADDISON a certificate of insurance or a copy of their insurance policy(s) (and including a copy of the endorsements necessary to meet the requirements and instructions contained herein) evidencing the coverages and coverage provisions identified herein within ten (10) days of request from TOWN OF ADDISON. Contractors shall provide TOWN OF ADDISON evidence that all subcontractors performing work on the project have the same types and amounts of coverages as required herein or that the subcontractors are included under the contractor's policy. Work shall not commence until insurance has been approved by TOWN OF ADDISON.

All insurance companies and coverages must be authorized by the Texas Department of Insurance to transact business in the State of Texas and must have a A.M. Best's rating A-:VII or greater.

Listed below are the types and minimum amounts of insurances required and which must be maintained during the term of the contract. TOWN OF ADDISON reserves the right to amend or require additional types and amounts of coverages or provisions depending on the nature of the work.

TYPE OF INSURANCE	AMOUNT OF INSURANCE	PROVISIONS
1. Workers' Compensation Employers' Liability to include: (a) each accident (b) Disease Policy Limits (c) Disease each employee	Statutory Limits per occurrence Each accident \$1,000,000 Disease Policy Limits \$1,000,000 Disease each employee \$1,000,000	TOWN OF ADDISON to be provided a <u>WAIVER OF SUBROGATION AND 30 DAY NOTICE OF CANCELLATION</u> or material change in coverage. Insurance company must be A-:VII rated or above.
2. Commercial General (Public) Liability to include coverage for: a) Bodily Injury b) Property damage c) Independent Contractors d) Personal Injury e) Contractual Liability	Bodily Injury/Property Damage per occurrence \$1,000,000, General Aggregate \$2,000,000 Products/Completed Aggregate \$2,000,000, Personal Advertising Injury per occurrence \$1,000,000, , Medical Expense 5,000	<u>TOWN OF ADDISON to be listed as ADDITIONAL INSURED and provided 30 DAY NOTICE OF CANCELLATION</u> or material change in coverage. Insurance company must be A-:VII rated or above.
3. Business Auto Liability to include coverage for: a) Owned/Leased vehicles b) Non-owned vehicles c) Hired vehicles	Combined Single Limit \$1,000,000	<u>TOWN OF ADDISON to be listed as ADDITIONAL INSURED and provided 30 DAY NOTICE OF CANCELLATION</u> or material change in coverage. Insurance company must be A:VII-rated or above.

Certificate of Liability Insurance forms (together with the endorsements necessary to meet the requirements and instructions contained herein) may be **faxed** to the Purchasing Department: **972-**

450-7074 or emailed to: purchasing@addisontx.gov. Questions regarding required insurance should be directed to the Purchasing Manager.

With respect to the foregoing insurance,

1. All liability policies shall contain no cross liability exclusions or insured versus insured restrictions applicable to the claims of the Town of Addison.
2. All insurance policies shall be endorsed to require the insurer to immediately notify the Town of Addison, Texas of any material change in the insurance coverage.
3. All insurance policies shall be endorsed to the effect that the Town of Addison, Texas will receive at least thirty (30) days' notice prior to cancellation or non-renewal of the insurance.
4. All insurance policies, which name the Town of Addison, Texas as an additional insured, must be endorsed to read as primary coverage regardless of the application of other insurance.
5. Insurance must be purchased from insurers that are financially acceptable to the Town of Addison and licensed to do business in the State of Texas.

All insurance must be written on forms filed with and approved by the Texas Department of Insurance. Upon request, Contractor shall furnish the Town of Addison with complete copies of all insurance policies certified to be true and correct by the insurance carrier.

This form must be signed and returned with your quotation. You are stating that you do have the required insurance and if selected to perform work for TOWN OF ADDISON, will provide the certificates of insurance (and endorsements) with the above requirements to TOWN OF ADDISON within 10 working days.

A CONTRACT/PURCHASE ORDER WILL NOT BE ISSUED WITHOUT EVIDENCE AND APPROVAL OF INSURANCE.

AGREEMENT

I agree to provide the above described insurance coverages within 10 working days if selected to perform work for TOWN OF ADDISON. I also agree to require any subcontractor(s) to 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.

Project/Bid#

Company:

Printed Name:

Signature: **Date:**

Information and Instruction Form

RESPONSES THAT DO NOT CONTAIN THIS COMPLETED FORM MAY NOT BE COMPLIANT

Section I Company Profile

Name of Business:

Business Address:

Contact Name:

Phone#:

Fax#:

Email:

Name(s) Title of Authorized Company Officers:

Federal ID #:

W-9 Form: A W-9 form will be required from the successful bidder.

DUN #:

Remit Address: If different than your physical address:

Section II Instructions to Bidders

Electronic Bids: The Town of Addison uses BidSync to distribute and receive bids and proposals. There will be **NO COST** to the Contractor/Supplier for Standard bids or proposals. For **Cooperative Bids and Reverse Auctions ONLY**, the successful contractor/supplier agrees to pay BidSync a transaction fee of one percent (1%) of the total amount of all contracts for goods and/or services. **Cooperative Bids and Reverse Auctions** will be clearly marked on the bid documents. To assure that all contractors/suppliers are treated fairly, the fee will be payable whether the bid/proposal is submitted electronically, or by paper means. Refer to www.bidsync.com for further information.

Contractor/Supplier Responsibility: It is the contractor/suppliers responsibility to check for any addenda or questions and answers that might have been issued before bid closing date and time. Contractors/Suppliers will be notified of any addenda and Q&A if they are on the invited list, they view the bid, or add themselves to the watch list.

Acknowledgement of Addenda: #1 #2 #3 #4 #5

Delivery of Bids: For delivery of paper bids our physical address is:

Town of Addison

5350 Beltline Road

Addison, TX 75001

Attn: Purchasing Department

Contractor/Supplier Employees: No Contractor/Supplier employee shall have a direct or indirect financial interest in any contract with the town, or be directly or indirectly financially interested in the sale of land, materials, supplies or services to the town.

Deliveries: All deliveries will be F.O.B. Town of Addison. All Transportation Charges paid by the contractor/supplier to Destination.

Payment Terms: A Prompt Payment Discount of % is offered for Payment Made Within Days of Acceptance of Goods or Services. If Prompt Payments are not offered or accepted, payments shall be made 30 days after receipt and acceptance of goods or services or after the date of receipt of the invoice whichever is later.

Delivery Dates: Delivery Dates are to be specified in Calendar Days from the Date of Order.

Bid Prices: Pre-Award bid prices shall remain Firm and Irrevocable for a Period of Days.

Exceptions: Contractor/Supplier does not take Exception to Bid Specifications or Other Requirements of this Solicitation. If neither exceptions box is checked, default shall be "No Exceptions"

Contractor/Supplier take the following Exception(s) to the Bid Specifications or Other Requirements of this Solicitation (Explain in Detail). If box checked but no exceptions are listed, default shall be "No Exceptions"

Historically Underutilized Business (HUB): It is the policy of the Town of Addison to involve HUBs in the procurement of goods, equipment, services and construction projects. Prime Contractors/Suppliers are encouraged to provide HUBs the opportunity to compete for sub-contracting and other procurement opportunities. A listing of HUBs in this area may be accessed at the following State of Texas Website.

<http://www.window.state.tx.us/procurement/cmb1/cmb1hub.html>.

HUB Owned Business Yes No Include a current copy of your HUB certification with your response or insert

Certification number and expire date

Other Government Entities: Would bidder be willing to allow other local governmental entities to participate in this contract, if awarded under the same Terms and Conditions? Yes No

Bid Bond: Is Bid Bond attached if applicable? Yes No

Termination: The town at any time after issuance of this agreement, by 30 days written notice, has the absolute right to terminate this agreement for cause or convenience. Cause shall be the contractor/supplier's refusal or failure to satisfactorily perform or complete the work within the time specified, or failure to meet the specifications, quantities, quality and/or other requirements specified in the contract/purchase order. In such case the supplier shall be liable for any damages suffered by the town. If the agreement is terminated for convenience, the supplier has no further obligation under the agreement. Payment shall be made to cover the cost of material and work in process or "consigned" to the town as of the effective date of the termination.

Bidder Compliance: Bidder agrees to comply with all conditions contained in this Information and Instruction Form and the additional terms and conditions and specifications included in this request. The undersigned hereby agrees to furnish and deliver the articles or services as specified at the prices and terms herein stated and in strict accordance with the specifications and conditions, all of which are made a part of your offer. Your offer is not subject to withdrawal after the award is made.

The Town of Addison reserves the right to reject all or part of the offer and to accept the offer considered most advantageous to the town by item or total bid.

The Town of Addison will award to the lowest responsible bidder or to the bidder who provides goods or services at the best value for the Town.

I hereby certify that all of the information provided in sections I and II are true and accurate to the best of my knowledge.

Signature: Date:

Title:

Signature certifies no changes have been made to the content of this solicitation as provided by the Town of Addison.

10/17/17

Question and Answers for Bid #1710-002 - Vitruvian Landscape Maintenance

Overall Bid Questions

There are no questions associated with this bid.

Work Session and Regular Meeting**Meeting Date:** 04/24/2018**Department:** City Manager

AGENDA CAPTION:

Present, Discuss, and Consider Action on a **Resolution to Ratify the Agreement to Settle the Lawsuit between the Town of Addison and Landmark Structures I, L.P., Urban Green Energy, and Freese and Nichols, Inc.**

BACKGROUND:

In February 2012 Landmark Structures installed a wind energy system on the Surveyor Water Tower at 4000 Arapaho Road. The goal of the system was not only to generate enough wind energy to power the water tower learning center and some street lights along Arapaho Road, but also to position Addison as a model for cities around the country in the use of affordable alternative energy sources. Landmark contracted with Urban Green Energy (UGE) to manufacture and install the wind energy system; Freese and Nichols served as the Town's project manager.

After the turbines were installed in 2012, the system functioned for only three months before an entire wind turbine fell from the top of the water tower to the ground. The system was retrofitted, but a few months later, in a second incident, a blade broke free, pierced the roof of a nearby building, and landed in the conference room of a local business. At the Town's request Landmark and its partners on the project rebuilt the turbines, but once again a blade separated from a turbine, causing damage to other parts of the turbine system. No one was hurt in any of the incidents, but the Town decided to secure the turbines in a non-operating state in 2014 due to the potential safety concerns. In the Summer/Fall of 2015, after three failures and extensive discussions with Landmark that failed to resolve the issues, the Town of Addison instituted suit against Landmark Structures and UGE alleging causes of action for breach of contract, breach of warranty, negligence and fraudulent inducement. Freese and Nichols was added to the suit in 2016.

Following an Executive Session during the February 27 City Council Meeting, the Council authorized the City Manager to settle the two-year-old wind turbine lawsuit with Landmark Structures, L.P., Freese and Nichols, Inc., and Urban Green Energy pursuant to the terms discussed in Executive Session (those terms are summarized in the bullet points below). As part of that settlement, which was signed on April 11, 2018, all parties agree to the following:

- Landmark and Freese and Nichols will pay the Town a total of \$800,000 in cash (\$550,000 from Landmark Structures and \$250,000 from Freese and Nichols, Inc.); and
- Landmark will remove the wind turbines and make any necessary repairs to the roof of the water tower at no cost to the Town.

The total cost for the wind turbine project in 2012 was \$1,263,973. \$472,400 was funded through a federal energy conservation grant through the State Energy Conservation Office (SECO), which Addison is not required to return. The remaining \$791,573 was funded through the certificates of obligation (COs) that were approved by Council in 2008 to cover a broad range of Town projects. The issuance of this debt was not specifically for this project, but the funds were eligible to be spent on projects related to Addison's Utility Fund. The final payment on this 2008 debt issuance was made in February 2018. Legal fees associated with this issue exceed \$496,000.

The attached resolution ratifies the agreement signed on April 11, 2018.

RECOMMENDATION:

Administration recommends approval.

Attachments

Resolution - Ratification of Settlement for Town of Addison vs. Landmark Structures I, L.P.,
Urban Green Energy, and Freese and Nichols, Inc.

TOWN OF ADDISON, TEXAS

RESOLUTION NO. _____

A RESOLUTION OF THE CITY COUNCIL OF THE TOWN OF ADDISON, TEXAS, RATIFYING THE SETTLEMENT OF TOWN OF ADDISON, TEXAS V. LANDMARK STRUCTURES I, L.P., URBAN GREEN ENERGY AND FREESE AND NICHOLS, INC. - CAUSE NO. DC-15-07691, IN THE 44TH JUDICIAL DISTRICT COURT OF DALLAS COUNTY, TEXAS; AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, the Town of Addison, Landmark Structures I, L.P., Urban Green Energy and Freese and Nichols, Inc. have been engaged in the ongoing litigation between the parties, styled as *Town of Addison, Texas v. Landmark Structures I, L.P., Urban Green Energy and Freese and Nichols, Inc.*, Cause No. DC-15-07691, in the 44th Judicial District Court of Dallas County, Texas (the “Lawsuit”); and

WHEREAS, at the February 27, 2018 City Council meeting, the City Council met in executive session in accordance with the Texas Open Meetings Act regarding the Lawsuit; and

WHEREAS, following the executive session, the City Council reconvened in open session and authorized the City Manager to settle the Lawsuit on the terms discussed in executive session; and

WHEREAS, on April 11, 2018, City Manager, Wesley S. Pierson, executed documents reflecting the terms authorized by the City Council on February 27, 2018, and settling all matters between the parties to the Lawsuit.

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

Section 1. The Mayor and City Council of the Town of Addison, Texas hereby ratify the settlement of the Lawsuit, and the execution of settlement documents by the City Manager, including the Settlement and Release Agreement attached hereto as **Exhibit A.**

Section 2. This resolution shall be effective from and after its passage date.

PASSED AND APPROVED by the City Council of the Town of Addison, Texas this 24th day of April, 2018.

Joe Chow, Mayor

ATTEST:

APPROVED AS TO FORM:

Christie Wilson, Interim City Secretary

Brenda N. McDonald, City Attorney

EXHIBIT A

CAUSE NO. DC-15-07691

TOWN OF ADDISON, TEXAS,	§	IN THE DISTRICT COURT
	§	
v.	§	
	§	
LANDMARK STRUCTURES I, L.P.	§	
URBAN GREEN ENERGY, and	§	44TH JUDICIAL DISTRICT
FREESE AND NICHOLS, INC.	§	
	§	
v.	§	
	§	
SWG ENERGY, INC.,	§	DALLAS COUNTY, TEXAS

SETTLEMENT AND RELEASE AGREEMENT

Town of Addison, Texas ("Addison"), Landmark Structures I, LP ("Landmark"), and Freese & Nichols, Inc. ("F&N") enter this settlement and release agreement (the "Agreement"). Addison, Landmark, and F&N are sometimes collectively referred to as the "Parties."

WHEREAS in February 2011 Landmark was awarded a contract by Addison to construct a 1.5 million gallon water tank and install a group of eight wind turbines atop the water tank's roof (the "Project"). F&N was the engineer of record for the Project and served as Addison's representative. Urban Green Energy, Inc. ("UGE") supplied the vertical axis wind turbines ("VAWT") for the Project;

WHEREAS in 2015 a lawsuit was filed by Addison against Landmark, F&N, and UGE in the 44th Judicial District Court of Dallas County, Texas with the style and cause number identified above (the "Lawsuit"), and counterclaims were made by Landmark against Addison in the Lawsuit; and

WHEREAS the Parties desire to finally and forever settle and compromise all disputes and matters of controversy between them concerning or relating to the VAWT, the Lawsuit, and the claims they may possess arising from or relating thereto;

NOW, THEREFORE, for the foregoing purposes and the consideration listed herein, the receipt and sufficiency of which is hereby acknowledged, the Parties enter this Agreement to resolve the Lawsuit and their disputes.

1. At no cost to Addison, Landmark will remove the VAWT and secure the residual roof-top components under the scope of work terms listed in Exhibit 1. Addison agrees that this is the sole performance consideration to be received from Landmark or any other party to resolve the Lawsuit. This work will be performed within 120 days of the complete execution of this agreement – provided that reasonable access is granted to Landmark to perform the work.

EXHIBIT A

2. Landmark will tender payment to Addison within 30 days of the complete execution of this Agreement in a check in the amount of \$550,000. F&N will tender payment to Addison within 30 days of the complete execution of this Agreement in a check in the amount of \$250,000.00. Addison agrees that this is the entire monetary consideration to be received from the Parties to resolve the Lawsuit. Addison acknowledges and accepts the settlement payment and the performance as an accord and satisfaction.

3. Promptly after receipt of the payments mentioned in paragraph 2, the Parties will file the joint motion to dismiss the Lawsuit with prejudice and the agreed order of dismissal (both attached as Exhibit 2). The dismissal will provide that each Party is responsible for their own interest, court cost, legal fees, expert fees, and other expenses. The failure of either defendant to make payment described above shall not invalidate this Agreement as to the paying party.

4. Addison hereby releases and forever discharges Landmark, F&N, UGE, and their Related Parties from Claims (as those terms are defined below). Landmark and F&N hereby release and forever discharge Addison and Addison Related Parties from Claims (as those terms are defined below). These releases do not include the release of the ability to enforce the terms of this Agreement. This release does not release the obligation of Landmark to remove the VAWT per the attached Exhibit 1. The Town can specifically enforce this right or sue for damages if Landmark breaches this obligation.

5. "Claims" means those factual and legal complaints, demands, liabilities, and causes of actions relating to or covering the VAWT, any and all issues with the VAWT, the role or performance of F&N or Landmark with respect to the VAWT and/or issues with the VAWT, any express or implied warranties on the VAWT, any allegations made in the Lawsuit, performance or breach of the 2014 Decommissioning Agreement pursuant to which Landmark counterclaimed against Addison, and any other disputes raised or that could be raised between the parties relating to the VAWT up to the date

Settlement Agreement and Release

Page 2

EXHIBIT A

of execution of this Agreement.

The releases of Claims covers the rights to recover or seek recovery of money, damages, fines, awards, injunctive relief, offset rights, equitable relief, warranty or maintenance performance services, legal fees, costs, court costs, rescission, interest, or other relief under available contracts, equity, statutes, common law, or other applicable law. The releases are intended to be global for any and all claims relating to the VAWT, covering any Parties' rights which they have or might have, whether known or unknown, accrued or un-accrued, now existing or that might arise hereafter, directly or indirectly. The releases do not apply to the right to enforce this Agreement.

"Related Parties" means Landmark and F&N and their attorneys, officers, owners, directors, stockholders, agents, servants, representatives, employees, licensed and/or registered engineers and/or architects, predecessors, successors, assigns, parents, affiliates, partners, subcontractors, sub-consultants, and affiliated or subsidiary corporations.

"Addison Related Parties" means the city and its managers, attorneys, council members, agents, servants, representatives, and employees.

6. Each Party shall bear its own attorneys' fees, costs, and expenses in connection with the Lawsuit.

7. The Parties acknowledge that no statement or representation, written or oral, express or implied, has been made to it or any of its agents, representatives, employees, attorneys, or any other person, by the other Parties or any of their agents, representatives, employees, attorneys, officers, directors, members, managers, partners, insurers or any other person regarding any matter involving this Agreement.

8. The Parties represent and warrant that no other person or legal entity has or has had any interest in the matters referred to and released herein. Each of the Parties further represent and warrant that it has not sold, assigned, transferred, conveyed, or otherwise disposed of any claim or

EXHIBIT A

demand relating to any matters referred to in this Settlement Agreement.

9. The Parties hereto understand and acknowledge that this Settlement Agreement is intended to constitute a complete and final release of the claims regarding the VAWT, any issues relating to the VAWT, and claims alleged or that could have been alleged regarding the VAWT in the Lawsuit and that no further consideration, other than that described in this Settlement Agreement, is to be paid or received on account of any cause of action which has accrued, may accrue, or be hereafter acquired to or by the representative parties herein.

10. The Parties hereby warrant that they have read this Settlement Agreement and fully understand it to be a compromise, settlement, and release of all claims, known or unknown, past or present, that they have or may have against each other regarding the VAWT. The Parties are legally competent and fully authorized to execute this Settlement Agreement, and that they execute this Settlement Agreement of their own free will and accord without reliance upon any representation of any kind or character not expressly set forth herein.

11. Nothing contained herein shall be construed to relate to claims which may arise from the Parties' performance of the terms of this Settlement Agreement.

12. This Settlement Agreement may be executed in any number of identical counterparts, each of which shall be deemed an original for all purposes. This Settlement Agreement shall be binding upon and inure to the benefit of each of the Parties hereto and their respective heirs, executors, administrators, representatives, successors and assigns and will be interpreted under and subject to Texas law.

13. Neither the Parties nor their related parties will disparage each other or the related parties regarding the Project, the Lawsuit, or their Claims.

REMAINDER OF THIS PAGE IS BLANK

EXHIBIT A

TOWN OF ADDISON

BY: 

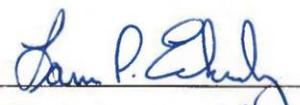
ITS: City Manager

LANDMARK STRUCTURES I, LP

BY: 

ITS: Vice President

FREESE & NICHOLS, INC.

BY: 

ITS: Chief Operating Officer

EXHIBIT A

Exhibit 1: Scope of Work

1. Addison will make the tower available to Landmark during normal working hours on ___ consecutive week days at a time equally convenient to the parties, but falling between May 15, 2018 to July 15, 2018. Landmark will complete the work within ___ days of commencement, subject to force majeure events. Force majeure events includes adverse weather conditions, interruptions or delays caused by Addison, injuries or property damages occurring during the work,
2. Landmark will remove the VAWT, cut the masts at approximately ___ inches above to roof, and cut the lightening protection poles approximately ___ inches above the roof. The cable trays, roof-top crane, wiring, and _____ shall remain on the roof. Landmark will paint any metal that is exposed as a result of this removal.
3. Landmark will provide all required labor, supervision, tools, equipment, scaffolding, and cranes it deems needed. Landmark intends to utilize a LinkBelt _____ crane, and Addison will allow access on the _____ side parking lot for the crane placement.
4. Addison shall not require any special inspections, engineering support, or other work from Landmark.
5. Landmark shall maintain commercial general liability insurance during the performance of the removal with at least \$ 2 million in coverage (which may be through a combination of primary and umbrella coverage). Addison will be named as an additional insured for damages caused by Landmark in the course of performing the removal work. Landmark will maintain worker's compensation insurance conforming to the standards of Texas law. Landmark is not required to provide payment or performance bonds for this work.

Work Session and Regular Meeting**Meeting Date:** 04/24/2018**Department:** Parks & Recreation**Pillars:** Gold Standard in Customer Service**Milestones:** Clarify and protect the Addison Way

AGENDA CAPTION:

Hold a Public Hearing, Present, Discuss, and Consider Action on an **Ordinance Establishing Standards of Care for Youth Recreation Programs Conducted by the Town for Elementary Age Children Ages 5 Through 13; Providing for Compliance with Section 42.041(b)(14) of the Texas Human Resources Code.**

BACKGROUND:

Annual adoption of the standards of care by ordinance after a public hearing is required per Section 42.041(b)(14) of the Texas Human Resources Code.

Council approval is requested of an ordinance to adopt Standards of Care for all youth programs for children ages 5 through 13 including, but not limited to the Summer Camp Program and the Spring Break Program at the Addison Athletic Club. The attached ordinance is the same as the ordinance adopted last year, except for updates for dates and title changes, that is intended to provide minimum standards for youth programs as required by Section 42.041 of the Texas Human Resources Code. The Standards of Care attached as Exhibit A, cover guidelines for operating youth programs by the Town of Addison Recreation Department.

The document provides minimum standards for operating youth programs such as hiring of program staff, enrollment guidelines, discipline, health and safety. The document also addresses programming and providing activities that promote emotional, social, and mental growth.

In addition to meeting the requirements of the Human Resources Code, staff finds the Standards of Care document to be a useful tool to provide quality recreation programs to the youth and families of the Town.

RECOMMENDATION:

Administration recommends approval.

Attachments

Ordinance - Standards of Care

TOWN OF ADDISON, TEXAS

ORDINANCE NO. _____

AN ORDINANCE OF THE TOWN OF ADDISON, TEXAS ESTABLISHING STANDARDS OF CARE FOR YOUTH RECREATION PROGRAMS CONDUCTED BY THE CITY FOR ELEMENTARY AGE CHILDREN AGES 5 THROUGH 13; PROVIDING FOR COMPLIANCE WITH STATE LAW; PROVIDING A SAVINGS CLAUSE; PROVIDING A SEVERABILITY CLAUSE; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the Town of Addison, Texas (the “City”) is a home rule municipal corporation pursuant to article 11, section 5 of the Texas Constitution and its Home Rule Charter; and

WHEREAS, the City operates recreation programs for children, including elementary age children (ages 5 through 13); and

WHEREAS, Section 42.041 of the Texas Human Resources Code provides that no person may operate a child-care facility or a child-placing agency without a license issued by the Texas Department of Family and Protective Services, but provides an exception from that requirement in Section 42.041(b)(14) of the said Code for an elementary-age (ages 5 through 13) recreation program operated by a municipality, provided the governing body of the municipality annually adopts standards of care by ordinance after a public hearing for such programs; and

WHEREAS, the City Council held a public hearing on April 25, 2017 regarding standards of care for its recreation program for elementary age children (ages 5 through 13) and thereafter passed and approved Ordinance No. 017-12 that adopted such standards of care; and

WHEREAS, in accordance with Section 42.041(b)(14) of the Human Resources Code, on April 24, 2018 the City Council conducted an annual public hearing regarding the adoption of standards of care for its recreation programs for elementary age children (ages 5 through 13) as set forth herein, and following such public hearing the City Council desires by this Ordinance to adopt such standards of care.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE TOWN OF ADDISON, TEXAS:

Section 1. The findings set forth above are incorporated herein as if set forth verbatim.

Section 2. The standards of care set forth in Exhibit A attached hereto and made a part of this Ordinance for all purposes (the “Standards of Care”) are hereby adopted as the standards of care for all elementary age (ages 5 through 13) recreation programs

operated by the Town of Addison, Texas (“City”) (collectively “Programs” and each a “Program”), including, without limitation, any summer camp program or any spring break program.

Section 3. All Programs are to be operated by the City’s Department of Parks and Recreation (“Department”). The Director of the Department, or the Director’s designee, (individually or collectively, the “Director”), shall administer the Programs in accordance with the Standards of Care. The Director may adopt rules in writing relating to the operation of Programs, which rules may be more restrictive than the Standards of Care. The Programs shall be operated in accordance with the Standards of Care (or, in the event the Director adopts rules that are more restrictive than the Standards of Care, in accordance with such rules).

Section 4. The Director shall provide the Standards of Care to the parents of each Program participant (and, in the event the Director adopts rules that are more restrictive than the Standards of Care, shall provide such rules to the parents of each Program participant). Further, the Director, or the Director’s designee, shall inform the parents of each Program participant that the Program is not licensed by the State of Texas.

Section 5. The Program shall not be advertised as a child-care facility.

Section 6. The Director is authorized to take any and all steps, if any, as may be necessary to confirm the Program’s exemption from State law as set forth in Section 42.041 of the Texas Human Resources Code.

Section 7. The above and foregoing recitals and premises to this Ordinance are true and correct and are incorporated herein and made a part hereof for all purposes.

Section 8. This Ordinance shall be cumulative of all other ordinances of the City and shall not repeal any of the provisions of those ordinances except in those instances where the provisions of those ordinances are in direct conflict with the provisions of this Ordinance.

Section 9. The provisions of this Ordinance are severable, and if any section or provision of this Ordinance or the application of any section or provision to any person, firm, corporation, entity, situation or circumstance is for any reason adjudged invalid or held unconstitutional by a court of competent jurisdiction, the same shall not affect the validity of any other section or provision of this Ordinance or the application of any other section or provision to any other person, firm, corporation, entity, situation or circumstance, and the City Council declares that it would have adopted the valid portions of this Ordinance adopted herein without the invalid or unconstitutional parts and to this end the provisions of this Ordinance adopted herein shall remain in full force and effect.

Section 10. This Ordinance shall take effect upon its passage and approval.

PASSED AND APPROVED by the City Council of the Town of Addison, Texas this the 24th day of April, 2018.

Joe Chow, Mayor

ATTEST:

By: _____
Christie Wilson, Interim City Secretary

APPROVED AS TO FORM:

By: _____
Brenda N. McDonald, City Attorney

**EXHIBIT A
TO ORDINANCE NO. _____**

**STANDARDS OF CARE
FOR ELEMENTARY AGE (5 – 13) RECREATION PROGRAMS**

The following Standards of Care are adopted in compliance with Section 42.041(b)(14) of the Texas Human Resources Code. The Standards of Care herein set forth are intended to be minimum standards applicable to all elementary age (ages 5 through 13) recreation Programs operated by the Town of Addison Recreation Department, including, without limitation, any summer camp program and any spring break program. The Programs are not licensed by the State of Texas, and shall not be advertised as a child-care facility.

GENERAL ADMINISTRATION

1. Organization.
 - A. The governing body of the Youth Programs is the City Council of the Town of Addison, Texas.
 - B. Implementation of the Youth Programs Standards of Care is the responsibility of the Parks and Recreation Department Director or his or her designee and Department employees.
 - C. These Standards of Care will apply to all Programs, including, without limitation, the Summer Camp Program and Spring Break Program.
 - D. Each Program Site will have available for public and staff review a current copy of the Standards of Care.
 - E. Parents of participants will be provided a current copy of the Standards of Care during the registration process for a Program. Further, a copy of the Standards of Care shall be placed online on the City's primary website.
 - F. Criminal background checks will be conducted on prospective Program employees. If results of a criminal background check indicate that a prospective Program employee has been arrested, charged with, or convicted of any of the following offenses, the prospective Program employee will not be considered for employment:
 - (1) a felony or a misdemeanor classified as an offense against a person or family member;
 - (2) a felony or misdemeanor classified as public indecency;
 - (3) any offense for which a person is required to register as a sex

offender under Chapter 62, Texas Code of Criminal Procedure;

- (4) a felony or misdemeanor violation of any law intended to control the possession or distribution of any controlled substance;
- (5) any offense involving moral turpitude;
- (6) any offense that would, in the Director's sole opinion, potentially put youth participants or the City at risk.

2. Definitions. For purposes of these Standards of Care, the following words shall have the respective meanings ascribed to them:

- A. *City* means the Town of Addison, Texas.
- B. *City Council* means the City Council of the City.
- C. *Department* means the Parks and Recreation Department of the City.
- D. *Director* means the Parks and Recreation Department Director of the City or his or her designee.
- E. *Employee(s)* means people who have been hired to work for the Town of Addison and have been assigned responsibility for managing, administering, or implementing some portion of a Program.
- F. *Parent(s)* means one or both parent(s) or adults who have legal custody and authority to enroll their child(ren) in a Program.
- G. *Participant* means a youth whose parent(s) have completed all required registration procedures and determined to be eligible for a Program.
- H. *Programs* means all (and *Program* means any of the) elementary age (ages 5 through 13) recreation programs operated by the Department, including, without limitation, the City Summer Camp Program (*Summer Camp Program*) and the City Spring Break Camp Program (*Spring Break Program*).
- I. *Program Coordinator or Coordinator* means a full-time Department employee who is a recreation coordinator and has been assigned administrative responsibility for the Programs.
- J. *Program Manual* means a notebook of policies, procedures, required forms, and organizational and programming information relevant to each Program.
- K. *Program Site* means area and facilities where a Program is held, consisting of the Addison Athletic Club, 3900 Beltway Drive, Addison, Texas

75001.

- L. *Program Summer Camp Counselor or Counselor* means a Department part-time or seasonal employee who has been assigned responsibility by the Assistant Director of Recreation to implement the City's Summer Camp Program.
 - M. *Assistant Director of Recreation* means a full-time Department employee and who oversees the Program Coordinator and the operation of all Programs.
3. Inspections/Monitoring/Enforcement.
- A. A written inspection report will be prepared by the Program Coordinator each month to confirm the Standards of Care are being adhered to.
 - (1) Each monthly inspection report will be sent by the Program Coordinator to the Assistant Director of Parks and Recreation for review and kept on record in accordance with the City's records retention policy.
 - (2) The Assistant Director of Parks and Recreation will review the report and establish deadlines and criteria for compliance with the Standards of Care where failure to comply is determined.
 - B. The Assistant Director of Parks and Recreation will make visual inspections of the Programs based on the following schedule:
 - (1) The Summer Camp Program will be inspected a minimum of two times during the Summer Camp Program's schedule.
 - (2) The Spring Break Camp Program will be inspected at least once during the Spring Break Camp Program schedule.
 - (3) Each other Program will be inspected at least once each week during the schedule for the Program.
 - C. Complaints regarding enforcement of the Standards of Care will be directed to the Coordinator. The Coordinator will be responsible to take the necessary steps to address any complaints and to resolve the problem(s), if any. Complaints regarding enforcement of the Standards of Care and their resolution will be recorded in writing by the Coordinator. All complaints regarding enforcement of the Standards of Care where a deficiency is determined will be forwarded to the Assistant Director of Parks and Recreation, with the complaint and the resolution noted.
4. Enrollment. Before a child can be enrolled in a Program, the parents must sign registration forms that contain the following information about the child:

- A. name, address, home telephone number;
 - B. name and address of parent(s) and telephone number(s) during Program hours;
 - C. the names and telephone numbers of people to whom the child can be released;
 - D. a statement of the child's physical health, including a physician's signed statement and current immunization (shot) records, detailing any special problems or needs of the child;
 - E. proof of residency within the City when appropriate; and
 - F. a fully executed liability waiver and release.
5. Suspected Abuse.

Program employees will report suspected child abuse or neglect in accordance with the Texas Family Code. In the case where an employee is involved in an incident with a child that could be construed as child abuse, the incident must be reported immediately to the Assistant Director of Parks and Recreation. The Assistant Director of Parks and Recreation will then immediately notify the Director, the City Police Department, and any other agency as may be appropriate.

Texas state law requires the employees of the Programs to report any suspected abuse or neglect of a child to the Texas Department of Protective and Regulatory Services or a law enforcement agency. Failure to report suspected abuse is punishable by fines up to \$1,000 and/or confinement up to 180 days. Confidential reports may be made by calling 1-800-252-5400.

STAFFING - RESPONSIBILITIES AND TRAINING

- 1. Program Coordinator Qualifications.
 - A. The Coordinator will be a full-time, professional employee of the Department.
 - B. The Coordinator must be at least 21 years old
 - C. The Coordinator must have received a bachelor's degree from an accredited college or university. Acceptable degrees include:
 - (1) Recreation Administration or General Recreation;
 - (2) Physical Education; and

- (3) Any other comparable degree plan or experience that would lend itself to working in a public recreation environment.
 - D. The Coordinator must have at least two years experience planning and implementing recreational activities.
 - E. The Coordinator must pass a background investigation, including, including testing for alcohol and illegal and unauthorized drugs.
 - F. The Coordinator must have successfully completed a course in first aid and cardio pulmonary resuscitation (CPR) based on either American Heart Association or American Red Cross standards.
2. Coordinator's Responsibilities.
- A. The Coordinator is responsible to administer the Programs' daily operations in compliance with the adopted Standards of Care.
 - B. The Coordinator is responsible to recommend for hire, supervise, and evaluate Program seasonal employees.
 - C. The Coordinator is responsible to plan, implement, and evaluate Programs.
3. Program Summer Camp Counselor Qualifications.
- A. Counselors will be part-time or seasonal employees of the Department.
 - B. Counselors working with children must be age 18 or older.
 - C. Counselors must be able to consistently exhibit competency, good judgment, and self-control when working with children.
 - D. Counselors must relate to children with courtesy, respect, tolerance, and patience.
 - E. Counselors must have successfully completed a course in first aid and CPR based on either American Heart Association or American Red Cross standards.
 - F. Counselors must pass a background investigation, including testing for alcohol and illegal and unauthorized drugs.
4. Counselor Responsibilities.
- A. Counselors will be responsible to provide Program participants with an environment in which they can feel safe, can enjoy wholesome recreation activities, and can participate in appropriate social opportunities with their

peers.

- B. Counselors will be responsible to know and follow all City, Department, and Program standards, policies, and procedures that apply to the Program.
- C. Counselors must ensure that Program participants are released only to a parent or an adult designated by the parent. The Program Site will have a copy of the approved plan to verify the identity of a person authorized to pick up a Program participant if that person is not known to the Counselor.

5. Training/Orientation.

- A. The Department is responsible for providing training and orientation to Program employees working with children and for specific job responsibilities. The Coordinator will provide each Counselor with a Program manual specific to the applicable Program.
- B. Program employees must be familiar with the Standards of Care for Program operation as adopted by the City Council.
- C. Program employees must be familiar with the Program's policies, including discipline, guidance, and release of Program participants as outlined in the Program Manual.
- D. Program employees will be trained in appropriate procedures to handle emergencies.
- E. Program employees will be trained in areas including City, Department, and Program policies and procedures, provision of recreation activities, safety issues, and organization goals.
- F. Program employees will be required to sign an acknowledgement that they received the required training.

OPERATIONS

1. Staff-Participant Ratio.

- A. The standard ratio of Program participants to employees will be 15 to 1. In the event an employee assigned to a Program is unable to report to the Program Site, a replacement will be assigned.
- B. Each participant shall have a Program employee who is responsible for the participant and who is aware of the participant's habits, interests, and any special problems as identified by the participant's parent(s) during the registration process.

2. Discipline.

- A. Program employees will implement discipline and guidance in a consistent manner based on the best interests of Program participants.
- B. There must be no cruel, harsh or corporal punishment or treatment used as a method of discipline.
- C. Program employees may use brief, supervised separation from the group if necessary.
- D. As necessary, Program employees will initiate discipline reports to the parent(s) of participants. Parents will be asked to sign discipline reports to indicate they have been advised about specific problems or incidents.
- E. A sufficient number and/or severe nature of discipline reports as detailed in the Program Manual may result in a participant being suspended or removed from the Program or all Programs.
- F. In instances where there is a danger to participants or employees, offending participants will be removed from the Program Site as soon as possible.

3. Programming.

- A. Program employees will attempt to provide activities for each Program group according to the participants' ages, interests, and abilities. The activities must be appropriate to participants' health, safety, and well-being. The activities also must be flexible and promote the participants' emotional, social, and mental growth.
- B. Program employees will attempt to provide indoor and outdoor time periods that include:
 - (1) alternating active and passive activities;
 - (2) opportunity for individual and group activities, and
 - (3) outdoor time each day weather permits.
- C. Program employees will be attentive and considerate of participants' safety on field trips and during any transportation provided by the Program.
 - (1) During trips, Program employees supervising participants must have immediate access to emergency medical forms and emergency contact information for each participant.
 - (2) Program employees must have a written list of the participants in

the Program group and must check the roll frequently.

- (3) Program employees must have first aid supplies and a guide to first aid and emergency care available on field trips.

4. Communication.

- A. The Program Site will have a cell phone to allow the Program employees to be contacted by Department recreation employees and vice versa.
- B. The Coordinator will post the following telephone numbers adjacent to a telephone accessible to all Program employees:
 - (1) City ambulance or emergency medical services;
 - (2) City Police Department
 - (3) City Fire Department
 - (4) The Addison Athletic Club front desk; and
 - (5) Numbers at which parents may be reached.

5. Transportation.

- A. Before a participant may be transported to and from City-sponsored activities, a transportation form, completed by the parent of the participant, must be filed with the Coordinator.
- B. First aid supplies and a first aid and emergency care guide will be available in all Program vehicles that transport children.
- C. Program employees will carry a cell phone at all times.

FACILITY STANDARDS

1. Safety.

- A. Program employees will inspect Program Sites daily to detect sanitation and safety concerns that might affect the health and safety of the participants.
- B. Buildings, grounds, and equipment on the Program Site will be inspected, cleaned, repaired, and maintained to protect the health of the participants.
- C. Program equipment and supplies must be safe for the participants' use.
- D. Program employees must have first aid supplies readily available at the

Program Site, during transportation to an off-site activity, and for the duration of any off-site activity.

2. Fire.

- A. In case of fire, danger of fire, explosion, or other emergency, Program employees' first priority is to evacuate the participants to a designated safe area.
- B. The Program Site will have an annual fire inspection by the local Fire Marshal, and the resulting report will detail any safety concerns observed. The report will be forwarded to the Assistant Director of Recreation who will review and establish deadlines and criteria for compliance if any deficiencies or concerns are determined to exist.
- C. The Program Site must have at least one fire extinguisher readily available to all Program employees. All Program employees will be trained in the proper use of fire extinguishers.
- D. Fire drills will be initiated at Program Sites based on the following schedule:
 - (1) Summer Camp Program: A fire drill twice during the session.
 - (2) Spring Break Camp Program: A fire drill once during the session.
 - (3) Other Programs: A fire drill at least once during the session.

3. Health.

- A. Illness or Injury.
 - (1) A participant who is considered to be a health or safety concern to other participants or employees will not be admitted to a Program.
 - (2) Illnesses and injuries will be handled in a manner to protect the health of all participants and employees.
 - (3) Program employees will follow plans to provide emergency care for injured participants with symptoms of an acute illness as specified in the Program Manual.
 - (4) Program employees will follow the recommendation of the Texas Department of Health concerning the admission or readmission of any participant after a communicable disease.
- B. Program employees will administer medication (limited only to an epinephrine pen (auto-injector) and an asthma inhaler) to participants only if:

- (1) Parent(s) complete and sign a medication form provided by the Town (to include, among other things, an indemnity and hold harmless provision, and a waiver and release provision) that provides authorization for Program employees to dispense the medication, with details as to time and dosages.
- (2) The medication is in its original container labeled with the participant's name, a date, directions, and the physician's name. Program employees will administer the medication only as stated on the label. Program employees will not administer medication after the medication's expiration date.

Program employees will not administer any other medication.

C. Toilet Facilities.

- (1) The Program Site will have inside toilets located and equipped so participants can use them independently and Program employees can supervise as needed.
- (2) An appropriate and adequate number of lavatories will be provided.

D. Sanitation.

- (1) The Program facilities will have adequate light, ventilation, and heat.
- (2) The Program will have an adequate supply of water meeting the standards of the Texas Department of Health for drinking water and ensure that it will be supplied to the participants in a safe and sanitary manner.
- (3) Program employees will see that garbage is removed from buildings daily.

Work Session and Regular Meeting**Meeting Date:** 04/24/2018**Department:** Infrastructure- Development Services**Pillars:** Excellence in Transportation Systems
Gold Standard in Customer Service**Milestones:** Review town ordinances and regulations with a focus on modernization in order to facilitate redevelopment

AGENDA CAPTION:

Present, Discuss, and Consider the **Schematic Design and Funding Alternatives for the Customs and Border Protection Federal Inspection Services Facility and Whether to Include the Airport Administration Offices in the Final Design.**

BACKGROUND:

On January 9, 2018, Council approved an agreement with Page Southerland Page, Inc., (Page) for architectural design services related to the design of a Customs and Border Protection Federal Inspection Services (Customs) facility on Addison Airport. The scope of work for the agreement includes the following:

1. A schematic design of the Customs facility to include the airport administrative office combined with the Customs facility
2. A schematic design of the Customs facility as a separate, stand-alone facility
3. A detailed, comprehensive cost estimate for each schematic design alternative

The schematic design for the two options, the customs facility with airport administrative offices or the customs facility as a stand-alone facility, is complete and the cost estimates for each alternative have been developed. The Finance Department has reviewed the cost estimates that Page has developed and has provided possible alternatives for funding the facility.

Staff is seeking direction from Council on two questions:

1. Should the airport administration offices be included in the final design of the Customs facility?
2. How should the facility be funded?

Page has developed the schematic design for the two options as well as the cost estimates for three alternatives.

- Option A: 2-story Customs facility, plus airport office
- Option B, Phase 1: Single-story stand-alone Customs facility
- Option B, Phase 1 & 2: Customs facility and airport administration in separate buildings, built concurrently

The cost estimates for each option are included below. Included in the total cost is the Customs facility, landside site improvements, airport administration offices where appropriate, airfield ramp and taxiway improvements, demolition costs, Information Technology, security, furniture, and equipment. A more detailed table is included as an attachment to this item.

Scope	Cost
Option A: 2-story Customs, plus airport office	\$6,186,248
Option B, Phase 1: Single-story, stand-alone Customs Facility	\$3,817,254
Option B, Phase 1 & 2: Customs Facility and airport administration office in separate buildings, built concurrently	\$6,297,340

The Finance Department has reviewed the funds that are available in the Airport fund, accounting for the required 25% reserve balance. The Airport fund has \$3,000,000 in excess of the required 25% fund reserve. Therefore, the fund does not have the capacity to pay cash for any of the above options without additional funds from other sources. The Airport fund could support the debt service for any of the options listed from annual operating revenues.

Staff recommends that Option A, 2-story Customs facility with Airport office on the second floor, be designed and built and that 20-year Certificates of Obligation be used to fund the construction of the facility for the following reasons:

- Using cash from the Airport fund would leave the fund with little ability to fund other priorities, such as local match for TxDOT grants and other capital improvements
- Debt service can be supported using annual operating revenues
- There is not currently a "front door" at the airport that is easily accessible to visitors and airport users
- The airport administration is currently in leased office space that does not have visibility to the airfield, nor easy access to it
- Airport administration's proximity to the Customs ramp will facilitate identification of the user and collection of a fee for Customs services
- Option A provides the most efficient use of the space available and leaves space for a future hangar development
- All of the options have a negative Net Present Value and negative cash flow because the revenue from the Customs fee alone will not pay for the expenditure. The Net Present Value of Option B, however, is more favorable than Option A by \$824,754, even though it is still negative. Option B also has less of an impact on the annual cash flow than Option A by \$83,330. Option B, however, does not achieve other goals.

RECOMMENDATION:

Staff requests direction from Council.

Attachments

[Presentation - Customs Facility Design Options](#)

[Cost Summary - Customs Facility Design Options](#)

[Map - Midfield Site](#)

Customs and Border Protection Facility Schematic Design

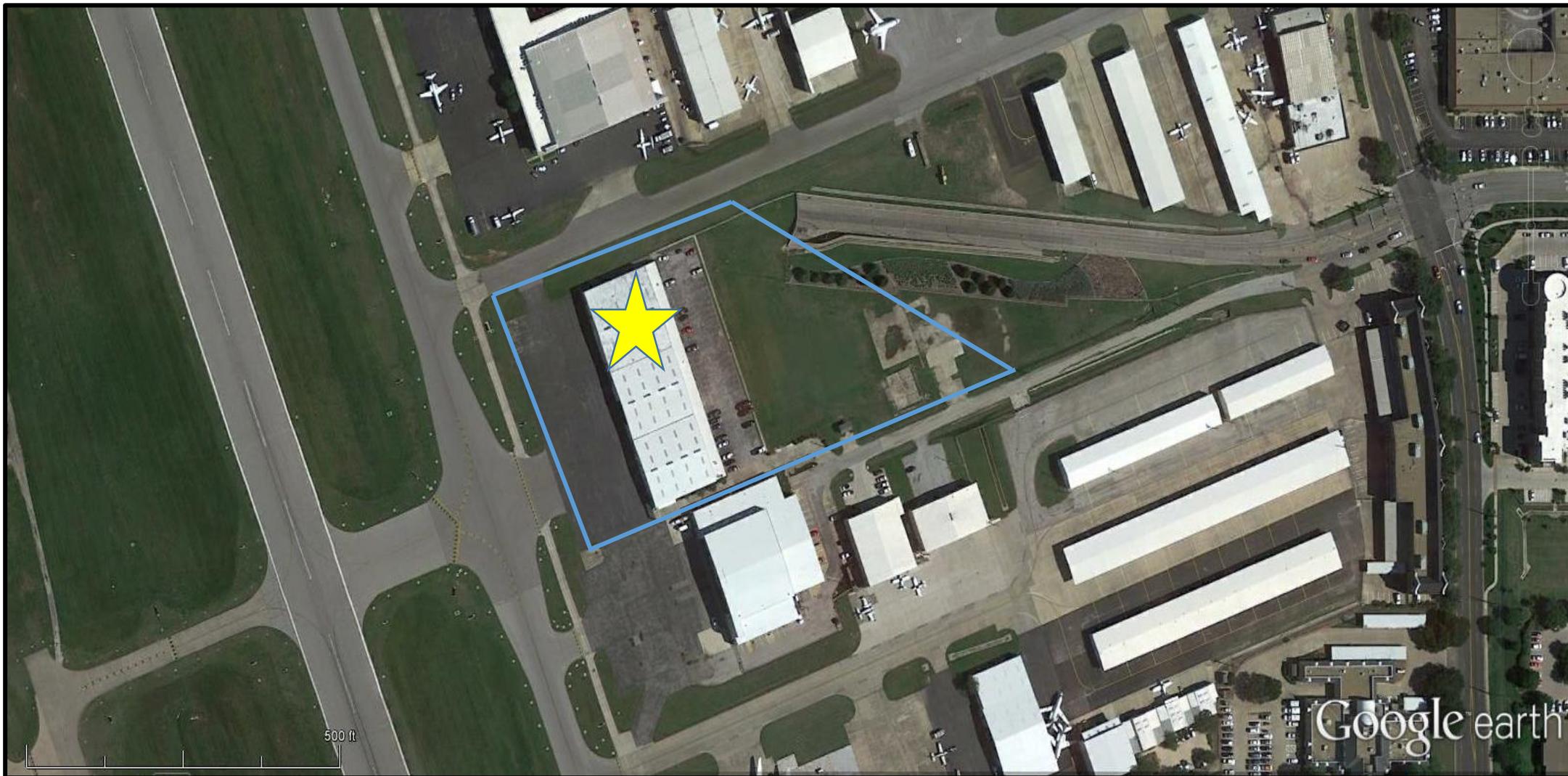
April 24, 2018

The logo for ADDISON is a white circle containing the word "ADDISON" in blue, uppercase, sans-serif font. The circle is positioned on the right side of the slide, overlapping a blue and grey geometric background.

ADDISON

- July 11, 2017 – Council selected the mid-field site with the addition of airport administration offices, either as a stand-alone building or combined with the Customs facility
 - Once schematic design is complete and cost estimates are developed, Council will provide direction on whether to proceed with the airport administration office alternative

U.S. Customs and Border Protection Midfield Site



Schematic Design Development Progress

- Schematic design complete:
 - Option A: 2-story Customs facility, plus airport office
 - Option B, Phase 1: Single-story, stand-alone Customs facility
 - Option B, Phase 1 & 2: Customs facility and airport administration in separate buildings, built concurrently
- Costs estimates have been developed for each option
- Finance has reviewed funding availability
- Seeking Council direction on:
 - Should the Airport administration office option be included in final design?
 - How should the facility be funded?

Schematic Design Includes

- Design for the demolition of existing 40,000sf hangar and 67,500sf of pavement
- Design of Customs facility, airside and landside pavements, the optional airport administration offices, IT, security, furniture, and equipment
- Cost Estimates for three options:
 - Option A: 2-story Customs facility, plus airport office
 - Option B, Phase 1: Single-story, stand-alone Customs facility
 - Option B, Phase 1&2: Customs facility and airport administration office in separate buildings, built concurrently

Preliminary Schematic Design Facility Costs

Scope	Option A - 2-Story Customs + Airport Administrative Offices	Option B Phase 1 - 1-Story Customs Facility	Option B Phase 1 & 2 - 1-Story Customs + 1-Story Airport Administration Offices
			<i>Buildings constructed concurrently</i>
Customs Facility + Site	\$ 4,428,760	\$ 2,229,866	\$ 2,229,866
Airport Administration Offices In Separate Building	N/A	N/A	\$ 2,309,986
Airfield Improvements	\$ 880,400	\$ 880,400	\$ 880,400
Construction Subtotal	\$ 5,309,160	\$ 3,110,266	\$ 5,420,252
Demolition	\$ 516,650	\$ 516,650	\$ 516,650
Furniture	\$ 275,738	\$ 105,638	\$ 275,738
Equipment	\$ 84,700	\$ 84,700	\$ 84,700
Facility Grand Total	\$ 6,186,248	\$ 3,817,254	\$ 6,297,340

- All costs estimated in 2020 dollars
- Site costs include all landside elements outside the building footprint - utilities, driveway, parking, sidewalks, landscaping, and fencing

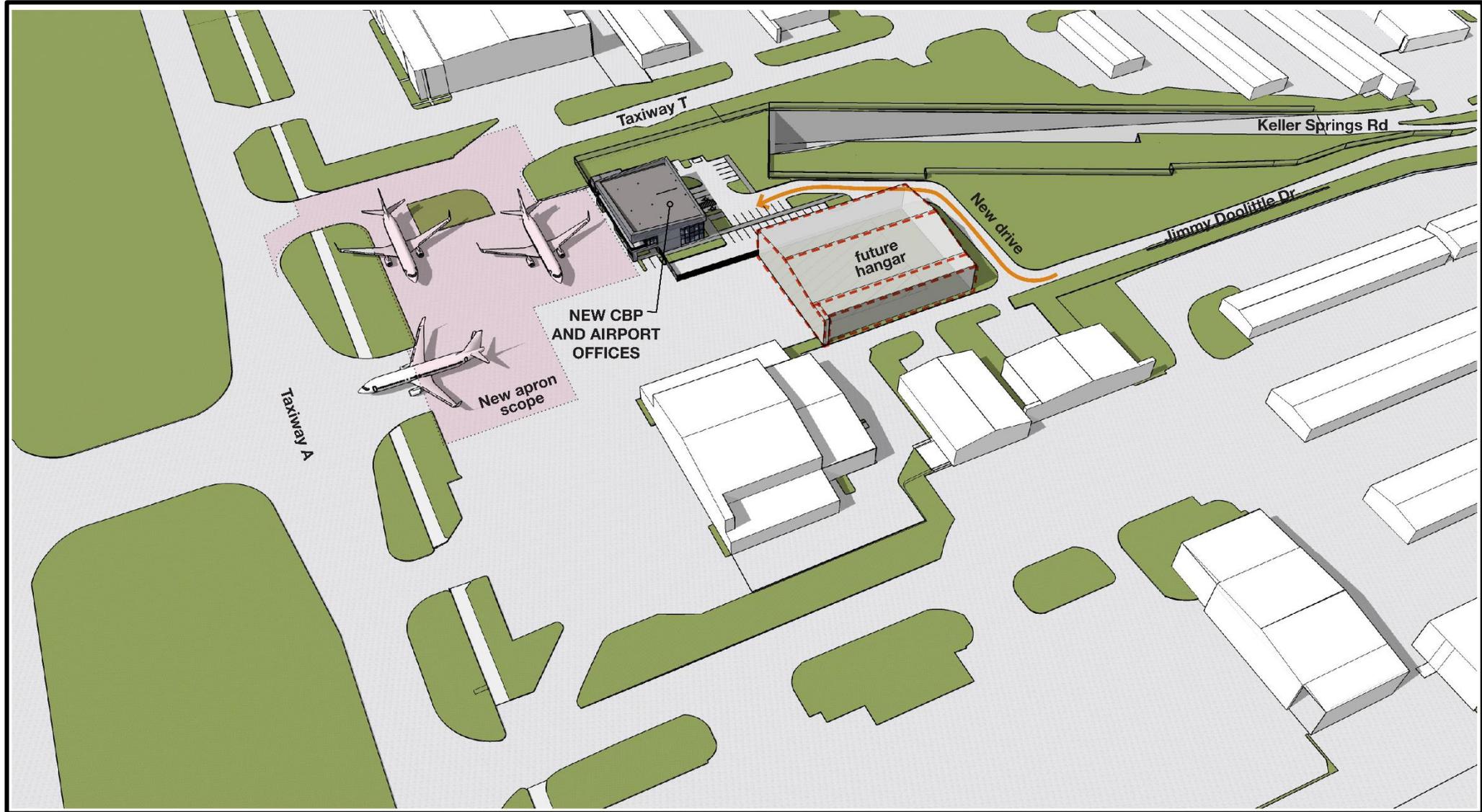
Side-by-Side Cost Comparison

Scope	Option A - 2-Story Customs + Airport Administrative Offices		Option B Phase 1 - 1-Story Customs Facility		Option B Phase 1 & 2 - 1-Story Customs + 1-Story Airport Administration Offices	
	7/11/2017 Council Presentation	3/26/2018 SD Preliminary Estimate	7/11/2017 Council Presentation	3/26/2018 SD Preliminary Estimate	<i>Buildings constructed concurrently</i>	
	7/11/2017 Council Presentation	3/26/2018 SD Preliminary Estimate	7/11/2017 Council Presentation	3/26/2018 SD Preliminary Estimate	7/11/2017 Council Presentation	3/26/2018 SD Preliminary Estimate
A. Customs Facility + Site	\$ 4,210,721	\$ 4,428,760	\$ 2,559,261	\$ 2,229,866	\$ 4,024,463	\$ 4,539,852
Customs Facility +Site			\$ 2,559,261	\$ 2,229,866	\$ 2,559,261	\$ 2,229,866
Airport Administration Offices					\$ 1,465,202	\$ 2,309,986
B. Airfield	\$ 1,445,000	\$ 880,400	\$ 1,445,000	\$ 880,400	\$ 1,445,000	\$ 880,400
New Construction Subtotal	\$ 5,655,721	\$ 5,309,160	\$ 4,004,261	\$ 3,110,266	\$ 5,469,463	\$ 5,420,252
C. Demolition	\$ 180,486	\$ 516,650	\$ 180,486	\$ 516,650	\$ 180,486	\$ 516,650
New Construction Total	\$ 5,836,207	\$ 5,825,810	\$ 4,184,747	\$ 3,626,916	\$ 5,649,949	\$ 5,936,902
D. Furniture	not included	\$ 275,738	not included	\$ 105,638	not included	\$ 275,738
E. Equipment (Autoclave)	not included	\$ 84,700	not included	\$ 84,700	not included	\$ 84,700
Facility Grand Total	\$ 5,836,207	\$ 6,186,248	\$ 4,184,747	\$ 3,817,254	\$ 5,469,949	\$ 6,297,340

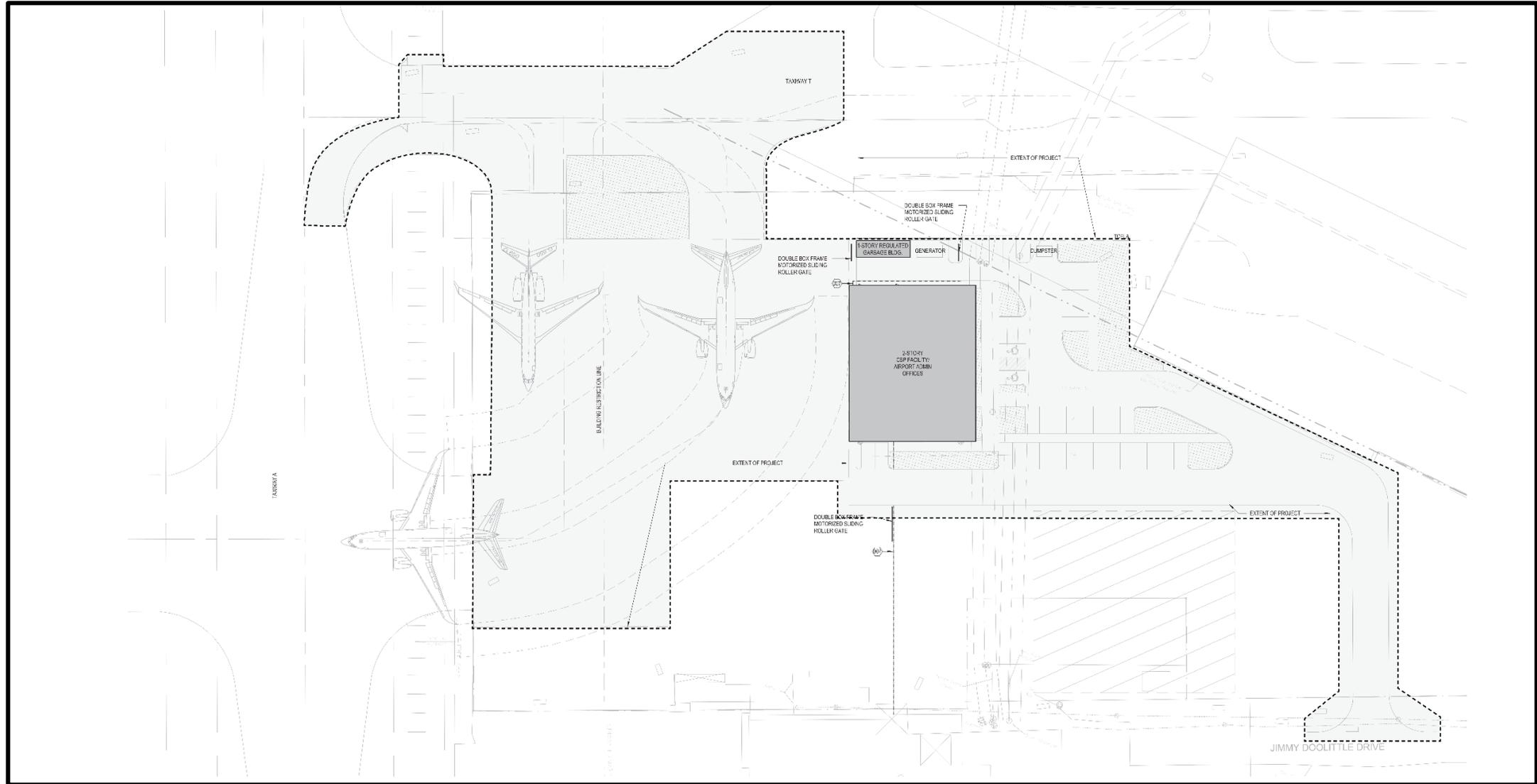
Scope Comparison - 2017 and Present Cost Estimates

- Scope elements not included in 2017 estimate:
 - Improvements to Taxiway Tango necessary to facilitate aircraft movement
 - Larger aircraft ramp to accommodate larger aircraft
 - Longer landside driveway to leave maximum space for future development on remainder of site
 - Furniture, fixtures, and equipment for Customs facility and airport office, if constructed
 - Additional area for storage and disposal of regulated garbage

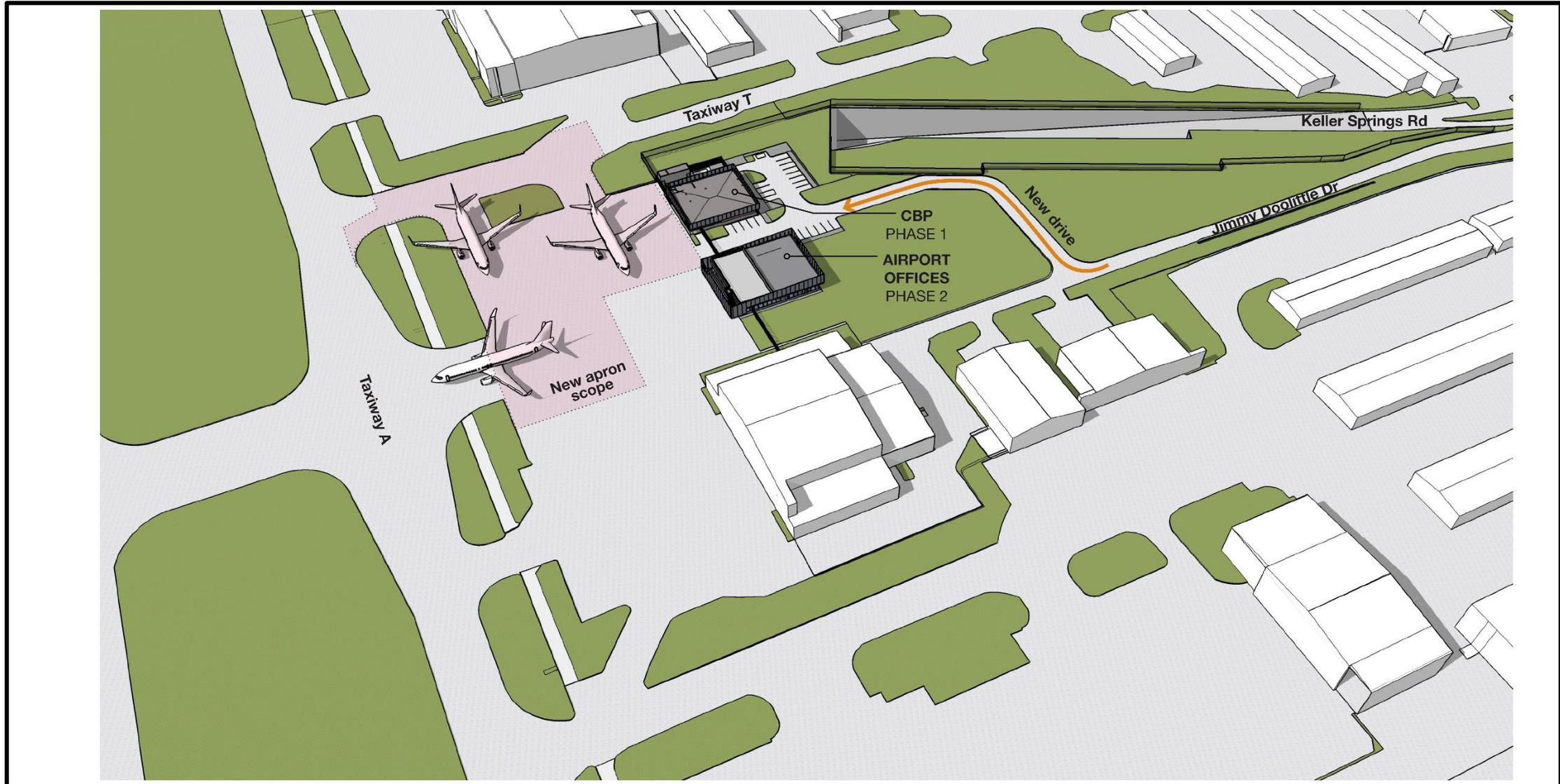
Option A: 2-story Customs plus Airport Offices



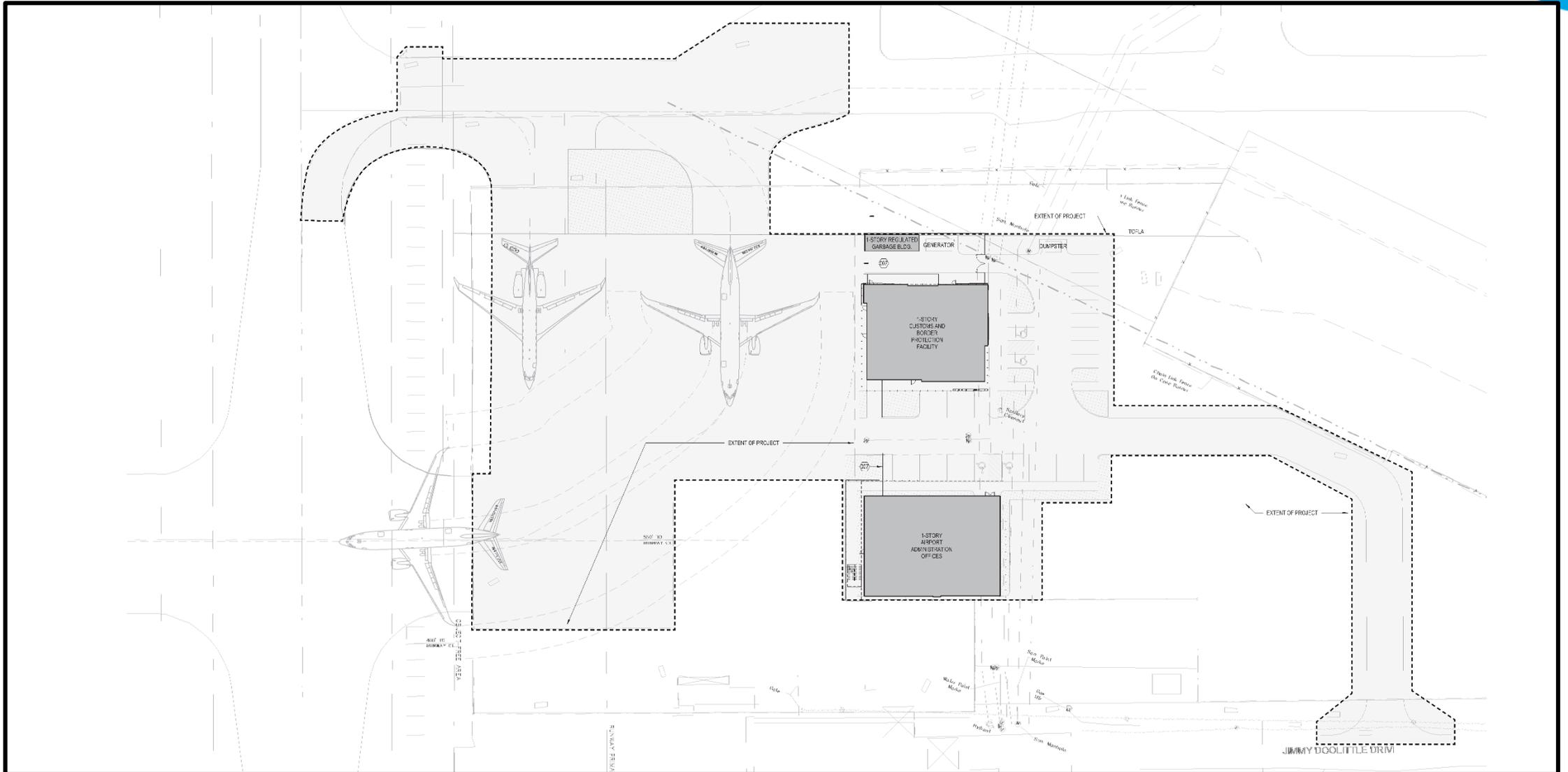
Option A: 2-story Customs plus Airport Offices



Option B: Customs Facility & Airport Offices in Separate Buildings



Option B: Customs Facility & Airport Offices in Separate Buildings



Funding Alternatives

- Alternative 1: Fund Balance reserves above 25%
 - Currently, the Airport Fund has approximately \$3.0 million in excess reserves available for one-time capital purchases or projects.
 - Remainder of cost would need to be funded from other sources
- Alternative 2: 20-year Certificates of Obligation
 - \$7.0 million in Combination Tax and Revenue Certificates of Obligation at an estimated interest rate of 4.35% can be supported by Airport operating revenues.

Options Pro Forma - Assumptions

20-Year Pro Forma - Assumptions

Assumptions (As of Yr. 1)	Option A - 2-Story Customs + Airport Administrative Offices	Option B Phase 1 - 1-Story Customs Facility	Option B Phase 1 & 2 - 1-Story Customs + 1-Story Airport Administration Offices
Construction Costs	\$6,186,248	\$3,817,254	\$6,297,340
Design Costs	\$695,305	\$517,797	\$695,305
Total Project Cost	\$6,881,553	\$4,335,051	\$6,992,305
Total Bldg. Area	12,593 SF	5,400	11,316
Full Service Mkt. Rent (\$/RSF)	NA	\$20.00/RSF	NA
Market Ground Rent (\$/SFL)	\$0.71	\$0.71	NA
Shared Apron Rent (\$/SFL)	\$2.00	\$2.00	NA
Operating Expenses [1]	\$6.30/BSF	\$6.30/BSF	\$7.56/BSF
Operating Expense Escalation /YR	1.50%	1.50%	1.50%
US Customs Fee Escalation /YR	3% Yr. 3-4; 1.50% thereafter	3% Yr. 3-4; 1.50% thereafter	3% Yr. 3-4; 1.50% thereafter
Rental Escalation /YR	1.50%	1.50%	1.50%

[1] Operating Expenses includes: Insurance, Repair & Maintenance, Utilities, Janitorial & Landscaping

Options Pro Forma

Stabilized Annual Pro Forma – Yr. 10

Stabilized Operating Proforma (as of Year 10)	Option A - 2-Story Customs + Airport Administrative Offices	Option B Phase 1 - 1-Story Customs Facility	Option B Phase 1 & 2 - 1-Story Customs + 1-Story Airport Administration Offices
REVENUE			
Admin. Rental Expense	0	(113,415)	0
US Customs Fees	174,005	174,005	174,005
Ground Rent - Remainder Site	62,825	62,825	0
Shared Apron Rent	31,298	31,298	0
TOTAL ANNUAL REVENUE	268,128	154,713	174,005
Operating Expenses	(77,791)	(32,806)	(86,285)
Annual Debt Service	(531,161)	(379,401)	(531,161)
TOTAL ANNUAL EXPENSES	(608,952)	(412,207)	(617,446)
Net Annual Cash Flow	(340,824)	(257,494)	(443,441)
20-Year Total Cash Flow	(7,030,663)	(5,319,534)	(8,932,666)
Net Present Value (8%)	(3,356,896)	(2,532,142)	(4,122,655)

Recommendations

- Design Option A – 2-story Customs facility with Airport administration offices on the second floor
- Fund the construction of the facility through the issuance of debt with debt service paid from Airport annual operating revenues

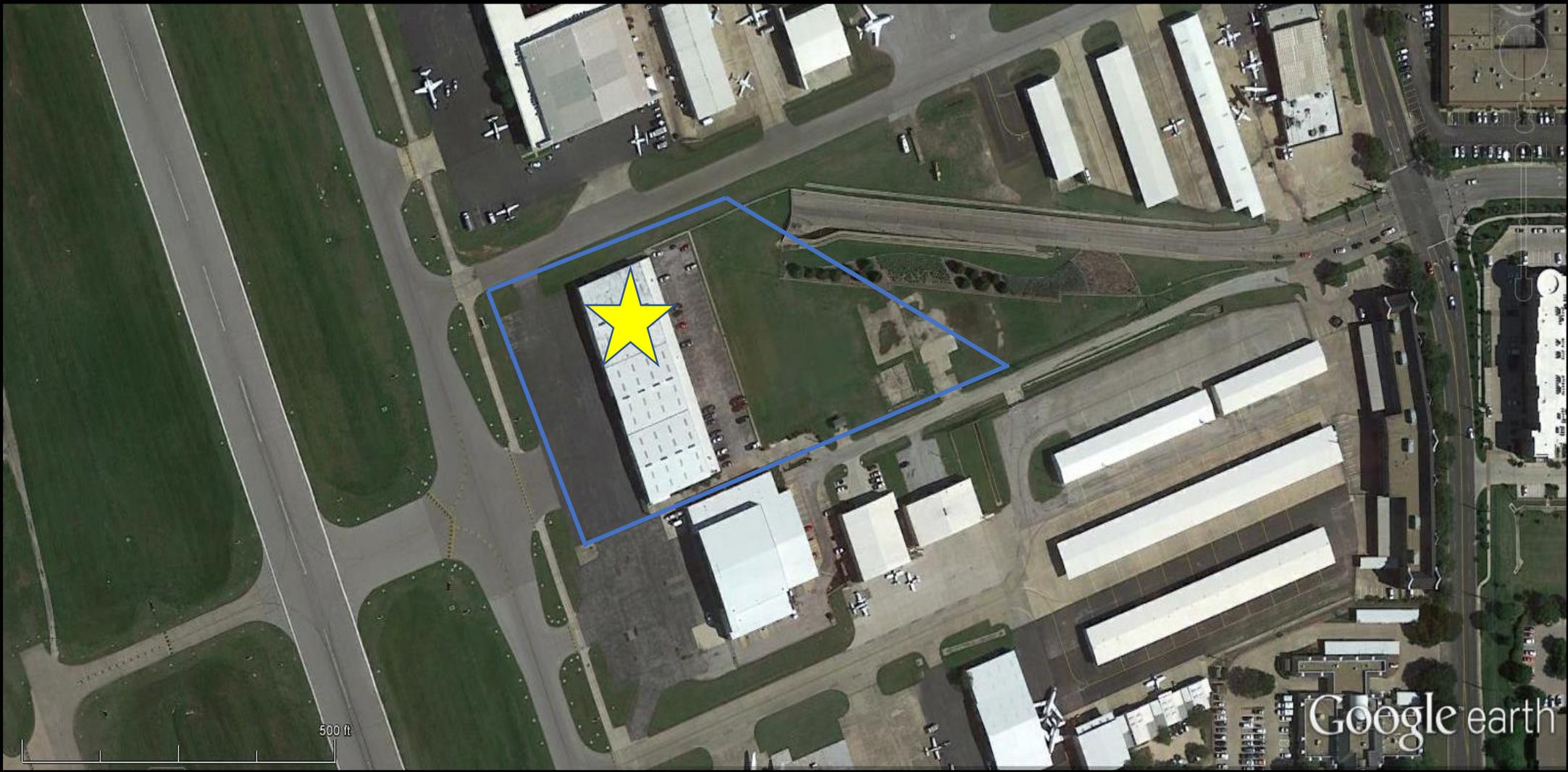
Direction Needed from Council

- Does Council agree with recommendation to Design Option A?
- Does Council agree with recommendation to fund the facility through debt financing with debt service paid out of Airport operating revenue?

Cost Summary - Customs Facility Design Options

Scope	Option A - 2-Story Customs + Airport Administrative Offices	Option B Phase 1 - 1-Story Customs Facility	Option B Phase 1 & 2 - 1-Story Customs + 1-Story Airport Administration Offices
			<i>Buildings constructed concurrently</i>
Customs Facility + Site	\$ 4,428,760	\$ 2,229,866	\$ 2,229,866
Airport Administration Offices In Separate Building	N/A	N/A	\$ 2,309,986
Airfield Improvements	\$ 880,400	\$ 880,400	\$ 880,400
Construction Subtotal	\$ 5,309,160	\$ 3,110,266	\$ 5,420,252
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Equipment	\$ 84,700	\$ 84,700	\$ 84,700
Facility Grand Total	\$ 6,186,248	\$ 3,817,254	\$ 6,297,340

U.S. Customs and Border Protection Midfield Site



Work Session and Regular Meeting**Meeting Date:** 04/24/2018**Department:** Infrastructure- Development Services

AGENDA CAPTION:

Present, Discuss, and Consider Action on the **Design of Improvements to Sanitary Sewer Basin I that is Located in the Vicinity West of Inwood Road, South of Belt Line Road, and along Beltway Drive to Midway Road.**

BACKGROUND:

In 1964, an agreement between the Town of Addison and the City of Farmers Branch allowed Addison to direct its sanitary sewer flows through Farmers Branch's sanitary sewer lines to the Trinity River Authority's (TRA) sewage treatment plant. The term of the agreement was 50 years, renewable for additional 50-year periods at Addison's option.

When Addison's westside began to develop, the Town asked Farmers Branch for additional flow capacity in the sanitary sewer lines to accommodate the development growth. Farmers Branch refused the request and the dispute resulted in a lawsuit between the two cities. Subsequently, Addison and Farmers Branch entered into discussions on an interim agreement that would allow Addison to continue to send its sewage flow to the Farmers Branch system and on the construction of a sewer tunnel that would convey the then current and future flows from both cities to the treatment plant. The agreements stipulated the amount of flow that Addison could send to the Farmers Branch system and the associated fee for that service that was based on 120% of the rate being charged to Farmers Branch by TRA. The agreement left in place one unmetered basin. For the right to send sewage from that basin through Farmers Branch's sanitary sewer system to TRA, Addison was required to pay Farmers Branch an amount equal to 80% of the amount of the customer accounts of water consumption, times the then current TRA rate. The last interim agreement expired on November 6, 1995. The sanitary sewer tunnel was completed in 1996.

Once the sewer tunnel went into service, Addison's westside sanitary sewer flow was directed into that facility except the flow in Basin I (then called the Beltwood portion of the Farmers Branch Creek Basin), which is bordered by Inwood Road to the east, Belt Line Road to the north, Beltwood Parkway to the west, and Addison's city limits to the south. An agreement for this portion of the basin was never executed but Addison has continued to pay Farmers Branch for the use of their system based on the formula as outlined in the last executed agreement.

In October 2017, Farmers Branch notified Addison that the unmetered flows in Basin I will need to be metered or a new agreement with Farmers Branch will be needed. On January 11, 2018, Addison requested to begin discussions with Farmers Branch on a new agreement to allow Addison's sewage to flow through Farmers Branch's system to Trinity River Authority.

On January 15, 2018, Farmers Branch notified Addison that the Town would need to work with TRA to install a metering station that would eliminate unmetered access points into their system. On March 24, 2018, Farmers Branch sent a letter to Addison requiring the Town to either divert the flow or install a TRA deduct meter by May 25th, at which time the line would be capped if either of these conditions are not met. Staff has been working with a consultant engineer to determine the best alternative for this improvement. Three alternatives have been considered:

Alternative	Description
A	A new TRA approved metering station to measure sanitary sewer flows discharged into the Farmers Branch system
B	A new gravity sewer collection line to re-route sewer flows away from the Farmers Branch system to adjacent Addison basin already connected to Trinity River Authority (TRA) meter station
C	A new lift station and force main pipeline to re-route sewer flows away from the Farmers Branch system into an adjacent Addison sewer basin that is connected to a TRA meter station

Staff considered two options in Alternative A, A-1 and A-2. Alternative A-1 involved the installation of a metering station at the current location where Addison's flow enters the Farmers Branch system. Alternative A-2 involved a new metering station that would discharge metered sewage directly into TRA's system. A-2 would necessitate negotiating with Farmers Branch for the use of their public right-of-way to connect to the TRA system. Therefore, this option was rejected and was not included in the cost estimating or the Business Case Evaluation.

There were two options in Alternative B also. B-1 involved constructing 4,654 linear feet of gravity line via an open cut in Beltway Drive to connect to Addison's existing sanitary sewer system at Midway Road. B-2 involved constructing 3,405 linear feet of gravity line via trenchless construction behind buildings through easements that would need to be negotiated with the private property owners. The construction cost of B-2 was estimated but the option was not included in the Business Case Evaluation discussed below due to the uncertainty of the cost and time to obtain easements from the private property owners.

There were two options in Alternative C, with the only difference being the ultimate location of the lift station and subsequent length of piping needed. The construction cost of both options were developed and both were included in the Business Case Evaluation.

The estimated cost for each alternative is as follows:

Alternative	Description	Total Cost*
A-1	Construct metering station	\$1,377,388
B-1	Gravity flow using Beltway Drive	\$1,617,513
B-2	Gravity flow using easements to be acquired	\$1,466,714**
C	Lift station, gravity flow line, and force main line	\$746,603-\$772,764

*Cost includes capital costs and design of plans and specifications, contract administration, construction testing and inspection, estimated land acquisition, and associated costs.

**The cost of the easements on private property behind the buildings has not been estimated or included in this cost due to the uncertainty of the cost and time to obtain easements from the private property owners.

Staff considered several goals in analyzing the alternatives:

1. The alternative that presents the best business case
2. The alternative that redirects the flow out of the Farmers Branch system and into an existing TRA metered basin
3. The alternative that has the lowest life-cycle costs for on-going operations, maintenance, and refurbishment
4. The alternative that allows for future growth with no permission needed from other jurisdictions

Staff conducted a Business Case Evaluation that showed that Alternative B-1 is the most cost effective alternative, even though the initial cost is higher than the other alternatives. Alternative B-1 has the lowest life-cycle costs related to on-going operations, maintenance, and refurbishment costs. A detailed spreadsheet of the Business Case Evaluation is included as an attachment to this item.

Based on this information, staff recommends Alternative B-1, the gravity flow using Beltway Drive be designed and constructed. If so directed, staff will bring an engineering design contract for the design of Alternative B-1 to Council for consideration on May 22, 2018.

RECOMMENDATION:

Administration recommends approval

Attachments

Presentation - Sanitary Sewer Basin I Design Improvements

Business Case Evaluation - Sanitary Sewer Basin I Design Improvements

Basin I – Unmetered Sanitary Sewer Flow Council Briefing

April 24, 2018

The logo for Addison, featuring the word "ADDISON" in a bold, blue, sans-serif font centered within a white circle. The circle is set against a blue background that has a white diagonal line running from the top-left to the bottom-right, creating a triangular shape on the right side of the slide.

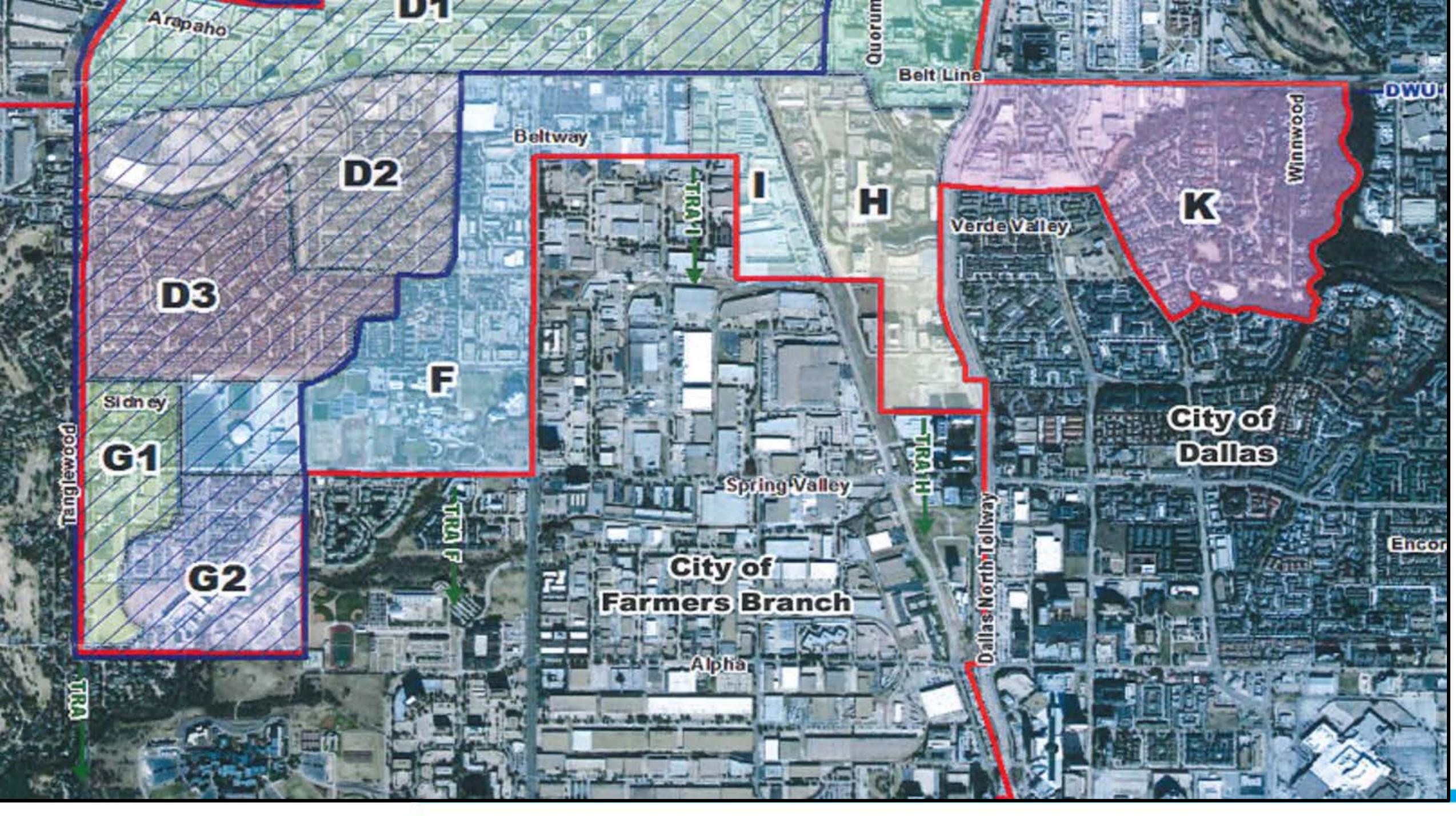
ADDISON

Background

- 1964 - 50-year Agreement between Farmers Branch and Addison allowing effluent from Addison into Farmers Branch's system
- Early 1990s - To accommodate increased development, Addison and Farmers Branch began talks for an interim agreement for the construction of a sanitary sewer tunnel
- 1991 - North Dallas County Water Supply Corporation was formed
 - For joint design, finance, construction, ownership, operation, and maintenance of Eastside Interceptor Sewer System
- 1996 - Construction of interceptor tunnel for sanitary sewer service was complete

Background

- One sanitary sewer basin in Addison remains unmetered – Basin I
- Sewage flow goes into Farmers Branch's system via an unmetered manhole
- Addison pays Farmers Branch for the use of their system per the terms of an interim agreement that expired on November 6, 1995
 - Addison pays FB a fee based on 80% of the water usage in the basin
 - Limits on amount of flow allowed



Arapaho

D1

Quorum

Belt Line

DWU

Beltway

D2

I

H

Winnwood

K

Verde Valley

D3

F

Sidney

G1

Tanglewood

G2

TRA

TRAF

Spring Valley

TRAH

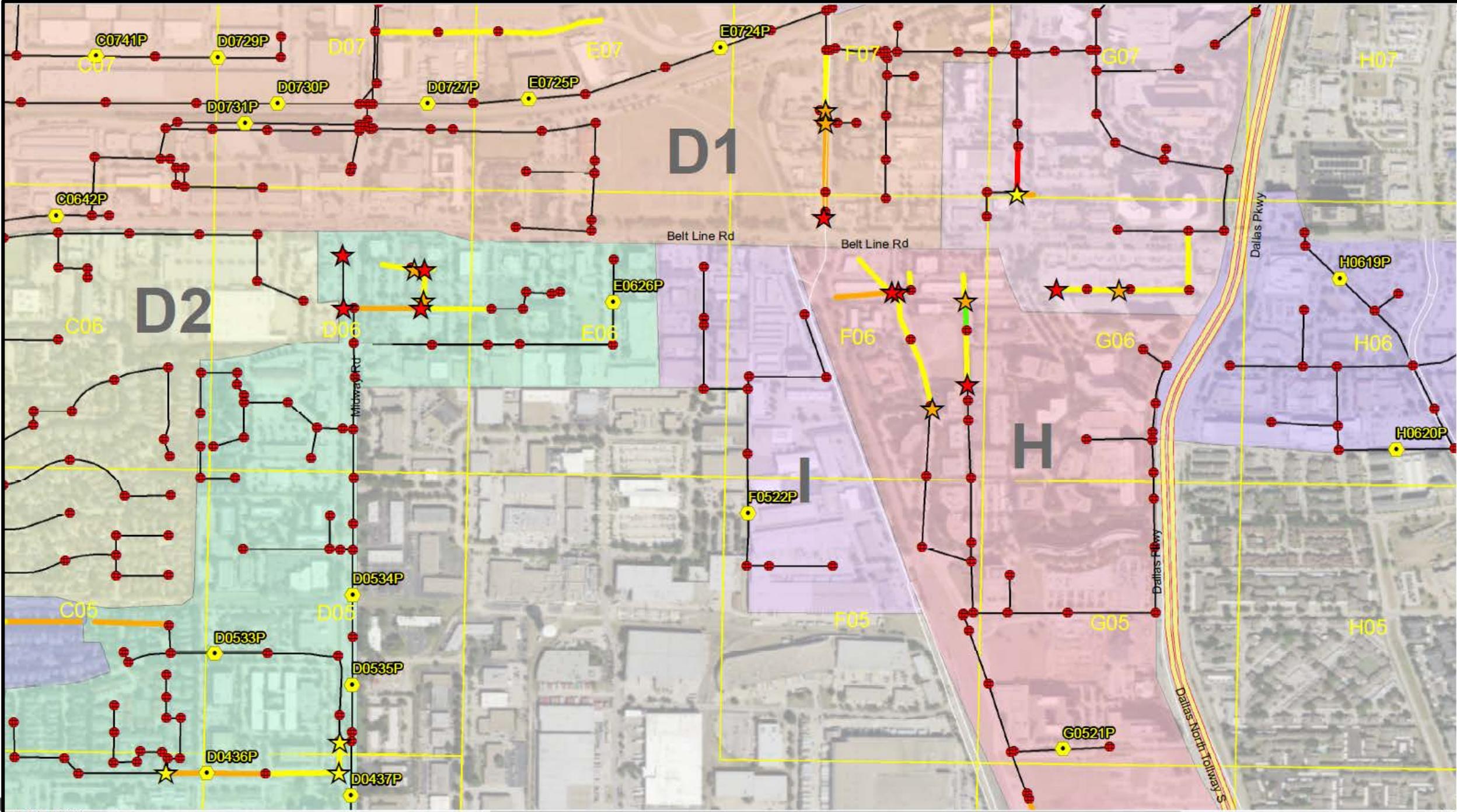
City of Farmers Branch

City of Dallas

Dallas North Tollway

Alpha

Encor



- October 2017 – Farmers Branch notified Addison that the unmetered flows in Basin I will need to be metered or a new agreement with Farmers Branch will be needed.
- January 11, 2018 – Addison requested to begin discussions on a new agreement to allow Addison's sewage to flow through Farmers Branch's system to Trinity River Authority (TRA)
- January 15, 2018 – Farmers Branch notified Addison that they should work with TRA to install a metering station for the flow in Basin I
- Addison engaged a consultant to develop alternatives for metering the sanitary sewer flow
- Discussions with TRA's confirm the metering station must meet all TRA requirements

Three Alternatives Considered

- Alternative A:
 - New TRA approved metering station to measure sanitary sewer flows discharged into Farmers Branch's system
- Alternative B:
 - New gravity sewer collection line to re-route sewer flows away from Farmers Branch's system to adjacent Addison basin already connected to TRA meter station
- Alternative C:
 - New lift station and force main pipeline to re-route sewer flows away from Farmers Branch's system into an adjacent Addison sewer basin that is connected to a TRA meter station

Estimated Capital Cost of Each Alternative

Alternative	Description	Total Cost*
A-1	Construct Metering Station – Continue to use Farmers Branch’s system to convey sewage flows	\$1,377,388
B-1	Gravity Flow using Beltway Drive – redirects flow into existing TRA system	\$1,617,513
B-2	Gravity Flow using easements – Redirects flow into existing TRA system; requires new easements	\$1,466,714
C	Lift station, gravity flow line, and force main line – Requires new easements/property acquisition	\$746,603 - \$772,764

*Includes capital costs and design of plans and specifications, contract administration, construction testing and inspection, estimated land acquisition, and other related costs

Business Case Evaluation



Town of Addison Basin 1 Service Area Wastewater Conveyance Options Business Case Evaluation

	Organization:	Sensitivity Adjustments (%)			Results (\$000s)		
		Benefits	Capital Costs	Running Costs	Capital Cost	60-yr NPV	Benefit
Project/Problem:	Town of Addison						
	Basin 1 Service Area Wastewater Conveyance Options						
Option 1	B-1 Gravity sewer line				\$1,617,513	(\$1,763,950)	
Option 2	C-1 Lift station at 15001 E. Beltwood Pkwy parking lot				\$746,603	(\$2,551,905)	(\$787,955)
Option 3	C-2 Lift station at 15004 Beltway Drive parking lot				\$772,764	(\$2,593,735)	(\$829,785)
Year of analysis:	2018						
Escalation rate:	3.00%						
Discount rate:	2.00%						

Assessment of alternatives that do not require use of Farmers Branch's system:

- Over 60-year life cycle, Option B-1 is most cost effective option - \$787,955 and \$829,785 benefit over lift station option
- Lower on-going operations, maintenance, and refurbishment costs

Other Non-Financial Considerations

	Other Non-Financial Factors for Consideration
B-1: Gravity Sewer System	<p>Positive</p> <ul style="list-style-type: none"> • Underground, no going interference with above ground uses • No noise or smell • Very low maintenance <p>Negative</p> <ul style="list-style-type: none"> • Longer construction period compared to other options • Disruption of traffic at a Midway Road intersection • Greater impact on business disruption
C-1: New Lift Station at 15001 E. Beltwood Pkwy Parking Lot Location	<p>Positive</p> <ul style="list-style-type: none"> • Shorter construction time • Less impact on surrounding businesses
C-2: Construct a new lift station at 15004 Beltway Dr. (Addison Park Place Building 1 Parking Lot)	<p>Negative</p> <ul style="list-style-type: none"> • Not visually pleasing for neighbors • Potential for noise and smell complaints • More need for maintenance (e.g., gate, fence, paint) • More potential for failure (e.g., outage, leaks) • Potential issue with right-of-way • Requires property acquisition via easements or fee simple • Need for security to prevent vandalism and illegal entry • The system would either need to be over-sized now in anticipation of future growth along Inwood or would have to be made larger when growth occurs

Recommendation

Alternative B-1:

- Gravity system using Beltway Drive to connect with Addison system in Midway Road
- Redirects flow to an existing TRA metered basin
- Allows for future growth without constraints from other jurisdictions
- No agreement needed with Farmers Branch
- Long term maintenance of gravity system lower than lift station



- Consideration of contract for engineering design on May 22nd agenda
- Schedule for design and construction
 - Design – 6 months: land survey, subsurface utility exploration, geotechnical analysis, design, and property acquisition, if needed
 - Construction - 10 months
 - Anticipated in service summer 2019

Questions?



**Town of Addison
Basin 1 Service Area Wastewater Conveyance Options
Business Case Evaluation**

		Sensitivity Adjustments (%)			Results (\$000s)		
		Benefits	Capital Costs	Running Costs	Capital Cost	60-yr NPV	Benefit
<i>Organization:</i>	Town of Addison						
<i>Project/Problem:</i>	Basin 1 Service Area Wastewater Conveyance Options						
Option 1	B-1 Gravity sewer line				\$1,617,513	(\$1,763,950)	
Option 2	C-1 Lift station at 15001 E. Beltwood Pkwy parking lot				\$746,603	(\$2,551,905)	(\$787,955)
Option 3	C-2 Lift station at 15004 Beltway Drive parking lot				\$772,764	(\$2,593,735)	(\$829,785)
<i>Year of analysis:</i>	2018						
<i>Escalation rate:</i>	3.00%						
<i>Discount rate:</i>	2.00%						

Work Session and Regular Meeting**Meeting Date:** 04/24/2018**Department:** Finance**Pillars:** Gold Standard for Financial Health**Milestones:** Review town ordinances and regulations with a focus on modernization in order to facilitate redevelopment

AGENDA CAPTION:

Present, Discuss, and Consider Action on an **Ordinance to Amend the Town's Annual Budget for the Fiscal Year Ending September 30, 2018 to Provide Funding for Construction of the Wing Aviation Apron Connector and the Claire Chennault Street Driveway Reconstruction at Addison Airport.**

BACKGROUND:

The Fiscal Year (FY) 2018 budget was adopted by Council on September 13, 2017. This is the second amendment for the FY2018 Town of Addison annual budget.

Each year, Finance staff reviews the budget to determine which items should be recognized with formal budget amendments. When budget variances occur that are outside of the authority of the City Manager these adjustments are presented to the council in the form of a budget amendment.

At the February 28, 2017 meeting, Council approved a conventional hangar lease agreement between the Town and Wing Aviation Charter Services, LLC, for commercial aviation use on property located at 4555 Glenn Curtiss. There is no direct pavement connector from the hangar ramp to Taxilane Uniform; taxilane access is available only through the ramp of an adjoining property leased to another tenant. Because of this situation, and as a condition of the lease, the Airport agreed to construct a connector from the Wing Aviation hangar ramp to Taxilane Uniform within 18 months from the commencement date of the lease, which was March 1, 2017.

At the same time that construction of the Wing Aviation connector was being considered, the tenant at 4554 Claire Chennault advised that the concrete driveway serving tenant's property had failed. Staff investigated and determined that repair of the driveway was the landlord's (airport's) responsibility. The work needed for this repair (concrete pavement and drainage improvements) is quite similar to the work required for the Wing Aviation connector. Because this was a small project, it was decided to include this work in a single bid package with the Wing Aviation connector to reduce costs through economies of scale.

Currently, \$411,000 is budgeted for facility capital repairs and maintenance for various small projects. Of this amount, \$190,000 has been allocated for this project. Due to delays in the awarding of federal airport improvement grants, \$10,240 has become eligible in grant matching funds that was originally budgeted for the Town's matching portion. The remaining amount needed to fund this project is \$185,760 that is proposed in this budget amendment to be taken out of fund balance. The table below summarizes the funding sources for this project:

Funding Source	Amount
Budgeted funds for capital repairs and maintenance	\$190,000
Grant matching funds (Town's portion)	\$10,240
Fund Balance	\$185,760
Total	\$386,000

RECOMMENDATION:

Administration recommends approval.

Attachments

Ordinance - Airport Fund Budget Amendment

TOWN OF ADDISON, TEXAS

ORDINANCE NO. _____

AN ORDINANCE OF THE TOWN OF ADDISON, TEXAS AMENDING THE ANNUAL BUDGET FOR THE FISCAL YEAR ENDING SEPTEMBER 30, 2018 TO PROVIDE FUNDING FROM THE AIRPORT FUND FOR THE CONSTRUCTION OF THE WING AVIATION APRON AND CLAIRE CHENNAULT STREET PROJECT; PROVIDING THAT EXPENDITURES SHALL BE MADE IN ACCORDANCE WITH SAID BUDGET AS AMENDED; PROVIDING AN EFFECTIVE DATE.

WHEREAS, on September 13, 2017, the City Council of the Town of Addison, Texas (the “City”) adopted a budget for the City for the fiscal year beginning October 1, 2017 and ending September 30, 2018 as set forth in Ordinance No. 017-025 of the City; and

WHEREAS, Section 5.08 of the City Charter provides that the budget may be amended or changed, under conditions which may arise and which could not reasonably have been foreseen in the normal process of planning the budget, to provide for any additional expense in which the general welfare of the citizenry is involved, that such amendments shall be by Ordinance, and that they shall become an attachment to the original budget; and

WHEREAS, Section 102.010 of the Texas Local Government Code authorizes the City Council to make changes in the adopted budget for municipal purposes, and the changes to the budget made herein are for municipal purposes; and

WHEREAS, this amendment and changes to the City’s 2017-2018 budget made herein are as a result of conditions that have arisen and could not reasonably have been foreseen in the normal process of planning the budget, provide for additional expenses in which the general welfare of the citizenry is involved, and the City Council finds that the amendments provided for herein are of a serious public necessity and an urgent need for the City.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE TOWN OF ADDISON, TEXAS:

Section 1. In accordance with Section 5.08 of the City Charter, Ordinance No. 017-025, as amended, of the Town of Addison, Texas (the “City”), adopting the 2017-18 annual budget to provide funds for Airport Fund construction project costs is hereby further amended to allocate \$185,760 for additional expenditures related to the Wing Aviation Apron & Claire Chennault Street project as detailed on **EXHIBIT A** attached hereto and incorporated herein.

Section 2. The above and foregoing recitals are true and correct and are incorporated herein and made a part of this Ordinance.

Section 3. This Ordinance shall take effect upon its passage and approval.

PASSED AND APPROVED by the City Council of the Town of Addison, Texas
this the 24th day of April 2018.

Joe Chow, Mayor

ATTEST:

By: _____
Christie Wilson, Interim City Secretary

APPROVED AS TO FORM:

By: _____
Brenda N. McDonald, City Attorney

EXHIBIT A

**TOWN OF ADDISON
AIRPORT FUND
BUDGET AMENDMENT
FY2017-18**

	Revised Budget 2017-18	Amendment 2017-18	Revised Budget 2017-18
BEGINNING BALANCES	\$ 4,478,639		\$ 5,115,094
REVENUES:			
Ad valorem Taxes	\$ -		\$ -
Non-Property Taxes	-		-
Franchise Fees	-		-
Licenses and Permits	-		-
Intergovernmental	50,000		50,000
Service Fees	1,060,000		1,060,000
Fines and Penalties	-		-
Rental Income	4,355,000		4,355,000
Interest and Other Income	24,500		24,500
	<u>\$ 5,489,500</u>	<u>\$ -</u>	<u>\$ 5,489,500</u>
Transfers from other funds	-		-
TOTAL REVENUES	<u>\$ 5,489,500</u>	<u>\$ -</u>	<u>\$ 5,489,500</u>
TOTAL AVAILABLE RESOURCES	<u>\$ 9,968,139</u>	<u>\$ -</u>	<u>\$ 10,604,594</u>
EXPENDITURES:			
Personal Services	\$ 423,447		\$ 423,447
Supplies	40,000		40,000
Maintenance	3,453,903		3,453,903
Contractual Services	657,011		657,011
Capital Replacement / Lease	26,823		26,823
Debt Service	592,972		592,972
Capital Outlay	287,000		287,000
Capital Projects (Cash Funded)			
Customs Facility	857,663		857,663
Runway 15/33 Rejuvenation	1,580	(1,580)	-
Alpha Taxiway Rejuvenation	8,660	(8,660)	-
Bravo/Golf Taxiway Improvements	80,500		80,500
Wing Aviation Apron & Claire Chennault St.	-	386,000	386,000
Facility Repair and Improvements	411,000	(190,000)	221,000
	<u>\$ 6,840,559</u>	<u>\$ 185,760</u>	<u>\$ 7,026,319</u>
Transfers to other funds	-		-
TOTAL EXPENDITURES	<u>\$ 6,840,559</u>	<u>\$ 185,760</u>	<u>\$ 7,026,319</u>
ENDING FUND BALANCES	<u>\$ 3,127,580</u>	<u>\$ (185,760)</u>	<u>\$ 3,578,275</u>
Fund Balance Percentage	45.7%		50.9%

Work Session and Regular Meeting**Meeting Date:** 04/24/2018**Department:** Infrastructure- Development Services**Pillars:** Excellence in Asset Management
Excellence in Transportation Systems**AGENDA CAPTION:**

Present, Discuss, and Consider Action on a **Resolution to Approve an Agreement with Advanced Transol Consultants, LLC, for the Construction of the Wing Aviation Apron Connector at 4555 Glenn Curtiss to Taxiway Uniform and 4554 Claire Chennault Street Driveway Reconstruction at Addison Airport and to Authorize the City Manager to Execute the Agreement in an Amount not to Exceed \$385,804.**

BACKGROUND:

At the February 28, 2017 Council meeting, Council approved a conventional hangar lease agreement between the Town and Wing Aviation Charter Services, LLC, for commercial aviation use on property located at 4555 Glenn Curtiss. There is no direct pavement connector from the hangar ramp to Taxilane Uniform; taxilane access is available only through the ramp of an adjoining property that is leased to another tenant. Because of this situation, and as a condition of the lease, the Airport agreed to construct a connector from the Wing Aviation hangar ramp to Taxilane Uniform within 18 months from the commencement date of the lease, which was March 1, 2017. The scope of the project will include the taxilane connector and storm drain improvements on the south side of Taxilane Uniform from the Wing Aviation ramp west to Taxiway Alpha.

While the design of the Wing Aviation connector was underway, the tenant at 4554 Claire Chennault notified the Airport management that the concrete driveway that serves the tenant's property had failed. Staff investigated and determined that repair of the driveway is the airport's responsibility. The pavement failure resulted from an inadequate and poorly designed drainage pipe running under the driveway. The scope of work includes concrete pavement and drainage improvements, which is similar to the work required for the Wing Aviation connector. In order to take advantage of economies of scale, staff decided to include this work in a single bid package with the Wing Aviation connector.

Plans and specifications for the project were released as Bid #18-22 and were due on February 6, 2018. The engineer's estimate for this project was \$448,536 for the Wing Aviation connector and \$68,046 for the driveway repair, for a total of \$516,582. Three bids were received, the lowest responsive bidder was Advanced Transol Consultants, LLC.

	Wing Connector	Driveway Repair	Bid Total
Advanced Transol	\$328,189	\$57,615	\$385,804
EJ Smith Construction	\$415,746.76	\$75,313.14	\$491,059.90
RBR Infrastructure	\$589,529	\$104,634	\$694,163

The Finance Department has reviewed the funds that are available in the Airport Fund, accounting for the required 25% reserve balance. Their assessment is that the Airport Fund has approximately \$3,000,000 in excess of the required 25% fund reserve. A budget amendment has been requested in a separate Council item to allocate funds in the amount of \$386,000 in FY2018 that are needed for this project.

RECOMMENDATION:

Administration recommends approval.

Attachments

Resolution - Wing Aviation Connector and Claire Chennault Street Driveway Reconstruction

Map - Wing Aviation Connector and Claire Chennault Street Driveway Reconstruction

Bid Tabulation - Wing Aviation Connector and Claire Chennault Street Driveway Reconstruction

Specs and Contract Docs - Wing Aviation Connector and Claire Chennault Street Driveway Reconstruction

Specs Addendum 1 - Wing Aviation Connector and Claire Chennault Street Driveway Reconstruction

Plans - Wing Aviation Connector and Claire Chennault Street Driveway Reconstruction

TOWN OF ADDISON, TEXAS

RESOLUTION NO. _____

A RESOLUTION OF THE CITY COUNCIL OF THE TOWN OF ADDISON, TEXAS APPROVING A CONTRACT AGREEMENT BETWEEN THE TOWN OF ADDISON AND ADVANCED TRANSOL CONSULTANTS, LLC, FOR INFRASTRUCTURE AND DEVELOPMENT SERVICES RELATED TO ADDISON AIRPORT WING AVIATION APRON CONNECTOR AND CLAIRE CHENNAULT STREET DRIVEWAY RECONSTRUCTION IN AN AMOUNT NOT TO EXCEED \$385,804.00, AUTHORIZING THE CITY MANAGER TO EXECUTE THE AGREEMENT, 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 Advanced TranSol Consultants, LLC for infrastructure and development services related to Addison Airport Wing Aviation Apron Connector and Claire Chennault Street Driveway Reconstruction in an amount not to exceed \$385,804.00, 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, Instruction 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 24th day of April 2018.

Joe Chow, Mayor

ATTEST:

By: _____
Christie Wilson, Interim City Secretary

APPROVED AS TO FORM:

By: _____
Brenda N. McDonald, City Attorney

EXHIBIT A

SECTION CA

CONTRACT AGREEMENT

CONTRACT AGREEMENT

STATE OF TEXAS

COUNTY OF DALLAS

THIS AGREEMENT is made and entered into this _____ day of _____, 2018, 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 ^{Advanced} ~~Transol Consultants~~ of the City of Dallas, 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:

ADDISON AIRPORT WING AVIATION APRON CONNECTOR AND CLAIRE CHENNAULT STREET DRIVEWAY RECONSTRUCTION INFRASTRUCTURE AND DEVELOPMENT SERVICES BID NUMBER 18-22

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 sixty (60) 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 three hundred eighty-five thousand eight hundred and four Dollars (\$385,804.00) in current funds for the performance of the Contract in accordance with the Proposal submitted thereof for the **Base Bid 1 and Base Bid 2**, 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)

ATTEST:

By: _____
City Manager

By: _____

Advanced Transit Consultants, LLC
(CONTRACTOR)

ATTEST:

By: MF [Signature] 4/11/18

By: Alana Ollot 4/11/18

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

4554 Claire Chennault



Wing Aviation Connector



Taxilane Uniform



© 2018 Google

Google Earth

Imagery Date: 9/6/2017 32°58'20.06" N 96°49'59.36" W elev 645 ft eye alt 2751 ft

1995



3010 Gaylord Parkway
Suite 190
Frisco, TX 75034
TEL 972.377.7480
FAX 972.377.8380
www.GarverUSA.com

February 15, 2018

Lisa Pyles
Director of Infrastructure
Town of Addison
PO Box 9010
Addison, TX 75001

Re: Addison Airport – Wing Aviation Apron Connector Construction & Claire Chennault Street
Driveway Reconstruction
Bid No. 18-22
Recommendation of Award

Dear Ms. Pyles,

Bids were received for Wing Aviation Apron Connector Construction & Claire Chennault Street Driveway Reconstruction project at the Town of Addison Finance Building at 2:00 pm on February 6, 2018. The project consists of two base bids. Base Bid 1 is the concrete construction of a taxilane connector from the Wing Aviation Apron to Taxilane Uniform. Also included in Base Bid 1 is storm water improvements along Taxilane Uniform. Base Bid 2 is the concrete reconstruction of a parking lot drive on the west end of Claire Chennault Street.

Three bids were received for this project. A tabulation of the bids received and our Engineer's Opinion of Probable Cost is enclosed within this letter. The low bidder, Advanced Transol Consultants, LLC submitted a total of \$328,189.00 for Base Bid 1 and \$57,615.00 Base Bid 2. This bid provides a good value for the Town of Addison. The engineer's estimate of probable cost for Base Bid 1 was \$448,536.00 and Base Bid 2 was \$68,046.00.

We recommend the award of Base Bid 1 and Base Bid 2, to provide a contract amount of **\$385,804.00** for Advanced Transol Consultants, LLC as the best value for the Town.

Please call me if you have any questions.

Sincerely,

Garver, LLC

Brandon Beville, PE
Project Manager

Attachments: Bid Summary & Tabulation

**ADDISON AIRPORT
WING AVIATION APRON CONNECTOR CONSTRUCTION (BASE BID 1) &
CLAIRE CHENNAULT STREET DRIVEWAY RECONSTRUCTION (BASE BID 2)
BID NO. 18-22 BID RESULTS SUMMARY**

CONSTRUCTION PROJECT SUMMARY				
CONSTRUCTION COST ESTIMATE				
Low Bidder - Advanced Transol Consultants, LLC	Storm Water Improvements		Other Improvements	TOTAL
Base Bid 1 - Wing Aviation Apron Connector Construction	\$157,370.00	+	\$170,819.00	= \$328,189.00
Base Bid 2 - Claire Chennault Street Driveway Reconstruction	\$6,500.00	+	\$51,115.00	= \$57,615.00
Totals	\$163,870.00	+	\$221,934.00	= \$385,804.00
CONSTRUCTION PHASE SERVICES				
CONSTRUCTION SUPPORT SERVICES				= \$10,700.00
CLOSEOUT SERVICES				= \$3,200.00
MATERIALS TESTING SERVICES				= \$10,900.00
SUBTOTAL (CONSTRUCTION PHASE SERVICES)				= \$24,800.00
FUNDING SUMMARY				
			STORM WATER IMPROVEMENTS	= \$163,870.00
			OTHER IMPROVEMENTS + CONSTRUCTION PHASE SERVICES	= \$246,734.00
			TOTALS	= \$410,604.00

Addison Airport
Base Bid 1 - Wing Aviation Apron Connector Construction
Bid Tabulation
BID OPENING: 2/6/2018; 2:00 PM

Advanced Transol Consultants, LLC
1551 Forest Central Dr., Suite 220
Dallas, Tx 75243

EJ Smith Construction Company,
LLC
1621 Falcon Drive
Desoto, Tx 75115

RBR Infrastructure & Road, LLC
13140 Coit Rd, Suite 230
Dallas, Tx 75240

ITEM NO.	SPEC. NO.	DESCRIPTION	UNIT	ESTIMATED QUANTITY	ENGINEER'S ESTIMATE		Advanced Transol Consultants, LLC		EJ Smith Construction Company, LLC		RBR Infrastructure & Road, LLC	
					UNIT PRICE	AMOUNT	UNIT PRICE	AMOUNT	UNIT PRICE	AMOUNT	UNIT PRICE	AMOUNT
1	SS-120-3.1	SITE PREPARATION	L.S.	100%	\$50,000.00	\$50,000.00	\$15,000.00	\$15,000.00	\$18,033.38	\$18,033.38	\$125,000.00	\$125,000.00
2	SS-212-5.1	TRIAIALXIAL GEOGRID	S.Y.	743	\$5.00	\$3,715.00	\$8.00	\$5,944.00	\$8.54	\$6,345.22	\$12.00	\$8,916.00
3	SS-220-5.1	DITCH GRADING	L.F.	458	\$50.00	\$22,900.00	\$15.00	\$6,870.00	\$21.34	\$9,773.72	\$40.00	\$18,320.00
4	D-751-5.2b	4'X7' SINGLE GRATE INLET (COMPLETE)	EACH	4	\$13,000.00	\$52,000.00	\$5,500.00	\$22,000.00	\$13,342.80	\$53,371.20	\$20,000.00	\$80,000.00
5	D-751-5.2c	4'X7' JUNCTION BOX (COMPLTETE)	EACH	2	\$13,000.00	\$26,000.00	\$5,000.00	\$10,000.00	\$12,205.72	\$24,411.44	\$16,250.00	\$32,500.00
6	TX-104-5.1	CONCRETE PAVEMENT REMOVAL	S.Y.	220	\$40.00	\$8,800.00	\$30.00	\$6,600.00	\$50.19	\$11,041.80	\$40.00	\$8,800.00
7	TX-132-5.2	EMBANKMENT IN PLACE	C.Y.	142	\$25.00	\$3,550.00	\$80.00	\$11,360.00	\$87.83	\$12,471.86	\$35.00	\$4,970.00
8	TX-162-5.1	BLOCK SODDING	S.Y.	3,151	\$6.00	\$18,906.00	\$10.00	\$31,510.00	\$11.79	\$37,150.29	\$11.00	\$34,661.00
9	TX-247-6.1	FLEXIBLE BASE (COMPLETE IN PLACE) (TYPE D GRADE 1) (6")	S.Y.	743	\$15.00	\$11,145.00	\$35.00	\$26,005.00	\$23.75	\$17,646.25	\$40.00	\$29,720.00
10	TX-360-5.1	CONCRETE PAVEMENT (10" THICKNESS)	S.Y.	644	\$80.00	\$51,520.00	\$100.00	\$64,400.00	\$103.87	\$66,892.28	\$125.00	\$80,500.00
11	TX-464-5.1	REINFORCED CONCRETE PIPE, 18", CLASS III	L.F.	1,474	\$120.00	\$176,880.00	\$75.00	\$110,550.00	\$97.38	\$143,538.12	\$93.00	\$137,082.00
12	TX-496-5.1	PIPE REMOVAL (LESS THAN 30" DIAMETER)	L.F.	228	\$40.00	\$9,120.00	\$25.00	\$5,700.00	\$34.24	\$7,806.72	\$20.00	\$4,560.00
13	TX-496-5.2	SAFETY END TREATMENT REMOVAL (LESS THAN 30" DIAMETER)	EACH	3	\$2,000.00	\$6,000.00	\$750.00	\$2,250.00	\$926.08	\$2,778.24	\$1,500.00	\$4,500.00
14	TX-506-5.1	TEMPORARY EROSION CONTROL	L.S.	100%	\$8,000.00	\$8,000.00	\$10,000.00	\$10,000.00	\$4,486.24	\$4,486.24	\$20,000.00	\$20,000.00
TOTALS						<u>\$448,536.00</u>		<u>\$328,189.00</u>		<u>\$415,746.76</u>		<u>\$589,529.00</u>

Corrected Prices
 Storm Water Improvements



**Addison Airport
Base Bid 2 - Claire Chennault Street Driveway Reconstruction
Bid Tabulation
BID OPENING: 2/6/2018; 2:00 PM**

**Advanced Transol Consultants, LLC
1551 Forest Central Dr., Suite 220
Dallas, Tx 75243**

**EJ Smith Construction Company,
LLC
1621 Falcon Drive
Desoto, Tx 75115**

**RBR Infrastructure & Road, LLC
13140 Coit Rd, Suite 230
Dallas, Tx 75240**

ITEM NO.	SPEC. NO.	DESCRIPTION	UNIT	ESTIMATED QUANTITY	ENGINEER'S ESTIMATE		Advanced Transol Consultants, LLC		EJ Smith Construction Company, LLC		RBR Infrastructure & Road, LLC	
					UNIT PRICE	AMOUNT	UNIT PRICE	AMOUNT	UNIT PRICE	AMOUNT	UNIT PRICE	AMOUNT
1	SS-120-3.1	SITE PREPARATION	L.S.	100%	\$20,000.00	\$20,000.00	\$10,000.00	\$10,000.00	\$7,281.54	\$7,281.54	\$45,000.00	\$45,000.00
2	SS-212-5.1	TRIAXIAL GEOGRID	S.Y.	189	\$5.00	\$945.00	\$10.00	\$1,890.00	\$6.39	\$1,207.71	\$12.00	\$2,268.00
3	SS-302-3.1	COMMUNICATION CABLE RELOCATION	ALLOW	100%	\$7,500.00	\$7,500.00	\$7,500.00	\$7,500.00	\$7,500.00	\$7,500.00	\$7,500.00	\$7,500.00
4	D-751-5.1a	TYPE "A" STORM SEWER MANHOLE (COMPLETE)	EACH	1	\$8,000.00	\$8,000.00	\$5,000.00	\$5,000.00	\$5,637.71	\$5,637.71	\$7,500.00	\$7,500.00
5	TX-104-5.1	CONCRETE PAVEMENT REMOVAL	S.Y.	158	\$40.00	\$6,320.00	\$25.00	\$3,950.00	\$38.98	\$6,158.84	\$40.00	\$6,320.00
6	TX-162-5.1	BLOCK SODDING	S.Y.	36	\$6.00	\$216.00	\$10.00	\$360.00	\$14.76	\$531.36	\$11.00	\$396.00
7	TX-247-6.1	FLEXIBLE BASE (COMPLETE IN PLACE) (TYPE D GRADE 1) (6")	S.Y.	189	\$15.00	\$2,835.00	\$35.00	\$6,615.00	\$33.87	\$6,401.43	\$40.00	\$7,560.00
8	TX-360-5.1	CONCRETE PAVEMENT (10" THICKNESS)	S.Y.	158	\$80.00	\$12,640.00	\$100.00	\$15,800.00	\$140.08	\$22,132.64	\$125.00	\$19,750.00
9	TX-464-5.2	REINFORCED CONCRETE PIPE, 24", CLASS III	L.F.	46	\$125.00	\$5,750.00	\$100.00	\$4,600.00	\$242.26	\$11,143.96	\$120.00	\$5,520.00
10	TX-464-5.3	PIPE CONNECTION TO EXISTING INLET	EACH	1	\$2,000.00	\$2,000.00	\$750.00	\$750.00	\$4,112.67	\$4,112.67	\$1,900.00	\$1,900.00
11	TX-496-5.1	PIPE REMOVAL (LESS THAN 30" DIAMETER)	L.F.	46	\$40.00	\$1,840.00	\$25.00	\$1,150.00	\$69.68	\$3,205.28	\$20.00	\$920.00
TOTALS						<u>\$68,046.00</u>		<u>\$57,615.00</u>		<u>\$75,313.14</u>		<u>\$104,634.00</u>

Corrected Prices
 Storm Water Improvements





SPECIFICATIONS AND CONTRACT DOCUMENTS

FOR THE CONSTRUCTION OF

**ADDISON AIRPORT
WING AVIATION APRON CONNECTOR AND
CLAIRE CHENNAULT STREET DRIVEWAY
RECONSTRUCTION**

**TOWN OF ADDISON, TEXAS
INFRASTRUCTURE AND DEVELOPMENT SERVICES
BID NUMBER 18-22**

DECEMBER 2017

PREPARED BY



3010 Gaylord Parkway, Suite 190

**Frisco, Texas 75034
(972) 377-7480**



Digitally Signed 12/26/2017



TOWN OF ADDISON, TEXAS

MAYOR

Joe Chow

COUNCIL MEMBERS

Ivan Hughes

Jim Duffy

Al Angell

Tom Braun

Paul Walden

Lori Ward

CITY MANAGER

Wesley Pierson

DIRECTOR OF INFRASTRUCTURE AND DEVELOPMENT SERVICES

Lisa Pyles

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SECTION AB

ADVERTISEMENT FOR BIDS

ADVERTISEMENT FOR BIDS

1. The Town of Addison is requesting bids for the Bid of the Addison Airport SEQ Area Building, Pavement, and Utility Demolition project. **Bids will be accepted until 2:00 p.m., Tuesday, February 6, 2018** at the Finance Building, 5350 Belt Line Rd., Dallas, Texas 75254 – Attention Purchasing Department, at which time responders names and bids will be publicly read aloud. Late bids will not be considered. The plans, specifications, quantities, pre-bid time and date, and other information are available on www.bidsync.com. The plans, specifications, and quantities for the work to be done are also on file with Lisa A. Pyles, Director of Infrastructure and Development Services, Town of Addison, 16801 Westgrove Drive, Addison, Texas 75001, and such plans, specifications, and quantities may be examined without charge. The Town of Addison reserves the right to waive any formalities, to reject any and all bids, and to select the proposal deemed most advantageous to the Town of Addison.
2. The Contractor shall identify his bid on the outside of the envelope by writing the words **INFRASTRUCTURE AND DEVELOPMENT SERVICES BID NUMBER 18-22**

PAPER BIDS SHALL BE REQUIRED.

3. Bids shall be accompanied by a bid bond in an amount not less than five percent (5%) of the total maximum bid price payable without recourse to the Town of Addison, 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 bid bonds will be returned to all except the three lowest bidders within three (3) days after the opening of bids, and the remaining 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.
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 formality 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. The Bidder (Proposer) must supply all the information required by the Bidder Qualification Statement.
9. **An optional pre-bid meeting will be held on Wednesday January 11, 2018 at 2:30pm in the Addison Airport Conference Room located at 16051 Addison Rd. Suite #220 Addison, TX 75001. A site visit on the Airport will follow this meeting.**

10. For information on bidding or work to be performed, please submit all questions on Bidsync. **All questions must be received by 5:00pm on Wednesday January 31, 2018. All questions received by this deadline will be answered by 5:00pm on Friday, February 2, 2018.**
11. The project consists of the reconstruction of a concrete drive along Claire Chennault Street that includes the replacement of a reinforced concrete pipe. Also included in the project is the construction of a concrete taxiway connector, and drainage improvements.

SECTION IB

INSTRUCTIONS TO BIDDERS

INSTRUCTIONS TO BIDDERS

- A. PROJECT:** WING AVIATION APRON CONNECTOR AND CLAIRE CHENNAULT STREET DRIVEWAY RECONSTRUCTION, 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 the reconstruction of a concrete drive along Claire Chennault street that includes the replacement of a reinforced concrete pipe. Also included in the project is the construction of a concrete taxiway connector, and drainage improvements.
- 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, Reference Form, 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. Bidders shall contact Joe McAnally (Airport Operations) at 972-392-4861 for access to the site. 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.
- 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 questions to the Town of Addison, no later than **5:00pm on Wednesday, January 31, 2018**. All questions received by this deadline will be answered by **5:00pm on Friday, February 02, 2018**. 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 selected contractor shall use the time period between the awarding of the contract at City Council and the date of Notice to Proceed to submit materials and shop drawings for approval by Garver. Garver shall review and return these submittals in the most expedient manner possible to accommodate immediate material ordering.
- a. Upon receiving Notice to Proceed, the selected contractor shall have **60 calendar days** to construct the project and achieve substantial completion. **See plans for work restrictions.** Substantial completion for this project includes the following items:
 - i. Preliminary Punchlist walk-through with the Town performed;
 - b. After substantial completion is reached, the contractor shall have an **additional 20 calendar days** to achieve 100% final completion. Final completion for this project shall include:
 - i. Punchlist items completed and approved by the Town;
 - ii. Site clean-up;
 - iii. Submittal of Record Drawings; and
 - iv. Execution of Maintenance Bond.
- 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: AN ELECTRONIC SPREADSHEET IS POSTED ON BIDS SYNC FOR CONTRACTORS CONVENIENCE TITLED "BID SCHEDULE BID 18-22.XLS". THIS SPREADSHEET MAY BE USED IN LIEU OF THE MANUAL HANDWRITTEN PROPOSAL FORM IN THE SPECIFICATIONS AND SHALL BE ATTACHED TO THE PROPOSAL AND MADE PART OF THE CONTRACT DOCUMENTS. USING THE SPREADSHEET OPTION SHALL NOT AMEND OR MODIFY ANY WORDING IN THE PROPOSAL FORM OR THE PLANS AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONFIRMING THAT THE SPREADSHEET ADEQUATELY CONVEYS THEIR BID.

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 AND DEVELOPMENT SERVICES BID NUMBER 18-22
WING AVIATION APRON CONNECTOR AND CLAIRE CHENNAULT STREET
DRIVEWAY RECONSTRUCTION

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.

Electronic bidding on bidsync.com will not be considered for this project. The Town of Addison uses [bidsync](http://bidsync.com) to distribute bids and proposals. There will be NO COST to the contractor for standard bids or proposals. **Bid number 18-22** is considered a standard bid. For Cooperative Bids and Reverse Auctions ONLY, the successful contractor/supplier agrees to pay [bidsync](http://bidsync.com) a transaction fee of one percent (1%) of the total amount of all contracts for goods and/or services. Cooperative Bids and Reverse Auctions will be clearly marked on the bid documents. To assure that all contractors/suppliers are treated fairly, the fee will be payable whether the bid/proposal is submitted electronically, or by paper means. Refer to www.bidsync.com for further information.

K. 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.

L. 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.

M. SUBMISSION OF POST-BID INFORMATION: Upon notification of acceptance, the selected bidder shall, within twenty-four (24) hours, 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.
3. Other information as required.

N. 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 Operations & 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".

O. 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.

P. 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.

Q. COST PLUS TIME BIDDING: N/A

- R. 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.
- S. 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.)
- T. BID SECURITY:** Bids shall be accompanied by a bid bond in an amount not less than five percent (5%) of the total maximum bid price payable without recourse to the Town of Addison, 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 bid bonds will be returned to all except the three lowest bidders within three (3) days after the opening of bids, and the remaining 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.
- U. 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.
- V. 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.
- W. 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 one (1) year Maintenance Bond in accordance with Section MB.
 5. Acknowledgement that the project has been reviewed and accepted by TDLR.
- X. 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.
- Y. 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 Construction and Maintenance of Highways, Streets, and Bridges* adopted by the Texas Department of Transportation 2014; 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-1

PROPOSAL FORM

PROPOSAL FORM

_____, 2018

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 – ADDISON AIRPORT
WING AVIATION APRON CONNECTOR AND CLAIRE CHENNAULT STREET DRIVEWAY
RECONSTRUCTION
BID NUMBER 18-22

**ADDISON AIRPORT
WING AVIATION APRON CONNECTOR CONSTRUCTION (BASE BID 1) & CLAIRE CHENNAULT STREET DRIVEWAY RECONSTRUCTION (BASE BID 2)**

**BID NO. 18-22
UNIT PRICES**

SPEC. NO.	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE	BID AMOUNT
SS-120-3.1	SITE PREPARATION	L.S.	100%		
UNIT PRICE IN WORDS:					
SS-212-5.1	TRIAxIAL GEOGRID	S.Y.	743		
UNIT PRICE IN WORDS:					
SS-220-5.1	DITCH GRADING	L.F.	458		
UNIT PRICE IN WORDS:					
D-751-5.2b	4'X7' SINGLE GRATE INLET (COMPLETE)	EACH	4		
UNIT PRICE IN WORDS:					
D-751-5.2c	4'X7' JUNCTION BOX (COMPLTETE)	EACH	2		
UNIT PRICE IN WORDS:					
TX-104-5.1	CONCRETE PAVEMENT REMOVAL	S.Y.	220		
UNIT PRICE IN WORDS:					
TX-132-5.2	EMBANKMENT IN PLACE	C.Y.	142		
UNIT PRICE IN WORDS:					
TX-162-5.1	BLOCK SODDING	S.Y.	3,151		
UNIT PRICE IN WORDS:					
TX-247-6.1	FLEXIBLE BASE (COMPLETE IN PLACE) (TYPE D GRADE 1) (6")	S.Y.	743		
UNIT PRICE IN WORDS:					
TX-360-5.1	CONCRETE PAVEMENT (10" THICKNESS)	S.Y.	644		
UNIT PRICE IN WORDS:					
TX-464-5.1	REINFORCED CONCRETE PIPE, 18", CLASS III	L.F.	1,474		
UNIT PRICE IN WORDS:					
TX-496-5.1	PIPE REMOVAL (LESS THAN 30" DIAMETER)	L.F.	228		
UNIT PRICE IN WORDS:					
TX-496-5.2	SAFETY END TREATMENT REMOVAL (LESS THAN 30" DIAMETER)	EACH	3		
UNIT PRICE IN WORDS:					
TX-506-5.1	TEMPORARY EROSION CONTROL	L.S.	100%		
UNIT PRICE IN WORDS:					
SUBTOTAL (BASE BID 1) =					

SPEC. NO.	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE	BID AMOUNT
SPEC. NO.	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE	BID AMOUNT

BASE BID 2 (CLAIRE CHENNAULT STREET DRIVEWAY RECONSTRUCTION)

SS-120-3.1	SITE PREPARATION	L.S.	100%		
UNIT PRICE IN WORDS:					
SS-212-5.1	TRIAXIAL GEOGRID	S.Y.	189		
UNIT PRICE IN WORDS:					
SS-302-3.1	COMMUNICATION CABLE RELOCATION	ALLOW	100%	\$7,500.00	\$7,500.00
UNIT PRICE IN WORDS:					
D-751-5.1a	TYPE "A" STORM SEWER MANHOLE (COMPLETE)	EACH	1		
UNIT PRICE IN WORDS:					
TX-104-5.1	CONCRETE PAVEMENT REMOVAL	S.Y.	158		
UNIT PRICE IN WORDS:					
TX-162-5.1	BLOCK SODDING	S.Y.	36		
UNIT PRICE IN WORDS:					
TX-247-6.1	FLEXIBLE BASE (COMPLETE IN PLACE) (TYPE D GRADE 1) (6")	S.Y.	189		
UNIT PRICE IN WORDS:					
TX-360-5.1	CONCRETE PAVEMENT (10" THICKNESS)	S.Y.	158		
UNIT PRICE IN WORDS:					
TX-464-5.2	REINFORCED CONCRETE PIPE, 24", CLASS III	L.F.	46		
UNIT PRICE IN WORDS:					
TX-464-5.3	PIPE CONNECTION TO EXISTING INLET	EACH	1		
UNIT PRICE IN WORDS:					
TX-496-5.1	PIPE REMOVAL (LESS THAN 30" DIAMETER)	L.F.	46		
UNIT PRICE IN WORDS:					
SUBTOTAL (BASE BID 2) =					

BID SUMMARY	
SUBTOTAL (BASE BID 1) =	
SUBTOTAL (BASE BID 2) =	
TOTA (BASE BID 1 + BASE BID 2) =	

- 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.

Name of Person Signing Bid

Signature of Person Signing Bid

Address

Telephone No.

Fax No.

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

If BIDDER is:

AN INDIVIDUAL

By _____ (Individual's Name) (Seal)

doing business as _____

Business address: _____

Phone No. _____

A PARTNERSHIP

By _____ (Firm Name) (Seal)

_____ (General Partner)

doing business as _____

Business address: _____

Phone No. _____

A CORPORATION

By _____
(Corporation Name)

(State of Incorporation)

By _____
(Name of Person Authorized to Sign)

(Title)

(Corporate Seal)

Attest _____
(Secretary)

Business address: _____

Phone No. _____



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 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 be submitted electronically with the executed original provided immediately upon request.

SECTION BQS

BIDDER QUALIFICATION STATEMENT

SECTION BQS

ALL BIDDERS ARE NOTIFIED THAT THE FOLLOWING QUALIFICATION STATEMENT MUST BE COMPLETED AND SUBMITTED WITH THE BID PROPOSAL

CONTRACTOR'S QUALIFICATIONS

The Contractor shall show that he has experience with similar projects that require working on water, sanitary sewer, and storm sewer construction and/or relocation projects working in confined areas in close proximity to many physical features (such as: fences, carports, utility poles, guy lines, gas lines and meters, water lines, sewer manholes and cleanouts, etc.) which will require the Contractor to plan his work efforts and equipment needs with these limitations in mind. The Contractor shall submit a complete list of ALL Municipal and Similar Non-Municipal current and completed projects for the past three (3) years for review. This list shall include the names of supervisors and type of equipment used to perform this work.

BIDDERS QUALIFICATION STATEMENT

INFRASTRUCTURE AND DEVELOPMENT SERVICES BID NUMBER 18-22, ADDISON AIRPORT WING AVIATION APRON CONNECTOR AND CLAIRE CHENNAULT STREET DRIVEWAY RECONSTRUCTION

Contractor: _____

Indicate One: _____ Sole Proprietor _____ Partnership _____ Other
 _____ Corporation _____ Joint Venture

Name: _____ Partner: _____

Title: _____ Title: _____

Address: _____ Address: _____

City: _____ City: _____

State & Zip: _____ State & Zip: _____

Phone: _____ Phone: _____

State and Date of Incorporation, Partnership, Ownership, Etc. _____

Location of Principal Office: _____

Contact and Phone at Principal Office: _____

Liability Insurance Provider and Limits of Coverage: _____

Workers Compensation Insurance Provider: _____

Surety (Performance and Payment): _____

Address: _____

Contact and Phone: _____

Superintendent and Backup Superintendent: (Work Resume - attach additional sheets.) (Safety Record – attached additional sheets; if needed show all verified safety violations.) The superintendent shall be able to communicate in English and not operate any equipment and have not had any verified job safety violations in the past five years. Any variations shall be reviewed by the OWNER for approval or denial. A job site shall be shut down if proper supervision is not provided.

Superintendent Name

Backup Superintendent Name

Safety Record – List ALL Verified Violations for Superintendent and Backup Superintendent with explanation, date and action taken to correct future safety violations:

Superintendent

Backup Superintendent

Total Number of Employees to be Associated with this Job: _____

Managerial _____ Administrative _____ Professional _____

Skilled _____ Semi-Skilled _____ Other _____

Percentage of work to be done by Bidder's Employees (Based on Dollars Bid): _____

Type(s) of work to be done by Bidder's Employees (examples: concrete paving, structural concrete, waterlines, sanitary sewer lines, storm pipe, storm inlets, excavation, lime, bridge fencing, etc.)

Access to Tools and Equipment: Percent Owned ____ Percent Rented ____

Number of Years in Business as a Contractor on Above Types of Works: _____

Type(s) of Work to be done by Sub-Contractors

Include Name, Address, and Phone Number of Sub-Contractor.

Use additional sheets if needed.

Type of Work

Sub-Contractor

List Equipment to be used on this project (Make/Model/Age of Major Equipment) Any Equipment not listed shall be reviewed by the OWNER for approval or rejection prior to use of Equipment on this project. (Use additional sheets if necessary)

Type of Equipment

Make

Model

Age (years)

List of ALL Municipal and Similar Non-Municipal current and completed projects for the past three (3) years. (Use additional sheets if necessary.)

1. Project: _____

Current Status: _____

Any Litigation Issues: Yes or No (Circle One) If Yes, explain: _____

Any Verified Safety Violations: Yes or No (Circle One) If Yes, explain: _____

Project Description: _____

Owner/Agency: _____

Year Built: _____ Contract Price: _____

Contact Person: _____ Phone: _____

2. Project: _____

Current Status: _____

Any Litigation Issues: Yes or No (Circle One) If Yes, explain: _____

Any Verified Safety Violations: Yes or No (Circle One) If Yes, explain: _____

Project Description: _____

Owner/Agency: _____

Year Built: _____ Contract Price: _____

Contact Person: _____ Phone: _____

3. Project: _____

Current Status: _____

Any Litigation Issues: Yes or No (Circle One) If Yes, explain: _____

Any Verified Safety Violations: Yes or No (Circle One) If Yes, explain: _____

Project Description: _____

Owner/Agency: _____

Year Built: _____ Contract Price: _____

Contact Person: _____ Phone: _____

4. Project: _____

Current Status: _____

Any Litigation Issues: Yes or No (Circle One) If Yes, explain: _____

Any Verified Safety Violations: Yes or No (Circle One) If Yes, explain: _____

Project Description: _____

Owner/Agency: _____

Year Built: _____ Contract Price: _____

Contact Person: _____ Phone: _____

5. Project: _____

Current Status: _____

Any Litigation Issues: Yes or No (Circle One) If Yes, explain: _____

Any Verified Safety Violations: Yes or No (Circle One) If Yes, explain: _____

Project Description: _____

Owner/Agency: _____

Year Built: _____ Contract Price: _____

Contact Person: _____ Phone: _____

6. Project: _____

Current Status: _____

Any Litigation Issues: Yes or No (Circle One) If Yes, explain: _____

Any Verified Safety Violations: Yes or No (Circle One) If Yes, explain: _____

Project Description: _____

Owner/Agency: _____

Year Built: _____ Contract Price: _____

Contact Person: _____ Phone: _____

7. Project: _____

Current Status: _____

Any Litigation Issues: Yes or No (Circle One) If Yes, explain: _____

Any Verified Safety Violations: Yes or No (Circle One) If Yes, explain: _____

Project Description: _____

Owner/Agency: _____

Year Built: _____ Contract Price: _____

Contact Person: _____ Phone: _____

8. Project: _____

Current Status: _____

Any Litigation Issues: Yes or No (Circle One) If Yes, explain: _____

Any Verified Safety Violations: Yes or No (Circle One) If Yes, explain: _____

Project Description: _____

Owner/Agency: _____

Year Built: _____ Contract Price: _____

Contact Person: _____ Phone: _____

9. Project: _____

Current Status: _____

Any Litigation Issues: Yes or No (Circle One) If Yes, explain: _____

Any Verified Safety Violations: Yes or No (Circle One) If Yes, explain: _____

Project Description: _____

Owner/Agency: _____

Year Built: _____ Contract Price: _____

Contact Person: _____ Phone: _____

10. Project: _____

Current Status: _____

Any Litigation Issues: Yes or No (Circle One) If Yes, explain: _____

Any Verified Safety Violations: Yes or No (Circle One) If Yes, explain: _____

Project Description: _____

Owner/Agency: _____

Year Built: _____ Contract Price: _____

Contact Person: _____ Phone: _____

Trade references (List Company, Address, Contact Person, and Phone):

Bank References (List Institution, Address, Contact Person, and Phone)

Claims and Suits (if the answer to any of the following questions is yes, please attached details):

1. Has your organization ever failed to complete any work awarded to it? _____
2. Are there any judgments, claims, arbitration proceedings, or suits pending or outstanding against your organization or officers? _____
3. Has your organization filed any lawsuits or requested arbitration with regard to construction contracts within the last five years? _____
4. Within the last five (5) years, has any officer or principal of your organization ever been an officer or principal of another organization when it failed to complete a construction contract? _____

I, _____, being duly sworn deposes and says that the information

provided herein is true and sufficiently complete so as not to be misleading.

Date this _____ day of _____, 20____.

Name of

Organization: _____

—

By: _____

Title: _____

STATE OF TEXAS

COUNTY OF DALLAS

BEFORE ME the undersigned authority, on this day personally appeared _____, known to me to be the person whose name subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and considerations therein expressed.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this ____ day of _____ 20____.

Notary Public in and for _____ County, Texas

SECTION CA

CONTRACT AGREEMENT

CONTRACT AGREEMENT

STATE OF TEXAS

COUNTY OF DALLAS

THIS AGREEMENT is made and entered into this _____ day of _____, 2018, 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 _____, of the City of _____, County of _____, State of _____, 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:

**ADDISON AIRPORT WING AVIATION APRON CONNECTOR AND CLAIRE CHENNAULT
STREET DRIVEWAY RECONSTRUCTION INFRASTRUCTURE AND DEVELOPMENT
SERVICES BID NUMBER 18-22**

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 sixty (60) 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 _____ Dollars (\$ _____) in current funds for the performance of the Contract in accordance with the Proposal submitted thereof for the **Base Bid 1 and Base Bid 2**, 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)

ATTEST:

By: _____
City Manager

By: _____

_____(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

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 be 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 be 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

MB 1

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 be 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 one (1) 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
**ADDISON AIRPORT WING AVIATION APRON CONNECTOR AND CLAIRE
CHENNAULT STREET DRIVEWAY RECONSTRUCTION BID NUMBER 18-22**

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 or Instructions to Bidders.

**ADDISON AIRPORT WING AVIATION APRON CONNECTOR AND CLAIRE
CHENNAULT STREET DRIVEWAY RECONSTRUCTION**

SECTION SP

SPECIAL PROVISIONS

**ADDISON AIRPORT WING AVIATION APRON CONNECTOR AND CLAIRE
CHENNAULT STREET DRIVEWAY RECONSTRUCTION**

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, plant, equipment and tools; performing all necessary labor and supervision; and the construction complete, including all Work appurtenant thereto, the proposed improvements for: **ADDISON AIRPORT WING AVIATION APRON CONNECTOR AND CLAIRE CHENNAULT STREET DRIVEWAY RECONSTRUCTION** (“Project”).

2. **GENERAL:** This Work shall conform to the requirements of the Specifications and the details as shown on the Plans. These Contract Documents are intended to be complementary. The Contractor shall do all work as provided in the plans, specifications, special provisions, bid and contract, and shall do such additional Extra work as may be considered necessary to complete the work in a satisfactory and acceptable manner. The Contractor shall furnish all labor, tools, materials, machinery, equipment, and incidentals necessary to the satisfactory prosecution and completion of the Work. Requirements of any of the Contract Documents are as binding as if called for by all. In the event of conflict between the Plans 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 Provisions 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 itself 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);

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Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges – Texas Department of Transportation, 2014;

Town of Addison Standard Construction Details;

The specifications included in this document;

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:** 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 Contract 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. **HISTORICAL, SCIENTIFIC AND ARCHAEOLOGICAL DISCOVERIES:** Contractor shall immediately give an oral and written report to the Town of Addison of the discovery of any articles of historical, scientific, or archaeological significance. Contractor shall take all necessary steps to preserve the article and shall cease operations, which would affect the find until otherwise directed by the Town of Addison but continue with all other unaffected operations. The future operations of Contractor with respect to the discovery, including disposition of the articles, shall be decided by the Town of Addison. The Town of Addison shall have sole and exclusive title to any discovered articles.

The Town of Addison shall investigate the site conditions promptly after receiving the notice. If the conditions do materially so differ and cause an increase or decrease in Contractor's cost of, or the time required for performing any part of the work under the Contract, whether or not changed as a result of conditions, an equitable adjustment will be made and the Contract modified in writing accordingly.

No request by Contractor for an equitable adjustment to the Contract under this Section shall be allowed unless Contractor has given the written notice required. No request by Contractor for an equitable adjustment of the Contract for differing site conditions will be allowed or shall be made after final payment under the Contract.

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ENVIRONMENTAL REQUIREMENTS: In addition to requirements set forth in other sections of the Contract, including the Plans and Specifications, Contractor shall ensure that the requirements of this Section are fulfilled and incorporated into its procedures and processes as well as those of any Subcontractors. All materials utilized by Contractor on the Project shall comply with all applicable local, state and federal laws and regulations.

A. Contractor is responsible for compliance with any requirements included in the Contract Documents regarding Hazardous Materials. If Contractor encounters a hazardous material or substance not addressed in the Contract Documents and if reasonable precautions will be inadequate to prevent foreseeable bodily injury or death to persons resulting from a material or substance, including but not limited to asbestos or polychlorinated biphenyl (PCB), encountered on the site by Contractor, Contractor shall, upon recognizing the condition, immediately stop Work in the affected area and report the condition to the Town of Addison in writing.

1. The term "Hazardous Materials" means any substance or compound, whether solid, liquid or gaseous: (i) which is listed, defined or regulated as a "hazardous substance", "hazardous waste", "extremely hazardous waste", "solid waste", "toxic substance", "hazardous substance", "hazardous material" or "regulated substance" or otherwise classified as hazardous or toxic, in or pursuant to any Environmental Law; or (ii) which is or contains asbestos, radon, any polychlorinated biphenyl, urea formaldehyde foam insulation, explosive or radioactive material, lead, or motor fuel or other volatile organic compounds; or (iii) which causes or poses a threat to cause a contamination or nuisance on the Project Site or any adjacent property, or (iv) which causes or poses a threat to cause a hazard to the environment or to the health, safety or welfare of persons on or about the Project Site.

2. The term "Environmental Law" means any federal, state or local law, statute, guidance or policy statement, ordinance, code, rule, regulation, license, authorization, decision, order, injunction or decree, which pertains to health, safety or the environment (including, but not limited to, ground, air, water or noise pollution or contamination, and underground or aboveground tanks) and shall include without limitation, the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended, the Resource Conservation and Recovery Act of 1976, as amended, the Occupational Health and Safety Act, the Toxic Substances Control Act, the Texas Water Code and the Texas Solid Waste Disposal Act and any other state or federal environmental statutes.

B. If the material or substance was on the site prior to the issuance of the Notice to Proceed, the Town of Addison shall obtain the services of a licensed laboratory to verify the presence or absence of the material or substance reported by Contractor and, in the event such material or substance is found to be present, to verify that it has been remediated to levels required by the Texas Commission on Environmental Quality. When the material or substance has been remediated, Work in the affected area shall resume upon written direction of the Town of Addison.

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C. Except as provided in Subparagraph B., Contractor (with the Town of Addison's prior written approval of the laboratory) shall obtain the services of a licensed laboratory to verify the presence or absence of the material or substance reported by Contractor and, in the event such material or substance is found to be present, the Town of Addison shall determine whether Contractor or the Town of Addison shall have the substance remediated to levels required by the Texas Commission on Environmental Quality. When the material or substance has been remediated, Work in the affected area shall resume upon written direction of the Town of Addison. The Contract time shall be not be extended and the Contract Price shall not be increased, unless the material or substance to be remediated were not introduced to the Work Site by Contractor, and Contractor shall then pay for (or reimburse the Town of Addison for) the testing and remediation.

D. The Town of Addison shall not be responsible under this Section for materials or substances Contractor brings or introduces to the Project Site. Contractor shall be responsible for the fault or negligence in the use and handling of materials or substances of Contractor, Subcontractor, Sub-subcontractor, or anyone directly or indirectly employed by any of them.

E. Contractor shall indemnify the Town of Addison and its affiliates for any and all damages incurred by the Town of Addison as a result of Contractor's actions with respect to all applicable state and federal environmental laws related to materials or substances Contractor brings to the Project Site, including but not limited to fines, penalties, costs of remediation and reasonable attorney's fees. No time extension shall be granted for breach of this provision.

F. Contractor agrees that it shall not transport to, use, generate, dispose of, or install at the Project Site any Hazardous Materials, except in accordance with applicable environmental laws. Further, in performing the Work, Contractor shall not cause any release of Hazardous Materials into, or contamination of, the environment, including the soil, the atmosphere, any water course or ground water unless required by the Contract Documents. In the event Contractor engages in any of the activities prohibited in this Section or fails to stop Work as provided in this Section, to the fullest extent permitted by law, Contractor hereby indemnifies and holds the Town of Addison, its affiliates and their respective officers, agents, employees and tenants harmless from and against any and all claims, damages, losses, causes of action, suits and liabilities of every kind, including but not limited to, expenses of litigation, court costs, punitive damages and attorneys' fees, arising out of, incidental to or resulting from the activities prohibited in this Section or Contractor's failure to stop Work as required. Contractor shall obtain from manufacturers and furnish to the Town of Addison Materials Safety Data Sheets (OSHA Form 20) for all materials incorporated into the Project by Contractor. The Town of Addison hereby agrees that, as between the Town of Addison and Contractor, the Town of Addison will be responsible for Hazardous Materials on site which existed prior to Contractor performing Work on the Project Site or which are introduced to the Project Site by the Town of Addison, except as provided in this Section. Contractor will not be considered the generator of Hazardous Materials on site which existed prior to Contractor performing Work on the Work Site or which are introduced to the Project Site by the Town of Addison. If the Hazardous Materials were on the Project Site prior to

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Contractor's presence on the Project Site or were introduced to the Project Site by the Town of Addison, then, if appropriate, the Town of Addison will make an equitable adjustment to the Contract.

G. Include in all construction subcontracts 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."

H. No request by Contractor for an equitable adjustment to the Contract under this Section shall be allowed unless Contractor has given the written notice required.

I. No request by Contractor for an equitable adjustment of the Contract for Hazardous Materials will be allowed or shall be made after final payment under the Contract.

7. **COMPLIANCE WITH LAWS:** The Contractor shall familiarize himself with the nature and extent of the Specifications, Plans, Project 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. No plea of ignorance or misunderstanding thereof will be considered.
8. **PERMITS, LICENSES. AND REGULATIONS:** Permits and licenses for the prosecution of the Work shall be secured and paid for by the Contractor. Any required permit fees will still be paid 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.**
9. **RIGHTS-OF-WAY AND EASEMENTS:** Rights-of-way and permanent easements, dedicated to the Town of Addison, will be secured for this Project and made a part of thereto. The Contractor shall obtain a right-of-way permit from the Town of Addison prior to beginning Work. 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 its 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

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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 itself or its employees.

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 its 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 shall be cleaned up after use and restored to their original conditions or better.

10. **RESTRICTED WORK HOURS:** Per the Town of Addison Building Regulations, “It shall be unlawful for a person, firm or corporation to excavate, erect, build, construct, alter, repair or demolish any building or structure which has been issued or which is required to be issued a building permit by the Town of Addison between the hours of 7:00 p.m. and 7:00 a.m. Monday through Friday, and between the hours of 7:00 p.m. and 8:00 a.m. on Saturday and Sunday, if such activity is performed within a residential, apartment, or townhouse zoned area, or within three hundred (300) feet of an occupied residence, except in cases of urgent necessity or in the interest of public safety and convenience, and then only by permit of the City Manager.”

It is in the interest of the public safety and convenience for the Work under this Project to occur outside the standard Work hours. However, the contractor will must present a detailed Work schedule and obtain written approval from the Town.

11. **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.
12. **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.
13. **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).
14. **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.

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15. **DISCREPANCIES:** If the Contractor, in the course of the Work, finds any discrepancy between the Contract Documents and the physical conditions of the Project, or any errors or omissions in Plans 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.

16. **PREPARATION OF STORM WATER POLLUTION PREVENTION PLAN:** A Storm Water Pollution Prevention Plan (SW3P) **will** be required for this project.

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.

17. **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 four (4) working days prior to the date set for the Bid opening. The ability to ask questions will close at **5:00 PM, Wednesday, January 31, 2018**. 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 it be in doubt as to their meaning, it shall at once notify the Engineer in writing in order that a written addendum may be sent to all Bidders.

18. **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 bid item descriptions/reference specifications for details.

19. **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.

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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.

20. **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.
21. **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 Section BQS “Bidder Qualification Statement” within 5 days.

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

AWARD AND EXECUTION OF CONTRACT: For the purpose of award, each bid submitted shall consist of three 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 1**
- Base Bid 2**

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Bidders must fill bid proposal for all base bids and all additive alternates. The method of Award will be based on the lowest qualified bidder for **the sum of Base Bid 1 and Base Bid 2** depending on the availability of funds.

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 **60 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 Daily Value as shown in provision 99 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 24” x 36”-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

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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:** *See specification SS-120 included in the technical specifications.*
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 and Engineer 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 businesses must be maintained at all times unless otherwise authorized in writing by the Town of Addison or Addison Airport. Erosion control devices must be properly installed and maintained during all stages of construction.

The Contractor must comply with all work area restrictions as indicated in the Plans unless specifically authorized in writing by the Town of Addison.

The general intent is for the contractor to begin within one area and steadily progress limiting the area of construction to minimize disruptions to aircraft operations 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:** 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.

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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.

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- 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.

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),

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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

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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

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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."

30. **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 Contract, 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 or other mutually agreeable mediator or arbitrator. 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.
31. **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. The

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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

One (1) – Garver

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 but not limited to:

- | | | |
|---|---|---|
| <input type="checkbox"/> Paving Mix Designs | <input type="checkbox"/> Traffic Control Plan | <input type="checkbox"/> Water Main Pipe |
| <input type="checkbox"/> Storm Sewer Pipe | <input type="checkbox"/> Sanitary Sewer Pipe/Fittings | <input type="checkbox"/> Valves & Boxes |
| <input type="checkbox"/> Fire Hydrants | <input type="checkbox"/> Manholes & Vaults | <input type="checkbox"/> Backfill Materials |
| <input type="checkbox"/> Finishes | | |

32. **PROJECT VIDEO:** Prior to the start of construction, Contractor shall video the construction area and property adjacent to construction in the presence of the City Inspector. 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.

33. **SAMPLES AND TESTS OF MATERIALS:** The Town of Addison 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 Town of Addison, except for any and all re-testing, which shall be paid by the Contractor and such cost shall be deducted from monthly pay requests. 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.

34. **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

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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 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.

35. **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.
36. **PROPERTY ACCESS:** Access to adjacent hangars 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 apartment buildings and businesses during construction operations.
37. **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 Contract. 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.

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NO WORK WILL BE ALLOWED TO PROCEED BEFORE REQUIRED PERMITS ARE OBTAINED AND DISTRIBUTED.

38. **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 which are approved by the Town of Addison. 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.
39. **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.
40. **IN PUBLIC ROADS AND PRIVATE DRIVES:** No public road shall be entirely closed overnight. 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.

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 Town of Addison's acceptance of the Work. 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.

41. **HAULING ON TOWN OF ADDISON STREETS:** The Contractor shall receive approval of its 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.

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42. **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 Work on this Project prior to beginning its 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.
43. **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.
44. **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 its 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 its 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

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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.

- 45. 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 its operations to all existing utility lines, public property, and private property, whether it is below ground or above ground, and he shall defend and settle in total the cost of all lawsuits which may arise as a result of its 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.
- 46. MAINTENANCE AND REPAIRS:** The Contractor shall maintain and keep in good repair all Work contemplated under these Plans, Specifications, and Plans 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 its 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.

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47. **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.
48. **PUBLIC CONVENIENCE AND SAFETY:** In accordance with generally accepted construction practices, the Contractor shall be solely and completely responsible for conditions of the Project site, including safety of all persons and property during performance of the Work. This requirement shall apply continuously and not be limited to normal Work 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.

Where the Work passes over or through private property, the Town of Addison shall provide such right-of-way. 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, its employees, agents or Subcontractors, or at any time due to defective Work or materials, or due to its 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.

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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 its own cost and expense such property to a condition similar or equal to 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 its surety shall reimburse the Town of Addison for all such costs.

49. **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 the Work and 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 protective measures, 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 its 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

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such damage, the Town of Addison may order the damaged portion immediately removed and replaced by and at the cost and expense of the Contractor.

50. **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 its 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 plan should reflect the Contractor's proposed construction phasing and methodology and include the design layout for all proposed detour and traffic situations.
51. **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 its Work sequence in a manner that will cause minimum interference with aircraft operations 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 its 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.

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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 its hauling operation clear and free of dirt 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.

52. 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

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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 the actual linear footage of the pipe installed on the 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.

53. **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 Plans.

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 Condition 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.

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).

54. **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.

55. **SUSPENSION OF WORK RELATED TO DANGER**: In addition to the other remedies for suspension of the Work as provided for in the General Provisions and Special Provisions, the Town of Addison has the authority to suspend all work immediately if, in the Town of Addison's opinion, there is imminent danger to workers or the general public. If there is no imminent danger to workmen or the general public, but

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trench conditions are not in compliance with Federal Regulations 29 C.F.R. 1926.650-1926.652, the Town of Addison shall warn the Contractor who shall then immediately order all workmen in and adjacent to the trench away from the area. The Contractor must then bring the trench into compliance with the regulations. If the Contractor does not make the required corrections, all work on the Contract shall cease and the Town of Addison will issue a letter of Temporary Suspension of Work. The only work authorized after issuance of this letter is work approved by the regulations. Other work shall not be permitted until the Town of Addison issues a letter of Release of Temporary Suspension of Work. The Contractor shall not be entitled to additional compensation, an extension of time or payment of damages as a result of a temporary suspension of work under this provision.

56. **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.
57. **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.

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- 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.
- 58. **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 its contract; or where sufficient contract funds are unavailable for this purpose, the Contractor or its surety shall reimburse the Town of Addison for all such costs.
- 59. **CONSTRUCTION TRAFFIC OVER PIPE LINES:** The design of the new pipes and the design of the existing pipe have been taken into account and provided for highway live loads. It is apparent, however, that certain construction vehicles could exceed this highway load condition under shallow bury conditions. It will be the responsibility of the Contractor to protect both the new line and the existing lines from these possibly excessive loads. The Contractor shall not at any time cross the existing or new pipe with a truck delivering new pipe to the site. Any damage to the existing or new pipe will be repaired or replaced by the Contractor to the satisfaction of the Town of Addison.

In locations where it is not permissible to cross the existing or proposed pipes without additional protection, the Contractor may elect to provide additional protection of the pipes so that more frequent crossings of the pipes are allowed. It still is, however, the responsibility of the Contractor to repair any damage to the existing or proposed lines if the damage results from any phase of its construction operation.
- 60. **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.
- 61. **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

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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 its own cost.

62. **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 Plans 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 the Contractor.
63. **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.
64. **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.
65. **TV INSPECTION OF SANITARY SEWER AND STORM DRAIN SYSTEMS:** Part of the final inspection of the wastewater and storm drain systems on this Project shall include a closed circuit TV survey of the completed pipe installation, exclusive of services, and all imperfections in the installed facility revealed by the TV survey of the imperfections in the installed facilities revealed by the TV survey shall be remedied by the Contractor prior to acceptance of the Project as complete. All TV survey Work, including furnishing of necessary personnel, equipment and material shall be performed by the Contractor.
66. **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 Town of Addison will provide random testing. The Contractor shall coordinate construction with the Town of Addison, and shall provide

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assistance to the testing labs by providing trench safety, excavation, or other work 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 retesting shall be at the expense of the Contractor. As a general guide, the Contractor shall be responsible for providing the following tests:

- (1) Density and associated tests on embedment and backfill.
 - (2) Compressive strength tests on concrete.
 - (3) Gradation soil tests on backfill as may be required.
 - (4) Providing test results from manufacturer as specified in Town of Addison Specifications.
67. **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.
68. **CLAIMS FOR DAMAGES OR INJURY:** General Provision 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 its 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.

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

69. **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.
70. **MECHANICS AND MATERIALMEN’S LIEN:** The Contractor shall be required to execute a release of mechanics and materialmen’s liens upon receipt of payment and shall ensure that the Project remains free and clear of all liens related to the Work. The Contractor shall have all liens removed by obtaining releases acceptable to the Town of Addison or shall bond around such liens by obtaining a discharge of all liens.
71. **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.
72. **PRODUCT RECORD DOCUMENTS:** The Contractor shall maintain record Plans 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 Plans, 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 Plans: 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.

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- d. Details not on original Contract Plans.
- 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 Plans 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 its authorized representative.

73. **OWNERSHIP OF WORK AND MATERIALS:** All Work performed by Contractor pursuant to the Contract shall be the property of the Town of Addison. The Town of Addison shall own all construction, and any data, documents, plans, specifications, working papers, computer programs, photographs, or other material produced by Contractor pursuant to the Contract, and Contractor hereby assigns and transfers to the Town of Addison any and all copyrights for such material. To the extent that such programs used are internal, proprietary programs used by Contractor in the performance of the Work, Contractor will provide the Town of Addison such access to the programs as is necessary for the Town of Addison to be able to use the products and documents generated by the program, but Contractor is not required to transfer the copyrights or other intellectual property rights to the program to the Town of Addison. As security for partial, progress, or other payments, title to work for which such payments are made shall pass to the Town of Addison at the time of the payment. To the extent that title has not previously been vested in the Town of Addison by reason of payments, full title shall pass to the Town of Addison at delivery of the Work at the location specified in the Contract.

Unincorporated Work to which the Town of Addison has received title by reason of progress, partial or other payments shall be segregated from other Contractor or Subcontractor materials and clearly identified as the Town of Addison property. The Contractor shall be responsible for all materials until they have been incorporated into the Work and the Work has been finally accepted by the Town of Addison. The title transferred as above shall in each case be good, and free and clear of any and all security interests, liens, or other encumbrances. The Contractor promises and agrees that it will

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not pledge, hypothecate, or otherwise encumber the items in any way that would result in any lien, security interest, charge, or claim upon or against said items. The transfer of title as provided above shall not imply acceptance by the Town of Addison, nor relieve Contractor from the responsibility to strictly comply with the Contract, and shall not relieve Contractor of responsibility for any loss of or damage to such items.

The Contractor shall insert provisions in its subcontracts sufficient to ensure compliance with the content of this Section.

74. **DRAWINGS AND OTHER DATA:** All documents developed by Contractor in the performance of the Contract shall become the sole property of the Town of Addison and may be used by the Town of Addison on any other project without additional compensation to Contractor. Use by the Town of Addison of these documents on other projects does not confer any liability on Contractor.

The Town of Addison shall be considered the “person for whom the work was prepared” for the purpose of authorship in any copyrightable work under 17 U.S.C. § 201(b). With respect thereto, Contractor agrees not to assert or authorize others to assert any rights or establish any claim under the design related patent and copyright laws. All design drawings, as-built drawings and specifications, in any form, shall contain a copyright mark of the Town of Addison.

75. **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 Plans are given to the Town of Addison.

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

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

78. **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 \$ 750 for each calendar day of delay until the Work is completed or accepted.

79. **CONTRACT DELAY:** The parties anticipate that delays may be caused by or arise from any number of events during the course of the Contract, including, but not limited to, Work performed, disruptions, permitting issues, actions of subcontractors, suppliers, or other contractors, actions by third parties, weather, weekends, holidays, or other such events, forces or factors sometimes experienced in construction work. Such delays or events and their potential impacts on performance by the Contractor are specifically contemplated and acknowledged by the parties in entering into this Contract, and shall

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not extend the Contract time for completion. Further, any and all costs or impacts whatsoever incurred by the Contractor in accelerating the Work to overcome or absorb such delays or events in an effort to complete the Contract prior to expiration of the Contract time to complete, regardless of whether the Contractor does so or not, shall be the sole responsibility of the Contractor in every instance.

- 80. SUBCONTRACTORS:** No subcontract shall relieve Contractor of any of Contractor's obligations or liabilities under the Contract. Contractor shall be fully responsible and liable for the acts or omissions of all Subcontractors, including persons directly or indirectly employed by them, their guests and invitees. Contractor shall have sole responsibility for managing and coordinating the operations of its Subcontractors, including the settlement of disputes with or between them. Nothing contained in the Contract shall be deemed to create a contractual relationship between any Subcontractor, and the Town of Addison.

Contractor shall provide to the Town of Addison one (1) copy of all executed subcontracts associated with the Contract, including any changes or modifications to the subcontracts, within three (3) days of their execution. No Subcontractor shall be permitted to perform work associated with the subcontract until the Subcontractor (or Contractor on the Subcontractor's behalf) is in compliance with the insurance requirements specified elsewhere in the Contract, and has furnished satisfactory evidence of insurance to the Town of Addison.

- 81. PAYMENTS TO SUBCONTRACTORS:** Contractor shall comply with the provisions of applicable laws and regulations relating to Contractor's relations with Subcontractors. Payments by Contractor to Subcontractors associated with the Town of Addison Contracts are subject to the time periods established in the Texas "Prompt Payment Act", contained in Chapter 2251 of the Texas Government Code.

All persons employed in the performance of the Work under the Contract, or any subcontracts hereunder, shall be paid not less than the general rates of per diem, holiday, and overtime wages prevailing in the locality of the Work of a similar character as detailed in the Special Provisions. Failure to comply with this provision shall subject Contractor to the penalties prescribed in Chapter 2258 of the Texas Government Code, as amended.

Contractor will include in each subcontract for property or services entered into by Contractor and a Subcontractor, including a supplier, for purposes of performing the Work under the Contract a payment clause that obligates Contractor to pay the Subcontractor for satisfactory performance under its subcontract within seven (7) days out of such amounts as are paid to Contractor by the Town of Addison under the Contract. A false certification to the Town of Addison under the provisions of the Payments clause may be a principal offense in violation of Section 37.10 of the Texas Penal Code.

- 82. USE OF COMPLETED PORTIONS OF THE WORK:** Whenever, as determined by the Town of Addison, any portion of the Work performed by Contractor is in a condition

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suitable for use, and the best interests of the Town of Addison requires such use the Town of Addison may take possession of or use such portion of the Work. Such use by the Town of Addison shall in no case be construed as final acceptance, and shall neither relieve Contractor of any of its responsibilities under the Contract, nor act as a waiver by the Town of Addison of any of the conditions thereof. Contractor shall not be liable for the cost of repairs, rework, or renewals, which may be required due to ordinary wear and tear resulting from such use. However, if such use increases the cost or delays the completion of remaining portions of the Work, Contractor shall notify the Town of Addison in writing as required by the Contract and shall be entitled to such additional compensation or extension of time, or both, as determined in accordance with the Contract.

If in the course of such use, the Work proves to not be in compliance with the Contract, the Town of Addison shall have the right to continue such use until such portion of the Work can, without injury to the Town of Addison, be taken out of service for correction of defects, errors, omissions, or replacement of unsatisfactory materials, as necessary for such portions of the Work to comply with the Contract. Contractor shall correct the Work as soon as practical, but not later than one (1) month after notification by the Town of Addison.

Contractor shall not use any permanently incorporated materials unless such use is approved in writing by the Town of Addison. Where Contractor's request is granted for the use of certain materials, Contractor shall properly use and maintain and, upon completion of its use and at its own expense, recondition such materials to the satisfaction of the Town of Addison.

83. **COMPLETE AGREEMENT:** The Contract (including Attachments, the Special Provisions, other documents and manuals incorporated herein) is the full and complete agreement between the Town of Addison and Contractor with respect to the subject matter herein and supersedes any and all prior agreements between the parties hereto.
84. **WAIVER:** The waiver by the Town of Addison of the breach of any provision of the Contract by Contractor shall in no way impair the right of the Town of Addison to enforce the provision for any subsequent breach thereof. All remedies provided hereunder are cumulative and are in addition to all other remedies available at law or in equity.
85. **EXECUTION OF THE CONTRACT:** The Contract may be executed in multiple counterparts, each of which shall, for all purposes, be deemed an original but which together shall constitute one and the same instrument, and the signature pages from any counterpart may be appended to any other counterpart to assemble fully executed documents, and counterparts of the Contract may also be exchanged via electronic facsimile machines and any electronic facsimile of any party's signature shall be deemed to be an original signature for all purposes.
86. **DEFINITIONS:** The following definitions are added to the General Provisions and Special Provisions:

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BIDDER: Any person, persons, partnership, company, firm, association, or corporation acting directly or through a duly authorized representative submitting a bid for the work contemplated.

PROJECT: The Town of Addison's overall objective and endeavor of which the Contract forms a part and ultimately creates, which encompasses all Contract Documents constructed to final completion and final acceptance.

WORKING DAY: A working day is defined as a calendar day not including Saturdays, Sundays, or legal holidays authorized in the list prepared by the City of Dallas for contract purposes, in which weather or other conditions not under the control of the Contractor shall permit the performance of the principal units of work underway for a continuous period of not less than 7 hours between 7 A.M. and 6 P.M. A principle unit of work shall be that unit which controls completion time of the contract. Nothing in this definition shall be construed as prohibiting the Contractor from working on Saturdays, if the Contractor so desires and permission of the Town of Addison has been granted. Work on Sundays shall not be permitted except in cases of extreme emergency and then only with the written permission of the Town of Addison. If Saturday or Sunday work is permitted, working time shall be charged on the same basis as weekdays. Where the working time is expressed as calendar days or a specific date, the concept of working days shall no longer be relevant to the contract.

87. MODIFICATIONS TO THE LANGUAGE OF THE GENERAL PROVISIONS:

The General Provisions are modified as follows:

- A. Add the following words to the General Provisions before the word "Certificates" found on the fourth line of Section 103.4.1:

"When permitted by law,"

- B. Delete the sentence "A model Certificate of Insurance is illustrated in Model Form A.6 in Appendix A." beginning on the ninth line of Section 103.4.1 of the General Provisions and replace with the following:

"Certificates of Insurance shall be provided on a state approved form."

- C. Delete the following sentence beginning on the second line of the fifth subparagraph of Section 104.2.1 of the General Provisions:

"The foregoing notwithstanding, the total original Contract amount shall not be increased more than 25 percent; the CONTRACTOR, by submission of a bid and execution of the Contract, is deemed to consent to the OWNER'S right to reduce the total original Contract amount by more than 25 percent."

- D. Add the following word before the word "decide" found on the second line of Section 105.7.1 of the General Provisions:

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“initially”

- E. Add the following word after the word “work” found on the fifth line of Section 105.7.1 of the General Provisions:

“, subject to the agreement of the Owner”

- F. Delete the following sentence beginning on the sixth line of Section 105.7.1 of the General Provisions:

“Engineer shall determine the amount and quality of work performed and materials furnished, and Engineer’s decision and estimates shall be final.”

- G. Delete Section 105.9.3 of the General Provisions titled “Inspection Overtime” in its entirety.

- H. Delete Section 107.2 of the General Provisions titled “Indemnification” in its entirety and replace with the following:

“THE CONTRACTOR AGREES TO INDEMNIFY, SAVE, PROTECT, DEFEND, AND HOLD HARMLESS THE OWNER, ITS AFFILIATES AND THEIR OFFICERS, DIRECTORS, AGENTS, INVITEES, AND EMPLOYEES (“INDEMNIFIED PARTIES”) FROM AND AGAINST ANY AND ALL LIABILITY, COST, DAMAGE, EXPENSES, FINES AND ALL REASONABLE LEGAL FEES AND COURT COSTS, CLAIMS, LOSSES, CAUSES OF ACTION, SUITS, AND LIABILITY OF ANY KIND, INCLUDING ALL EXPENSES OF LITIGATION AGAINST THE INDEMNIFIED PARTIES, WHETHER OR NOT CAUSED IN PART BY ANY ACT OR OMISSION OF A PERSON OR ENTITY INDEMNIFIED HEREUNDER, OR WHETHER LIABILITY IS IMPOSED UPON SUCH PERSON OR ENTITY, FOR ANY LOSS, INJURY, DAMAGE OR DEATH ARISING FROM OR OUT OF THE CONTRACTOR’S ACTS OR OMISSIONS, INCLUDING, BUT NOT LIMITED TO CONTRACTOR’S NEGLIGENT OR GROSSLY NEGLIGENT PERFORMANCE OF THE WORK; NEGLIGENT OR GROSSLY NEGLIGENT USE OR MISUSE OF OWNER’S PROPERTY; NEGLIGENT OR INTENTIONAL ACTIONS, ERRORS OR OMISSIONS AND THOSE OF ITS EMPLOYEES, OFFICERS, DIRECTORS, AGENTS OR SUBCONTRACTORS; VIOLATION OF ANY FEDERAL, STATE OR MUNICIPAL LAWS, REGULATIONS AND/OR ORDINANCES; CONTRACTOR’S OR ITS SUBCONTRACTOR’S USE OF

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PROPERTY, EQUIPMENT, VEHICLES, OR MATERIALS; DEFECTIVE WORKMANSHIP; NEGLIGENT OR GROSSLY NEGLIGENT USE OR MISUSE OF UTILITIES; OR SUBCONTRACTORS', EMPLOYEES', AGENTS', OFFICERS', OR DIRECTORS' NEGLIGENCE OR INTENTIONAL TORTS. IT IS THE EXPRESS INTENT OF CONTRACTOR TO INDEMNIFY THE INDEMNIFIED PARTIES FROM THE CONSEQUENCES OF THEIR JOINT AND/OR CONCURRENT NEGLIGENCE AND/OR SOLE NEGLIGENCE. IN THE EVENT OF FAILURE BY THE CONTRACTOR TO FULLY PERFORM IN ACCORDANCE WITH THIS INDEMNIFICATION PARAGRAPH, EACH OF THE INDEMNIFIED PARTIES, AT ITS OPTION, AND WITHOUT RELIEVING CONTRACTOR OF ITS OBLIGATIONS HEREUNDER, MAY SO PERFORM, BUT ALL COSTS AND EXPENSES SO INCURRED BY ANY OF THE INDEMNIFIED PARTIES IN THAT EVENT SHALL BE REIMBURSED BY CONTRACTOR TO THE INDEMNIFIED PARTIES, OR ANY OF THEM, AND UNTIL REIMBURSED BY CONTRACTOR SHALL BEAR INTEREST, AT THE RATE OF INTEREST PROVIDED TO BE PAID ON JUDGMENT UNDER THE LAWS OF THE STATE OF TEXAS. THIS INDEMNIFICATION SHALL NOT BE LIMITED TO DAMAGES, COMPENSATION OR BENEFITS PAYABLE UNDER INSURANCE POLICIES, WORKERS' COMPENSATION ACTS, DISABILITY BENEFIT ACTS OR OTHER EMPLOYEE BENEFIT ACTS.

IN THE EVENT THIS CONTRACT RELATES TO A PROJECT OTHER THAN A SINGLE FAMILY HOUSE, TOWNHOUSE, DUPLEX, OR LAND DEVELOPMENT DIRECTLY RELATED THERETO OR A PUBLIC WORKS PROJECT OF A MUNICIPALITY THEN THE INDEMNITY PROVISIONS INCLUDED HEREIN SHALL BE LIMITED SUCH THAT SUBCONTRACTOR SHALL NOT BE REQUIRED TO INDEMNIFY, HOLD HARMLESS OR DEFEND CONTRACTOR OR ANY THIRD PARTIES AGAINST A CLAIM CAUSED BY THE NEGLIGENCE OR FAULT, THE BREACH OR VIOLATION OF A STATUTE, ORDINANCE, GOVERNMENTAL REGULATION, STANDARD, OR RULE, OR THE BREACH OF CONTRACT OF AN INDEMNIFIED PARTY, ITS AGENT OR EMPLOYEE, OR ANY THIRD PARTY UNDER THE CONTROL OR SUPERVISION OF THE INDEMNIFIED PARTY, OTHER THAN SUBCONTRACTOR OR ITS AGENT, EMPLOYEE, OR SUBCONTRACTOR OF ANY TIER EXCEPT THAT SUBCONTRACTOR SHALL

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INDEMNIFY, HOLD HARMLESS AND DEFEND THE INDEMNIFIED PARTY AGAINST ANY CLAIMS FOR THE BODILY INJURY OR DEATH OF AN EMPLOYEE OF SUBCONTRACTOR, ITS AGENTS, OR ITS SUBCONTRACTORS OF ANY TIER.

NOTWITHSTANDING ANYTHING HEREIN TO THE CONTRARY, THE INDEMNITY PROVISIONS INCLUDED HEREIN SHALL BE LIMITED SUCH THAT CONTRACTOR SHALL NOT BE REQUIRED TO INDEMNIFY, HOLD HARMLESS OR DEFEND OWNER OR ANY THIRD PARTIES AGAINST A CLAIM CAUSED BY THE NEGLIGENCE OR FAULT, THE BREACH OR VIOLATION OF A STATUTE, ORDINANCE, GOVERNMENTAL REGULATION, STANDARD, OR RULE, OR THE BREACH OF CONTRACT OF THE INDEMNIFIED PARTIES, ITS AGENT OR EMPLOYEE, OR ANY THIRD PARTY UNDER THE CONTROL OR SUPERVISION OF THE INDEMNIFIED PARTIES, OTHER THAN CONTRACTOR OR ITS AGENT, EMPLOYEE, OR SUBCONTRACTOR OF ANY TIER EXCEPT THAT CONTRACTOR SHALL INDEMNIFY, HOLD HARMLESS AND DEFEND THE INDEMNIFIED PARTIES AGAINST ANY CLAIMS FOR THE BODILY INJURY OR DEATH OF AN EMPLOYEE OF CONTRACTOR, ITS AGENTS, OR ITS SUBCONTRACTORS OF ANY TIER.”

- I. Add the following language after Section 103.3.1.4 of the General Provisions:

“103.3.1.5. Maintenance Bond. A good and sufficient bond in an amount not less than 10-percent of the approximate total of the Contract, as evidenced by the proposed tabulation, or conditioned on the full and proper maintenance and repair of the Work to be done and performed for a period of one year from the date of final acceptance of the Work and the Contractor will do all necessary backfilling that may arise on account of sunken conditions in ditches, or otherwise, and do and perform the necessary Work and repair any defective condition growing out of or arising from the improper laying or construction of same, or on account of any breaking of same caused by the Contractor in construction of same, or on account of any defect arising in any of the Work laid or constructed by the Contractor or on account of improper excavation or backfilling, it being understood that the purpose of this Section is to cover all defective conditions arising by reason of defective materials, Work, or labor performed by the Contractor.”

- J. Add the following language after Section 104.2.5. of the General Provisions:

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“104.2.6. Change Orders. A Change Order is a written instrument and signed by the Owner, Contractor and Engineer stating their agreement upon all of the following:

- (1) the change in the Work;
- (2) the amount of the adjustment, if any, in the Contract Sum;
and
- (3) the extent of the adjustment, if any, in the Contract Time.

In the event the Contractor proposes a Change Order, the Contractor shall provide sufficient detail for such Change Order to allow analysis and review by the Engineer.

Agreement on any Change Order shall constitute final agreement on the Work which is the subject of the Change Order, including, but not limited to, all direct and indirect costs associated with such change and any and all adjustments to the Contract Sum and the Contract Time. In the event a Change Order increases the Contract Sum, the Contractor shall include the Work covered by such Change Orders in Applications for Payment as if such Work were originally part of the Contract Documents.

The Contractor, upon receipt of written notification by the Owner or the Engineer of a proposed item or change in Work, shall prepare as soon as possible a Change Order on the form provided by the Owner. If the Change Order is returned to the Contractor for additional information or if the scope of the proposed change in the Work is modified by additions, deletions or other revisions, the Contractor shall revise the Change Order accordingly and resubmit the revised Change Order to the Owner and Engineer.”

- K. Delete the language in Section 105.2.1 of the General Provisions and replace it with the following language:

“105.2.1. WORKMANSHIP: If the OWNER notifies the CONTRACTOR in writing of defective work, the CONTRACTOR shall correct the deficiencies within five (5) calendar days of the Notice at no additional cost to the OWNER. If the defective work is not corrected within five (5) calendar days, or the CONTRACTOR is not making satisfactory progress (in the opinion of the OWNER) to correct the deficiencies, the OWNER may withhold future payments for All Work until the defective work has been corrected to the satisfaction of the OWNER.”

- L. Add the following language after Section 105.10 of the General Provisions:

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“105.10.2. GUARANTEE AFTER COMPLETION: Unless otherwise specified in the technical section of these specifications, the CONTRACTOR shall, after test and acceptance, and for a period of one year from date of final written acceptance by the OWNER or within such longer or shorter period of time as may be prescribed by law or by the terms of any other applicable special warranty on designated equipment or portions of work as required by the Contract Documents, rebuild, repair, or replace any and all items which have proven defective due to unsatisfactory material and/or workmanship. Upon written notice from the OWNER, the CONTRACTOR shall immediately make any repairs that may be ordered, or such repairs will be made by the Owner at the expense of the CONTRACTOR or the CONTRACTOR’S Surety. In case of an emergency where delay would cause serious loss or damage, the Owner may undertake to have the defects repaired without previous notice. The expense of all repairs, including all emergency repairs, shall be borne by the CONTRACTOR or the CONTRACTOR’S Surety, at no cost to the Owner. This obligation shall survive termination of the Contract.

105.10.3. OFFSET PROGRESS PAYMENTS: OWNER may, at its option, offset any progress payment or final payment under the Contract Documents against any debt (including taxes) lawfully due to OWNER from Contractor, regardless of whether the amount due arises pursuant to the terms of the Contract Documents or otherwise and regardless of whether or not the debt due to OWNER has been reduced to judgment by a court.

105.10.4. FINAL ACCEPTANCE AND PAYMENT: This Project is subject to final inspection and final acceptance by the Owner. Whenever the Work provided for by the Contract shall have been completely performed on the part of the CONTRACTOR, including, but not limited to compliance with North Central Texas Council of Governments Standard Specifications for Public Works Construction, October 2004 Section 202.6.4.6., the CONTRACTOR shall notify the OWNER that the Work is ready for final inspection. The OWNER will then make such final inspection and if the work is satisfactory and in accordance with the specifications and contract documents, the OWNER shall issue a certificate of acceptance to the CONTRACTOR and submit a request to accept the Work performed by the CONTRACTOR and payment of a final estimate under the terms of which the OWNER will release 100% of the retainage, plus the unpaid portions of the final estimate as the OWNER deems advisable.

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Whenever the improvements provided for by the Contract shall have been completely performed on the part of the Contractor, as evidenced in the certificate of acceptance, and all required submissions provided to the OWNER, a final estimate showing the value of the Work shall be prepared by the OWNER as soon as the necessary measurements and computations can be made. All prior estimates upon which payments have been made are subject to necessary corrections or revisions in the final payment. The amount of this final estimate, less any sums that have been previously paid, deducted or retained under the provisions of the contract, shall be paid the CONTRACTOR within 30 days after the final acceptance by the OWNER, provided the CONTRACTOR has furnished to the OWNER a consent of Surety and satisfactory evidence that all indebtedness connected with the Work and all sums of money due for any labor, materials, apparatus, fixtures, or machinery furnished for and used in the performance of the Work have been paid or otherwise satisfied, or that the person or persons to whom the same may respectively be due have consented to such final payment. This requirement is not intended and shall not be construed to recognize subcontractors for the purpose of privity of contract, and no third party benefit rights shall be obtained through these provisions for final payment. The acceptance by the CONTRACTOR of the final payment as aforesaid shall operate as and shall be a release to the OWNER from all claims or liabilities under the Contract, including all subcontractor claims, for anything done or furnished or relating to the Work under the Contract or for any act or neglect of said OWNER relating to or connected with the Contract.

All warranties and guarantees shall commence from the date of the certificate of acceptance. No interest shall be due the CONTRACTOR on any partial or final payment, or on the retainage.

105.10.5. RIGHT TO AUDIT CONTRACTOR'S RECORDS: By execution of the Contract, CONTRACTOR grants the OWNER the right to audit, at Owner's election, all of CONTRACTOR'S records and billings relating to the performance of the Work under the Contract. CONTRACTOR agrees to retain such records for a minimum of three (3) years following completion of the Work under this Contract. OWNER agrees that it will exercise the right to audit only at reasonable hours."

M. Add the following language after Section 107.5 of the General Provisions:

"107.5.1. COMPENSATION AND ACKNOWLEDGEMENT OF WORK: The CONTRACTOR shall receive and accept

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compensation, as herein provided, as full payment for furnishing all labor, tools, material, equipment and incidentals; for performing all Work contemplated and embraced under the Contract; for all loss or damage arising out of the nature of the Work, or from the action of the elements; for any unforeseen defects or obstruction which may arise or be encountered during the prosecution of the Work and before its final acceptance by the OWNER; for all risks of whatever description connected with the prosecution of the Work; for all expense incurred by or in consequence of suspension or discontinuance of such prosecution of the Work as herein specified; for any infringement of patents, trademarks or copyrights; and for completing the Work in an acceptable manner according to the Plans and Specifications.”

- N. Add the following language after Section 107.11 of the General Provisions:

“107.11.1. COOPERATION OF THE CONTRACTOR: The CONTRACTOR shall give to the work the consistent attention necessary to facilitate the progress thereof, and the CONTRACTOR shall cooperate with the OWNER, and with other CONTRACTORS in every way possible.

The OWNER and the OWNER’S representatives shall at all times have free access to the Work whenever it is in preparation or progress and the contractor shall provide safe, convenient and proper facilities for such access and inspection.”

- O. Delete Section 107.4 of the General Provisions and replace it with the following:

“107.4. VENUE AND CHOICE OF LAW

The Owner, the Contractor, and the Contractor’s sureties agree that this Contract shall be performed in Dallas, Dallas County, Texas, and if legal action is necessary in connection therewith, exclusive venue shall lie in Dallas County, Texas. The terms and provisions of the Contract Documents shall be construed in accordance with the laws and court decisions of the State of Texas.”

- P. Delete the following language (which is the first paragraph) from Section 109.5.1. of the General Provisions:

“Between the 25th day and the last day of each month, the Owner shall make an approximate estimate of the value of the work done during the month under the specifications. Whenever the said estimate or estimates of work done since the last previous estimate exceeds \$100 in amount, a percentage of such estimate sum shall be paid the Contractor on or before the 15th day of the month next following. The monthly estimate may include acceptable

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nonperishable materials delivered to the work; such payment shall be allowed on the same percentage basis of the net invoice value as provided hereinafter. The percent retained by the owner shall normally be up to 10 percent at completion, unless otherwise stated. At the midpoint, or at any subsequent time, if the owner determines that the progress of the Contract is satisfactory in all respects, it may at its discretion cease to retain additional funds until the completion of the project, or until progress ceases to be satisfactory. The owner shall make the sole determination in this matter.”

Q. Add the following language after Section 109.5.1. of the General Provisions:

“109.5.1.1. Applications for Payment. Applications for progress payment (“Application for Payment”) will be submitted no more often than monthly and shall be submitted on the dates set forth in the Agreement. Each Application for Payment shall be (1) sworn to and notarized, (2) supported by such data substantiating the Contractor’s right to payment as the Owner or Engineer may require, such as copies of requisitions from Subcontractors and material suppliers, and reflecting retainage if provided for in the Contract Documents, and (3) submitted by the Contractor for review to the Engineer in form and substance as mandated by the Owner. The Contractor’s Application for Payment shall be segregated and detailed in a manner satisfactory to the Owner.

In each Application for Payment, the Contractor shall certify that such Application for Payment represents a just estimate of portion of the Work that is complete as of the last day covered by the Application for Payment and shall also certify by sworn affidavit as follows:

‘There are no known mechanics’ or materialmen’s liens outstanding at the date of this Application, all due and payable bills with respect to the Work have been paid to date or shall be paid from the proceeds of this Application for Payment, there is no known basis for filing of any mechanics’ or materialmen’s liens on the Work, and waivers from all subcontractors and materialmen have been or, at the time of payment, will be obtained in such form as to constitute an effective waiver of lien under the applicable laws of the State of Texas.’

109.5.1.2. Lien Waivers. Concurrent with each Application for Payment, the Contractor shall execute and furnish a waiver and release of its lien rights current through the effective date of such Application for Payment conditioned upon receipt of the payment

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that is the subject of the application. Beginning with the second Application for Payment, the Contractor shall also deliver with each such Application as a condition precedent to payment thereof, waivers of lien from each of the Subcontractors, Sub-subcontractors, and suppliers current through the effective date of the previous Application of Payment. The Contractor shall also execute and obtain any other reasonable forms as the Owner may require in order to assure an effective waiver and release of mechanics' and materialmen's liens in compliance with the laws of the State of Texas. The Contractor shall, if any Subcontractor, Sub-subcontractor or supplier refuses to furnish a release in full, furnish a bond satisfactory to the Owner to indemnify against any lien."

- R. Delete Section 109.5.2 of the General Provisions and replace with the following:

"Ten-percent (10%) retainage shall be withheld until 40 days after Final Completion."

- 88. CONTRACTOR REPRESENTATIONS:** By entering into the Contract, the Contractor makes the following representations to the Town of Addison:

- A. Contractor has examined and carefully studied the Bidding Documents and the related data identified in the Bidding Documents.
- B. The Contractor has visited the Project site where the goods are to be installed or services will be provided and become familiar with and is satisfied as to the observable local conditions that may affect cost, progress, or the furnishing of goods and services, if required to do so by the Bidding Documents, or if, in the Contractor's judgment, any local condition may affect cost, progress, or the furnishing of goods and services.
- C. The Contractor is familiar with and is satisfied as to all Laws and Regulations in effect as of the date of the bid that may affect cost, progress, and the furnishing of goods and services.
- D. The Contractor has carefully studied, considered, and correlated the information known to the Contractor; information commonly known to sellers of similar goods doing business in the locality of the Project site where the goods will be installed or where services will be provided; information and observations obtained from the Contractor's visits, if any, to the Project site where the goods will be installed or services will be provided; and any reports and drawings identified in the Bidding Documents regarding the Project site where the goods will be installed or where services will be provided, with respect to the effect of such information, observations, and documents on the cost, progress, and performance of the Contractor's obligations under the Bidding Documents.

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- E. The Contractor has given the Engineer written notice of all conflicts, errors, ambiguities, and discrepancies that the Contractor has discovered in the Bidding Documents, and the written resolution (if any) thereof by the Engineer is acceptable to the Contractor.
- F. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for furnishing the goods and services for which the bid is submitted
- G. The Contractor acknowledges that estimated quantities are not guaranteed, and are solely for the purpose of comparison of bids, and final payment for all unit price bid items will be based on actual quantities, determined as provided in the Contract Documents. The Contractor also acknowledges that each unit price includes an amount considered by the Contractor to be adequate to cover the Contractor's overhead and profit for each separately identified item.

89. 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 set forth below in the Davis Bacon Act General Decision No. TX130035:

General Decision Number: TX130035 01/04/2013 TX35

Superseded General Decision Number: TX20120035

State: Texas

Construction Type: Highway

Counties: Archer, Callahan, Clay, Collin, Dallas, Delta, Denton, Ellis, Grayson, Hunt, Johnson, Jones, Kaufman, Parker, Rockwall, Tarrant and Wise Counties in Texas.

HIGHWAY CONSTRUCTION PROJECTS (excluding tunnels, building structures in rest area projects & railroad construction; bascule, suspension & spandrel arch bridges designed for commercial navigation, bridges involving marine construction; and other major bridges).

Modification Number	Publication Date	0	01/04/2013
* SUTX2011-007	08/03/2011		

	Rates	Fringes
CONCRETE FINISHER (Paving and Structures)	\$14.12	
ELECTRICIAN	\$19.80	
FORM BUILDER/FORM SETTER		
Paving & Curb	\$13.16	
Structures	\$13.84	

LABORER

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Asphalt Raker	\$12.69
Flagger	\$10.06
Laborer, Common	\$10.72
Laborer, Utility	\$12.32
Pipelayer	\$13.24
Work Zone Barricade Servicer	\$11.68

POWER EQUIPMENT OPERATOR:

Asphalt Distributor	\$15.32
Asphalt Paving Machine	\$13.99
Broom or Sweeper Concrete Pavement	\$11.74
Finishing Machine	\$16.05
Concrete Saw	\$14.48
Crane Operator, Lattice Boom 80 Tons or Less	\$17.27
Crane Operator, Lattice Boom over 80 Tons	\$20.52
Crane, Hydraulic 80 Tons or Less	\$18.12
Crawler Tractor	\$14.07
Excavator, 50,000 pounds or Less	\$17.19
Excavator, over 50,000 pounds	\$16.99
Foundation Drill , Truck Mounted	\$21.07
Foundation Drill, Crawler Mounted	\$17.99
Front End Loader 3 CY or Less	\$13.69
Front End Loader, over 3 CY	\$14.72
Loader/Backhoe	\$15.18
Mechanic	\$17.68
Milling Machine	\$14.32
Motor Grader, Fine Grade	\$17.19
Motor Grader, Rough	\$16.02
Pavement Marking Machine	\$13.63
Reclaimer/Pulverizer	\$11.01
Roller, Asphalt	\$13.08
Roller, Other	\$11.51
Scraper	\$12.96
Small Slipform Machine	\$15.96
Spreader Box	\$14.73
Servicer	\$14.58

Steel Worker (Reinforcing)	\$16.18
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TRUCK DRIVER

Lowboy-Float	\$16.24
Off Road Hauler	\$12.25
Single Axle	\$12.31
Single or Tandem Axle Dump Trunk	\$12.62
Tandem Axle Tractor with Semi Trailer	\$12.86
Transit-Mix	\$14.14

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WELDER \$14.84

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

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 union or non-union.

Union Identifiers

An identifier enclosed in dotted lines beginning with characters other than “SU” denotes that the union classification and rate have found to be prevailing for that classification. Example: PLUM0198-005 07/01/2011. The first four letters , PLUM, indicate the international union and the four-digit number, 0198, that follows 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. The date, 07/01/2011, following these characters is the effective date of the most current negotiated rate/collective bargaining agreement which would be July 1, 2011 in the above example.

Union prevailing wage rates will be updated to reflect any changes in the collective bargaining agreements governing the rates.

0000/9999: weighted union wage rates will be published annually each January.

Non-Union Identifiers

Classifications listed under an “SU” identifier were derived from survey data by computing average rates and are not union rates; however, the data used in computing these rates may include both union and non-union data. Example: SULA2004-007 5/13/2010. SU indicates the rates are not union majority rates, LA indicates the State of Louisiana; 2004 is the year of the survey; and 007 is an internal number used in producing the wage determination. A 1993 or later date, 5/13/2010, indicates the classifications and rates under that identifier were issued as a General Wage Determination on that date.

Survey wage rates will remain in effect and will not change until a new survey is conducted.

WAGE DETERMINATION APPEALS PROCESS

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

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- * 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.

END OF GENERAL DECISION

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

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

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SPECIAL PROVISIONS

Note: 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 (2014), 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.

SP.1 PROJECT

The project covered by these specifications consists of the furnishing and installation of all material, supplies, appurtenances, equipment and labor and any other necessary items required to construct, test and complete, ready for use and operation by the Owner. Final clean up before acceptance by the Owner is included as a part of the project.

SP.2 NCTCOG CONSTRUCTION SPECIFICATIONS

NCTCOG shall be utilized for these areas:

- **Site Protection & Preparation** Division 200
- **Roadway Construction** Division 300
- **Roadway Maintenance & Rehabilitation** Division 400
- **Underground Construction** Division 500
- **Structures** Division 700
- **Misc. Construction & Materials** Division 800

~~Contractor shall notify owner and engineer with any discrepancies between the NCTCOG Specifications and technical specifications prior to starting construction.~~

The specifications included with this document govern if there are any discrepancies between them and the listed specifications.

SP.3 DISPOSAL OF SURPLUS MATERIAL

Surplus material not required for other parts of the work and not otherwise specifically covered by the drawings or specifications shall become the property of the Contractor for proper disposal by him.

SP.4 REMOVING OBSTRUCTIONS

Existing driveways, mailboxes, fences, sidewalks, landscaping, signs, and RCP or CMP drainage pipes shall be removed and replaced where necessary. The Contractor shall replace existing obstructions with equal or better materials. The Contractor shall coordinate any removal with the Property Owner.

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SECTION TS

TECHNICAL SPECIFICATIONS

SS-110	Standard Specifications
SS-120	Site Preparation
SS-212	Geogrid
SS-220	Ditch Grading
SS-302	Utility Allowance
D-751	Manholes, Catch Basins, Inlets, and Inspection Holes
TX-104	Removing Concrete
TX-132	Embankment
TX-162	Sodding for Erosion Control
TX-216	Proof Rolling
TX-247	Flexible Base
TX-360	Concrete Pavement
TX-421	Hydraulic Cement Concrete
TX-464	Reinforced Concrete Pipe
TX-496	Removing Structures
TX-502	Barricades, Signs, and Traffic Handling
TX-506	Temporary Erosion Controls

SECTION IS

ADDITIONAL INSURANCE REQUIREMENTS

TOWN OF ADDISON, TEXAS
WING AVIATION APRON CONNECTOR AND CLAIRE CHENNAULT STREET DRIVEWAY
RECONSTRUCTION

REQUIREMENTS

Contractors performing work on TOWN OF ADDISON property or public right-of-way shall provide the TOWN OF ADDISON a certificate of insurance or a copy of their insurance policy(s) (and including a copy of the endorsements necessary to meet the requirements and instructions contained herein) evidencing the coverages and coverage provisions identified herein within ten (10) days of request from TOWN OF ADDISON. Contractors shall provide TOWN OF ADDISON evidence that all subcontractors performing work on the project have the same types and amounts of coverages as required herein or that the subcontractors are included under the contractor's policy. Work shall not commence until insurance has been approved by TOWN OF ADDISON.

All insurance companies and coverages must be authorized by the Texas Department of Insurance to transact business in the State of Texas and must have a A.M. Best's rating A-:VII or greater.

Listed below are the types and minimum amounts of insurances required and which must be maintained during the term of the contract. TOWN OF ADDISON reserves the right to amend or require additional types and amounts of coverages or provisions depending on the nature of the work.

TYPE OF INSURANCE	AMOUNT OF INSURANCE	PROVISIONS
1. Workers' Compensation Employers' Liability to include: (a) each accident (b) Disease Policy Limits (c) Disease each employee	Statutory Limits per occurrence Each accident \$1,000,000 Disease Policy Limits \$1,000,000 Disease each employee \$1,000,000	TOWN OF ADDISON, and Garver, LLC. to be provided a <u>WAIVER OF SUBROGATION AND 30 DAY NOTICE OF CANCELLATION</u> or material change in coverage. Insurance company must be A-:VII rated or above.
2. Commercial General (Public) Liability to include coverage for: a) Bodily Injury b) Property damage c) Independent Contractors d) Personal Injury e) Contractual Liability	Bodily Injury/Property Damage per occurrence \$1,000,000, General Aggregate \$2,000,000 Products/Completed Aggregate \$2,000,000, Personal Advertising Injury per occurrence \$1,000,000, Medical Expense 5,000	TOWN OF ADDISON, and Garver, LLC. to be listed as <u>ADDITIONAL INSURED and provided 30 DAY NOTICE OF CANCELLATION</u> or material change in coverage. Insurance company must be A-:VII rated or above.
3. Business Auto Liability to include coverage for: a) Owned/Leased vehicles b) Non-owned vehicles c) Hired vehicles	Combined Single Limit \$1,000,000 per occurrence for bodily injury and property damage	TOWN OF ADDISON, and Garver, LLC. to be listed as <u>ADDITIONAL INSURED and provided 30 DAY NOTICE OF CANCELLATION</u> or material change in coverage. Insurance company must be A-:VII-rated or above.
4. Umbrella or Excess Liability Policy over Commercial General Liability and Automobile Liability limits of \$1 million per occurrence	Minimum \$4 million per occurrence excess \$1 million underlying per occurrence	TOWN OF ADDISON, and Garver, LLC. to be listed as <u>ADDITIONAL INSURED and provided 30 DAY NOTICE OF CANCELLATION</u> or material change in coverage. Insurance company must be A-:VII-rated or above.

Certificate of Liability Insurance forms (together with the endorsements necessary to meet the requirements and instructions contained herein) may be **faxed** to the Purchasing Department: **972-450-7074** or **emailed to:**

purchasing@addisontx.gov. Questions regarding required insurance should be directed to the Purchasing Manager.

With respect to the foregoing insurance,

1. All liability policies shall contain no cross liability exclusions or insured versus insured restrictions applicable to the claims of the Town of Addison.
2. All insurance policies shall be endorsed to require the insurer to immediately notify the Town of Addison, Texas of any material change in the insurance coverage.
3. All insurance policies shall be endorsed to the effect that the Town of Addison, Texas will receive at least thirty (30) days' notice prior to cancellation or non-renewal of the insurance.
4. All insurance policies, which name the Town of Addison and Garver, LLC, Inc. as an additional insured, must be endorsed to read as primary coverage regardless of the application of other insurance.
5. Insurance must be purchased from insurers that are financially acceptable to the Town of Addison and licensed to do business in the State of Texas.

All insurance must be written on forms filed with and approved by the Texas Department of Insurance. Upon request, Contractor shall furnish the Town of Addison with complete copies of all insurance policies certified to be true and correct by the insurance carrier.

This form must be signed and returned with your quotation. You are stating that you do have the required insurance and if selected to perform work for TOWN OF ADDISON, will provide the certificates of insurance (and endorsements) with the above requirements to TOWN OF ADDISON within 10 working days.

A CONTRACT/PURCHASE ORDER WILL NOT BE ISSUED WITHOUT EVIDENCE AND APPROVAL OF INSURANCE.

AGREEMENT

I agree to provide the above described insurance coverages within 10 working days if selected to perform work for TOWN OF ADDISON. I also agree to require any subcontractor(s) to 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.

Project/Bid# _____

Company: _____

Printed Name: _____

Signature: _____ **Date:** _____

ITEM SS-110 STANDARD SPECIFICATIONS

GENERAL

110-1.1 The standard specifications of the Texas Department of Transportation are bound in a book titled Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges. These specifications are referred to herein as "Standard Specifications." The edition published November 1, 2014 shall apply. A copy of these "Standard Specifications" may be obtained from TxDOT online or at their customary charge.

INCORPORATION AND MODIFICATION

110-2.1 Certain parts of the Standard Specifications are appropriate for inclusion in these Technical Specifications. Such parts are incorporated herein by reference to the proper section or paragraph number. The individual specification numbers noted herein may be different from those in the latest edition of the "Standard Specifications." The most current specification number shall apply. Each such referenced part shall be considered to be a part of these Contract Documents as though copied herein in full.

110-2.2 Certain referenced parts of the Standard Specifications are modified in the Specifications that follow. In case of conflict between the Standard Specifications and the Specifications that follow, the Specifications that follow shall govern.

110-2.3 Individual material test numbers change from time to time. Use the latest applicable test.

110-2.4 Reference in the Standard Specifications to the "Department" is herein changed to the "Owner".

MEASUREMENT AND PAYMENT

110-3.1 All measurements and payments are defined within the specifications and modification pages. Any specifications that is referred to but not included in the specification/contract documents shall be considered subsidiary to the item in which it is contained.

END OF ITEM SS-110

ITEM SS-120 SITE PREPARATION

DESCRIPTION

120-1.1 This item covers the preparation of the site for construction of the proposed improvements.

The attention of the bidder is directed to the necessity for careful examination of the entire project site to determine, at the time of bid preparation, the full extent of work to be done under the item "Site Preparation." The entire job site shall be cleared of all man-made obstructions and debris, of whatever nature, and made ready in all respects for the construction of the proposed improvements.

The item "Site Preparation" shall include:

1. Mobilization
2. Lighted Barricades
3. Contractor's Access/Haul Road
4. Contractor's Staging Areas
5. Airport Security Requirements
6. Airport Safety Requirements
7. Instrument Control
8. Removal and Disposal of Structures
9. Clean Up

CONSTRUCTION METHODS

120-2.1 MOBILIZATION. The Contractor shall consider and include his cost for providing personnel, equipment, materials, bonds, etc. required for the prosecution of the work under this item.

120-2.2 LIGHTED BARRICADES. The Contractor shall furnish, install, maintain, and remove lighted barricades in accordance with details on the plans and as directed by the Engineer. The lighted barricades shall be constructed and installed as shown on the plans. All lighted shall be constructed in accordance with AC 150/5370-2F (or most current) Operational Safety on Airports During Construction.

All work involved in the furnishing, installation, maintenance, and removal of lighted barricades and barrels will not be measured for separate payment, but will be considered subsidiary to the bid item "Site Preparation."

120-2.3 CONTRACTOR'S ACCESS/HAUL ROAD. The Contractor shall layout, construct, maintain, and repair all access/haul roads needed to construct the work. The existing access roads shown on the plans shall be repaired, as determined necessary by the Engineer, at the close of the project. All such work, including all materials and labor, involved in the layout, construction, maintenance, and repair of the Contractor's access/haul roads will not be measured for separate payment but will be considered subsidiary to the bid item "Site Preparation." Any damage to existing pavements or structures, due to the Contractor's hauling or access, will be repaired by the Contractor without additional compensation to a condition equal to or exceeding the existing condition. Temporary pipe culverts shall be installed and maintained as required and shall be of the size as directed by the Engineer. The type of pipe used for temporary pipe shall be at the option of the Contractor. Temporary pipe culverts will not be measured for separate payment, but will be considered subsidiary to the access/haul road. All temporary pipe culverts shall be removed by the Contractor and shall remain his property at the close of the project.

120-2.4 CONTRACTOR'S STAGING AREAS. The areas designated in the plans or by the Engineer as the Contractor's staging area shall be cleared and graded by the Contractor as needed for use by the Contractor in constructing the work on this project. All areas used or otherwise occupied by the Contractor for his operations shall be cleaned, regraded, and seeded, as directed by the Engineer, prior to the final acceptance of the project by the Airport. All work involved in the preparation and restoration of areas used or occupied by the Contractor, including clearing, grubbing, regrading, seeding, and installing and removing fence, will not

be measured for separate payment but will be considered subsidiary to the bid item "Site Preparation."

120-2.5 AIRPORT SECURITY REQUIREMENTS. The Contractor shall abide by the Airport Security requirements that are outlined in the Construction Safety and Phasing Plan (CSPP) of the plans. Any costs associated with the Airport Security requirements will not be measured for separate payment but will be considered subsidiary to the bid item "Site Preparation."

120-2.6 AIRPORT SAFETY REQUIREMENTS. The Contractor shall abide by the Airport Safety requirements that are outlined in the Construction Safety and Phasing Plan (CSPP) of the plans. All costs associated with the Airport Safety requirements will not be measured for separate payment but will be considered subsidiary to the bid item "Site Preparation."

120-2.7 INSTRUMENT CONTROL. The Contractor will be furnished survey baselines and benchmarks to control the work as shown on the Plans. The Contractor shall be responsible for the additional instrument control necessary to layout and construct the work. It is the Contractor's responsibility to protect all existing airport survey control points being used. In the event an existing instrument control is damaged or moved, all costs with re-establishing the control points will be

The Contractor shall provide the instrument control as provided for in Section 50 of the General Provisions. The Contractor's instrument control of the work shall not be measured for separate payment, but will be considered subsidiary to the bid item "Site Preparation".

120-2.8 REMOVAL AND DISPOSAL OF STRUCTURES. This work applies to structures that are in conflict with the proposed work and are not paid for under other pay items.

This work shall consist of the removal and satisfactory disposal of utility poles; signs, sign supports, sign foundations; driveways; guardrail; retaining walls; sidewalks; Portland cement concrete or asphalt concrete pavements; manholes; drainage structures (including reinforced concrete channels, headwalls, and wingwalls); concrete or masonry foundations (including foundations of poles or signs to be removed) or slabs, all of which are not designated or permitted to remain or paid for by other items. The Contractor shall make his own estimate of the work required for the removal of structures which conflict with the proposed construction. All structures required to be removed may not be designated as such in the plans.

The provisions of this section shall not apply to underground petroleum storage tanks.

The attention of the bidder is directed to the necessity for careful examination of the entire site to determine, at the time of bid preparation, the full extent of work to be accomplished. The entire site shall be cleared of all man-made obstructions and debris, of whatever nature, and prepared in all respects for the construction.

The Contractor shall not unnecessarily interfere with the use of any adjacent sidewalks, streets, or roads.

Materials removed will become the property of the Contractor and shall be removed from the job site, unless specifically designated otherwise.

All surface items such as curb, curb and gutter, driveways, parking areas, walks, steps, asphalt and PCC pavement, and walls shall be separated or broken away from the adjacent part of any structure designated to remain in place by a vertical saw cut along the line designated by the Engineer. The edge of the structure left in place shall be approximately vertical with no abrupt changes in alignment. Any damage to or removal of the structure designated to remain in place shall be repaired or replaced at no cost to the Owner.

Holes, ditches, or other abrupt changes in elevation caused by the removal operations that could obstruct drainage or be considered hazardous or unsightly shall be backfilled, compacted, and left in a workmanlike condition.

Where existing pipe culverts are to be extended or otherwise incorporated into the new work, only such part of the existing structure shall be removed as to provide a proper connection to the new work. The connecting edges or joints shall be cut, chipped, and trimmed to the required lines and grades without weakening or damaging the part of the structure to be retained.

For a pipe culvert extension, the headwall and the attached end joint of concrete pipe or the flared end section on all types of pipe shall be removed to accommodate the extension. This work will not be paid for directly but will be considered included in the items involved in the culvert extension. This item includes any additional construction required to connect existing pipes to the constructed drainage system.

Trenches or voids resulting from the removal or demolition of existing culverts or other structures shall be filled with approved material placed in layers in accordance with Item TX-132.

Masonry and reinforced concrete foundations shall be obliterated, or if in fill sections, may be left in place if covered by not less than 2 feet of embankment.

Concrete foundations for poles to be removed shall be obliterated to a depth of 2 feet below finished grade or as required to accommodate new construction.

The removal and disposal of the various items covered by this specification will not be measured for separate payment, but will be subsidiary to the bid item "Site Preparation".

120-2.9 CLEAN UP. From time to time, the Contractor shall clean up the site in order that the site presents a neat appearance and that the progress of work will not be impeded. One such clean up shall immediately precede final inspection.

Immediately following acceptance of the work by the Owner, the Contractor shall remove all temporary equipment, surplus materials, and debris resulting from his operations, and leave the site in a condition fully acceptable to the Owner.

MEASUREMENT AND PAYMENT

120-3.1 Site preparation will be measured as a lump sum complete item. Work completed and accepted under this item will be paid for at the contract lump sum price bid for "Site Preparation," which price shall be full compensation for furnishing all labor, tools, equipment and incidentals necessary to complete the work.

Periodic payments will be made under this item in proportion to the amount of work accomplished, as determined by the Engineer.

Payment will be made under:

Item SS-120-3.1 Site Preparation - per Lump Sum

END OF ITEM SS-120

ITEM SS-212 GEOGRID

DESCRIPTION

212-1.1 This item shall consist of furnishing, hauling, and installation of approved geogrid on prepared areas in accordance with this specification at the locations and grades shown on the plans or as directed by the Engineer.

MATERIALS

212-2.1 Provide triaxial geogrid, of the type *described within this specification and table 1. The geogrid must be manufactured from a punched polypropylene sheet.*

**Table 1
Geogrid Requirements**

Property		
<i>Rib pitch</i>	<i>1.6" Longitudinal</i>	<i>1.6" Diagonal</i>
<i>Mid-rib depth</i>	<i>1.3" Diagonal</i>	<i>1.6" Transverse</i>
<i>Mid-rib width</i>	<i>0.9" Diagonal</i>	<i>1.2" Transverse</i>
<i>Rib shape</i>	<i>rectangular</i>	
<i>Aperture shape</i>	<i>triangular</i>	

CONSTRUCTION METHODS

212-3.1 GENERAL. Proof roll the subgrade in accordance to item Tx-216. Replace any unstable or non-uniform areas before placing the geogrid at no expense to the owner. Install geogrid in accordance with the lines and grades as shown on the plans. Place base material in lift thicknesses and compact as shown on the plans or as directed. Do not operate tracked construction equipment on the geogrid until a minimum fill cover of 6 in. is achieved. Rubber tire construction equipment may operate directly on the geogrid at speeds of less than 5 mph if the underlying material will support the loads. Where excessive substructure deformation is apparent, correct grid placement operations as recommended by the manufacturer or as directed.

212-3.2 GEOGRID PLACEMENT. Orient the geogrid length as unrolled parallel to the direction of roadway. Overlap geogrid sections as directed below. Use plastic ties at overlap joints or as directed. Placement of geogrid around corners may require cutting and diagonal lapping. Pin geogrid at the beginning of the backfill section as directed. Keep geogrid taut at the beginning of the backfilling section but not restrained from stretching or flattening.

1. **Longitudinal Joints.** Overlap longitudinal joints by a minimum of 1 ft. Space longitudinal ties 10 ft. to 20 ft. or as directed.
2. **Transverse Joints.** Overlap transverse joints by a minimum of 1 ft. Space transverse ties 4 ft. to 5 ft. or as directed.

212-3.3 DAMAGE REPAIR. As directed, remove and replace contractor damaged or excessively deformed areas without additional compensation. Lap repair areas a minimum of 3 ft. in all directions. Tie each side of repair grid in at least 3 locations but do not exceed normal construction spacing; tie spacing for odd shapes will be as directed. Repair excessively deformed materials underlying the grid as directed.

METHOD OF MEASUREMENT

212-4.1 This Item will be measured by the square yard of placement as shown in the plans with no allowance for overlapping at transverse and longitudinal joints

BASIS OF PAYMENT

212-5.1 This item will be paid for on the basis of the contract unit price per square yard for geogrid, which price shall be full compensation for all labor, equipment, material, staking, and incidentals necessary to satisfactorily complete the items as specified.

Payment will be made under:

Item SS-212-5.1 Triaxial Geogrid - per Square Yard

END OF ITEM SS-212

ITEM SS-220 DITCH GRADING

DESCRIPTION

220-1.1 This item covers placement and compaction of all materials within the limits of the work required to re-grade the site for ditches.

MATERIALS

220-2.1 EMBANKMENT. Embankment used shall meet the requirements of Tx-132. Additional embankment required to complete the project shall be obtained as provided in Tx-132.

CONSTRUCTION METHODS

220-3.1 GENERAL. If it is necessary to interrupt existing surface drainage, sewers or under-drainage, conduits, utilities, or similar underground structures the Contractor shall be responsible for and shall take all necessary precautions to preserve them or provide temporary services. When such facilities are encountered, the Contractor shall notify the Engineer, who shall arrange for their removal if necessary. The Contractor shall, at his/her own expense, satisfactorily repair or pay the cost of all damage to such facilities or structures which may result from any of the Contractor's operations during the period of the contract.

220-3.2 PREPARATION OF EMBANKMENT AREA. Before beginning any embankment, the areas where the embankment is to be made shall be stripped or disked to a minimum depth of four inches. Topsoil obtained from the stripping operations shall be salvaged and stockpiled for later use.

220-3.3 FORMATION OF EMBANKMENTS. Excavation and embankment necessary for this item shall conform to Item Tx-132 "Embankment." Embankment shall be compacted by small roller or other means approved by the engineer. Frozen material shall not be placed in the embankment nor shall embankment be placed upon frozen material. Excavation and embankment necessary for this item will not be measured for separate payment, but shall be considered subsidiary to this item.

METHOD OF MEASUREMENT

220-4.1 The quantity of ditch grading to be paid for shall be the number of linear feet placed measured along the ditch centerline, regardless of the transverse width or depth of the grading. There will be no separate measurement of payment for removing and storing the topsoil or compacted embankment or excavation. All costs incidental to placing, compacting, disking, watering, shaping, and other necessary operations for construction of edge grading embankment will be included in the contract price for pavement edge grading.

BASIS OF PAYMENT

220-5.1 For "Ditch Grading" payment shall be made at the contract unit price per linear foot. This price shall be full compensation for excavation, embankment, grading, compacting and furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the item.

Payment will be made under:

Item SS-220-5.1 Ditch Grading – per linear foot

END OF ITEM SS-220

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ITEM SS-302 UTILITY ALLOWANCES

DESCRIPTION

302-1.1 This item shall consist of the cost plus profit to relocate the utilities specified in order to construct the contract improvements.

302-1.2 Related work:

a. Documents affecting work of this Section include, but are not necessarily limited to, General Provisions, Special Provisions, and other Sections of these Specifications.

b. Other provisions concerning Utility Allowances may be stated in other Sections of these Specifications.

SPECIFIC UTILITY ALLOWANCES

302-2.1 COMMUNICATION CABLE & SERVICE LINE RELOCATION: Existing underground communication cable of any kind as well as sanitary sewer and water service lines that interfere with the new construction shall be relocated.

In some cases, affected utilities may be relocated by others. The Contractor shall coordinate his activities with others to carry out relocation and/or removal. Notification to the owners of the communication cable and service line relocations shall be given 48 hours advance notice.

Communication cables shall be relocated with material that is of same quality or better than the existing cable.

METHOD OF MEASUREMENT

302-3.1 COMMUNICATION CABLE RELOCATION: The quantity of communication cable relocation to be paid for under this item shall be measured lump sum, consisting of the specified lump sum allowance cost indicated within the Bid Proposal Form. The Contractor will only charge the fraction of the allowance that yields the price for labor, overhead and profit (not to exceed 10%), equipment, and material to perform the mentioned work. The contractor must submit an invoice listing all material, equipment, and labor for payment. The Contractor must seek approval from the Engineer to proceed with the communication cable relocation, if the total amount for the communication cable relocation exceeds the allowance provided. No additional Contractor costs shall be added to this allowance. Any additional Contractor costs for accomplishing this work effort, including administration and coordination work, shall be included in the "Site Preparation" pay item. Any remaining amount left in this allowance at the conclusion of the project will not be paid to the Contractor.

BASIS OF PAYMENT

Payment shall be made at the contract lump sum unit price bid for the unit of measurement as specified above. This price shall be full compensation for furnishing all labor, tools, equipment and incidentals necessary to complete the work

Payment will be made under:

Item SS-302-3.1 Communication Cable Relocation -- per Allowance

END OF ITEM SS-302

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ITEM D-751 MANHOLES, CATCH BASINS, INLETS AND INSPECTION HOLES

DESCRIPTION

751-1.1 This item shall consist of construction of manholes, *junction structures*, catch basins, inlets, and inspection holes, in accordance with these specifications, at the specified locations and conforming to the lines, grades, and dimensions shown on the plans or required by the Engineer. *The manholes, junction structures, catch basins, inlets, and inspection holes shall also conform to the details within the plans.*

MATERIALS

751-2.1 BRICK. The brick shall conform to the requirements of ASTM C32, Grade MS.

751-2.2 MORTAR. Mortar shall consist of one part Portland cement and two parts sand. The Portland cement shall conform to the requirements of ASTM C150, Type I. The sand shall conform to the requirements of ASTM C144.

751-2.3 CONCRETE. Plain and reinforced concrete used in structures, connections of pipes with structures, and the support of structures or frames shall conform to the requirements of Item ~~P-640~~ *Tx-421, Class A.*

751-2.4 PRECAST CONCRETE PIPE MANHOLE RINGS. Precast concrete pipe manhole rings shall conform to the requirements of ASTM C478. Unless otherwise specified, the risers and offset cone sections shall have an inside diameter of not less than 36 inches nor more than 48 inches. There shall be a gasket between individual sections and sections cemented together with mortar on the inside of the manhole.

751-2.5 CORRUGATED METAL. Corrugated metal shall conform to the requirements of American Association of State Highway and Transportation Officials (AASHTO) M36.

751-2.6 FRAMES, COVERS, AND GRATES. The castings shall conform to one of the following requirements:

- | | |
|--------------|---|
| a. ASTM A48 | Gray iron castings |
| b. ASTM A47 | Malleable iron castings |
| c. ASTM A27 | Steel castings |
| d. ASTM A283 | Grade D: Structural steel for grates and frames |
| e. ASTM A536 | Grade 65-45-12: Ductile iron castings |
| f. ASTM A897 | Austempered ductile iron castings |

All castings or structural steel units shall conform to the dimensions shown on the plans and shall be designed to support the loadings, aircraft gear configuration and/or direct loading, specified.

Each frame and cover or grate unit shall be provided with fastening members to prevent it from being dislodged by traffic but which will allow easy removal for access to the structure.

All castings shall be thoroughly cleaned. After fabrication, structural steel units shall be galvanized to meet the requirements of ASTM A123.

751-2.7 STEPS. The steps or ladder bars shall be gray or malleable cast iron or galvanized steel. The steps shall be the size, length, and shape shown on the plans and those steps that are not galvanized shall be given a coat of bituminous paint, when directed.

751-2.8 PRECAST INLET STRUCTURES. Manufactured in accordance with and conforming to ASTM C1433.

CONSTRUCTION METHODS

751-3.1 UNCLASSIFIED EXCAVATION.

a. The Contractor shall excavate for structures and footings to the lines and grades or elevations, shown on the plans, or as staked by the Engineer. The excavation shall be of sufficient size to permit the placing of the full width and length of the structure or structure footings shown. The elevations of the bottoms of footings, as shown on the plans, shall be considered as approximately only; and the Engineer may direct, in writing, changes in dimensions or elevations of footings necessary for a satisfactory foundation.

b. Boulders, logs, or any other objectionable material encountered in excavation shall be removed. All rock or other hard foundation material shall be cleaned of all loose material and cut to a firm surface either level, stepped, or serrated, as directed by the Engineer. All seams or crevices shall be cleaned out and grouted. All loose and disintegrated rock and thin strata shall be removed. Where concrete will rest on a surface other than rock, the bottom of the excavation shall not be disturbed and excavation to final grade shall not be made until immediately before the concrete or reinforcing is placed.

c. The Contractor shall do all bracing, sheathing, or shoring necessary to implement and protect the excavation and the structure as required for safety or conformance to governing laws. The cost of bracing, sheathing, or shoring shall be included in the unit price bid for the structure.

d. All bracing, sheathing, or shoring involved in the construction of this item shall be removed by the Contractor after the completion of the structure. Removal shall not disturb or damage finished masonry. The cost of removal shall be included in the unit price bid for the structure.

e. After excavation is completed for each structure, the Contractor shall notify the Engineer. No concrete or reinforcing steel shall be placed until the Engineer has approved the depth of the excavation and the character of the foundation material.

751-3.2 BRICK STRUCTURES.

~~— a. Foundations. A prepared foundation shall be placed for all brick structures after the foundation excavation is completed and accepted. Unless otherwise specified, the base shall consist of reinforced concrete mixed, prepared, and placed in accordance with the requirements of Item P-610Tx-421, Class A.~~

~~— b. Laying Brick. All brick shall be clean and thoroughly wet before laying so that they will not absorb any appreciable amount of additional water at the time they are laid. All brick shall be laid in freshly made mortar. Mortar not used within 45 minutes after water has been added shall be discarded. Retempering of mortar shall not be permitted. An ample layer of mortar shall be spread on the beds and a shallow furrow shall be made in it that can be readily closed by the laying of the brick. All bed and head joints shall be filled solid with mortar. End joints of stretchers and side or cross joints of headers shall be fully buttered with mortar and a shoved joint made to squeeze out mortar at the top of the joint. Any bricks that may be loosened after the mortar has taken its set, shall be removed, cleaned, and relaid with fresh mortar. No broken or chipped brick shall be used in the face, and no spalls or bats shall be used except where necessary to shape around irregular openings or edges; in which case, full bricks shall be placed at ends or corners where possible, and the bats shall be used in the interior of the course. In making closures, no piece of brick shorter than the width of a whole brick shall be used; and wherever practicable, whole brick shall be used and laid as headers.~~

~~— c. Joints. All joints shall be filled with mortar at every course. Exterior faces shall be laid up in advance of backing. Exterior faces shall be plastered or parged with a coat of mortar not less than 3/8 inch thick before the backing is laid up. Prior to parging, all joints on the back of face courses shall be cut flush. Unless~~

otherwise noted, joints shall be not less than 1/4 inch nor more than 1/2 inch wide and the selected joint width shall be maintained uniform throughout the work.

~~— d. Pointing.~~ Face joints shall be neatly struck, using the weather struck joint. All joints shall be finished properly as the laying of the brick progresses. When nails or line pins are used, the holes shall be immediately plugged with mortar and pointed when the nail or pin is removed.

~~— e. Cleaning.~~ Upon completion of the work, all exterior surfaces shall be thoroughly cleaned by scrubbing and washing with water. If necessary to produce satisfactory results, cleaning shall be done with a 5% solution of muriatic acid which shall then be rinsed off with liberal quantities of water.

~~— f. Curing and Cold Weather Protection.~~ The brick masonry shall be protected and kept moist for at least 48 hours after laying the brick. Brick masonry work or pointing shall not be done when there is frost on the brick or when the air temperature is below 50°F unless the Contractor has, on the project ready to use, suitable covering and artificial heating devices necessary to keep the atmosphere surrounding the masonry at a temperature of not less than 60°F for the duration of the curing period.

751-3.3 CONCRETE STRUCTURES. Concrete structures shall be built on prepared foundations, conforming to the dimensions and shape indicated on the plans. The construction shall conform to the requirements specified in Item P-640 **Tx-421, Class A**. Any reinforcement required shall be placed as indicated on the plans and shall be approved by the Engineer before the concrete is placed.

All invert channels shall be constructed and shaped accurately to be smooth, uniform, and cause minimum resistance to flowing water. The interior bottom shall be sloped to the outlet.

751-3.4 PRECAST CONCRETE PIPE STRUCTURES. Precast concrete structures shall conform to ASTM C478. Precast concrete structures shall be constructed on prepared or previously placed slab foundations conforming to the dimensions and locations shown on the plans. All precast concrete sections necessary to build a completed structure shall be furnished. The different sections shall fit together readily. Joints between precast concrete risers and tops shall be full-bedded in cement mortar and shall be smoothed to a uniform surface on both interior and exterior of the structure. The top of the upper precast concrete section shall be suitably formed and dimensioned to receive the metal frame and cover or grate, or other cap, as required. Provision shall be made for any connections for lateral pipe, including drops and leads that may be installed in the structure. The flow lines shall be smooth, uniform, and cause minimum resistance to flow. The metal steps that are embedded or built into the side walls shall be aligned and placed at vertical intervals of 12 inches. When a metal ladder replaces the steps, it shall be securely fastened into position.

~~**751-3.5 CORRUGATED METAL STRUCTURES.** Corrugated metal structures shall be prefabricated. All standard or special fittings shall be furnished to provide pipe connections or branches with the correct dimensions and of sufficient length to accommodate connecting bands. The fittings shall be welded in place to the metal structures. The top of the metal structure shall be designed so that either a concrete slab or metal collar may be attached to allow the fastening of a standard metal frame and grate or cover. Steps or ladders shall be furnished as shown on the plans. Corrugated metal structures shall be constructed on prepared foundations, conforming to the dimensions and locations as shown on the plans. When indicated, the structures shall be placed on a reinforced concrete base.~~

751-3.6 INLET AND OUTLET PIPES. Inlet and outlet pipes shall extend through the walls of the structures a sufficient distance beyond the outside surface to allow for connections. They shall be cut off flush with the wall on the inside surface of the structure, unless otherwise directed. For concrete or brick structures, mortar shall be placed around these pipes to form a tight, neat connection.

751-3.7 PLACEMENT AND TREATMENT OF CASTINGS, FRAMES, AND FITTINGS. All castings, frames, and fittings shall be placed in the positions indicated on the plans or as directed by the Engineer, and shall be set true to line and elevation. If frames or fittings are to be set in concrete or cement mortar,

all anchors or bolts shall be in place before the concrete or mortar is placed. The unit shall not be disturbed until the mortar or concrete has set.

When frames or fittings are placed on previously constructed masonry, the bearing surface of the masonry shall be brought true to line and grade and shall present an even bearing surface so the entire face or back of the unit will come in contact with the masonry. The unit shall be set in mortar beds and anchored to the masonry as indicated on the plans or as directed by the Engineer. All units shall set firm and secure.

After the frames or fittings have been set in final position, the concrete or mortar shall be allowed to harden for seven (7) days before the grates or covers are placed and fastened down.

751-3.8 INSTALLATION OF STEPS. The steps shall be installed as indicated on the plans or as directed by the Engineer. When the steps are to be set in concrete, they shall be placed and secured in position before the concrete is placed. When the steps are installed in brick masonry, they shall be placed as the masonry is being built. The steps shall not be disturbed or used until the concrete or mortar has hardened for at least seven (7) days. After seven (7) days, the steps shall be cleaned and painted, unless they have been galvanized.

When steps are required with precast concrete structures, they shall be cast into the side of the sections at the time the sections are manufactured or set in place after the structure is erected by drilling holes in the concrete and cementing the steps in place.

When steps are required with corrugated metal structures, they shall be welded into aligned position at a vertical spacing of 12 inches.

Instead of steps, prefabricated ladders may be installed. For brick or concrete structures, the ladder shall be held in place by grouting the supports in drilled holes. For metal structures, the ladder shall be secured by welding the top support to the structure and grouting the bottom support into drilled holes in the foundation or as directed by the Engineer.

751-3.9 BACKFILLING.

a. After a structure has been completed, the area around it shall be backfilled with approved material, in horizontal layers not to exceed 8 inches in loose depth, and compacted to the density required in Item P-452 **Tx-132**. Each layer shall be deposited evenly around the structure to approximately the same elevation. The top of the fill shall meet the elevation shown on the plans or as directed by the Engineer.

b. Backfill shall not be placed against any structure until approved by the Engineer. For concrete structures, approval shall not be given until the concrete has been in place seven (7) days, or until tests establish that the concrete has attained sufficient strength to withstand any pressure created by the backfill and placing methods.

c. Backfill shall not be measured for direct payment. Performance of this work shall be considered an obligation of the Contractor covered under the contract unit price for the structure involved.

751-3.10 CLEANING AND RESTORATION OF SITE. After the backfill is completed, the Contractor shall dispose of all surplus material, dirt, and rubbish from the site. Surplus dirt may be deposited in embankments, shoulders, or as approved by the Engineer. The Contractor shall restore all disturbed areas to their original condition. The Contractor shall remove all tools and equipment, leaving the entire site free, clear, and in good condition.

METHOD OF MEASUREMENT

751-4.1 Manholes, *junction structures*, catch basins, inlets, and inspection holes shall be measured by the unit, **completed and accepted, of the type specified.**

751-4.2 Reinforcing steel shall not be measured for separate payment but shall be considered subsidiary to the structure in which it is contained.

BASIS OF PAYMENT

751-5.1 The accepted quantities of manholes, **junction structures**, catch basins, inlets, and inspection holes will be paid for at the contract unit price per each in place when completed. This price shall be full compensation for furnishing all materials and for all preparation, excavation, backfilling and placing of the materials; furnishing and installation of such specials and connections to pipes and other structures as may be required to complete the item as shown on the plans; and for all labor equipment, tools and incidentals necessary to complete the structure.

Payment will be made under:

Item D-751-5.1a	Type "A" Storm Sewer Manhole Complete) — per Each
Item D-751-5.1b	4'x7' Single Grate Inlet (Complete) — per Each
Item D-751-5.1c	4'x7' Junction Box (Complete) — per Each

MATERIAL REQUIREMENT

ASTM A27	Standard Specification for Steel Castings, Carbon, for General Application
ASTM A47	Standard Specification for Ferritic Malleable Iron Castings
ASTM A48	Standard Specification for Gray Iron Castings
ASTM A123	Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products
ASTM A283	Standard Specification for Low and Intermediate Tensile Strength Carbon Steel Plates
ASTM A536	Standard Specification for Ductile Iron Castings
ASTM A897	Standard Specification for Austempered Ductile Iron Castings
ASTM C32	Standard Specification for Sewer and Manhole Brick (Made from Clay or Shale)
ASTM C144	Standard Specification for Aggregate for Masonry Mortar
ASTM C150	Standard Specification for Portland Cement
ASTM C478	Standard Specification for Precast Reinforced Concrete Manhole Sections
ASTM C1433	Standard Specification for Precast Reinforced Concrete Monolithic Box Sections for Culverts, Storm Drains, and Sewers
AASHTO M36	Standard Specification for Corrugated Steel Pipe, Metallic-Coated, for Sewers and Drains

END OF ITEM D-751

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Item 104

Removing Concrete



1. DESCRIPTION

Break, remove, and salvage or dispose of existing hydraulic cement concrete.

2. CONSTRUCTION

Remove existing hydraulic cement concrete from locations shown on the plans. Avoid damaging concrete that will remain in place. Saw-cut and remove the existing concrete to neat lines. Replace **or repair** any concrete damaged by the Contractor at no expense to the Department. Owner **by methods approved by the engineer**. Accept ownership and properly dispose of broken concrete in accordance with federal, state, and local regulations unless otherwise shown on the plans.

3. MEASUREMENT

Removing concrete pavement, floors, porches, patios, riprap, medians, foundations, sidewalks, driveways, and other appurtenances will be measured by the square yard (regardless of thickness) or by the cubic yard of calculated volume, in its original position.

Removing curb, curb and gutter, and concrete traffic barrier **shall not be measured for separate payment but shall be considered subsidiary to pavement and/or sidewalk removal**, will be measured by the foot in its original position. The removal of monolithic concrete curb or doweled concrete curb will be included in the concrete pavement measurement.

Removing retaining walls will be measured by the square yard along the front face from the top of the wall to the top of the footing.

This is a plans quantity measurement item. The quantity to be paid is the quantity shown in the proposal, unless modified by Article 9.2., "Plans Quantity Measurement." Additional measurements or calculations will be made if adjustments of quantities are required.

The unit of measurement for pavement removal shall be the number of square yards removed by the Contractor regardless of thickness. In areas to be replaced with a proposed pavement section; all pavement, existing base, and soil shall be removed to the bottom of the proposed section. All soil and base to be removed shall be removed according to the embankment specification. In areas to be replaced with unpaved areas, the ground shall be prepared according to the embankment specification and built back to proposed grade lines or existing grades lines if proposed grade lines are not given. Any pavement removed outside the limits of removal because the pavement was damaged by negligence on the part of the Contractor shall not be included in the measurement for payment.

"Concrete Pavement Removal" shall be paid for by the square yard of concrete pavement material removed (regardless of thickness).

4. PAYMENT

The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Removing Concrete" of the type specified. This price is full compensation for breaking the concrete; loading, hauling, and salvaging or disposing of the material; and equipment, labor, tools, and incidentals. Removing retaining wall footings will not be paid for directly but will be considered subsidiary to this Item.

Payment will be made under:

Item TX-104-5.1

Concrete Pavement Removal—per square yard

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Item 132

Embankment



1. DESCRIPTION

Furnish, place, and compact materials for construction of roadways, embankments, levees, dikes, **drainage structures** or any designated section of the roadway where additional material is required.

2. MATERIALS

Furnish approved material capable of forming a stable embankment from required excavation in the areas shown on the plans or from sources outside the right of way. ~~Provide one or more of the following types as shown on the plans:~~ **Excessive cut or Type A material shall be used.**

- **Type A.** Granular material that is free from vegetation or other objectionable material and meets the requirements of Table 1.

Table 1
Testing Requirements

Property	Test Method	Specification Limit
Liquid limit	Tex-104-E	≤ 45
Plasticity index (PI)	Tex-106-E	≤ 15
Bar linear shrinkage	Tex-107-E	≥ 2

Perform the Linear Shrinkage test only as indicated in Tex-104-E.

- ~~**Type B.** Materials such as rock, loam, clay, or other approved materials.~~
- ~~**Type C.** Material meeting the specification requirements shown on the plans. Type C may be further designated as Type C1, C2, etc.~~
- ~~**Type D.** Material from required excavation areas shown on the plans.~~

Meet the requirements of the pertinent retaining wall Items for retaining wall backfill material.

3. CONSTRUCTION

Meet the requirements of Item 7, "Legal Relations and Responsibilities," when off right of way sources are used. Notify the Engineer before opening a material source to allow for required testing. Complete preparation of the right of way in accordance with Item 100, "Preparing Right of Way," for areas to receive embankment.

Backfill tree-stump holes or other minor excavations with approved material and tamp. Restore the ground surface, including any material disked loose or washed out, to its original slope. Compact the ground surface by sprinkling in accordance with Item 204, "Sprinkling," and by rolling using equipment complying with Item 210, "Rolling," when directed.

Scarify and loosen the unpaved surface areas, except rock, to a depth of at least 6 in. unless otherwise shown on the plans. Bench slopes before placing material. Begin placement of material at the toe of slopes. Do not place trees, stumps, roots, vegetation, or other objectionable material in the embankment. Simultaneously recompact scarified material with the placed embankment material. Do not exceed the layer depth specified in Section 132.3.4., "Compaction Methods."

Construct embankments to the grade and sections shown on the plans. Construct the embankment in layers approximately parallel to the finished grade for the full width of the individual roadway cross-sections unless

otherwise shown on the plans. Ensure that each section of the embankment conforms to the detailed sections or slopes. Maintain the finished section, density, and grade until the project is accepted.

- 3.1. **Earth Embankments.** Earth embankment is mainly composed of material other than rock. Construct embankments in successive layers, evenly distributing materials in lengths suited for sprinkling and rolling.

Treat material with calcium-based additives in accordance with Section 260.2.3., "Flexible Base," when required. Obtain approval to incorporate rock and broken concrete produced by the construction project in the lower layers of the embankment. Place the rock and concrete outside the limits of the completed roadbed when the size of approved rock or broken concrete exceeds the layer thickness requirements in Section 132.3.4., "Compaction Methods." Cut and remove all exposed reinforcing steel from the broken concrete.

Move the material dumped in piles or windrows by blading or by similar methods and incorporate it into uniform layers. Featheredge or mix abutting layers of dissimilar material for at least 100 ft. to ensure there are no abrupt changes in the material. Break down clods or lumps of material and mix embankment until a uniform material is attained.

Apply water free of industrial wastes and other objectionable matter to achieve the uniform moisture content specified for compaction.

Roll and sprinkle each embankment layer in accordance with Section 132.3.4.1., "Ordinary Compaction," when ordinary compaction is specified. Compact the layer to the required density in accordance with Section 132.3.4.2., "Density Control," when density control is specified.

- 3.2. **Rock Embankments.** ~~Rock embankment is mainly composed of rock. Construct rock embankments in successive layers for the full width of the roadway cross section with a depth of 18 in. or less. Increase the layer depth for large rock sizes as approved. Do not exceed a depth of 2-1/2 ft. in any case. Fill voids created by the large stone matrix with smaller stones during the placement and filling operations.~~

~~Ensure the depth of the embankment layer is greater than the maximum dimension of any rock. Do not place rock greater than 2 ft. in its maximum dimension, unless otherwise approved. Construct the final layer with graded material so that the density and uniformity is in accordance with Section 132.3.4., "Compaction Methods." Break up exposed oversized material as approved.~~

~~Roll and sprinkle each embankment layer in accordance with Section 132.3.4.1., "Ordinary Compaction," when ordinary compaction is specified. Compact each layer to the required density in accordance with Section 132.3.4.2., "Density Control," when density control is specified. Proof-roll each rock layer as directed, where density testing is not possible, in accordance with Item 216, "Proof Rolling," to ensure proper compaction.~~

- 3.3. **Embankments Adjacent to Culverts and Bridges.** ~~Compact embankments adjacent to culverts and bridges in accordance with Item 400, "Excavation and Backfill for Structures."~~

- 3.4. **Compaction Methods.** Begin rolling longitudinally at the sides and proceed toward the center, overlapping on successive trips by at least 1/2 the width of the roller. Begin rolling at the lower side and progress toward the high side on super elevated curves. Alternate roller trips to attain slightly different lengths. Compact embankments in accordance with Section 132.4.1., "Ordinary Compaction," or Section 132.3.4.2., "Density Control," as shown on the plans.

- 3.4.1. **Ordinary Compaction.** ~~Use approved rolling equipment complying with Item 210, "Rolling," to compact each layer. Use specific equipment when required by the plans or the Engineer. Do not allow the loose depth of any layer to exceed 8 in., unless otherwise approved. Bring each layer to the moisture content directed before and during rolling operations. Compact each layer until there is no evidence of further consolidation. Maintain a level layer to ensure uniform compaction. Recompact and refinish the subgrade at no additional expense to the Department if the required stability or finish is lost for any reason.~~

- 3.4.2. **Density Control.** Compact each layer to the required density using equipment complying with Item 210, "Rolling." Determine the maximum lift thickness based on the ability of the compacting operation and equipment to meet the required density. Do not exceed layer thickness of 16 in. loose or 12 in. compacted material unless otherwise approved. Maintain a level layer to ensure uniform compaction.

The Engineer will use Tex-114-E to determine the maximum dry density (D_a) and optimum moisture content (W_{opt}). Meet the requirements for field density and moisture content in Table 2 unless otherwise shown on the plans.

Table 2
Field Density Control Requirements

Description	Density	Moisture Content
	Tex-115-E	
PI ≤ 15	≥ 98% D_a	
15 < PI ≤ 35	≥ 98% D_a and ≤ 102% D_a	≥ W_{opt} .
PI > 35	≥ 95% D_a and ≤ 100% D_a	≥ W_{opt} .

Each layer is subject to testing by the Engineer for density and moisture content. During compaction, the moisture content of the soil should not exceed the value shown on the moisture-density curve, above optimum, required to achieve:

- 98% dry density for soils with a PI greater than 15 but less than or equal to 35 or
- 95% dry density for soils with PI greater than 35.

Remove small areas of the layer to allow for density tests as required. Replace the removed material and recompact at no additional expense to the Department. Proof-roll in accordance with Item 216, "Proof Rolling," when shown on the plans or as directed. Correct soft spots as directed.

- 3.5. **Maintenance of Moisture and Reworking.** Maintain the density and moisture content once all requirements in Table 2 are met. Maintain the moisture content no lower than 4% below optimum for soils with a PI greater than 15. Rework the material to obtain the specified compaction when the material loses the required stability, density, moisture, or finish. Alter the compaction methods and procedures on subsequent work to obtain specified density as directed.

3.6. **Acceptance Criteria.**

3.6.1. **Grade Tolerances.**

3.6.1.1. **Staged Construction.** Grade to within 0.1 ft. in the cross-section and 0.1 ft. in 16 ft. measured longitudinally.

3.6.1.2. **Turnkey Construction.** Grade to within 1/2 in. in the cross-section and 1/2 in. in 16 ft. measured longitudinally.

3.6.2. **Gradation Tolerances.** Ensure no more than 1 of the 5 most recent gradation tests is outside the specified limits on any individual sieve by more than 5% when gradation requirements are shown on the plans.

3.6.3. **Density Tolerances.** Ensure no more than 1 of the 5 most recent density tests for compaction work is outside the specified density limits, and no test is outside the limits by more than 3 pcf.

3.6.4. **Plasticity Tolerances.** Ensure no more than 1 of the 5 most recent PI tests for material is outside the specified limit by more than 2 points.

4. **MEASUREMENT**

Embankment will be measured by the cubic yard. Measurement will be further defined for payment as follows:

- 4.1. **Final.** The cubic yard will be measured in its final position using the average end area method. The volume is computed between the original ground surface or the surface upon which the embankment is to be constructed and the lines, grades, and slopes of the embankment. In areas of salvaged topsoil, payment for embankment will be made in accordance with Item 160, "Topsoil." Shrinkage or swell factors will not be considered in determining the calculated quantities.
- 4.2. **Original.** The cubic yard will be measured in its original and natural position using the average end area method.
- 4.3. **Vehicle.** The cubic yard will be measured in vehicles at the point of delivery.

When measured by the cubic yard in its final position, this is a plans quantity measurement item. The quantity to be paid is the quantity shown in the proposal, unless modified by Article 9.2., "Plans Quantity Measurement." Additional measurements or calculations will be made if adjustments of quantities are required.

Shrinkage or swell factors are the Contractor's responsibility. When shown on the plans, factors are for informational purposes only.

Measurement of retaining wall backfill in embankment areas is paid for as embankment unless otherwise shown on the plans. Limits of measurement for embankment in retaining wall areas are shown on the plans.

Measurement of embankment shall be based on plan quantities. These quantities are believed to be correct and shall be utilized for final excavation quantity payment notwithstanding any adjustments to the project by written direction of the Engineer. Should the contractor find discrepancies and/or errors, he/she shall bring the discrepancy and/or error to the attention of the Engineer immediately and corrections shall be made to the quantity of embankment to be paid for by change order. It is expressly understood by the contractor that upon disturbance of the existing ground and no notification to the engineer of possible errors, that the contractor accepts as final payment the quantities of excavation as detailed on the plans and laid out in the proposal. No adjustment has been made to the plan quantities for the construction or demolition of existing drainage structures. The Contractor shall make his own determination as to the amount of unsuitable excavated material which may be encountered and the resulting additional borrow material required for the construction of the embankment. There will be no adjustment for additional embankment required to construct the project if the excavated material is deemed unsuitable.

5. PAYMENT

The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Embankment (Final)," "Embankment (Original)," or "Embankment (Vehicle)" of the compaction method and type specified. This price is full compensation for furnishing embankment; hauling; placing, compacting, finishing, and reworking; disposal of waste material; and equipment, labor, tools, and incidentals.

When proof rolling is directed, it will be paid for in accordance with Item 216, "Proof Rolling."

All sprinkling and rolling, except proof rolling, will not be paid for directly but will be considered subsidiary to this Item, unless otherwise shown on the plans.

Where subgrade is constructed under this Contract, correction of soft spots in the subgrade will be at the Contractor's expense. Where subgrade is not constructed under this Contract, correction of soft spots in the subgrade will be paid in accordance with Article 9.7., "Payment for Extra Work and Force Account Method."

For embankment in place, payment shall be made at the contract unit price per cubic yard. This price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the item.

Payment will be made under:

Item TX-132-5.1

Embankment In Place —per Cubic Yard

Item 162

Sodding for Erosion Control



1. DESCRIPTION

Provide and install grass sod as shown on the plans or as directed.

2. MATERIALS

Use live, growing grass sod of the type specified on the plans. Use grass sod with a healthy root system and dense matted roots throughout the soil of the sod for a minimum thickness of 1 in. Do not use sod from areas where the grass is thinned out. Keep sod material moist from the time it is dug until it is planted. Grass sod with dried roots is unacceptable.

- 2.1. **Block Sod.** Use block, rolled, or solid sod free from noxious weeds, Johnson grass, other grasses, or any matter deleterious to the growth and subsistence of the sod.
- 2.2. **Mulch Sod.** Use mulch sod from an approved source, free from noxious weeds, Johnson grass, other grasses, or any matter deleterious to the growth and subsistence of the sod.
- 2.3. **Fertilizer.** Furnish fertilizer in accordance with Article 166.2., "Materials."
- 2.4. **Water.** Furnish water in accordance with Article 168.2., "Materials."
- 2.5. **Mulch.** Use straw mulch consisting of oat, wheat, or rice straw or hay mulch of either Bermudagrass or prairie grasses. Use straw or hay mulch free of Johnson grass and other noxious and foreign materials. Keep the mulch dry and do not use molded or rotted material.
- 2.6. **Tacking Methods.** Use a tacking agent applied in accordance with the manufacturer's recommendations or a crimping method on all straw or hay mulch operations. Use tacking agents as approved or as specified on the plans.

3. CONSTRUCTION

Cultivate the area to a depth of 4 in. before placing the sod. Plant the sod specified and mulch, if required, after the area has been completed to lines and grades as shown on the plans. Apply fertilizer uniformly over the entire area in accordance with Article 166.3., "Construction," and water in accordance with Article 168.3., "Construction." Plant between the average date of the last freeze in the Spring and 6 weeks before the average date for the first freeze in the Fall according to the Texas Almanac for the project area.

- 3.1. **Sodding Types.**
- 3.1.1. **Spot Sodding.** Use only Bermudagrass sod. Create furrows parallel to the roadway, approximately 5 in. deep and on 18-in. centers. Sod a continuous row not less than 3 in. wide in the 2 furrows adjacent to the roadway. Place 3-in. squares of sod on 15-in. centers in the remaining furrows. Place sod so that the root system will be completely covered by the soil. Firm all sides of the sod with the soil without covering the sod with soil.
- 3.1.2. **Block Sodding.** Place sod over the prepared area. Roll or tamp the sodded area to form a thoroughly compacted, solid mat filling all voids in the sodded area with additional sod. Trim and remove all visible netting and backing materials. Keep sod along edges of curbs, driveways, walkways, etc., trimmed until acceptance.

- 3.1.3. **Mulch Sodding.** Mow sod source to no shorter than 4 in., rake and remove cuttings. Disk the sod in 2 directions, cutting the sod to a minimum of 4 in. Excavate the sod material to a depth of no more than 6 in. Keep excavated material moist or it will be rejected. Distribute the mulch sod uniformly over the area to a depth of 6 in. loose, unless otherwise shown on the plans, and roll with a light roller or other suitable equipment.

Add or reshape the mulch sod to meet the requirements of Section 162.3.2., "Finishing."

- 3.2. **Finishing.** Smooth and shape the area after planting to conform to the desired cross-sections. Spread any excess soil uniformly over adjacent areas or dispose of the excess soil as directed.
- 3.3. **Straw or Hay Mulch.** Apply straw or hay mulch for "Spot Sodding" and "Mulch Sodding" uniformly over the area as shown on the plans. Apply straw mulch at 2 to 2-1/2 tons per acre. Apply hay mulch at 1-1/2 to 2 tons per acre. Use a tacking method over the mulched area.
- 3.4. **Establishing Turf.**
- 3.4.1. **General.** *The Contractor shall provide general care for the sodded areas as soon as the sod has been laid and shall continue until final inspection and acceptance of the work.*
- 3.4.2. **Protection.** *All sodded areas shall be protected against traffic or other use by warning signs or barricades approved by the Engineer.*
- 3.4.3. **Mowing.** *The Contractor shall mow the sodded areas with approved mowing equipment, depending upon climatic and growth conditions and the needs for mowing specific areas. In the event that weeds or other undesirable vegetation are permitted to grow to such an extent that, either cut or uncut, they threaten to smother the sodded species, they shall be mowed and the clippings raked and removed from the area.*
- 3.4.4. **Repairing.** *When the surface has become gullied or otherwise damaged during the period covered by this contract, the affected areas shall be repaired to re-establish the grade and the condition of the soil, as directed by the Engineer, and shall then be sodded as specified in paragraph 3.1.2.*
- 3.4.5. **Watering.** *Contractor shall water sod in accordance with Tx-168 Vegetative Watering and this specification. Adequate water and watering equipment must be on hand before sodding begins, and sod shall be kept moist until it has become established and its continued growth assured. In all cases, watering shall be done in a manner that will avoid erosion from the application of excessive quantities and will avoid damage to the finished surface.*

4. MEASUREMENT

"Spot Sodding," "Block Sodding," and "Straw or Hay Mulch" will be measured by the square yard in its final position. "Mulch Sodding" will be measured by the square yard in its final position or by the cubic yard in vehicles as delivered to the planting site.

5. PAYMENT

The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Spot Sodding," "Block Sodding," "Straw or Hay Mulch," or "Mulch Sodding." This price is full compensation for securing a source, excavation, loading, hauling, placing, rolling, finishing, furnishing materials, equipment, labor, tools, supplies, and incidentals. Fertilizer will not be paid for directly but will be subsidiary to this Item.

Unless otherwise specified on the plans, water, except for that used for maintaining and preparing the sod before planting, will be measured and paid for in accordance with Item 168, "Vegetative Watering." **All watering associated with maintaining, preparing, and establishing the sod shall be considered subsidiary to TX-162 Sodding for Erosion Control.**

Payment will be made under:

Item TX 162- 5.1

Block Sodding—per Square Yard

Item 216

Proof Rolling



1. DESCRIPTION

Proof-roll earthwork, base, or both to locate unstable areas.

2. EQUIPMENT

- 2.1. **Specified Equipment.** Furnish rollers that weigh at least 25 tons when loaded. The maximum acceptable load is 50 tons. Provide rollers that meet the requirements of Section 210.2.4., "Pneumatic Tire Rollers."
- 2.2. **Alternative Equipment.** The Contractor may use alternate compaction equipment that produces results equivalent to the specified equipment in the same period of time as approved. Discontinue the use of the alternative equipment and furnish the specified equipment if the desired results are not achieved.

3. CONSTRUCTION

Perform proof rolling as directed. Adjust the load and tire inflation pressures within the range of the manufacturer's charts or tabulations, as directed. Make at least 2 coverages with the proof roller. Offset each trip of the roller by at most one tire width. Operate rollers at a speed between 2 and 6 mph, as directed. Correct unstable or nonuniform areas, if found, in accordance with the applicable Item.

4. MEASUREMENT

~~Rolling will be measured by the hour operated on surfaces being tested.~~ ***Proof rolling shall not be measured for separate payment.***

5. PAYMENT

~~The work performed and equipment furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Proof Rolling." This price is full compensation for furnishing and operating equipment and for labor, materials, tools, and incidentals.~~ ***Proof rolling shall be considered subsidiary to the items in which it is required. There shall be no separate payment for proof rolling.***

Item 247

Flexible Base



1. DESCRIPTION

Construct a foundation course composed of flexible base.

2. MATERIALS

Furnish uncontaminated materials of uniform quality that meet the requirements of the plans and specifications. Notify the Engineer of the proposed material sources and of changes to material sources. The Engineer may sample and test project materials at any time before compaction throughout the duration of the project to assure specification compliance. Use Tex-100-E material definitions.

- 2.1. **Aggregate.** Furnish aggregate of the type and grade shown on the plans and meeting the requirements of Table 1. Each source must meet Table 1 requirements for liquid limit, plasticity index, and wet ball mill for the grade specified. Do not use additives, such as but not limited to lime, cement, or fly ash to modify aggregates to meet the requirements of Table 1 unless shown on the plans.

Table 1
Material Requirements

Property	Test Method	Grade 1-2	Grade 3	Grade 4 ²	Grade 5
Sampling	Tex-400-A				
Master gradation sieve size (cumulative % retained)	Tex-110-E			As shown on the plans	
2-1/2"		0	0		0
1-3/4"		0-10	0-10		0-5
7/8"		10-35	-		10-35
3/8"		30-65	-		35-65
#4		45-75	45-75		45-75
#40	65-90	50-85	70-90		
Liquid Limit, % Max	Tex-104-E	40	40	As shown on the plans	35
Plasticity Index, Max ¹	Tex-106-E	10	12	As shown on the plans	10
Plasticity index, Min ¹		As shown on the plans			
Wet ball mill, % Max	Tex-116-E	40	-	As shown on the plans	40
Wet ball mill, % Max increase passing the #40 sieve		20	-	As shown on the plans	20
Min compressive strength, psi	Tex-117-E			As shown on the plans	
lateral pressure 0 psi		35	-		-
lateral pressure 3 psi		-	-		90
lateral pressure 15 psi		175	-		175

- Determine plastic index in accordance with Tex-107-E (linear shrinkage) when liquid limit is unattainable as defined in Tex-104-E.
- Grade 4 may be further designated as Grade 4A, Grade 4B, etc.

- 2.1.1. **Material Tolerances.** The Engineer may accept material if no more than 1 of the 5 most recent gradation tests has an individual sieve outside the specified limits of the gradation.

When target grading is required by the plans, no single failing test may exceed the master grading by more than 5 percentage points on sieves No. 4 and larger or 3 percentage points on sieves smaller than No. 4.

The Engineer may accept material if no more than 1 of the 5 most recent plasticity index tests is outside the specified limit. No single failing test may exceed the allowable limit by more than 2 points.

- 2.1.2. **Material Types.** Do not use fillers or binders unless approved. Furnish the type specified on the plans in accordance with the following:
- 2.1.2.1. **Type A.** Crushed stone produced and graded from oversize quarried aggregate that originates from a single, naturally occurring source. Do not use gravel or multiple sources.
- 2.1.2.2. **Type B.** Crushed or uncrushed gravel. Blending of 2 or more sources is allowed.
- 2.1.2.3. **Type C.** Crushed gravel with a minimum of 60% of the particles retained on a No. 4 sieve with 2 or more crushed faces as determined by Tex-460-A, Part I. Blending of 2 or more sources is allowed.
- 2.1.2.4. **Type D.** Type A material or crushed concrete. Crushed concrete containing gravel will be considered Type D material. Crushed concrete must meet the requirements in Section 247.2.1.3.2., "Recycled Material (Including Crushed Concrete) Requirements," and be managed in a way to provide for uniform quality. The Engineer may require separate dedicated stockpiles in order to verify compliance.
- 2.1.2.5. **Type E.** Caliche, iron ore or as otherwise shown on the plans.
- 2.1.3. **Recycled Material.** Recycled asphalt pavement (RAP) and other recycled materials may be used when shown on the plans. Request approval to blend 2 or more sources of recycled materials.
- 2.1.3.1. **Limits on Percentage.** Do not exceed 20% RAP by weight, when RAP is allowed, unless otherwise shown on the plans. The percentage limitations for other recycled materials will be as shown on the plans.
- 2.1.3.2. **Recycled Material (Including Crushed Concrete) Requirements.**
- 2.1.3.2.1. **Contractor-Furnished Recycled Materials.** Provide recycled materials that have a maximum sulfate content of 3,000 ppm when tested in accordance with Tex-145-E. When the Contractor furnishes the recycled materials, including crushed concrete, the final product will be subject to the requirements of Table 1 for the grade specified. Certify compliance with DMS-11000, "Evaluating and Using Nonhazardous Recyclable Materials Guidelines," for Contractor furnished recycled materials. In addition, recycled materials must be free from reinforcing steel and other objectionable material and have at most 1.5% deleterious material when tested in accordance with Tex-413-A. For RAP, do not exceed a maximum percent loss from decantation of 5.0% when tested in accordance with Tex-406-A. Test RAP without removing the asphalt.
- 2.1.3.2.2. **Department-Furnished Required Recycled Materials.** When the Department furnishes and requires the use of recycled materials, unless otherwise shown on the plans:
- Department-required recycled material will not be subject to the requirements in Table 1,
 - Contractor-furnished materials are subject to the requirements in Table 1 and this Item,
 - the final product, blended, will be subject to the requirements in Table 1, and
 - for final product, unblended (100% Department-furnished required recycled material), the liquid limit, plasticity index, wet ball mill, and compressive strength is waived.
- Crush Department-furnished RAP so that 100% passes the 2 in. sieve. The Contractor is responsible for uniformly blending to meet the percentage required.
- 2.1.3.2.3. **Department-Furnished and Allowed Recycled Materials.** When the Department furnishes and allows the use of recycled materials or allows the Contractor to furnish recycled materials, the final blended product is subject to the requirements of Table 1 and the plans.
- 2.1.3.3. **Recycled Material Sources.** Department-owned recycled material is available to the Contractor only when shown on the plans. Return unused Department-owned recycled materials to the Department stockpile location designated by the Engineer unless otherwise shown on the plans.

The use of Contractor-owned recycled materials is allowed when shown on the plans. Contractor-owned surplus recycled materials remain the property of the Contractor. Remove Contractor-owned recycled materials from the project and dispose of them in accordance with federal, state, and local regulations before project acceptance. Do not intermingle Contractor-owned recycled material with Department-owned recycled material unless approved.

- 2.2. **Water.** Furnish water free of industrial wastes and other objectionable matter.
- 2.3. **Material Sources.** Expose the vertical faces of all strata of material proposed for use when non-commercial sources are used. Secure and process the material by successive vertical cuts extending through all exposed strata, when directed.

3. EQUIPMENT

Provide machinery, tools, and equipment necessary for proper execution of the work.

- 3.1. Provide rollers in accordance with Item 210, "Rolling." Provide proof rollers in accordance with Item 216, "Proof Rolling," when required.
- 3.2. When ride quality measurement is required, provide a high speed or lightweight inertial profiler certified at the Texas A&M Transportation Institute. Provide equipment certification documentation. Display a current decal on the equipment indicating the certification expiration date.

4. CONSTRUCTION

Construct each layer uniformly, free of loose or segregated areas, and with the required density and moisture content. Provide a smooth surface that conforms to the typical sections, lines, and grades shown on the plans or as directed.

Stockpile base material temporarily at an approved location before delivery to the roadway. Build stockpiles in layers no greater than 2 ft. thick. Stockpiles must have a total height between 10 and 16 ft. unless otherwise approved. After construction and acceptance of the stockpile, loading from the stockpile for delivery is allowed. Load by making successive vertical cuts through the entire depth of the stockpile.

Do not add or remove material from temporary stockpiles that require sampling and testing before delivery unless otherwise approved. Charges for additional sampling and testing required as a result of adding or removing material will be deducted from the Contractor's estimates.

Haul approved flexible base in clean trucks. Deliver the required quantity to each 100-ft. station or designated stockpile site as shown on the plans. Prepare stockpile sites as directed. When delivery is to the 100-ft. station, manipulate in accordance with the applicable Items.

- 4.1. **Preparation of Subgrade or Existing Base.** Remove or scarify existing asphalt concrete pavement in accordance with Item 105, "Removing Treated and Untreated Base and Asphalt Pavement," when shown on the plans or as directed. Shape the subgrade or existing base to conform to the typical sections shown on the plans or as directed.

When new base is required to be mixed with existing base, deliver, place, and spread the new flexible base in the required amount per station. Manipulate and thoroughly mix the new base with existing material to provide a uniform mixture to the specified depth before shaping.

Proof roll the roadbed in accordance with Item 216, "Proof Rolling," before pulverizing or scarifying when shown on the plans or directed. Correct soft spots as directed.

- 4.2. **Placing.** Spread and shape flexible base into a uniform layer with an approved spreader the same day as delivered unless otherwise approved. Construct layers to the thickness shown on the plans. Maintain the

shape of the course. Control dust by sprinkling, as directed. Correct or replace segregated areas as directed, at no additional expense to the Department.

Place successive base courses and finish courses using the same construction methods required for the first course.

- 4.3. **Compaction.** Compact using density control unless otherwise shown on the plans. Multiple lifts are permitted when shown on the plans or approved. Bring each layer to the moisture content directed. When necessary, sprinkle the material in accordance with Item 204, "Sprinkling."

Begin rolling longitudinally at the sides and proceed towards the center, overlapping on successive trips by at least 1/2 the width of the roller unit. Begin rolling at the low side and progress toward the high side on superelevated curves. Offset alternate trips of the roller. Operate rollers at a speed between 2 and 6 mph as directed.

Rework, recompact, and refinish material that fails to meet or that loses required moisture, density, stability, or finish requirements before the next course is placed or the project is accepted. Continue work until specification requirements are met. Perform the work at no additional expense to the Department.

Before final acceptance, the Engineer will select the locations of tests and measure the flexible base depth in accordance with Tex-140-E. Correct areas deficient by more than 1/2 in. in thickness by scarifying, adding material as required, reshaping, recompacting, and refinishing at the Contractor's expense.

- 4.3.1. **Ordinary Compaction.** Roll with approved compaction equipment as directed. Correct irregularities, depressions, and weak spots immediately by scarifying the areas affected, adding or removing approved material as required, reshaping, and recompacting.

- 4.3.2. **Density Control.** Compact to at least 100% of the maximum dry density determined by Tex-113-E, unless otherwise shown on the plans. Maintain moisture during compaction within ± 2 percentage points of the optimum moisture content as determined by Tex-113-E. Measure the moisture content of the material in accordance with Tex-115-E or Tex-103-E during compaction daily and report the results the same day to the Engineer, unless otherwise shown on the plans or directed. Do not achieve density by drying the material after compaction.

The Engineer will determine roadway density and moisture content of completed sections in accordance with Tex-115-E. The Engineer may accept the section if no more than 1 of the 5 most recent density tests is below the specified density and the failing test is no more than 3 pcf below the specified density.

- 4.4. **Finishing.** After completing compaction, clip, skin, or tight-blade the surface with a maintainer or subgrade trimmer to a depth of approximately 1/4 in. Remove loosened material and dispose of it at an approved location. Seal the clipped surface immediately by rolling with a pneumatic tire roller until a smooth surface is attained. Add small increments of water as needed during rolling. Shape and maintain the course and surface in conformity with the typical sections, lines, and grades as shown on the plans or as directed.

Correct grade deviations greater than 1/4 in. in 16 feet measured longitudinally or greater than 1/4 in. over the entire width of the cross-section in areas where surfacing is to be placed. Correct by loosening and adding, or removing material. Reshape and re-compact in accordance with Section 247.4.3., "Compaction."

- 4.5. **Curing.** Cure the finished section until the moisture content is at least 2 percentage points below optimum or as directed before applying the next successive course or prime coat.

- 4.6. **Ride Quality.** This section applies to the final travel lanes that receive a 1 or 2 course surface treatment for the final surface, unless otherwise shown on the plans. Measure ride quality of the base course after placement of the prime coat and before placement of the surface treatment, unless otherwise approved. Use a certified profiler operator from the Department's MPL. When requested, furnish the Engineer documentation for the person certified to operate the profiler.

Provide all profile measurements to the Engineer in electronic data files within 3 days after placement of the prime coat using the format specified in Tex-1001-S. The Engineer will use Department software to evaluate longitudinal profiles to determine areas requiring corrective action. Correct 0.1-mi.sections having an average international roughness index (IRI) value greater than 100.0 in. per mile to an IRI value of 100.0 in. per mile or less for each wheelpath, unless otherwise shown on the plans.

Re-profile and correct sections that fail to maintain ride quality until placement of the next course, as directed. Correct re-profiled sections until specification requirements are met, as approved. Perform this work at no additional expense to the Department.

5. MEASUREMENT

Flexible base will be measured as follows:

- **Flexible Base (Complete In Place).** The ton, square yard, or any cubic yard method.
- **Flexible Base (Roadway Delivery).** The ton or any cubic yard method.
- **Flexible Base (Stockpile Delivery).** The ton, cubic yard in vehicle, or cubic yard in stockpile.

Measurement by the ~~cubic yard in final position~~ and square yard is a plans quantity measurement. The quantity to be paid for is the quantity shown in the proposal unless modified by Article 9.2., "Plans Quantity Measurement." Additional measurements or calculations will be made if adjustments of quantities are required.

Measurement is further defined for payment as follows.

- 5.1. **Cubic Yard in Vehicle.** ~~By the cubic yard in vehicles of uniform capacity at the point of delivery.~~
- 5.2. **Cubic Yard in Stockpile.** ~~By the cubic yard in the final stockpile position by the method of average end areas.~~
- 5.3. **Cubic Yard in Final Position.** ~~By the cubic yard in the completed and accepted final position. The volume of base course is computed in place by the method of average end areas between the original subgrade or existing base surfaces and the lines, grades, and slopes of the accepted base course as shown on the plans.~~
- 5.4. **Square Yard.** By the square yard of surface area in the completed and accepted final position. The surface area of the base course is based on the width of flexible base as shown on the plans.
- 5.5. **Ton.** ~~By the ton of dry weight in vehicles as delivered. The dry weight is determined by deducting the weight of the moisture in the material at the time of weighing from the gross weight of the material. The Engineer will determine the moisture content in the material in accordance with Tex-103-E from samples taken at the time of weighing.~~

~~When material is measured in trucks, the weight of the material will be determined on certified scales, or the Contractor must provide a set of standard platform truck scales at a location approved by the Engineer. Scales must conform to the requirements of Item 520, "Weighing and Measuring Equipment."~~

6. PAYMENT

The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for the types of work shown below. No additional payment will be made for thickness or width exceeding that shown on the typical section or provided on the plans for cubic yard in the final position or square yard measurement.

Sprinkling and rolling, except proof rolling, will not be paid for directly but will be subsidiary to this Item unless ~~otherwise shown on the plans~~. When proof rolling is shown on the plans or directed, it will be paid for in accordance with Item 216, "Proof Rolling."

Where subgrade is constructed under this Contract, correction of soft spots in the subgrade will be at the Contractor's expense. Where subgrade is not constructed under this Contract, correction of soft spots in the subgrade will be paid in accordance with pertinent Items or Article 4.4., "Changes in the Work."

- 6.1. **Flexible Base (Complete In Place).** Payment will be made for the type and grade specified. For cubic yard measurement, "In Vehicle," "In Stockpile," or "In Final Position" will be specified. For square yard measurement, a depth will be specified. This price is full compensation for furnishing materials, temporary stockpiling, assistance provided in stockpile sampling and operations to level stockpiles for measurement, loading, hauling, delivery of materials, spreading, blading, mixing, shaping, placing, compacting, reworking, finishing, correcting locations where thickness is deficient, curing, furnishing scales and labor for weighing and measuring, and equipment, labor, tools, and incidentals.
- 6.2. **Flexible Base (Roadway Delivery).** Payment will be made for the type and grade specified. For cubic yard measurement, "In Vehicle," "In Stockpile," or "In Final Position" will be specified. The unit price bid will not include processing at the roadway. This price is full compensation for furnishing materials, temporary stockpiling, assistance provided in stockpile sampling and operations to level stockpiles for measurement, loading, hauling, delivery of materials, furnishing scales and labor for weighing and measuring, and equipment, labor, tools, and incidentals.
- 6.3. **Flexible Base (Stockpile Delivery).** Payment will be made for the type and grade specified. For cubic yard measurement, "In Vehicle" or "In Stockpile" will be specified. The unit price bid will not include processing at the roadway. This price is full compensation for furnishing and disposing of materials, preparing the stockpile area, temporary or permanent stockpiling, assistance provided in stockpile sampling and operations to level stockpiles for measurement, loading, hauling, delivery of materials to the stockpile, furnishing scales and labor for weighing and measuring, and equipment, labor, tools, and incidentals.

Payment will be made under:

Item TX-247-6.1 Flexible Base (Complete in Place) (Type D Grade 1) (6") – Per Square Yard

Item 360

Concrete Pavement



1. DESCRIPTION

Construct hydraulic cement concrete pavement with or without curbs on the concrete pavement.

2. MATERIALS

- 2.1. **Hydraulic Cement Concrete.** Provide hydraulic cement concrete in accordance with Item 421, "Hydraulic Cement Concrete." Use compressive strength testing unless otherwise shown on the plans. Provide Class P concrete designed to meet a minimum average compressive strength of 3,200 psi or a minimum average flexural strength of 450 psi at 7 days or a minimum average compressive strength of 4,000 psi or a minimum average flexural strength of 570 psi at 28 days. Test in accordance with Tex-448-A or Tex-418-A.

Obtain written approval if the concrete mix design exceeds 520 lb. of cementitious material.

Use coarse aggregates for continuously reinforced concrete pavements to produce concrete with a coefficient of thermal expansion not more than 5.5×10^{-6} in./in./°F. Provide satisfactory Tex-428-A test data from an approved testing laboratory if the coarse aggregate coefficient of thermal expansion listed on the Department's *Concrete Rated Source Quality Catalog* is not equal to or less than 5.5×10^{-6} in./in./°F.

Provide Class HES concrete for very early opening of small pavement areas or leave-outs to traffic when shown on the plans or allowed. Design Class HES to meet the requirements of Class P and a minimum average compressive strength of 3,200 psi or a minimum average flexural strength of 450 psi in 24 hr., unless other early strength and time requirements are shown on the plans or allowed.

Use Class A or P concrete for curbs that are placed separately from the pavement. Provide concrete that is workable and cohesive, possesses satisfactory finishing qualities, and conforms to the mix design and mix design slump.

For this item, the contractor is allowed to use the same approved mix as used where P-610 concrete is specified as long as the mix design as a 28-day compressive strength of 4,000 psi.

- 2.2. **Reinforcing Steel.** Provide Grade 60 or above, deformed steel for bar reinforcement in accordance with Item 440, "Reinforcement for Concrete." Provide positioning and supporting devices (baskets and chairs) capable of securing and holding the reinforcing steel in proper position before and during paving. Provide corrosion protection when shown on the plans.
- 2.2.1. **Dowels.** Provide smooth, straight dowels of the size shown on the plans, free of burrs, and conforming to the requirements of Item 440, "Reinforcement for Concrete." Coat dowels with a thin film of grease, wax, silicone or other approved de-bonding material. Provide dowel caps on the lubricated end of each dowel bar used in an expansion joint. Provide dowel caps filled with a soft compressible material with enough range of movement to allow complete closure of the expansion joint.
- 2.2.2. **Tie Bars.** Provide straight deformed steel tie bars. Provide either multiple-piece tie bars or single-piece tie bars as shown on the plans. Furnish multiple piece tie bar assemblies from the list of approved multiple-piece tie bars that have been prequalified in accordance with DMS-4515 "Multiple Piece Tie Bars for Concrete Pavements," when used. Multiple-piece tie bars used on individual projects must be sampled in accordance with Tex-711-I, and tested in accordance with DMS-4515 "Multiple Piece Tie Bars for Concrete Pavements."
- 2.3. **Alternative Reinforcing Materials.** Provide reinforcement materials of the dimensions and with the physical properties specified when allowed or required by the plans. Provide manufacturer's certification of required material properties.

- 2.4. **Curing Materials.** Provide Type 2 membrane curing compound conforming to DMS-4650, "Hydraulic Cement Concrete Curing Materials and Evaporation Retardants." Provide SS-1 emulsified asphalt conforming to Item 300, "Asphalts, Oils, and Emulsions," for concrete pavement to be overlaid with asphalt concrete under this Contract unless otherwise shown on the plans or approved. Provide materials for other methods of curing conforming to the requirements of Item 422, "Concrete Superstructures." Provide insulating blankets for curing fast track concrete pavement with a minimum thermal resistance (R) rating of 0.5 hour-square foot F/BTU. Use insulating blankets that are free from tears and are in good condition.
- 2.5. **Epoxy.** Provide Type III, Class C epoxy in accordance with DMS-6100, "Epoxies and Adhesives," for installing all drilled-in reinforcing steel. Submit a work plan and request approval for the use of epoxy types other than Type III, Class C.
- 2.6. **Evaporation Retardant.** Provide evaporation retardant conforming to DMS-4650., "Hydraulic Cement Concrete Curing Materials and Evaporation Retardants."
- 2.7. **Joint Sealants and Fillers.** Provide Class 5 or Class 8 joint-sealant materials and fillers unless otherwise shown on the plans or approved and other sealant materials of the size, shape, and type shown on the plans in accordance with DMS-6310, "Joint Sealants and Fillers."

3. EQUIPMENT

Furnish and maintain all equipment in good working condition. Use measuring, mixing, and delivery equipment conforming to the requirements of Item 421, "Hydraulic Cement Concrete." Obtain approval for other equipment used.

- 3.1. **Placing, Consolidating, and Finishing Equipment.** Provide approved self-propelled paving equipment that uniformly distributes the concrete with minimal segregation and provides a smooth machine-finished consolidated concrete pavement conforming to plan line and grade. Provide an approved automatic grade control system on slip-forming equipment. Provide approved mechanically-operated finishing floats capable of producing a uniformly smooth pavement surface. Provide equipment capable of providing a fine, light water fog mist.

Provide mechanically-operated vibratory equipment capable of adequately consolidating the concrete. Provide immersion vibrators on the paving equipment at sufficiently close intervals to provide uniform vibration and consolidation of the concrete over the entire width and depth of the pavement and in accordance with the manufacturer's recommendations. Provide immersion vibrator units that operate at a frequency in air of at least 8,000 cycles per minute. Provide enough hand-operated immersion vibrators for timely and proper consolidation of the concrete along forms, at all joints and in areas not covered by other vibratory equipment. Surface vibrators may be used to supplement equipment-mounted immersion vibrators. Provide tachometers to verify the proper operation of all vibrators.

For small or irregular areas or when approved, the paving equipment described in this Section is not required.

- 3.2. **Forming Equipment.**
- 3.2.1. **Pavement Forms.** Provide metal side forms of sufficient cross-section, strength, and rigidity to support the paving equipment and resist the impact and vibration of the operation without visible springing or settlement. Use forms that are free from detrimental kinks, bends, or warps that could affect ride quality or alignment. Provide flexible or curved metal or wood forms for curves of 100-ft. radius or less.
- 3.2.2. **Curb Forms.** Provide curb forms for separately placed curbs that are not slipformed that conform to the requirements of Item 529, "Concrete Curb, Gutter, and Combined Curb and Gutter."

- 3.3. **Reinforcing Steel Inserting Equipment.** Provide inserting equipment that accurately inserts and positions reinforcing steel in the plastic concrete parallel to the profile grade and horizontal alignment in accordance to plan details when approved.
- 3.4. **Texturing Equipment.**
- 3.4.1. **Carpet Drag.** Provide a carpet drag mounted on a work bridge or a manual moveable support system. Provide a single piece of carpet of sufficient transverse length to span the full width of the pavement being placed and adjustable so that a sufficient longitudinal length of carpet is in contact with the concrete being placed to produce the desired texture. Obtain approval to vary the length and width of the carpet to accommodate specific applications.
- 3.4.2. **Tining Equipment.** Provide a self-propelled metal tine device equipped with steel tines with cross-section approximately 1/32 in. thick × 1/12 in. wide. Provide tines for transverse tining equipment spaced at approximately 1 in., center-to-center, or provide tines for longitudinal tining equipment spaced at approximately 3/4 in., center-to-center. Manual methods that produce an equivalent texture may be used when it is impractical to use self-propelled equipment, such as for small areas, narrow width sections, and in emergencies due to equipment breakdown.
- 3.5. **Curing Equipment.** Provide a self-propelled machine for applying membrane curing compound using mechanically-pressurized spraying equipment with atomizing nozzles. Provide equipment and controls that maintain the required uniform rate of application over the entire paving area. Provide curing equipment that is independent of all other equipment when required to meet the requirements of Section 360.4.9., "Curing." Hand-operated pressurized spraying equipment with atomizing nozzles may only be used on small or irregular areas, narrow width sections, or in emergencies due to equipment breakdown.
- 3.6. **Sawing Equipment.** Provide power-driven concrete saws to saw the joints shown on the plans. Provide standby power-driven concrete saws during concrete sawing operations. Provide adequate illumination for nighttime sawing.
- 3.7. **Grinding Equipment.** Provide self-propelled powered grinding equipment that is specifically designed to smooth and texture concrete pavement using circular diamond blades when required. Provide equipment with automatic grade control capable of grinding at least a 3-ft. width longitudinally in each pass without damaging the concrete.
- 3.8. **Testing Equipment.** Provide testing equipment regardless of job-control testing responsibilities in accordance with Item 421, "Hydraulic Cement Concrete," unless otherwise shown on the plans or specified.
- 3.9. **Coring Equipment.** Provide coring equipment capable of extracting cores in accordance with the requirements of Tex-424-A when required.
- 3.10. **Miscellaneous Equipment.** Furnish both 10-ft. and 15-ft. steel or magnesium long-handled, standard straightedges. Furnish enough work bridges, long enough to span the pavement, for finishing and inspection operations.

4. CONSTRUCTION

Obtain approval for adjustments to plan grade-line to maintain thickness over minor subgrade or base high spots while maintaining clearances and drainage. Maintain subgrade or base in a smooth, clean, compacted condition in conformity with the required section and established grade until the pavement concrete is placed. Keep subgrade or base damp with water before placing pavement concrete.

Adequately light the active work areas for all nighttime operations. Provide and maintain tools and materials to perform testing.

4.1. **Paving and Quality Control Plan.** Submit a paving and quality control plan for approval before beginning pavement construction operations. Include details of all operations in the concrete paving process, including methods to construct transverse joints, methods to consolidate concrete at joints, longitudinal construction joint layout, sequencing, curing, lighting, early opening, leave-outs, sawing, inspection, testing, construction methods, other details and description of all equipment. List certified personnel performing the testing. Submit revisions to the paving and quality control plan for approval.

4.2. **Job-Control Testing.** Perform all fresh and hardened concrete job-control testing at the specified frequency unless otherwise shown on the plans. Provide job-control testing personnel meeting the requirements of Item 421, "Hydraulic Cement Concrete." Provide and maintain testing equipment, including strength testing equipment at a location acceptable to the Engineer. Use of a commercial laboratory is acceptable. Maintain all testing equipment calibrated in accordance with pertinent test methods. Make strength-testing equipment available to the Engineer for verification testing.

Provide the Engineer the opportunity to witness all tests. The Engineer may require a retest if not given the opportunity to witness. Furnish a copy of all test results to the Engineer daily. Check the first few concrete loads for slump and temperature to verify concrete conformance and consistency on start-up production days. Sample and prepare strength-test specimens (2 specimens per test) on the first day of production and for each 3,000 sq. yd. or fraction thereof of concrete pavement thereafter. Prepare at least 1 set of strength-test specimens for each production day. Perform slump and temperature tests each time strength specimens are made. Monitor concrete temperature to ensure that concrete is consistently within the temperature requirements. The Engineer will direct random job-control sampling and testing. Immediately investigate and take corrective action as approved if any Contractor test result, including tests performed for verification purposes, does not meet specification requirements.

The Engineer will perform job-control testing when the testing by the Contractor is waived by the plans; however, this does not waive the Contractor's responsibility for providing materials and work in accordance with this Item.

4.2.1. **Job-Control Strength.** Use 7-day job-control concrete strength testing in accordance with Tex-448-A or Tex-418-A unless otherwise shown on the plans or permitted.

Use a compressive strength of 3,200 psi or a lower job-control strength value proven to meet a 28-day compressive strength of 4,000 psi as correlated in accordance with Tex-427-A for 7-day job-control by compressive strength. ~~Use a flexural strength of 450 psi or a lower job-control strength value proven to meet a 28-day flexural strength of 570 psi as correlated in accordance with Tex-427-A for 7-day job-control by flexural strength.~~ **Compressive strength tests shall be performed.**

Job control of concrete strength may be correlated to an age other than 7 days in accordance with Tex-427-A when approved. Job-control strength of Class HES concrete is based on the required strength and time.

Investigate the strength test procedures, the quality of materials, the concrete production operations, and other possible problem areas to determine the cause when a job-control concrete strength test value is more than 10% below the required job-control strength or when 3 consecutive job-control strength values fall below the required job-control strength. Take necessary action to correct the problem, including redesign of the concrete mix if needed. The Engineer ~~may~~ **will** suspend concrete paving if the Contractor is unable to identify, document, and correct the cause of low-strength test values in a timely manner. The Engineer will evaluate the structural adequacy of the pavements if any job-control strength is more than 15% below the required job-control strength. Remove and replace pavements found to be ~~structurally inadequate~~ **15% below the required job-control strength** at no additional cost ~~when directed~~.

4.2.2. **Split-Sample Verification Testing.** Perform split-sample verification testing with the Engineer on random samples taken and split by the Engineer at a rate of at least 1 for every 10 job-control samples. The Engineer will evaluate the results of split-sample verification testing. Immediately investigate and take corrective action as approved when results of split-sample verification testing differ more than the allowable differences shown in Table 1, or the average of 10 job-control strength results and the Engineer's split-sample strength result differ by more than 10%.

Table 1
Verification Testing Limits

Test Method	Allowable Differences
Temperature, Tex-422-A	2°F
Slump, Tex-415-A	1 in.
Flexural strength, Tex-448-A	19%
Compressive strength, Tex-418-A	10%

- 4.3. **Reinforcing Steel and Joint Assemblies.** Accurately place and secure in position all reinforcing steel as shown on the plans. Place dowels at mid-depth of the pavement slab, parallel to the surface. Place dowels for transverse contraction joints parallel to the pavement edge. Tolerances for location and alignment of dowels will be shown on the plans. Stagger the lap locations so that no more than 1/3 of the longitudinal steel is spliced in any given 12-ft. width and 2-ft. length of the pavement. Use multiple-piece tie bars, drill and epoxy grout tie bars, or, if approved, mechanically-inserted single-piece tie bars at longitudinal construction joints. Verify that tie bars that are drilled and epoxied or mechanically inserted into concrete at longitudinal construction joints develop a pullout resistance equal to a minimum of 3/4 of the yield strength of the steel after 7 days. Test 15 bars using ASTM E488, except that alternate approved equipment may be used. All 15 tested bars must meet the required pullout strength. Perform corrective measures to provide equivalent pullout resistance if any of the test results do not meet the required minimum pullout strength. Repair damage from testing. Acceptable corrective measures include but are not limited to installation of additional or longer tie bars.
- 4.3.1. **Manual Placement.** Secure reinforcing bars at alternate intersections with wire ties or locking support chairs. Tie all splices with wire.
- 4.3.2. **Mechanical Placement.** Complete the work using manual placement methods described above if mechanical placement of reinforcement results in steel misalignment or improper location, poor concrete consolidation, or other inadequacies.
- 4.4. **Joints.** Install joints as shown on the plans. Joint sealants are not required on concrete pavement that is to be overlaid with asphaltic materials. Clean and seal joints in accordance with Item 438, "Cleaning and Sealing Joints." Repair excessive spalling of the joint saw groove using an approved method before installing the sealant. Seal all joints before opening the pavement to all traffic. Install a rigid transverse bulkhead, for the reinforcing steel, and shaped accurately to the cross-section of the pavement when placing of concrete is stopped.
- 4.4.1. **Placing Reinforcement at Joints.** Complete and place the assembly of parts at pavement joints at the required location and elevation, with all parts rigidly secured in the required position, when shown on the plans.
- 4.4.2. **Transverse Construction Joints.**
- 4.4.2.1. **Continuously Reinforced Concrete Pavement (CRCP).** Install additional longitudinal reinforcement through the bulkhead when shown on the plans. Protect the reinforcing steel immediately beyond the construction joint from damage, vibration, and impact.
- 4.4.2.2. **Concrete Pavement Contraction Design (CPCD).** Install and rigidly secure a complete joint assembly and bulkhead in the planned transverse contraction joint location when the placing of concrete is intentionally stopped. Install a transverse construction joint either at a planned transverse contraction joint location or mid-slab between planned transverse contraction joints when the placing of concrete is unintentionally stopped. Install tie bars of the size and spacing used in the longitudinal joints for mid-slab construction joints.
- 4.4.2.3. **Curb Joints.** Provide joints in the curb of the same type and location as the adjacent pavement. Use expansion joint material of the same thickness, type, and quality required for the pavement and of the section shown for the curb. Extend expansion joints through the curb. Construct curb joints at all transverse pavement joints. Place reinforcing steel into the plastic concrete pavement for non-monolithic curbs as shown on the plans unless otherwise approved. Form or saw the weakened plane joint across the full width

of concrete pavement and through the monolithic curbs. Construct curb joints in accordance with Item 529, "Concrete Curb, Gutter, and Combined Curb and Gutter."

- 4.5. **Placing and Removing Forms.** Use clean and oiled forms. Secure forms on a base or firm subgrade that is accurately graded and that provides stable support without deflection and movement by form riding equipment. Pin every form at least at the middle and near each end. Tightly join and key form sections together to prevent relative displacement.

Set side forms far enough in advance of concrete placement to permit inspection. Check conformity of the grade, alignment, and stability of forms immediately before placing concrete, and make all necessary corrections. Use a straightedge or other approved method to test the top of forms to ensure that the ride quality requirements for the completed pavement will be met. Stop paving operations if forms settle or deflect more than 1/8 in. under finishing operations. Reset forms to line and grade, and refinish the concrete surface to correct grade.

Avoid damage to the edge of the pavement when removing forms. Repair damage resulting from form removal and honeycombed areas with a mortar mix within 24 hr. after form removal unless otherwise approved. Clean joint face and repair honeycombed or damaged areas within 24 hr. after a bulkhead for a transverse construction joint has been removed unless otherwise approved. Promptly apply membrane curing compound to the edge of the concrete pavement when forms are removed before 72 hr. after concrete placement.

Forms that are not the same depth as the pavement, but are within 2 in. of that depth are permitted if the subbase is trenched or the full width and length of the form base is supported with a firm material to produce the required pavement thickness. Promptly repair the form trench after use. Use flexible or curved wood or metal forms for curves of 100-ft. radius or less.

- 4.6. **Concrete Delivery.** Clean delivery equipment as necessary to prevent accumulation of old concrete before loading fresh concrete. Use agitated delivery equipment for concrete designed to have a slump of more than 5 in. Segregated concrete is subject to rejection.

Begin the discharge of concrete delivered in agitated delivery equipment conforming to the requirements of Item 421, "Hydraulic Cement Concrete." Place non-agitated concrete within 45 min. after batching. Reduce times as directed when hot weather or other conditions cause quick setting of the concrete.

- 4.7. **Concrete Placement.** Do not allow the pavement edge to deviate from the established paving line by more than 1/2 in. at any point. Place the concrete as near as possible to its final location, and minimize segregation and rehandling. Distribute concrete using shovels where hand spreading is necessary. Do not use rakes or vibrators to distribute concrete.

- 4.7.1. **Consolidation.** Consolidate all concrete by approved mechanical vibrators operated on the front of the paving equipment. Use immersion-type vibrators that simultaneously consolidate the full width of the placement when machine finishing. Keep vibrators from dislodging reinforcement. Use hand-operated vibrators to consolidate concrete along forms, at all joints and in areas not accessible to the machine-mounted vibrators. Do not operate machine-mounted vibrators while the paving equipment is stationary. Vibrator operations are subject to review.

- 4.7.2. **Curbs.** Conform to the requirements of Item 529, "Concrete Curb, Gutter, and Combined Curb and Gutter" where curbs are placed separately.

- 4.7.3. **Temperature Restrictions.** Place concrete that is between 40°F and 95°F when measured in accordance with Tex-422-A at the time of discharge, except that concrete may be used if it was already in transit when the temperature was found to exceed the allowable maximum. Take immediate corrective action or cease concrete production when the concrete temperature exceeds 95°F.

Do not place concrete when the ambient temperature in the shade is below 40°F and falling unless approved. Concrete may be placed when the ambient temperature in the shade is above 35°F and rising or

above 40°F. Protect the pavement with an approved insulating material capable of protecting the concrete for the specified curing period when temperatures warrant protection against freezing. Submit for approval proposed measures to protect the concrete from anticipated freezing weather for the first 72 hr. after placement. Repair or replace all concrete damaged by freezing.

- 4.8. **Spreading and Finishing.** Finish all concrete pavement with approved self-propelled equipment. Use power-driven spreaders, power-driven vibrators, power-driven strike-off, screed, or approved alternate equipment. Use the transverse finishing equipment to compact and strike-off the concrete to the required section and grade without surface voids. Use float equipment for final finishing. Use concrete with a consistency that allows completion of all finishing operations without addition of water to the surface. Use the minimal amount of water fog mist necessary to maintain a moist surface. Reduce fogging if float or straightedge operations result in excess slurry.
- 4.8.1. **Finished Surface.** Perform sufficient checks with long-handled 10-ft. and 15-ft. straightedges on the plastic concrete to ensure the final surface is within the tolerances specified in Surface Test A in Item 585, "Ride Quality for Pavement Surfaces." Check with the straightedge parallel to the centerline.
- 4.8.2. **Maintenance of Surface Moisture.** Prevent surface drying of the pavement before application of the curing system by means that may include water fogging, the use of wind screens, and the use of evaporation retardants. Apply evaporation retardant at the manufacturer's recommended rate. Reapply the evaporation retardant as needed to maintain the concrete surface in a moist condition until curing system is applied. Do not use evaporation retardant as a finishing aid. Failure to take acceptable precautions to prevent surface drying of the pavement will be cause for shutdown of pavement operations.
- 4.8.3. **Surface Texturing.** Complete final texturing before the concrete has attained its initial set. Drag the carpet longitudinally along the pavement surface with the carpet contact surface area adjusted to provide a satisfactory coarsely textured surface. Prevent the carpet from getting plugged with grout. Do not perform carpet dragging operations while there is excessive bleed water.

A metal-tine texture finish is required unless otherwise shown on the plans. Provide transverse tining unless otherwise shown on the plans. Immediately following the carpet drag, apply a single coat of evaporation retardant, if needed, at the rate recommended by the manufacturer. Provide the metal-tine finish immediately after the concrete surface has set enough for consistent tining. Operate the metal-tine device to obtain grooves approximately 3/16 in. deep, with a minimum depth of 1/8 in., and approximately 1/12 in. wide. Do not overlap a previously tined area. Use manual methods to achieve similar results on ramps, small or irregular areas, and narrow width sections of pavements. Repair damage to the edge of the slab and joints immediately after texturing. Do not tine pavement that will be overlaid or that is scheduled for blanket diamond grinding or shot blasting.

Target a carpet drag texture of 0.04 in., as measured by Tex-436-A, when carpet drag is the only surface texture required on the plans. Ensure adequate and consistent macro-texture is achieved by applying enough weight to the carpet and by keeping the carpet from getting plugged with grout. Correct any location with a texture less than 0.03 in. by diamond grinding or shot blasting. The Engineer will determine the test locations at points located transversely to the direction of traffic in the outside wheel path.

- 4.8.4. **Small, Irregular Area, or Narrow Width Placements.** Use hand equipment and procedures that produce a consolidated and finished pavement section to the line and grade where machine placements and finishing of concrete pavement are not practical.
- 4.8.5. **Emergency Procedures.** Use hand-operated equipment for applying texture, evaporation retardant, and cure in the event of equipment breakdown.
- 4.9. **Curing.** Keep the concrete pavement surface from drying as described in Section 360.4.8.2., "Maintenance of Surface Moisture," until the curing material has been applied. Maintain and promptly repair damage to curing materials on exposed surfaces of concrete pavement continuously for at least 3 curing days. A curing day is defined as a 24-hr. period when either the temperature taken in the shade away from artificial heat is above 50°F for at least 19 hr. or the surface temperature of the concrete is maintained above 40°F for 24 hr.

Curing begins when the concrete curing system has been applied. Stop concrete paving if curing compound is not being applied promptly and maintained adequately. Other methods of curing in accordance with Item 422, "Concrete Superstructures," may be used when specified or approved.

- 4.9.1. **Membrane Curing.** Spray the concrete surface uniformly with 2 coats of membrane curing compound at an individual application rate of no more than 180 sq. ft. per gallon. Apply the curing compound before allowing the concrete surface to dry.

Manage finishing and texturing operations to ensure placement of curing compound on a moist concrete surface, relatively free of bleed water, to prevent any plastic shrinkage cracking. Time the application of curing compound to prevent plastic shrinkage cracking.

Maintain curing compounds in a uniformly agitated condition, free of settlement before and during application. Do not thin or dilute the curing compound.

Apply additional compound at the same rate of coverage to correct damage where the coatings shows discontinuities or other defects or if rain falls on the newly coated surface before the film has dried enough to resist damage. Ensure that the curing compound coats the sides of the tining grooves.

- 4.9.2. **Asphalt Curing.** Apply a uniform coating of asphalt curing at a rate of 90 to 180 sq. ft. per gallon when an asphaltic concrete overlay is required. Apply curing immediately after texturing and once the free moisture (sheen) has disappeared. Obtain approval to add water to the emulsion to improve spray distribution. Maintain the asphalt application rate when using diluted emulsions. Maintain the emulsion in a mixed condition during application.

- 4.9.3. **Curing Class HES Concrete.** Provide membrane curing in accordance with Section 360.4.9.1., "Membrane Curing," for all Class HES concrete pavement. Promptly follow by wet mat curing in accordance with Section 422.4.8., "Final Curing," until opening strength is achieved but not less than 24 hr.

- 4.9.4. **Curing Fast-Track Concrete.** Provide wet mat curing unless otherwise shown on the plans or as directed. Cure in accordance with Section 422.4.8., "Final Curing." Apply a Type 1-D or Type 2 membrane cure instead of wet mat curing if the air temperature is below 65°F and insulating blankets are used.

- 4.10. **Sawing Joints.** Saw joints to the depth shown on the plans as soon as sawing can be accomplished without damage to the pavement regardless of time of day or weather conditions. Some minor raveling of the saw-cut is acceptable. Use a chalk line, string line, sawing template, or other approved method to provide a true joint alignment. Provide enough saws to match the paving production rate to ensure sawing completion at the earliest possible time to avoid uncontrolled cracking. Reduce paving production if necessary to ensure timely sawing of joints. Promptly restore membrane cure damaged within the first 72 hr. of curing.

- 4.11. **Protection of Pavement and Opening to Traffic.** Testing for early opening is the responsibility of the Contractor regardless of job-control testing responsibilities unless otherwise shown on the plans or as directed. Testing result interpretation for opening to traffic is subject to approval.

- 4.11.1. **Protection of Pavement.** Erect and maintain barricades and other standard and approved devices that will exclude all vehicles and equipment from the newly placed pavement for the periods specified. Protect the pavement from damage due to crossings using approved methods before opening to traffic. Where a detour is not readily available or economically feasible, an occasional crossing of the roadway with overweight equipment may be permitted for relocating equipment only but not for hauling material. When an occasional crossing of overweight equipment is permitted, temporary matting or other approved methods may be required.

Maintain an adequate supply of sheeting or other material to cover and protect fresh concrete surface from weather damage. Apply as needed to protect the pavement surface from weather.

- 4.11.2. **Opening Pavement to All Traffic.** Pavement that is 7 days old may be opened to all traffic. Clean pavement, place stable material against the pavement edges, seal joints, and perform all other traffic safety related work before opening to traffic.
- 4.11.3. **Opening Pavement to Construction Equipment.** Unless otherwise shown on the plans, concrete pavement may be opened early to concrete paving equipment and related delivery equipment after the concrete is at least 48 hr. old and opening strength has been demonstrated in accordance with Section 360.4.11.4., “Early Opening to All Traffic,” before curing is complete. Keep delivery equipment at least 2 ft. from the edge of the concrete pavement. Keep tracks of the paving equipment at least 1 ft. from the pavement edge. Protect textured surfaces from the paving equipment. Restore damaged membrane curing as soon as possible. Repair pavement damaged by paving or delivery equipment before opening to all traffic.
- 4.11.4. **Early Opening to All Traffic.** Concrete pavement may be opened after curing is complete and the concrete has attained a flexural strength of 450 psi or a compressive strength of 3,200 psi, except that pavement using Class HES concrete may be opened after 24 hr. if the specified strength is achieved.
- 4.11.4.1. **Strength Testing.** Test concrete specimens cured under the same conditions as the portion of the pavement involved.
- 4.11.4.2. **Maturity Method.** Use the maturity method, Tex-426-A, to estimate concrete strength for early opening pavement to traffic unless otherwise shown on the plans. Install at least 2 maturity sensors for each day’s placement in areas where the maturity method will be used for early opening. Maturity sensors, when used, will be installed near the day’s final placement for areas being evaluated for early opening. Use test specimens to verify the strength–maturity relationship in accordance with Tex-426-A, starting with the first day’s placement corresponding to the early opening pavement section.
- Verify the strength–maturity relationship at least every 10 days of production after the first day. Establish a new strength–maturity relationship when the strength specimens deviate more than 10% from the maturity-estimated strengths. Suspend use of the maturity method for opening pavements to traffic when the strength–maturity relationship deviates by more than 10% until a new strength–maturity relationship is established.
- The Engineer will determine the frequency of verification when the maturity method is used intermittently or for only specific areas.
- 4.11.5. **Fast Track Concrete Pavement.** Open the pavement after the concrete has been cured for at least 8 hr. and attained a minimum compressive strength of 1,800 psi or a minimum flexural strength of 255 psi when tested in accordance with Section 360.4.11.4.1., “Strength Testing,” or Section 360.4.11.4.2., “Maturity Method,” unless otherwise directed. Cover the pavement with insulating blankets when the air temperature is below 65°F until the pavement is opened to traffic.
- 4.11.6. **Emergency Opening to Traffic.** Open the pavement to traffic under emergency conditions, when the pavement is at least 72 hr. old when directed in writing. Remove all obstructing materials, place stable material against the pavement edges, and perform other work involved in providing for the safety of traffic as required for emergency opening.
- 4.12. **Pavement Thickness.** The Engineer will check the thickness in accordance with Tex-423-A unless other methods are shown on the plans. The Engineer will perform 1 thickness test consisting of 1 reading at approximately the center of each lane every 500 ft. or fraction thereof. Core where directed, in accordance with Tex-424-A, to verify deficiencies of more than 0.2 in. from plan thickness and to determine the limits of deficiencies of more than 0.75 in. from plan thickness. Fill core holes using an approved concrete mixture and method.
- 4.12.1. **Thickness Deficiencies Greater than 0.2 in.** Take one 4-in. diameter core at that location to verify the measurement when any depth test measured in accordance with Tex-423-A is deficient by more than 0.2 in. from the plan thickness.

Take 2 additional cores from the unit (as defined in Section 360.4.12.3., "Pavement Units for Payment Adjustment") at intervals of at least 150 ft. and at selected locations if the core is deficient by more than 0.2 in., but not by more than 0.75 in. from the plan thickness, and determine the thickness of the unit for payment purposes by averaging the length of the 3 cores. In calculations of the average thickness of this unit of pavement, measurements in excess of the specified thickness by more than 0.2 in. will be considered as the specified thickness plus 0.2 in.

4.12.2. **Thickness Deficiencies Greater than 0.75 in.** Take additional cores at 10-ft. intervals in each direction parallel to the centerline to determine the boundary of the deficient area if a core is deficient by more than 0.75 in. The Engineer will evaluate any area of pavement found deficient in thickness by more than 0.75 in., but not more than 1 in. Remove and replace the deficient areas without additional compensation or retain deficient areas without compensation, as directed. Remove and replace any area of pavement found deficient in thickness by more than 1 in. without additional compensation.

4.12.3. **Pavement Units for Payment Adjustment.** Limits for applying a payment adjustment for deficient pavement thickness from 0.20 in. to not more than 0.75 in. are 500 ft. of pavement in each lane. Lane width will be as shown on typical sections and pavement design standards.

For greater than 0.75 in. deficient thickness, the limits for applying zero payment or requiring removal will be defined by coring or equivalent nondestructive means as determined by the Engineer. The remaining portion of the unit determined to be less than 0.75 in. deficient will be subject to the payment adjustment based on the average core thickness at each end of the 10-ft. interval investigation as determined by the Engineer.

Shoulders will be measured for thickness unless otherwise shown on the plans. Shoulders 6 ft. wide or wider will be considered as lanes. Shoulders less than 6 ft. wide will be considered part of the adjacent lane.

Limits for applying payment adjustment for deficient pavement thickness for ramps, widenings, acceleration and deceleration lanes, and other miscellaneous areas are 500 ft. in length. Areas less than 500 ft. in length will be individually evaluated for payment adjustment based on the plan area.

4.13. **Ride Quality.** Measure ride quality in accordance with Item 585, "Ride Quality for Pavement Surfaces," unless otherwise shown on the plans.

5. MEASUREMENT

This Item will be measured as follows:

5.1. **Concrete Pavement.** Concrete pavement will be measured by the square yard of surface area in place. The surface area includes the portion of the pavement slab extending beneath the curb.

5.2. **Curb.** Curb on concrete pavement will be measured by the foot in place.

6. PAYMENT

These prices are full compensation for materials, equipment, labor, tools, and incidentals.

6.1. **Concrete Pavement.** The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the adjusted unit price bid for "Concrete Pavement" of the type and depth specified as adjusted in accordance with Section 360.6.2., "Deficient Thickness Adjustment."

6.2. **Deficient Thickness Adjustment.** Where the average thickness of pavement is deficient in thickness by more than 0.2 in. but not more than 0.75 in., payment will be made using the adjustment factor as specified in Table 2 applied to the bid price for the deficient area for each unit as defined under Section 360.4.12.3., "Pavement Units for Payment Adjustment."

**Table 2
Deficient Thickness Price Adjustment Factor**

Deficiency in Thickness Determined by Cores (in.)	Proportional Part of Contract Price Allowed (Adjustment Factor)
Not deficient	1.00
Over 0.00 through 0.20	1.00
Over 0.20 through 0.30	0.80
Over 0.30 through 0.40	0.72
Over 0.40 through 0.50	0.68
Over 0.50 through 0.75	0.57

- 6.3. **Curb.** Work performed and furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Curb" of the type specified.

Payment will be made under:

Item TX-360-5.1

Concrete Pavement (10" Thickness) —per Square Yard

Item 421

Hydraulic Cement Concrete



1. DESCRIPTION

Furnish hydraulic cement concrete for concrete pavements, concrete structures, and other concrete construction.

2. MATERIALS

Use materials from prequalified sources listed on the Department website. Provide coarse and fine aggregates from sources listed in the Department's *Concrete Rated Source Quality Catalog* (CRSQC). Use materials from non-listed sources only when tested and approved by the Engineer before use. Allow 30 calendar days for the Engineer to sample, test, and report results for non-listed sources. Do not combine approved material with unapproved material.

2.1. **Cement.** Furnish cement conforming to DMS-4600, "Hydraulic Cement."

2.2. **Supplementary Cementing Materials (SCM).**

- **Fly Ash.** Furnish fly ash, ultra-fine fly ash (UFFA), and modified Class F fly ash (MFFA) conforming to DMS-4610, "Fly Ash."
- **Slag Cement.** Furnish Slag Cement conforming to DMS-4620, "Ground Granulated BlastFurnace Slag."
- **Silica Fume.** Furnish silica fume conforming to DMS-4630, "Silica Fume."
- **Metakaolin.** Furnish metakaolin conforming to DMS-4635, "Metakaolin."

2.3. **Cementitious Material.** Cementitious materials are the cement and supplementary cementing materials used in concrete.

2.4. **Chemical Admixtures.** Furnish admixtures conforming to DMS-4640, "Chemical Admixtures for Concrete."

2.5. **Water.** Furnish mixing and curing water that is free from oils, acids, organic matter, or other deleterious substances. Water from municipal supplies approved by the Texas Department of Health will not require testing. Provide test reports showing compliance with Table 1 before use when using water from other sources.

Water that is a blend of concrete wash water and other acceptable water sources, certified by the concrete producer as complying with the requirements of both Table 1 and Table 2, may be used as mix water. Test the blended water weekly for 4 weeks for compliance with Table 1 and Table 2 or provide previous test results. Then test every month for compliance. Provide water test results upon request.

Table 1
Chemical Limits for Mix Water

Contaminant	Test Method	Maximum Concentration (ppm or mg/L)
Chloride (Cl)	ASTM C114	
Prestressed concrete		500
Bridge decks & superstructure		500
All other concrete		1,000
Sulfate (SO ₄)	ASTM C114	2,000
Alkalies (Na ₂ O + 0.658K ₂ O)	ASTM C114	600
Total solids	ASTM C1603	50,000

Table 2
Acceptance Criteria for Questionable Water Supplies

Property	Test Method	Limits
Compressive strength, min % control at 7 days	ASTM C31, ASTM C39 ^{1,2}	90
Time of set, deviation from control, h:min.	ASTM C403	From 1:00 early to 1:30 later

1. Base comparisons on fixed proportions and the same volume of test water compared to the control mix using 100% potable water or distilled water.
2. Base comparisons on sets consisting of at least 2 standard specimens made from a composite sample.

Do not use mix water that has an adverse effect on the air-entraining agent, on any other chemical admixture, or on strength or time of set of the concrete. Use mixing and curing water free of iron and other impurities that may cause staining or discoloration when using white hydraulic cement.

2.6. Aggregate.

- 2.6.1. **Coarse Aggregate.** Provide coarse aggregate consisting of durable particles of gravel, crushed blast furnace slag, recycled crushed hydraulic cement concrete, crushed stone, or combinations which are free from frozen material and from injurious amounts of salt, alkali, vegetable matter, or other objectionable material, either free or as an adherent coating. Provide coarse aggregate of uniform quality throughout.

Provide coarse aggregate with the requirements listed in Table 3 unless otherwise shown on the plan.

Table 3
Coarse Aggregate Requirements

Description	Test Method	Limit
Weight of Clay Lumps, % Max	Tex-413-A	0.25
Weight of Shale, % Max		1.0
Weight of Laminate and Friable Particle, % Max		5.0
L.A. Abrasion Wear, % Max	Tex-410-A	40
5-Cycle Magnesium Sulfate Soundness, ^{1,2} non-air-entrained concrete, % Max	Tex-411-A	25
5-Cycle Magnesium Sulfate Soundness, ^{1,3} air-entrained concrete, % Max		18
Loss by Decantation, % Max	Tex-406-A	1.5

1. Recycled crushed hydraulic cement concrete is not subject to 5-cycle magnesium sulfate soundness requirements.
2. Allowed when air-entrained concrete is used at the Contractor's option.
3. Only when air-entrained concrete is required by the plans.

Increase the loss by decantation limit to 3.0% for all classes of concrete and 5.0% for Class A, B, and P if the material finer than the No. 200 sieve is determined to be at least 85% calcium carbonate in accordance with Tex-406-A, Part III, in the case of coarse aggregates made primarily from crushing stone unless otherwise shown on the plans. Provide test results upon request.

Provide coarse aggregate conforming to the gradation requirements shown in Table 4 when tested in accordance with Tex-401-A unless otherwise specified.

Table 4
Coarse Aggregate Gradation Chart

Aggregate Grade No. ¹	Maximum Nominal Size	Percent Passing on Each Sieve								
		2-1/2"	2"	1-1/2"	1"	3/4"	1/2"	3/8"	#4	#8
1	2"	100	80-100	50-85		20-40			0-10	
2	1-1/2"		100	95-100		35-70		10-30	0-10	
3	1-1/2"		100	95-100		60-90	25-60		0-10	
4 (57)	1"			100	95-100		25-60		0-10	0-5
5 (67)	3/4"				100	90-100		20-55	0-10	0-5
6 (7)	1/2"					100	90-100	40-70	0-15	0-5
7	3/8"						100	70-95	0-25	
8	3/8"						100	95-100	20-65	0-10

1. Corresponding ASTM C33 gradation shown in parentheses.

- 2.6.2. **Fine Aggregate.** Provide fine aggregate consisting of clean, hard, durable particles of natural, manufactured sand, recycled crushed hydraulic cement concrete, slag, lightweight aggregate, or a combination thereof. Provide fine aggregate free from frozen material and from injurious amounts of salt, alkali, vegetable matter, or other objectionable material.

Provide fine aggregates with the requirements in Table 5 unless otherwise shown on the plans.

Table 5
Fine Aggregate Requirements

Description	Test Method	Limit
Weight of Clay Lumps, % Max	Tex-413-A	0.50
Organic Impurities ¹	Tex-408-A	Color not darker than standard
Sand Equivalent	Tex-203-F	80
Fineness Modulus	Tex-402-A	2.3 to 3.1

1. Only when air-entrained concrete is specified.

Provide fine aggregate or combinations of aggregates conforming to the gradation requirements shown in Table 6 when tested in accordance with Tex-401-A unless otherwise specified.

Table 6
Fine Aggregate Gradation Chart (Grade 1)

Sieve Size	Percent Passing
3/8"	100
#4	95-100
#8	80-100
#16	50-85
#30	25-65
#50	10-35 ¹
#100	0-10
#200	0-3 ²

1. 6-35 when sand equivalent value is greater than 85.
2. 0-6 for manufactured sand.

- 2.6.3. **Intermediate Aggregate.** Provide intermediate aggregate consisting of clean, hard, durable particles of natural, manufactured sand, slag, recycled crushed hydraulic cement concrete, lightweight aggregate, or a combination thereof when optimized aggregate gradation (OAG) concrete is specified or when used at the Contractor's option. Provide intermediate aggregate free from frozen material and injurious amounts of salt, alkali, vegetable matter, or other objectionable material.

Provide intermediate aggregate with the requirements in Table 7.

Table 7
Intermediate Aggregate Requirements

Description	Test Method	Limit
Weight of Clay Lumps, % Max	Tex-413-A	0.50
L.A. Abrasion Wear, ¹ % Max	Tex-410-A	40
5-Cycle Magnesium Sulfate Soundness, ^{1,2,3} non-air-entrained concrete, % Max	Tex-411-A	25
5-Cycle Magnesium Sulfate Soundness, ^{1,2,4} air-entrained concrete, % Max		18
Organic Impurities ⁵	Tex-408-A	Color not darker than standard
Loss by Decantation, ¹ % Max	Tex-406-A	1.5

1. Only applies to the portion retained on the No. 4 sieve, if more than 30% of the intermediate aggregate is retained on the No. 4 sieve.
2. Recycled crushed hydraulic cement concrete is not subject to 5-cycle magnesium sulfate soundness requirements.
3. Allowed when air-entrained concrete is used at the Contractor's option.
4. Only when air-entrained concrete is required by the plans.
5. Only applies to the portion passing the 3/8 in. sieve, if more than 30% of the intermediate aggregate is passing the 3/8 in. sieve.

For the portion retained on the No. 4 sieve, if more than 30% of the intermediate aggregate is retained on the No. 4 sieve, and in the case of aggregates made primarily from crushing stone, unless otherwise shown on the plans, the loss by decantation may be increased to 3.0% for all classes of concrete and 5.0% for Class A, B, and P if the material finer than the No. 200 sieve is determined to be at least 85% calcium carbonate in accordance with Tex-406-A, Part III. Provide test results upon request.

- 2.7. **Mortar and Grout.** Furnish pre-packaged grouts conforming to DMS-4675, "Cementitious Grouts and Mortars for Miscellaneous Applications," when specified for applications other than post-tension grouting.

Section 421.4.2.6., "Mix Design Options," does not apply for mortar and grout.

- 2.8. **Storage of Materials.**

- 2.8.1. **Cement and Supplementary Cementing Materials.** Store all cement and supplementary cementing materials in weatherproof enclosures that will protect them from dampness or absorption of moisture.

When permitted, small quantities of packaged cementitious material may be stored in the open, on a raised platform, and under waterproof covering for up to 48 hr.

- 2.8.2. **Aggregates.** Handle and store concrete aggregates in a manner that prevents contamination with foreign materials. Clear and level the sites for the stockpiles of all vegetation if the aggregates are stored on the ground and do not use the bottom 6-in. layer of aggregate without cleaning the aggregate before use.

Maintain separate stockpiles and prevent intermixing when conditions require the use of 2 or more grades of coarse aggregates. Separate the stockpiles using physical barriers where space is limited. Store aggregates from different sources in different stockpiles unless the Engineer authorizes pre-blending of the aggregates. Minimize segregation in stockpiles. Remix and test stockpiles when segregation is apparent.

Sprinkle stockpiles to control moisture and temperature as necessary. Maintain reasonably uniform moisture content in aggregate stockpiles.

- 2.8.3. **Chemical Admixtures.** Store admixtures in accordance with manufacturer's recommendations and prevent admixtures from freezing.

3. EQUIPMENT

- 3.1. **Concrete Plants and Mixing Equipment.** Except for volumetric stationary plant or truck (auger) mixers, each plant and truck mixer must be currently certified by the National Ready Mixed Concrete Association (NRMCA) or have an inspection report signed and sealed by a licensed professional engineer showing concrete measuring, mixing, and delivery equipment meets all requirements of ASTM C94. A new certification or signed and sealed report is required every time a plant is moved. Plants with a licensed professional engineer's inspection require re-inspection every 2 yr. Provide a copy of the certification or the

signed and sealed inspection report to the Engineer. Remove equipment or facilities from service until corrected when they fail to meet specification requirements.

When allowed on the plans or by the Engineer, for concrete classes not identified as structural concrete in Table 8 or for Class C concrete not used for bridge-class structures, the Engineer may inspect and approve all plants and trucks instead of the NRMCA or non-Department engineer-sealed certifications. The criteria and frequency of Engineer approval of plants and trucks is the same used for NRMCA certification.

Inspect and furnish inspection reports on the condition of blades and fins and their percent wear from the original manufacturer's design for truck mixers and agitators annually. Repair mixing equipment exhibiting 10% or more wear before use. If an inspection within 12 mo. is not practical, a 2-mo. grace period (for a maximum of 14 mo. between inspections) is permitted.

3.1.1. **Scales.** Check all scales before beginning of operations, after each move, or whenever their accuracy or adequacy is questioned, and at least once every 6 mo. Immediately correct deficiencies, and recalibrate. Provide a record of calibration showing scales in compliance with ASTM C94 requirements. Check batching accuracy of volumetric water batching devices at least every 90 days. Check batching accuracy of chemical admixture dispensing devices at least every 6 mo. Perform daily checks as necessary to ensure measuring accuracy.

3.1.2. **Volumetric Mixers.** Provide volumetric mixers with rating plates defining the capacity and the performance of the mixer in accordance with the Volumetric Mixer Manufacturers Bureau or equivalent. Provide volumetric mixers that comply with ASTM C685. Provide test data showing mixers meet the uniformity test requirements of Tex-472-A.

Unless allowed on the plans or by the Engineer, volumetric truck (auger) mixers may not supply classes of concrete identified as structural concrete in Table 8.

3.1.3. **Agitators and Truck and Stationary Mixers.** Provide stationary and truck mixers capable of combining the ingredients of the concrete into a thoroughly mixed and uniform mass and capable of discharging the concrete so at least 5 of the 6 requirements of Tex-472-A are met.

Perform concrete uniformity tests on mixers or agitators in accordance with Tex-472-A as directed, to resolve issues of mix uniformity and mixer performance.

Perform the mixer or agitator uniformity test at the full rated capacity of the equipment. Remove all equipment that fails the uniformity test from service.

Inspect and maintain mixers and agitators. Keep them free of concrete buildup, and repair or replace worn or damaged blades or fins.

Ensure all mixers have a plate affixed showing manufacturer's recommended operating speed and rated capacity for mixing and agitating.

3.2. **Hauling Equipment.** Provide hauling equipment capable of maintaining the mixed concrete in a thoroughly mixed and uniform mass, and discharging the concrete with a satisfactory degree of uniformity.

Provide equipment with smooth, mortar-tight metal containers equipped with gates that prevent accidental discharge of the concrete when using non-agitating equipment for transporting concrete.

Maintain hauling equipment clean and free of built-up concrete.

3.3. **Testing Equipment.** Furnish and maintain the following in accordance with the pertinent test procedure unless otherwise shown on the plans or specified:

- sieves necessary to perform aggregate gradation analysis when optimized aggregate gradation is specified,

- equipment necessary to perform Tex-415-A and Tex-422-A,
- equipment necessary to perform Tex-409-A or Tex-425-A,
- test molds,
- curing facilities,
- maturity meters if used, and
- wheelbarrow or other container acceptable for the sampling of the concrete.

Provide strength-testing equipment when required in accordance with the Contract-controlling test unless shown otherwise.

4. CONSTRUCTION

- 4.1. **Classification of Concrete Mix Designs.** Provide classes of concrete meeting the requirements shown in Table 8.

A higher-strength class of concrete with equal or lower water-to-cementitious material (w/cm) ratio may be substituted for the specified class of concrete when approved.

- 4.2. **Mix Design Proportioning.** Furnish mix designs using ACI 211, Tex-470-A, or other approved procedures for the classes of concrete listed in Table 8 unless a design method is indicated on the plans. Perform mix design proportioning by absolute volume method unless otherwise approved. Perform cement replacement using equivalent weight method unless otherwise approved.

Do not exceed the maximum w/cm ratio listed in Table 8 when designing the mixture.

- 4.2.1. **Cementitious Materials.** Do not exceed 700 lb. of cementitious material per cubic yard of concrete unless otherwise specified or approved.

- Use cement of the same type and from the same source for monolithic placements.
- Do not use supplementary cementing materials when white hydraulic cement is specified.

Table 8
Concrete Classes

Class of Concrete	Design Strength, ¹ Min f_c (psi)	Max w/cm Ratio	Coarse Aggregate Grades ^{2,3,4}	Cement Types	Mix Design Options	Exceptions to Mix Design Options	General Usage ⁵
A	3,000	0.60	1-4, 8	I, II, I/II, IL, IP, IS, IT, V	1, 2, 4, & 7	When the cementitious material content does not exceed 520 lb./cu. yd., Class C fly ash may be used instead of Class F fly ash.	Inlets, manholes, curb, gutter, curb & gutter, conc. retards, sidewalks, driveways, back-up walls, anchors, non-reinforced drilled shafts
B	2,000 2,500	0.60	2-7				Riprap, traffic signal controller foundations, small roadside signs, and anchors
C ⁶	3,600	0.45	1-6	I, II, I/II, IP, IS, IT, ⁷ V	1-8		Drilled shafts, bridge substructure, bridge railing, culverts except top slab of direct traffic culverts, headwalls, wing walls, approach slabs, inlets, manholes, concrete traffic barrier (cast-in-place)
E	3,000	0.50	2-5	I, II, I/II, IL, IP, IS, IT, ⁷ V	1-8	When the cementitious material content does not exceed 520 lb./cu. yd., Class C fly ash may be used instead of Class F fly ash.	Seal concrete
F ⁶	Note ⁸	0.45	2-5	I, II, I/II, IP, IS, IT, ⁷ V			Railroad structures; occasionally for bridge piers, columns, or bents

Table 8 (continued)
Concrete Classes

Class of Concrete	Design Strength, ¹ Min f _c (psi)	Max w/cm Ratio	Coarse Aggregate Grades ^{2,3,4}	Cement Types	Mix Design Options	Exceptions to Mix Design Options	General Usage ⁵
H ⁶	Note ⁸	0.45	3–6	I, II, I/II, III, IP, IS, IT, ⁷ V	1–5	Do not use Type III cement in mass placement concrete. Up to 20% of blended cement may be replaced with listed SCMs when Option 4 is used for precast concrete.	Precast concrete, post-tension members
S ⁶	4,000	0.45	2–5	I, II, I/II, IP, IS, IT, ⁷ V	1–8		Bridge slabs, top slabs of direct traffic culverts
P	See Item 360, "Concrete Pavement."	0.50	2–3	I, II, I/II, IL, IP, IS, IT, V	1–8	When the cementitious material content does not exceed 520 lb./cu. yd., Class C fly ash may be used instead of Class F fly ash.	Concrete pavement
CO ⁶	4,600	0.40	6	I, II, I/II, IP, IS, IT, ⁷ V	1–8		Bridge deck concrete overlay
LMC ⁶	4,000	0.40	6–8				Latex-modified concrete overlay
SS ⁶	3,600	0.45	4–6			Use a minimum cementitious material content of 658 lb./cu. yd. of concrete.	Slurry displacement shafts, underwater drilled shafts
K ⁶	Note ⁸	0.40	Note ⁸	I, II, I/II, III, IP, IS, IT, ⁷ V			Note ⁸
HES	Note ⁸	0.45	Note ⁸	I, IL, II, I/II, III		Mix design options do not apply. 700 lb. of cementitious material per cubic yard limit does not apply.	Concrete pavement, concrete pavement repair
"X" (HPC) <small>6,9,10</small>	Note ¹¹	0.45	Note ¹¹	I, II, I/II, III, IP, IS, IT, ⁷ V	1–5, & 8	Maximum fly ash replacement for Options 1 and 3 may be increased to 45%. Up to 20% of a blended cement may be replaced with listed SCMs for Option 4. Do not use Option 8 for precast concrete.	
"X" (SRC) <small>6,9,10</small>	Note ¹¹	0.45	Note ¹¹	I/II, II, IP, IS, IT, ⁷ V	1–4, & 7	Do not use Class C Fly Ash. Type III-MS may be used where allowed. Type I and Type III cements may be used with Options 1–3, with a maximum w/cm of 0.40. Up to 20% of blended cement may be replaced with listed SCMs when Option 4 is used for precast concrete. Do not use Option 7 for precast concrete.	

1. Design strength must be attained within 56 days.
2. Do not use Grade 1 coarse aggregate except in massive foundations with 4 in. minimum clear spacing between reinforcing steel bars, unless otherwise permitted. Do not use Grade 1 aggregate in drilled shafts.
3. Use Grade 8 aggregate in extruded curbs unless otherwise approved.
4. Other grades of coarse aggregate maybe used in non-structural concrete classes when allowed by the Engineer.
5. For information only.
6. Structural concrete classes.
7. Do not use Type IT cements containing > 5% limestone.
8. As shown on the plans or specified.
9. "X" denotes class of concrete shown on the plans or specified.
10. (HPC): High Performance Concrete, (SRC): Sulfate Resistant Concrete.
11. Same as class of concrete shown on the plans.

4.2.2. **Aggregates.** Recycled crushed hydraulic cement concrete may be used as a coarse or fine aggregate in Class A, B, D, E, and P concrete. Limit recycled crushed concrete fine aggregate to a maximum of 20% of the fine aggregate.

Use light-colored aggregates when white hydraulic cement is specified.

Use fine aggregate with an acid insoluble residue of at least 60% by weight when tested in accordance with Tex-612-J in all concrete subject to direct traffic.

Use the following equation to determine if the aggregate combination meets the acid insoluble residue requirement when blending fine aggregate or using an intermediate aggregate:

$$\frac{(A_1 \times P_1) + (A_2 \times P_2) + (A_{ia} \times P_{ia})}{100} \geq 60\%$$

where:

A_1 = acid insoluble (%) of fine aggregate 1

A_2 = acid insoluble (%) of fine aggregate 2

A_{ia} = acid insoluble (%) of intermediate aggregate passing the 3/8 in. sieve

P_1 = percent by weight of fine aggregate 1 of the fine aggregate blend

P_2 = percent by weight of fine aggregate 2 of the fine aggregate blend

P_{ia} = percent by weight of intermediate aggregate passing the 3/8 in. sieve

Alternatively to the above equation, blend fine aggregate with a micro-deval loss of less than 12%, when tested in accordance with Tex-461-A, with at least 40% of a fine aggregate with an acid insoluble residue of at least 60%.

- 4.2.3. **Chemical Admixtures.** Do not use Type C, Type E, Type F, or Type G admixtures in Class S bridge deck concrete. Do not use chemical admixtures containing calcium chloride in any concrete.

Use a 30% calcium nitrite solution when a corrosion-inhibiting admixture is required. The corrosion-inhibiting admixture must be set neutral unless otherwise approved. Dose the admixture at the rate of gallons of admixture per cubic yard of concrete shown on the plans.

- 4.2.4. **Air Entrainment.** Use an approved air-entraining admixture when air-entrained concrete is specified, or when an air-entraining admixture is used at the Contractor's option, and do not exceed the manufacturer's recommended dosage. Ensure the minimum entrained air content is at least 3.0% for all classes of concrete except Class P when air-entrained concrete is specified, during trial batch, or when providing previous field data.

- 4.2.5. **Slump.** Provide concrete with a slump in accordance with Table 9 unless otherwise specified. When approved, the slump of a given concrete mix may be increased above the values shown in Table 9 using chemical admixtures, provided the admixture-treated concrete has the same or lower water-to-cementitious material ratio and does not exhibit segregation or excessive bleeding. Request approval to exceed the slump limits in Table 9 sufficiently in advance for proper evaluation by the Engineer.

Perform job-control testing of slump in accordance with Section 421.4.8.3.1., "Job-Control Testing."

**Table 9
Placement Slump Requirements**

General Usage ¹	Placement Slump Range, ² in.
Walls (over 9 in. thick), caps, columns, piers, approach slabs, concrete overlays	3 to 5
Bridge slabs, top slabs of direct traffic culverts, latex-modified concrete for bridge deck overlays	3 to 5-1/2
Inlets, manholes, walls (less than 9 in. thick), bridge railing, culverts, concrete traffic barrier, concrete pavement (formed), seal concrete	4 to 5-1/2
Precast concrete	4 to 9
Underwater concrete placements	6 to 8-1/2
Drilled shafts, slurry displaced and underwater drilled shafts	See Item 416, "Drilled Shaft Foundations."
Curb, gutter, curb and gutter, concrete retards, sidewalk, driveways, anchors, riprap, small roadsidesign foundations, concrete pavement repair, concrete repair	As approved

1. For information only.

2. For fiber reinforced concrete, perform slump before addition of fibers.

4.2.6. Mix Design Options.

4.2.6.1. **Option 1.** Replace 20% to 35% of the cement with Class F fly ash.

4.2.6.2. **Option 2.** Replace 35% to 50% of the cement with slag cement or MFFA.

4.2.6.3. **Option 3.** Replace 35% to 50% of the cement with a combination of Class F fly ash, slag cement, MFFA, UFFA, metakaolin, or silica fume; however, no more than 35% may be fly ash, and no more than 10% may be silica fume.

4.2.6.4. **Option 4.** Use Type IP, Type IS, or Type IT cement as allowed in Table 5 for each class of concrete. Up to 10% of a Type IP, Type IS, or Type IT cement may be replaced with Class F fly ash, slag cement, or silica fume. Use no more than 10% silica fume in the final cementitious material mixture if the Type IT cement contains silica fume, and silica fume is used to replace the cement.

4.2.6.5. **Option 5.** Replace 35% to 50% of the cement with a combination of Class C fly ash and at least 6% of silica fume, UFFA, or metakaolin. However, no more than 35% may be Class C fly ash, and no more than 10% may be silica fume.

4.2.6.6. **Option 6.** Use a lithium nitrate admixture at a minimum dosage determined by testing conducted in accordance with Tex-471-A, "Lithium Dosage Determination Using Accelerated Mortar Bar Testing." Before use of the mix, provide an annual certified test report signed and sealed by a licensed professional engineer, from a laboratory on the Department's MPL, certified by the Construction Division as being capable of testing according to Tex-471-A, "Lithium Dosage Determination Using Accelerated Mortar Bar Testing."

4.2.6.7. **Option 7.** Ensure the total alkali contribution from the cement in the concrete does not exceed 3.5 lb. per cubic yard of concrete when using hydraulic cement not containing SCMs calculated as follows:

$$\text{lb. alkali per cu. yd.} = \frac{(\text{lb. cement per cu. yd.}) \times (\% \text{ Na}_2\text{O equivalent in cement})}{100}$$

4.2.6.8. **Option 8.** Perform annual testing as required for any deviations from Options 1–5 or use mix design options listed in Table 10. Laboratories performing ASTM C1260, ASTM C1567, and ASTM C1293 testing must be listed on the Department's MPL. Before use of the mix, provide a certified test report signed and sealed by a licensed professional engineer demonstrating the proposed mixture conforms to the requirements of Table 10.

Provide a certified test report signed and sealed by a licensed professional engineer, when HPC is required, and less than 20% of the cement is replaced with SCMs, demonstrating ASTM C1202 test results indicate the permeability of the concrete is less than 1,500 coulombs tested immediately after either of the following curing schedules:

- Moisture cure specimens 56 days at 73°F.
- Moisture cure specimens 7 days at 73°F followed by 21 days at 100°F.

Table 10
Option 8 Testing and Mix Design Requirements

Scenario	ASTM C1260 Result		Testing Requirements for Mix Design Materials or Prescriptive Mix Design Options ¹
	Mix Design Fine Aggregate	Mix Design Coarse Aggregate	
A	> 0.10%	> 0.10%	Determine the dosage of SCMs needed to limit the 14-day expansion of each aggregate ² to 0.08% when tested individually in accordance with ASTM C1567, or Use a minimum of 40% Class C fly ash with a maximum CaO ³ content of 25%.
B	§ 0.10%	§ 0.10%	Use a minimum of 40% Class C fly ash with a maximum CaO ³ content of 25%, or Use any ternary combination which replaces 35% to 50% of cement.
	§ 0.10%	ASTM C1293 1 yr. Expansion § 0.04%	Use a minimum of 20% of any Class C fly ash, or Use any ternary combination which replaces 35% to 50% of cement.
C	§ 0.10%	> 0.10%	Determine the dosage of SCMs needed to limit the 14-day expansion of coarse and intermediate ² aggregate to 0.08% when tested individually in accordance with ASTM C1567, or Use a minimum of 40% Class C fly ash with a maximum CaO ³ content of 25%.
D	> 0.10%	§ 0.10%	Use a minimum of 40% Class C fly ash with a maximum CaO ³ content of 25%, or Use any ternary combination which replaces 35% to 50% of cement.
	> 0.10%	ASTM C1293 1 yr. Expansion § 0.04%	Determine the dosage of SCMs needed to limit the 14-day expansion of fine aggregate to 0.08% when tested in accordance with ASTM C1567.

1. Do not use Class C fly ash if the ASTM C1260 value of the fine, intermediate, or coarse aggregate is 0.30% or greater, unless the fly ash is used as part of a ternary system.
2. Intermediate size aggregates will fall under the requirements of mix design coarse aggregate.
3. Average the CaO content from the previous ten values as listed on the mill certificate.

4.2.7. **Optimized Aggregate Gradation (OAG) Concrete.** The gradation requirements in Table 3 and Table 4 do not apply when OAG concrete is specified or used by the Contractor unless otherwise shown on the plans. Use Tex-470 to establish the optimized aggregate gradation. Use at least 420 lb. per cubic yard of cementitious material when OAG concrete is used unless otherwise approved. Use a coarse aggregate with a maximum nominal size of 1-1/2 in. for Class P concrete. Use a coarse aggregate for all other classes of concrete with a maximum nominal size not larger than:

- 1/5 the narrowest dimension between sides of forms, or
- 1/3 the depth of slabs, or
- 3/4 the minimum clear spacing between individual reinforcing bars or wires, bundles of bars, individual tendons, bundled tendons, or ducts.

Make necessary adjustments to individual aggregate stockpile proportions during OAG concrete production when the gradation deviates from the optimized gradation requirements.

4.2.8. **Self-Consolidating Concrete (SCC).** Provide SCC meeting the following requirements shown in Table 11 when approved for use in precast concrete. Use concrete with a slump flow that can be placed without vibration and will not segregate or excessively bleed.

Increase the slump flow of a given concrete mix above the values shown in Table 11 when approved, provided the concrete has the same or lower water-to-cementitious material ratio and meets all other requirements listed in Table 11. Request approval to exceed the slump flow limits sufficiently in advance for proper evaluation by the Engineer.

Table 11
Mix Design Requirements for SCC

Tests	Test Method	Acceptable Limits
Slump Flow for Precast Concrete	ASTM C1611	22 to 27 ¹
Slump Flow for Drilled Shafts	ASTM C1611	19 to 24 ¹
T ₅₀ , sec	ASTM C1611	2 to 7
VSI Rating	ASTM C1611	0 or 1
Passing Ability, in.	ASTM C1621	§ 2
Segregation Column, %	ASTM C1610	§ 10
Bleeding, %	ASTM C232	§ 2.5

1. These slump flow limits are generally acceptable for most applications. However, slump flow limits may be adjusted during mix design approval process and when approved by the Engineer.

- 4.3. **Concrete Trial Batches.** Perform preliminary and final trial batches when required by the plans, or when previous satisfactory field data is not available. Submit previous satisfactory field data to the Engineer showing the proposed mix design conforms to specification requirements when trial batches are not required and before concrete is placed.

Perform preliminary and final trial batches for all self-consolidating concrete mix designs.

- 4.3.1. **Preliminary Trial Batches.** Perform all necessary preliminary trial batch testing when required, and provide documentation including mix design, material proportions, and test results substantiating the mix design conforms to specification requirements.

- 4.3.2. **Final Trial batches.** Make all final trial batches using the proposed ingredients in a mixer that is representative of the mixers to be used on the job when required. Make the batch size at least 50% of the mixer's rated capacity. Perform fresh concrete tests for air content and slump, and make, cure, and test strength specimens for compliance with specification requirements. Test at least one set of design strength specimens, consisting of 2 specimens per set, at 7-day, 28-day, and at least one additional age unless otherwise directed. Before placing, provide the Engineer the option of witnessing final trial batches, including the testing of the concrete. If not provided this option, the Engineer may require additional trial batches, including testing, before the concrete is placed.

Conduct all testing listed in Table 11 when performing trial batches for self-consolidating concrete. Make an additional mixture with 3% more water than the preliminary trial batch. Make necessary adjustments to the mix design if this additional mixture does not meet requirements of Table 11. Cast and evaluate mock-ups for precast concrete that are representative of the actual product as directed. Provide the Engineer the option of witnessing final trial batches, including the testing of the concrete and the casting of the mock-ups before placement. If not provided this option, the Engineer may require additional trial batches, including testing and mock-ups, before the concrete is placed.

Establish 7-day compressive strength target values using the following formula for each Class A, B, and E concrete mix designs to be used:

$$\text{Target value} = \text{Minimum design strength} \times \frac{7 - \text{day avg. trial batch strength}}{28 - \text{day avg. trial batch strength}}$$

Submit previous satisfactory field data, data from a new trial batch, or other evidence showing the change will not adversely affect the relevant properties of the concrete when changes are made to the type, brand, or source of aggregates, cement, SCM, water, or chemical admixtures. Submit the data for approval before making changes to the mix design. A change in vendor does not necessarily constitute a change in materials or source. The Engineer may waive new trial batches when there is a prior record of satisfactory performance with the ingredients. During concrete production, dosage changes of chemical admixtures used in the trial batches will not require a re-evaluation of the mix design.

The Contractor has the option of performing trial batches in conjunction with concrete placements except for SCC mixtures, when new trial batches are required during the course of the project. If the concrete fails to meet any requirement, the Engineer will determine acceptability and payment adjustments.

Establish the strength–maturity relationship in accordance with Tex-426-A when the maturity method is specified or permitted. When using the maturity method, any changes in any of the ingredients, including changes in proportions, will require the development of a new strength–maturity relationship for the mix.

4.3.3. **Mix Design of Record.** Once a trial batch or previously satisfactory field data substantiates the mix design, the proportions and mixing methods used become the mix design of record. Do not exceed mix design water-to-cement ratio.

4.4. **Production Testing.**

4.4.1. **Aggregate Moisture Testing.** Determine moisture content per Tex-409-A or Tex-425-A for coarse, intermediate, and fine aggregates at least twice a week, when there is an apparent change, or for new shipments of aggregate. When aggregate hoppers or storage bins are equipped with properly maintained electronic moisture probes for continuous moisture determination, moisture tests per Tex-409-A or Tex-425-A are not required. Electronic moisture probes, however, must be verified at least every 90 days against Tex-409-A and be accurate to within 1.0% of the actual moisture content.

When producing SCC, and when aggregate hoppers or storage bins are not equipped with electric moisture probes, determine the moisture content of the aggregates before producing the first concrete batch each day. Thereafter, determine the moisture content every 4 hr. or when there is an apparent change while SCC is being produced.

4.4.2. **Aggregate Gradation Testing.** Perform a sieve analysis in accordance with Tex-401-A on each stockpile used in the blend at least one day before producing OAG concrete when producing optimized aggregate gradation concrete. Perform sieve analysis on each stockpile after every 10,000 cubic yards of OAG concrete produced. Provide sieve analysis data to the Engineer.

4.5. **Measurement of Materials.**

4.5.1. **Non-Volumetric Mixers.** Measure aggregates by weight. Correct batch weight measurements for aggregate moisture content. Measure mixing water, consisting of water added to the batch, ice added to the batch, water occurring as surface moisture on the aggregates, and water introduced in the form of admixtures, by volume or weight. Measure ice by weight. Measure cement and supplementary cementing materials in a hopper and on a separate scale from those used for other materials. Measure the cement first when measuring the cumulative weight. Measure concrete chemical admixtures by weight or volume. Measure batch materials within the tolerances of Table 12.

Table 12
Mix Design Batching Tolerances—Non-Volumetric Mixers

Material	Tolerance (%)
Cement, wt.	-1 to +3
SCM, wt.	-1 to +3
Cement + SCM (cumulative weighing), wt.	-1 to +3
Water, wt. or volume	$\pm 3^1$
Fine aggregate, wt.	± 2
Coarse aggregate, wt.	± 2
Fine + coarse aggregate (cumulative weighing), wt.	± 1
Chemical admixtures, wt. or volume	± 3

1. Allowable deviation from target weight not including water withheld or moisture in the aggregate. The Engineer will verify the water-to-cementitious material ratio is within specified limits.

Ensure the quantity measured, when measuring cementitious materials at less than 30% of scale capacity, is accurate to not less than the required amount and not more than 4% in excess. Ensure the cumulative quantity, when measuring aggregates in a cumulative weigh batcher at less than 30% of the scale capacity,

is measured accurate to $\pm 0.3\%$ of scale capacity or $\pm 3\%$ of the required cumulative weight, whichever is less.

Measure cement in number of bags under special circumstances when approved. Use the weights listed on the packaging. Weighing bags of cement is not required. Ensure fractional bags are not used except for small hand-mixed batches of approximately 5 cu. ft. or less and when an approved method of volumetric or weight measurement is used.

- 4.5.2. **Volumetric Mixers.** Provide an accurate method of measuring all ingredients by volume, and calibrate equipment to assure correct measurement of materials within the specified tolerances. Base tolerances on volume-weight relationship established by calibration, and measure the various ingredients within the tolerances of Table 13. Correct batch measurements for aggregate moisture content.

Table 13
Mix Design Batching Tolerances—Volumetric Mixers

Material	Tolerance
Cement, wt. %	0 to +4
SCM, wt. %	0 to +4
Fine aggregate, wt. %	± 2
Coarse aggregate, wt. %	± 2
Admixtures, wt. or volume %	± 3
Water, wt. or volume %	± 1

- 4.6. **Mixing and Delivering Concrete.**

- 4.6.1. **Mixing Concrete.** Operate mixers and agitators within the limits of the rated capacity and speed of rotation for mixing and agitation as designated by the manufacturer of the equipment. Provide concrete in a thoroughly mixed and uniform mass with a satisfactory degree of uniformity when tested in accordance with Tex-472-A.

Do not top-load new concrete onto returned concrete.

Adjust mixing times and batching operations as necessary when the concrete contains silica fume to ensure the material is completely and uniformly dispersed in the mix. The dispersion of the silica fume within the mix will be verified by the Construction Division, Materials and Pavements Section, using cylinders made from trial batches. Make necessary changes to the batching operations, if uniform dispersion is not achieved, until uniform and complete dispersion of the silica fume is achieved.

Mix concrete by hand methods or in a small motor-driven mixer when permitted, for small placements of less than 2 cu. yd. For such placements, proportion the mix by volume or weight.

- 4.6.2. **Delivering Concrete.** Deliver concrete to the project in a thoroughly mixed and uniform mass, and discharge the concrete with a satisfactory degree of uniformity. Conduct testing in accordance with Tex-472-A when there is a reason to suspect the uniformity of concrete and as directed.

Maintain concrete delivery and placement rates sufficient to prevent cold joints.

Adding chemical admixtures or the portion of water withheld is only permitted at the jobsite, under the supervision of the Engineer, to adjust the slump or slump flow of the concrete. Do not add water or chemical admixtures to the batch after more than an amount needed to conduct slump testing has been discharged. Turn the drum or blades at least 30 additional revolutions at mixing speed to ensure thorough and uniform mixing of the concrete. When this water is added, do not exceed the approved mix design water-to-cementitious material ratio.

Before unloading, furnish the delivery ticket for the batch of concrete containing the information required on Department Form 596, "Concrete Batch Ticket." The Engineer will verify all required information is provided on the delivery tickets. The Engineer may suspend concrete operations until the corrective actions are

implemented if delivery tickets do not provide the required information. The Engineer will verify the design water-to-cementitious material ratio is not exceeded.

Begin the discharge of concrete delivered in truck mixers within the times listed in Table 14. Concrete may be discharged after these times provided the concrete temperature and slump meet the requirements listed in this Item and other pertinent Items. Perform these tests with certified testing personnel per Section 421.4.8.1., "Certification of Testing Personnel." Provide the Engineer the option of witnessing testing of the concrete. If not provided this option, the Engineer may require additional testing before the concrete is placed.

Table 14
Concrete Discharge Times

Fresh Concrete Temperature, °F	Max Time After Batching for Concrete Not Containing Type B or D Admixtures, min.	Max Time After Batching for Concrete Containing Type B or D Admixtures, ¹ min.
90 and above	45	75
75 ≤ T < 90	60	90
T < 75	90	120

- Concrete must contain at least the minimum manufacturer's recommended dosage of Type B or D admixture.

4.7. **Placing, Finishing, and Curing Concrete.** Place, finish, and cure concrete in accordance with the pertinent Items.

4.8. **Sampling and Testing of Concrete.** Unless otherwise specified, all fresh and hardened concrete is subject to testing as follows:

4.8.1. **Certification of Testing Personnel.** Contractor personnel performing testing must be either ACI-certified or qualified by a Department-recognized equivalent written and performance testing program for the tests being performed. Personnel performing these tests are subject to Department approval. Use of a commercial laboratory is permitted at the Contractor's option. All personnel performing testing using the maturity method must be qualified by a training program recognized by the Department before using this method on the job.

4.8.2. **Fresh Concrete.** Provide safe access and assistance to the Engineer during sampling. Fresh concrete will be sampled for testing at the discharge end if using belt conveyors or pumps. When it is impractical to sample at the discharge end, a sample will be taken at the time of discharge from the delivery equipment and correlation testing will be performed and documented to ensure specification requirements are met at the discharge end.

4.8.3. **Testing of Fresh Concrete.** Test for the fresh properties listed in Table 15.

Table 15
Fresh Concrete Tests

Tests	Test Methods
Slump ¹	Tex-415-A
Temperature ¹	Tex-422-A
Air Content ²	Tex-414-A, Tex-416-A or ASTM C457

- Job-control testing performed by the Contractor.
- Only required during concrete trial batch when air-entrained concrete is specified on the plans.

Concrete with a slump lower than the minimum placement slump in Table 9 after the addition of all water withheld, or concrete exhibiting segregation and excessive bleeding may be rejected.

When SCC exceeds the maximum placement slump flow or VSI rating, the Engineer will immediately resample and retest the concrete slump flow and VSI rating. If the concrete exceeds the maximum placement slump flow or VSI rating after the retest, the concrete will be rejected.

4.8.3.1. **Job-Control Testing.** Perform job-control concrete temperature and slump testing as specified in Table 16 unless otherwise specified. Provide the Engineer the opportunity to witness the testing. The Engineer may

require a retest if not given the opportunity to witness. Immediately notify the Engineer of any concrete temperature or slump nonconformity issues. Furnish a copy of all test results to the Engineer daily.

Table 16
Job-Control Testing Frequencies

Concrete Placements	Frequency
Bridge Deck Placements	Test the first few loads, then every fifth load delivered.
All Other Structural Class Concrete Placements	One test every 60 cu. yd. or fraction thereof.
Non-Structural Class Concrete Placements	One test every 180 cu. yd. or fraction thereof.

Immediately resample and retest the concrete slump when the concrete exceeds the slump range at time of placement. If the concrete exceeds the slump range after the retest, and is used at the Contractor's option, the Engineer will make strength specimens as specified in Article 421.5., "Acceptance of Concrete."

- 4.8.3.2. **Strength Specimen Handling.** Remove specimens from their molds and deliver Department test specimens to curing facilities within 24 to 48 hr. after molding, in accordance with pertinent test procedures unless otherwise shown on the plans or directed. Clean and prepare molds for reuse if necessary.

5. ACCEPTANCE OF CONCRETE

The Engineer will sample and test the fresh and hardened concrete for acceptance. The test results will be reported to the Contractor and the concrete supplier. Investigate the quality of the materials, the concrete production operations, and other possible problem areas to determine the cause for any concrete that fails to meet the required strengths as outlined below. Take necessary actions to correct the problem including redesign of the concrete mix. The Engineer may suspend all concrete operations under the pertinent Items if the Contractor is unable to identify, document, and correct the cause of the low strengths in a timely manner. Resume concrete operations only after obtaining approval for any proposed corrective actions. Concrete failing to meet the required strength as outlined below will be evaluated using the procedures listed in Article 421.6., "Measurement and Payment."

- 5.1. **Structural Concrete.** For concrete classes identified as structural concrete in Table 8, the Engineer will make and test 7-day and 28-day specimens. Acceptance will be based on attaining the design strength given in Table 8.
- 5.2. **Class P and Class HES.** The Engineer will base acceptance in accordance with Item 360, "Concrete Pavement," and Item 361, "Repair of Concrete Pavement."
- 5.3. **All Other Concrete.** For concrete classes not identified as structural concrete in Table 8, the Engineer will make and test 7-day specimens. The Engineer will base acceptance on the 7-day target value established in accordance with Section 421.4.3., "Concrete Trial Batches."

6. MEASUREMENT AND PAYMENT

The work performed, materials furnished, equipment, labor, tools, and incidentals will not be measured or paid for directly but will be subsidiary to pertinent Items.

The following procedure will be used to evaluate concrete where one or more project acceptance test specimens fail to meet the required design strength specified in this Item or on the plans:

- The concrete for a given placement will be considered structurally adequate and accepted at full price if the average of all test results for specimens made at the time of placement meets the required design strength provided no single test result is less than 85% of the required design strength.
- The Engineer will perform a structural review of the concrete to determine its adequacy to remain in service if the average of all test results for specimens made at the time of placement is less than the required design strength or if any test results are less than 85% of the required design strength. If the in-

situ concrete strength is needed for the structural review, take cores at locations designated by the Engineer in accordance with Tex-424-A. The Engineer will test the cores. The coring and testing will be at the Contractor's expense.

- If all of the tested cores meet the required design strength, the concrete will be paid for at full price.
- If any of the tested cores do not meet the required design strength, but the average strength attained is determined to be structurally adequate, the Engineer will determine the limits of the pay adjustment using the following formula:

$$A = B_p \left[-5.37 \left| \frac{S_a}{S_s} \right| + 11.69 \left| \frac{S_a}{S_s} \right| - 5.32 \right]$$

where:

A = Amount to be paid per unit of measure for the entire placement in question

S_a = Actual average strength from cylinders or cores. Use values from cores, if taken.

S_s = Minimum required strength (specified)

B_p = Unit Bid Price

- If the structural review determines the concrete is not adequate to remain in service, the Engineer will determine the limits of the concrete to be removed.
- The decision to reject structurally inadequate concrete or to apply the pay adjustment factor will be made no later than 56 days after placement.

Item 464

Reinforced Concrete Pipe



1. DESCRIPTION

Furnish and install reinforced concrete pipe, materials for precast concrete pipe culverts, or precast concrete storm drain mains, laterals, stubs, and inletleads.

2. MATERIALS

- 2.1. **Fabrication.** Fabrication plants must be approved by the Construction Division in accordance with [DMS-7310](#), "Reinforced Concrete Pipe and Machine-Made Precast Concrete Box Culvert Fabrication and Plant Qualification," before furnishing precast reinforced concrete pipe for Department projects. The Department's MPL has a list of approved reinforced concrete pipe plants.

Furnish material and fabricate reinforced concrete pipe in accordance with [DMS-7310](#), "Reinforced Concrete Pipe and Machine-Made Precast Concrete Box Culvert Fabrication and Plant Qualification."

2.2. Design.

- 2.2.1. **General.** The class and D-load equivalents are shown in Table 1. Furnish arch pipe in accordance with ASTM C506 and the dimensions shown in Table 2. Furnish horizontal elliptical pipe in accordance with ASTM C507 and the dimensions shown in Table 3. For arch pipe and horizontal elliptical pipe the minimum height of cover required is 1 ft.

Table 1
Circular Pipe
ASTM C76 & ASTM C655

Class	D-Load
I	800
II	1,000
III	1,350
IV	2,000
V	3,000

Table 2
Arch Pipe

Design Size	Equivalent Diameter (in.)	Rise (in.)	Span (in.)
1	18	13-1/2	22
2	21	15-1/2	26
3	24	18	28-1/2
4	30	22-1/2	36-1/4
5	36	26-5/8	43-3/4
6	42	31-5/16	51-1/8
7	48	36	58-1/2
8	54	40	65
9	60	45	73
10	72	54	88

Table 3
Horizontal Elliptical Pipe

Design Size	Equivalent Diameter (in.)	Rise (in.)	Span (in.)
1	18	14	23
2	24	19	30
3	27	22	34
4	30	24	38
5	33	27	42
6	36	29	45
7	39	32	49
8	42	34	53
9	48	38	60
10	54	43	68

- 2.2.2. **Jacking, Boring, or Tunneling.** Design pipe for jacking, boring, or tunneling considering the specific installation conditions such as the soil conditions, installation methods, anticipated deflection angles, and jacking stresses. Provide design notes and drawings signed and sealed by a Texas licensed professional engineer when requested.
- 2.3. **Marking.** Furnish each section of reinforced concrete pipe marked with the following information specified in [DMS-7310](#), "Reinforced Concrete Pipe and Machine-Made Precast Concrete Box Culvert Fabrication and Plant Qualification."
- class or D-load of pipe,
 - ASTM designation,
 - date of manufacture,
 - pipe size,
 - name or trademark of fabricator and plant location,
 - designated fabricator's approval stamp,
 - pipe to be used for jacking and boring (when applicable), and
 - designation "SR" for pipe meeting sulfate-resistant concrete plan requirements (when applicable).
- Clearly mark 1 end of each section during the process of manufacture or immediately thereafter for pipe with elliptical reinforcement. Mark the pipe on the inside and outside of opposite walls to show the location of the top or bottom of the pipe as it should be installed unless the external shape of the pipe is such that the correct position of the top and bottom is obvious. Mark the pipe section by indenting or painting with waterproof paint.
- 2.4. **Inspection.** Provide access for inspection of the finished pipe at the project site before and during installation.
- 2.5. **Causes for Rejection.** Individual section of pipe may be rejected for any of the conditions stated in the Annex of [DMS-7310](#), "Reinforced Concrete Pipe and Machine-Made Precast Concrete Box Culvert Fabrication and Plant Qualification."
- 2.6. **Repairs.** Make repairs if necessary as stated in the Annex of [DMS-7310](#), "Reinforced Concrete Pipe and Machine-Made Precast Concrete Box Culvert Fabrication and Plant Qualification."
- 2.7. **Jointing Materials.** Use any *only rubber gaskets or pre-formed flexible joint sealants* of the following materials for the making of joints unless otherwise shown on the plans. Furnish a manufacturer's certificate of compliance for all jointing materials except mortar.
- 2.7.1. **Mortar.** Provide mortar for joints that meets the requirements of Section 464.3.3., "Jointing."
- 2.7.2. **Cold-Applied, Plastic Asphalt Sewer Joint Compound.** Provide a material that consists of natural or processed asphalt base, suitable volatile solvents, and inert filler. Ensure the consistency is such that the ends of the pipe can be coated with a layer of the compound up to 1/2 in. thick by means of a trowel. Provide

a joint compound that cures to a firm, stiff plastic condition after application. Provide a material of a uniform mixture. Stir any small separation found in the container into a uniform mix before using.

Provide a material that meets the requirements of Table 4 when tested in accordance with [Tex 526-C](#).

Table 4
Cold-Applied, Plastic Asphalt Sewer Joint Compound Material Requirements

Composition	Analysis
Asphalt base, 100%-% volatiles-% ash, % by weight	28-45
Volatiles, 212°F evaporation, 24 hr., % by weight	10-26
Mineral matter, determined as ash, % by weight	30-55
Consistency, cone penetration, 150 g, 5 sec., 77°F	150-275

- 2.7.3. **Rubber Gaskets.** Provide gaskets that conform to ASTM C1619 Class A or C. Meet the requirements of ASTM C443 for design of the pipe joints and permissible variations in dimensions.
- 2.7.4. **Pre-Formed Flexible Joint Sealants.** Pre-formed flexible joint sealants may be used for sealing joints of tongue-and-groove concrete pipe. Provide flexible joint sealants that meet the requirements of ASTM C990. Use flexible joint sealants that do not depend on oxidizing, evaporating, or chemical action for its adhesive or cohesive strength. Supply in extruded rope form of suitable cross-section. Provide a size of the pre-formed flexible joint sealant in accordance with the manufacturer's recommendations and large enough to properly seal the joint. Protect flexible joint sealants with a suitable wrapper able to maintain the integrity of the jointing material when the wrapper is removed.

3. CONSTRUCTION

- 3.1. **Excavation, Shaping, Bedding, and Backfill.** Excavate, shape, bed, and backfill in accordance with Item 400, "Excavation and Backfill for Structures," except where jacking, boring, or tunneling methods are permitted. Jack, bore, or tunnel the pipe in accordance with Item 476, "Jacking, Boring, or Tunneling Pipe or Box." Immediate backfilling is permitted if joints consist of materials other than mortar. Take special precautions in placing and compacting the backfill to avoid any movement of the pipe or damage to the joints. Do not use heavy earth-moving equipment to haul over the structure until a minimum of 4 ft. of permanent or temporary compacted fill has been placed over the structure unless otherwise shown on the plans or permitted in writing. Remove and replace pipe damaged by the Contractor at no expense to the Department.
- 3.2. **Laying Pipe.** Start the laying of pipe on the bedding at the outlet end with the spigot or tongue end pointing downstream, and proceed toward the inlet end with the abutting sections properly matched, true to the established lines and grades unless otherwise authorized. Fit, match, and lay the pipe to form a smooth, uniform conduit. Cut cross trenches in the foundation to allow the barrel of the pipe to rest firmly upon the bedding where bell-and-spigot pipe is used. Cut cross trenches no more than 2 in. larger than the bell ends of the pipe. Lower sections of pipe into the trench without damaging the pipe or disturbing the bedding and the sides of the trench. Carefully clean the ends of the pipe before the pipe is placed. Prevent the earth or bedding material from entering the pipe as it is laid. Lay the pipe in the trench, when elliptical pipe with circular reinforcing or circular pipe with elliptical reinforcing is used, so the markings for the top or bottom are not more than 5° from the vertical plane through the longitudinal axis of the pipe. Remove and re-lay, without extra compensation, pipe that is not in alignment or shows excessive settlement after laying.
- Lay multiple lines of reinforced concrete pipe with the centerlines of the individual barrels parallel. Use the clear distances between outer surfaces of adjacent pipes shown in Table 5 unless otherwise shown on the plans. Use the equivalent diameter from Table 2 or Table 3 for arch pipe or horizontal elliptical pipe to determine the clear distance requirement in Table 5.

Table 5
Minimum Clear Distance between Pipes

Equivalent Diameter	Min Clear Distance
18 in.	9 in.
24 in.	11 in.
30 in.	1 ft. 1 in.
36 in.	1 ft. 3 in.
42 in.	1 ft. 5 in.
48 in.	1 ft. 7 in.
54 in.	1 ft. 11 in.
60 to 84 in.	2 ft.

- 3.3. **Jointing.** Make available an appropriate rolling device similar to an automobile mechanic's "creeper" for conveyance through small-size pipe structures.
- 3.3.1. **Joints Sealed with Hydraulic Cement Mortar.** Use Type S mortar meeting the requirements of ASTM C270. Clean and wet the pipe ends before making the joint. Plaster the lower half of the bell or groove and the upper half of the tongue or spigot with mortar. Pack mortar into the joint from both inside and outside the pipe after the pipes are tightly jointed. Finish the inside smooth and flush with adjacent joints of pipe. Form a bead of semicircular cross-section over tongue-and-groove joints outside the pipe, extending at least 1 in. on each side of the joint. Form the mortar for bell-and-spigot joints to a 45° fillet between the outer edge of the bell and the spigot. Cure mortar joints by keeping the joints wet for at least 48 hr. or until the backfill has been completed, whichever comes first. Place fill or backfill once the mortar jointing material has cured for at least 6 hr. Conduct jointing only when the atmospheric temperature is above 40°F. Protect mortared joints against freezing by backfilling or other approved methods for at least 24 hr.
- Driveway culverts do not require mortar banding on the outside of the pipe.
- Furnish pipes, with approval, that are large enough for a person to enter with the groove between 1/2 in. and 3/4 in. longer than the tongue. Such pipe may be laid and backfilled without mortar joints. Clean the space on the interior of the pipe between the end of the tongue and the groove of all foreign material, thoroughly wet and fill with mortar around the entire circumference of the pipe, and finish flush after the backfilling has been completed.
- 3.3.2. **Joints Using Cold-Applied, Plastic Asphalt Sewer Joint Compound.** Ensure both ends of the pipes are clean and dry. Trowel or otherwise place a 1/2-in. thick layer of the compound in the groove end of the pipe covering at least 2/3 of the joint face around the entire circumference. Shove home the tongue end of the next pipe with enough pressure to make a tight joint. Remove any excess mastic projecting into the pipe after the joint is made. Backfill after the joint has been inspected and approved.
- 3.3.3. **Joints Using Rubber Gaskets.** Make the joint assembly according to the recommendations of the gasket manufacturer. Make joints watertight when using rubber gaskets. Backfill after the joint has been inspected and approved.
- 3.3.4. **Joints Using Pre-Formed Flexible Joint Sealants.** Install pre-formed flexible joint sealants in accordance with the manufacturer's recommendations. Place the joint sealer so no dirt or other deleterious materials come in contact with the joint sealing material. Pull or push home the pipe with enough force to properly seal the joint. Remove any joint material pushed out into the interior of the pipe that would tend to obstruct the flow. Store pre-formed flexible joint sealants in an area warmed naturally or artificially to above 70°F in an approved manner when the atmospheric temperature is below 60°F. Apply flexible joint sealants to pipe joints immediately before placing pipe in trench, and connect pipe to previously laid pipe. Backfill after the joint has been inspected and approved.
- 3.4. **Connections and Stub Ends.** Make connections of concrete pipe to existing pipes, pipe storm drains, or storm drain appurtenances as shown on the plans.

Mortar or concrete the bottom of existing structures if necessary to eliminate any drainage pockets created by the connections. Repair any damage to the existing structure resulting from making the connections.

Connections using mortar, concrete or other material to existing structures shall be completed in a manner that creates a watertight seal between the pipe and structure. Contractor shall also repair any holes to the existing structure created by the removal of existing pipe.

Make connections between concrete pipe and corrugated metal pipe with a suitable concrete collar and a minimum thickness of 4 in. unless otherwise shown on the plans.

Finish stub ends for connections to future work not shown on the plans by installing watertight plugs into the free end of the pipe.

Fill lift holes with concrete, mortar, or precast concrete plugs after the pipe is in place.

4. MEASUREMENT

This Item will be measured by the foot. Measurement will be made between the ends of the pipe barrel along the flow line, not including safety end treatments. Safety end treatments will be measured in accordance with Item 467, "Safety End Treatment." ~~Pipe that will be jacked, bored, or tunneled will be measured in accordance with Item 476, "Jacking, Boring, or Tunneling Pipe or Box."~~ Measurement of spurs, branches, or new connecting pipe will be made from the intersection of the flow line with the outside surface of the pipe into which it connects. Where inlets, headwalls, catch basins, manholes, junction chambers, or other structures are included in lines of pipe, the length of pipe tying into the structure wall will be included for measurement, but no other portion of the structure length or width will be included.

For multiple pipes, the measured length will be the sum of the lengths of the barrels.

This is a plans quantity measurement Item. The quantity to be paid is the quantity shown in the proposal unless modified by Article 9.2., "Plans Quantity Measurement." Additional measurements or calculations will be made if adjustments of quantities are required.

Pipe connection to existing inlet shall be measured per each.

5. PAYMENT

The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Reinforced Concrete Pipe," "Reinforced Concrete Pipe (Arch)," or "Reinforced Concrete Pipe (Elliptical)" of the size and D-load specified or of the size and class specified. This price is full compensation for constructing, furnishing, transporting, placing, and joining pipes; shaping the bed; cutting pipes on skew or slope; connecting to new or existing structures (***if not specified to be paid for separately***); breaking back, removing, and disposing of portions of the existing structure; replacing portions of the existing structure; cutting pipe ends on skew or slope; and equipment, labor, tools, and incidentals.

Protection methods for excavations greater than 5 ft. deep will be ***considered subsidiary to site preparation and shall adhere to*** ~~measured and paid for as required under Item 402, "Trench Excavation Protection," or Item 403, "Temporary Special Shoring." Excavation, shaping, bedding, and backfill will be paid for in accordance with Item 400, "Excavation and Backfill for Structures."~~ ***considered subsidiary to the pertinent item within this specification.*** ~~When jacking, boring, or tunneling is used at the Contractor's option, payment will be made under this Item. When jacking, boring or tunneling is required, payment will be made under Item 476, "Jacking, Boring or Tunneling Pipe or Box."~~

The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Pipe Connection to Existing Inlet". This price is full compensation for constructing, furnishing, transporting, placing, and connecting pipes; shaping the bed; cutting pipes on skew or slope; connecting to new or existing structures; breaking back, removing, and disposing of portions of the existing structure; replacing portions of the existing structure; replacing portions of the existing structure; cutting pipe ends on skew or slope; and equipment, labor, tools, and incidentals.

Payment will be made under:

- | | |
|------------------------|---|
| <i>Item TX-464-5.1</i> | <i>Reinforced Concrete Pipe, 18", Class III —per Linear Foot</i> |
| <i>Item TX-464-5.2</i> | <i>Reinforced Concrete Pipe, 24", Class III — per Linear Foot</i> |
| <i>Item TX-464-5.3</i> | <i>Pipe Connection to Existing Inlet — per Each</i> |

Item 496

Removing Structures



1. DESCRIPTION

Remove and either dispose of or salvage structures.

2. CONSTRUCTION

- 2.1. **Demolition Plans.** Follow the demolition sequence shown on the plans. ~~for bridge structures to be removed, or submit a demolition plan if indicated on the plans. Include in the required demolition plan the type and location of equipment to be used, the method and sequence of removal of the structural elements, and a narrative indicating the stability of the partially demolished structure is maintained throughout the demolition process. Have these plans signed and sealed by a licensed professional engineer when demolished structure intersects active roadways and as otherwise shown on the plans. Submit required demolition plans at least 14 days before starting work unless otherwise directed. Department approval of these plans is not required, but the Department reserves the right to request modifications to the plans when work could affect the safety of the traveling public and when around other transportation facilities to remain in place. Notify the Department 30 days before starting any bridge demolition work to allow for required notifications to other agencies.~~
- 2.2. **Removal.**
- 2.2.1. **Pipes.** Avoid damaging appurtenances determined by the Engineer to be salvageable.
- 2.2.2. **Concrete, Brick, or Stone Structures.** Portions of structures that will not interfere with the proposed construction may remain in place 2 ft. or more below the permanent ground line. Square off remaining structures and cut reinforcement flush with the surface of the concrete.
- 2.2.3. **Steel Structures.** Dismantle steel to be retained by the Department or re-erected by cold-cutting fastener heads and punching or drilling the remaining portion of the fastener, air-arc gouging welded connections, and flame-cutting beams along a straight line. The Engineer may approve other methods of cutting. Cut beams at the locations shown on the plans. Match-mark steel to be re-erected with paint in accordance with the erection drawings. Remove steel piles or cut off 2 ft. or more below the permanent ground line.
- 2.2.4. **Timber Structures.** ~~Remove all fasteners from timber determined by the engineer to be salvageable. Remove timber piles, or cut off 2 ft. or more below the permanent ground line.~~
- 2.3. **Salvage.** Avoid damage to materials shown on the plans to be salvaged. Deliver materials to be retained by the Department to the location shown on the plans. Block up salvaged steel materials off the ground.
- 2.4. **Disposal.** Material removed that is not deemed to be salvageable is the property of the Contractor. Dispose of removed material off the right of way in accordance with federal, state, and local regulations.
- 2.5. **Backfill.** Backfill excavation and voids to the original ground line if resulting from the removal of structures. Place backfill that will support any portion of the roadbed or embankment to the same requirements for placing embankment. Backfill other areas in 10 in. layers, loose measurement, and compact to the density of adjacent undisturbed material.

3. MEASUREMENT

This Item will be measured by each structure or by the foot. ***Pipe removal shall be measured by the linear foot.***

Safety End Treatment removal shall be measured per each structure being removed.

4. PAYMENT

The work performed in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "~~Removing Structures~~" **Pipe Removal** of the type of structure specified. This price is full compensation for demolition plan preparation, loading, hauling, disposal, stockpiling, removal of appurtenances, excavation and backfill, equipment, labor, tools, and incidentals.

The work performed in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "~~Removing Structures~~" **Safety end treatment removal** of the type of structure specified. **The diameter specified in the pay item is referring to the diameter of the pipe in which it is connected to.** This price is full compensation for demolition plan preparation, loading, hauling, disposal, stockpiling, removal of appurtenances, excavation and backfill, equipment, labor, tools, and incidentals.

Payment will be made under:

Item TX 496-5.1

Pipe Removal (Less than 30" Diameter)—per Linear Foot

Item TX 496-5.2

Safety End Treatment Removal (Less than 30" Diameter)—per Linear Foot

Item 502

Barricades, Signs, and Traffic Handling



1. DESCRIPTION

Provide, install, move, replace, maintain, clean, and remove all traffic control devices shown on the plans and as directed.

2. CONSTRUCTION

Comply with the requirements of Article 7.2., "Safety". Implement the traffic control plan (TCP) ~~shown on the plans~~ **according to the TXDOT standard details shown in the plans and available through TxDOT.**

Contractor shall submit a traffic control plan to the Engineer for approval.

Install traffic control devices straight and plumb. Make changes to the TCP only as approved. Minor adjustments to meet field conditions are allowed.

Submit Contractor-proposed TCP changes, signed and sealed by a licensed professional engineer, for approval. The Engineer may develop, sign, and seal Contractor-proposed changes. Changes must conform to guidelines established in the TMUTCD using approved products from the Department's Compliant Work Zone Traffic Control Device List.

Maintain traffic control devices by taking corrective action when notified. Corrective actions include, but are not limited to, cleaning, replacing, straightening, covering, and removing devices. Maintain the devices such that they are properly positioned and spaced, legible, and have retroreflective characteristics that meet requirements day or night and in all weather conditions.

The Engineer may authorize or direct in writing the removal or relocation of project limit advance warning signs. When project limit advance warning signs are removed before final acceptance, provide traffic control in accordance with the TMUTCD for minor operations as approved.

Remove all traffic control devices upon completion of the work as shown on the plans or as directed. **Contractor is responsible for removing traffic control devices when work and/or site conditions requiring the devices is not being conducted. Contractor is responsible for replacing barricades when work commences.**

3. MEASUREMENT

Barricades, Signs, and Traffic Handling will be ~~measured by the month~~ **are not measured for separate payment but shall be considered subsidiary to site preparation.** Law enforcement personnel with patrol vehicles will be measured by the hour for each person **are not required.**

4. PAYMENT

- 4.1. **Barricades, Signs, and Traffic Handling.** ~~Except for Contracts with callout work and work orders, the work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Barricades, Signs, and Traffic Handling." This price is full compensation for installation, maintenance, adjustments, replacements, removal, materials, equipment, labor, tools, and incidentals.~~ **Barricades, Signs, and Traffic Handling is not measured for separate payment.**

~~The work performed and materials furnished in accordance with this Item and measured as provided under~~

"Measurement" will be paid for at the unit price bid for "Barricades, Signs, and Traffic Handling." This price is full compensation for installation, maintenance, adjustments, replacements, removal, materials, equipment, labor, tools, and incidentals.

When the plans establish pay items for particular work in the TCP, that work will be measured and paid under pertinent items.

- 4.1.1. **Initiation of Payment.** Payment for this Item will begin on the first estimate after barricades, signs, and traffic handling devices have been installed in accordance with the TCP and construction has begun.
- 4.1.2. **Paid Months.** Monthly payment will be made each succeeding month for this Item provided the barricades, signs, and traffic handling devices have been installed and maintained in accordance with the TCP until the Contract amount has been paid.
- If, within the time frame established by the Engineer, the Contractor fails to provide or properly maintain signs and barricades in compliance with the Contract requirements, as determined by the Engineer, the Contractor will be considered in noncompliance with this Item. No payment will be made for the months in question, and the total final payment quantity will be reduced by the number of months the Contractor was in noncompliance.
- 4.1.3. **Maximum Total Payment Before Acceptance.** The total payment for this Item will not exceed 10% of the total Contract amount before final acceptance in accordance with Article 5.12., "Final Acceptance." The remaining balance will be paid in accordance with Section 502.4.5., "Balance Due."
- 4.1.4. **Total Payment Quantity.** The quantity paid under this Item will not exceed the total quantity shown on the plans except as modified by change order and as adjusted by Section 502.4.2., "Paid Months." An overrun of the plans quantity for this Item will not be allowed for approving designs; testing; material shortages; closed construction seasons; curing periods; establishment, performance, test, and maintenance periods; failure to complete the work in the number of months allotted; nor delays caused directly or indirectly by requirements of the Contract.
- 4.1.5. **Balance Due.** The remaining unpaid months of barricades less non-compliance months will be paid on final acceptance of the project, if all work is complete and accepted in accordance with Article 5.12., "Final Acceptance."
- 4.1.6. **Contracts with Callout Work and Work Orders.** The work performed and the materials furnished with this Item and measured as provided under "Measurement," will be considered subsidiary to pertinent items, except for federally funded Contracts.
- 4.2. **Law Enforcement Personnel.** The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement," will be paid by Contractor force account for "Law Enforcement Personnel." This price is full compensation for furnishing all labor, materials, supplies, equipment, patrol vehicle, fees, and incidentals necessary to complete the work as directed.

Item 506

Temporary Erosion, Sedimentation, and Environmental Controls



1. DESCRIPTION

Install, maintain, and remove erosion, sedimentation, and environmental control measures to prevent or reduce the discharge of pollutants in accordance with the Storm Water Pollution Prevention Plan (SWP3) on the plans and the Texas Pollutant Discharge Elimination System (TPDES) General Permit TXR150000. Control measures are defined as Best Management Practices used to prevent or reduce the discharge of pollutants. Control measures include, but are not limited to, rock filter dams, temporary pipe slope drains, temporary paved flumes, construction exits, earthwork for erosion control, pipe, construction perimeter fence, sandbags, temporary sediment control fence, biodegradable erosion control logs, vertical tracking, temporary or permanent seeding, and other measures. Erosion and sediment control devices must be selected from the *Erosion Control Approved Products* or *Sediment Control Approved Products* lists. Perform work in a manner to prevent degradation of receiving waters, facilitate project construction, and comply with applicable federal, state, and local regulations. Ensure the installation and maintenance of control measures is performed in accordance with the manufacturer's or designer's specifications.

Provide the Contractor Certification of Compliance before performing SWP3 or soil disturbing activities. By signing the Contractor Certification of Compliance, the Contractor certifies they have read and understand the requirements applicable to this project pertaining to the SWP3, the plans, and the TPDES General Permit TXR150000. The Contractor is responsible for any penalties associated with non-performance of installation or maintenance activities required for compliance. Ensure the most current version of the certificate is executed for this project.

2. MATERIALS

Furnish materials in accordance with the following:

- Item 161, "Compost"
- Item 432, "Riprap"
- Item 556, "Pipe Underdrains"

2.1. Rock Filter Dams.

2.1.1. **Aggregate.** Furnish aggregate with approved hardness, durability, cleanliness, and resistance to crumbling, flaking, and eroding. Provide the following:

- Types 1, 2, and 4 Rock Filter Dams. Use 3 to 6 in. aggregate.
- Type 3 Rock Filter Dams. Use 4 to 8 in. aggregate.

2.1.2. **Wire.** Provide minimum 20 gauge galvanized wire for the steel wire mesh and tie wires for Types 2 and 3 rock filter dams. Type 4 dams require:

- a double-twisted, hexagonal weave with a nominal mesh opening of 2-1/2 × 3-1/4 in.;
- minimum 0.0866 in. steel wire for netting;
- minimum 0.1063 in. steel wire for selvages and corners; and
- minimum 0.0866 in. for binding or tie wire.

2.1.3. **Sandbag Material.** Furnish sandbags meeting Section 506.2.8., "Sandbags," except that any gradation of aggregate may be used to fill the sandbags.

- 2.2. **Temporary Pipe Slope Drains.** Provide corrugated metal pipe, polyvinyl chloride (PVC) pipe, flexible tubing, watertight connection bands, grommet materials, prefabricated fittings, and flared entrance sections that conform to the plans. Recycled and other materials meeting these requirements are allowed if approved.
- Furnish concrete in accordance with Item 432, "Riprap."
- 2.3. **Temporary Paved Flumes.** Furnish asphalt concrete, hydraulic cement concrete, or other comparable non-erodible material that conforms to the plans. Provide rock or rubble with a minimum diameter of 6 in. and a maximum volume of 1/2 cu. ft. for the construction of energy dissipaters.
- 2.4. **Construction Exits.** Provide materials that meet the details shown on the plans and this Section.
- 2.4.1. **Rock Construction Exit.** Provide crushed aggregate for long- and short-term construction exits. Furnish aggregates that are clean, hard, durable, and free from adherent coatings such as salt, alkali, dirt, clay, loam, shale, soft or flaky materials, and organic and injurious matter. Use 4- to 8-in. aggregate for Type 1. Use 2- to 4-in. aggregate for Type 3.
- 2.4.2. **Timber Construction Exit.** Furnish No. 2 quality or better railroad ties and timbers for long-term construction exits, free of large and loose knots and treated to control rot. Fasten timbers with nuts and bolts or lag bolts, of at least 1/2 in. diameter, unless otherwise shown on the plans or allowed. Provide plywood or pressed wafer board at least 1/2 in. thick for short-term exits.
- 2.4.3. **Foundation Course.** Provide a foundation course consisting of flexible base, bituminous concrete, hydraulic cement concrete, or other materials as shown on the plans or directed.
- 2.5. **Embankment for Erosion Control.** Provide rock, loam, clay, topsoil, or other earth materials that will form a stable embankment to meet the intended use.
- 2.6. **Pipe.** Provide pipe outlet material in accordance with Item 556, "Pipe Underdrains," and details shown on the plans.
- 2.7. **Construction Perimeter Fence.**
- 2.7.1. **Posts.** Provide essentially straight wood or steel posts that are at least 60 in. long. Furnish soft wood posts with a minimum diameter of 3 in., or use nominal 2 × 4 in. boards. Furnish hardwood posts with a minimum cross-section of 1-1/2 × 1-1/5 in. Furnish T- or L-shaped steel posts with a minimum weight of 0.5 lb. per foot.
- 2.7.2. **Fence.** Provide orange construction fencing as approved.
- 2.7.3. **Fence Wire.** Provide 11 gauge or larger galvanized smooth or twisted wire. Provide 16 gauge or larger tie wire.
- 2.7.4. **Flagging.** Provide brightly-colored flagging that is fade-resistant and at least 3/4 in. wide to provide maximum visibility both day and night.
- 2.7.5. **Staples.** Provide staples with a crown at least 1/2 in. wide and legs at least 1/2 in. long.
- 2.7.6. **Used Materials.** Previously used materials meeting the applicable requirements may be used if approved.
- 2.8. **Sandbags.** Provide sandbag material of polypropylene, polyethylene, or polyamide woven fabric with a minimum unit weight of 4 oz. per square yard, a Mullen burst-strength exceeding 300 psi, and an ultraviolet stability exceeding 70%.
- Use natural coarse sand or manufactured sand meeting the gradation given in Table 1 to fill sandbags. Filled sandbags must be 24 to 30 in. long, 16 to 18 in. wide, and 6 to 8 in. thick.

Table 1
Sand Gradation

Sieve Size	Retained (% by Weight)
#4	Maximum 3%
#100	Minimum 80%
#200	Minimum 95%

Aggregate may be used instead of sand for situations where sandbags are not adjacent to traffic. The aggregate size must not exceed 3/8 in.

- 2.9. **Temporary Sediment Control Fence.** Provide a net-reinforced fence using woven geo-textile fabric. Logos visible to the traveling public will not be allowed.
- 2.9.1. **Fabric.** Provide fabric materials in accordance with DMS-6230, "Temporary Sediment Control Fence Fabric."
- 2.9.2. **Posts.** Provide essentially straight wood or steel posts with a minimum length of 48 in., unless otherwise shown on the plans. Furnish soft wood posts at least 3 in. in diameter, or use nominal 2 × 4 in. boards. Furnish hardwood posts with a minimum cross-section of 1-1/2 × 1-1/2 in. Furnish T- or L-shaped steel posts with a minimum weight of 1.3 lb. per foot.
- 2.9.3. **Net Reinforcement.** Provide net reinforcement of at least 12-1/2 gauge galvanized welded wire mesh, with a maximum opening size of 2 × 4 in., at least 24 in. wide, unless otherwise shown on the plans.
- 2.9.4. **Staples.** Provide staples with a crown at least 3/4 in. wide and legs 1/2 in. long.
- 2.9.5. **Used Materials.** Use recycled material meeting the applicable requirements if approved.
- 2.10. **Biodegradable Erosion Control Logs.**
- 2.10.1. **Core Material.** Furnish core material that is biodegradable or recyclable. Use compost, mulch, aspen excelsior wood fibers, chipped site vegetation, agricultural rice or wheat straw, coconut fiber, 100% recyclable fibers, or any other acceptable material unless specifically called out on the plans. Permit no more than 5% of the material to escape from the containment mesh. Furnish compost meeting the requirements of Item 161, "Compost."
- 2.10.2. **Containment Mesh.** Furnish containment mesh that is 100% biodegradable, photodegradable, or recyclable such as burlap, twine, UV photodegradable plastic, polyester, or any other acceptable material.
- Furnish biodegradable or photodegradable containment mesh when log will remain in place as part of a vegetative system.
- Furnish recyclable containment mesh for temporary installations.
- 2.10.3. **Size.** Furnish biodegradable erosion control logs with diameters shown on the plans or as directed. Stuff containment mesh densely so logs do not deform.

3. QUALIFICATIONS, TRAINING, AND EMPLOYEE REQUIREMENTS

- 3.1. **Contractor Responsible Person Environmental (CRPE) Qualifications and Responsibilities.** Provide and designate in writing at the preconstruction conference a CRPE and alternate CRPE who have overall responsibility for the storm water management program. The CRPE will implement storm water and erosion control practices; will oversee and observe storm water control measure monitoring and management; will monitor the project site daily and produce daily monitoring reports as long as there are BMPs in place or soil disturbing activities are evident to ensure compliance with the SWP3 and TPDES General Permit TXR150000. During time suspensions when work is not occurring or on contract non-work days, daily inspections are not required unless a rain event has occurred. The CRPE will provide recommendations on

how to improve the effectiveness of control measures. Attend the Department's preconstruction conference for the project. Ensure training is completed as identified in Section 506.3.3., "Training," by all applicable personnel before employees work on the project. Document and submit a list, signed by the CRPE, of all applicable Contractor and subcontractor employees who have completed the training. Include the employee's name, the training course name, and date the employee completed the training. Provide the most current list at the preconstruction conference or before SWP3 or soil disturbing activities. Update the list as needed and provide the updated list when updated.

- 3.2. **Contractor Superintendent Qualifications and Responsibilities.** Provide a superintendent that is competent, has experience with and knowledge of storm water management, and is knowledgeable of the requirements and the conditions of the TPDES General Permit TXR150000. The superintendent will manage and oversee the day to day operations and activities at the project site; work with the CRPE to provide effective storm water management at the project site; represent and act on behalf of the Contractor; and attend the Department's preconstruction conference for the project.

3.3. **Training.** All Contractor and subcontractor employees involved in soil disturbing activities, small or large structures, storm water control measures, and seeding activities must complete training as prescribed by the Department.

4. CONSTRUCTION

- 4.1. **Contractor Responsibilities.** Implement the SWP3 for the project site in accordance with the plans and specifications, TPDES General Permit TXR150000, and as directed. Coordinate storm water management with all other work on the project. Develop and implement an SWP3 for project-specific material supply plants within and outside of the Department's right of way in accordance with the specific or general storm water permit requirements. Prevent water pollution from storm water associated with construction activity from entering any surface water or private property on or adjacent to the project site.

- 4.2. **Implementation.** The CRPE, or alternate CRPE, must be accessible by phone and able to respond to project-related storm water management or other environmental emergencies 24 hr. per day.

- 4.2.1. **Commencement.** Implement the SWP3 as shown and as directed. Contractor-proposed recommendations for changes will be allowed as approved. Conform to the established guidelines in the TPDES General Permit TXR150000 to make changes. Do not implement changes until approval has been received and changes have been incorporated into the plans. Minor adjustments to meet field conditions are allowed and will be recorded in the SWP3.

- 4.2.2. **Phasing.** Implement control measures before the commencement of activities that result in soil disturbance. Phase and minimize the soil disturbance to the areas shown on the plans. Coordinate temporary control measures with permanent control measures and all other work activities on the project to assure economical, effective, safe, and continuous water pollution prevention. Provide control measures that are appropriate to the construction means, methods, and sequencing allowed by the Contract. Exercise precaution throughout the life of the project to prevent pollution of ground waters and surface waters. Schedule and perform clearing and grubbing operations so that stabilization measures will follow immediately thereafter if project conditions permit. Bring all grading sections to final grade as soon as possible and implement temporary and permanent control measures at the earliest time possible. Implement temporary control measures when required by the TPDES General Permit TXR150000 or otherwise necessitated by project conditions.

Do not prolong final grading and shaping. Preserve vegetation where possible throughout the project, and minimize clearing, grubbing, and excavation within stream banks, bed, and approach sections.

- 4.3. **General.**

- 4.3.1. **Temporary Alterations or Control Measure Removal.** Altering or removal of control measures is allowed when control measures are restored within the same working day.

- 4.3.2. **Stabilization.** Initiate stabilization for disturbed areas no more than 14 days after the construction activities in that portion of the site have temporarily or permanently ceased. Establish a uniform vegetative cover or use another stabilization practice in accordance with the TPDES General Permit TXR150000.
- 4.3.3. **Finished Work.** Remove and dispose of all temporary control measures upon acceptance of vegetative cover or other stabilization practice unless otherwise directed. Complete soil disturbing activities and establish a uniform perennial vegetative cover. A project will not be considered for acceptance until a vegetative cover of 70% density of existing adjacent undisturbed areas is obtained or equivalent permanent stabilization is obtained in accordance with the TPDES General Permit TXR150000. An exception will be allowed in arid areas as defined in the TPDES General Permit TXR150000.
- 4.3.4. **Restricted Activities and Required Precautions.** Do not discharge onto the ground or surface waters any pollutants such as chemicals, raw sewage, fuels, lubricants, coolants, hydraulic fluids, bitumens, or any other petroleum product. Operate and maintain equipment on-site to prevent actual or potential water pollution. Manage, control, and dispose of litter on-site such that no adverse impacts to water quality occur. Prevent dust from creating a potential or actual unsafe condition, public nuisance, or condition endangering the value, utility, or appearance of any property. Wash out concrete trucks only as described in the TPDES General Permit TXR150000. Use appropriate controls to minimize the offsite transport of suspended sediments and other pollutants if it is necessary to pump or channel standing water (i.e., dewatering). Prevent discharges that would contribute to a violation of Edwards Aquifer Rules, water quality standards, the impairment of a listed water body, or other state or federal law.
- 4.4. **Installation, Maintenance, and Removal Work.** Perform work in accordance with the SWP3, according to manufacturers' guidelines, and in accordance with the TPDES General Permit TXR150000. Install and maintain the integrity of temporary erosion and sedimentation control devices to accumulate silt and debris until soil disturbing activities are completed and permanent erosion control features are in place or the disturbed area has been adequately stabilized as approved.

The Department will inspect and document the condition of the control measures at the frequency shown on the plans and will provide the Construction SWP3 Field Inspection and Maintenance Reports to the Contractor. Make corrections as soon as possible before the next anticipated rain event or within 7 calendar days after being able to enter the worksite for each control measure. The only acceptable reason for not accomplishing the corrections with the time frame specified is when site conditions are "Too Wet to Work." Take immediate action if a correction is deemed critical as directed. When corrections are not made within the established time frame, all work will cease on the project and time charges will continue while the control measures are brought into compliance. Commence work once the Engineer reviews and documents the project is in compliance. Commencing work does not release the Contractor of the liability for noncompliance of the SWP3, plans, or TPDES General Permit TXR150000.

The Engineer may limit the disturbed area if the Contractor cannot control soil erosion and sedimentation resulting from the Contractor's operations. Implement additional controls as directed.

Remove devices upon approval or as directed. Finish-grade and dress the area upon removal. Stabilize disturbed areas in accordance with the permit, and as shown on the plans or directed. Materials removed are considered consumed by the project. Retain ownership of stockpiled material and remove it from the project when new installations or replacements are no longer required.

- 4.4.1. **Rock Filter Dams for Erosion Control.** Remove trees, brush, stumps, and other objectionable material that may interfere with the construction of rock filter dams. Place sandbags as a foundation when required or at the Contractor's option.

Place the aggregate to the lines, height, and slopes specified, without undue voids for Types 1, 2, 3, and 5. Place the aggregate on the mesh and then fold the mesh at the upstream side over the aggregate and secure it to itself on the downstream side with wire ties, or hog rings for Types 2 and 3, or as directed. Place rock filter dams perpendicular to the flow of the stream or channel unless otherwise directed. Construct filter dams according to the following criteria unless otherwise shown on the plans:

- 4.4.1.1. **Type 1 (Non-Reinforced).**
- **Height.** At least 18 in. measured vertically from existing ground to top of filter dam.
 - **Top Width.** At least 2 ft.
 - **Slopes.** No steeper than 2:1.
- 4.4.1.2. **Type 2 (Reinforced).**
- **Height.** At least 18 in. measured vertically from existing ground to top of filter dam.
 - **Top Width.** At least 2 ft.
 - **Slopes.** No steeper than 2:1.
- 4.4.1.3. **Type 3 (Reinforced).**
- **Height.** At least 36 in. measured vertically from existing ground to top of filter dam.
 - **Top Width.** At least 2 ft.
 - **Slopes.** No steeper than 2:1.
- 4.4.1.4. **Type 4 (Sack Gabions).** Unfold sack gabions and smooth out kinks and bends. Connect the sides by lacing in a single loop–double loop pattern on 4- to 5-in. spacing for vertical filling. Pull the end lacing rod at one end until tight, wrap around the end, and twist 4 times. Fill with stone at the filling end, pull the rod tight, cut the wire with approximately 6 in. remaining, and twist wires 4 times.
- Place the sack flat in a filling trough, fill with stone, connect sides, and secure ends as described above for horizontal filling.
- Lift and place without damaging the gabion. Shape sack gabions to existing contours.
- 4.4.1.5. **Type 5.** Provide rock filter dams as shown on the plans.
- 4.4.2. **Temporary Pipe Slope Drains.** Install pipe with a slope as shown on the plans or as directed. Construct embankment for the drainage system in 8-in. lifts to the required elevations. Hand-tamp the soil around and under the entrance section to the top of the embankment as shown on the plans or as directed. Form the top of the embankment or earth dike over the pipe slope drain at least 1 ft. higher than the top of the inlet pipe at all points. Secure the pipe with hold-downs or hold-down grommets spaced a maximum of 10 ft. on center. Construct the energy dissipaters or sediment traps as shown on the plans or as directed. Construct the sediment trap using concrete or rubble riprap in accordance with Item 432, "Riprap," when designated on the plans.
- 4.4.3. **Temporary Paved Flumes.** Construct paved flumes as shown on the plans or as directed. Provide excavation and embankment (including compaction of the subgrade) of material to the dimensions shown on the plans unless otherwise indicated. Install a rock or rubble riprap energy dissipater, constructed from the materials specified above, to a minimum depth of 9 in. at the flume outlet to the limits shown on the plans or as directed.
- 4.4.4. **Construction Exits.** Prevent traffic from crossing or exiting the construction site or moving directly onto a public roadway, alley, sidewalk, parking area, or other right of way areas other than at the location of construction exits when tracking conditions exist. Construct exits for either long- or short-term use.
- 4.4.4.1. **Long-Term.** Place the exit over a foundation course as required. Grade the foundation course or compacted subgrade to direct runoff from the construction exits to a sediment trap as shown on the plans or as directed. Construct exits with a width of at least 14 ft. for one-way and 20 ft. for two-way traffic for the full width of the exit, or as directed.
- 4.4.4.1.1. **Type 1.** Construct to a depth of at least 8 in. using crushed aggregate as shown on the plans or as directed.
- 4.4.4.1.2. **Type 2.** Construct using railroad ties and timbers as shown on the plans or as directed.

- 4.4.4.2. **Short-Term.**
- 4.4.4.2.1. **Type 3.** Construct using crushed aggregate, plywood, or wafer board. This type of exit may be used for daily operations where long-term exits are not practical.
- 4.4.4.2.2. **Type 4.** Construct as shown on the plans or as directed.
- 4.4.5. **Earthwork for Erosion Control.** Perform excavation and embankment operations to minimize erosion and to remove collected sediments from other erosion control devices.
- 4.4.5.1. **Excavation and Embankment for Erosion Control Features.** Place earth dikes, swales, or combinations of both along the low crown of daily lift placement, or as directed, to prevent runoff spillover. Place swales and dikes at other locations as shown on the plans or as directed to prevent runoff spillover or to divert runoff. Construct cuts with the low end blocked with undisturbed earth to prevent erosion of hillsides. Construct sediment traps at drainage structures in conjunction with other erosion control measures as shown on the plans or as directed.
- Create a sediment basin, where required, providing 3,600 cu. ft. of storage per acre drained, or equivalent control measures for drainage locations that serve an area with 10 or more disturbed acres at one time, not including offsite areas.
- 4.4.5.2. **Excavation of Sediment and Debris.** Remove sediment and debris when accumulation affects the performance of the devices, after a rain, and when directed.
- 4.4.6. **Construction Perimeter Fence.** Construct, align, and locate fencing as shown on the plans or as directed.
- 4.4.6.1. **Installation of Posts.** Embed posts 18 in. deep or adequately anchor in rock, with a spacing of 8 to 10 ft.
- 4.4.6.2. **Wire Attachment.** Attach the top wire to the posts at least 3 ft. from the ground. Attach the lower wire midway between the ground and the top wire.
- 4.4.6.3. **Flag Attachment.** Attach flagging to both wire strands midway between each post. Use flagging at least 18 in. long. Tie flagging to the wire using a square knot.
- 4.4.7. **Sandbags for Erosion Control.** Construct a berm or dam of sandbags that will intercept sediment-laden storm water runoff from disturbed areas, create a retention pond, detain sediment, and release water in sheet flow. Fill each bag with sand so that at least the top 6 in. of the bag is unfilled to allow for proper tying of the open end. Place the sandbags with their tied ends in the same direction. Offset subsequent rows of sandbags 1/2 the length of the preceding row. Place a single layer of sandbags downstream as a secondary debris trap. Place additional sandbags as necessary or as directed for supplementary support to berms or dams of sandbags or earth.
- 4.4.8. **Temporary Sediment-Control Fence.** Provide temporary sediment-control fence near the downstream perimeter of a disturbed area to intercept sediment from sheet flow. Incorporate the fence into erosion-control measures used to control sediment in areas of higher flow. Install the fence as shown on the plans, as specified in this Section, or as directed.
- 4.4.8.1. **Installation of Posts.** Embed posts at least 18 in. deep, or adequately anchor, if in rock, with a spacing of 6 to 8 ft. and install on a slight angle toward the runoff source.
- 4.4.8.2. **Fabric Anchoring.** Dig trenches along the uphill side of the fence to anchor 6 to 8 in. of fabric. Provide a minimum trench cross-section of 6 × 6 in. Place the fabric against the side of the trench and align approximately 2 in. of fabric along the bottom in the upstream direction. Backfill the trench, then hand-tamp.
- 4.4.8.3. **Fabric and Net Reinforcement Attachment.** Attach the reinforcement to wooden posts with staples, or to steel posts with T-clips, in at least 4 places equally spaced unless otherwise shown on the plans. Sewn

vertical pockets may be used to attach reinforcement to end posts. Fasten the fabric to the top strand of reinforcement by hog rings or cord every 15 in. or less.

- 4.4.8.4. **Fabric and Net Splices.** Locate splices at a fence post with a minimum lap of 6 in. attached in at least 6 places equally spaced unless otherwise shown on the plans. Do not locate splices in concentrated flow areas.

Requirements for installation of used temporary sediment-control fence include the following:

- fabric with minimal or no visible signs of biodegradation (weak fibers),
- fabric without excessive patching (more than 1 patch every 15 to 20 ft.),
- posts without bends, and
- backing without holes.

- 4.4.9. **Biodegradable Erosion Control Logs.** Install biodegradable erosion control logs near the downstream perimeter of a disturbed area to intercept sediment from sheet flow. Incorporate the biodegradable erosion control logs into the erosion measures used to control sediment in areas of higher flow. Install, align, and locate the biodegradable erosion control logs as specified below, as shown on the plans, or as directed.

Secure biodegradable erosion control logs in a method adequate to prevent displacement as a result of normal rain events, prevent damage to the logs, and as approved, such that flow is not allowed under the logs. Temporarily removing and replacing biodegradable erosion logs as to facilitate daily work is allowed at the Contractor's expense.

- 4.4.10. **Vertical Tracking.** Perform vertical tracking on slopes to temporarily stabilize soil. Provide equipment with a track undercarriage capable of producing a linear soil impression measuring a minimum of 12 in. long × 2 to 4 in. wide × 1/2 to 2 in. deep. Do not exceed 12 in. between track impressions. Install continuous linear track impressions where the 12 in. length impressions are perpendicular to the slope. Vertical tracking is required on projects where soil disturbing activities have occurred unless otherwise approved.

- 4.5. **Monitoring and Documentation.** Monitor the control measures on a daily basis as long as there are BMPs in place and/or soil disturbing activities are evident to ensure compliance with the SWP3 and TPDES General Permit TXR150000. During time suspensions when work is not occurring or contract non-work days, daily inspections are not required unless a rain event has occurred. Monitoring will consist of, but is not limited to, observing, inspecting, and documenting site locations with control measures and discharge points to provide maintenance and inspection of controls as described in the SWP3. Keep written records of daily monitoring. Document in the daily monitoring report the control measure condition, the date of inspection, required corrective actions, responsible person for making the corrections, and the date corrective actions were completed. Maintain records of all monitoring reports at the project site or at an approved place. Provide copies within 7 days. Together, the CRPE and an Engineer's representative will complete the Construction Stage Gate Checklist on a periodic basis as directed.

5. MEASUREMENT

- 5.1. **Rock Filter Dams.** Installation or removal of rock filter dams will be measured by the foot or by the cubic yard. The measured volume will include sandbags, when used.
- 5.1.1. **Linear Measurement.** When rock filter dams are measured by the foot, measurement will be along the centerline of the top of the dam.
- 5.1.2. **Volume Measurement.** When rock filter dams are measured by the cubic yard, measurement will be based on the volume of rock computed by the method of average end areas.
- 5.1.2.1. **Installation.** Measurement will be made in final position.
- 5.1.2.2. **Removal.** Measurement will be made at the point of removal.

- 5.2. **Temporary Pipe Slope Drains.** Temporary pipe slope drains will be measured by the foot.
- 5.3. **Temporary Paved Flumes.** Temporary paved flumes will be measured by the square yard of surface area. The measured area will include the energy dissipater at the flume outlet.
- 5.4. **Construction Exits.** Construction exits will be measured by the square yard of surface area.
- 5.5. **Earthwork for Erosion and Sediment Control.**
- 5.5.1. **Equipment and Labor Measurement.** Equipment and labor used will be measured by the actual number of hours the equipment is operated and the labor is engaged in the work.
- 5.5.2. **Volume Measurement.**
- 5.5.2.1. **In Place.**
- 5.5.2.1.1. **Excavation.** Excavation will be measured by the cubic yard in its original position and the volume computed by the method of average end areas.
- 5.5.2.1.2. **Embankment.** Embankment will be measured by the cubic yard in its final position by the method of average end areas. The volume of embankment will be determined between:
- the original ground surfaces or the surface upon that the embankment is to be constructed for the feature and
 - the lines, grades and slopes of the accepted embankment for the feature.
- 5.5.2.2. **In Vehicles.** Excavation and embankment quantities will be combined and paid for under "Earthwork (Erosion and Sediment Control, In Vehicle)." Excavation will be measured by the cubic yard in vehicles at the point of removal. Embankment will be measured by the cubic yard in vehicles measured at the point of delivery. Shrinkage or swelling factors will not be considered in determining the calculated quantities.
- 5.6. **Construction Perimeter Fence.** Construction perimeter fence will be measured by the foot.
- 5.7. **Sandbags for Erosion Control.** Sandbags will be measured as each sandbag or by the foot along the top of sandbag berms or dams.
- 5.8. **Temporary Sediment-Control Fence.** Installation or removal of temporary sediment-control fence will be measured by the foot.
- 5.9. **Biodegradable Erosion Control Logs.** Installation or removal of biodegradable erosion control logs will be measured by the foot along the centerline of the top of the control logs.
- 5.10. **Vertical Tracking.** Vertical tracking will not be measured or paid for directly but is considered subsidiary to this item.

6. PAYMENT

The following will not be paid for directly but are subsidiary to pertinent items:

- erosion-control measures for Contractor project-specific locations (PSLs) inside and outside the right of way (such as construction and haul roads, field offices, equipment and supply areas, plants, and material sources);
- removal of litter, unless a separate pay item is shown on the plans;
- repair to devices and features damaged by Contractor operations;
- added measures and maintenance needed due to negligence, carelessness, lack of maintenance, and failure to install permanent controls;

- removal and reinstallation of devices and features needed for the convenience of the Contractor;
- finish grading and dressing upon removal of the device; and
- minor adjustments including but not limited to plumbing posts, reattaching fabric, minor grading to maintain slopes on an erosion embankment feature, or moving small numbers of sandbags.

Stabilization of disturbed areas will be paid for under pertinent Items except vertical tacking which is subsidiary.

Furnishing and installing pipe for outfalls associated with sediment traps and ponds will not be paid for directly but is subsidiary to the excavation and embankment under this Item.

6.1. **Rock Filter Dams.** The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid as follows:

6.1.1. **Installation.** Installation will be paid for as "Rock Filter Dams (Install)" of the type specified. This price is full compensation for furnishing and operating equipment, finish backfill and grading, lacing, proper disposal, labor, materials, tools, and incidentals.

6.1.2. **Removal.** Removal will be paid for as "Rock Filter Dams (Remove)." This price is full compensation for furnishing and operating equipment, proper disposal, labor, materials, tools, and incidentals.

When the Engineer directs that the rock filter dam installation or portions thereof be replaced, payment will be made at the unit price bid for "Rock Filter Dams (Remove)" and for "Rock Filter Dams (Install)" of the type specified. This price is full compensation for furnishing and operating equipment, finish backfill and grading, lacing, proper disposal, labor, materials, tools, and incidentals.

6.2. **Temporary Pipe Slope Drains.** The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Temporary Pipe Slope Drains" of the size specified. This price is full compensation for furnishing materials, removal and disposal, furnishing and operating equipment, labor, tools, and incidentals.

Removal of temporary pipe slope drains will not be paid for directly but is subsidiary to the installation Item. When the Engineer directs that the pipe slope drain installation or portions thereof be replaced, payment will be made at the unit price bid for "Temporary Pipe Slope Drains" of the size specified, which is full compensation for the removal and reinstallation of the pipe drain.

Earthwork required for the pipe slope drain installation, including construction of the sediment trap, will be measured and paid for under "Earthwork for Erosion and Sediment Control."

Riprap concrete or stone, when used as an energy dissipater or as a stabilized sediment trap, will be measured and paid for in accordance with Item 432, "Riprap."

6.3. **Temporary Paved Flumes.** The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Temporary Paved Flume (Install)" or "Temporary Paved Flume (Remove)." This price is full compensation for furnishing and placing materials, removal and disposal, equipment, labor, tools, and incidentals.

When the Engineer directs that the paved flume installation or portions thereof be replaced, payment will be made at the unit prices bid for "Temporary Paved Flume (Remove)" and "Temporary Paved Flume (Install)." These prices are full compensation for the removal and replacement of the paved flume and for equipment, labor, tools, and incidentals.

Earthwork required for the paved flume installation, including construction of a sediment trap, will be measured and paid for under "Earthwork for Erosion and Sediment Control."

- 6.4. **Construction Exits.** Contractor-required construction exits from off right of way locations or on right of way PSLs will not be paid for directly but are subsidiary to pertinent Items.

The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" for construction exits needed on right of way access to work areas required by the Department will be paid for at the unit price bid for "Construction Exits (Install)" of the type specified or "Construction Exits (Remove)." This price is full compensation for furnishing and placing materials, excavating, removal and disposal, cleaning vehicles, labor, tools, and incidentals.

When the Engineer directs that a construction exit or portion thereof be removed and replaced, payment will be made at the unit prices bid for "Construction Exit (Remove)" and "Construction Exit (Install)" of the type specified. These prices are full compensation for the removal and replacement of the construction exit and for equipment, labor, tools, and incidentals.

Construction of sediment traps used in conjunction with the construction exit will be measured and paid for under "Earthwork for Erosion and Sediment Control."

- 6.5. **Earthwork for Erosion and Sediment Control.**

- 6.5.1. **Initial Earthwork for Erosion and Sediment Control.** The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Excavation (Erosion and Sediment Control, In Place)," "Embankment (Erosion and Sediment Control, In Place)," "Excavation (Erosion and Sediment Control, In Vehicle)," "Embankment (Erosion and Sediment Control, In Vehicle)," or "Earthwork (Erosion and Sediment Control, In Vehicle)."

This price is full compensation for excavation and embankment including hauling, disposal of material not used elsewhere on the project; embankments including furnishing material from approved sources and construction of erosion control features; and equipment, labor, tools, and incidentals.

Sprinkling and rolling required by this Item will not be paid for directly but will be subsidiary to this Item.

- 6.5.2. **Maintenance Earthwork for Erosion and Sediment Control for Cleaning and Restoring Control Measures.** The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid under a Contractor Force Account Item from invoice provided to the Engineer.

This price is full compensation for excavation, embankment, and re-grading including removal of accumulated sediment in various erosion control installations as directed, hauling, and disposal of material not used elsewhere on the project; excavation for construction of erosion control features; embankments including furnishing material from approved sources and construction of erosion control features; and equipment, labor, tools, and incidentals.

Earthwork needed to remove and obliterate erosion control features will not be paid for directly but is subsidiary to pertinent Items unless otherwise shown on the plans.

Sprinkling and rolling required by this Item will not be paid for directly but will be subsidiary to this Item.

- 6.6. **Construction Perimeter Fence.** The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Construction Perimeter Fence." This price is full compensation for furnishing and placing the fence; digging, fence posts, wire, and flagging; removal and disposal; and materials, equipment, labor, tools, and incidentals.

Removal of construction perimeter fence will not be paid for directly but is subsidiary to the installation Item. When the Engineer directs that the perimeter fence installation or portions thereof be removed and replaced, payment will be made at the unit price bid for "Construction Perimeter Fence," which is full compensation for the removal and reinstallation of the construction perimeter fence.

- 6.7. **Sandbags for Erosion Control.** Sandbags will be paid for at the unit price bid for “Sandbags for Erosion Control” (of the height specified when measurement is by the foot). This price is full compensation for materials, placing sandbags, removal and disposal, equipment, labor, tools, and incidentals.

Removal of sandbags will not be paid for directly but is subsidiary to the installation item. When the Engineer directs that the sandbag installation or portions thereof be replaced, payment will be made at the unit price bid for “Sandbags for Erosion Control,” which is full compensation for the reinstallation of the sandbags.

- 6.8. **Temporary Sediment Control Fence.** The work performed and materials furnished in accordance with this item and measured as provided under “Measurement” will be paid for at the unit price bid as follows:

- 6.8.1. **Installation.** Installation will be paid for as “Temporary Sediment Control Fence (Install).” This price is full compensation for furnishing and operating equipment finish backfill and grading, lacing, proper disposal, labor, materials, tools, and incidentals.

- 6.8.2. **Removal.** Removal will be paid for as “Temporary Sediment Control Fence (Remove).” This price is full compensation for furnishing and operating equipment, proper disposal, labor, materials, tools, and incidentals.

- 6.9. **Biodegradable Erosion Control Logs.** The work performed and materials furnished in accordance with this item and measured as provided under “Measurement” will be paid for at the unit price bid as follows:

- 6.9.1. **Installation.** Installation will be paid for as “Biodegradable Erosion Control Logs (Install)” of the size specified. This price is full compensation for furnishing and operating equipment finish backfill and grading, staking, proper disposal, labor, materials, tools, and incidentals.

- 6.9.2. **Removal.** Removal will be paid for as “Biodegradable Erosion Control Logs (Remove).” This price is full compensation for furnishing and operating equipment, proper disposal, labor, materials, tools, and incidentals.

- 6.10. **Vertical Tracking.** Vertical tracking will not be measured or paid for directly but is considered subsidiary to this item.

Temporary erosion control acceptably completed will be paid for at the contract lump sum price bid for “TEMPORARY EROSION CONTROL,” which shall be full compensation for furnishing all materials, tools, equipment, labor, and incidentals necessary to complete the work. Periodic payments will be made under this item in proportion to the amount of work accomplished, as determined by the Engineer. Payment for “TEMPORARY EROSION CONTROL” will also include obtaining and compliance with the SWPPP, which shall include compensation for drainage-way inspections, report preparation, housekeeping practices, cleaning and maintenance, and other actions outlined in the SWPPP prepared by the Contractor necessary to execute the Plan. This item consists of all erosion control items not listed as a separate pay item in the Unit Price Schedule. Any fines issued to the Owner as a result of the Contractor’s insufficient execution of the SWPPP will be assessed to the Contractor. Such deductions shall not be limited to the lump sum price of this item.

All Temporary erosion controls shall be paid for under the pay item within the base bid 1 bid.

Payment will be made under:

Item TX-506-5.1

Temporary Erosion Control—per Lump Sum



3010 Gaylord Parkway
Suite 190
Frisco, TX 75034
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FAX 972.377.8380
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January 18, 2018

**Addendum No. 1
To Plans, Contract Documents and Specifications**

**Addison Airport – Wing Aviation and Claire Chennault Street Driveway Reconstruction
Bid No. 18-22**

This addendum shall be a part of the Plans, Contract Documents and Specifications to the same extent as though it were originally included therein, and it shall supersede anything contained in the Plans, Contract Documents and Specifications with which it might conflict. Acknowledgement of receipt of this Addendum must be provided on the proposal form in the Contract Documents.

Modifications to Front End Contract Documents:

- 1. Replace Section PF-1 Proposal Form in its entirety with the Proposal Form (Addendum No. 1) attached. Major Changes Include:**
 - a. Replaced embankment in place pay item with excavation pay item.
- 2. Replace Bid Schedule Bid 18-22.xls in its entirety with Bid Schedule Bid 18-22 - Addendum No. 1.xls. Major Changes Include:**
 - a. Replaced embankment in place pay item with excavation pay item.
- 3. Insert Pre-Bid Meeting Minutes, and Sign-in Sheet before Technical Specifications Table of Contents.**
- 4. Replace Section TS Technical Specifications Table of Contents in its entirety with the Technical Specifications Table of Contents (Addendum No. 1) attached. Major Changes Include:**
 - a. Inserted Item Tx-110 Excavation.

Modifications to Technical Specifications:

- 1. Replace SS-220 Ditch Grading in its entirety with the SS-220 Ditch Grading (Addendum No. 1) attached. Major Changes Include:**
 - a. Referenced specification Tx-110 Excavation regarding construction methods.
- 2. Insert TX-110 Excavation (Addendum No. 1) in its entirety before specification TX-132 Embankment:**
 - a. Added Excavation pay item and construction methods for excavation earthwork.
- 3. Replace TX-132 Embankment in its entirety with the TX-132 Embankment (Addendum No. 1) attached. Major Changes Include:**
 - a. Removed Embankment In Place pay item (excavation pay item included under TX-110).

Modifications to the Plans:

- 1. Replace plan sheet G-101 Cover Sheet in its entirety with the G-101 Cover Sheet (Addendum No. 1) attached. Major Changes Include:**
 - a. Revised Earthwork Table to correct the names of the work areas in which the earthwork quantities are derived from.

January 18, 2018
Addendum No.1

2. **Replace plan sheet G-201 General Project Layout in its entirety with the G-201 General Project Layout (Addendum No. 1) attached. Major Changes Include:**
 - a. Removed the items of work descriptions indicating markings and marking removal. Marking and marking removal are not in the scope of this project.

By: Colin Bible, PE

Attachments:

Proposal Form (Addendum No. 1)
Pre-Bid Meeting Minutes
Technical Specifications Table of Contents (Addendum No. 1)
SS-220 Ditch Grading (Addendum No. 1)
TX-110 Excavation (Addendum No. 1)
TX-132 Embankment (Addendum No. 1)
G-101 Cover Sheet (Addendum No. 1)
G-201 General Project Layout (Addendum No. 1)

Separate File:

Bid Schedule Bid 18-22 - Addendum No. 1.xls



Digitally Signed 01/18/2018

SECTION PF-1

PROPOSAL FORM

PROPOSAL FORM

_____, 2018

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 – ADDISON AIRPORT
WING AVIATION APRON CONNECTOR AND CLAIRE CHENNAULT STREET DRIVEWAY
RECONSTRUCTION
BID NUMBER 18-22

**ADDISON AIRPORT
WING AVIATION APRON CONNECTOR CONSTRUCTION (BASE BID 1) & CLAIRE CHENNAULT STREET DRIVEWAY RECONSTRUCTION (BASE BID 2)**

**BID NO. 18-22
UNIT PRICES**

SPEC. NO.	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE	BID AMOUNT
SS-120-3.1	SITE PREPARATION	L.S.	100%		
UNIT PRICE IN WORDS:					
SS-212-5.1	TRIAxIAL GEOGRID	S.Y.	743		
UNIT PRICE IN WORDS:					
SS-220-5.1	DITCH GRADING	L.F.	458		
UNIT PRICE IN WORDS:					
D-751-5.2b	4'X7' SINGLE GRATE INLET (COMPLETE)	EACH	4		
UNIT PRICE IN WORDS:					
D-751-5.2c	4'X7' JUNCTION BOX (COMPLTETE)	EACH	2		
UNIT PRICE IN WORDS:					
TX-104-5.1	CONCRETE PAVEMENT REMOVAL	S.Y.	220		
UNIT PRICE IN WORDS:					
TX-110-4.1	EXCAVATION	C.Y.	142		
UNIT PRICE IN WORDS:					
TX-162-5.1	BLOCK SODDING	S.Y.	3,151		
UNIT PRICE IN WORDS:					
TX-247-6.1	FLEXIBLE BASE (COMPLETE IN PLACE) (TYPE D GRADE 1) (6")	S.Y.	743		
UNIT PRICE IN WORDS:					
TX-360-5.1	CONCRETE PAVEMENT (10" THICKNESS)	S.Y.	644		
UNIT PRICE IN WORDS:					
TX-464-5.1	REINFORCED CONCRETE PIPE, 18", CLASS III	L.F.	1,474		
UNIT PRICE IN WORDS:					
TX-496-5.1	PIPE REMOVAL (LESS THAN 30" DIAMETER)	L.F.	228		
UNIT PRICE IN WORDS:					
TX-496-5.2	SAFETY END TREATMENT REMOVAL (LESS THAN 30" DIAMETER)	EACH	3		
UNIT PRICE IN WORDS:					
TX-506-5.1	TEMPORARY EROSION CONTROL	L.S.	100%		
UNIT PRICE IN WORDS:					
SUBTOTAL (BASE BID 1) =					

SPEC. NO.	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE	BID AMOUNT
SPEC. NO.	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE	BID AMOUNT

BASE BID 2 (CLAIRE CHENNAULT STREET DRIVEWAY RECONSTRUCTION)

SS-120-3.1	SITE PREPARATION	L.S.	100%		
UNIT PRICE IN WORDS:					
SS-212-5.1	TRIAxIAL GEOGRID	S.Y.	189		
UNIT PRICE IN WORDS:					
SS-302-3.1	COMMUNICATION CABLE RELOCATION	ALLOW	100%	\$7,500.00	\$7,500.00
UNIT PRICE IN WORDS:					
D-751-5.1a	TYPE "A" STORM SEWER MANHOLE (COMPLETE)	EACH	1		
UNIT PRICE IN WORDS:					
TX-104-5.1	CONCRETE PAVEMENT REMOVAL	S.Y.	158		
UNIT PRICE IN WORDS:					
TX-162-5.1	BLOCK SODDING	S.Y.	36		
UNIT PRICE IN WORDS:					
TX-247-6.1	FLEXIBLE BASE (COMPLETE IN PLACE) (TYPE D GRADE 1) (6")	S.Y.	189		
UNIT PRICE IN WORDS:					
TX-360-5.1	CONCRETE PAVEMENT (10" THICKNESS)	S.Y.	158		
UNIT PRICE IN WORDS:					
TX-464-5.2	REINFORCED CONCRETE PIPE, 24", CLASS III	L.F.	46		
UNIT PRICE IN WORDS:					
TX-464-5.3	PIPE CONNECTION TO EXISTING INLET	EACH	1		
UNIT PRICE IN WORDS:					
TX-496-5.1	PIPE REMOVAL (LESS THAN 30" DIAMETER)	L.F.	46		
UNIT PRICE IN WORDS:					
SUBTOTAL (BASE BID 2) =					

BID SUMMARY		
SUBTOTAL (BASE BID 1) =		
SUBTOTAL (BASE BID 2) =		
TOTA (BASE BID 1 + BASE BID 2) =		

- 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.

Name of Person Signing Bid

Signature of Person Signing Bid

Address

Telephone No. Fax No.

T.I.N. (Tax Identification or Employer’s Number)

If BIDDER is:

AN INDIVIDUAL

By _____ (Individual's Name) (Seal)

doing business as _____

Business address: _____

Phone No. _____

A PARTNERSHIP

By _____ (Firm Name) (Seal)

_____ (General Partner)

doing business as _____

Business address: _____

Phone No. _____

A CORPORATION

By _____
(Corporation Name)

(State of Incorporation)

By _____
(Name of Person Authorized to Sign)

(Title)

(Corporate Seal)

Attest _____
(Secretary)

Business address: _____

Phone No. _____



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.)



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PRE-BID MEETING MINUTES

To: Attendees
From: Brandon Beville, PE *BB*
RE: Addison Airport
Wing Aviation Apron Connector and Claire Chennault Street Driveway Project
(Bid No. 18-22) – Pre-Bid Meeting

Date: January 18, 2018

On January 11, 2018, a Pre-bid meeting for the Wing Aviation Apron Connector and Claire Chennault Street Driveway Project was held at 2:30 pm in the Addison Airport Conference Room – During the meeting the following items were discussed:

1) Introductions & Roles:

- a) Joel Jenkinson, Airport Manager – Addison Airport
- b) Joe McAnally, Operations Manager – Addison Airport
- c) Wil Newcomer, Purchasing Manager – Town of Addison
- d) Lisa Pyles, Director of Infrastructure – Town of Addison
- e) Jason Shroyer, PE, Assistant Director of Infrastructure – Town of Addison
- f) Brandon Beville, PE, Civil Project Manager – Garver
- g) Colin Bible, PE, Senior Project Manager – Garver

2) Bidding Procedures

- a) Bids proposals will be read at 2:00 pm on Thursday, **February 6, 2018** at the Finance Building, 5350 Belt Line Road, Dallas, Texas 75254.
- b) Instructions to Bidders
 - i) *Both Base bids must be bid on*
- c) Bid Proposal
 - (1) *An excel file of the bid form is available on bidsync.*
 - ii) Contract Time:
 - (1) Base Bid: **60 Calendar Days**
 - iii) \$750 Liquidated Damages per Calendar Day
- d) Bidder Qualifications
 - i) *Bidder Qualifications must be filled out using the form provided in the bid documents.*

3) Town of Addison Provisions

- a) General Provisions
- b) Special Provisions
 - i) *Note the specifications and insurance requirements in the back of the bid documents*

4) Construction Plans

- a) Base Bid 1 – Wing Aviation Apron and Drainage Improvements
 - i) Safety & Phasing Plan
 - ii) Taxiway Uniform Pipe Installation and Ditch Grading
 - (1) 2-18" RCPs
 - (2) Aircraft Rated Inlets
 - iii) Wing Aviation Taxiway Connector

- (1) 10" PCC (TX-360)
- (2) 6" Flexible Base (TX-247)
- (3) Triaxial Geogrid (SS-212)
- b) Base Bid 2 – Claire Chennault Driveway
 - i) Safety & Phasing Plan
 - ii) Pavement Section
 - (1) 10" PCC (TX-360)
 - (2) 6" Flexible Base (TX-247)
 - (3) Triaxial Geogrid (SS-212)
 - iii) Comm. Cable Relocation
 - iv) Pipe Installation to existing Inlet

5) Technical Specifications

- a) SS-220 – Ditch Grading
 - i) *This item is paid per linear foot.*
- b) SS-302 Utility Allowance
 - (1) *Relocate telephone line as necessary to avoid RCP.*
- c) Tx-247 Flexible Base
 - i) *Type D, Grade 1, 6" Thickness*
- d) Tx-360 Concrete Pavement
 - i) *10" Thickness*
 - ii) *Engineer Tests 28-Day Strength*
- e) *Earthwork*
 - i) *Earthwork to construct the Wing Aviation Taxilane connector is to be paid for under "Excavation".*
 - ii) *Earthwork to construct the ditch along taxilane Uniform will be paid for under ditch grading.*
 - iii) *Earthwork in areas of pavement removal shall be considered subsidiary to pavement removal; including the Claire Chennault Driveway reconstruction (see TX-104).*
 - iv) *A table of earthwork can be found on sheet G-101.*
 - (1) *This table will be adjusted in Addendum No. 1 as the work area titles need to be swapped.*

6) Questions

Attachments: Sign-In Sheet

Pages(incl.): 3

Copy to File: 17081100

Copies to Garver: CMB

L:\2017\17081100 - ADS On-Call\Bidding\Addenda\Work Order No. 9 - Wing Aviation\Seperate Files\Work Order No. 9 - Wing Aviation - Pre-Bid Meeting Minutes\ADS Wing Aviation and Claire Chennault Drive Pre-Bid Meeting Minutes.doc



Addison Airport – Wing Aviation Apron Connector and Claire Chennault Street Driveway Reconstruction
Addison, Texas

Pre-Bid Meeting
January 11, 2018; 2:30 p.m.

SIGN-IN SHEET

Name	Representing	Phone #	Email
<u>ARGENIO MOULDEN</u>	<u>EJ SMITH CONSTRUCTION</u>	<u>469-206-7733</u>	<u>AMOULDEN@EJSMITHIND.COM</u>
<u>Pete Pedicino</u>	<u>Wing Aviation</u>	<u>972-467-5521</u>	<u>ppedicino@wingaviation.com</u>
<u>Glenn Nelson</u>	<u>Cima General Contr</u>	<u>214-233-7444</u>	<u>glenn@Cima.build</u>
<u>Edvardo Hernandez</u>	<u>Flow-Line Construction</u>	<u>773-369-5666</u>	<u>Edvardo.Hernandez@Flow-line.construction.com</u>
<u>Seamus Downing</u>	<u>NorthStar Construction</u>	<u>817-244-8885</u>	<u>mike@northstar93.com</u>
<u>Joe McNally</u>	<u>Addison Airport</u>	<u>972-392-4861</u>	<u>joe.mcnally@addisonairport.net</u>
<u>Joel Jenkinson</u>	<u>Addison Airport</u>	<u>972-392-4855</u>	<u>joel.jenkinson@addisonairport.net</u>
<u>Marwan Nouwaquet</u>	<u>Advanced Transol</u>	<u>469 432 4975</u>	<u>Marwan@advancedtransol.com</u>
<u>Michelle Womack</u>	<u>TOWN of Addison</u>	<u>972-450-7052</u>	<u>mwomack@addison.tx.gov</u>
<u>Will Newcomer</u>	<u>TOWN of Addison</u>	<u>972-450-7091</u>	<u>wnnewcomer@addison.tx.gov</u>

Brandon Beville

Garver

972-377-7480

BCBeville@GarverUSA.com

Colin Bible

Garver

972-377-7480

CMBible@GarverUSA.com

SECTION TS

TECHNICAL SPECIFICATIONS

SS-110	Standard Specifications
SS-120	Site Preparation
SS-212	Geogrid
SS-220	Ditch Grading
SS-302	Utility Allowance
D-751	Manholes, Catch Basins, Inlets, and Inspection Holes
TX-104	Removing Concrete
<u>TX-110</u>	<u>Excavation</u>
TX-132	Embankment
TX-162	Sodding for Erosion Control
TX-216	Proof Rolling
TX-247	Flexible Base
TX-360	Concrete Pavement
TX-421	Hydraulic Cement Concrete
TX-464	Reinforced Concrete Pipe
TX-496	Removing Structures
TX-502	Barricades, Signs, and Traffic Handling
TX-506	Temporary Erosion Controls

ITEM SS-220 DITCH GRADING

DESCRIPTION

220-1.1 This item covers placement and compaction of all materials within the limits of the work required to re-grade the site for ditches.

MATERIALS

220-2.1 EMBANKMENT. Embankment used shall meet the requirements of Tx-132. Additional embankment required to complete the project shall be obtained as provided in Tx-132.

CONSTRUCTION METHODS

220-3.1 GENERAL. If it is necessary to interrupt existing surface drainage, sewers or under-drainage, conduits, utilities, or similar underground structures the Contractor shall be responsible for and shall take all necessary precautions to preserve them or provide temporary services. When such facilities are encountered, the Contractor shall notify the Engineer, who shall arrange for their removal if necessary. The Contractor shall, at his/her own expense, satisfactorily repair or pay the cost of all damage to such facilities or structures which may result from any of the Contractor's operations during the period of the contract.

220-3.2 PREPARATION OF EMBANKMENT AREA. Before beginning any embankment, the areas where the embankment is to be made shall be stripped or disked to a minimum depth of four inches. Topsoil obtained from the stripping operations shall be salvaged and stockpiled for later use.

220-3.3 FORMATION OF EMBANKMENTS. Excavation and embankment necessary for this item shall conform to Item Tx-132 "Embankment." *and Item Tx-110 Excavation.* Embankment shall be compacted by small roller or other means approved by the engineer. Frozen material shall not be placed in the embankment nor shall embankment be placed upon frozen material. Excavation and embankment necessary for this item will not be measured for separate payment, but shall be considered subsidiary to this item.

METHOD OF MEASUREMENT

220-4.1 The quantity of ditch grading to be paid for shall be the number of linear feet placed measured along the ditch centerline, regardless of the transverse width or depth of the grading. There will be no separate measurement of payment for removing and storing the topsoil or compacted embankment or excavation. All costs incidental to placing, compacting, disking, watering, shaping, and other necessary operations for construction of edge grading embankment will be included in the contract price for pavement edge grading.

BASIS OF PAYMENT

220-5.1 For "Ditch Grading" payment shall be made at the contract unit price per linear foot. This price shall be full compensation for excavation, embankment, grading, compacting and furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the item.

Payment will be made under:

Item SS-220-5.1 Ditch Grading – per linear foot

END OF ITEM SS-220

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Item 110

Excavation



1. DESCRIPTION

Excavate areas as shown on the plans or as directed. Remove materials encountered to the lines, grades, and typical sections shown on the plans and cross-sections.

2. CONSTRUCTION

Accept ownership of unsuitable or excess material and dispose of material in accordance with local, state, and federal regulations at locations outside the right of way.

Maintain drainage in the excavated area to avoid damage to the roadway section. Correct any damage to the subgrade caused by weather at no additional cost to the Department.

Shape slopes to avoid loosening material below or outside the proposed grades. Remove and dispose of slides as directed.

2.1. **Rock Cuts.** Excavate to finish subgrade (*or grade as shown in plans*). Manipulate and compact subgrade (*or grade as shown in plans*). in accordance with Section 132.3.4., "Compaction Methods," unless excavation is to clean homogenous rock at finish subgrade elevation (*or grade as shown in plans*). Use approved embankment material compacted in accordance with Section 132.3.4., "Compaction Methods," to replace undercut material at no additional cost if excavation extends below finish subgrade.

2.2. **Earth Cuts.** Excavate to finish subgrade. Scarify subgrade to a uniform depth at least 6 in. below finish subgrade elevation in areas where base or pavement structure will be placed on subgrade. Manipulate and compact subgrade in accordance with Section 132.3.4., "Compaction Methods."

Take corrective measures as directed if unsuitable material is encountered below subgrade elevations.

In areas that are not to be paved but where excavation is taking place, the contractor shall adhere to the same construction methods described within this specification. The areas shall be excavated to the top of the proposed grade. If rock is encountered at top of grade, the rock shall be removed to a minimum depth of four inches below grade. Topsoil shall be used to bring the area to grade. There shall be no extra payment for under cutting or topsoil.

2.3. **Subgrade Tolerances.** Excavate to within 1/2 in. in cross-section and 1/2 in. in 16 ft. measured longitudinally for turnkey construction. Excavate to within 0.1 ft. in cross-section and 0.1 ft. in 16 ft. measured longitudinally for staged construction.

3. MEASUREMENT

This Item will be measured by the cubic yard in its original position as computed by the method of average end areas.

This is a plans quantity measurement Item. The quantity to be paid is the quantity shown in the proposal unless modified by Article 9.2., "Plans Quantity Measurement." Additional measurements or calculations will be made if adjustments of quantities are required.

The quantity of excavation to be paid for shall be the number of cubic yards measured in its original position. Measurement shall not include the quantity of materials excavated without authorization beyond

Addendum No. 1

normal slope lines, or the quantity of material used for purposes other than those directed.

Measurement of excavation shall be based on plan quantities. These quantities are believed to be correct and shall be utilized for final excavation quantity payment notwithstanding any adjustments to the project by written direction of the Engineer. Should the contractor find discrepancies and/or errors, he/she shall bring the discrepancy and/or error to the attention of the Engineer immediately and corrections shall be made to the quantity of excavation to be paid for by change order. It is expressly understood by the contractor that upon disturbance of the existing ground and no notification to the engineer of possible errors, that the contractor accepts as final payment the quantities of excavation as detailed on the plans and laid out in the proposal. No adjustment has been made to the plan quantities for the construction or demolition of existing drainage structures. The Contractor shall make his own determination as to the amount of unsuitable excavated material which may be encountered and the resulting additional borrow material required for the construction of the embankment. There will be no adjustment for additional embankment required to construct the project if the excavated material is deemed unsuitable.

Limits of measurement for excavation in retaining wall areas will be as shown on the plans.

Shrinkage or swelling factors will not be considered in determining the calculated quantities.

4. PAYMENT

The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Excavation (Roadway)," "Excavation (Channel),"

"Excavation (Special)," or "Excavation (Roadway and Channel)." This price is full compensation for authorized excavation; drying; undercutting subgrade and reworking or replacing the undercut material in rock cuts; rock removal; hauling; disposal of material not used elsewhere on the project; scarification and compaction; and equipment, labor, materials, tools, and incidentals.

Drying required deeper than 6 in. below subgrade elevation will be paid for in accordance with Article 9.7., "Payment for Extra Work and Force Account Method." Excavation and replacement of unsuitable material below subgrade elevations will be performed and paid for in accordance with the applicable bid items. However, if Item 132, "Embankment," is not included in the Contract, payment for replacement of unsuitable material will be paid for in accordance with Article 9.7., "Payment for Extra Work and Force Account Method."

When a slide not due to the Contractor's negligence or operation occurs, payments for removal and disposal of the slide material will be in accordance with Article 9.7., "Payment for Extra Work and Force Account Method." Excavation in backfill areas of retaining walls will not be measured or paid for directly but will be subsidiary to pertinent items.

Payment will be made under:

Item TX-110-4.1

Excavation —per Cubic Yard

Item 132

Embankment



1. DESCRIPTION

Furnish, place, and compact materials for construction of roadways, embankments, levees, dikes, **drainage structures** or any designated section of the roadway where additional material is required.

2. MATERIALS

Furnish approved material capable of forming a stable embankment from required excavation in the areas shown on the plans or from sources outside the right of way. ~~Provide one or more of the following types as shown on the plans:~~ **Excessive cut or Type A material shall be used.**

- **Type A.** Granular material that is free from vegetation or other objectionable material and meets the requirements of Table 1.

Table 1
Testing Requirements

Property	Test Method	Specification Limit
Liquid limit	Tex-104-E	≤ 45
Plasticity index (PI)	Tex-106-E	≤ 15
Bar linear shrinkage	Tex-107-E	≥ 2

Perform the Linear Shrinkage test only as indicated in Tex-104-E.

- ~~**Type B.** Materials such as rock, loam, clay, or other approved materials.~~
- ~~**Type C.** Material meeting the specification requirements shown on the plans. Type C may be further designated as Type C1, C2, etc.~~
- ~~**Type D.** Material from required excavation areas shown on the plans.~~

Meet the requirements of the pertinent retaining wall Items for retaining wall backfill material.

3. CONSTRUCTION

Meet the requirements of Item 7, "Legal Relations and Responsibilities," when off right of way sources are used. Notify the Engineer before opening a material source to allow for required testing. Complete preparation of the right of way in accordance with Item 100, "Preparing Right of Way," for areas to receive embankment.

Backfill tree-stump holes or other minor excavations with approved material and tamp. Restore the ground surface, including any material disked loose or washed out, to its original slope. Compact the ground surface by sprinkling in accordance with Item 204, "Sprinkling," and by rolling using equipment complying with Item 210, "Rolling," when directed.

Scarify and loosen the unpaved surface areas, except rock, to a depth of at least 6 in. unless otherwise shown on the plans. Bench slopes before placing material. Begin placement of material at the toe of slopes. Do not place trees, stumps, roots, vegetation, or other objectionable material in the embankment. Simultaneously recompact scarified material with the placed embankment material. Do not exceed the layer depth specified in Section 132.3.4., "Compaction Methods."

Construct embankments to the grade and sections shown on the plans. Construct the embankment in layers approximately parallel to the finished grade for the full width of the individual roadway cross-sections unless

otherwise shown on the plans. Ensure that each section of the embankment conforms to the detailed sections or slopes. Maintain the finished section, density, and grade until the project is accepted.

- 3.1. **Earth Embankments.** Earth embankment is mainly composed of material other than rock. Construct embankments in successive layers, evenly distributing materials in lengths suited for sprinkling and rolling.

Treat material with calcium-based additives in accordance with Section 260.2.3., "Flexible Base," when required. Obtain approval to incorporate rock and broken concrete produced by the construction project in the lower layers of the embankment. Place the rock and concrete outside the limits of the completed roadbed when the size of approved rock or broken concrete exceeds the layer thickness requirements in Section 132.3.4., "Compaction Methods." Cut and remove all exposed reinforcing steel from the broken concrete.

Move the material dumped in piles or windrows by blading or by similar methods and incorporate it into uniform layers. Featheredge or mix abutting layers of dissimilar material for at least 100 ft. to ensure there are no abrupt changes in the material. Break down clods or lumps of material and mix embankment until a uniform material is attained.

Apply water free of industrial wastes and other objectionable matter to achieve the uniform moisture content specified for compaction.

Roll and sprinkle each embankment layer in accordance with Section 132.3.4.1., "Ordinary Compaction," when ordinary compaction is specified. Compact the layer to the required density in accordance with Section 132.3.4.2., "Density Control," when density control is specified.

- 3.2. **Rock Embankments.** ~~Rock embankment is mainly composed of rock. Construct rock embankments in successive layers for the full width of the roadway cross section with a depth of 18 in. or less. Increase the layer depth for large rock sizes as approved. Do not exceed a depth of 2-1/2 ft. in any case. Fill voids created by the large stone matrix with smaller stones during the placement and filling operations.~~

~~Ensure the depth of the embankment layer is greater than the maximum dimension of any rock. Do not place rock greater than 2 ft. in its maximum dimension, unless otherwise approved. Construct the final layer with graded material so that the density and uniformity is in accordance with Section 132.3.4., "Compaction Methods." Break up exposed oversized material as approved.~~

~~Roll and sprinkle each embankment layer in accordance with Section 132.3.4.1., "Ordinary Compaction," when ordinary compaction is specified. Compact each layer to the required density in accordance with Section 132.3.4.2., "Density Control," when density control is specified. Proof-roll each rock layer as directed, where density testing is not possible, in accordance with Item 216, "Proof Rolling," to ensure proper compaction.~~

- 3.3. **Embankments Adjacent to Culverts and Bridges.** ~~Compact embankments adjacent to culverts and bridges in accordance with Item 400, "Excavation and Backfill for Structures."~~

- 3.4. **Compaction Methods.** Begin rolling longitudinally at the sides and proceed toward the center, overlapping on successive trips by at least 1/2 the width of the roller. Begin rolling at the lower side and progress toward the high side on super elevated curves. Alternate roller trips to attain slightly different lengths. Compact embankments in accordance with Section 132.4.1., "Ordinary Compaction," or Section 132.3.4.2., "Density Control," as shown on the plans.

- 3.4.1. **Ordinary Compaction.** ~~Use approved rolling equipment complying with Item 210, "Rolling," to compact each layer. Use specific equipment when required by the plans or the Engineer. Do not allow the loose depth of any layer to exceed 8 in., unless otherwise approved. Bring each layer to the moisture content directed before and during rolling operations. Compact each layer until there is no evidence of further consolidation. Maintain a level layer to ensure uniform compaction. Recompact and refinish the subgrade at no additional expense to the Department if the required stability or finish is lost for any reason.~~

- 3.4.2. **Density Control.** Compact each layer to the required density using equipment complying with Item 210, "Rolling." Determine the maximum lift thickness based on the ability of the compacting operation and equipment to meet the required density. Do not exceed layer thickness of 16 in. loose or 12 in. compacted material unless otherwise approved. Maintain a level layer to ensure uniform compaction.

The Engineer will use Tex-114-E to determine the maximum dry density (D_a) and optimum moisture content (W_{opt}). Meet the requirements for field density and moisture content in Table 2 unless otherwise shown on the plans.

Table 2
Field Density Control Requirements

Description	Density	Moisture Content
	Tex-115-E	
PI ≤ 15	≥ 98% D_a	
15 < PI ≤ 35	≥ 98% D_a and ≤ 102% D_a	≥ W_{opt} .
PI > 35	≥ 95% D_a and ≤ 100% D_a	≥ W_{opt} .

Each layer is subject to testing by the Engineer for density and moisture content. During compaction, the moisture content of the soil should not exceed the value shown on the moisture-density curve, above optimum, required to achieve:

- 98% dry density for soils with a PI greater than 15 but less than or equal to 35 or
- 95% dry density for soils with PI greater than 35.

Remove small areas of the layer to allow for density tests as required. Replace the removed material and recompact at no additional expense to the Department. Proof-roll in accordance with Item 216, "Proof Rolling," when shown on the plans or as directed. Correct soft spots as directed.

- 3.5. **Maintenance of Moisture and Reworking.** Maintain the density and moisture content once all requirements in Table 2 are met. Maintain the moisture content no lower than 4% below optimum for soils with a PI greater than 15. Rework the material to obtain the specified compaction when the material loses the required stability, density, moisture, or finish. Alter the compaction methods and procedures on subsequent work to obtain specified density as directed.

3.6. **Acceptance Criteria.**

3.6.1. **Grade Tolerances.**

3.6.1.1. **Staged Construction.** Grade to within 0.1 ft. in the cross-section and 0.1 ft. in 16 ft. measured longitudinally.

3.6.1.2. **Turnkey Construction.** Grade to within 1/2 in. in the cross-section and 1/2 in. in 16 ft. measured longitudinally.

3.6.2. **Gradation Tolerances.** Ensure no more than 1 of the 5 most recent gradation tests is outside the specified limits on any individual sieve by more than 5% when gradation requirements are shown on the plans.

3.6.3. **Density Tolerances.** Ensure no more than 1 of the 5 most recent density tests for compaction work is outside the specified density limits, and no test is outside the limits by more than 3 pcf.

3.6.4. **Plasticity Tolerances.** Ensure no more than 1 of the 5 most recent PI tests for material is outside the specified limit by more than 2 points.

4. MEASUREMENT

Embankment will be measured by the cubic yard. Measurement will be further defined for payment as follows:

- 4.1. **Final.** The cubic yard will be measured in its final position using the average end area method. The volume is computed between the original ground surface or the surface upon which the embankment is to be constructed and the lines, grades, and slopes of the embankment. In areas of salvaged topsoil, payment for embankment will be made in accordance with Item 160, "Topsoil." Shrinkage or swell factors will not be considered in determining the calculated quantities.
- 4.2. **Original.** The cubic yard will be measured in its original and natural position using the average end area method.
- 4.3. **Vehicle.** The cubic yard will be measured in vehicles at the point of delivery.

When measured by the cubic yard in its final position, this is a plans quantity measurement item. The quantity to be paid is the quantity shown in the proposal, unless modified by Article 9.2., "Plans Quantity Measurement." Additional measurements or calculations will be made if adjustments of quantities are required.

Shrinkage or swell factors are the Contractor's responsibility. When shown on the plans, factors are for informational purposes only.

Measurement of retaining wall backfill in embankment areas is paid for as embankment unless otherwise shown on the plans. Limits of measurement for embankment in retaining wall areas are shown on the plans.

Measurement of embankment shall be based on plan quantities. These quantities are believed to be correct and shall be utilized for final excavation quantity payment notwithstanding any adjustments to the project by written direction of the Engineer. Should the contractor find discrepancies and/or errors, he/she shall bring the discrepancy and/or error to the attention of the Engineer immediately and corrections shall be made to the quantity of embankment to be paid for by change order. It is expressly understood by the contractor that upon disturbance of the existing ground and no notification to the engineer of possible errors, that the contractor accepts as final payment the quantities of excavation as detailed on the plans and laid out in the proposal. No adjustment has been made to the plan quantities for the construction or demolition of existing drainage structures. The Contractor shall make his own determination as to the amount of unsuitable excavated material which may be encountered and the resulting additional borrow material required for the construction of the embankment. There will be no adjustment for additional embankment required to construct the project if the excavated material is deemed unsuitable.

Embankment shall not be measured for separate payment but shall be considered subsidiary to pertinent items.

5. PAYMENT

The work performed and materials furnished in accordance with this item and measured as provided under "Measurement" will be paid for at the unit price bid for "Embankment (Final)," "Embankment (Original)," or "Embankment (Vehicle)" of the compaction method and type specified. This price is full compensation for furnishing embankment; hauling; placing, compacting, finishing, and reworking; disposal of waste material; and equipment, labor, tools, and incidentals.

When proof rolling is directed, it will be paid for in accordance with Item 216, "Proof Rolling."

All sprinkling and rolling, except proof rolling, will not be paid for directly but will be considered subsidiary to this item, unless otherwise shown on the plans.

Where subgrade is constructed under this Contract, correction of soft spots in the subgrade will be at the Contractor's expense. Where subgrade is not constructed under this Contract, correction of soft spots in the subgrade will be paid in accordance with Article 9.7., "Payment for Extra Work and Force Account Method."

For embankment in place, payment shall be made at the contract unit price per cubic yard. This price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the item.

Payment will be made under:

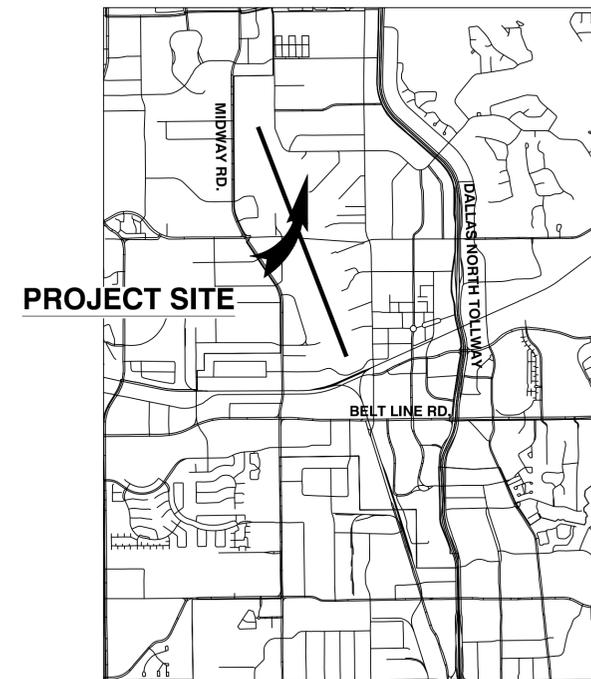
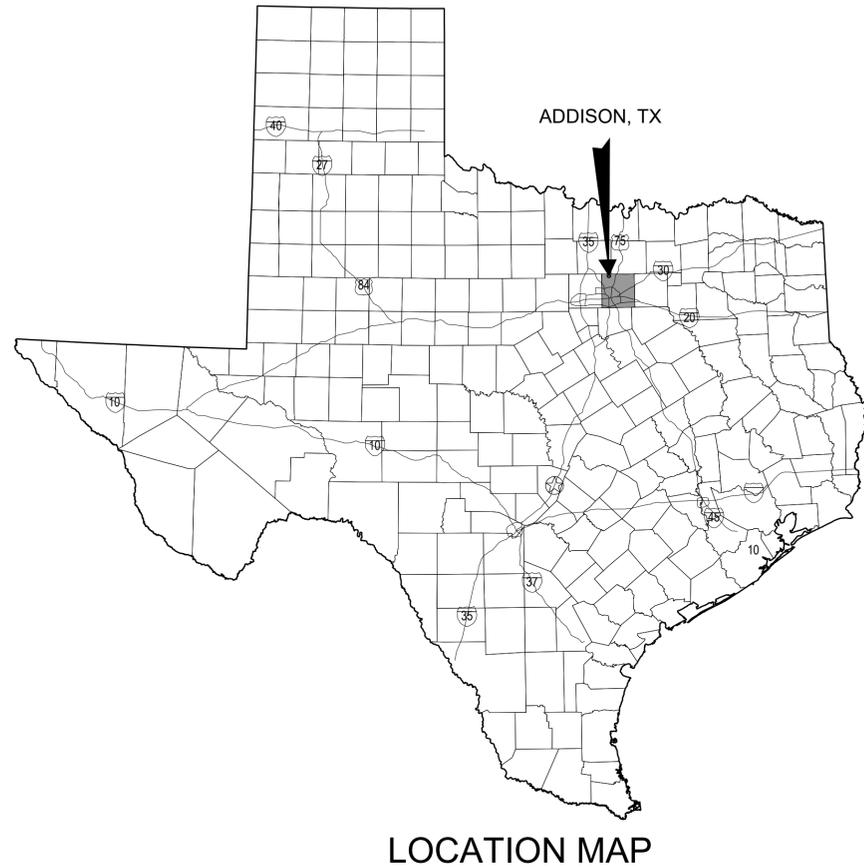
~~Item TX-132-5.1~~ *Embankment In Place —per Cubic Yard*

Embankment shall not be paid for separately but shall be considered subsidiary to pertinent items.

WING AVIATION APRON CONNECTOR AND CLAIRE CHENNAULT STREET DRIVEWAY RECONSTRUCTION

ADDISON AIRPORT

ADDISON, TEXAS



TOWN OF ADDISON BID NO. 18-22
 GARVER PROJECT NO. 17081100
 DECEMBER 2017



3010 Gaylord Parkway
 Suite 190
 Frisco, TX 75034
 (972) 377-7480

EARTHWORK QUANTITIES		
WORK	CUT (C.Y.)	FILL (C.Y.)
WING AVIATION APRON CONNECTOR CONSTRUCTION	142	76
DITCH GRADING	176	200



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REGISTRATION NO.
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ADDISON AIRPORT
 ADDISON, TEXAS

WING AVIATION APRON CONNECTOR AND CLAIRE CHENNAULT STREET DRIVEWAY RECONSTRUCTION

COVER SHEET

JOB NO.: 17081100
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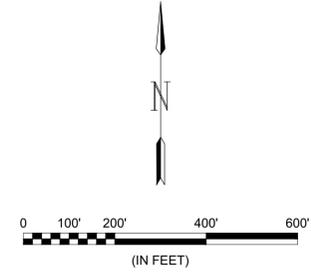
G-101

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LEGEND	
	WING AVIATION APRON CONNECTOR CONSTRUCTION (BASE BID 1)
	CLAIRE CHENNAULT DRIVE RECONSTRUCTION (BASE BID 2)
	ACCESS GATE
	CONTRACTOR STAGING AREA
	EMPLOYEE PARKING
	HAUL ROUTES



ITEMS OF WORK	
BIDDING	DESCRIPTION
BASE BID 1 - WING AVIATION APRON CONNECTOR CONSTRUCTION	1. INSTALL BARRICADES. 2. CONSTRUCTION OF WING AVIATION APRON ENTRANCE. 3. COMPLETE ALL GRADING ACCORDING TO LAYOUT PLANS.
BASE BID 2 - CLAIRE CHENNAULT STREET DRIVEWAY RECONSTRUCTION	1. INSTALL BARRICADES. 2. FULL DEPTH RECONSTRUCTION OF CLAIRE CHENNAULT DRIVE AS SHOWN WITHIN LAYOUT PLAN.

TOTAL CONTRACT TIME

	CALENDAR DAYS	WORK AVAILABILITY
WING AVIATION APRON ENTRANCE (BASE BID 1)		ANYTIME
CLAIRE CHENNAULT DRIVE (BASE BID 2)		ANYTIME



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 ADDISON, TEXAS

WING AVIATION APRON CONNECTOR AND CLAIRE CHENNAULT STREET DRIVEWAY RECONSTRUCTION

GENERAL PROJECT LAYOUT

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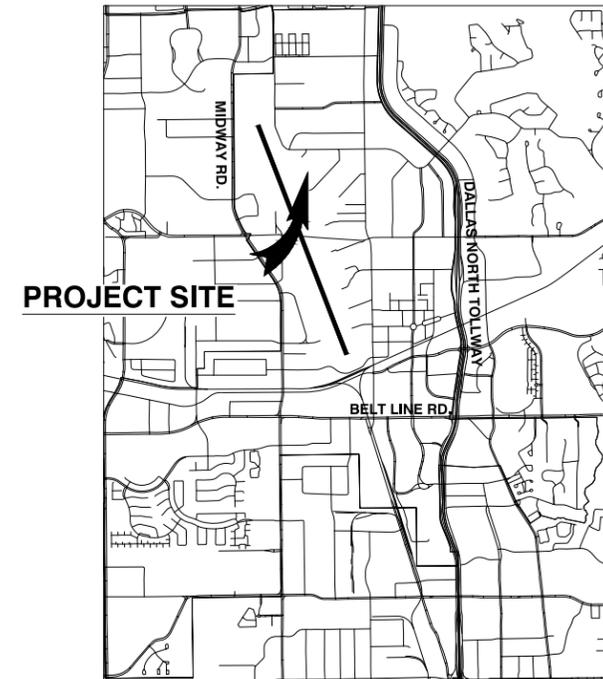
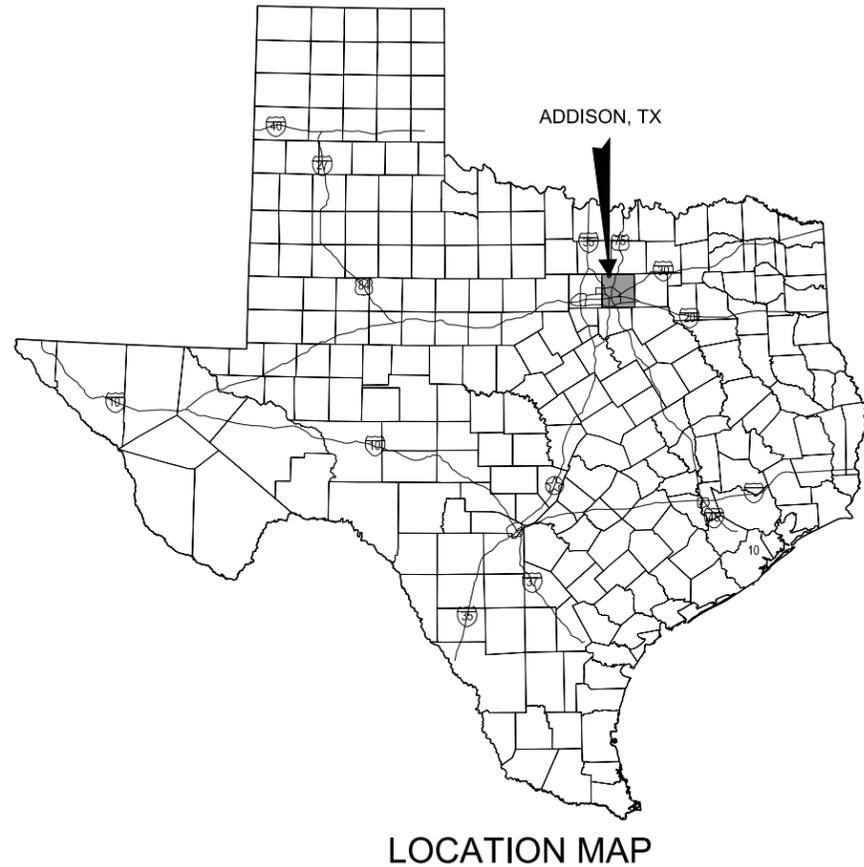
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G-201

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3

WING AVIATION APRON CONNECTOR AND CLAIRE CHENNAULT STREET DRIVEWAY RECONSTRUCTION

ADDISON AIRPORT

ADDISON, TEXAS



TOWN OF ADDISON BID NO. 18-22
 GARVER PROJECT NO. 17081100
 DECEMBER 2017



3010 Gaylord Parkway
 Suite 190
 Frisco, TX 75034
 (972) 377-7480

EARTHWORK QUANTITIES		
WORK	CUT (C.Y.)	FILL (C.Y.)
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REGISTRATION NO.
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 ADDISON, TEXAS

WING AVIATION APRON CONNECTOR AND CLAIRE CHENNAULT STREET DRIVEWAY RECONSTRUCTION

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DRAWING NUMBER
G-101

SHEET NUMBER
1

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5	G-203	SAFETY & PHASING PLAN - CLAIRE CHENNAULT STREET DRIVEWAY RECONSTRUCTION (BASE BID 2)
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GENERAL NOTES

- THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES 48 HOURS BEFORE WORK IS STARTED TO VERIFY UTILITY LOCATIONS (DIGTESS 1-800-344-8377).
- THE CONTRACTOR SHALL NOTIFY ADDISON AIRPORT OPERATIONS 48 HOURS IN ADVANCE OF CONSTRUCTION ACTIVITY TO ALLOW SUFFICIENT TIME FOR COORDINATION OF NOTAMS AND TO LOCATE AND MARK EXISTING FIELD CABLES AND TO AVOID UNSCHEDULED FACILITY OUTAGES. THE CONTRACTOR SHALL PROVIDE 35 DAYS NOTICE TO FAA PRIOR TO BEGINNING CONSTRUCTION.
- THE CONTRACTOR SHALL COMPLETE ALL WORK IN ACCORDANCE WITH THE FAA ADVISORY CIRCULAR 150/5370-2F, OR CURRENT VERSION, "OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION".
- THE CONTRACTOR'S STAGING AREA FOR OFFICE, STOCKPILE, EQUIPMENT, ENGINEER'S OFFICE, MATERIALS STORAGE AND EMPLOYEE PARKING SHALL BE NO CLOSER THAN 25 FEET FROM ANY FENCE LINE. ADDISON OPERATIONS SHALL APPROVE THE EXACT LOCATION OF THE STAGING AREA PRIOR TO ITS USE. THE SUGGESTED LOCATION IS SHOWN, OTHERS PROPOSED MAY BE ACCEPTABLE.
- THE CONTRACTOR SHALL MAINTAIN ALL EXISTING ACCESS AND HAUL ROADS OUTSIDE THE LIMITS OF CONSTRUCTION DURING CONSTRUCTION AND SHALL RESTORE THE ROADS TO A CONDITION EQUAL TO OR BETTER THAN ITS ORIGINAL CONDITION AT NO ADDITIONAL COST TO THE OWNER. THE LOCATION OF ANY ADDITIONAL HAUL ROADS DESIRED BY THE CONTRACTOR IS SUBJECT TO THE APPROVAL OF THE AIRPORT AND ENGINEER.
- THE CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTING AND MAINTAINING TEMPORARY ACCESS AND/OR HAUL ROADS WHERE NECESSARY TO THE CONSTRUCTION LIMITS. THE CONTRACTOR SHALL COMPLETELY REMOVE THE TEMPORARY HAUL ROADS SHOWN ON THE PHASING PLANS UPON COMPLETION OF THE PROJECT AND SHALL RESTORE THE GROUND SURFACE AND TURF IN THE AREA TO ITS CONDITION PRIOR TO THIS CONSTRUCTION.
- DURING MATERIAL DELIVERY / PAVING OPERATIONS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND MAINTAINING TRAFFIC CONTROL. TRAFFIC CONTROL SHALL BE INCIDENTAL TO THE TOTAL PROJECT.
 - ALL VEHICLES MUST STOP PRIOR TO ENTERING THE AIRPORT. IF A GATE GUARD IS USED, THEY MUST WAIT FOR THE GATE GUARD TO SIGNAL THEM TO PROCEED. ONLY AUTHORIZED CONTRACTORS, FAA PERSONNEL, AIRPORT PERSONNEL, PROJECT ENGINEERS, AND TENNANTS WILL BE ALLOWED ACCESS. THE CONTRACTOR WILL FURNISH TRAINING AND WRITTEN PROCEDURES TO THE GATE GUARD THAT MUST BE FOLLOWED DURING THE PROJECT.
 - DELIVERY VEHICLES FOR THE CONTRACTOR NEED TO CHECK IN AT THE GATE. THE CONTRACTOR MUST MAINTAIN POSITIVE ESCORT CONTROL OF ALL DELIVERY VEHICLES WHILE ON SITE.
 - THE GATE GUARD SHALL BE EQUIPPED WITH A TELEPHONE TO CONTACT AIRPORT OPERATIONS IF ANY UNAUTHORIZED VEHICLE ATTEMPTS TO ENTER THE AIRPORT AIR OPERATIONS AREA.
 - THE ACCESS GATE SHOWN ON THE PLANS SHALL REMAIN CLOSED AT ALL TIMES.
 - ANY AND ALL FINES THAT MAY BE LEVIED ON THE AIRPORT FOR A SECURITY AND/OR SAFETY VIOLATION IN CONNECTION WITH THE ACCESS GATE OR THE CONTRACTOR'S ACTIVITIES SHALL BE PAID BY THE CONTRACTOR. THE FAA MAY ASSESS A FINE DEPENDING ON THE SERIOUSNESS OF THE INFRACTION.
 - THE CONTRACTOR SHALL AT ALL TIMES ENSURE AGAINST UNAUTHORIZED ACCESS TO THE AIRFIELD.
 - PRIVATE AND COMPANY VEHICLES OPERATING WITHIN THE AIRCRAFT OPERATION AREA (AOA) MUST HAVE A COMPANY LOGO / IDENTIFICATION ON BOTH SIDES OF THE VEHICLE. THE CONTRACTOR'S EMPLOYEES' VEHICLES PARKED IN ANY OF THE CONTRACTOR'S STAGING AREA AND NOT USED FOR CONSTRUCTION PURPOSES DO NOT REQUIRE THIS IDENTIFICATION. SIGNS AS DESCRIBED ABOVE ARE REQUIRED ON PRIVATE VEHICLES OPERATED IN AREAS OTHER THAN THE STAGING AREA, DIRECT ACCESS ROUTES TO AND FROM THE STAGING AREA AND WITHIN THE CONSTRUCTION WORK LIMITS.
- CONSTRUCTION WORK LIMITS ARE AS SHOWN ON THE PLANS. ANY AND ALL WORK CONDUCTED OUTSIDE THE CONSTRUCTION LIMITS, EXCEPT FOR MAINTENANCE ON BARRICADES SHALL BE ACCOMPLISHED WITH THE USE OF AN AIRPORT ESCORT. THE CONTRACTOR WILL PROVIDE AN ESCORT WITH A MINIMUM NOTICE OF TWO WORKING DAYS. NO WORK OR TRAVEL WILL BE PERMITTED OUTSIDE THE CONSTRUCTION LIMITS SHOWN WITHOUT PRIOR APPROVAL BY AIRPORT OPERATIONS AND AN AUTHORIZED ESCORT. AIRPORT OPERATIONS WILL NEED TO KEEP OPEN

VARIOUS TAXIWAYS ADJACENT OR IN THE PROXIMITY OF OR CROSSING THE CONSTRUCTION AREA. THE WORK SHALL BE COORDINATED WITH AIRPORT OPERATIONS. NO WORK IS PERMITTED NOR ARE OPEN EXCAVATIONS, STORED MATERIALS, STOCKPILES OR EQUIPMENT ALLOWED OUTSIDE OF THE WORK AREA AS SHOWN IN THE PLANS WITHOUT PRIOR COORDINATION WITH AIRPORT OPERATIONS.

- THE CONTRACTOR'S ACCESS TO THE AIRFIELD IS LIMITED TO THE LOCATIONS AS SHOWN ON THE PLANS. ACCESS FROM THE GATE TO THE STAGING, STORAGE AND WORK AREAS SHALL BE CONFINED TO THE ROUTES SHOWN AND WITHIN THE WORK AREA LIMITS. ACCESS VIA ANY OTHER ROUTES OR GATES WILL REQUIRE PRIOR WRITTEN APPROVAL BY AIRPORT OPERATIONS.
- ANY TEMPORARY FACILITIES SHALL BE COMPLETELY REMOVED FROM THE SITE AT THE COMPLETION OF THE PROJECT AND THE SITE RESTORED TO ITS ORIGINAL CONDITION.
- CONSTRUCTION LIMITS - ALL CONTRACTOR VEHICLES AND TRAFFIC (UNLESS OTHERWISE AUTHORIZED) SHALL REMAIN WITHIN THE DESIGNATED CONSTRUCTION LIMITS OR HAUL ROUTES. CONSTRUCTION, STORAGE AND STOCKPILING LIMITS MUST BE APPROVED BY THE AIRPORT OR ENGINEER.
- FUEL, DIESEL FUEL, OR OTHER CONTAMINANTS SHALL NOT BE ALLOWED TO ENTER THE STORM SEWER SYSTEM. IF, IN THE EVENT SUCH CONTAMINANTS DO ENTER THE STORM SEWER SYSTEM OR GROUND WATER, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE AIRPORT OF THE SPILL. THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL COSTS INCURRED FOR CLEANUP OF CONTAMINATED AREAS ON AND OFF AIRPORT PROPERTY.
- CAUTION SHALL BE TAKEN BY THE CONTRACTOR IN PREVENTING ANY DUST OR MUD WHICH MAY BECOME A HAZARD TO AIR AND GROUND OPERATIONS. THE CONTRACTOR SHALL CONTROL DUST AND MUD AT ALL TIMES AND MAY REQUIRE FULL TIME OPERATION WATER TRUCKS OR SWEEPERS. IF, IN THE OPINION OF THE AIRPORT OR THE ENGINEER, DUST OR MUD IS NOT BEING ADEQUATELY CONTROLLED THEY MAY SUSPEND WORK AND MAKE NECESSARY ARRANGEMENTS FOR DUST OR MUD CONTROL. THE COSTS THEREFORE SHALL BE DEDUCTED FROM THE PROGRESS PAYMENTS DUE THE CONTRACTOR.
- CONTRACTOR SHALL TAKE THE NECESSARY STEPS TO OBTAIN DRIVER'S TRAINING FOR CONTRACTOR EMPLOYEES PRIOR TO ENTERING THE AIR OPERATIONS AREA.
- MATERIAL / TOPSOIL STOCKPILES SHALL BE AT LOCATIONS APPROVED BY THE AIRPORT. MAXIMUM STOCKPILE HEIGHT IS 20 FEET.
- THE CONTRACTOR WILL ISSUE AIRPORT APPROVED LAMINATED SAFETY CARDS SHOWING THE ACCESS GATE LOCATION, CONSTRUCTION AREA, ACCESS / HAUL ROUTE, CLOSED PAVEMENTS AND RUNWAY SAFETY AREAS AND/OR ANY OTHER PERTINENT INFORMATION. THESE CARDS WILL BE SUPPLIED BY THE CONTRACTOR. THESE SAFETY CARDS WILL BE SPECIFIC TO EACH INTERMEDIATE PHASE OF THE PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR DISTRIBUTING AND COLLECTING THESE CARDS TO ALL OF THEIR EMPLOYEES, SUBCONTRACTORS AND SUPPLIER DELIVERY DRIVERS WHO WILL ENTER THE AOA. THE CONTRACTOR IS REQUIRED TO BRIEF ALL EMPLOYEES OR SUBCONTRACTORS ON AIRPORT SECURITY AND SAFETY PRIOR TO DISTRIBUTING THE SAFETY CARDS. BEFORE A NEW EMPLOYEE, SUBCONTRACTOR OR SUPPLIER BEGINS WORKING ON THE AIRPORT THE CONTRACTOR IS RESPONSIBLE TO MAKE SURE THEY ARE AWARE OF AIRPORT OPERATIONS, AS WELL AS GIVE THEM A TOUR OF THE PROJECT SITE, SHOWING THEM THE SPECIFIC WORK AREA, HAUL ROUTE AND THE MOVEMENT AREA THAT IS NOT TO ENTERED WITHOUT AIRPORT APPROVAL.
- ALL EMPLOYEES OF THE CONTRACTOR OR SUBCONTRACTORS SHALL RECEIVE VEHICLE OPERATOR/PEDESTRIAN TRAINING FROM THE PROJECT SUPERINTENDENT. ALL EMPLOYEES SHALL RECEIVE NEW TRAINING WHEN MOVED TO DIFFERENT WORK AREAS OR PHASES OF THE PROJECT. A CONTRACTOR VEHICLE OPERATOR/PEDESTRIAN TRAINING CHECKLIST IS PROVIDED IN THE CONTRACT SPECIFICATIONS. THE CONTRACTOR'S PROJECT SUPERINTENDENT SHALL MAINTAIN THE COMPLETED CHECKLIST AND PROVIDE TO AIRPORT PERSONNEL FOR INSPECTION UPON THEIR REQUEST.
- IF FOR ANY REASON, THE AIRPORT OR ENGINEER FEELS THAT SAFETY IS NOT BEING ADEQUATELY MAINTAINED, THEY MAY SUSPEND WORK UNTIL THE SAFETY ISSUE IS RESOLVED. THE COSTS THEREFORE SHALL BE DEDUCTED FROM THE PROGRESS PAYMENTS DUE THE CONTRACTOR.
- IN THE EVENT THAT UNANTICIPATED ARCHEOLOGICAL DEPOSITS ARE ENCOUNTERED DURING CONSTRUCTION, WORK IN THE IMMEDIATE AREA WILL CEASE AND THE TXDOT ENGINEER WILL BE NOTIFIED.
- IN THE EVENT THAT UNANTICIPATED HAZARDOUS MATERIALS ARE ENCOUNTERED DURING CONSTRUCTION, WORK IN THE IMMEDIATE AREA WILL CEASE AND THE TXDOT PROJECT MANAGER WILL BE NOTIFIED.
- STOCKPILES AND STAGING AREAS WILL NOT BE PLACED WITHIN ANY WATER OF THE UNITED STATES, INCLUDING WETLANDS.
- HAZARDOUS WASTE: ALL SPILLS MUST BE REPORTED IMMEDIATELY TO THE TXDOT ENGINEER.



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REGISTRATION NO.
F-5713



DIGITALLY SIGNED
12/26/2017

REV.	DATE	DESCRIPTION	BY



SHEET INDEX &
GENERAL NOTES

JOB NO.: 17081100
 DATE: NOV 2017
 DESIGNED BY: JAH
 DRAWN BY: JAH

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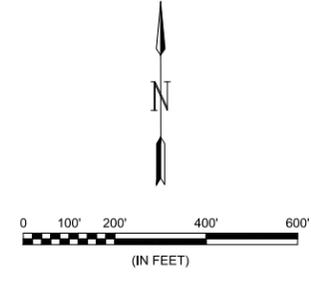
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G-102

SHEET NUMBER
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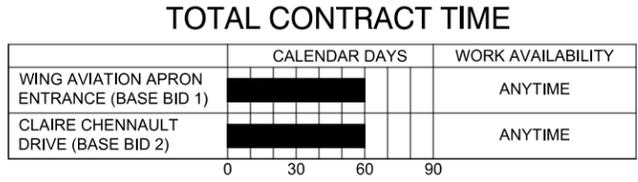
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 Last plotted by: Beville, Brandon C. Plot Style: AECmon.ctb Plot Scale: 1:1 Plot Date: 12/26/2017 1:57 PM Plotter used: _AutoCAD PDF (General Documentation).pc3



LEGEND	
	WING AVIATION APRON CONNECTOR CONSTRUCTION (BASE BID 1)
	CLAIRE CHENNAULT DRIVE RECONSTRUCTION (BASE BID 2)
	ACCESS GATE
	CONTRACTOR STAGING AREA
	EMPLOYEE PARKING
	HAUL ROUTES



ITEMS OF WORK	
BIDDING	DESCRIPTION
BASE BID 1 - WING AVIATION APRON CONNECTOR CONSTRUCTION	1. INSTALL BARRICADES. 2. REMOVE MARKINGS AS INDICATED ON PHASING SHEETS. 3. CONSTRUCTION OF WING AVIATION APRON ENTRANCE. 4. INSTALL PERMANENT PAVEMENT MARKINGS FOR WING AVIATION APRON ENTRANCE. 5. COMPLETE ALL GRADING ACCORDING TO LAYOUT PLANS.
BASE BID 2 - CLAIRE CHENNAULT STREET DRIVEWAY RECONSTRUCTION	1. INSTALL BARRICADES. 2. FULL DEPTH RECONSTRUCTION OF CLAIRE CHENNAULT DRIVE AS SHOWN WITHIN LAYOUT PLAN.



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REV.	DATE	DESCRIPTION	BY

ADDISON AIRPORT
 ADDISON, TEXAS

WING AVIATION APRON CONNECTOR AND CLAIRE CHENNAULT STREET DRIVEWAY RECONSTRUCTION

GENERAL PROJECT LAYOUT

JOB NO.: 17081100
 DATE: NOV 2017
 DESIGNED BY: JAH
 DRAWN BY: JAH

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SHEET NUMBER
3



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REV.	DATE	DESCRIPTION

ADDISON AIRPORT
 ADDISON, TEXAS
 WING AVIATION APRON CONNECTOR AND CLAIRE CHENNAULT STREET DRIVEWAY RECONSTRUCTION

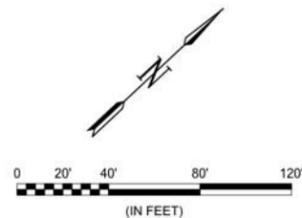
SAFETY & PHASING PLAN - WING AVIATION ENTRANCE (BASE BID 1)

JOB NO.: 17081100
 DATE: NOV 2017
 DESIGNED BY: JAH
 DRAWN BY: JAH

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DRAWING NUMBER
G-202

SHEET NUMBER
4



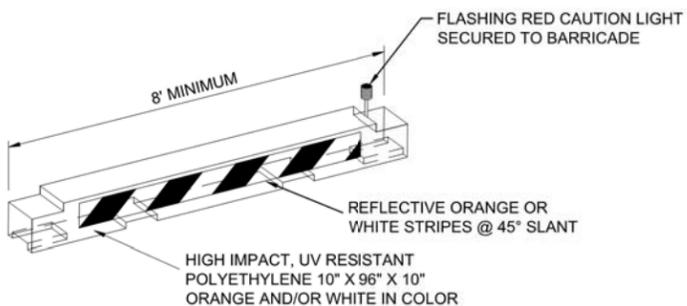
PLACE STEEL PLATES TO DIVERT TRAFFIC DURING WORK ON THE SERVICE ROAD. PAYMENT SHALL BE SUBSIDIARY TO SITE PREPARATION.

EXISTING SERVICE ROAD

TAXILANE U

LEGEND

	PHASE 1 (53 DAYS)		LOW PROFILE AIRCRAFT BARRICADES
	PHASE 1 (INSIDE TEMPORARY TSA)		HAUL ROUTES
	PHASE 2 (5 DAYS)		TAXILANE SAFETY AREA (ADG II)
	ACCESS GATE		TEMPORARY TAXILANE SAFETY AREA (ADG I)
	CONTRACTOR STAGING AREA		



LOW PROFILE AIRCRAFT BARRICADE (MOVEMENT AREAS)

1 G-202 SCALE: NONE

NOTES:

- BARRICADES SHALL BE PLACED DURING WORK ACTIVITIES.
- UPON COMPLETION OF WORK, AREA SHALL BE CLEANED AND FREE OF FOD.
- BARRICADES SHALL MEET THE REQUIREMENTS OF THE CURRENT FAA ADVISORY CIRCULAR 150/5370-2 AND BE APPROVED BY THE ENGINEER.
- CONTRACTOR SHALL WEIGHT BARRICADE TO PREVENT DISPLACEMENT. THE METHOD SHALL BE APPROVED BY THE ENGINEER.
- BARRICADES SHALL BE LOCATED AS DEFINED IN THE CONSTRUCTION SAFETY AND PHASING PLAN (CSPP).

CONTRACT TIME

	CALENDAR DAYS	WORK AVAILABILITY
PHASE 1 (55 DAYS)		ANYTIME
PHASE 2 (5 DAYS)		ANYTIME

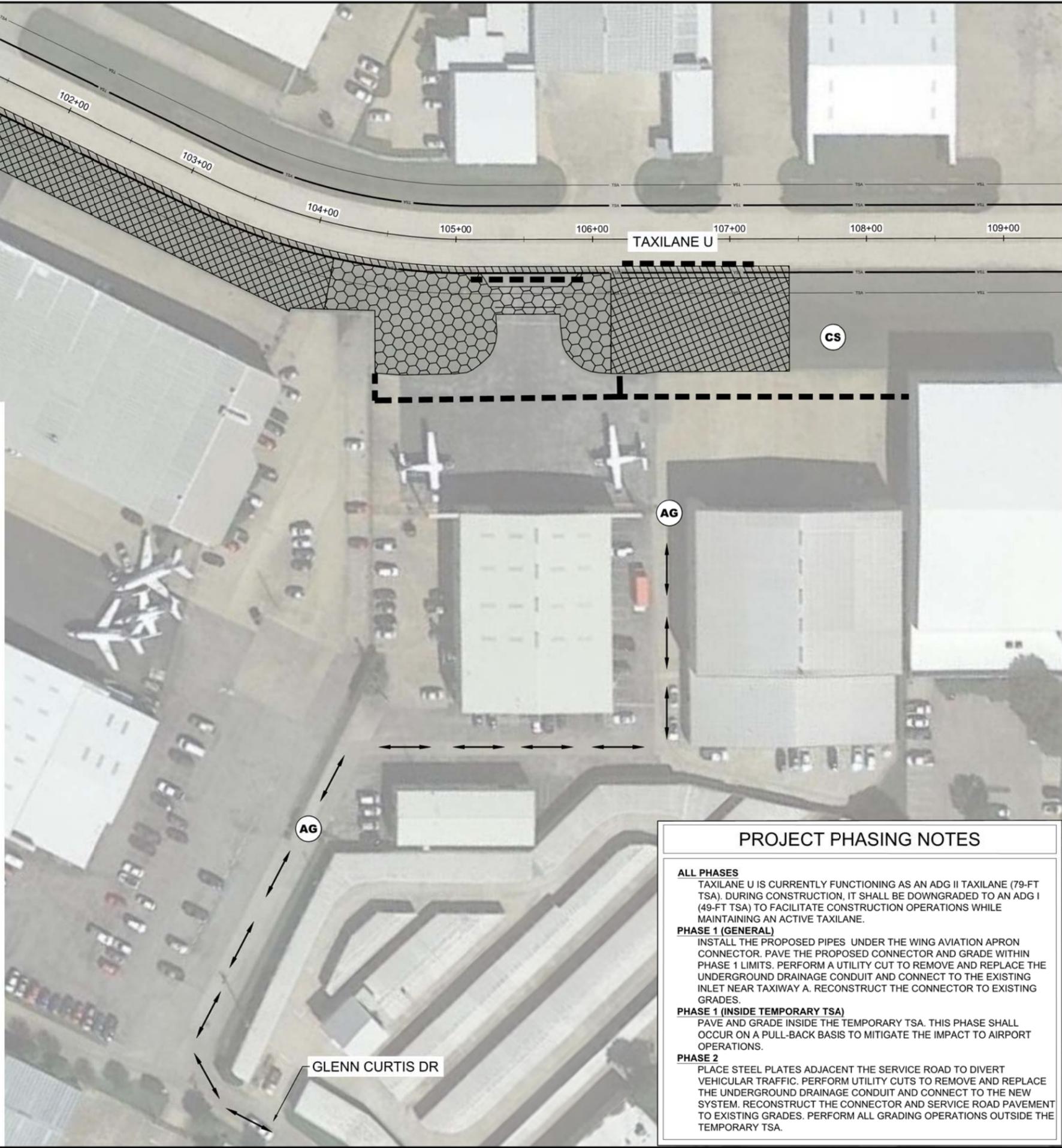
PROJECT PHASING NOTES

ALL PHASES
 TAXILANE U IS CURRENTLY FUNCTIONING AS AN ADG II TAXILANE (79-FT TSA). DURING CONSTRUCTION, IT SHALL BE DOWNGRADED TO AN ADG I (49-FT TSA) TO FACILITATE CONSTRUCTION OPERATIONS WHILE MAINTAINING AN ACTIVE TAXILANE.

PHASE 1 (GENERAL)
 INSTALL THE PROPOSED PIPES UNDER THE WING AVIATION APRON CONNECTOR. PAVE THE PROPOSED CONNECTOR AND GRADE WITHIN PHASE 1 LIMITS. PERFORM A UTILITY CUT TO REMOVE AND REPLACE THE UNDERGROUND DRAINAGE CONDUIT AND CONNECT TO THE EXISTING INLET NEAR TAXIWAY A. RECONSTRUCT THE CONNECTOR TO EXISTING GRADES.

PHASE 1 (INSIDE TEMPORARY TSA)
 PAVE AND GRADE INSIDE THE TEMPORARY TSA. THIS PHASE SHALL OCCUR ON A PULL-BACK BASIS TO MITIGATE THE IMPACT TO AIRPORT OPERATIONS.

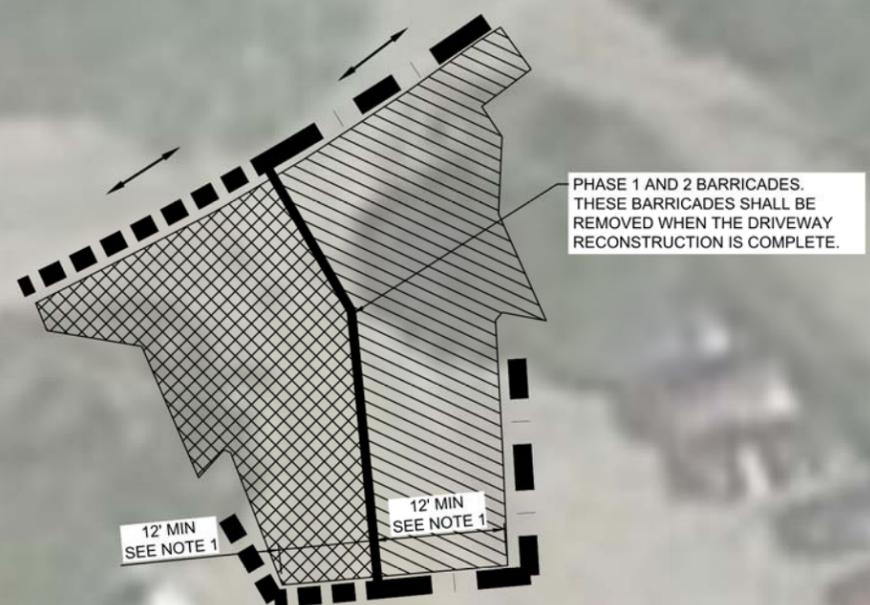
PHASE 2
 PLACE STEEL PLATES ADJACENT THE SERVICE ROAD TO DIVERT VEHICULAR TRAFFIC. PERFORM UTILITY CUTS TO REMOVE AND REPLACE THE UNDERGROUND DRAINAGE CONDUIT AND CONNECT TO THE NEW SYSTEM. RECONSTRUCT THE CONNECTOR AND SERVICE ROAD PAVEMENT TO EXISTING GRADES. PERFORM ALL GRADING OPERATIONS OUTSIDE THE TEMPORARY TSA.



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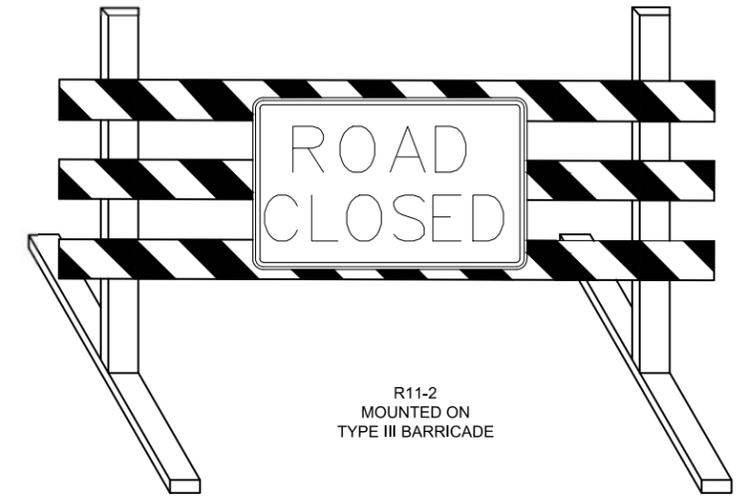
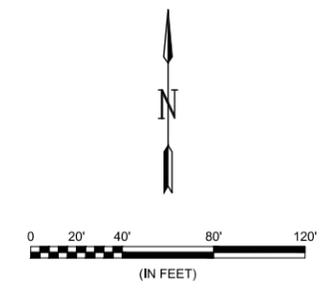
CS

CLAIRE CHENNAULT ST



LEGEND

- PHASE 1 (30 DAYS)
- PHASE 2 (30 DAYS)
- BARRICADES (PHASE 1)
- BARRICADES (PHASE 2)
- HAUL ROUTES
- CONTRACTOR STAGING AREA



CONTRACT TIME

	CALENDAR DAYS	WORK AVAILABILITY
PHASE 1 (30 DAYS)	[Bar chart showing 0 to 30 days]	ANYTIME
PHASE 2 (30 DAYS)	[Bar chart showing 30 to 60 days]	ANYTIME

PROJECT PHASING NOTES

- INSTALL BARRICADES SHOWN IN THE PLANS.
- SWEEP EXISTING PAVEMENT AND PERFORM SURFACE PREPARATION.
- CONSTRUCT FULL DEPTH RECONSTRUCTION OF DRIVE PAVEMENT.
- DRAINAGE AND UNDERGROUND UTILITIES WORK SHALL BE PERFORMED WITHIN THEIR INDIVIDUAL PHASES

TRAFFIC CONTROL NOTES

- THE CONTRACTOR SHALL ENSURE THAT A MINIMUM OF 12' OF USABLE PAVEMENT IS OPEN TO TRAFFIC ON THE DRIVEWAY AT ALL TIME.
- THE CONTRACTOR IS RESPONSIBLE FOR PLACEMENT AND MAINTENANCE OF ALL NECESSARY BARRICADES AS REQUIRED BY THE TOWN OF ADDISON. CONTRACTOR SHALL PROVIDE, INSTALL, AND MAINTAIN TRAFFIC CONTROL DEVICES IN CONFORMANCE WITH THE 2011 TEXAS MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (TMUTCD), TEXAS DEPARTMENT OF TRANSPORTATION. SIGNING AND BARRICADING SHALL BE SUBJECT TO INSPECTION BY THE TOWN.
- NO STOP OR YIELD SIGN IS TO BE RELOCATED OR REMOVED WITHOUT PRIOR APPROVAL BY THE TOWN. THE CONTRACTOR MUST CALL TOWN OF ADDISON TRANSPORTATION DIVISION AND OBTAIN PERMISSION FOR ANY CHANGES IN THESE SIGNS.
- ACCESS TO ABUTTING PROPERTY DURING THE CONSTRUCTION OF THIS PROJECT MUST BE MAINTAINED FOR EMERGENCY AND LOCAL TRAFFIC AT ALL TIMES, EXCEPT AS OTHERWISE ALLOWED BY THESE PLANS OR BY THE TOWN ENGINEER. CONTRACTOR SHALL SEQUENCE CONSTRUCTION OPERATIONS SUCH THAT ACCESS TO RESIDENTIAL STREETS OUTSIDE THE PROJECT LIMITS ARE OPEN AT ALL TIMES.
- ALL PERMANENT LANE MARKINGS ARE TO BE INSTALLED PER THE TOWN OF ADDISON STANDARD DETAILS AND PER THE TEXAS MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
- ALL EXISTING CONFLICTING SIGNS SHALL BE COVERED.



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REGISTRATION NO. F-5713



DIGITALLY SIGNED 12/26/2017

REV.	DATE	DESCRIPTION

ADDISON AIRPORT
ADDISON, TEXAS

WING AVIATION APRON CONNECTOR
AND CLAIRE CHENNAULT STREET
DRIVEWAY RECONSTRUCTION

SAFETY & PHASING PLAN
- CLAIRE CHENNAULT
STREET DRIVEWAY
RECONSTRUCTION
(BASE BID 2)

JOB NO.: 17081100
DATE: NOV 2017
DESIGNED BY: JAH
DRAWN BY: JAH

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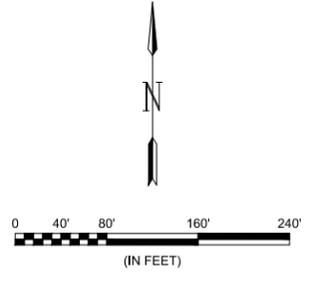
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G-203

SHEET NUMBER **5**

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LEGEND	
△ X	SURVEY CONTROL POINTS

SURVEY CONTROL POINTS				
POINT NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION
A	7040415.68	2479070.97	639.33	BM/SET SQUARE CUT
B	7041202.84	2479082.54	637.87	IRSC/5/8IN PLASTIC YELLOW
C	7041196.28	2479233.52	638.38	IRSC/5/8IN PLASTIC YELLOW
D	7041215.45	2479331.60	639.68	IRSC/5/8IN PLASTIC YELLOW
E	7041248.78	2479436.39	640.44	IRSC/5/8IN PLASTIC YELLOW
F	7041397.75	2479489.47	639.15	IRSC/5/8IN PLASTIC YELLOW
G	7041509.86	2479595.06	639.83	IRSC/5/8IN PLASTIC YELLOW
H	7041584.78	2479727.09	640.45	IRSC/5/8IN PLASTIC YELLOW
I	7041721.00	2479788.31	641.36	IRSC/5/8IN PLASTIC YELLOW
J	7041789.10	2479917.95	641.80	IRSC/5/8IN PLASTIC YELLOW
K	7041894.98	2480022.25	642.66	IRSC/5/8IN PLASTIC YELLOW



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REV.	DATE	DESCRIPTION	BY

ADDISON AIRPORT
 ADDISON, TEXAS
WING AVIATION APRON CONNECTOR AND CLAIRE CHENNAULT STREET DRIVEWAY RECONSTRUCTION

SURVEY CONTROL PLAN

JOB NO.: 17081100
 DATE: NOV 2017
 DESIGNED BY: JAH
 DRAWN BY: JAH

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SHEET NUMBER
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ADDISON AIRPORT
 ADDISON, TEXAS

ADDISON AIRPORT
 WING AVIATION APRON CONNECTOR AND CLAIRE CHENNAULT STREET DRIVEWAY RECONSTRUCTION

EROSION CONTROL PLAN

JOB NO.: 17081100
 DATE: NOV 2017
 DESIGNED BY: JAH
 DRAWN BY: JAH

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G-401

SHEET NUMBER
7



LEGEND

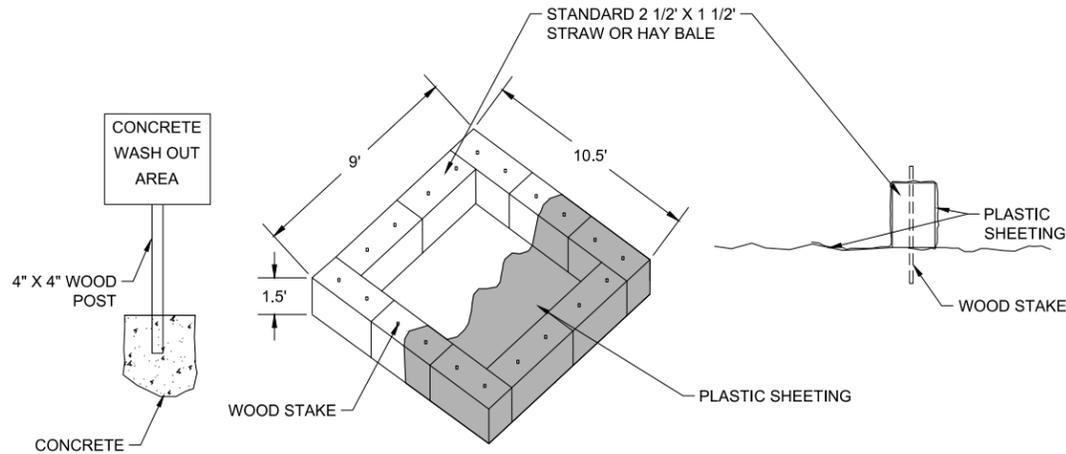
- CW** CONCRETE WASHOUT
- CE** CONSTRUCTION EXIT
- DRAINAGE STRUCTURE PROTECTION*

NOTES:

* DRAINAGE STRUCTURE PROTECTION CONSISTS OF INSTALLING EROSION CONTROL LOG AROUND EACH STRUCTURE, UNLESS OTHERWISE NOTED.

THE CONTRACTOR SHALL PROTECT THE PROPOSED DRAINAGE STRUCTURES AFTER INSTALLATION USING THESE PROTECTIONS OR OTHER APPROVED METHODS.

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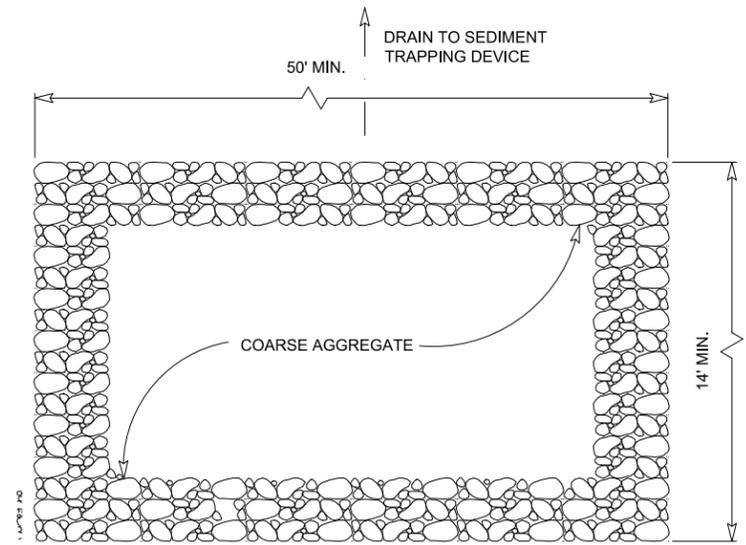
1 CONCRETE WASH OUT AREA
G-402 SCALE: NONE

NOTES:

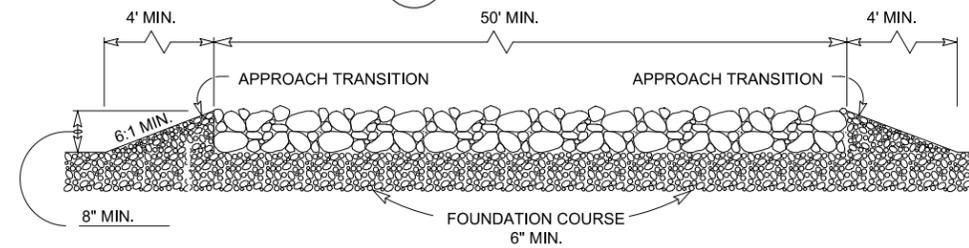
1. PLASTIC MUST BE 10 MIL THICK OR TWO 6 MIL PIECES OVERLAPPED.
2. ONCE CONCRETE DRIES, IT CAN BE ROLLED UP IN THE PLASTIC.
3. HAY BALES MUST BE STAKED WITH STAKED HOLDING PLASTIC LINER IN PLACE AND COVER ALL BALES. WOODEN STAKES MUST BE 3 FEET IN LENGTH.
4. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH A WASH OUT AREA.
5. THE CONCRETE TRUCK DRIVER AND CONTRACTOR CAN BE CITED FOR WASH OUTS CONDUCTED IN A NON-DESIGNATED AREA.
6. AFTER THE DESIGNATED AREA FOR THE WASH OUT IS DETERMINED, SIGNAGE INDICATING CONCRETE WASH OUT AREA SHALL BE INSTALLED THAT IS VISIBLE TO EXITING VEHICLES. THE SIGN SHALL BE PLACED ON A WOOD POST AND ANCHORED IN CONCRETE.

EROSION CONTROL NOTES:

1. THE CONTRACTOR IS RESPONSIBLE FOR THE PROPER INSTALLATION OF THESE DEVICES AS SHOWN ON THIS SHEET, AND DESCRIBED IN THE SPECIFICATIONS. ADDITIONAL EROSION CONTROL AND/OR ADJUSTMENT OF LOCATIONS FOR EROSION CONTROL MAY BE REQUIRED.
2. SILT FENCES, DITCH CHEXX, INLET FILTERS AND INLET FILTER BARRIERS SHALL BE INSTALLED PER MANUFACTURER RECOMMENDATIONS AND ACCORDING TO THESE PLANS.
3. EACH CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL EROSION CONTROL DEVICES ALREADY IN PLACE. CONTRACTOR SHALL REMOVE AND REPLACE EROSION CONTROL AS NEEDED FOR CONSTRUCTION OR ACCESS. ALL EROSION CONTROL MUST BE IN PLACE AT ALL TIMES DURING CONSTRUCTION.
4. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO USE WHATEVER MEANS NECESSARY TO CONTROL AND LIMIT SILT AND SEDIMENT LEAVING THE SITE. SPECIFICALLY, THE CONTRACTOR SHALL PROTECT ALL TAXIWAYS, TAXILANES, PARKING AREAS, STREAMS, CREEKS, STORM DRAIN SYSTEMS AND INLETS FROM EROSION DEPOSITS.



2A PLAN
G-402 SCALE: NONE



2B PROFILE
G-402 SCALE: NONE

2 CONSTRUCTION EXIT (TYPE 1)
G-402 SCALE: NONE

GENERAL NOTES:

1. THE LENGTH OF THE TYPE 1 CONSTRUCTION EXIT SHALL BE AS INDICATED ON THE PLANS, BUT NOT LESS THAN 50'.
2. THE COARSE AGGREGATE SHOULD BE OPEN GRADED WITH A SIZE OF 4" TO 8".
3. THE APPROACH TRANSITIONS SHOULD BE NO STEEPER THAN 6:1 AND CONSTRUCTED AS DIRECTED BY THE ENGINEER.
4. THE CONSTRUCTION EXIT FOUNDATION COURSE SHALL BE FLEXIBLE BASE, BITUMINOUS CONCRETE, PORTLAND CEMENT CONCRETE OR OTHER MATERIAL AS APPROVED BY THE ENGINEER.
5. THE CONSTRUCTION EXIT SHALL BE GRADED TO ALLOW DRAINAGE TO A SEDIMENT TRAPPING DEVICE.
6. THE GUIDELINES SHOWN HEREON ARE SUGGESTIONS AND MAY BE MODIFIED BY THE ENGINEER.



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REGISTRATION NO. F-5713



DIGITALLY SIGNED 12/26/2017

REV.	DATE	DESCRIPTION	BY

ADDISON AIRPORT
ADDISON, TEXAS

ADDISON AIRPORT

WING AVIATION APRON CONNECTOR AND CLAIRE CHENNAULT STREET DRIVEWAY RECONSTRUCTION

EROSION CONTROL DETAILS I

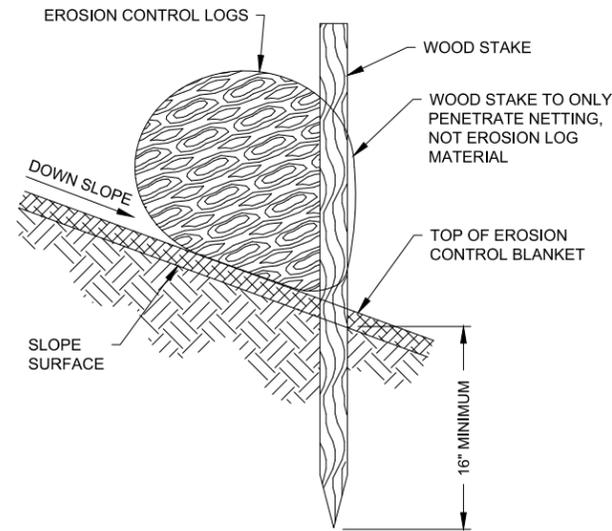
JOB NO.: 17081100
DATE: NOV 2017
DESIGNED BY: JAH
DRAWN BY: JAH

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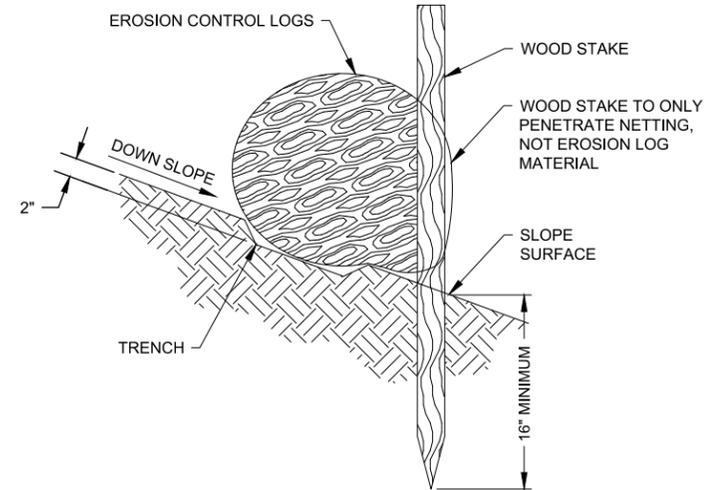
DRAWING NUMBER
G-402

SHEET NUMBER
8

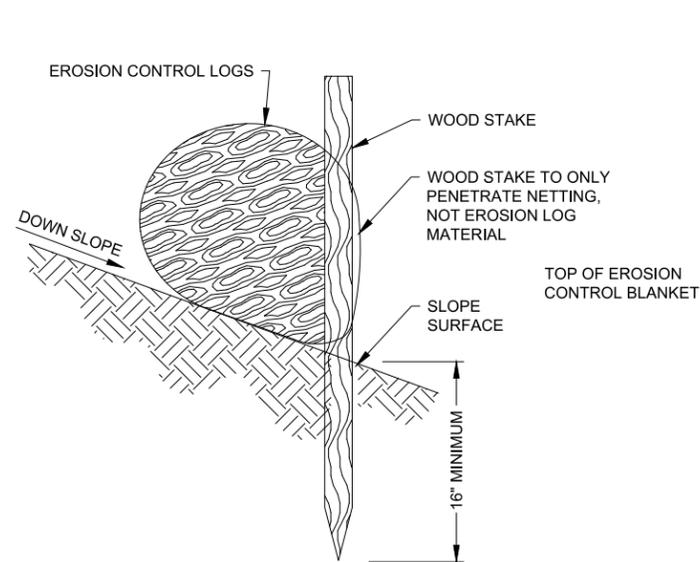
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 Last plotted by: Beville, Brandon C. Plot Style: AECmonochrome.ctb Plot Scale: 1:1 Plot Date: 12/26/2017 1:58 PM Plotter used: _AutoCAD PDF (General Documentation).pc3



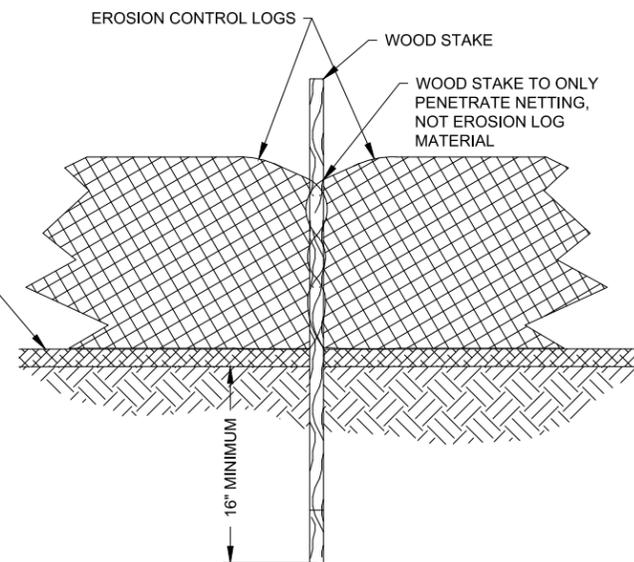
G-403
1A
SCALE: NONE
INSTALLATION WITH BLANKET



G-403
1B
SCALE: NONE
INSTALLATION WITH TRENCH



G-403
1C
SCALE: NONE
INSTALLATION ON BARE SOIL



G-403
1D
SCALE: NONE
INSTALLATION DETAILS (FRONT VIEW)

G-403
1
SCALE: NONE
TEMPORARY EROSION CONTROL LOG

NOTE:
 TRENCH OPTION IS MOST APPLICABLE IN LOOSE, UNCONSOLIDATED SOILS.
 1-1/8" X 1-1/8" X 30" WOODEN STAKES ARE RECOMMENDED FOR 6", 9", AND 12" SEDIMENT LOGS.
 1-1/8" X 1-1/8" X 48" WOODEN STAKES ARE RECOMMENDED FOR 20" SEDIMENT LOGS.



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REGISTRATION NO. F-5713



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12/26/2017

REV.	DATE	DESCRIPTION	BY

ADDISON AIRPORT
 ADDISON, TEXAS
ADDISON AIRPORT
 WING AVIATION APRON CONNECTOR AND CLAIRE CHENNAULT STREET DRIVEWAY RECONSTRUCTION

EROSION CONTROL
DETAILS II

JOB NO.: 17081100
 DATE: NOV 2017
 DESIGNED BY: JAH
 DRAWN BY: JAH

BAR IS ONE INCH ON ORIGINAL DRAWING
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DRAWING NUMBER
G-403

SHEET NUMBER
9

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 Last plotted by: Beville, Brandon C. Plot Style: AECmonochrome.ctb Plot Scale: 1:1 Plot Date: 12/26/2017 1:58 PM Plotter used: _AutoCAD PDF (General Documentation).pc3

Site Description

PROJECT LIMITS: Addison Airport, Addison, TX

PROJECT DESCRIPTION: Improvements of the Northwest drainage ditch condition.

MAJOR SOIL DISTURBING ACTIVITIES: Installation of slope protection around existing drainage ditch as well as construction of a new drainage ditch section.

TOTAL PROJECT AREA: 1.91 ACRES

TOTAL AREA TO BE DISTURBED: 1.91 ACRES

WEIGHTED RUNOFF COEFFICIENT (AFTER CONSTRUCTION): 0.9

EXISTING CONDITON OF SOIL & VEGETATIVE COVER AND % OF EXISTING VEGETATIVE COVER: The existing cover is clayey with Bermuda grass and is in fair condition. Existing vegetative cover is at 85%

NAME OF RECEIVING WATERS: The Addison airport is in the Hutton Branch watershed and the receiving water is Elm Fork Trinity River.

SOIL STABILIZATION PRACTICES:

- TEMPORARY SEEDING
- PERMANENT PLANTING, SODDING, OR SEEDING
- MULCHING
- SOIL RETENTION BLANKET
- BUFFER ZONES
- PRESERVATION OF NATURAL RESOURCES

OTHER: _____

STRUCTURAL PRACTICES:

- SILT FENCES
- HAY BALES
- ROCK BERMS
- DIVERSION, INTERCEPTOR, OR PERIMETER DIKES
- DIVERSION, INTERCEPTOR, OR PERIMETER SWALES
- DIVERSION DIKE AND SWALE COMBINATIONS
- PIPE SLOPE DRAINS
- PAVED FLUMES
- ROCK BEDDING AT CONSTRUCTION EXIT
- TIMBER MATTING AT CONSTRUCTION EXIT
- CHANNEL LINERS
- SEDIMENT TRAPS
- SEDIMENT BASINS
- STORM INLET SEDIMENT TRAP
- STONE OUTLET STRUCTURES
- CURBS AND GUTTERS
- STORM SEWERS
- VELOCITY CONTROL DEVICES

OTHER: CONCRETE WASHOUT

NARRATIVE – SEQUENCE OF CONTRUSTION (STORM WATER MANAGEMENT) ACTIVITIES:

Erosion and sediment controls shall be installed at the beginning of the project. Once installed, these devices will be maintained during the duration of the project. Erosion and sediment controls will be removed at the project's completion.

STORM WATER MANAGEMENT: Existing storm sewers and drainage ditches will be used to remove water from the site. Storm water from the site will flow through rock filter dams to filter sediment from storm water runoff before it leaves the site.

OTHER EROSION AND SEDIMENT CONTROLS

MAINTENANCE:

ALL EROSION AND SEDIMENT CONTROLS WILL BE MAINTAINED IN GOOD WORKING ORDER. IF A REPAIR IS NECESSARY, IT WILL BE DONE AT THE EARLIEST DATE POSSIBLE, BUT NO LATER THAN 7 CALENDAR DAYS AFTER THE SURROUNDING EXPOSED GROUND HAS DRIED SUFFICIENTLY TO PREVENT DAMAGE FROM HEAVY EQUIPMENT. THE AREAS ADJACENT TO CREEKS AND DRAINAGE WAYS SHALL HAVE PRIORITY FOLLOWED BY DEVICES USED FOR SILT REDUCTION IN THE DISTURBED AREAS.

INSPECTION:

AN INSPECTION WILL BE PERFORMED BY A RESIDENT PROJECT REPRESENTATIVE EVERY 7 DAYS AN INSPECTION REPORT WILL BE MADE PER EACH INSPECTION. BASED ON THE INSPECTION RESULTS, THE CONTROLS SHALL BE REVISED PER THE INSPECTION REPORT.

WASTE MATERIALS:

ALL WASTE MATERIALS WILL BE COLLECTED AND STORED IN A SECURELY LIDDED METAL DUMPSTER. THE DUMPSTER WILL MEET ALL STATE AND LOCAL SOLID WASTE MANAGEMENT REGULATIONS. ALL TRASH AND CONSTRUCTION DEBRIS FROM THE SITE WILL BE DEPOSITED IN THE DUMPSTER. THE DUMPSTER WILL BE EMPTIED AS NECESSARY OR AS REQUIRED BY LOCAL REGULATION AT AN APPROVED LANDFILL. NO CONSTRUCTION WASTE MATERIAL WILL BE BURIED ON SITE.

HAZARDOUS WASTE (INCLUDING SPILL REPORTING):

AT A MINIMUM, ANY PRODUCTS IN THE FOLLOWING CATEGORIES ARE CONSIDERED TO BE HAZARDOUS: PAINTS ACIDS FOR CLEANING MASONRY SURFACES, CLEANING SOLVENTS, ASPHALT PRODUCTS, CHEMICAL ADDITIVES FOR SOIL STABILIZATION, AND CONCRETE CURING COMPOUNDS AND ADDITIVES. IN THE EVENT OF A SPILL WHICH MAY BE HAZARDOUS, THE SPILL COORDINATOR SHOULD BE CONTACTED IMMEDIATELY.

SANITARY WASTE:

ALL SANITARY WASTE WILL BE COLLECTED FROM THE PORTABLE UNITS BY A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR AS NECESSARY OR AS REQUIRED BY LOCAL REGULATION.

OFFSITE VEHICLE TRACKING:

- HAUL ROADS DAMPENED FOR DUST CONTROL
- LOADED HAUL TRUCKS TO BE COVERED WITH TARPULIN
- EXCESS DIRT ON ROAD REMOVED DAILY
- STABILIZED CONSTRUCTION ENTRANCE

OTHER:

REMARKS:

DISPOSAL AREAS, STOCKPILES, AND HAUL ROADS SHALL BE CONSTRUCTED IN A MANNER THAT WILL MINIMIZE AND CONTROL THE AMOUNT OF SEDIMENT THAT MAY ENTER RECEIVING WATERS. DISPOSAL AREAS SHALL NOT BE LOCATED IN ANY WETLANDS, WATERBODY OR STREAMBED. CONSTRUCTION STAGING AREAS AND VEHICLE MAINTENANCE AREAS SHALL BE CONSTRUCTED BY THE CONTRACTOR IN A MANNER TO MINIMIZE THE RUNOFF OF POLLUTANTS. ALL WATERWAYS SHALL BE CLEARED AS SOON AS PRACTICAL OF TEMPORARY EMBANKMENT, TEMPORARY BRIDGES, MATTING, FALSE WORK, PILING, DEBRIS OR OTHER OBSTRUCTIONS PAVED DURING CONSTRUCTION OPERATION THAT ARE NOT A PART OF THE FINISHED WORK.



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REGISTRATION NO. F-5713



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EROSION CONTROL NOTES

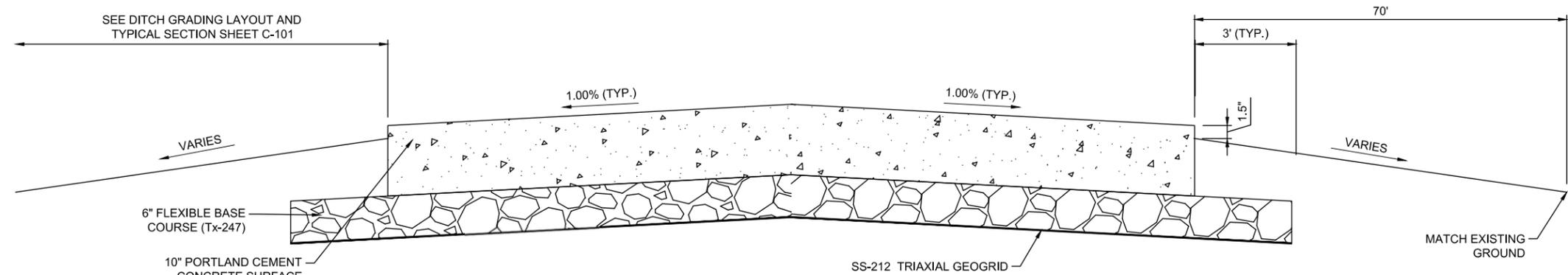
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 DATE: NOV 2017
 DESIGNED BY: JAH
 DRAWN BY: JAH

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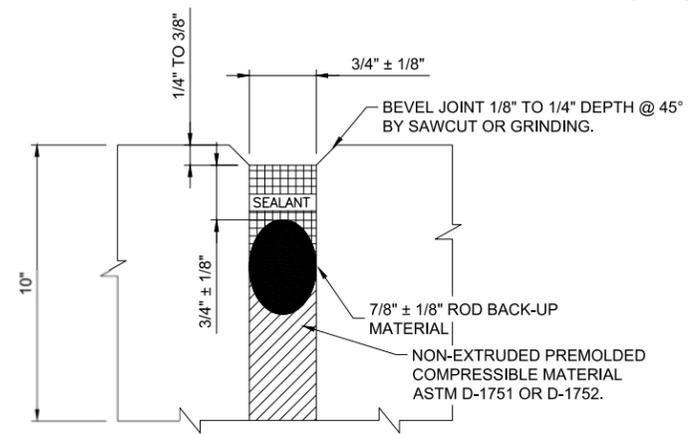
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SHEET NUMBER **10**

SEE DITCH GRADING LAYOUT AND TYPICAL SECTION SHEET C-101



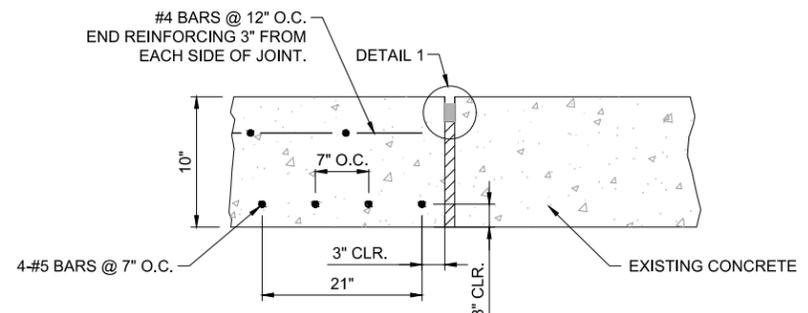
A WING AVIATION APRON CONNECTOR TYPICAL SECTION
 SCALE: NONE
 *SEE PAVING LAYOUT SHEET



1 DETAIL 1-ISOLATION JOINTS
 SCALE: NONE

UTILITY CUTS SHALL BE REPAIRED USING THE SAME PAVEMENT SECTION AS THE WING AVIATION APRON CONNECTOR.

B UTILITY CUT REPAIR
 SCALE: NONE

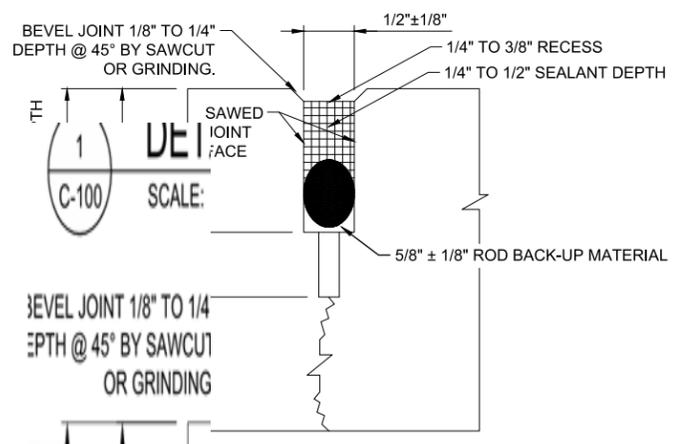


6 TYPE A-1-REINFORCED ISOLATION JOINT
 SCALE: NONE

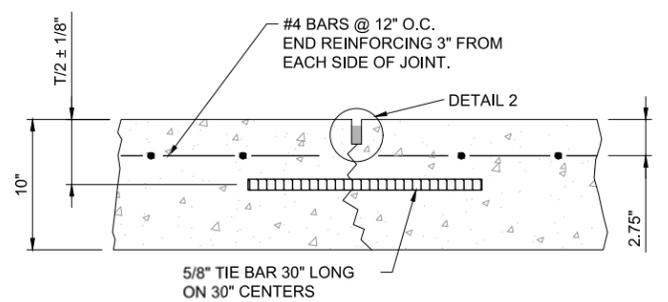
SYMBOLS

	SEALANT
	ROD BACK-UP MATERIAL CLOSED-CELL RESILIENT FOAM OR SPONGE RUBBER
	RESILIENT FILLER

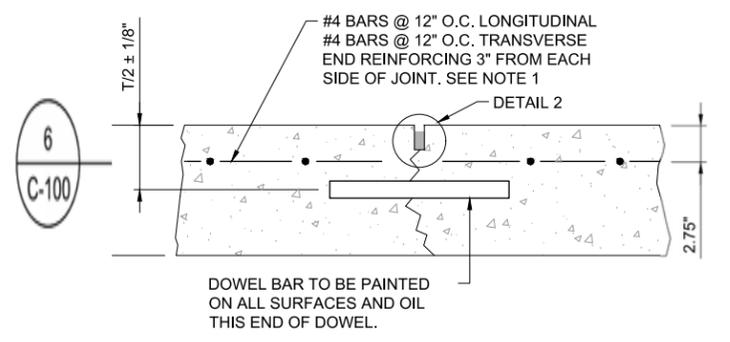
DOWEL BAR LEGEND	
	10" SLAB THICKNESS
	DIAMETER = 3/4"
	LENGTH = 18"
	SPACING = 12" O.C.



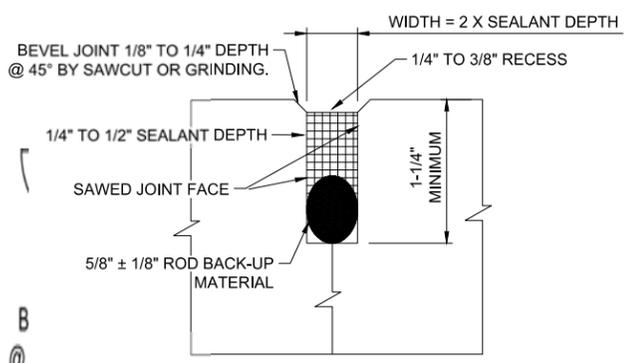
2-CONTRACTION JOINTS
 SCALE: NONE



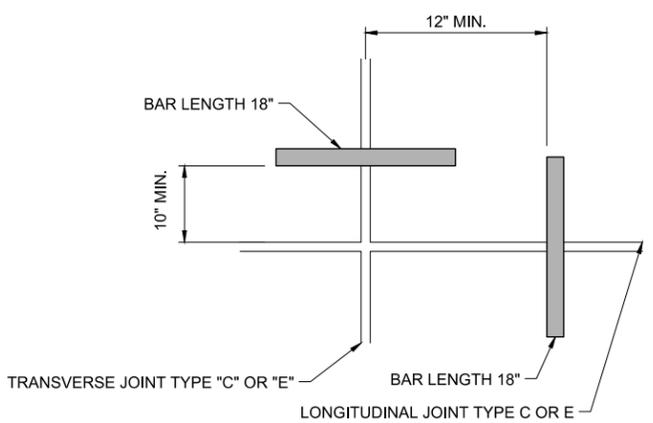
4 TYPE B-HINGED CONTRACTION JOINT
 SCALE: NONE



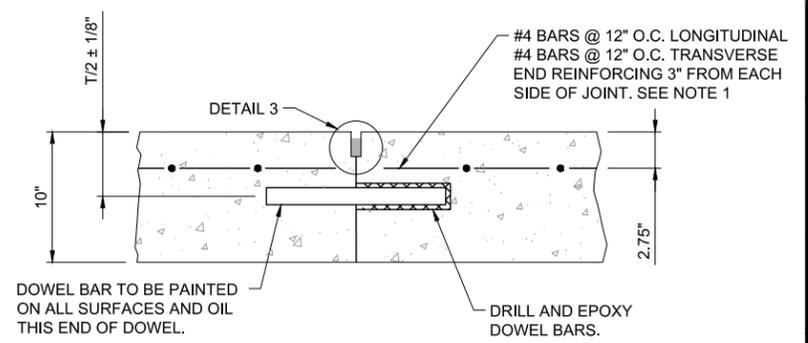
6 TYPE C-DOWELED CONTRACTION JOINT
 SCALE: NONE



3-CONSTRUCTION JOINTS
 SCALE: NONE



5 DOWEL BARS AT SLAB CORNERS (PLAN VIEW)
 SCALE: NONE



8 TYPE E-DOWELED CONSTRUCTION JOINT
 SCALE: NONE



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REGISTRATION NO. F-5713



DIGITALLY SIGNED 12/26/2017

BY	DESCRIPTION	DATE	REV.

ADDISON AIRPORT
 ADDISON, TEXAS

WING AVIATION APRON CONNECTOR AND CLAIRE CHENNAULT STREET DRIVEWAY RECONSTRUCTION

WING AVIATION APRON CONNECTOR - DETAILS (BASE BID 1)

JOB NO.: 17081100
 DATE: NOV 2017
 DESIGNED BY: JAH
 DRAWN BY: JAH

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DRAWING NUMBER **C-100**

SHEET NUMBER **11**

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REV.	DATE	DESCRIPTION

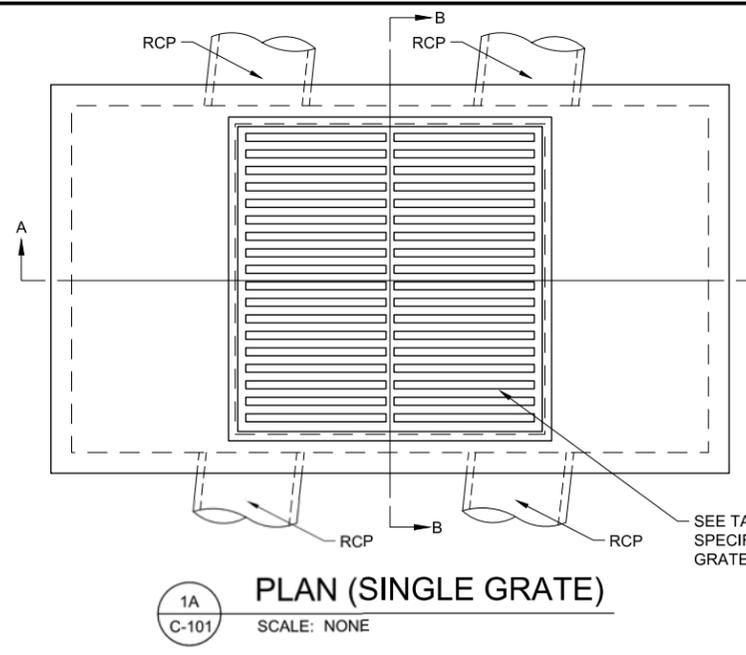
ADDISON AIRPORT
 ADDISON, TEXAS
 WING AVIATION APRON CONNECTOR AND CLAIRE CHENNAULT STREET DRIVEWAY RECONSTRUCTION

WING AVIATION DRAINAGE DETAILS

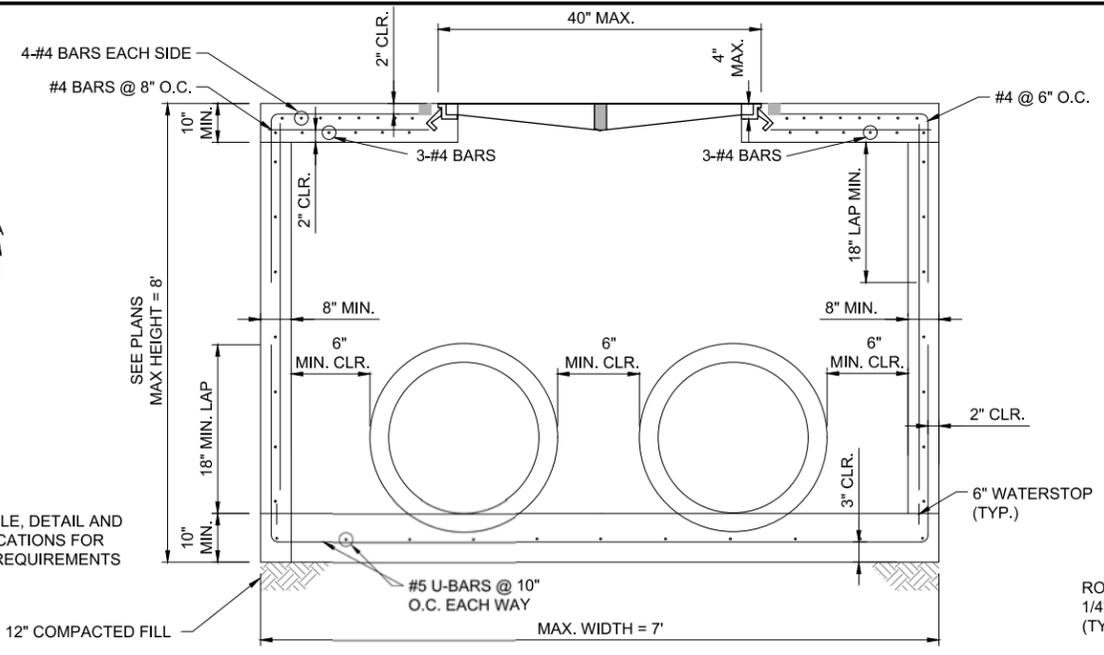
JOB NO.: 17081100
 DATE: NOV 2017
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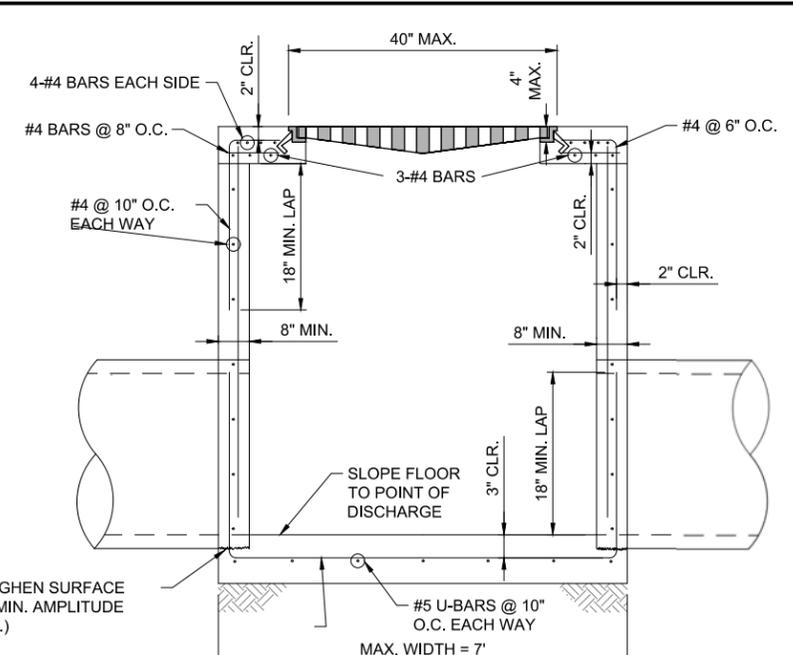
DRAWING NUMBER
C-101
 SHEET NUMBER
12



1A PLAN (SINGLE GRATE)
 C-101 SCALE: NONE



1B SECTION "A-A"
 C-101 SCALE: NONE

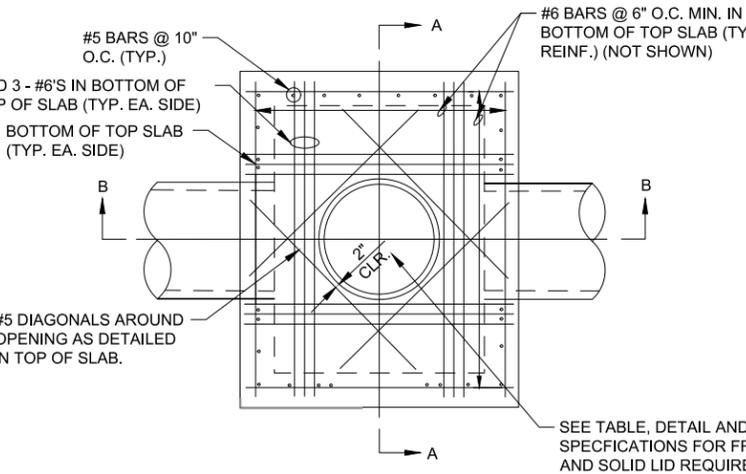


1C SECTION "B-B"
 C-101 SCALE: NONE

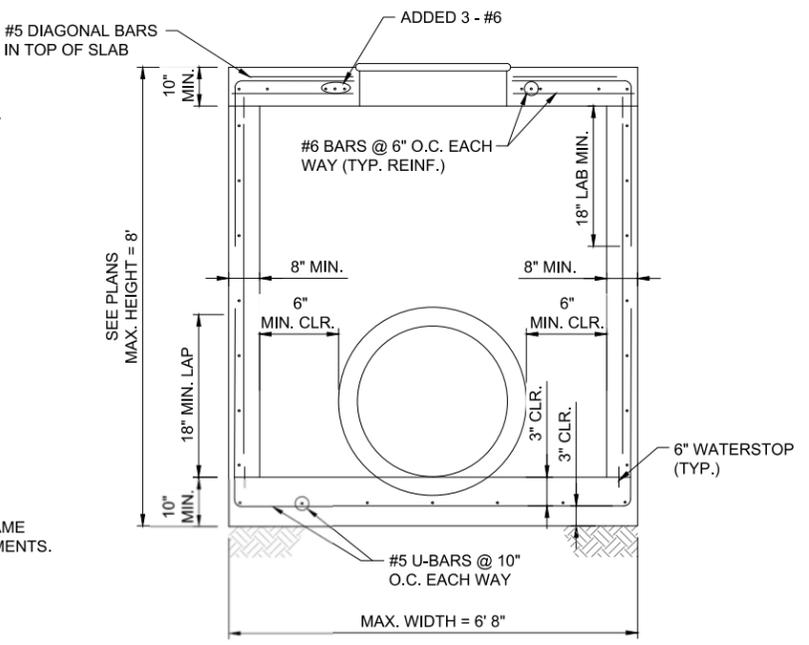
1 AIRFIELD GRATE INLET (STANDARD)
 C-101

SCALE: NONE
 NOTE:
 MINIMUM STEEL REINFORCEMENT LAP SHALL BE APPLIED WHERE APPLICABLE. IF THE CONTRACTOR CANNOT MEET THE MINIMUM LAP REQUIREMENT DUE TO THE INLET HEIGHT, THE CONTRACTOR SHALL LAP STEEL THE MAXIMUM AVAILABLE LENGTH.

GRATE DESIGN PARAMETERS	
MATERIAL	DUCTILE IRON
WEIR PERIMETER	9.8 FT. MIN.
FREE OPEN AREA	2.4 S.F. MIN.
WHEEL LOADING	40,000 LBS MIN.



2A PLAN
 C-101 SCALE: NONE

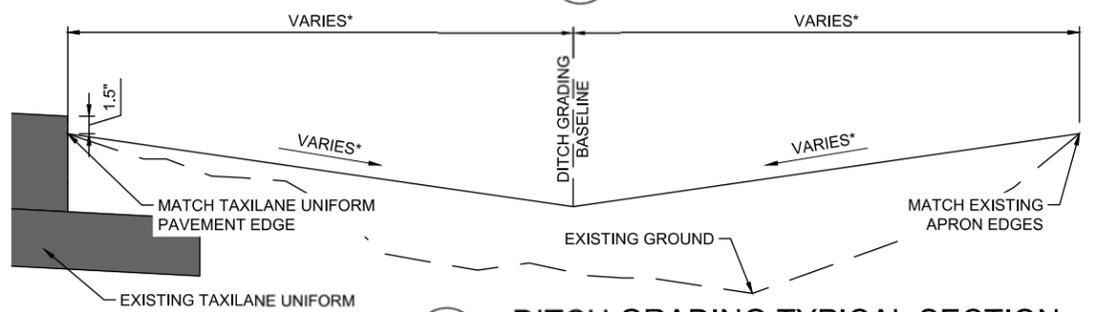


2B SECTION "A-A"
 C-101 SCALE: NONE

MANHOLE COVER DESIGN PARAMETERS	
MATERIAL	CAST IRON
WHEEL LOADING	40,000 LBS MIN.
OPENING	32" MIN.

NOTE:
 MINIMUM STEEL REINFORCEMENT LAP SHALL BE APPLIED WHERE APPLICABLE. IF THE CONTRACTOR CANNOT MEET THE MINIMUM LAP REQUIREMENT DUE TO THE INLET HEIGHT, THE CONTRACTOR SHALL LAP STEEL THE MAXIMUM AVAILABLE LENGTH.

2 AIRFIELD JUNCTION BOX (STANDARD)
 C-101 SCALE: NONE



3 DITCH GRADING TYPICAL SECTION
 C-101 SCALE: NONE
 *SEE LAYOUT PLAN FOR DITCH ELEVATIONS AND EXTENTS OF GRADING.

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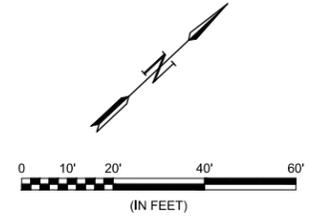
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TAXILANE UNIFORM
MATCHLINE STA 103+00

**FULL DEPTH PAVEMENT
REMOVAL BOUNDARIES**

POINT NO.	NORTHING	EASTING
1	7041122.80	2479070.15
2	7041127.08	2479081.36
3	7041116.26	2479072.64
4	7041120.54	2479083.85
5	7041145.39	2479132.68
6	7041161.96	2479180.24
7	7041153.70	2479183.38
8	7041137.22	2479136.08
9	7041358.75	2479532.28
10	7041400.69	2479571.28
11	7041383.08	2479582.22
12	7041348.73	2479550.28
13	7041430.68	2479680.08
14	7041539.68	2479781.57
15	7041538.06	2479783.33
16	7041428.57	2479682.11



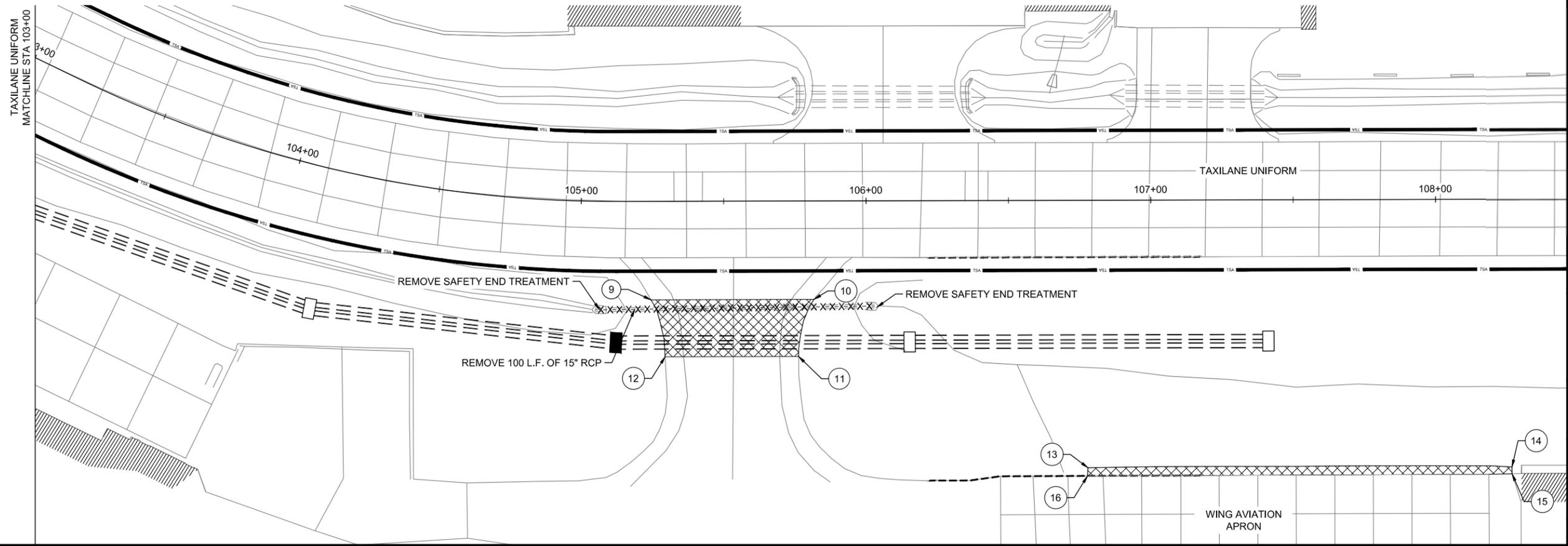
LEGEND

PAVEMENT REMOVAL

PIPE REMOVAL

NOTES:
 VARIANCE IN EXISTING PAVEMENT SHALL NOT WARRANT ADDITIONAL PAYMENT.
 CAUTION: UNDERGROUND UTILITIES EXIST WITHIN AND ADJACENT TO THE LIMITS OF CONSTRUCTION. AN ATTEMPT HAS BEEN MADE TO LOCATE THESE UTILITIES ON THE PLANS. HOWEVER, ALL EXISTING UTILITIES MAY NOT BE SHOWN AND THE ACTUAL LOCATIONS OF THE UTILITIES MAY VARY FROM THE LOCATIONS SHOWN. PRIOR TO BEGINNING ANY TYPE OF EXCAVATION, THE CONTRACTOR SHALL CONTACT THE UTILITIES ON THE GROUND. THE CONTRACTOR SHALL MAINTAIN THE UTILITY LOCATION MARKINGS UNTIL THEY ARE NO LONGER NECESSARY.

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REGISTRATION NO. F-5713

STATE OF TEXAS
 COLIN M. BIBLE
 107159
 LICENSED PROFESSIONAL ENGINEER

DIGITALLY SIGNED
12/26/2017

REV.	DATE	DESCRIPTION	BY

ADDISON AIRPORT
ADDISON, TEXAS

WING AVIATION APRON CONNECTOR AND CLAIRE CHENNAULT STREET DRIVEWAY RECONSTRUCTION

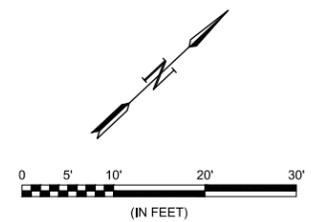
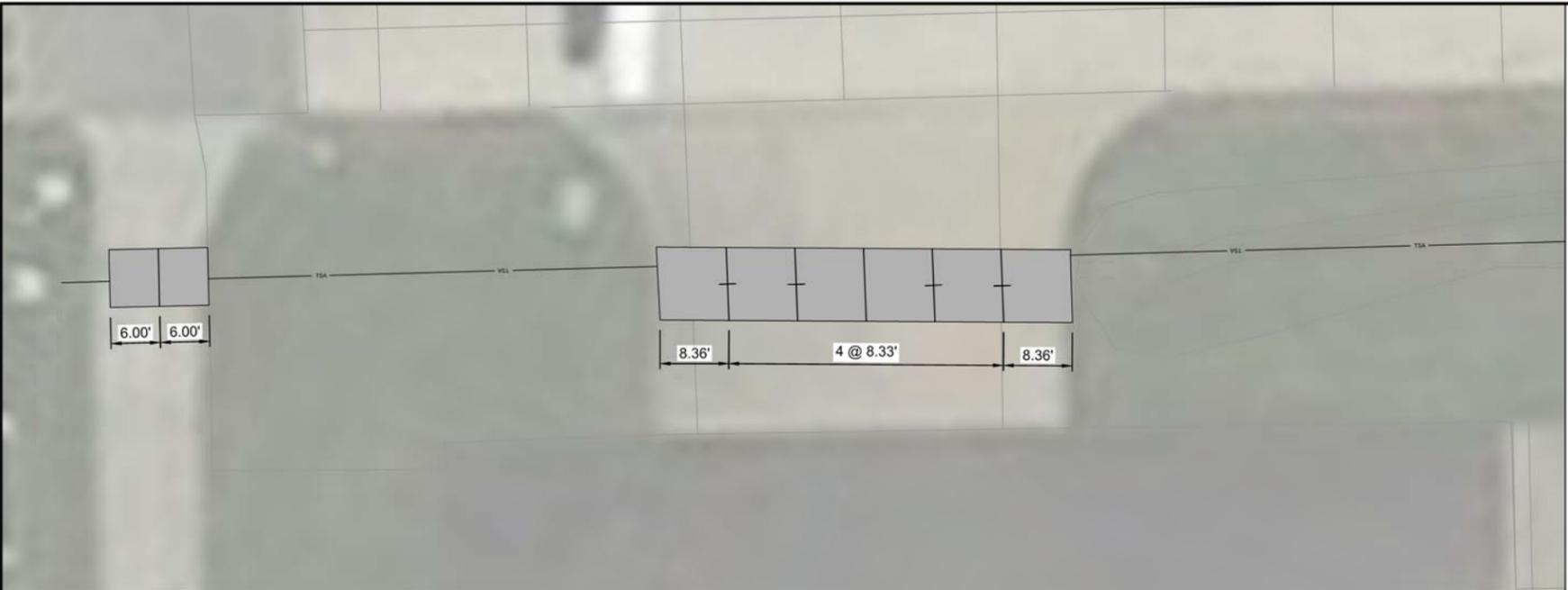
WING AVIATION APRON CONNECTOR - DEMOLITION PLAN (BASE BID 1)

JOB NO.: 17081100
 DATE: NOV 2017
 DESIGNED BY: JAH
 DRAWN BY: JAH

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DRAWING NUMBER
C-102
 SHEET NUMBER
13

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 Last plotted by: Beville, Brandon C. Plot Style: AECmonochrome.ctb Plot Scale: 1:1 Plot Date: 12/26/2017 1:59 PM Plotter used: _Autocad PDF (General Documentation).pc3



PAVEMENT JOINT LEGEND	
	TYPE "A-1" - REINFORCED ISOLATION JOINT
	TYPE "E" - DOWELED CONSTRUCTION JOINT
	TYPE "C" - DOWELED CONTRACTION JOINT
	TYPE "B" - HINGED CONTRACTION JOINT



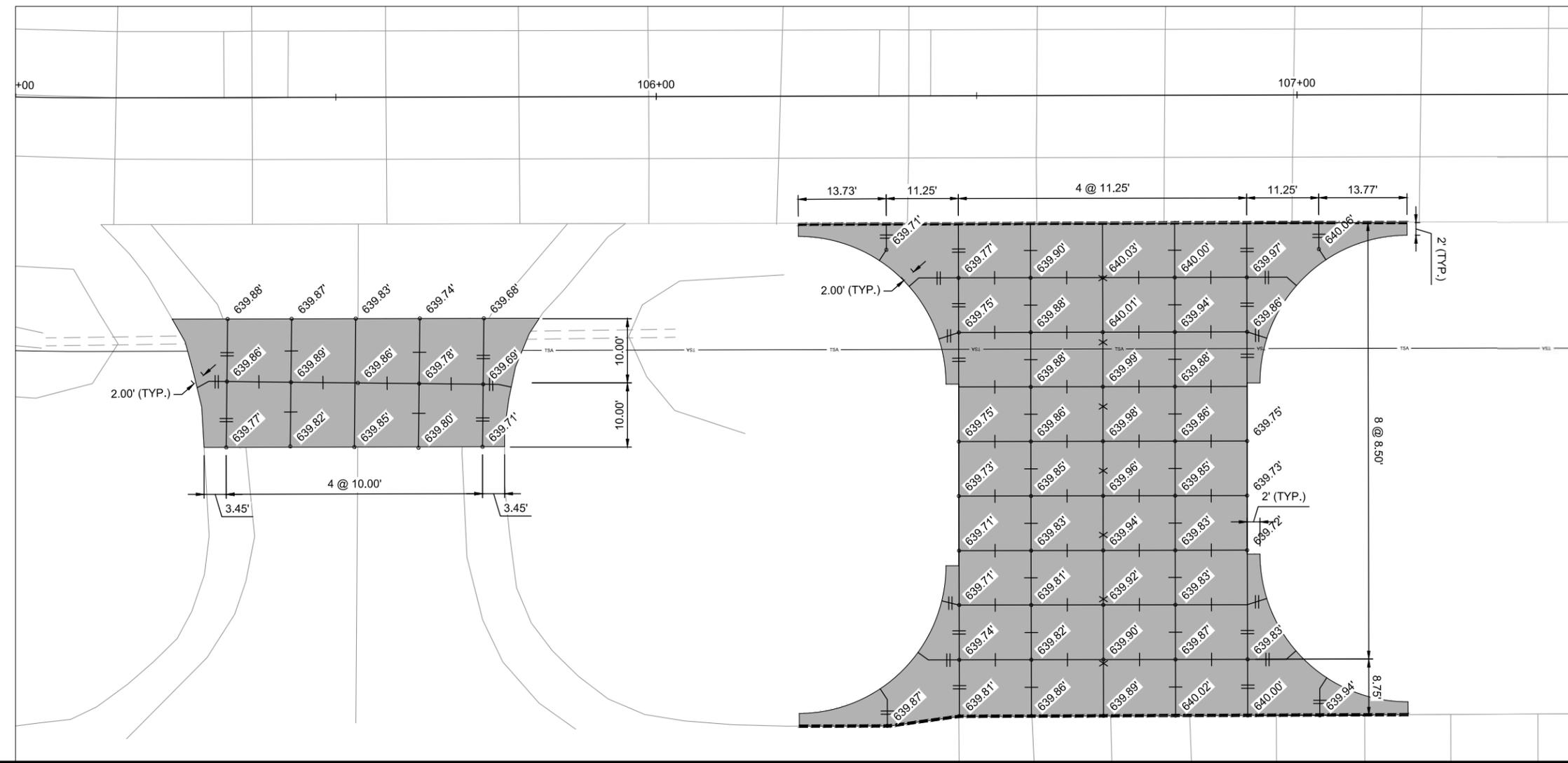
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ADDISON AIRPORT
 ADDISON, TEXAS

WING AVIATION APRON CONNECTOR AND CLAIRE CHENNAULT STREET DRIVEWAY RECONSTRUCTION

WING AVIATION APRON CONNECTOR - JOINT LAYOUT PLAN (BASE BID 1)

JOB NO.: 17081100
 DATE: NOV 2017
 DESIGNED BY: JAH
 DRAWN BY: JAH

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DRAWING NUMBER
C-104

SHEET NUMBER
15



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REGISTRATION NO. F-5713



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ADDISON AIRPORT
 ADDISON, TEXAS

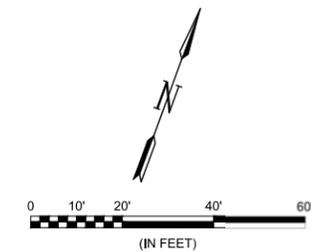
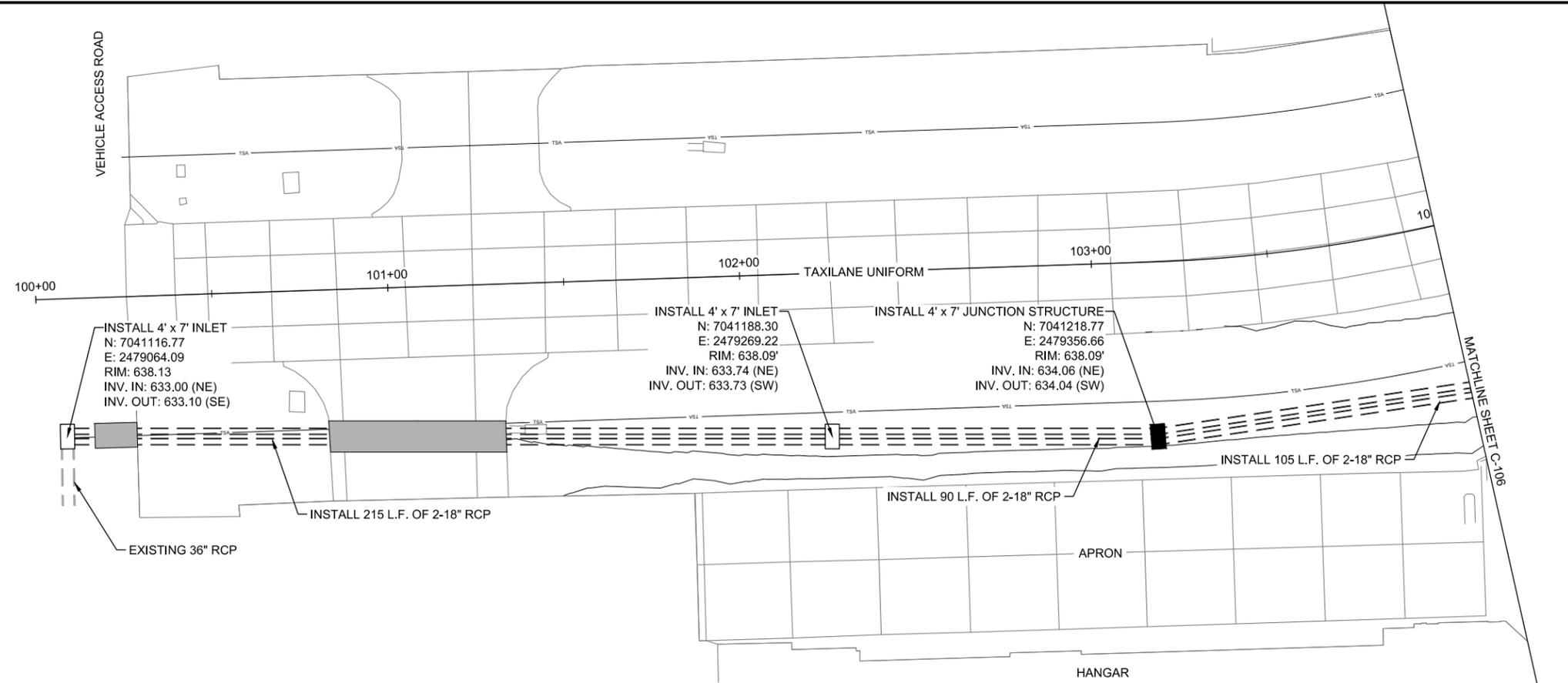
WING AVIATION APRON CONNECTOR AND CLAIRE CHENNAULT STREET DRIVEWAY RECONSTRUCTION

WING AVIATION APRON CONNECTOR - DRAINAGE PLAN I (BASE BID 1)

JOB NO.: 17081100
 DATE: NOV 2017
 DESIGNED BY: JAH
 DRAWN BY: JAH

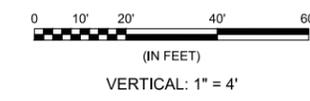
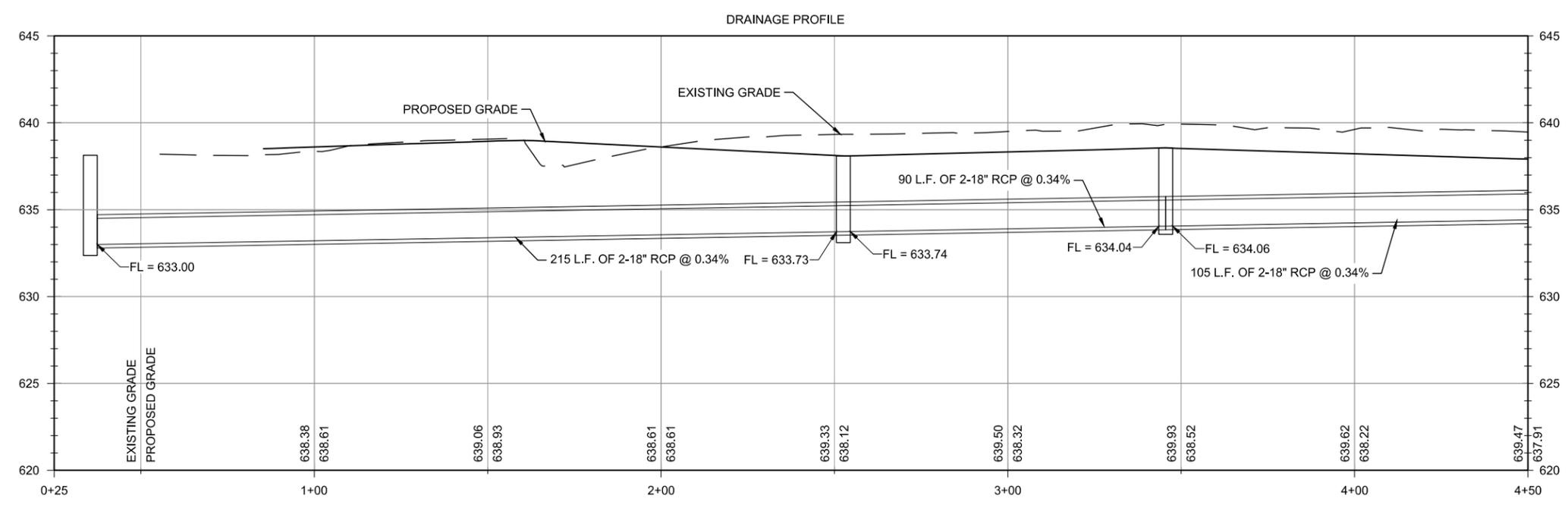
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DRAWING NUMBER
C-105
 SHEET NUMBER
16



LEGEND

- PROPOSED PAVEMENT
- PROPOSED 2-18" RCP
- EXISTING RCP



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ADDISON AIRPORT
 ADDISON, TEXAS

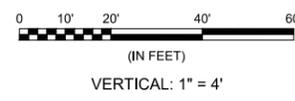
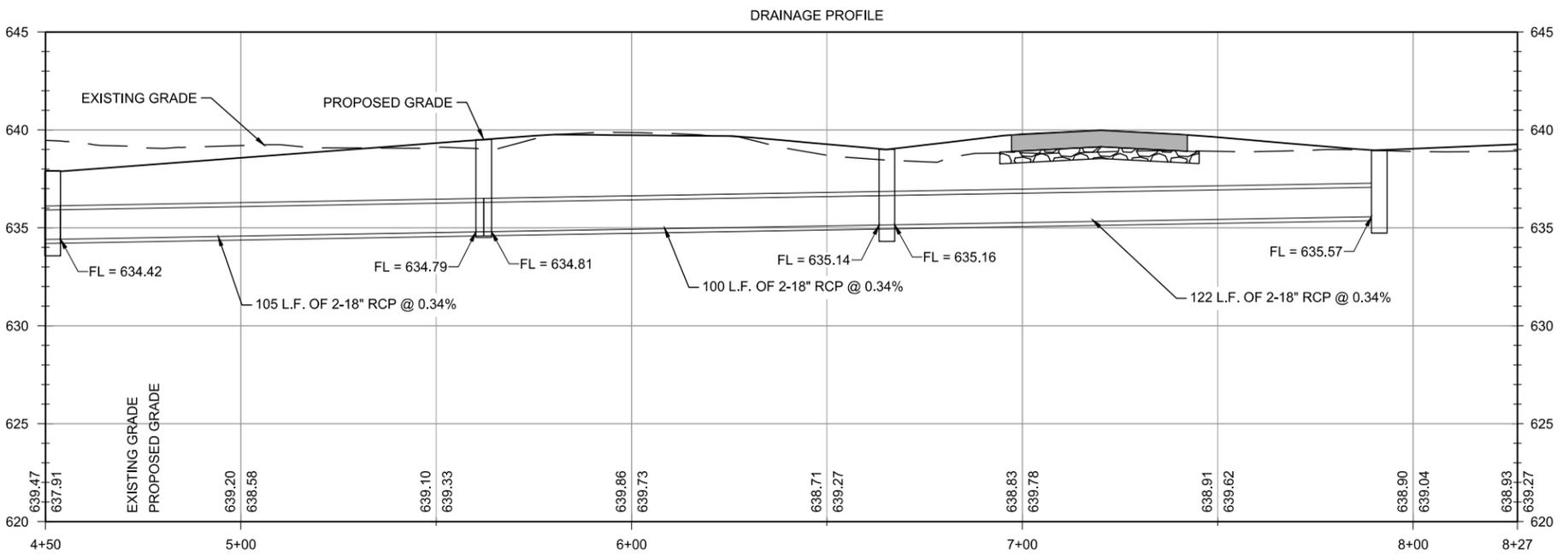
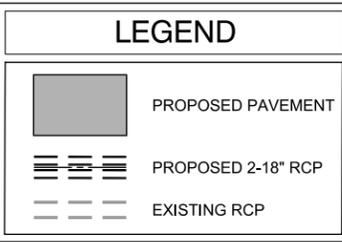
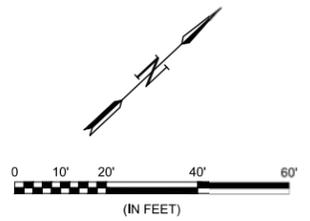
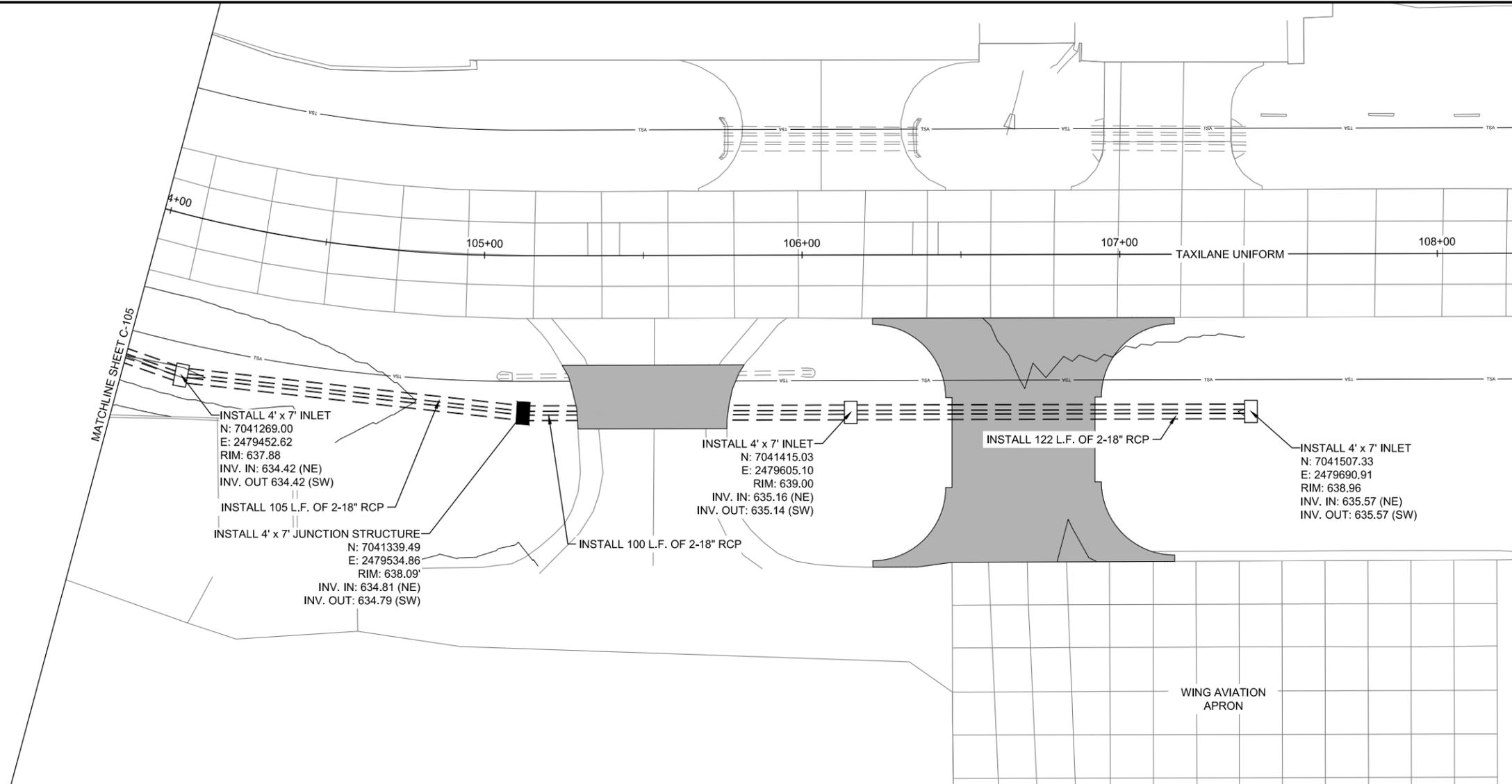
WING AVIATION APRON CONNECTOR AND CLAIRE CHENNAULT STREET DRIVEWAY RECONSTRUCTION

WING AVIATION APRON CONNECTOR - DRAINAGE PLAN II (BASE BID 1)

JOB NO.: 17081100
 DATE: NOV 2017
 DESIGNED BY: JAH
 DRAWN BY: JAH

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DRAWING NUMBER
C-106
 SHEET NUMBER
17



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 Last plotted by: Beville, Brandon C. Plot Style: AECmonochrome Plot Scale: 1:1 Plot Date: 12/26/2017 1:59 PM Plotter used: _Autocad PDF (General Documentation).pc3

REV.	DATE	DESCRIPTION

ADDISON AIRPORT
ADDISON, TEXAS

WING AVIATION APRON CONNECTOR AND CLAIRE CHENNAULT STREET DRIVEWAY RECONSTRUCTION

CLAIRE CHENNAULT STREET DRIVEWAY - DETAILS (BASE BID 2)

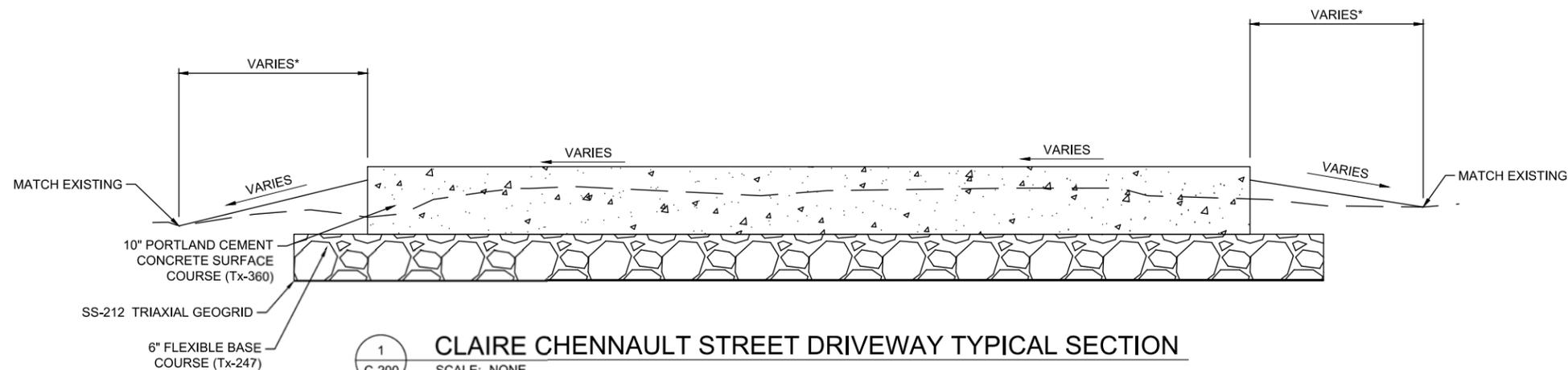
JOB NO.: 17081100
DATE: NOV 2017
DESIGNED BY: JAH
DRAWN BY: JAH

BAR IS ONE INCH ON ORIGINAL DRAWING
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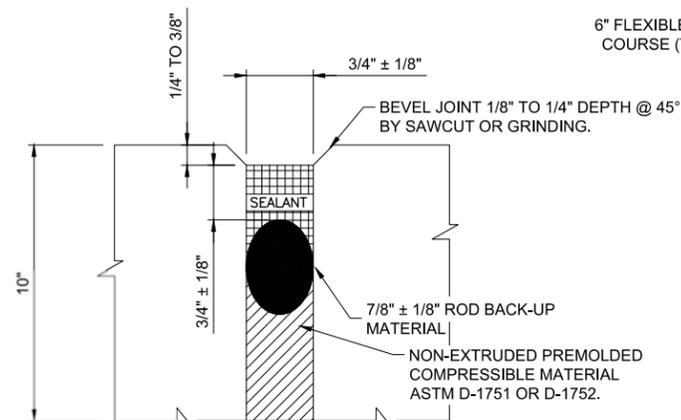
DRAWING NUMBER

C-200

SHEET NUMBER **18**



1 CLAIRE CHENNAULT STREET DRIVEWAY TYPICAL SECTION
SCALE: NONE
*SEE PLANS FOR LIMITS

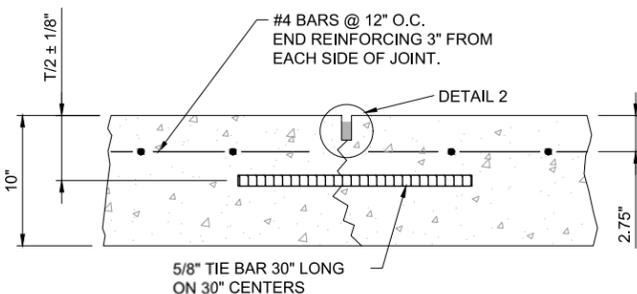


2 DETAIL 1-ISOLATION JOINTS
SCALE: NONE

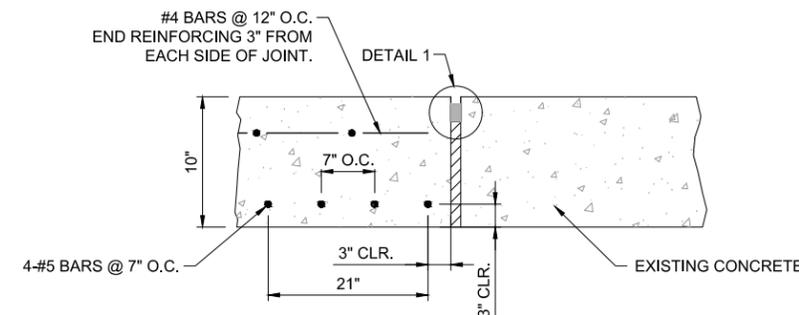
SYMBOLS

- SEALANT
- ROD BACK-UP MATERIAL
CLOSED-CELL RESILIENT FOAM
OR SPONGE RUBBER
- RESILIENT FILLER

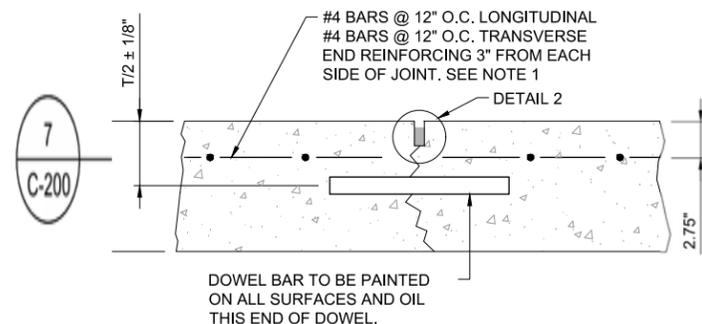
DOWEL BAR LEGEND	
	10" SLAB THICKNESS
	DIAMETER = 3/4"
	LENGTH = 18"
	SPACING = 12" O.C.



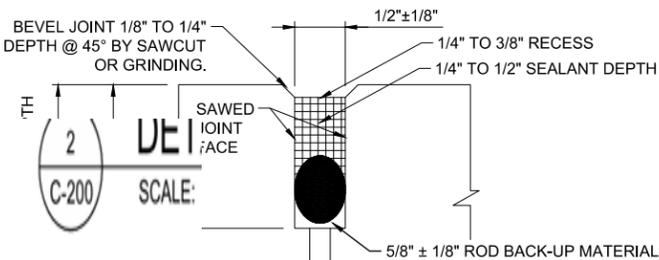
5 TYPE B-HINGED CONTRACTION JOINT
SCALE: NONE



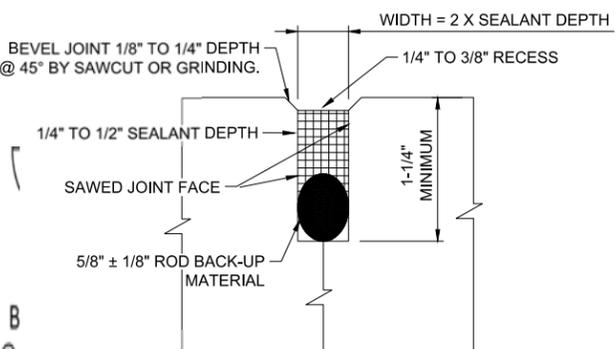
7 TYPE A-1-REINFORCED ISOLATION JOINT
SCALE: NONE



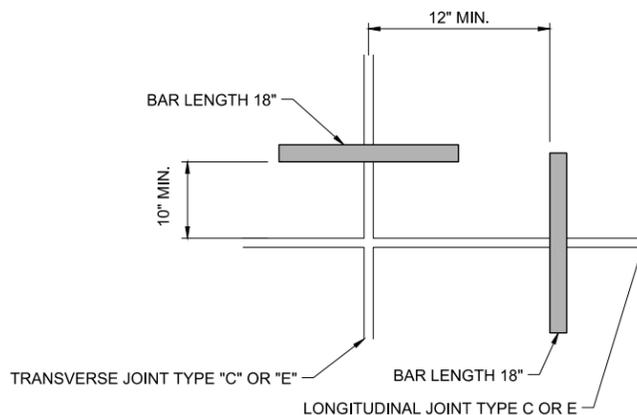
7 TYPE C-DOWELED CONTRACTION JOINT
SCALE: NONE



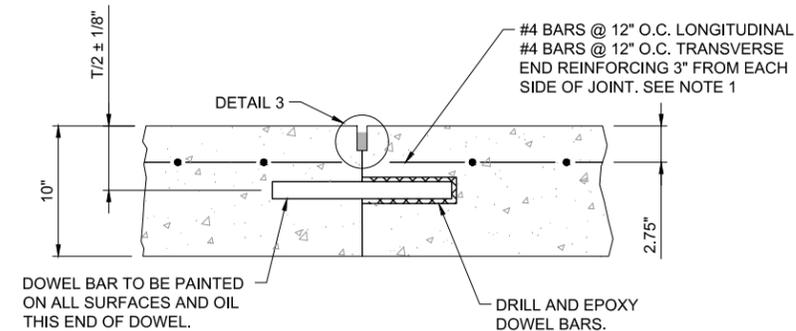
2 CONTRACTION JOINTS
SCALE: NONE



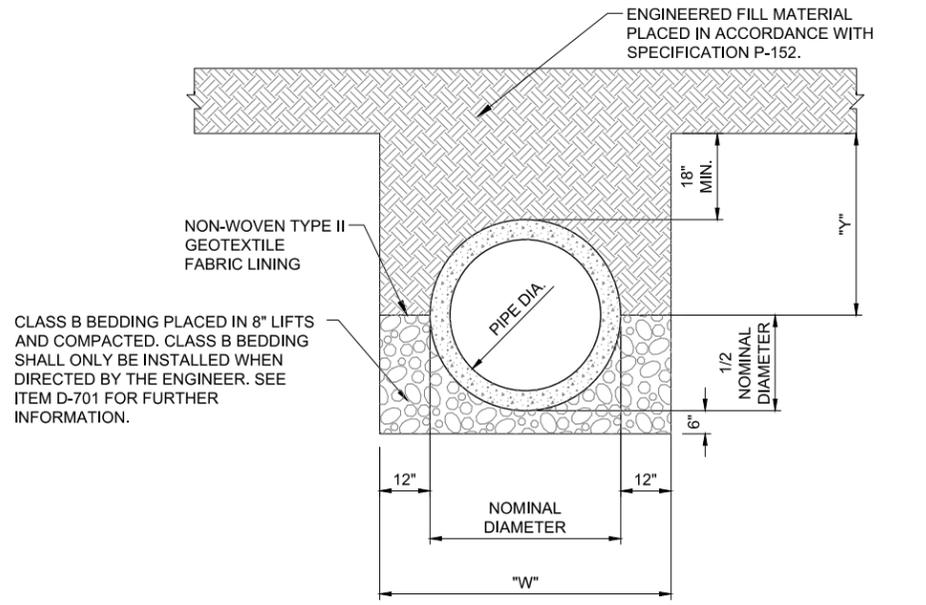
4 DETAIL 3-CONSTRUCTION JOINTS
SCALE: NONE



6 DOWEL BARS AT SLAB CORNERS (PLAN VIEW)
SCALE: NONE



9 TYPE E-DOWELED CONSTRUCTION JOINT
SCALE: NONE

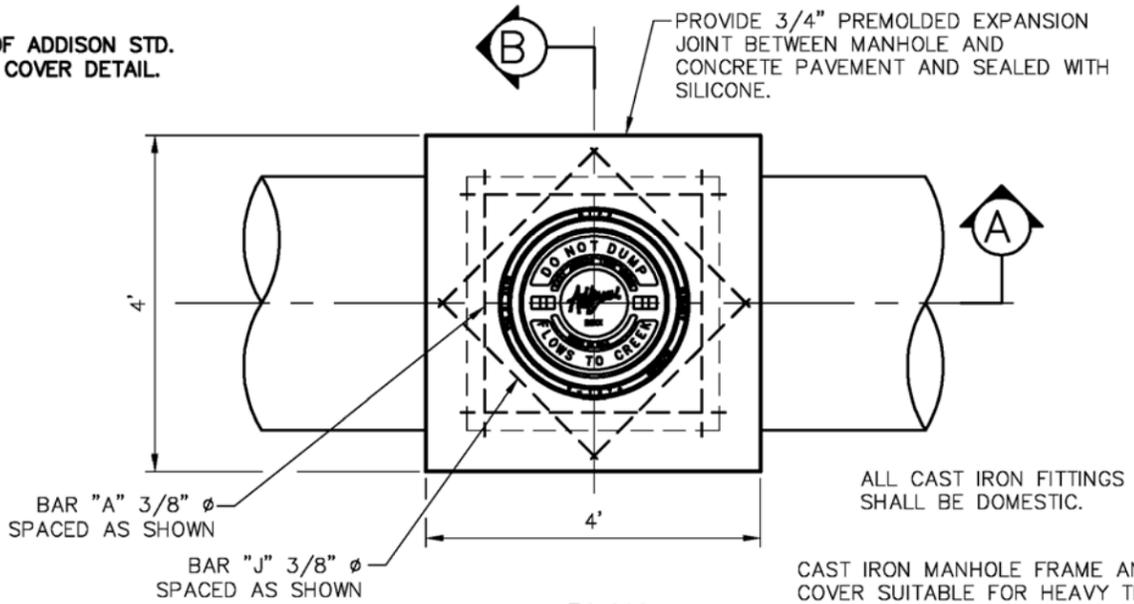


1 PIPE BACK FILLING
SCALE: NONE

CONSTRUCTION SEQUENCE:

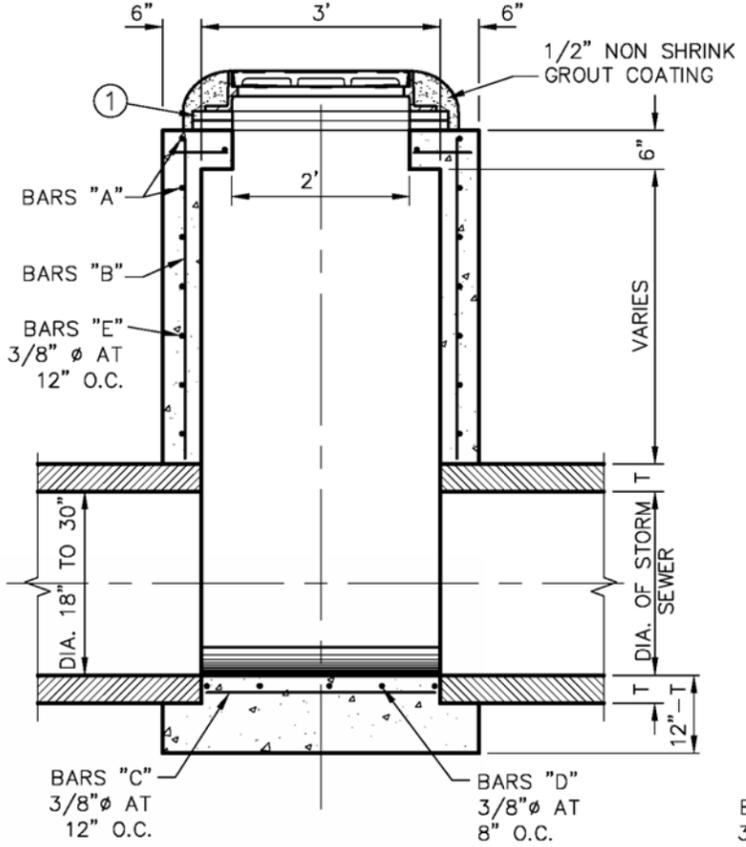
- EXCAVATE A TRENCH AT A WIDTH OF "W". THE DITCH SHALL COMPLY WITH OSHA REGULATIONS AT ALL TIMES AND MAY REQUIRE A TRENCH SAFETY SYSTEM.
- LINE TRENCH WITH NON-WOVEN TYPE II GEOTEXTILE FABRIC AND FOLD EXCESS MATERIAL OVER EDGES OF TRENCH AND SECURE IN PLACE WITH SMALL PILES OF CLASS B BEDDING.
- PLACE 6" OF CLASS B BEDDING IN BOTTOM OF TRENCH FOR BEDDING MATERIAL. ENSURE SLOPE ON SURFACE OF CLASS B BEDDING COMPLIES WITH PLANS AND SPECIFICATION D-701.
- PLACE STORM PIPE IN TRENCH USING STANDARD CONSTRUCTION PRACTICE WITH CARE TAKEN NOT TO DAMAGE PIPE.
- BACKFILL TO 1/2 NOMINAL DIAMETER OF PIPE WITH CLASS B BEDDING PLACED IN 8" LIFTS AND COMPACTED.
- FOLD THE TYPE II GEOTEXTILE FABRIC OVER THE BACKFILLED MATERIAL SO THAT THE FABRIC MEETS THE EDGE OF THE STORM PIPE WITH NO GAPS PRESENT.
- PLACE ENGINEERED FILL ON TOP OF TYPE II GEOTEXTILE FABRIC PER SPECIFICATION P-152.

NOTE:
SEE TOWN OF ADDISON STD.
FRAME AND COVER DETAIL.

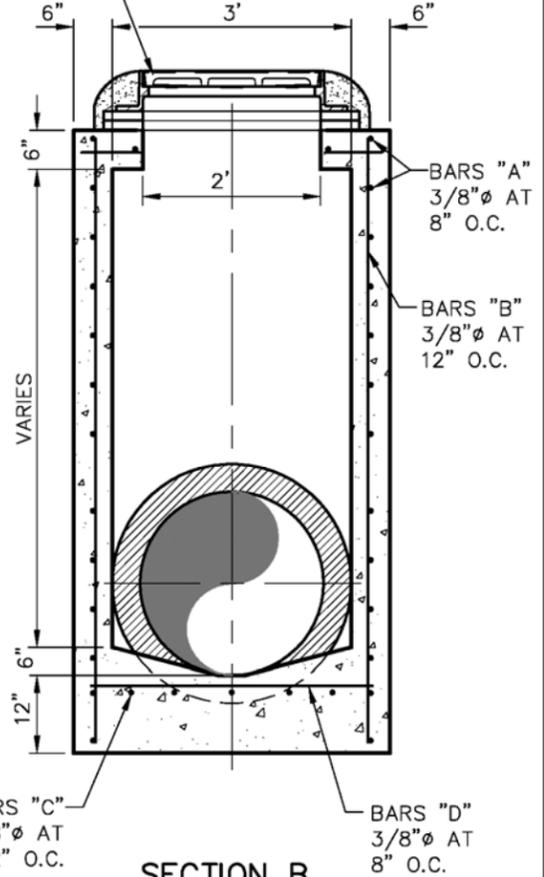


PLAN
NTS

① USE PRECAST CONCRETE GRADE RINGS SET IN MORTAR TO RAISE TO GRADE 2" MIN. 18" MAX.



SECTION A
NTS



SECTION B
NTS

Addison!
PUBLIC WORKS DEPARTMENT

TYPE "A" STORM SEWER MANHOLE (FOR 18" TO 30" RCP)

STANDARD CONSTRUCTION DETAILS STORM DRAINAGE

DATE: AUGUST, 2010 REV DATE: - SHEET : SD-D06



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REGISTRATION NO. F-5713



DIGITALLY SIGNED 12/26/2017

BY	DESCRIPTION	DATE	REV.

ADDISON AIRPORT
ADDISON, TEXAS
WING AVIATION APRON CONNECTOR AND CLAIRE CHENNAULT STREET DRIVEWAY RECONSTRUCTION

CLAIRE CHENNAULT STREET DRIVEWAY DRAINAGE DETAILS

JOB NO.: 17081100
DATE: NOV 2017
DESIGNED BY: JAH
DRAWN BY: JAH

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C-201
SHEET NUMBER **19**

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 12/26/2017

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ADDISON AIRPORT
 ADDISON, TEXAS

WING AVIATION APRON CONNECTOR AND CLAIRE CHENNAULT STREET DRIVEWAY RECONSTRUCTION

CLAIRE CHENNAULT STREET DRIVEWAY - DEMOLITION PLAN (BASE BID 2)

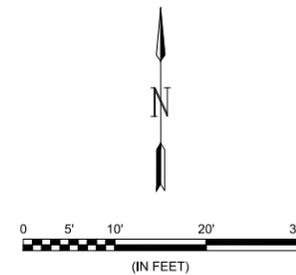
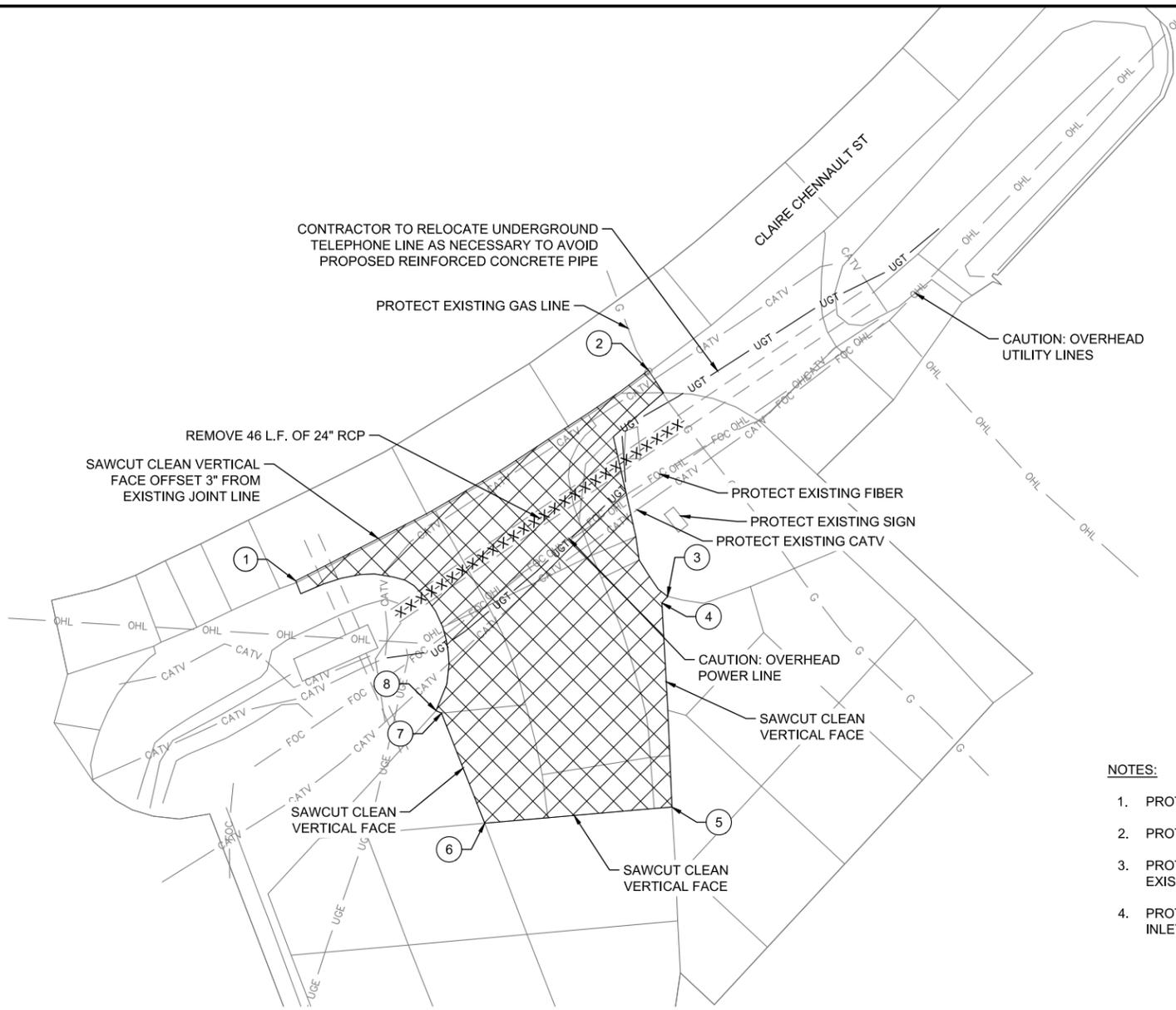
JOB NO.: 17081100
 DATE: NOV 2017
 DESIGNED BY: JAH
 DRAWN BY: JAH

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DRAWING NUMBER
C-202

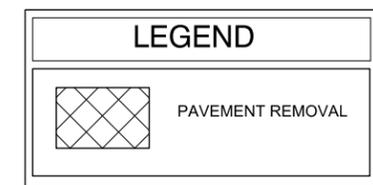
SHEET NUMBER
20

FULL DEPTH PAVEMENT REMOVAL BOUNDARIES		
POINT NO.	NORTHING	EASTING
1	7041767.68	2479249.58
2	7041795.32	2479295.97
3	7041765.65	2479298.48
4	7041764.78	2479297.74
5	7041738.02	2479299.07
6	7041735.91	2479274.43
7	7041750.34	2479268.76
8	7041750.66	2479268.04



NOTES:

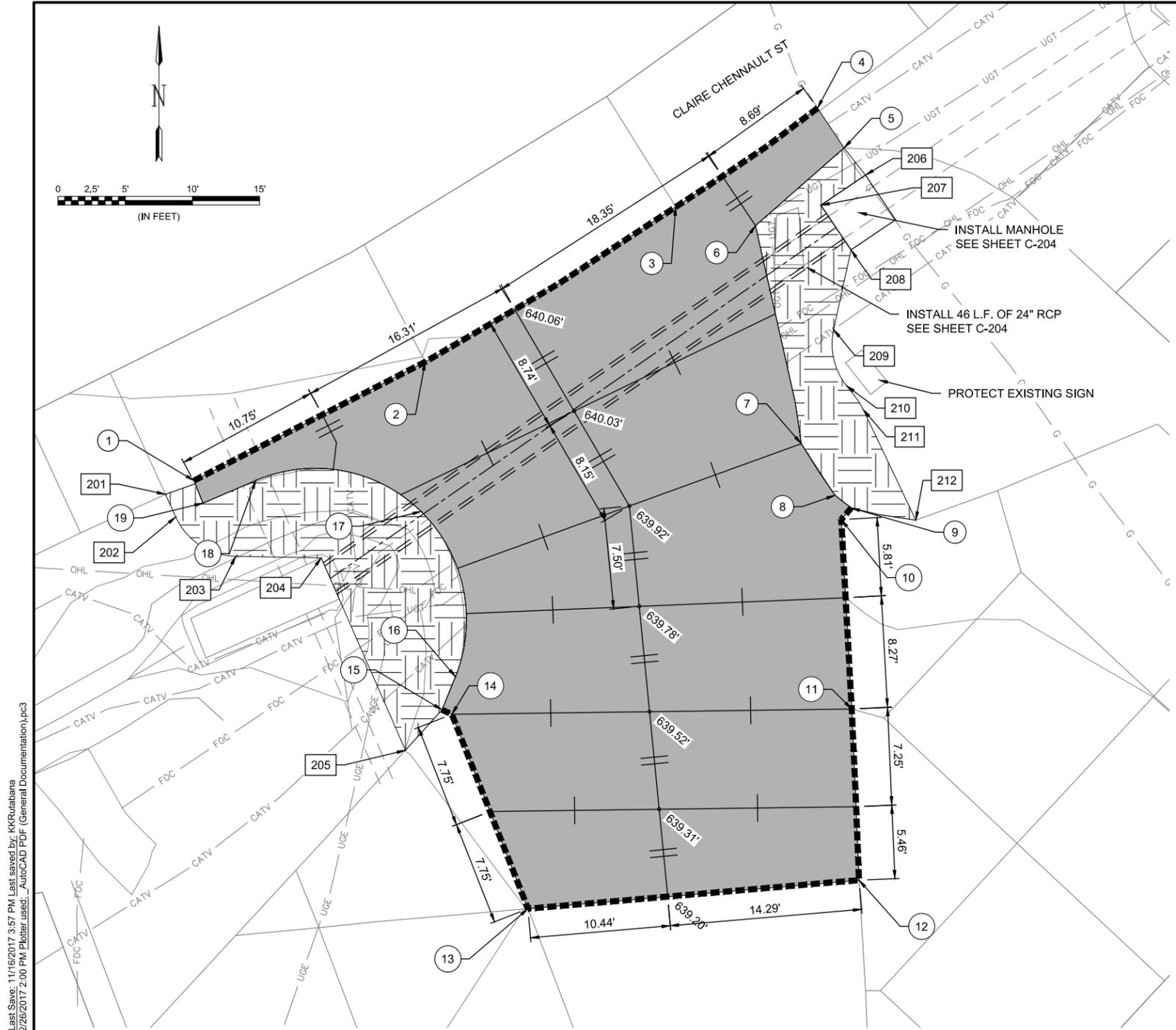
1. PROTECT SHRUBS ON BOTH SIDES OF DRIVE.
2. PROTECT EXISTING IRRIGATION LINES AS NECESSARY.
3. PROTECT MAILBOX AND DECORATIVE ROCK BETWEEN EXISTING DRIVES.
4. PROTECT POWER POLE NEAR EXISTING DRAINAGE INLET.



CAUTION: UNDERGROUND UTILITIES EXIST WITHIN AND ADJACENT TO THE LIMITS OF CONSTRUCTION. AN ATTEMPT HAS BEEN MADE TO LOCATE THESE UTILITIES ON THE PLANS. HOWEVER, ALL EXISTING UTILITIES MAY NOT BE SHOWN AND THE ACTUAL LOCATIONS OF THE UTILITIES MAY VARY FROM THE LOCATIONS SHOWN. PRIOR TO BEGINNING ANY TYPE OF EXCAVATION, THE CONTRACTOR SHALL CONTACT THE UTILITIES ON THE GROUND. THE CONTRACTOR SHALL MAINTAIN THE UTILITY LOCATION MARKINGS UNTIL THEY ARE NO LONGER NECESSARY.

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 Last plotted by: Beville, Brandon C., Plot Style: AECmonochrome.ctb, Plot Scale: 1:1, Plot Date: 12/26/2017 2:00 PM, Plotter used: AutoCAD PDF (General Documentation).pc3



POINT TABLE			
POINT NO.	NORTHING	EASTING	ELEVATION
1	7041767.68	2479249.58	639.85
2	7041776.49	2479266.78	639.99
3	7041787.99	2479285.43	640.28
4	7041795.32	2479295.97	640.31
5	7041792.37	2479297.95	640.17
6	7041786.60	2479291.36	640.09
7	7041770.42	2479294.76	640.17
8	7041766.59	2479297.27	640.20
9	7041765.65	2479298.48	640.18
10	7041764.78	2479297.74	640.15
11	7041750.72	2479298.52	639.78
12	7041738.02	2479299.07	639.43
13	7041735.91	2479274.43	639.01
14	7041750.34	2479268.76	639.34
15	7041750.66	2479268.04	639.33
16	7041753.13	2479269.03	639.53
17	7041765.38	2479266.48	639.88
18	7041767.69	2479254.17	639.89
19	7041766.00	2479250.25	639.79

NOTE:
MATCH EXISTING ELEVATIONS WHERE PROPOSED PAVEMENT MEETS EXISTING PAVEMENT.

POINT TABLE			
POINT NO.	NORTHING	EASTING	ELEVATION
201	7041766.66	2479247.45	639.81
202	7041764.98	2479248.22	639.53
203	7041762.06	2479252.68	638.54
204	7041761.95	2479259.05	638.95
205	7041747.66	2479265.31	639.00
206	7041790.35	2479299.55	640.08
207	7041788.12	2479296.23	640.12
208	7041784.80	2479298.47	640.18
209	7041778.88	2479297.18	640.19
210	7041774.72	2479298.14	640.41
211	7041772.94	2479299.38	640.28
212	7041764.74	2479303.29	640.24

CAUTION: UNDERGROUND UTILITIES EXIST WITHIN AND ADJACENT TO THE LIMITS OF CONSTRUCTION. AN ATTEMPT HAS BEEN MADE TO LOCATE THESE UTILITIES ON THE PLANS. HOWEVER, ALL EXISTING UTILITIES MAY NOT BE SHOWN AND THE ACTUAL LOCATIONS OF THE UTILITIES MAY VARY FROM THE LOCATIONS SHOWN. PRIOR TO BEGINNING ANY TYPE OF EXCAVATION, THE CONTRACTOR SHALL CONTACT THE UTILITIES ON THE GROUND. THE CONTRACTOR SHALL MAINTAIN THE UTILITY LOCATION MARKINGS UNTIL THEY ARE NO LONGER NECESSARY.

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LEGEND

	PROPOSED PAVEMENT
	PROPOSED SODDING
	TYPE "A-1" - REINFORCED ISOLATION JOINT
	TYPE "E" - DOWELED CONSTRUCTION JOINT
	TYPE "C" - DOWELED CONTRACTION JOINT
	TYPE "B" - HINGED CONTRACTION JOINT

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 Last plotted by: Beville, Brandon C. Plot Style: AECmonochrome.ctb Plot Date: 12/26/2017 2:00 PM Plotter used: _AutoCAD PDF (General Documentation).pc3
 Plot Scale: 1:1



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WING AVIATION APRON CONNECTOR AND CLAIRE CHENNAULT STREET DRIVEWAY RECONSTRUCTION

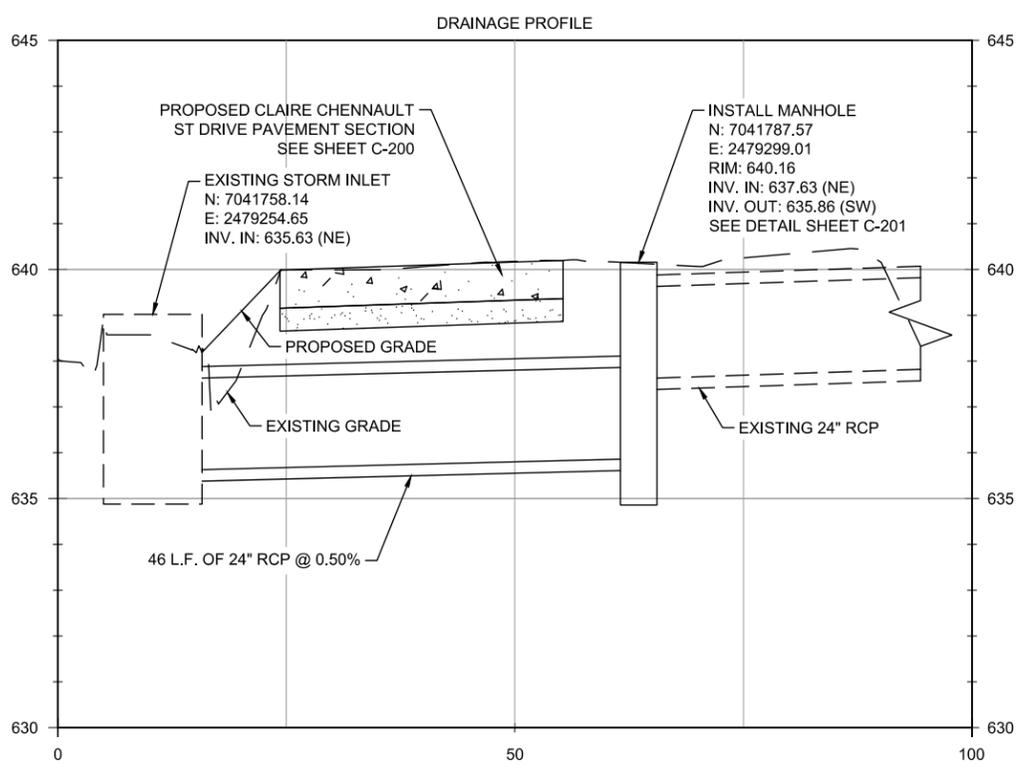
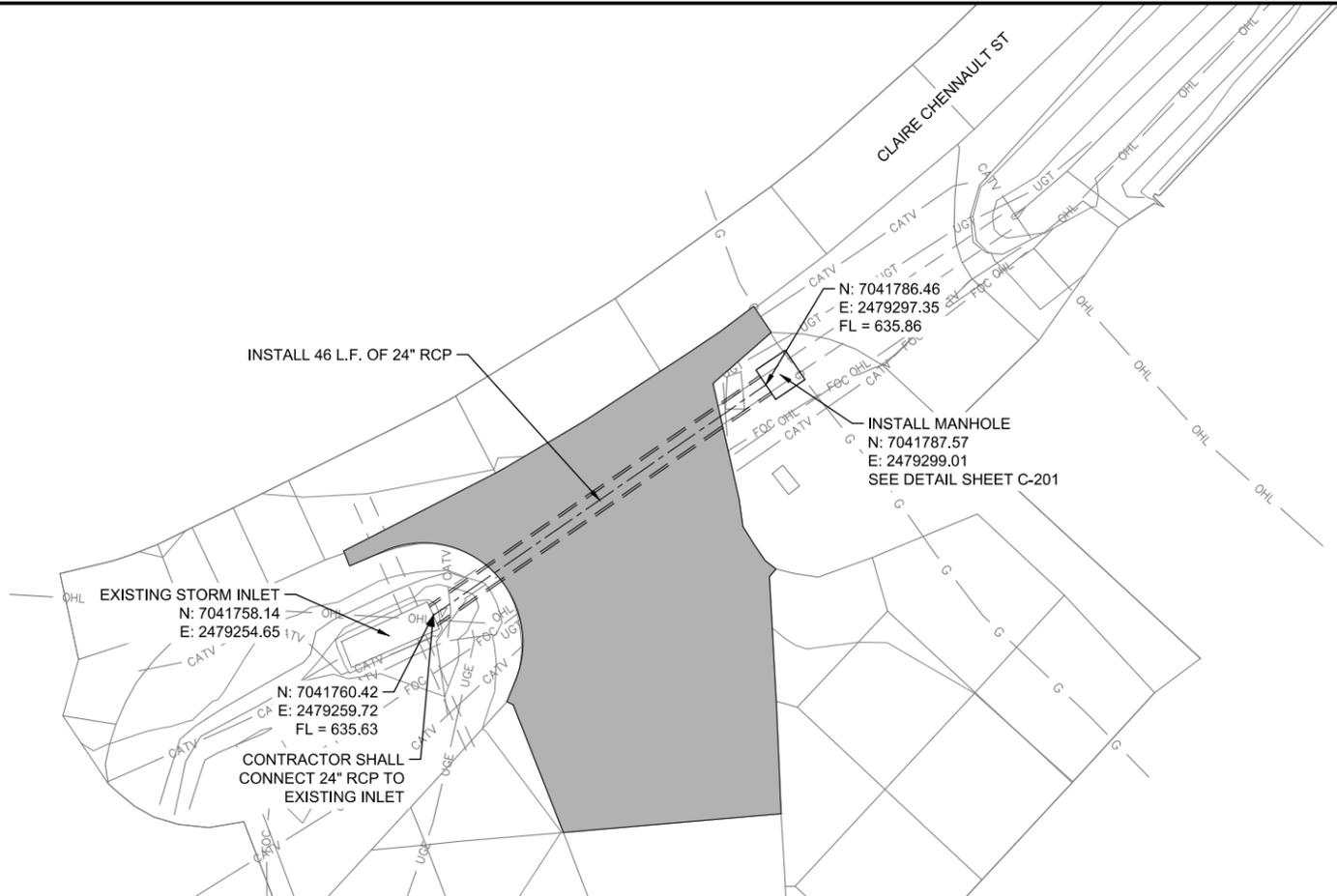
CLAIRE CHENNAULT STREET DRIVEWAY - LAYOUT PLAN (BASE BID 2)

JOB NO.: 17081100
 DATE: NOV 2017
 DESIGNED BY: JAH
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C-203
 SHEET NUMBER
21

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 Last plotted by: Beville, Brandon C. Plot Style: AECmonochrome.ctb Plot Scale: 1:1 Plot Date: 12/26/2017 2:00 PM Plotter used: _Autocad PDF (General Documentation).pc3



LEGEND

PROPOSED PAVEMENT

PROPOSED 24" RCP



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 ADDISON, TEXAS

WING AVIATION APRON CONNECTOR
 AND CLARE CHENNAULT STREET
 DRIVEWAY RECONSTRUCTION

CLAIRE CHENNAULT STREET DRIVEWAY - DRAINAGE PLAN (BASE BID 2)

JOB NO.: 17081100
 DATE: NOV 2017
 DESIGNED BY: JAH
 DRAWN BY: JAH

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C-204

SHEET NUMBER
22