

**Jean Birmingham Council
Chambers, City Hall**
401 South Alamo
Marshall, TX 75670
903-935-4421



Members
Amy Ware, District 4 - Mayor
Risa Jordan-Anderson, District 1
Leo Morris, District 2
Dathaniel Campbell, District 3
Reba Godfrey, District 5
Amanda Abraham, District 6
Micah Fenton, District 7

**PLEASE SILENCE ALL DEVICES
SPECIAL-CALLED CITY COUNCIL MEETING**
December 11, 2025
4:15 PM

1. Call to Order and Roll Call

2. Invocation and Pledges

3. Presentations & Proclamations

- A. Presentation of the Employee of the Month - December. (Employee Engagement Committee)
- B. Proclamation declaring January 4, 2026, as "Trinity Episcopal Church Day" in Marshall, Texas. (Mayor Ware)

4. Time Sensitive Council Updates

- A. Update from Stan Hayes, P.E., regarding the cave in on U.S. Highway 80.

5. Citizen Comments

Texas Government Code, Sec. 551.007 requires that a governmental body must allow each member of the public who desires to address the body regarding an item on the agenda the opportunity to do so before or during the body's consideration of the item. The "Citizens Comments" portion of the meeting meets the requirements of this law and is the public's opportunity to speak on any item on the agenda. Those who wish to speak are requested to fill out a public comment form and will have three (3) minutes to speak unless additional time has been requested.

6. Items to be Withdrawn From Consent Agenda

7. Consent Agenda

The items on the Consent Agenda require little or no deliberation by the Council. Approval of the Consent Agenda authorizes the City Manager or his designee to proceed with conclusion of each in accordance with staff recommendations, a copy of which is filed with the minutes of the meeting. A Councilmember may remove items from the Consent Agenda by making such request prior to a motion and vote on the Consent Agenda.

- A. Consider approval of the minutes from the October 9, 2025, Special-Called City Council Work Session. (City Secretary)
- B. Consider approval of the minutes from the October 9, 2025, Regular City Council Meeting. (City Secretary)
- C. Consider approval of the minutes from the October 17, 2025, Special-Called City Council Meeting. (City Secretary)

- D. Consider approval of the 2026 City Council meeting schedule. (City Secretary)
- E. Consider approval of appointments and reappointments to the various City boards, commissions, and committees. (City Secretary)
- F. Consider approval for Emergency Repairs to the Public Works Department's Flail Mower (\$53,061.00). (Public Works)
- G. Consider Approval of 2026 Professional Engineering Services Agreement with Hayes Engineering, Inc. to be Engineer of Record for the City of Marshall. (Public Works)
- H. Consider approval of the appointment of Doug Lewis to the Board of Directors of the Marshall Economic Development Corporation (MED). (Marshall EDC)
- I. Consider to retroactively approve an emergency contract with WMS R&B, LLC for the repairs needed to address the cave in on U.S. Highway 80 in the amount not to exceed \$338,663.00. (Public Works)

8. Consideration of Items Withdrawn From the Consent Agenda

9. Action Items for City Council Consideration

- A. Consider the approval of the FY 2025 and FY 2026 Hotel Occupancy Tax (HOT) Fund Grant Application recommendations from the Visit Marshall Board. (Tourism & Main Street)
- B. Consider approval of a Procurement Policy applicable to all Procurements made with Federal Funds. (Finance)
- C. Consider approval of the Hayes Engineering Inc. Work Order for Professional Services for the FY26 Street Improvements Program (\$118,500). (Public Works)
- D. Discussion and approval of the 2025 Joint Funding Agreement with the Marshall Firefighters' Relief & Retirement Fund (Pension), which increases the City's contributions beginning FY26 by 2% each year, through FY28, growing to a normal, annual contribution base rate of 27.8%; and, upon reaching the annual fixed rate of 27.8%, approve the development of an Actuarially Determined Contribution (ADC) Agreement for consideration by the City which will, on an annual basis, utilize the updated Fund Actuarial analysis to determine that fiscal years rate of contribution by the City, not to exceed 34.8%.

10. Adjournment

Posted: December 5, 2025
 2:30 PM
 N. Smith

This meeting will be conducted in accordance with the Americans with Disabilities Act. Requests for sign interpretive services will be available with at least 72-hour notice prior to the meeting. To make arrangements for these services, please call the City Secretary's Office at 903-935-4446.



TO: City Council
DATE: December 11, 2025
ITEM #: 3.A
SUBJECT: Presentation of the Employee of the Month -
December. (Employee Engagement Committee)

Recommendation for Action:

Executive Summary:

Focus Area(s):

Budget Cost:

Staff Contact:

Attachments: None



TO: City Council
DATE: December 11, 2025
ITEM #: 3.B
SUBJECT: Proclamation declaring January 4, 2026, as "Trinity Episcopal Church Day" in Marshall, Texas. (Mayor Ware)

Recommendation for Action: Presentation of proclamation to Trinity Episcopal Church.

Executive Summary: Tiffany Moore with Trinity Episcopal Church reached out to staff requesting a proclamation declaring January 4, 2026, as "Trinity Episcopal Church Day" in Marshall, Texas.

Focus Area(s): This item aligns with the following council adopted focus area(s): Improving Customer Service

Budget Cost: NA

Staff Contact: Nikki Smith, City Secretary

Attachments: 1. Trinity Episcopal Church Day 2026

PROCLAMATION



TRINITY EPISCOPAL CHURCH DAY

WHEREAS, January 4, 2026 marks the 175th anniversary of Trinity Episcopal Church in Marshall, Texas, a parish that has remained steadfast in its dedication to worship, service, and the spiritual life of this city; and

WHEREAS, we pause to honor the deep commitment of the faithful men and women who, beginning in 1851, laid the foundations of this congregation, and those who have continued through the years to give generously of their time, talents, and resources so that Trinity Episcopal Church might grow, flourish, and serve its neighbors; and

WHEREAS, Trinity Episcopal Church has, throughout its history, provided spiritual guidance, education, fellowship, and support to individuals and families, contributing to the well-being of the Marshall area and upholding values of faithful compassion and service; and

WHEREAS, the parish has been a long-standing part of the city's civic landscape, contributing to local efforts, partnerships, and initiatives that have connected generations of Marshall residents; and

WHEREAS, it is fitting to extend recognition, gratitude, and best wishes to the congregants and clergy of Trinity Episcopal Church on the historic occasion of this remarkable anniversary;

NOW, THEREFORE, BE IT PROCLAIMED by the City Council of the City of Marshall, Texas, that January 4, 2026, is hereby designated as Trinity Episcopal Church Day in the City of Marshall.

Amy Ware, Mayor
Marshall City Council





TO: City Council
DATE: December 11, 2025
ITEM #: 7.A
SUBJECT: Consider approval of the minutes from the October 9, 2025, Special-Called City Council Work Session.
(City Secretary)

Recommendation for Action: Motion to approve the minutes from the October 9, 2025, Special-Called City Council Work Session.

Executive Summary: Minutes from the October 9, 2025, Special-Called City Council Work Session.

Focus Area(s): Improving Communication

Budget Cost: N/A

Staff Contact: Nikki Smith, City Secretary

Attachments: 1. 10-9-25 Special-Called session minutes

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Marshall, TX 75671
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Members
Amy Ware, District 4 - Mayor
Risa Jordan-Anderson, District 1
Leo Morris, District 2
Dathaniel Campbell, District 3
Reba Godfrey, District 5
Amanda Abraham, District 6
Micah Fenton, District 7

MINUTES
PLEASE SILENCE ALL DEVICES
SPECIAL-CALLED CITY COUNCIL MEETING
October 9, 2025
4:45 PM

1. Call to Order and Roll Call

Mayor Amy Ware called the Regular meeting to order in the Council Chambers, City Hall at 04:52 PM.

PRESENT:

Mayor and Council Members:

Mayor Amy Ware
Councilmember Leo Morris
Councilmember Reba Godfrey
Councilmember Amanda Abraham
Councilmember Micah Fenton
Councilmember Dathaniel Campbell
Councilmember Risa Jordan-Anderson

ADMINISTRATIVE STAFF PRESENT:

Melissa Vossmer, City Manager	Cliff Carruth, Police Chief
Nikki Smith, City Secretary	David Rainwater, Fire Chief
Christol Hall, HR/Civil Service Director	
Julie Richards, Interim Budget Manager	
Randy Pritchard, Support Services Director	
Deck Shaver, Interim Public Works Director	
Cheryl Carpenter, Community Engagement	
Marina Garcia-Heredia, Parks & Recreation Director	
Alex Agnor, Asst. City Manager/Econ. Dev. & Strat. Init. Director	

2. Citizen Comments

Texas Government Code, Sec. 551.007 requires that a governmental body must allow each member of the public who desires to address the body regarding an item on the agenda the opportunity to do so before or during the body's consideration of the item. The "Citizens Comments" portion of the meeting meets the requirements of this law and is the public's opportunity to speak on any item on the agenda. Those who wish to speak are requested to fill out a public comment form and will have three (3) minutes to speak unless additional time has been requested.

Donald Hocutt, 302 Sunset Dr., expressed his joyful appreciation of the CIP Funds for Airport Park and spoke of memories made at the facility as a child and new memories to make with his grandchildren at the updated facility.

Steven Hammond, 4404 Bridle Path, spoke of how the year went for the Marshall Youth Softball Association, of his appreciation for improvements to the park and stated there were a few complaints that were mitigated with the explanation of the work still being in progress.

3. Discussion and Report for City Council Consideration and Direction

A. Discussion of the FY25 Capital Improvement Program (CIP). (Interim Budget Manager & City Manager)

Melissa Vossmer, City Manager, introduced the item stating it was the third discussion and staff is hoping for approval during the regular meeting. Melissa Vossmer ran through the projects quickly and stated any changes must fall within the guidelines and, once approved, cannot be changed.

Julie Richards, Interim Budget Manager, stated the CIP is an investment in the future.

Councilmember Campbell arrived at this point in the meeting. The time was 5:04 PM.

Julie Richards provided an overview of the CIP process, methodology and went through the projects based on the Council's Focus Areas, including current CIP projects, possible future CIP projects and the benefits of a CIP program.

Councilmember Jordan-Anderson asked about the wastewater \$500,000 bio-tower funding sources and asked for an explanation of the study.

Melissa Vossmer explained the study of needs and project approved, with priority order considered, and stated there are two (2) funding sources; revenue bonds and GF bonds.

Councilmember Jordan-Anderson asked if the amount was \$500,000 per year or total, which was stated to be the total.

Councilmember Abraham asked if the \$500,000 was for the study, which it was stated it was not, it is for the project.

Councilmember Jordan-Anderson asked if changes could be made at this point. Melissa Vossmer stated any changes would have to fall within the intent and the money had to be available. Melissa Vossmer asked if there was a project in mind, which Councilmember Jordan-Anderson stated the project she had in mind is a splash pad and that she believes it would fit in with parks.

Melissa Vossmer stated the CIP from 2023 included a splash pad within a waterpark and the amount might exceed what is available.

Councilmember Abraham stated she liked the idea of a splash pad but not the City

owning it because of the cost of liability and maintenance. Councilmember Abraham stated the splash pad in Longview is privately owned.

Councilmember Jordan-Anderson stated she didn't think about the maintenance and suggested creating an agreement like the one at Airport Park.

Melissa Vossmer stated staff could look into conducting a study.

Mayor Ware stated drawings and plans have been looked at to some extent for a splash pad at City Park.

Councilmember Abraham asked if a splash pad could be added to the plan year with the pool.

Mayor Ware stated a study for an aquatic youth area could be conducted using the \$280,000 available.

Councilmember Campbell asked about looking at the arena as a location for a splash pad.

Melissa Vossmer asked to clarify that the direction council is giving is to reallocate the money for Smith Park to use it for a study to look at the feasibility of creating a splash pad.

Councilmember Morris stated liability is an issue, but something has to be done for the young people to have something to do during the summer.

Melissa Vossmer asked if council would be willing to make a motion to change the funding from Smith Park to a study for a splash pad during the regular session.

Councilmember Godfrey asked about changing the funding for Smith Park from CDBG to General Fund because she would like to see Smith Park done and asked if the study could be done with CDBG funds, which will have to be researched regarding the requirements for CDBG funding. A discussion regarding CDBG funds and how they can be reallocated was held.

Councilmember Godfrey stated Smith Park is an outstanding item and a splash pad is a new item. Therefore, Smith Park needs to be addressed.

Melissa Vossmer stated the project development of Smith Park was not done in accordance with CDBG guidelines, so the funding would be moved to General Fund either way because the project had to start over. If we continue with CDBG funding, additional steps would be required.

Alex Agnor, Assistant City Manager, provided a sample bid packet, and stated HUD has already approved funding for Smith Park, but we would have to start over with the HUD approval and rebid the project.

Councilmember Abraham asked if we are using funds for a basketball court and not a lot of additional stuff.

Alex Agnor stated we have to ensure fairness and that contractors are allowed to do the work.

Councilmember Godfrey asked if the environmental study was already complete, which it is, but we are waiting to hear about the approval status.

Councilmember Abraham recommended having a continued discussion during the regular session regarding adding the splash pad.

Councilmember Fenton arrived at this point in the meeting. The time was 5:47 PM.

- B. Report on Status and Use of Airport Park. (Parks & Recreation)
Marina Garcia-Heredia, Parks Director, provided background information regarding the approved 2023 CIP program and explained the usage, status, community engagement and tournament activity at Airport Park. Marina Garcia-Heredia discussed the current and future maintenance efforts for the park.

Councilmember Abraham stated she was glad to hear from the community and that they have embraced the changes in only six months and stated she has received calls from hotels saying they have had an increased flow of traffic.

Melissa Vossmer stated staff will give a heads-up to hotels and restaurants for incoming flow and will provide a report for economic impact.

Councilmember Morris stated \$5 million dollars was allocated with \$400,000 remaining. What are the plans for the remainder?

Marina Garcia-Heredia stated improvements are still needed, and the staff is looking at where to best use the funds.

Mayor Ware stated people in the community are happy with the work and understand that it is a work in progress.

4. Adjournment

Councilmember Godfrey made a motion to adjourn. Councilmember Fenton seconded the motion, which passed by a vote of 7:0.

APPROVED:

Mayor of the City Council
of the City of Marshall, Texas

ATTEST:

City Secretary



TO: City Council
DATE: December 11, 2025
ITEM #: 7.B
SUBJECT: Consider approval of the minutes from the October 9, 2025, Regular City Council Meeting. (City Secretary)

Recommendation for Action: Motion to approve the minutes from the October 9, 2025, Regular City Council Meeting.

Executive Summary: Minutes from the October 9, 2025, Regular City Council Meeting.

Focus Area(s): Improving Communication

Budget Cost: N/A

Staff Contact: Nikki Smith, City Secretary

Attachments: 1. 10-9-25 minutes

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Amanda Abraham, District 6
Micah Fenton, District 7

MINUTES
PLEASE SILENCE ALL DEVICES
REGULAR CITY COUNCIL MEETING
October 9, 2025
6:00 PM

1. Call to Order and Roll Call

Mayor Amy Ware called the Regular meeting to order in the Council Chambers, City Hall at 06:06 PM.

PRESENT:

Mayor and Council Members:

Mayor Amy Ware
Councilmember Leo Morris
Councilmember Reba Godfrey
Councilmember Amanda Abraham
Councilmember Micah Fenton
Councilmember Dathaniel Campbell
Councilmember Risa Jordan-Anderson

ADMINISTRATIVE STAFF PRESENT:

Melissa Vossmer, City Manager	Cliff Carruth, Police Chief
Scott Rectenwald, City Attorney	Nikki Smith, City Secretary
Christol Hall, HR/Civil Service Director	David Rainwater, Fire Chief
Julie Richards, Interim Budget Manager	
Deck Shaver, Interim Public Works Director	
Cheryl Carpenter, Community Engagement	
Randy Pritchard, Support Services Director	
Reggie Cooper, Planning & Development Director	
Marina Garcia-Heredia, Parks & Recreation Director	

2. Invocation and Pledges

Mayor Ware

3. Presentations & Proclamations

- A. Presentation of the Employee of the Month - October. (Employee Engagement Committee)

Aleena Sepulvado, Employee Engagement Committee, presented the Employee of the Month for October 2025, Nathan Harris, Support Services. The sponsor of the month is Roger Woods. Nathan Harris thanked everyone for the recognition and stated it was an honor and pleasure to work for the City of Marshall.

4. Citizen Comments

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There were no citizen comments.

5. Items to be Withdrawn From Consent Agenda

There were no items withdrawn from the Consent Agenda.

6. Consent Agenda

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Councilmember Fenton made a motion to approve the Consent Agenda.

Councilmember Abraham seconded the motion, which passed by a vote of 7:0.

- A. Consider approval of the minutes from the August 28, 2025, Regular Council meeting. (City Secretary)
- B. Consider approval of the minutes from the September 3, 2025 Special-Called City Council meeting. (City Secretary)
- C. Consider approval of participation in National Opioid Settlement with Alvogen, Amneal, Apotex, Hikma, Indivior, Mylan, Sun and Zydus. (City Attorney)

7. Consideration of Items Withdrawn From the Consent Agenda

There were no items withdrawn from the Consent Agenda.

8. Ordinance

- A. **O-25-31** Consider an ordinance authorizing the issuance and sale of combination tax and revenue certificates of obligation, series 2025; levying an annual ad valorem tax and providing for the security for and payment of said certificates; approving an official statement; providing an effective date; and enacting other provisions relating to the subject. (City Manager)

Melissa Vossmer, City Manager, stated the representatives from Hilltop Securities, John and Michael Martin were present. Melissa Vossmer stated the process of issuance and sale of combination tax and revenue certificates of obligation started with the notice of intent in August and bid opening today, October 9, 2025.

John Martin, Hilltop Securities, provided a booklet and highlighted information regarding the City's rating of AA-. John Martin stated that the staff did a phenomenal job with the analysis, and highlighted the awesome job being done on things the city has control over. It was stated that AA- is a good, stable rating. Economic data, such as the Bond Buyer index, are compared to the DOW to determine the value of bonds and rates are coming down. John Martin mentioned economic commentary news about how bonds are priced today. The bid tabulation was conducted, seven (7) bids were received, and the Baker Group in Oklahoma City with a 3.904129% interest had the best bid for the City of Marshall. John Martin stated the financial part of the process includes sources and uses of funds, debt payments, premium generated, bond pricing, and cost of issuance. John Martin thanked Alex Agnor, Assistant City Manager, and staff for being so responsive and stated it was a lot of work.

Melissa Vossmer stated she sat in and watched the process, which took about 15 minutes, was all electronic, and was a much better process than other experiences.

John Martin stated the money will be in the bank on October 30, 2025.

Melissa Vossmer thanked the staff for their work and the support of Hilltop Securities.

Councilmember Jordan-Anderson asked for clarification of the total amount, which was stated to be \$9.925 million. Councilmember Jordan-Anderson asked how the interest worked out. John Martin explained the interest payment is paid every six (6) months and the principal every year.

Councilmember Jordan-Anderson asked how much the interest would be, which was stated that the Series 2025 interest payment would start at \$354,000, then go down paying just under \$4 million in interest over 20 years, but noted that it can be paid off early with no penalties after nine (9) years.

Councilmember Campbell asked about the \$130,000 difference, which was because the project fund deposit didn't need the full amount.

Councilmember Abraham made a motion to adopt O-25-31, an ordinance authorizing the issuance and sale of combination tax and revenue certificates of obligation, series 2025; levying an annual ad valorem tax and providing for the security for and payment of said certificates; approving an official statement; providing an effective date; and enacting other provisions relating to the subject. Councilmember Godfrey seconded the motion, which passed by a vote of 7:0.

- B. **O-25-32** Consider approval of an ordinance amending the City of Marshall Charter by correcting typographical errors. (City Secretary)

Nikki Smith, City Secretary, stated the council requested the Charter document be reviewed and updated to correct typographical errors found. A red-line version and clean copy of the document was included in the packet. Nikki Smith stated the

corrections have been made and asked council to approve the ordinance to allow the online code hosting to be updated.

Councilmember Morris was not present during the vote.

Councilmember Godfrey made a motion to approve O-25-32, an ordinance amending the City of Marshall Charter by correcting typographical errors. Councilmember Campbell seconded the motion, which passed by a vote of 6:0.

- C. **O-25-33** Consider approval of an ordinance amending Section 2-1 of Chapter 2 of the Code of Ordinances of the City of Marshall relating to time and place of council meetings. (City Secretary)

Nikki Smith asked for approval of this item as it is a housekeeping item to clean up language in the code of ordinances to reflect previously approved changes and current practices of the time and location of council meetings.

Councilmember Fenton made a motion to approve O-25-33, an ordinance amending Section 2-1 of Chapter 2 of the Code of Ordinances of the City of Marshall relating to time and place of council meetings. Councilmember Godfrey seconded the motion, which passed by a vote of 7:0.

9. Resolution

- A. **R-25-16** Consider approval of a Resolution to make nominations to the Board of Directors of the Harrison Central Appraisal District. (City Manager)
- Melissa Vossmer stated that, as a taxing entity, the City is allowed so many votes for the nominations to the Board of Directors of the Harrison Central Appraisal District. The next item regarding the Board of Directors of the Harrison Central Appraisal District will be in November to vote on the members. The city does not have enough votes on its own to get someone on the ballot, and historically, we have worked with the school district and supported their nominations. The Council can choose whoever they would like, but need to be mindful there are requirements listed that will have to be met. It is recommended to nominate Ted Huffhines and Jacob Fulbright.

Mayor Ware stated the city's number of votes is small, and we have similar interests as the school district.

Councilmember Abraham made a motion to approve R-25-16, a resolution to make nominations of Ted Huffhines and Jacob Fulbright to the Board of Directors of the Harrison Central Appraisal District. Councilmember Fenton seconded the motion, which passed by a vote of 7:0.

10. Action Items for City Council Consideration

- A. Consider Approval of the FY25 Capital Improvement Program (CIP). (Interim Budget Manager & City Manager)
- Melissa Vossmer stated that instead of presenting the information again, she would like to allow time for council to ask any questions they might have regarding the FY25 Capital Improvement Program (CIP).

Julie Richards, Interim Budget Manager, stated that, with the money approved and available on October 30, 2025, staff will need guidance for the program.

Councilmember Jordan-Anderson asked for clarification of which program, which Melissa Vossmer stated the monies are for the FY25 CIP, which includes the ERP, police training room, etc. Melissa Vossmer stated that, after the approval, staff can move forward with plans.

Melissa Vossmer stated previous discussions about the Public Works building provided information that the structure is in good condition and reinvestment in the building is warranted. The generator cost estimate for upgrades is a little over \$4 million and was not added to the list of the \$6 million projects at this time. It is to be brought back at another time when there is some capacity, but the project may have to fall off. Councilmember Jordan-Anderson asked for it to be brought forward at another time.

Councilmember Campbell stated there was a little surplus based on the bids and asked if the surplus could be used for Smith Park.

Councilmember Abraham stated CDBG funding addresses Smith Park, and if that is changed, then \$280,000 of CDBG funds would not be utilized.

Alex Agnor stated that if we stay with CDBG funding, it clears the \$280,000 in CIP and if we change the funding source, we will have to rebid the Smith Park project.

Councilmember Abraham asked if the Smith Park project would take all the \$280,000, which it was stated the basketball court would take \$250,000. Councilmember Abraham stated that if we use CDBG funding for Smith Park, the \$280,000 could go to other projects, like looking at a pool, and we can also look at a splash pad.

Councilmember Campbell asked if the \$280,000 could be used for a study.

Councilmember Godfrey asked if the \$280,000 was used from the General Fund for Smith Park, could we use the CDBG funding for other parks, which was stated no, using the CDBG funds for something else would require a rebid of a project.

Councilmember Abraham asked how long rebidding a project would take, which was stated the timeframe was uncertain, but the project could be phased out, which would allow the bid packets to go out faster.

Councilmember Campbell stated he was not familiar with CDBG and asked if it would break protocol to move forward with the work or would we have to wait. Councilmember Abraham stated we have the funding, but we have to follow the steps, and we have had timeliness issues in the past and the money needs to be used. Julie Richards stated that if the CDBG funding is lost, since it is Federal funding, it will be hard to get it back.

Melissa Vossmer stated we are borrowing templates from other cities, as we have improvements that can be done quickly and others that are more intensive. Melissa Vossmer stated she understands it is a frustrating project that has not moved forward, but it is better to use CDBG because the funding could be at risk if used for something

else.

Alex Agnor stated she is working with the CDBG consultant and stated it might be best to phase out the work. Mayor Ware agreed, stating the phases show progress.

Alex Agnor stated that if the CDBG funding is being kept for the Smith Park project, the \$280,000 could be used elsewhere. Councilmember Campbell suggested using the \$280,000 for a study and the remainder to be used for streets.

Mayor Ware stated she would like to get the projects done and use the CDBG funds for the Smith Park project as we have needs for the other funds. Councilmember Abraham agreed, saying she would like for construction to be started by the first of the year.

Councilmember Godfrey asked if the CDBG funding is kept, how long would the project take. It was stated that the bids would be put out and that, with direction, staff would move forward as soon as possible.

Councilmember Jordan-Anderson stated the biggest hurdle is the contractors. Alex Agnor agreed, stating we need contractors and will go out for bids for new ones on the project.

Councilmember Fenton asked about an aquatic study being conducted. Mayor Ware stated the study should include a pool with a splash pad to show possibilities.

Julie Richards stated staff can see what a study would cost and connect that to the pool for the FY 28-30 study. Melissa Vossmer stated the cost will be based on the scope of the project.

Councilmember Abraham asked for clarification for staff to look at the \$280,000.

Councilmember Abraham made a motion to approve the FY25 Capital Improvement Program, and to hold off on the \$280,000 until council has a discussion regarding an aquatic study. Councilmember Jordan-Anderson seconded the motion, which passed by a vote of 7:0.

- B. Consider approval to authorize the Mayor to award and execute a contract for consulting services to Searight Internetwork Consulting not to exceed the amount of \$145,000.00. (Support Services)

Randy Pritchard, Support Services Director, asked for approval of the proposal for developing and releasing an RFP for needs assessment and request for ERP implementation and project management.

Councilmember Abraham stated an ERP, Enterprise Resource Program, is basic finance software but does more than just books. Councilmember Abraham provided a background of how we got here, the previously approved ERP software, that we couldn't get it to work, as there were too many issues and the selection process was too fast and the cheapest option was selected. The IT Committee met, and the city terminated the contract with the company, and we are looking for something better.

Melissa Vossmer stated the schedule for completion is very aggressive, but we are in a

position to complete the process and be online by the end of October 2026. Working with a firm will help make the best selection for software.

Councilmember Abraham stated the current software will not be supported after 2026.

Councilmember Campbell made a motion to approve authorizing the Mayor to award and execute a contract for consulting services to Searight Internetwork Consulting not to exceed the amount of \$145,000.00. Councilmember Godfrey seconded the motion, which passed by a vote of 7:0.

- C. Discussion and consideration regarding the need to establish a Charter Review Committee, possible amendments, composition and timeline. (Council)
Nikki Smith stated this item is on the agenda to allow council to discuss establishing a Charter Review Committee, possible amendments, and the composition and timeline of work to finalize ballot language, if needed, for the May 2026 election.

Conucilmembers Godfrey, Jordan-Anderson and Ware are on the committee and provided their recommended changes to the Charter.

Mayor Ware stated the committee will work with a law firm to give suggestions.

Scott Rectenwald, City Attorney, stated the firm is willing to assist and would like to send a contract. Scott Rectenwald stated he would communicate the scope of work and that we would like to use the firm in a consulting capacity.

Mayor Ware asked the City Attorney to make sure the scope is acceptable and there doesn't need to be a committee of members of the public.

Councilmember Godfrey asked the City Manager to explain the update that was suggested regarding the conflict of allowing council to change what the City Manager does. Melissa Vossmer explained the recommended change would allow for the City Manager to be held accountable.

Mayor Ware asked the City Attorney to place an item on the next October meeting agenda to see if a council committee is OK and let the committee start meeting at the end of October or beginning of November.

Councilmember Godfrey stated she thought the committee was established, comprised of Councilmembers Jordan-Anderson, Godfrey and Ware. Melissa Vossmer stated this item is to formally create the committee.

Mayor Ware stated on October 23rd there would be an answer, and we would know if all the council members will be on the committee.

- D. Consider authorizing the City Manager to execute a contract with Texas First for Interim Planning & Zoning Director Services. (Human Resources & Assistant City Manager)
Christol Hall, HR/Civil Service Director, asked the council to authorize the City Manager to execute a contract with Texas First for Interim Planning & Zoning Director Services.

Councilmember Morris was not present during the vote.

Councilmember Godfrey made a motion to approve authorizing the City Manager to execute a contract with Texas First for Interim Planning & Zoning Director Services. Councilmember Campbell seconded the motion, which passed by a vote of 6:0.

11. Discussion and Reports for City Council Consideration and Direction

- A. Report regarding needed appointments and reappointments to the various City boards, commissions, and committees. (City Secretary)
Nikki Smith provided information regarding needed appointments and reappointments to the various City boards, commissions and committees. Nikki Smith stated advertisements have been published in the Marshall News Messenger, on the website and social media. Applications will be accepted through October 24, 2025.

12. Adjournment

Councilmember Godfrey made a motion to adjourn. Councilmember Abraham seconded the motion, which passed by a vote of 7:0.

APPROVED:

Mayor of the City Council
of the City of Marshall, Texas

ATTEST:

City Secretary



TO: City Council
DATE: December 11, 2025
ITEM #: 7.C
SUBJECT: Consider approval of the minutes from the October 17, 2025, Special-Called City Council Meeting. (City Secretary)

Recommendation for Action: Motion to approve the minutes from the October 17, 2025, Special-Called City Council Meeting.

Executive Summary: Minutes from the October 17, 2025, Special-Called City Council Meeting.

Focus Area(s): Improving Communication

Budget Cost: N/A

Staff Contact: Nikki Smith, City Secretary

Attachments: 1. 10-17-25 Special-Called minutes

**Jean Birmingham Council
Chambers, City Hall**
401 South Alamo
Marshall, TX 75671
903-935-4421



Members
Amy Ware, District 4 - Mayor
Risa Jordan-Anderson, District 1
Leo Morris, District 2
Dathaniel Campbell, District 3
Reba Godfrey, District 5
Amanda Abraham, District 6
Micah Fenton, District 7

MINUTES
PLEASE SILENCE ALL DEVICES
SPECIAL-CALLED CITY COUNCIL MEETING
October 17, 2025
8:30 AM

1. Call to Order and Roll Call

Mayor Amy Ware called the Special-Called meeting to order in the Council Chambers, City Hall at 08:30 AM.

PRESENT:

Mayor and Council Members:

Mayor Amy Ware
Councilmember Leo Morris
Councilmember Reba Godfrey
Councilmember Amanda Abraham
Councilmember Micah Fenton
Councilmember Dathaniel Campbell
Councilmember Risa Jordan-Anderson

ADMINISTRATIVE STAFF PRESENT:

Melissa Vossmer, City Manager
Randy Pritchard, Support Services Director

2. Citizen Comments

Texas Government Code, Sec. 551.007 requires that a governmental body must allow each member of the public who desires to address the body regarding an item on the agenda the opportunity to do so before or during the body's consideration of the item. The "Citizens Comments" portion of the meeting meets the requirements of this law and is the public's opportunity to speak on any item on the agenda. Those who wish to speak are requested to fill out a public comment form and will have three (3) minutes to speak unless additional time has been requested.

There were no citizen comments.

3. Executive Session

Councilmember Abraham made a motion to convene into Executive Session.
Councilmember Godfrey seconded the motion, which passed by a vote of 6:0. The time was 8:32 AM.

- A. **An executive session pursuant to Texas Govt. Code Section 551.074, "Personnel Matters" to deliberate the appointment, employment, evaluation, reassignment, duties, discipline, or dismissal of a public officer or employee; to wit, the appointment of an interim municipal judge and/or appointment of a municipal judge.**

Councilmember Fenton joined the Executive Session via zoom at 8:50 AM.

Councilmember Jordan-Anderson excused herself at 9:06 AM.

Councilmember Godfrey made a motion to reconvene from Executive Session. Councilmember Abraham seconded the motion, which Passed by a vote of 6:0. The time was 9:32 AM.

4. Action Item Following Executive Session

- A. Consider action regarding discussion from the executive session.
Councilmember Abraham made a motion to appoint Belew Ellis as our Interim Judge while we are in the process of putting out an application and seeking a full time Judge. Councilmember Fenton seconded the motion, which passed with the following vote:

Ayes: 4, Mayor Ware, Councilmembers Abraham, Fenton and Morris

Noes: 0

Abstain: 2, Councilmembers Godfrey and Campbell

5. Adjournment

Mayor Ware made a motion to adjourn. Councilmember Fenton seconded the motion, which passed by a vote of 6:0.

APPROVED:

Mayor of the City Council
of the City of Marshall, Texas

ATTEST:

City Secretary



TO: City Council
DATE: December 11, 2025
ITEM #: 7.D
SUBJECT: Consider approval of the 2026 City Council meeting schedule. (City Secretary)

Recommendation for Action: Requesting approval of the 2026 City Council meeting schedule.

Executive Summary: Staff has been requested to provide the Council with a meeting schedule for the upcoming year. In addition to the Regular City Council meetings scheduled on the 2nd and 4th Thursdays of each month, this list consists of known special-called meetings that can be scheduled in advance. Please be aware that this schedule is subject to change due to circumstances or events that we are unaware of at this time and any special-called meetings that may be needed.

As a reminder, Council was polled and approved changing the meetings dates in January from the second and fourth Thursdays to the third and fifth Thursdays.

Focus Area(s): Improving Communication

Budget Cost: N/A

Staff Contact: Nikki Smith, City Secretary

Attachments: 1. 2026 City Council Meeting Schedule

2026 City Council Meeting Schedule

Date	Time	Meeting Type
Thursday, January 15, 2026	5:30 p.m.	TIRZ Meeting*
Thursday, January 15, 2026	6:00 p.m.	Special-Called
Thursday, January 29, 2026	6:00 p.m.	Special-Called
Thursday, February 12, 2026	6:00 p.m.	Regular
Thursday, February 26, 2026	6:00 p.m.	Regular
Thursday, March 12, 2026	6:00 p.m.	Regular (MISD Spring Break this week)**
Thursday, March 26, 2026	6:00 p.m.	Regular
Thursday, April 9, 2026	6:00 p.m.	Regular
Thursday, April 23, 2026	6:00 p.m.	Regular
Thursday, May 14, 2026	6:00 p.m.	Regular
Thursday, May 28, 2026	6:00 p.m.	Regular
Thursday, June 11, 2026	5:30 p.m.	TIRZ Meeting*
Thursday, June 11, 2026	6:00 p.m.	Regular
Thursday, June 25, 2026	6:00 p.m.	MEDCO Joint Meeting*
Thursday, June 25, 2026	6:00 p.m.	Regular
Thursday, July 9, 2026	6:00 p.m.	Regular
Thursday, July 23, 2026	6:00 p.m.	Regular
Thursday, August 13, 2026	6:00 p.m.	Regular
Thursday, August 27, 2026	6:00 p.m.	Regular
Thursday, September 10, 2026	6:00 p.m.	Regular
Thursday, September 24, 2026	6:00 p.m.	Regular
Thursday, October 8, 2026	6:00 p.m.	Regular
Thursday, October 22, 2026	6:00 p.m.	Benefits Meeting
Thursday, October 22, 2026	6:00 p.m.	Regular
Thursday, November 12, 2026	6:00 p.m.	Regular
Thursday, December 10, 2026	6:00 p.m.	Regular

*Possible meeting to be held

**Please note the first meeting in March is usually moved to allow Council and Staff to be out during MISD's Spring Break to spend time with their families.



TO: City Council
DATE: December 11, 2025
ITEM #: 7.E
SUBJECT: Consider approval of appointments and reappointments to the various City boards, commissions, and committees. (City Secretary)

Recommendation for Action: Requesting approval of appointments and reappointment to the various City boards, commission, and committees.

Executive Summary: We have announced vacancies on the various City boards, commissions, and committees to Council. We advertised in the local newspaper, on the City television channel, social media sites, and the website to encourage interested citizens to contact City Hall about serving. The deadline for citizens to respond was October 24th. Applications were received from four (4) citizens.

Council was provided with the recommendations at the November 20, 2025, meeting. We are now asking for approval of the following appointments and reappointments:

Community Development Advisory Committee:
It is the recommendation of the staff to reappoint Loretta Martin.

Historic Landmark Preservation Board:
It is the recommendation of the staff to reappoint Charles Cornish, Raymond Fogg, Kristal Jeans, Rita Louise, and Jonathan McCarty.

Keep Marshall Beautiful Board:
It is the recommendation of the staff to reappoint Judith Journey.

Main Street Advisory Board:
It is the recommendation of the staff to reappoint Lori Acker and Kim Brown. There is still one vacancy on this board.

Marshall Downtown Development Corporation:
It is the recommendation of the staff to reappoint Glenn Bickerdike. There is still one vacancy on this board.

Marshall Public Library Board of Trustees:
It is the recommendation of the staff to reappoint Elizabeth Ponder and Bonnie Strauss. There is still one vacancy on this board.

Parks Advisory Board:
It is the recommendation of the staff to reappoint Colin Brady, Jerry Calderon, Roy Fox, and Gloria Moon.

Visit Marshall Advisory Board:

It is the recommendation of the staff to reappoint Gary Arthur, Krysta Coleman, Glynn Duncan, Vivian Lewis, Vinod Patel, and Texas Ruegg.

Focus Area(s): Improving Customer Service

Budget Cost: N/A

Staff Contact: Nikki Smith, City Secretary

Attachments: 1. Recommendations for 2026

CITY BOARDS, COMMISSIONS, & COMMITTEES

COMMUNITY DEVELOPMENT ADVISORY COMMITTEE

The Community Development Advisory Committee assists with establishing long-range goals and objectives for the Community Development Block Grant program and makes recommendations on the annual plan and budget for this annual federal grant. The term of service on this board is three years, beginning on January 1 after the appointment is made. There is no limit to the number of consecutive terms a member can serve. The current members of this committee are LeaShondria Harden, Keith Hill, Blake Langley, Loretta Martin, Ernest Morrow, Ernest Spencer and Charles Tutt. The staff member who works with this board is Alex Agnor, Assistant City Manager/Director of Economic Development & Strategic Initiatives. Questions may be directed to Ms. Agnor at 903-935-4526 or at Agnor.Alex@marshalltexas.net.

It is the recommendation of Staff to reappoint Loretta Martin.

HISTORIC LANDMARK PRESERVATION BOARD

The Historic Landmark Preservation Board is responsible for the historic landmark preservation plan and makes recommendations on establishing historic landmark preservation districts in the city limits. Members of this board must have knowledge and experience in history, art, architecture, or real estate planning and development; and have demonstrated interest, competence, or knowledge in historic preservation. The term of service on this board is two years, beginning on January 1 after the appointment is made. There is no limit to the number of consecutive terms that a member can serve. The current members of this board are Jay Carriker, Charles Cornish, Raymond Fogg, Kristal Jeans, Travis Keeney, Rita Louise, and Jonathan McCarty. The staff member who works with this board is Lacy Burson, Main Street Manager. Questions may be directed to Mrs. Burson at 903-934-7902 or at Burson.lacy@marshalltexas.net.

It is the recommendation of Staff to reappoint Charles Cornish, Raymond Fogg, Kristal Jeans, Rita Louise, and Jonathan McCarty.

KEEP MARSHALL BEAUTIFUL BOARD

Keep Marshall Beautiful Board advises the City Council on issues related to littering and property appearance. The term of service on this board is two years, beginning on January 1 after the appointment is made. A member can serve a maximum of two consecutive full terms. The current members of this board are Corey Brown, Renae DeVere, Blanca Jenkins, Judith Journey, Linda Scott, Melanie Valdez, and Robert Wood. The staff member who works with this board is Alex Agnor, Assistant City Manager/Director of Economic Development & Strategic Initiatives. Questions may be directed to Ms. Agnor at 903-935-4526 or at Agnor.Alex@marshalltexas.net.

It is the recommendation of Staff to reappoint Judith Journey.

MAIN STREET ADVISORY BOARD

The Main Street Advisory Board assists in the economic revitalization and promotion of downtown Marshall. This is a thirteen-member board, representing public and private sector interests. The term of service on this board is three years, beginning on January 1 after the appointment is made. A member can serve a maximum of two consecutive full terms. The current members of this board are Lori Acker, Stacy Adams, Richie Arnold, Corey Brown, Kim Brown, Cheryel Carpenter, Tracy Jackson, Raven Lenz, Mary Lynne O'Neal, Debbie Parker, Stephanie Phelps, and Bridget Wanjiku. The staff member who works with this board is Lacy Burson, Main Street Manager. Questions may be directed to Mrs. Burson at 903-934-7902 or at Burson.lacy@marshalltexas.net.

It is the recommendation of Staff to reappoint Lori Acker, and Kim Brown. There is still one vacancy on this board.

MARSHALL DOWNTOWN DEVELOPMENT CORPORATION

The Marshall Downtown Development Corporation promotes and assists in the development, growth, and economic wellbeing of the downtown area of Marshall. The term of service on this board is three years, beginning on January 1 after the appointment is made. A member can serve a maximum of two consecutive full terms. The current members of this board are Glenn Bickerdike, George Carter, Jim Davis, Dinora Harris, Garrett Hill, and Scott McCurdy. The staff member who works with this board is Alex Agnor, Assistant City Manager/Director of Economic Development & Strategic Initiatives. Questions may be directed to Ms. Agnor at 903-935-4526 or at Agnor.Alex@marshalltexas.net.

It is the recommendation of Staff to reappoint Glenn Bickerdike. There is still one vacancy on this board.

MARSHALL PUBLIC LIBRARY BOARD OF TRUSTEES

The Marshall Public Library Board of Trustees serves as the advisory board for the Marshall Public Library. Of the seven members on this board, at least five members must be full-time residents of the City of Marshall. The term of service on this board is two years, beginning on January 1 after the appointment is made. A member can serve a maximum of two consecutive full terms. The current members of this board are Dana Jean, Lacey Lawson, Vivian Lewis, Shirley McNeel, Elizabeth Ponder, Laurie Smith, and Bonnie Strauss. The staff member who works with this board is Terri Nalls, Library Director. Questions may be directed to Ms. Nalls at 903-935-4465 or at nalls.terri@marshalltexas.net.

It is the recommendation of Staff to reappoint Elizabeth Ponder and Bonnie Strauss. There is still one vacancy on this board.

PARKS ADVISORY BOARD

The Parks Advisory Board serves as an advisory committee to the City Council and City staff in establishing plans or procedures concerning usage, planning, goals, and objectives of parks and recreation services. The term of service on this board is four years, beginning on January 1 after the appointment is made. A member can serve a maximum of two consecutive full terms. The current members of this board are Colin Brady, Jerry Calderon, LaDarius Carter, Roy Fox, Mike Haynes, Gloria Moon, and James Runnels. The staff member who works with this board is Randy Pritchard, Director of Support Services. Questions may be directed to Mr. Pritchard at 903-934-7921 or at pritchard.randy@marshalltexas.net.

It is the recommendation of Staff to reappoint Colin Brady, Jerry Calderon, Roy Fox, and Gloria Moon.

PLANNING AND ZONING COMMISSION

The Planning and Zoning Commission hears and makes recommendations on requests for zoning changes and special use permits. This commission also reviews and approves subdivision plats in the city limits and within one mile of the city limits. The term of service on this board is three years, beginning on June 1 after the appointment is made. A member can serve a maximum of two consecutive full terms. The current members of this commission are Stacy Adams, Richie Arnold, LaDarius Carter, Anthony Glanton, Brooke LaBouve, Robert Lisman, and Ken Moon. The staff member who works with this board is Alex Agnor, Assistant City Manager/Director of Economic Development & Strategic Initiatives. Questions may be directed to Ms. Agnor at 903-935-4526 or at Agnor.Alex@marshalltexas.net.

Appointments to the Planning and Zoning Commission are brought before the City Council in May or June. The Planning and Zoning Commission is not part of the annual year-end appointment process. The appointment procedures for the Planning and Zoning Commission are provided for by ordinance in the Zoning Ordinance. It is required by ordinance that the appointments to the Planning and Zoning Commission be made in May or June each year, and that all members must be resident citizens and qualified to be voters in the City of Marshall.

VISIT MARSHALL ADVISORY BOARD

The Visit Marshall Advisory Board is responsible for establishing operating policies for Visit Marshall and for evaluating the progress of Visit Marshall in the attainment of its goals. This board consist of seven tourism related representatives. The term of service on this board is two years, beginning on January 1 after the appointment is made. A member can serve a maximum of three consecutive full terms. The current members are Gary Arthur, Sara Braun, Krysta Coleman, Glynn Duncan, Vivian Lewis, Vinod Patel, and Texas Ruegg. The staff member who works with this board is Lacy Burson, Main Street Manager. Questions may be directed to Mrs. Burson at 903-934-7902 or at Burson.lacy@marshalltexas.net.

It is the recommendation of Staff to reappoint Gary Arthur, Krysta Coleman, Glynn Duncan, Vivian Lewis, Vinod Patel, and Texas Ruegg.

ZONING BOARD OF ADJUSTMENT

The Zoning Board of Adjustment conducts hearings on appeals to enforcement of the city's Zoning Ordinance, decides on exceptions to the Zoning Ordinance, and grants variances to the Zoning Ordinance. The term of service on this board is three years, beginning on January 1 after the appointment is made. There is no limit to the number of consecutive terms a member can serve. The current members of this board are Clayton Allen, Elton Brock, Sam Fogle, Steve Hammond, LeaShondria Harden, Zachary Henderson, and Nathan McDaniel. The staff member who works with this board is Alex Agnor, Assistant City Manager/Director of Economic Development & Strategic Initiatives. Questions may be directed to Ms. Agnor at 903-935-4526 or at Agnor.Alex@marshalltexas.net.

No reappointments/appointments needed.



TO: City Council
DATE: December 11, 2025
ITEM #: 7.F
SUBJECT: Consider approval for Emergency Repairs to the Public Works Department's Flail Mower (\$53,061.00). (Public Works)

Recommendation for Action: Motion to approve emergency repairs for the Public Works Department's Flail Mower from Marshall Diesel Service in the amount of \$53,061.00.

Executive Summary:

The Public Works Department's Flail Mower recently became inoperable due to unforeseen damage. This equipment is essential to a wide range of departmental operations, and its failure significantly hinders ongoing and future maintenance activities.

Three quote requests were issued, and Marshall Diesel Service was the only vendor to respond, providing a quote in the amount of \$53,061.00.

Due to the emergent nature of this situation, standard purchasing procedures were temporarily suspended to secure the necessary equipment, personnel, and services required to restore operations as quickly as possible.

This procurement qualifies for exemption under Texas Local Government Code Sec. 252.022:

(3) A procurement necessary because of unforeseen damage to public machinery, equipment, or other property.

Focus Area(s): This item aligns with the following council adopted focus area(s): Improving Infrastructure

Budget Cost: \$53,061.00

Staff Contact: Douglas Box, Interim Director of Public Works

Attachments:

1. SCAN0239
2. SCAN0240

Marshall Diesel Service
P O Box 1262
Marshall TX 75671

Date 10/23/25
Estimate

Email - marshalldieselservice@yahoo.com

903-938-0587

City of Marshall

JD - Pin - 1P06105DLF0060499
Alamo Serial # - SA22-200704

Total Estimated Parts	\$ 38,062.00
Total Estimated Labor	\$ 14,000.00
Shop Supplies	\$ 199.00
Total Freight Estimate	\$ 800.00
Total Estimate	\$ 53,061.00

Remove & repair hydraulic system on Alamo Samuari 22 mower unit.

Any parts found not reusable after disassembly will be in addition to estimate.

Handwritten signature
11/10/25



MEMO

TO: City of Marshall Finance

FROM: Kervin Crawford, Asst. Director of Public Works

DATE: November 14, 2025

SUBJECT: Line Item Transfer for PR

Need to get PO for Marshall Diesel to repair unit 126 frail mower. Tried to get to quotes from Pipe Hunter and Alamo Tractor, they were unable to get quotes because they want to bring tractor to them out of town. The equipment is not drivable

Kervin Crawford
Asst. Director of Public Works

Kervin Crawford 11/14/25

J. H. Boet 11/14/25



TO: City Council
DATE: December 11, 2025
ITEM #: 7.G
SUBJECT: Consider Approval of 2026 Professional Engineering Services Agreement with Hayes Engineering, Inc. to be Engineer of Record for the City of Marshall. (Public Works)

Recommendation for Action: Motion to approve the 2026 Professional Engineering Services Agreement with Hayes Engineering, Inc. as Engineer of Record for the City of Marshall.

Executive Summary: To consider approval of a Professional Engineering Services Agreement with Hayes Engineering, Inc. for calendar year 2026 to assist the City of Marshall as Engineer of Record related to development review, drainage investigations, and Public Works infrastructure.

Hayes Engineering, Inc. will provide professional services to support City staff by completing the following tasks:

1. Development Services:

- Review development plans and specifications for compliance with the City of Marshall's development requirements and customary civil engineering design standards.
- Evaluate drainage calculations and FEMA Floodplain regulations.
- Provide written comments identifying deficiencies and offering recommendations for correction.

2. Drainage Complaint Investigation (As Needed):

- Review and evaluate drainage-related complaints received by the City and determine whether the issue is likely a City responsibility.
- Identify problems, develop feasible solutions consistent with Public Works Standard Practices and City Drainage & Erosion Control Policies, and provide recommendations to staff.

3. Public Works System Consultation:

- Provide technical consultation to the Public Works Director and management on issues related to water and sewer system facilities and operations.

Focus Area(s): This item aligns with the following council adopted focus area(s): Improving Customer Service and Improving Infrastructure

Budget Cost: Fee Schedule Attached

Staff Contact: Douglas Box, Interim Director of Public Works

Attachments: 1. Stan Hayes - Engineer on Record 12-4-25



HAYES ENGINEERING, INC.

Texas Registered Engineering Firm F-1465 www.hayesengineering.net
2126 ALPINE RD. LONGVIEW, TX 75601-3401
V 903.758.2010 F 903.758.2099

November 24, 2025

Ms. Melissa Vossmer, City Manager
City of Marshall
P. O. Box 1952
Longview, Texas 75606

EXHIBIT "A"

RE: Fiscal Year 2026 City Engineer Services

Dear Ms. Vossmer:

Please consider this correspondence as a letter proposal for professional engineering services for assisting the City of Marshall with City Engineer work tasks. We understand the scope will consist of providing a registered professional engineer to perform city engineer services on an as needed basis.

We understand the scope of services as follows:

Development Services:

- 1) Review development plans and specifications to verify compliance with the City of Marshall development requirements and customary design standards for civil engineering related aspects of the project.
- 2) Review drainage calculations and FEMA Floodplain requirements.
- 3) Provide written comments for any deficiencies or recommendations.

Investigate Drainage Complaints on an as needed basis:

- 4) Review and Investigate complaints to determine likely city responsibility, identify the problem to be addressed, develop likely solutions to address the identified problem in compliance with the City of Marshall Public Works Standard practices and Drainage and Erosion Control policies.
- 5) Make recommendations to City staff on how to proceed.

Public Works

- 6) Consult with public works director and management on issues related to Water and Sewer system facilities.

We understand the reviews and investigations must be performed in a timely manner. We will be available on an as needed hourly basis. Fees will be invoiced monthly per the attached rate schedule. Services will be performed by a State of Texas registered professional engineer.

We appreciate the opportunity to work with the City of Marshall and will be able to begin immediately upon receiving a contract. If you have any questions or comments, please advise.

Sincerely,
Hayes Engineering, Inc.

Stanley Hayes, P. E.
President

ATTACHMENT 1 TO EXHIBIT "A"

**HAYES ENGINEERING, INC.
FEE SCHEDULE
2026**

Principal	\$250.00 / Hour
Project Manager	\$200.00 / Hour
Senior Engineer	\$175.00 / Hour
Registered Engineer	\$150.00 / Hour
Engineer In Training	\$110.00 / Hour
GIS Technician	\$110.00 / Hour
Sr. Engineering Technician	\$105.00 / Hour
Engineering Technician	\$85.00 / Hour
C.A.D. Technician	\$75.00 / Hour
Project Assistant	\$60.00 / Hour
Administrative Assistant	\$60.00 / Hour
Field Data Acquisition with GPS	\$100.00 / Hour
Project Representative	\$60.00 / Hour
Mileage	\$0.70 / Mile
Travel	Cost
Non-Labor Expenses	Cost + 15%
Subcontract Services	Cost + 10%



TO: City Council
DATE: December 11, 2025
ITEM #: 7.H
SUBJECT: Consider approval of the appointment of Doug Lewis to the Board of Directors of the Marshall Economic Development Corporation (MED). (Marshall EDC)

Recommendation for Action: Approval of Doug Lewis as the nominee submitted by the Board of Directors of MED to fill his first full term on the Marshall Economic Development Board of Directors.

Executive Summary: The citizens and City Council of Marshall, Texas, created the Marshall Economic Development Corporation, also known as Marshall Economic Development (MED) in 1991 to serve Marshall and the surrounding business community in Harrison County. It is a Type A 501(c)(3) non-profit, non-governmental organization funded through a portion of local sales tax dollars. EDCs were established through the State of Texas Development Corporation Act of 1979, with regulations outlined in Chapters 501, 504, and 505 of the Texas Local Government Code.

The MED Board of Directors is a volunteer board comprising five directors. Doug Lewis was appointed by the City Council on July 7, 2025 to fill an unexpired director term due to the resignation of Jeremy Spears. At the October 27, 2025 Regular MED Board meeting, the Board of Directors unanimously approved the nomination of Doug Lewis to a full term.

I look forward to presenting the nominee to the City Council on December 11, 2025, for consideration of final appointments. Please contact the MED Executive Director if you have any questions.

Funding Request:

Total Request Amount: None

Source of Funds: None

Required Approvals: MED Board (10/27/2025), City Council (Requested)

Focus Area(s): This item aligns with the following council adopted focus area(s):

Budget Cost: None

Staff Contact: Rush Harris, Executive Director, MED

Attachments:

1. Please see the applicant's summary, application, and resume in the attachments, along with the roles and responsibilities of board members.

Doug Lewis Summary Biography

Doug Lewis is the Vice President of Lewis Engineering Company, a 65-year-old family-owned production machining and metal finishing facility based in Marshall, Texas. With over 20 years of hands-on experience in the industry, Doug oversees all managerial aspects of the business including quoting government and private sector contracts, internal hiring, sales, and trade show representation. Under his leadership, Lewis Engineering serves as a prime contractor for Picatinny Arsenal and Pine Bluff Arsenal, specializing in the production of 81mm and 60mm mortar rounds for the Department of Defense.

Doug earned a Bachelor of Business Administration from Texas A&M University in 2004 and is currently enrolled in the Leadership Development Program in Manufacturing at the University of Michigan. A committed civic and industry leader, Doug served two terms on the Marshall City Council (2016–2021), is a past president of the Harrison County Manufacturing Council, and currently serves on the school board for Trinity Episcopal School.

2025 Board Membership Application

Marshall Economic Development Corporation, dba Marshall Economic Development (MED), was created by a vote of the citizens of Marshall and the Marshall City Commission (now Council) in 1991 to serve Marshall and the surrounding business community in Harrison County. We are a Type A 501(c)(3) non-profit, non-governmental organization funded through a portion of local sales tax dollars. EDCs were created through the State of Texas Development Corporation Act of 1979 with regulations as outlined by Chapters 501-505 of the Texas Local Government Code.

MED is governed by a five-member board of directors. Board responsibilities are further described in the attached MED Board Requirements. Regular meetings are held in person on the last Wednesday of each month at the MED office at 4 PM. Additional committee meetings and volunteer opportunities are scheduled as needed. A current resume detailing relevant experience is required (email to rush@marshalledc.org).

[Click here](#) for a copy of the MED Board Responsibilities, Code of Ethics, Confidentiality Guidelines, and General Operating Principles.

Full Name (First, Middle, Last) *

Douglas Lewis

Home Address *

Home Phone *

Personal Cell Phone *

.....

Preferred Email *

dlewis@lewisengineeringco.com

.....

Employer *

Lewis Engineering

.....

Work Position/Role/Title *

Vice President

.....

Work Address *

1608 E. Houston

.....

Work Phone *

9039386754

.....

Work Cell *

.....

Are you a resident of the City of Marshall? If so, how long? *

Yes, 34 years

Are you a resident of Harrison County? If so, how long? *

Yes, 34 years

Are you currently an elected official in any capacity? *

No

Have you previously served in an elected capacity? If so, please stated details of service: *

Yes, Marshall City Council

Are you currently employed with the City of Marshall or Harrison County? *

No

Do you serve on any other Boards or are a member of any other organizations? If so, please list: *

Harrison County Manufacturing Council

Business/Industry experience: *

20 years in manufacturing

By typing your full name below you are digitally signing this document: *

Douglas Lewis

Please provide a short (up to 200 word) biography that summarizes your professional and community background as it relates to Marshall Economic Development. *

20 years experience in a production machine shop making munitions for department of defense. Business degree from Texas A&M University. Former member of Marshall City Council serving 2 terms.

This form was created inside of Marshall Economic Development Corporation.

Google Forms

DOUGLAS M. LEWIS

4502 Sherman Drive | Marshall, TX 75672
Office: (903)938-6754 Cell: (903)472-1545
dlewis@lewisengineeringco.com

Skills Summary

Management experience in a production manufacturing facility that supplies the United States Department of Defense and other customers with high volumes of made-to-print metal components. Experienced with face-to-face sales meetings and quality audits with customers and suppliers. Experience with ERP software, CRM software, and utilizing AI to cold email and cold call potential clients.

Education

Texas A&M University – College Station, TX – 2004 Graduate

Bachelor of Business Administration from the Mays Business School at Texas A&M University. While enrolled I was a member of the Texas Aggie Rodeo Team as well as a business fraternity.

University of Michigan – Ann Arbor, MI – Currently Enrolled

Currently enrolled in the Leadership Development Program in Manufacturing.

Experience

Lewis Engineering Company

Vice President – August 2004 – Current

Oversee all managerial aspects of production machining and metal finishing facility. This includes quoting on government contracts as well as private sector contracts, hiring new employees, making sales calls, trade shows, etc. We are a prime contractor to both Picatinny Arsenal and Pine Bluff Arsenal for the 81mm and 60mm mortar rounds. Lewis Engineering is a 65 year old family business that is located in Marshall, TX. We are ISO:9000 & ITAR Certified.



Volunteer Work

Marshall City Commissioner – District 7 – 2016-2021

I served two terms as a City Commissioner for the City of Marshall. I was Mayor – ProTem for 2 years. While in this role I represented Marshall in the East Texas 911 council.

School Board Member – Trinity Episcopal School

I currently serve on the board of directors for Trinity School in Marshall, TX. I've served on this board for over 6 years.

Harrison County Manufacturing Council

Past president of HCMC and currently serve on this council.



BOARD MEMBER RESPONSIBILITIES

ROLE

A Board Member serves as a voting member of the Board of Directors of the Marshall Economic Development Corporation (MED). In that capacity, they develop policies, procedures, and regulations, as well as monitor the financial performance and economic development programs of MED. They are supportive of MED's Type A governing organization adopted by the Citizens of the City of Marshall in 1991.

TERM

Terms shall be for three (3) years with members eligible to serve two (2) consecutive terms. Any former member of the Board of Directors may be considered if there has been at least one year's absence from serving on the Board.

BOARD MEMBER RECRUITMENT

The ideal candidate shall have experience and or qualifications for prospective business and industry knowledge to include:

- Current or past experience with business or industry-related fields involving Type A Economic Development served sectors
- Good general budgetary and financial experience providing a good understanding of acceptable business risks versus rewards for local community governments in the recruitment of new businesses and/or expansion of current businesses.

PROCESS FOR APPOINTMENT

MED Board of Directors will accept applications at any time for interest in serving on the MED Board and will review them as terms become available. The MED board members and staff will evaluate the applicant's availability to fulfill the board member's expectation of service guidelines. The MED Board of Directors will ask for interviews of evaluated applicants. The MED Board of Directors will approve of nominations to bring before the City Commission of Marshall for consideration of approval of the appointment.

TIME COMMITMENT

- Attend all meetings of the board, called at the discretion of the Chairman or Executive Director when necessary actions must be taken. Meetings normally are held on the last Wednesday of each month at 4:00 p.m. at the MED office and conference room, 100 N Bolivar St, Ste 206, Marshall, Texas 75672.
- Participate in MED new board member orientation and training
- Serve on at least one MED committee
- Attend scheduled economic development retreats, planning sessions, workshops, or other scheduled activities
- Attend, support and participate in any other special activities in which the Board has a significant role
- Attend City Commission meetings when MED is making a presentation or seeking approval for projects

- Serve as a representative of the MED at site visits by economic development prospects when called upon to do so. Typically, the Chairman and the Chair of the Business Development Committee serve in this capacity unless unavailable

OBLIGATIONS

- Must be a resident of Harrison County and preferably of the City of Marshall, if possible
- If employed or self-employed, must be employed in, by, or own, manage, or operate a business or venture located in Harrison County, Texas
- Must not serve in an elected capacity according to MED Bylaws adopted by the City of Marshall
- Must not be an employee in direct service with the City of Marshall or Harrison County, except as stated in the MED Bylaws
- Fully understand and support the purpose and goals of MED, a Type A EDC
- Discharge the duties of Director as outlined in the Bylaws of MED
- Participate in the establishment of policies for MED
- Monitor MED's financial performance
- Represent MED to the public and private sector, where needed, and serve as an advocate for MED and the business community
- Bring personal/professional expertise - and that of others - to support the organization
- Commitment to open and honest discussion of policy alternatives and project deliberations
- Compliance with EDC Code of Ethics, Conflict of Interest Statement, Confidentiality Guidelines, and General Operating provisions (Attachments A, B, and C)

EXPECTED TIME COMMITMENT PER MONTH*

Hour preparation plus monthly Board meeting	3 hours
Participation in another committee or workgroup	3 hours
Related reading/ancillary meetings	2 hours
Total of potential minimum time	8 hours per month

**** Officers and Committee Chairs generally spend more time with staff as needed.***

Statement of understanding of Marshall Economic Development Board service commitments

I, _____ do hereby acknowledge, understand, and have accepted the above and the following attachments related to MED's Code of Ethics, Conflict of Interest Statement, Confidentiality Guidelines and General Operating provisions and understand that MED Board is a working Board.

Signed this _____ day of _____, in the year _____.

MED Board Member

(Signature required upon appointment approvals)

Attachment A
Marshall Economic Development Corporation
Code of Ethics

General Conduct

The staff and Board of Directors of the Marshall Economic Development Corporation (MED) are expected to conduct themselves in a fair and honest manner, acting in good faith to avoid conflicts of interest and the appearance of conflicts of interest, respecting the confidentiality of clients, maintaining personal integrity in all professional relationships, and acting as good financial stewards of the investments made in the organization.

Conflicts of Interest

Employees and Board members will perform their duties conscientiously, honestly, and in accordance with the best interest of MED, the City of Marshall, and Harrison County as a whole. Employees, Board members of MED committees, and directors must not use their positions or confidential knowledge gained as a result of their position for private or personal advantage. Board members and staff are expected to disclose any actual or potential conflict of interest at the first available opportunity and registering such conflict in writing for record-keeping.

Conflicts of Interest Policy

The purpose of the conflicts of interest policy is to protect this tax-exempt organization's interest when it is contemplating entering into a transaction or arrangement that might benefit the private interest of an officer or director of MED.

Definitions

1. **Interested Person** - Any voting Board member who has a direct or indirect financial interest, as defined below, is an interested person.
2. **Financial Interest** - Any person has a financial interest if the person has, directly or indirectly, through business, investment, or immediate and/or extended family:
 - a. An ownership or investment interest in any entity with which MED has a transaction or arrangement, or
 - b. A compensation arrangement with MED or with any entity or individual with which MED has a transaction or arrangement, or
 - c. A potential ownership or investment interest in, or compensation arrangement with, any entity or individual with which MED is negotiating a transaction or arrangement, or
 - d. A Board member who serves as a trustee, board member, or in an advisory capacity for an entity seeking assistance, or
 - e. A financial interest is not necessarily a conflict of interest. A person who has a financial interest may have a conflict of interest only if the governing board decides that a conflict of interest exists.
3. **Family** - Immediate family includes an unemancipated child of a voting board member residing in the household and the Board member's spouse, if not legally separated. The extended family includes lineal descendants, lineal ascendant, sibling, spouse's lineal descendant, spouse's lineal ascendant, spouse's sibling, and the spouse of any of these persons.

Procedures

1. **Duty to Disclose** - In connection with any actual or possible conflict of interest, an interested person must disclose the existence of the financial interest and be given the opportunity to disclose all material facts to the directors considering the proposed transaction or arrangement.
2. **Determining Whether a Conflict of Interest Exists** - After disclosure of the financial interest and all material facts, and after any discussion with the interested person, he/she shall remain in the Board meeting while the determination of a conflict of interest is discussed and voted upon. The remaining Board members shall decide if a conflict of interest exists. In the event of a tie or if there is any question, the MED attorney will be consulted for a legal determination of a conflict.
3. **Procedures for Addressing the Conflict of Interest**
 - a. As described above, an interested person shall abstain from voting on any transaction or arrangement involving the possible conflict of interest. That person will be allowed to provide their opinion on the transaction or arrangement to the Board of Directors.
4. **Violations of the Conflict of Interest Policy**
 - a. If the Board has reasonable cause to believe a member has failed to disclose actual or possible conflicts of interest, it shall inform the member of the basis for such belief and afford the member the opportunity to explain the alleged failure to disclose.
 - b. If, after hearing the member's response and after making further investigation as warranted by the circumstances, the Board shall ask the member to abstain from voting or remove themselves from active participation in the matter of the conflict of interest.
5. **Annual Statements**
 - a. Each Director and staff shall annually sign a statement which affirms the following:
 - i. Has received a copy of the Board member expectation statement, conflict of interest and confidentiality policy
 - ii. Has read and understands the statements and policies
 - iii. Has agreed to comply with the policy, and
 - iv. Understands that MED is a non-profit, quasi-governmental entity and in order to maintain its federal tax exemption, it must engage primarily in activities to promote economic development within Harrison County and to provide other services incidental thereto, and for the transaction of any other lawful businesses permitted to be carried on by corporations qualified for tax exemption pursuant to Section 501(c)(3) of the Internal Revenue Code of 1986 as amended from time to time.
Understands that MED is also governed by the Texas Local Government Codes 501 and 504, Texas Tax Code 313 Texas Economic Development Act, and local rules and procedures approved by the Marshall City Commission and MED Board of Directors as specified in the MED Articles of Incorporation and MED Bylaws developed upon MED's creation in 1991.

Attachment B
Marshall Economic Development Corporation
Confidentiality Guidelines

1. Board of Directors and staff have fiduciary duties of loyalty and care, which includes refraining from disseminating information to others that could harm the prospect or MED. Board of Directors and staff are expected to sign MED confidentiality agreements.
2. Board of Directors and staff must always refrain from disclosure of confidential information until deemed appropriate by the prospect. Disclosure of confidential information is prohibited by any communication means, including but not limited to e- mail, web posting, hard copy document, or verbal communication.
3. Board of Directors and staff must keep sensitive matters confidential until projects are completed as defined by the Economic Development Act. Accordingly, they agree to keep confidential, during and after their service on the Board, all sensitive information discussed regarding all projects until such time that it is subject to the Open Records Act. This commitment to confidentiality includes, but is not limited to:
 - Project Development and Discussions
 - Contract terms for Recruitment
 - Financial information on prospects, existing businesses, or other potential businesses receiving assistance from MED
 - Discussion regarding Board member nominations
4. All information shared or discussed in executive session or closed meetings shall be treated as confidential and shall not be disclosed unless explicitly permitted by the prospects or completion of a project. MED will make every effort to specifically note which information, analyses, reports, and other materials and associated Board discussions/deliberations are confidential. However, Directors and staff are expected to exercise reasonable caution, prudence, and common sense in determining which information should be kept confidential. Questions should be directed to the Chairman of the Board, Executive Director, or the MED Attorney.
5. The level of protection/security that should be applied to MED's confidential matters is the same as the Board or staff would apply to his/her own confidential matters. This includes all reasonable protections of electronic, hard copy information, and verbal communications.
6. Board and staff members understand that any violation of this confidentiality policy could result in a potential lawsuit against MED and public/private confidence in the organization.

Attachment C
Marshall Economic Development Corporation
General Operating Principles

- **Accountability** - MED must be accountable first to the City Commission of the City of Marshall, the organization, and indirectly, but ultimately to the citizens of Marshall who elected the commissioners.
- **Commitment to strategic decision making:** As noted by the MED strategic plan developed and approved by the Board of Directors for economic development, MED shall follow a policy-driven approach to economic development built on four focus areas: attraction, retention and expansion, workforce development/training, and property development.
- **Mutual trust between City of Marshall Council Members and MED Board:** The City Council members need to understand that MED is operating strategically for the common good of the City of Marshall and the entire county as well as providing them with factual, honest recommendations for projects. MED Board members and staff will not engage in political activities in their official capacity as board member or employees of MED
- **Effective:** MED Board members and staff must have an efficient process that is effective in implementing the MED strategic plan. The strategic plan will be amended at least every 3 years or at such a time that requires a change in the plan.
- **Flexible:** MED was created to be able to have flexibility outside of regulations for Texas rules governing local municipalities so as to react quickly for project development and recruitment.
- **Avoid conflicts of interest:** Nothing can destroy the public trust of a public institution quicker than when citizens feel that decisions of the voting members are tainted by actual or appearances of conflicts of interest.
- **Transparency and community input:** Everything the Board does needs to be done openly, with the exception of required confidentiality needed in certain recruitment and other business prospect or client relationships. Public input is encouraged.
- **Public acceptance:** Ultimately, to be effective, the MED Board needs to be seen as consistently following the above-stated principles.



TO: City Council
DATE: December 11, 2025
ITEM #: 7.1
SUBJECT: Consider to retroactively approve an emergency contract with WMS R&B, LLC for the repairs needed to address the cave in on U.S. Highway 80 in the amount not to exceed \$338,663.00. (Public Works)

Recommendation for Action: Motion to retroactively approve an emergency contract with WMS R&B, LLC for the repairs needed to address the cave in on U.S. Highway 80 in the amount not to exceed \$338,663.00.

Executive Summary:

On Sunday, November 30, 2025, a significant cave-in (sinkhole) occurred in the 900 block of U.S. Highway 80 near Lee Street after a drainage culvert became separated, causing the surrounding soil and pavement to fail. City staff immediately responded to secure the area, assess the extent of the damage, and initiate emergency repair procedures to prevent further roadway deterioration and ensure public safety.

The City has engaged Stan Hayes with Hayes Engineering, LLC. to evaluate the site conditions and provide engineering recommendations for the emergency repair plan. Stan's assessment will guide the corrective actions needed to address the underlying drainage issues that contributed to the culvert separation and subsequent sinkhole formation.

Once the emergency contract with WMS R&B, LLC. is approved by Council, they will mobilize to perform the emergency repair work. This will include repairing or replacing the damaged culvert, addressing any contributing drainage deficiencies, stabilizing the subsurface, and reconstructing the roadway surface to restore safe travel through the corridor. Work will proceed under an accelerated schedule due to the critical nature of the failure and the importance of the roadway as a major traffic route.

These coordinated efforts aim to ensure a durable repair, mitigate future risks, and restore normal operations as quickly and safely as possible.

Focus Area(s): This item aligns with the following council adopted focus area(s): Improving Infrastructure

Budget Cost: \$338,663.00

Staff Contact: Douglas Box, Interim Director of Public Works

Attachments: 1. TECH SPECS - Hwy 80 Repair

CITY OF MARSHALL, TEXAS

US HWY 80 DRAINAGE EMERGENCY REPAIR AT LEE STREET

December, 2025



HAYES ENGINEERING, INC.
Texas Registered Engineering Firm F-1465
2126 Alpine St.
Longview, TX 75601
(903) 758-2010

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TECHNICAL SPECIFICATIONS

**CITY OF MARSHALL, TEXAS
HWY 80 DRAINAGE REPAIR AT LEE STREET
QUOTE PROPOSAL**

<u>ITEM</u>	<u>DESCRIPTION</u>	<u>QTY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>TOTAL PRICE</u>
GENERAL ITEMS					
1	Mobilization, Bonds & Insurance	1	LS	\$ XXXXXXXX	\$18,500.00
2	Additional traffic control	1	LS	\$ XXXXXXXX	\$3,500.00
3	Demo existing failed pavement and CGMP Storm Sewer	1	LS	\$10,000.00	\$10,000.00
4	Excavate and remove existing disturbed material	150	CY	\$45.00	\$6,750.00
5	Furnish and Install 6" seal slab	180	SY	\$125.00	\$22,500.00
6	Furnish and Install 72" RCP	180	LF	\$680.00	\$122,400.00
7	F&I Concrete collar for 72" RCP conn. to existing brick storm	1	EA	\$7,500.00	\$7,500.00
8	Saw Cut existing 10" concrete w/5" asphalt surface pavement	68	LF	\$36.00	\$2,448.00
9	Saw Cut existing concrete drive	270	LF	\$27.00	\$7,290.00
10	F&I 8'x8' concrete junction box	1	EA	\$21,000.00	\$21,000.00
11	Backfill excavated pit with compacted select fill in 8" lifts	300	CY	\$40.00	\$12,000.00
12	Furnish and Install 10" concrete pavement with dowels	60	SY	\$265.00	\$15,900.00
13	Furnish and Install 5" HMA surface course in two lifts	60	SY	\$275.00	\$16,500.00
14	F&I 5" reinforced (#4 OCEW) concrete drive with dowels	150	SY	\$200.00	\$30,000.00
15	Furnish and Install 12" RCP	40	LF	\$100.00	\$4,000.00
16	F&I Concrete collar for 12" RCP conn. to existing storm	1	EA	\$2,000.00	\$2,000.00
17	Furnish and Install pavement markings	80	LF	\$100.00	\$8,000.00
18	Furnish and Install concrete headwall for 72" RCP	1	LS	\$22,000.00	\$22,000.00
19	Furnish and Install concrete flowable fill to springline of 72" RCP	15	CY	\$425.00	\$6,375.00
TOTAL OPINION OF PROBABLE CONSTRUCTION COST				\$	\$338,663.00

Cameron Hill

12/05/2025

WMS R&B, LLC

Date

STANDARD FORM OF AGREEMENT

Approved as to Legal Form by
City of Longview Legal Counsel

STATE OF TEXAS }
COUNTY OF GREGG }

THIS AGREEMENT, made and entered into this 5 day of December, A.D. **2025**, by and between the City of Marshall of the County of Harrison and State of Texas, acting through its City Manager, thereunto duly authorized so to do, Party of the First Part, hereinafter termed OWNER, and **WMS R and B, LLC** of the City of **Marshall**, County of **Harrison**, and State of **Texas**, Party of the Second Part, hereinafter termed CONTRACTOR.

WITNESSETH: That for and in consideration of the payments and agreements hereinafter mentioned, to be made and performed by the Party of the First Part (OWNER), and under the conditions expressed in the bond bearing even date herewith, the said Party of the Second Part (CONTRACTOR), hereby agrees with the said Party of the First Part (OWNER) to commence and complete the construction of certain improvements described as follows:

US Hwy 80 Drainage Emergency Repair at Lee Street

and all extra work in connection therewith, under the terms as stated in this Standard Form of Agreement; all of the documents attached to this Standard Form of Agreement; all Plans, Specifications and drawings for the US Hwy 80 Drainage Repair at Lee Street as prepared by the OWNER's engineer, Hayes Engineering, Inc. (herein entitled "ENGINEER"); and all printed or written explanatory materials of said Plans, Specifications and drawings. The CONTRACTOR hereby agrees with the OWNER that the CONTRACTOR shall commence and complete all such construction and work at the CONTRACTOR's 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 and work.

The documents that are attached to and for all purposes made part of this Standard Form of Agreement include the CONTRACTOR's Quote Proposal, Construction Performance Bond, Construction Payment Bond, Maintenance Bond, Certificate of Insurance, General Conditions of Agreement, Special Conditions of Agreement, and Technical Specifications. This agreement shall also include all Plans, Specifications and drawings for US Hwy 80 Drainage Repair at Lee Street as prepared by the ENGINEER, and all printed or written explanatory materials of said Plans, Specifications and drawings. This Standard Form of Agreement and the documents listed herein shall collectively evidence and constitute the entire contract between the parties hereto regarding the subject matter hereof.

The CONTRACTOR hereby agrees to commence work within ten (10) days after the date written notice to do so shall have been given to him, and to complete the same within **thirty (30)** calendar days after the date of the written notice to commence work, subject to such extensions of time as are provided by the General and Special Conditions of Agreement.

CONTRACTOR's failure to timely commence work or diligently pursue completion of the work within the time limitations set out herein shall constitute a material breach of this contract. **TIME IS OF THE ESSENCE IN THE PERFORMANCE OF THIS CONTRACT.**

The OWNER agrees to pay the CONTRACTOR in current funds the price or prices shown in the Proposal, which forms a part of this contract, such payments to be subject to the terms and conditions of this contract, including without limitation the General and Special Conditions of Agreement.

Without regard to and notwithstanding any rules on conflicts of law, this contract shall be subject to and interpreted in conformance with the laws of the State of Texas, unless expressly required otherwise by federal law or regulations. Venue for any action arising hereunder shall lie exclusively in Gregg County, Texas, for actions in state court and in the Eastern District of Texas, Tyler Division, for actions in federal court.

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

City of Marshall, Texas
Party of the First Part (OWNER)

Party of the Second Part (CONTRACTOR)

By: _____
Melissa Vossmer, City Manager

By: _____

ATTEST:

ATTEST:

(Seal)

(Seal)

If Contractor does not have a seal, the following jurat must be completed:

STATE OF TEXAS §
 §
COUNTY OF _____§

Before me, a Notary Public, on this day personally appeared (person signing), (title) _____ of (company name), a Texas (corporation, etc.), on behalf of said entity and known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he/she executed the same for the purposes and consideration therein expressed and in the capacity therein expressed and that he/she had the authority to execute same on behalf of said entity; and I have verified the identity of said (person signing) in the following manner (*check one or more options below*):

_____ is personally known to me.

_____ by a current identification card or other document used by a state or federal government containing a photograph and the signature of _____.

Given under my hand and seal of office this _____ day of _____, 20____.

Notary Public, State of Texas

PERFORMANCE BOND

STATE OF TEXAS
COUNTY OF HARRISON

KNOW ALL MEN BY THESE PRESENTS: That WMS R and B, LLC
of the City of Marsall, County of Harrison, and State of Texas as
principal, and _____ authorized under the laws of the State of Texas
to act as surety on bonds for principals, are held and firmly bound unto the City of Marshall, Texas
(Owner), in the penal sum of three hundred thirty-eight thousand six hundred sixty-three & no/100
Dollars (\$338,663.00) for the payment whereof, the said Principal and Surety bind themselves, and
their heirs, administrators, executors, successors and assigns, jointly and severally, by these presents:

WHEREAS, the Principal has entered into a certain written contract with the Owner, dated
the 5__ day of December, 2025 to complete **US Hwy 80 Drainage Emergency Repair
at Lee Street**

which contract is hereby referred to and made a part hereof as fully and to the same extent as if
copied at length herein.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that if the
said Principal shall faithfully perform said Contract and shall in all respects duly and faithfully
observe and perform all and singular the covenants, conditions and agreements in and by said
contract agreed and covenanted by the Principal to be observed and performed, and according to the
true intent and meaning of said Contract and the Plans and Specifications hereto annexed, then this
obligation shall be void; otherwise to remain in full force and effect;

PROVIDED, HOWEVER, that this bond is executed pursuant to the provisions of Chapter
2253 of the Texas Government Code, as amended, and all liabilities on this bond shall be determined
in accordance with the provisions of said Chapter to the same extent as if it were copied at length
herein.

Surety, for value received, stipulates and agrees that no change, extension of time, alteration
or addition to the terms of the contract, or to the work performed thereunder, or the plans,
specifications, or drawings accompanying the same, shall in anywise affect its obligation on this
bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to
the terms of the contract, or to the work to be performed thereunder.

IN WITNESS WHEREOF, the said Principal and Surety have signed and sealed this instrument this _____ day of _____, 20_____.

Principal

Surety

By _____

By _____

Title _____

Title _____

Address _____

Address _____

The name and address of the Resident Agent of Surety is: _____

PAYMENT BOND

STATE OF TEXAS §
COUNTY OF HARRISON §

KNOW ALL MEN BY THESE PRESENTS: That WMS R and B, LLC of the City of Marshall County of Harrison, and State of Texas a principal, and _____ authorized under the laws of the State of Texas to act as surety on bonds for principals, are held and firmly bound unto the City of Longview, Texas (Owner), in the penal sum of three hundred thirty-eight thousand six hundred sixty-three & no/100 Dollars (\$338,663.00) the payment whereof, the said Principal and Surety bind themselves, and their heirs, administrators, executors, successors and assigns, jointly and severally, by these presents:

WHEREAS, the Principal has entered into a certain written contract with the Owner, dated the 5 day of December, 2025, to construct **US Hwy 80 Drainage Emergency Repair at Lee Street** which contract is hereby referred to and made a part hereof as fully and to the same extent as if copied at length herein.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that if the said Principal shall pay all claimants supplying labor and material to him or a subcontractor in the prosecution of the work provided for in said contract, then, this obligation shall be void; otherwise to remain in full force and effect;

PROVIDED, HOWEVER, that this bond is executed pursuant to the provisions of Chapter 2253 of the Texas Government Code, as amended, and all liabilities on this bond shall be determined in accordance with the provisions of said Chapter to the same extent as if it were copied at length herein.

Surety, for value received, stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract, or to the work performed thereunder, or the plans, specifications, or drawings accompanying the same, shall in anywise affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract, or to the work to be performed thereunder.

IN WITNESS WHEREOF, the said Principal and Surety have signed and sealed this instrument this _____ day of _____, 20____.

Principal

Surety

By _____

By _____

Title _____

Title _____

Address _____

Address _____

The name and address of the Resident Agent of Surety is: _____

ONE-YEAR MAINTENANCE BOND

STATE OF TEXAS §
COUNTY OF HARRISON

§

KNOW ALL MEN BY THESE PRESENTS:

That we, WMS R and B, LLC
as Principal, hereinafter called "Contractor", and the other subscriber hereto as Surety, do hereby acknowledge ourselves to be held and firmly bound to the City of Marshall, a municipal corporation, in the sum of three hundred thirty-eight thousand six hundred sixty-three & no/100 Dollars (\$338,663.00) for the payment of which sum well and truly to be made to the City of Marshall, and its successors, the said Contractor and Surety do bind themselves, their successors and assigns jointly and severally. The conditions of this obligation are such that:

WHEREAS, the said Contractor has entered into a contract in writing with the City of Marshall, Texas, dated of even date herewith, for completion of **US Hwy 80 Drainage Emergency Repair at Lee Street**

all of such work to be done as set out in full in said contract and the plans and specifications therein referred to.

NOW, THEREFORE, if the said Contractor shall repair, replace and restore any and all defects in or damages to said construction, occasioned by, and resulting within one (1) year from and after the day of the acceptance of said work by said City of Marshall from defects in materials furnished by, or workmanship of the Contractor, in performing the work covered by said contract, then this obligation shall become null and void, and shall be of no further force and effect; otherwise, the same is to remain in full force and effect.

IN WITNESS WHEREOF, the said Principal and Surety have signed and sealed this instrument on the respective dates written below their signatures.

ATTEST/SEAL: (if a corporation)

WITNESS: (if not a corporation)

(Principal)

Name _____
Title _____

Name _____
Title _____
Date _____

(Full Name of Surety)

ATTEST/WITNESS:

Name _____
Title _____

Name _____
Title _____
Date _____

Certificate of Liability Insurance

INSERT

CITY OF MARSHALL, TEXAS
GENERAL CONDITIONS
OF
AGREEMENT

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GENERAL CONDITION

1. DEFINITIONS OF TERMS

1.01 OWNER, CONTRACTOR *AND* ENGINEER. The OWNER, the CONTRACTOR and the ENGINEER are those persons or organizations identified as such in the Agreement and are referred to throughout the Contract Documents as if singular in number and masculine in gender. . The term ENGINEER means the ENGINEER or his duly authorized representative. The ENGINEER shall be understood to be the ENGINEER of the OWNER, and nothing contained in the Contract Documents shall create any contractual or agency relationship between the ENGINEER and the CONTRACTOR.

1.02 CONTRACT DOCUMENTS. The Contract Documents shall consist of the Notice to Contractors (Advertisement), Special Conditions (Instructions to Bidders), Proposal, signed Agreement, Performance and Payment Bonds {when required), General Conditions of the Agreement, Technical Specifications, Plans, and all modifications thereof incorporated in any of the documents before the execution of the agreement

The Contract Documents are complementary, and what is called for by any one shall be as binding as if called for by all. In case of conflict between any of the Contract Documents, priority of interpretation shall be in the following order: Signed Agreement, Performance and Payment Bonds, Special Bonds (if any), Proposal, Special Conditions of Agreement, Notice to Contractors, Technical Specifications, Plans, and General Conditions of Agreement.

1.03 SUB-CONTRACTOR. The term Sub-Contractor, as employed herein, includes only those having a direct contract with the CONTRACTOR and it includes one who furnished material worked to a special design according to the plans and specifications of this work, but does not include one who merely furnishes material not so worked.

1.04 WRITTEN NOTICE. Written notice shall be deemed to have been duly served if delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended, or if delivered at or sent by registered mail to the last business address known to him who gives the notice.

1.05 WORK. The CONTRACTOR shall provide and pay for all materials, supplies, machinery, equipment, tools, superintendence, labor, services, insurance, and all water, light, power, fuel, transportation and other facilities necessary for the execution and completion of the work covered by the Contract Documents. Unless otherwise specified, all materials shall be new and both workmanship and materials shall be of a good quality. The CONTRACTOR shall if required furnish satisfactory evidence as to the kind and quality of materials. Materials or work described in words that so applied have a well known technical or trade meaning shall be held to refer to such recognized standards.

1.06 EXTRA WORK. The term "Extra Work" as used in this contract shall be understood to mean and include all work that may be required by the ENGINEER or OWNER to be done by the CONTRACTOR to accomplish any change, alteration or addition to the work shown upon the plans, or reasonably implied by the specifications, and not covered by the CONTRACTOR'S Proposal, except as provided under "Changes and Alterations", herein.

1.07 WORKING DAY. A "Working Day" is defined as any day not including Saturdays, Sundays or legal holidays, in which weather or other conditions, not under the control of the CONTRACTOR, will permit construction of the principal units of the work for a period of not less than seven (7) hours between 7:00 a.m. and 6:00 p.m.

1.08 CALENDAR DAY. "Calendar Day" is any day of the week or month, no days being excepted..

1.09 SUBSTANTIALLY COMPLETED. By the term "substantially completed" is meant that the structure has been made suitable for use or occupancy or the facility is in condition to serve its intended purpose, but still may require minor miscellaneous work and adjustment.

2. RESPONSIBILITIES OF THE ENGINEER AND THE CONTRACTOR

2.01 OWNER-ENGINEER RELATIONSHIP. The ENGINEER will be the OWNER'S representative during construction. The duties, responsibilities and limitations of authority of the ENGINEER as the OWNER'S representative during construction are as set forth in the Contract Documents and shall not be extended or limited without written consent of the OWNER and ENGINEER. The ENGINEER will advise and consult with the OWNER, and all of OWNER'S instructions to the CONTRACTOR shall be issued through the ENGINEER.

2.02 PROFESSIONAL INSPECTION BY ENGINEER. The ENGINEER shall make periodic visits to the site to familiarize himself generally with the progress of the executed work and to determine if such work generally meets the essential performance and design features and the technical and functional engineering requirements of the Contract Documents; provided and except, however, that the ENGINEER shall not be responsible for making any detailed, exhaustive, comprehensive or continuous on-site inspection of the quality or quantity of the work or be in any way responsible, directly or indirectly, for the construction means, methods, techniques, sequences, quality, procedures, programs, safety precautions or lack of same incident thereto or in connection therewith. Notwithstanding any other provision of this agreement or any other Contract Document, the ENGINEER shall not be in any way responsible or liable for any acts, errors, omissions or negligence of the CONTRACTOR, any subcontractor or any of the CONTRACTOR'S or subcontractor's agents, servants or employees or any other person, firm or corporation performing or attempting to perform any of the work.

2.03 PAYMENTS FOR WORK. The ENGINEER shall review CONTRACTOR'S applications for payment and supporting data, determine the amount owed to the CONTRACTOR and approve in writing, payment to CONTRACTOR in such amounts; such approval of payment to CONTRACTOR constitutes a representation to the OWNER of ENGINEER'S professional judgment that the work has progressed to the point indicated to the best of his knowledge, information and belief, but such approval of an application for payment to CONTRACTOR shall not be deemed as a representation by ENGINEER that ENGINEER has made any examination to determine how or for what purpose CONTRACTOR has used the moneys paid on account of the Contract price.

2.04 INITIAL DETERMINATIONS. The ENGINEER initially shall determine all claims, disputes and other matters in question between the CONTRACTOR and the OWNER relating to the execution or progress of the work or the interpretation of the Contract Documents and the ENGINEER'S decision shall be rendered in writing within a reasonable time. Should the ENGINEER fail to make such decision within a reasonable time, appeal to arbitration may be taken as if his decision had been rendered against the party appealing.

2.05 OBJECTIONS. In the event the ENGINEER renders any decision which, in the opinion of either party hereto, is not in accordance with the meaning and intent of this contract, either party may file with the ENGINEER within thirty days his written objection to the decision, and by such action may reserve the right to submit the question so raised to arbitration as hereinafter provided.

2.06 LINES AND GRADES. Unless otherwise specified, all lines and grades shall be furnished by the ENGINEER or his representative. Whenever necessary, construction work shall be suspended to permit performance of this work, but such suspension will be as brief as practicable and the CONTRACTOR shall be allowed no extra compensation therefore. The CONTRACTOR shall give the ENGINEER ample notice of the time and place where line and grades will be needed. All stakes, marks, etc. shall be carefully preserved by the CONTRACTOR, and in case of careless destruction or removal by him or his employees, such stakes, marks, etc., shall be replaced at the CONTRACTOR'S expense.

2.07 CONTRACTOR'S DUTY AND SUPERINTENDENCE. The CONTRACTOR shall give adequate attention to the faithful prosecution and completion of this contract and shall keep on the work, during its progress, a competent superintendent and any necessary assistants. The superintendent shall represent the CONTRACTOR in his absence and all directions given to him shall be as binding as if given to the CONTRACTOR. •

The CONTRACTOR is and at all times shall remain an independent contractor, solely responsible for the manner and method of completing his work under this contract, with full power and authority to select the means, method and manner of performing such work, so long as such methods do not adversely affect the completed improvements, the OWNER and ENGINEER being interested only in the result obtained and conformity of such completed improvements to the plans, specifications and contract

Likewise; the CONTRACTOR shall be solely responsible for the safety of himself; his employees and other persons, as well as for the protection of the safety of the improvements being erected and the property of himself or any other person, as a result of his operations hereunder. Engineering construction drawings and specifications, as well as any additional information concerning the work to be performed passing from or through the ENGINEER shall not be interpreted as requiring or allowing CONTRACTOR to deviate from the plans and specifications, the intent of such drawings, specifications and any other such instructions being to define with particularity the agreement of the parties as to the work the CONTRACTOR is to perform. CONTRACTOR shall be fully and completely liable, at his own expense, for design, construction, installation and use, or non-use, of all items and methods incident to performance of the contract, and for all loss, damage or injury incident thereto, either to person or property, including, without limitation, the adequacy of all temporary supports, shoring, bracing, scaffolding, machinery or equipment, safety precautions or devices, and similar items or devices used by him during construction.

Any review of work in process, or any visit or observation during construction, or any clarification of plans and specifications, by the ENGINEER, or any agent, employee, or representative of either of them whether through personal observation on the project site or by means of approval of shop drawings for temporary construction or construction processes, or by other means or method, is agreed by the CONTRACTOR to be for the purpose of observing the extent and nature of work completed or being performed, as measured against the drawings and specifications constituting the contract, or for the purpose of enabling CONTRACTOR to more fully understand the plans and specifications so that the completed construction work will conform thereto, and shall in no way relieve the CONTRACTOR from full and complete responsibility for the proper performance of his work on the project, including but without limitation the propriety of means and methods of the CONTRACTOR in performing said contract, and the adequacy of any designs, plans or other facilities for accomplishing such performance. Deviation by the CONTRACTOR from plans and specifications that may have been in evidence during any such visitation or observation by the ENGINEER, or any of his representatives, whether called to the CONTRACTOR'S attention or not shall in no way relieve CONTRACTOR from his responsibility to complete all work in accordance with said plans and specifications.

2.08 CONTRACTOR'S UNDERSTANDING. It is understood and agreed that the CONTRACTOR has, by careful examination, satisfied himself as to the nature and location of the work, the conformation of the ground, the character, quality and quantity of the materials to be encountered, the character of equipment and facilities needed preliminary to and during the prosecution of the work, the general and local conditions, and all other matters which can in any way affect the work under this contract. No verbal agreement or conversation with any officer, agent or employee of the OWNER or ENGINEER either before or after the execution of *this* contract, shall affect or modify any of the terms or obligations herein contained.

2.09 CHARACTER OF WORKMEN. The CONTRACTOR agrees to employ only orderly and competent men, skillful in the performance of the type of work required under this contract, to do the work; and agrees that whenever the ENGINEER shall inform him in writing that any man or men on the work are, in his opinion, incompetent, unfaithful or disorderly, such man or men shall be discharged from the work and shall not again be employed on the work without the ENGINEER'S written consent.

2.10 CONTRACTOR'S BUILDING. The building of structures for housing men, or the erection of tents or other forms of protection, will be permitted only at such places as the ENGINEER shall direct, and the sanitary conditions of the grounds in or about such structures shall at all times be maintained in a manner satisfactory to the ENGINEER

2.11 SANITATION. Necessary sanitation conveniences for the use of laborers on the work, properly secluded from public observation, shall be constructed and maintained by the CONTRACTOR in such manner and at such points as shall be approved by the ENGINEER, and their use shall be strictly enforced.

2.12 SHOP DRAWINGS: The CONTRACTOR shall submit to the ENGINEER, with such promptness as to cause no delay in his own work or in that of any other Contractor, four checked copies, unless otherwise specified, of all shop and/or setting drawings and schedules required for the work of the various trades, and the ENGINEER shall pass upon them with reasonable promptness, making desired corrections. The CONTRACTOR shall make any corrections required by the ENGINEER; files with him two corrected copies and furnish such other copies as may be needed. The ENGINEER'S approval of such drawings or schedules shall not relieve the CONTRACTOR from responsibility for deviations from drawings or specifications, unless he has in writing called the ENGINEER'S attention to such deviations at the time of submission, nor shall it relieve him from responsibility for errors of any sort in shop drawings or schedules. It shall be the CONTRACTOR'S responsibility to fully and completely review all shop drawings to ascertain their effect on his ability to perform the required contract work in accordance with the plans and specifications and within the contract time.

Such review by the ENGINEER shall be for the sole purpose of determining the sufficiency of said drawings or schedules to result in finished improvements in conformity with the plans and specifications, and shall not relieve the CONTRACTOR of his duty as an independent contractor as previously set forth, it being expressly understood and agreed that the ENGINEER does not assume any duty to pass upon the propriety or adequacy of such drawings or schedules, or any means or methods reflected thereby, in relation to the safety of either person or property during CONTRACTOR'S performance hereunder.

2.13 PRELIMINARY APPROVAL. The ENGINEER shall not have the power to waive the obligations of this contract for furnishing by the CONTRACTOR of good material, and of his performing good work as herein described, and in full accordance with the plans and specifications. No failure or omission of the ENGINEER to discover, object to or condemn any defective work or material shall release the CONTRACTOR from the obligation to at once tear out, remove and properly replace the same

at any time prior to final acceptance upon the discovery of said defective work or material; provided, however, that the ENGINEER shall, upon request of the CONTRACTOR, inspect and accept or reject any material furnished, and in event the material has been once accepted by the ENGINEER, such acceptance shall be binding on the OWNER, unless it can be clearly shown that such material furnished does not meet the specifications for this work.

Any questioned work may be ordered taken up or removed for re-examination, by the ENGINEER, prior to final acceptance, and if found not in accordance with the specifications for said work, all expense of removing, re-examination and replacement shall be borne by the CONTRACTOR, otherwise the expense thus incurred shall be allowed as EXTRA WORK, and shall be paid for by the OWNER; provided that, where inspection or approval is specifically required by the specifications prior to performance of certain work, should the CONTRACTOR proceed with such work without requesting prior inspection or approval he shall bear all expense of taking up, removing, and replacing this work if so directed by the ENGINEER.

2.14 DEFECTS AND THEIR REMEDIES. It is further agreed that if the work or any part thereof, or any material brought on the site of the work for use in the work or selected for the same, shall be deemed by the ENGINEER as unsuitable or not in conformity with the specifications, the CONTRACTOR shall, after receipt of written notice thereof from the ENGINEER, forthwith remove such material and rebuild or otherwise remedy such work so that it shall be in full accordance with this contract.

2.15 CHANGES AND ALTERATIONS. The CONTRACTOR further agrees that the OWNER may make such changes and alterations as the OWNER may see fit, in the line, grade, form, dimensions, plans or materials for the work, herin contemplated, or any part hereof, either before or after the beginning of the construction, without affecting the validity of this contract and the accompanying Performance and Payment Bonds.

If such changes or alterations diminish the quantity of the work to be done, they shall not constitute the basis for a claim for damages, or anticipated profits on the work that may be dispensed with, except as provided for unit price items under Section 5 "Measurement and Payment." If the amount of work is increased, and the work can fairly be classified under the specifications, such increase shall be paid for according to the quantity actually done and at the unit price, if any, established for such work under this contract, except as provided for unit price items under Section 5 "Measurement and Payment;" otherwise, such additional work shall be paid for as provided under Extra Work. In case, the OWNER shall make such changes or alterations as shall make useless any work already done or material already furnished or used in said work, then the OWNER shall recompense the CONTRACTOR for any material or labor so used, and for any actual loss occasioned by such change, due to actual expenses incurred in preparation for the work as originally planned.

3. GENERAL OBLIGATIONS AND RESPONSIBILITIES

3.01 KEEPING OF PLANS AND SPECIFICATIONS ACCESSIBLE. The ENGINEER shall furnish the CONTRACTOR with an adequate and reasonable number of copies of all plans and specifications without expense to him, and the CONTRACTOR shall keep one copy of the same constantly accessible on the work, with the latest revisions noted thereon.

3.02 OWNERSHIP OF DRAWINGS. All drawings, specifications and copies thereof furnished by the ENGINEER shall not be reused on other work, and, with the exception of the signed contract sets, are to be returned to him on request, at the completion of the work. All models are the property of the OWNER.

3.03 ADEQUACY OF DESIGN. It is understood that the OWNER believes it has employed competent engineer and designers. It is, therefore, agreed that the OWNER shall be responsible for the adequacy of the design, sufficiency of the Contract Documents, the safety of the structure and the practicability of the operations of the completed project; provided the CONTRACTOR has complied with the requirements of the said Contract Documents, all approved modifications thereof; and additions and alterations thereto approved in writing by the OWNER. The burden of proof of such compliance shall be upon the CONTRACTOR to show that he has complied with the said requirements of the Contract Documents, approved modifications thereof and all approved additions and alterations thereto.

3.04 RIGHT OF ENTRY. The OWNER reserves the right to enter the property or location on which the works herein contracted for are to be constructed or installed, by such agent or agents as he may elect, for the purpose of inspecting the work, or for the purpose of constructing or installing such collateral work as said OWNER may desire.

3.05 COLLATERAL CONTRACTS. The OWNER agrees to provide by separate contract or otherwise, all labor and material essential to the completion of the work specifically excluded from this contract, in such manner as not to delay the progress of the work, or damage said CONTRACTOR, except where such delays are specifically mentioned elsewhere in the Contract Documents.

3.06 DISCREPANCIES AND OMISSIONS. It is further agreed that it is the intent of this contract that all work must be done and all material must be furnished in accordance with the generally accepted practice, and in the event of any discrepancies between the separate contract documents, the priority of interpretation defined under "Contract Documents" shall govern. In the event that there is still any doubt as to the meaning and intent of any portion of the contract, specifications or drawings, the ENGINEER shall define which is intended to apply to the work.

3.07 EQUIPMENT, MATERIALS AND CONSTRUCTION PLANT. The CONTRACTOR shall be responsible for the care, preservation, conservation, and protection of all materials, supplies, machinery, equipment, tools, apparatus, accessories, facilities, all means of construction, and any and all parts of the work, whether the CONTRACTOR has been paid, partially paid, or not paid for such work, until the entire work is completed and accepted.

3.08 DAMAGES. In the event the CONTRACTOR is damaged in the course of the completion of the work by the act, neglect, omission, mistake or default of the OWNER, or of the ENGINEER, or of any other CONTRACTOR employed by the OWNER upon the work, thereby causing loss to the CONTRACTOR, the OWNER agrees to reimburse the CONTRACTOR for such loss. In the event the OWNER is damaged in the course of the work by the act, negligence, omission, mistake or default of the CONTRACTOR, or should the CONTRACTOR unreasonably delay the progress of the work being done by others on the job so as to cause loss for which the OWNER becomes liable, then the CONTRACTOR shall reimburse the OWNER for such loss.

3.09 PROTECTION AGAINST ACCIDENT TO EMPLOYEES AND THE PUBLIC. The CONTRACTOR shall at all times exercise reasonable precautions for the safety of employees and others on or near the work and shall comply with all applicable provisions of Federal, State, and Municipal safety laws and building and construction codes. All machinery and equipment and other physical hazards shall be guarded in accordance with the "Manual of Accident Prevention in Construction" of the Associated General Contractors of America except where incompatible with Federal, State, or Municipal laws or regulations. The CONTRACTOR shall provide such machinery guards, safe walkways, ladders, bridges, gangplanks, and other safety devices. The safety precautions actually taken and their adequacy

shall be the sole responsibility of the CONTRACTOR, acting at his discretion as an independent contractor.

3.10 PERFORMANCE AND PAYMENT BONDS. Unless otherwise specified, it is further agreed by the parties to this Contract that the CONTRACTOR will execute separate performance and payment bonds, each in the sum of one hundred (100) percent of the total contract price, in standard forms for this purpose, guaranteeing faithful performance of the work and the fulfillment of any guarantees required, and further guaranteeing payment to all persons supplying labor and materials or furnishing him any equipment in the execution of the Contract, and it is agreed that this Contract shall not be in effect until such performance and payment-bonds are furnished and approved by the OWNER.

Unless otherwise approved in writing by the OWNER, the Surety Company underwriting the bonds shall be acceptable according to the latest list of companies holding certificates of authority from the Secretary of the Treasury of the United States.

Unless otherwise specified, the cost of the premium for the performance and payment bonds shall be included in the CONTRACTOR'S proposal.

3.11 LOSSES FROM NATURAL CAUSES. Unless otherwise specified, all loss or damage to the CONTRACTOR arising out of the nature of the work to be done, or from the action of the elements, or from any unforeseen circumstance in the prosecution of the same, or from unusual obstructions or difficulties which may be encountered in the prosecution of the work, shall be sustained and borne by the CONTRACTOR at his own cost and expense.

3.12 PROTECTION OF ADJOINING PROPERTY. The said CONTRACTOR shall take proper means to protect the adjacent or adjoining property or properties in any way encountered, which might be injured or seriously affected by any process of construction to undertaken under this Agreement, from any damage or injury by reason of said process of construction; and he shall be liable for any and all claims for such damage on account of his failure to fully protect all adjoining property. The CONTRACTOR agrees to indemnify, save and hold harmless the OWNER and ENGINEER against any claim or claims for damages due to any injury to any adjacent or adjoining property, arising or growing out of the performance of the contract; but any such indemnity shall not apply to any claim of any kind arising out of the existence or character of the work.

3.13 PROTECTION AGAINST CLAIMS OF SUB-CONTRACTORS, LABORERS, MATERIAL MEN AND FURNISHERS OF MACHINERY, EQUIPMENT AND SUPPLIES. The CONTRACTOR agrees that he will indemnify and save the OWNER and ENGINEER harmless from all claims growing out of the lawful demands of sub-contractors, laborers, workmen, mechanics, material men and furnishers of machinery and parts thereof, equipment, power tools, and all supplies, including commissary, incurred in the furtherance of the performance of this contract. When so desired by the OWNER, the CONTRACTOR shall furnish satisfactory evidence that all obligations of the nature hereinabove designated have been paid, discharged or waived. If the CONTRACTOR fails so to do, then the OWNER may at the option of the CONTRACTOR either pay directly any unpaid bills, of which the OWNER has written notice, or withhold from the CONTRACTOR'S unpaid compensation a sum of money deemed reasonably sufficient to liquidate any and all such lawful claims until satisfactory evidence is furnished that all liabilities have been fully discharged, whereupon payments to the CONTRACTOR shall be resumed in full, in accordance with the terms of this contract, but in no event shall the provisions of this sentence be construed to impose any obligation upon the OWNER by either the CONTRACTOR or his Surety.

3.14 PROTECTION AGAINST ROYALTIES OR PATENTED INVENTION. The CONTRACTOR shall pay all royalties and license fees, and shall provide for the use of any design,

device, material or process covered by letters patent or copyright by suitable legal agreement with the patentee or owner. The CONTRACTOR shall defend all suits or claims for infringement of any patent or copyright rights and shall indemnify and save the OWNER and ENGINEER harmless from any loss on account thereof, except that the OWNER shall defend all such suits and claims and shall be responsible for all such loss when a particular design, device, material or process or the product of, a particular manufacturer or manufacturers is specified or required by the OWNER; provided, however; if choice of alternate design, device, material or process is allowed to the CONTRACTOR, then CONTRACTOR shall indemnify and save OWNER harmless from any loss on account thereof. If the material or process specified or required by the OWNER is an infringement, the CONTRACTOR shall be responsible for such loss unless he promptly gives such information to the OWNER.

3.15 LAWS AND ORDINANCES. The CONTRACTOR shall at all times observe and comply with all Federal, State and local laws, ordinances and regulations, which in any manner affect the contract or the work, and shall indemnify and save harmless the OWNER and ENGINEER against any claim arising from the violation of any such laws, ordinances, and regulations whether by the CONTRACTOR or his employees, except where such violations are called for by the provisions of the Contract Documents. If the CONTRACTOR observes that the plans and specifications are at variance therewith, he shall promptly notify the ENGINEER in writing, and any necessary changes shall be adjusted as provided in the contract for changes in the work. If the CONTRACTOR performs any work knowing it to be contrary to such laws, ordinances, rules and regulations, and without such notice to the ENGINEER, he shall bear all costs arising therefrom. In case the OWNER is a body politic and corporate, the law from which it derives its powers, insofar as the same regulates the objects for which, or the manner in which, or the conditions under which the same regulates the objects for which, or the manner in which, or the conditions under which the OWNER may enter into contract, shall be controlling, and shall be considered as part of this contract, to the same effect as though embodied herein.

3.16 ASSIGNMENT AND SUBLETTING. The CONTRACTOR further agrees that he will retain personal control and will give his personal attention to the fulfillment of this contract and that he will not assign by Power of Attorney, or otherwise, or sublet said contract without the written consent of the ENGINEER, and that no part or feature of the work will be sublet to anyone objectionable to the ENGINEER or the OWNER. The CONTRACTOR further agrees that the subletting of any portion or feature of the work, or materials required in the performance of this contract, shall not relieve the CONTRACTOR from his full obligations to the OWNER, as provided by this Agreement.

3.17 INDEMNIFICATION. The CONTRACTOR shall defend, indemnify and hold harmless the OWNER and the ENGINEER and their respective officers, agents and employees, from and against all damages, claims, losses, demands, suits, judgments and costs, including reasonable attorneys' fees and expenses, arising out of or resulting from the performance of the work, provided that any such damages, claim, loss, demand, suit, judgment, cost or expense:

- (1) Is attributable to bodily injury, sickness, disease or death or to injury to or destruction of tangible property (other than the work itself) including the loss of use resulting therefrom; and,
- (2) Is caused in whole or in part by any negligent act or omission of the Contractor, any Subcontractor, anyone directly or indirectly employed by any one of them or anyone for whose acts any of them may be liable, regardless of whether or not it is caused in part by a party indemnified hereunder.

The obligation of the CONTRACTOR under this Paragraph shall not extend to the liability of the ENGINEER, his agents or employees arising out of the preparation or approval of maps, drawings, reports, surveys, Change Orders, designs or specifications, or the giving of or the failure to give directions

or instructions by the ENGINEER, his agents or employees, provided such giving or failure to give is the primary cause of the injury or damage.

3.18.1 CERTIFICATE OF INSURANCE. Before commencing any of the work, CONTRACTOR shall file with the OWNER valid Certificates of Insurance acceptable to the OWNER and the ENGINEER. Such Certificates shall contain a provision that coverage's afforded under the policies will not be cancelled until at least fifteen days' prior written notice has been given to the OWNER.

The CONTRACTOR shall also file with the OWNER valid Certificates of insurance covering all sub-contractors.

4. PROSECUTION AND PROGRESS

4.01 TIME AND ORDER OF COMPLETION. It is the meaning and intent of this contract, unless otherwise herein specifically provided, that the CONTRACTOR shall be allowed to prosecute his work at such times and seasons, in such order of precedence, and in such manner as shall be most conducive to economy of construction: provided, however, that the order and the time of prosecution shall be such that the work shall be substantially completed as a whole and in part, in accordance with this contract, the plans and specifications, and within the time of completion designated in the Proposal; provided, also, that when the OWNER is having other work done, either by contract or by his own force, the ENGINEER may direct the time and manner of constructing the work done under this contract, so that conflict will be avoided and the construction of the various works being done for the OWNER shall be harmonized.

The CONTRACTOR shall submit, at such times as may reasonably be requested by the ENGINEER, schedules which shall show the order in which the CONTRACTOR proposes to carry on the work, with dates at which the CONTRACTOR will start the several parts of the work, and estimated dates of completion of the several parts.

4.02 EXTENSION OF TIME. Should the CONTRACTOR be delayed in the completion of the work by any act or neglect of the OWNER or ENGINEER, or of any employee of either, or by other contractors employed by the OWNER, or by changes ordered in the work, or by strikes, lockouts, fires, and unusual delays by common carriers, or unavoidable cause or causes beyond the CONTRACTOR'S control, or by any cause which the ENGINEER shall decide justifies the delay, then an extension of time shall be allowed for completing the work, sufficient to compensate for the delay, the amount of the extension to be determined by the ENGINEER, provided, however, that the CONTRACTOR shall give the ENGINEER prompt notice in writing of the cause of such delay.

4.03 HINDRANCES AND DELAYS. No claims shall be made by the CONTRACTOR for damages resulting from hindrances or delays from any cause (except where the work is stopped by order of the OWNER) during the progress of any portion of the work embraced in this contract. In case said work shall be stopped by the act of the OWNER, then such expense as in the judgment of the ENGINEER is caused by such stoppage of said work shall be paid by the OWNER to the CONTRACTOR.

5. MEASUREMENT AND PAYMENT

5.01 QUANTITIES AND MEASUREMENTS. No extra or customary measurements of any kind will be allowed, but the actual measured and/or computed length, area, solid contents, number and weight only shall be considered, unless otherwise specifically provided.

5.02 ESTIMATED QUANTITIES. This agreement, including the specifications, plans and estimate, is intended to show clearly all work to be done and material to be furnished hereunder. Where the estimated quantities are shown for the various classes of work to be done and material to be furnished under this contract, they are approximate and are to be used only as a basis for estimating the probable cost of the work and for comparing the proposals offered for the work. It is understood and agreed that the actual amount of work to be done and material to be furnished under this contract may differ somewhat from these estimates, and that where the basis for payment under this contract is the unit price method, payment shall be for the actual amount of such work done and the material furnished.

Where payment is based on the unit price method, the CONTRACTOR agrees that he will make no claim for damages, anticipated profits or otherwise on account of any differences which may be found between the quantities of work actually done, the material actually furnished under this contract and the estimated quantities contemplated and contained in the proposal; provided, however, that in case the actual quantity of any major item should become as much as 20% more than, or 20% less than the estimated or contemplated quantity for such items, then either party to this Agreement, upon demand, shall be entitled to a revised consideration upon the portion of the work above or below 20% of the estimated quantity.

A "Major Item" shall be construed to be any individual bid item incurred in the proposal that has a total cost equal to or greater than five (5) per cent of the total contract cost, computed on the basis of the proposal quantities and the contract unit prices.

Any revised consideration is to be determined by agreement between parties, otherwise by the terms of this Agreement, as provided under "Extra Work."

• 5.03 PRICE OF WORK. In consideration of the furnishing of all the necessary labor, equipment and material, and the completion of all work by the CONTRACTOR, and on the completion of all work and of the delivery of all material embraced in this Contract in full conformity with the specifications and specifications herein contained, the OWNER agrees to pay the CONTRACTOR the prices set forth in the Proposal hereto attached, which has been made a part of this contract. The CONTRACTOR hereby agrees to receive such prices in full for furnishing all material and all labor required for aforesaid work, also for all expense incurred by him, and for well and truly performing the same and the whole thereof in the manner and according to this Agreement.

5.04 PARTIAL PAYMENTS. On or before the 10th day of each month, the CONTRACTOR shall prepare and submit to the ENGINEER for approval or modification a statement showing as completely as practicable the total value of the work done by the CONTRACTOR up to and including the last day of the preceding month; said statement shall also include the value of all sound materials delivered on the site of the work that are to be fabricated into the work.

The OWNER shall then pay the CONTRACTOR on or before the 15th day of the current month the total amount of the approved statement, less 10 per cent of the amount thereof, which 10 per cent shall be retained until final payment, and further less all previous payments and all further sums that may be retained by the OWNER under the terms of this Agreement. It is understood, however, that in case the whole work be near to completion and some unexpected and unusual delay occurs due to no fault or neglect on the part of the CONTRACTOR, the OWNER may--upon written recommendation of the ENGINEER--pay a reasonable and equitable portion of the retained percentage to the CONTRACTOR, or the CONTRACTOR at the OWNER'S option, may be relieved of the obligation to fully complete the work and, thereupon, the CONTRACTOR shall receive payment of the balance due him under the contract subject only to conditions stated under "Final Payment"

5.05 USE OF COMPLETED PORTIONS. The OWNER shall have the right to take possession of and use any completed or partially completed portions of the work, notwithstanding the time for completing the entire work or such portions may not have expired but such taking possession and use shall not be deemed an acceptance of any work not completed in accordance with the Contract Documents. If such prior use increases the cost of or delays the work, the CONTRACTOR shall be entitled to such extra compensation, or extension of time, or both, as the ENGINEER may determine.

The CONTRACTOR shall notify the ENGINEER when, in the CONTRACTOR'S opinion, the contract is "substantially completed" and when so notifying the ENGINEER, the CONTRACTOR shall furnish to the ENGINEER in writing a detailed list of unfinished work. The ENGINEER will review the CONTRACTOR'S list of unfinished work and will add thereto such items as the CONTRACTOR has failed to include. The "substantial completion" of the structure or facility shall not excuse the CONTRACTOR from performing all of the work undertaken, whether of a minor or major nature, and thereby completing the structure or facility in accordance with the Contract Documents.

5.06. FINAL COMPLETION AND ACCEPTANCE. Within ten (10) days after the CONTRACTOR has given the ENGINEER written notice that the work has been completed, or substantially completed, the ENGINEER and the OWNER shall inspect the work and within said time, if the work be found to be completed or substantially completed in accordance with the Contract Documents, the ENGINEER shall issue to the OWNER and the CONTRACTOR his Certificate of Completion, and thereupon it shall be the duty of the OWNER within ten (10) days to issue a Certificate of Acceptance of the work to the CONTRACTOR or to advise the CONTRACTOR in writing of the reason for non-acceptance.

5.07 FINAL PAYMENT. Upon the issuance of the Certificate of Completion, the ENGINEER shall proceed to make final measurements and prepare final statement of the value of all work performed and materials furnished under the terms of the Agreement and shall certify same to the OWNER, who shall pay to the CONTRACTOR on or before the 30th day, and before the 35th day, after the date of the Certificate of Completion, the balance due the CONTRACTOR under the terms of this Agreement, provided he has fully performed his contractual obligations under the terms of this contract; and said payment shall become due in any event upon said performance by the CONTRACTOR. Neither the Certificate of Acceptance or the final payment, nor any provision in the Contract Documents shall relieve the CONTRACTOR of the obligation for fulfillment of any warranty that may be required.

5.08 PAYMENTS WITHHELD. The OWNER may, on account of subsequently discovered evidence, withhold or nullify the whole or part of any certificate to such extent as may be necessary to protect himself from loss on account of:

- (a) Defective work not remedied.
- (b) Claims filed or reasonable evidence indicating probable filing of claims.
- (c) Failure of the CONTRACTOR to make payments properly to subcontractors or for material or labor.
- (d) Damage to another contractor.
- (e) Reasonable doubt that the work can be completed for the unpaid balance of the contract amount
- (t) Reasonable indication that the work will not be completed within the contract time.

When the above grounds are removed or the CONTRACTOR provides a Surety Bond satisfactory to the OWNER, which will protect the OWNER in the amount withheld, payment shall be made for amounts withheld because of them.

5.09 DELAYED PAYMENTS. Should the OWNER fail to make payment to the CONTRACTOR of the sum named in any partial or final statement, when payment is due, then the OWNER shall pay to the CONTRACTOR, in addition to the sum shown as due by such statement, interest thereon at the rate of six (6) per cent per annum, unless otherwise specified, from date due as provided under "Partial Payments" and "Final Payments," until fully paid, which shall fully liquidate any injury to the CONTRACTOR growing out of such delay in payment, but the right is expressly reserved to the CONTRACTOR in the event payments be not promptly made, as provided under "Partial Payments," to at any time thereafter treat the contract as abandoned by the OWNER and recover compensation, as provided under "Abandonment of Contract," unless such payments are withheld in accordance with the provisions of "Payments Withheld."

6. EXTRA WORK AND CLAIMS

6.01 CHANGE ORDERS: Without invalidating this Agreement, the OWNER may, at any time or from time to time, order deletions or revisions to the work; such changes will be authorized by Change Order to be prepared by the ENGINEER for execution by the OWNER and the CONTRACTOR. The Change Order shall set forth the basis for any change in contract price, as hereinafter set forth for Extra Work, and any change in contract time, which may result from the change.

In the event the CONTRACTOR shall refuse to execute a Change Order which has been prepared by the ENGINEER and executed by the OWNER, the ENGINEER may in writing instruct the CONTRACTOR to proceed with the work as set forth in the Change Order and the CONTRACTOR may make claim against the OWNER for Extra Work involved therein, as hereinafter provided.

6.01 MINOR CHANGES: The ENGINEER may authorize minor changes in the work not inconsistent with the overall intent of the Contract Documents and not involving an increase in Contract Price. If the CONTRACTOR believes that any minor change or alteration authorized by the ENGINEER involves Extra Work and entitles him to an increase in the Contract Price, the Contractor shall make written request to the ENGINEER for a written Field Order.

In such case, the CONTRACTOR by copy of his communication to the ENGINEER or otherwise in writing shall advise the OWNER of his request to the ENGINEER for a written Field Order and that the work involved may result in an increase in the Contract Price.

Any request by the CONTRACTOR for a change in Contract Price shall be made prior to beginning the work covered by the proposed change.

6.03 EXTRA WORK: It is agreed that the basis of compensation to the CONTRACTOR for work either added or deleted by a Change Order or for which a claim for Extra Work is made shall be determined by one or more of the following methods:

Method (A)	By agreed unit prices; or
Method (B) -	By agreed lump sum; or
Method (C)	If neither Method (A) nor Method (B) be agreed upon before the

Extra Work is commenced, then the CONTRACTOR shall be paid the "actual field cost" of the work, plus fifteen (15) percent.

In the event said Extra Work be performed and paid for under Method (C), then the provisions of this paragraph shall apply and the "actual field cost" is hereby defined to include the cost to the CONTRACTOR of all workmen, such as foreman, timekeepers, mechanics and laborers, and materials, supplies, teams, trucks, rentals on machinery and equipment, for the time actually employed or used on

such Extra Work, plus actual transportation charges necessarily incurred, together with all power, fuel, lubricants, water and similar operating expenses, also all necessary incidental expenses incurred directly on account of such Extra Work, including Social Security, Old Age Benefits and other payroll taxes, and, a ratable proportion of premiums on Performance and Payment Bonds and Maintenance Bonds, Public Liability and Property Damage and Worker's Compensation, and all other insurance as may be required by any law or ordinance, or directed by the OWNER, or by them agreed to. The ENGINEER may direct the form in which accounts of the "actual field cost" shall be kept and the records of these accounts shall be made available to the ENGINEER. The ENGINEER or OWNER may also specify in writing, before the work commences the method of doing the work and the type and kind of machinery and equipment to be used; otherwise these matters shall be determined by the CONTRACTOR. Unless otherwise agreed upon, the prices for the use of machinery and equipment shall be determined by using 100 per cent, unless otherwise specified, of the latest schedule of Equipment Ownership Expense adopted by the Associated General Contractors of America. Where practicable the terms and prices for the use of machinery and equipment shall be incorporated in the Written Extra Work Order. The fifteen (15%) per cent of the "actual field cost" to be paid the CONTRACTOR shall cover and compensate him for his profit, overhead, general superintendence and field office expense, and all other elements of cost and expense not embraced within the "actual field cost" as herein defined, save that where the CONTRACTOR'S Camp or Field Office must be maintained primarily on account of such Extra Work; then the cost to maintain and operate the same shall be included in the "actual field cost."

No claim for Extra Work of any kind will be allowed unless ordered in writing by the ENGINEER. In case any orders or instructions, either oral or written, appear to the CONTRACTOR to involve Extra Work for which he should receive compensation or an adjustment in the construction time, he shall make written request to the ENGINEER for written order authorizing such Extra Work. Should a difference of opinion arise as to what does not constitute Extra Work, or as to the payment therefore, and the ENGINEER insists upon its performance, the CONTRACTOR shall proceed with the work after making written request for written order and shall keep an accurate account of the "actual field cost" thereto; as provided under Method (C). The CONTRACTOR will thereby preserve the right to submit the matter of payment to arbitration, as hereinbelow provided

6.04 TIME OF FILING CLAIMS. It is further agreed by both parties hereto that all questions of dispute or adjustment presented by the CONTRACTOR shall be in writing and filed with the ENGINEER within thirty (30) days after the ENGINEER has given any directions, order or instruction to which the CONTRACTOR desires to take exception. The ENGINEER shall reply within thirty (30) days to such written exceptions by the CONTRACTOR and render his final decision in writing. In case the CONTRACTOR should appeal from the ENGINEER'S decision, any demand for arbitration shall be filed with the ENGINEER and the OWNER in writing within ten (10) days after the date of delivery to CONTRACTOR of the ENGINEER'S final decision. It is further agreed that final acceptance of the work by the OWNER and the acceptance by the CONTRACTOR of the final payment shall be a bar to any claims by either party, except where noted otherwise in the Contract Documents.

6.05 ARBITRATION. All questions of dispute under this Agreement shall be submitted to arbitration at the request of either party to the dispute. The parties may agree upon one arbiter, otherwise, there shall be three, one named in writing by each party, and the third chosen by the two arbiters so selected; or if the arbiters fail to select a third within ten (10) days, he shall be chosen by a District Judge serving the County in which the major portion of the project is located, unless otherwise specified. Should the party demanding arbitration fail to name an arbiter within ten (10) days of the demand, his right to arbitrate shall lapse, and the decision of the ENGINEER shall be final and binding on him. Should the other party fail to choose an arbiter within ten (10) days, the ENGINEER shall appoint such arbiter. Should either party refuse or neglect to supply the arbiters with any papers or information demanded in writing, the arbiters are empowered by both parties to take ex parte proceedings.

The arbiters shall act with promptness. The decision of any two shall be binding on both parties to the contract. The decision of the arbiters upon any question submitted to arbitration under this contract shall be a condition precedent to any right of legal action. The decision of the arbiter or arbiters may be filed in court to carry it into effect.

The arbiters, if they deem the case demands it, are authorized to award the party whose contention is sustained, such sums as they deem proper for the time, expense and trouble incident to the appeal, and if the appeal was taken without reasonable cause, they may award damages for any delay occasioned thereby. The arbiters shall fix their own compensation, unless otherwise provided by agreement, and shall assess the cost and charges of the arbitration upon either or both parties. The award of the arbiters must be made in writing.

7. ABANDONMENT OF CONTRACT

7.01 ABANDONMENT BY CONTRACTOR. In case the CONTRACTOR should abandon and fail or refuse to resume work within ten (10) days after written notification from the OWNER, or the ENGINEER, or if the CONTRACTOR fails to comply with the orders of the ENGINEER, when such orders are consistent with the Contract Documents, then, and in that case, where performance and payment bonds exist, the Sureties on these bonds shall be notified in writing and directed to complete the work, and a copy of said notice shall be delivered to the CONTRACTOR.

After receiving said notice of abandonment the CONTRACTOR shall not remove from the work any machinery, equipment, tools, materials or supplies then on the job, but the same, together with any materials and equipment under contract for the work, may be held for use on the work by the OWNER or the Surety on the performance bond, or another contractor in completion of the work; and the CONTRACTOR shall not receive any rental or credit therefore (except when used in connection with Extra Work, where credit shall be allowed as provided for under Section 6, Extra Work and Claims), it being understood that the use of such equipment and materials will ultimately reduce the cost to complete the work and be reflected in the final settlement.

Where there is no performance bond provided or in case the Surety should fail to commence compliance with the notice for completion hereinbefore provided for, within ten (10) days after service of such notice, then the OWNER may provide for completion of the work in either of the following elective manners:

7.01.1 The OWNER may thereupon employ such force of men and use such machinery, equipment, tools, materials and supplies as said OWNER may deem necessary to complete the work and charge the expense of such labor, machinery, equipment, tools, materials and supplies to said CONTRACTOR, and expense so charged shall be deducted and paid by the OWNER out of such moneys as may be due, or that may thereafter at any time become due to the CONTRACTOR under and by virtue of this Agreement. In case such expense is less than the sum which would have been payable under this contract, if the same had been completed by the CONTRACTOR, then said CONTRACTOR shall receive the difference. In case such expense is greater than the sum which would have been payable under this contract, if the same had been completed by said CONTRACTOR, then the CONTRACTOR and/or his Surety shall pay the amount of such excess to the OWNER; or

7.01.2 The OWNER under sealed bids, after five (5) days notice published one or more times in a newspaper having general circulation in the county of the location of the work, may let the contract for the completion of the work under substantially the same terms and conditions which are provided in this contract. In case any increase in cost to the OWNER under the new contract as compared to what would have been the cost under this contract, such increase shall be charged to the CONTRACTOR and the Surety shall be and remain bound therefore. However, should the cost to complete any such new contract

prove to be less than what would have been the cost to complete under this contract, the CONTRACTOR and/or his Surety shall be credited therewith.

When the work shall have been substantially completed the CONTRACTOR and his Surety shall be so notified and Certificates of Completion and Acceptance, as provided in Paragraph 5.06 hereinabove, shall be issued. A complete itemized statement of the contract accounts, certified to by the ENGINEER as being correct, shall then be prepared and delivered to the CONTRACTOR and his Surety, whereupon the CONTRACTOR and/or his Surety, or the OWNER as the case may be, shall pay the balance due as reflected by said statement, within fifteen (15) days after the date of such Certificate of Completion.

In the event the statement of accounts shows that the cost to complete the work is less than that which would have been the cost to the OWNER had the work been completed by the CONTRACTOR under the terms of this contract; or when the CONTRACTOR and/or his Surety shall pay the balance shown to be due by them to the OWNER, then all machinery, equipment, tools, materials or supplies left on the site of the work shall be turned over to the CONTRACTOR and/or his Surety. Should the cost to complete the work exceed the contract price, the CONTRACTOR and/or his Surety fail to pay the amount due the OWNER within the time designated hereinabove, and there remains any machinery, equipment, tools, materials or supplies on the site of the work, notice thereof, together with an itemized list of such equipment and materials, shall be mailed to the CONTRACTOR and his Surety at the respective addresses designated in this contract, provided, however, that actual written notice given in any manner will satisfy this condition. After mailing, or other giving of such notice, such property shall be held at the risk of the CONTRACTOR and his Surety subject only to the duty of the OWNER to exercise ordinary care to protect such property. After fifteen (15) days from the date of said notice the OWNER may sell such machinery, equipment, tools, materials or supplies and apply the net sum derived from such sale to the credit of the CONTRACTOR and his Surety. Such sale may be made at either public or private sale, with or without notice, as the OWNER may elect. The OWNER shall release any machinery, equipment, tools, materials, or supplies, which remain on the work, and belong to persons other than the CONTRACTOR or his Surety, to their proper owner. The books on all operations provided herein shall be open to the CONTRACTOR and his Surety. •

7.02 ABANDONMENT BY OWNER. In case the OWNER shall fail to comply with the terms of this contract, and should fail or refuse to comply with said terms within ten (10) days after written notification by the CONTRACTOR, then the CONTRACTOR may suspend or wholly abandon the work, and may remove therefrom all machinery, tools and equipment, and all materials on the site of work that have not been included in payments to the CONTRACTOR and have not been wrought into the work. And thereupon the ENGINEER shall make an estimate of the total amount earned by the CONTRACTOR, which estimate shall include the value of all work actually completed by said CONTRACTOR (at the prices stated in the attached proposal where unit prices are used), the value of all partially completed work at a fair and equitable price, and the amount of all Extra Work performed at the prices agreed upon, or provided for by the terms of this contract, and a reasonable sum to cover the cost of any provisions made by the CONTRACTOR to carry the whole work to completion and which cannot be utilized. The ENGINEER shall then make a final statement of the balance due the CONTRACTOR by deduction from the above estimate all previous payments by the OWNER and all other sums that may be retained by the OWNER under the terms of this Agreement and shall certify same to the OWNER who shall pay to the CONTRACTOR on or before thirty (30) days after the date of the notification by the CONTRACTOR the balance shown by said final statement as due the CONTRACTOR, under the terms of this Agreement.

CITY OF MARSHALL, TEXAS
SUPPLEMENTARY CONDITIONS
OF
AGREEMENT

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SUPPLEMENTARY CONDITIONS

1. **OWNER.** Whenever the term "Owner" appears in these specifications, it shall be understood to mean THE CITY OF MARSHALL, TEXAS.
2. **ENGINEER.** The word "Engineer" in these specifications shall be understood as referring to The City Engineer of the City of Marshall, Texas, or such other Engineer, Supervisor or Inspector as may be authorized by said Owner to act in any particular position.
3. **STANDARD SPECIFICATIONS:** The Standard Specifications for this project are as follows:
 - A) For Utility Related Work – The City of Marshall Standard Specifications, 1980 Edition, As Amended.
 - B) For Street Related Work- The Texas Department of Transportation Standard Specifications for Construction of Highways, Streets, and Bridges, 1993 Edition, As Amended
4. **EXAMINATION OF SITE OF PROJECT.** Prospective bidders shall make a careful examination of the site of the project, soil and water conditions to be encountered, improvements to be protected, disposal sites for surplus materials not designated to be salvaged materials, and methods of providing ingress and egress to private properties and of handling traffic during construction of the entire project.
5. **QUALIFICATION OF LOW BIDDER.** Before being awarded a contract, the low bidder shall submit such evidence as the Engineer may require to establish his financial responsibility, experience, and possession of such equipment as may be needed to prosecute the work in an expeditious, safe, and satisfactory manner.

Should the low bidder fail to produce evidence satisfactory to the Engineer on any of the foregoing points, he may be disqualified and the work awarded to the next low bidder so qualifying.
6. **AWARD OF THE CONTRACT.** The Owner, acting through its authorized representatives, will notify the successful bidder, in writing, within ninety (90) days after the date of receiving bids of its acceptance of this proposal. The Contractor shall complete the execution of the required Bond and Contract within fifteen (15) days of such notice.
7. **ADDENDA.** Bidders desiring further information or interpretation of the Plans or Specifications must make request for such information to the Engineer, prior to 48 hours before the bid opening. Answers to all such requests will be given in writing to all bidders in Addendum form, and all 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 omission from the Plans, Specifications, or other Contract Documents, or should he be in doubt as to their meaning, he should at once notify the Engineer in order that a written Addendum may be sent to all bidders. Any addenda issued prior to 24 hours of the opening of bids will be mailed or delivered to each Contractor contemplating the submission of a proposal on this work. The proposal as submitted by the Contractor will be so constructed as to include any addenda if such are issued by the Engineer prior to 24 hours of the opening of bids.

8. **BASIS FOR BID AWARD.** If no alternates are specified in the bid proposal, award will be made to the lowest responsible, responsive bidder. However, the Owner reserves the right to reject any and all bids and to waive any irregularities as may be deemed best and in the Owner's interest.

9. **TIME FOR COMPLETION.** The time allowed for completion of all items of work shall be 240 consecutive calendar days, which time shall begin the tenth (10th) day after issuance of the Work Order. The Work Order shall consist of a written request by the Engineer for the Contractor to proceed with the construction of the project.

10. **LIQUIDATED DAMAGES FOR DELAY.** The Contractor agrees that time is the essence of this Contract, and that for each day of delay beyond the number of calendar days herein agreed upon for the completion of the work herein specified and contracted for (after due allowance for such extension of time as is provided for in the General Conditions of Agreement) the Owner may withhold, permanently from the Contractor's total compensation, the sum of FIVE Hundred Dollars (\$500.00) per calendar day or an amount equal to actual damages incurred by the Owner, whichever is greater, as stipulated damages for such delay.

11. **RIGHTS OF VARIOUS INTERESTS.** Wherever work being done by the Owner's employees or by other Contractors is contiguous to work covered by this contract, the respective rights of the various interests involved shall be established by the Engineer to secure the completion of the various portions of the work in general harmony.

12. **CORPORATE CONTRACTS.** Corporate contractors to be eligible to enter into contract with the Owner shall be qualified to do business in the State or States where the work is to be performed. All licensing requirements shall be complied with. Foreign corporations which have not domesticated or otherwise become licensed in the State or States where work will be performed shall obtain a permit to do business in such State or States pursuant to the State's requirements.

13. **PROPOSALS.** Proposals must be submitted on forms furnished by the Owner, and endorsed as provided in the Contract Documents.

Proposals must be submitted filled out with ink or typewriter and without erasure, interlineation or changes, and if not made in accordance with the General Conditions and other contract documents, will be subject to rejection as irregular, yet the Owner reserves the right to waive any irregularities.

Proposals will be made in the name of the principal and, in a co-partnership, the names of all partners shall be given. Exact post office address shall be given in all cases. If proposals are submitted by an agent, satisfactory evidence of agency authority must accompany the proposal.

14. **IRREGULAR PROPOSALS.** Proposals shall be considered irregular and may be rejected for the following reasons unless otherwise provided by law:

- a. If the proposal form furnished to the Contractor by the Owner or the Owner's Engineer is not used or is altered;
- b. If there are unauthorized additions or conditional bids, or irregularities of any kind which may tend to make the proposal incomplete, indefinite, or ambiguous as to its meaning;
- c. If the bidder adds any provisions reserving the right to accept or reject any award, or to enter into a contract pursuant to an award;
- d. If the unit or lump sum prices contained in the bid schedule are obviously unbalanced either in excess or below the reasonable cost analysis values;
- e. If the bidder fails to insert a unit price for every pay item indicated except in the case of authorized alternate pay items;
- f. If the bidder fails to complete the proposal in any other particulars where information is requested so bidder's proposal may be properly evaluated.

The Owner reserves the right to reject any or all bids and to waive irregularities as may be deemed best and in the Owner's interest.

15. **RETURN OF BID SECURITY.** Bid security of the lowest two or more bidders may be retained until a contract is executed or rejection made by the Owner. Other bid security will be returned only after the canvass and tabulation of bids is completed.

16. **FAILURE TO EXECUTE CONTRACT.** Should the successful bidder fail to execute the contract and furnish bonds satisfactory to the Owner to validate the same within ten (10) days after award of contract, his bid security shall be forfeited to the Owner as liquidated damages.

17. **RIGHT-OF-ENTRY.** Contractor shall provide the Owner, the Owner's Architect or Engineer, or representative of the Federal, State, County, District and Municipal governmental services proper facilities for access to the work wherever it is in preparation or progress.

18. **PERMITS AND RIGHT-OF-WAY.** The Owner will provide rights-of-way for the purpose of construction without cost to the Contractor by securing permits in areas of public dedication or by obtaining easements across privately owned property. It shall be the responsibility of the Contractor, forty-eight (48) hours prior to the initiation of construction on easements through private property, to inform the property owner of his intent to begin construction. Before beginning construction in areas of public dedication, the Contractor shall inform the agency having jurisdiction in the areas forty-eight (48) hours prior to initiation of the work.

19. **CONSTRUCTION IN PUBLIC ROADWAYS AND PRIVATE DRIVEWAYS.** 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 road 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 all driveway entrances located along the roads. Owners or tenants of improvements where access and/or entrance drives are located shall be notified at least eight (8) hours prior to the time the construction will be started at their drive-ins or entrances and informed as to the length of time driveways will be closed, which period shall not exceed six (6) hours.

The Contractor shall be responsible for all road and entrance reconstruction, and repairs and maintenance of same for a period of one year from the date of such reconstruction. In the event the repairs and maintenance are not made immediately to the satisfaction of the Engineer, and it becomes necessary for the Owner to make such repairs, the Contractor shall reimburse the Owner 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 public roadways or private driveways.

20. **REFERENCE SPECIFICATIONS.** Where reference is made in these specifications to specifications compiled by other agencies, organizations or departments, such reference is made for expediency and standardization from the material supplier's point of view, and such specifications referred to are hereby made a part of these specifications. Any reference to standard specifications in any of the Contract Documents shall always imply the latest edition of said standard specification or specifications available at time notice inviting Contractors to bid is published unless otherwise stated.

21. **TRADE NAMES AND MATERIALS.** No material which has been used by the Contractor for any temporary purpose whatever is to be incorporated in the permanent structure without written consent of the Engineer.

Where materials or equipment are specified by a trade or brand name, it is not the intention of the Owner to discriminate against an equal product of another manufacturer, but rather to set a definite standard of quality of performance, and to establish an equal basis for the evaluation of bids. Where the words "equivalent", "proper" or "equal to" are used, they shall be understood to mean that the thing referred to shall be proper, the equivalent of, or equal to some other thing, in the opinion or judgment of the Engineer. Unless otherwise specified, all materials shall be the best of their respective kinds and shall be in all cases fully equal to approved samples. Notwithstanding that the words "or equal to" or other such expressions may be used in the specifications in connection with a material, manufactured article or process, the materials, article or process specifically designated shall be used, unless a substitute shall be approved in writing by the Engineer, and the Engineer shall have the right to require the use of such specifically designated material, article or process.

22. **QUALITY OF MATERIALS.** In the absence of detailed specifications in other sections, all materials shall conform to the latest standards of the American Society for Testing Materials.

23. **MATERIALS, SERVICES, AND FACILITIES.** It is understood that except as otherwise specifically stated in the Contract Documents, the Contractor shall provide and pay for all materials, labor, tools, equipment, equipment rental, water, heat, light, fuel, power, transportation, superintendence, temporary construction of every nature and all other services and facilities of every nature whatsoever necessary to execute, complete and deliver the work within the specified time.

24. **WORKMANSHIP, MATERIALS, EQUIPMENT, AND STORAGE.** All work done and all materials and equipment furnished by the Contractor shall strictly conform to the plans, drawings, and specifications. Competent labor, mechanics, and tradesmen shall be used to supervise the installation of equipment as may be required by the Engineer. Any special tools or equipment which may be required for first class work shall be provided by the Contractor.

The acceptance at any time of materials by or in behalf of the Owner shall not be a bar to future rejection if they are subsequently found to be defective or inferior in quality or uniformity to the material specified, or are not as represented to the Engineer or Owner.

Contractor shall be responsible for the care and storage of materials delivered on the work site or purchased for use thereon. Stored materials shall be carefully and continuously protected from damage or deterioration and so located as to facilitate inspection by the Owner and Engineer. This responsibility for the care and storage of materials shall be with the Contractor whether such materials are furnished by the Contractor or by the Owner.

25. **INSPECTION AND TESTING OF MATERIALS.**

- a. During the progress of the work, it shall be subject to the inspection and observance of the Engineer, and the contractor shall afford every reasonable facility and assistance to the Engineer to make such inspection thorough and intelligent. If any work is covered up without approval or consent of the Engineer, it must, if required by the Engineer, be uncovered for examination at the Contractor's expense.
- b. The fact that the Engineer is on the job site shall not be taken as an acceptance of the Contractor's work or any part of it. Contractor shall notify the Engineer upon completion of his contract and the work shall be given final inspection by the Engineer and any tests shall be witnessed by the Engineer. If all parts of the work are acceptable and substantially comply with the intent of the plans, drawings, and specifications, a recommendation of final acceptance will be made by the Engineer to the Owner. If parts of the work are not acceptable and require additional work by the Contractor to complete the project, necessitating additional inspection by the Engineer, the cost of such additional inspections including time, travel, and lodging, shall be paid for by the Contractor to the Owner who will reimburse the Engineer.
- c. Contractor shall submit to the Engineer seven (7) days in advance of construction, and without charge, samples or specifications of materials he proposes to use and shall not use these materials until he has received approval from the Engineer.
- d. The Owner shall direct and furnish all items necessary for the testing of all materials called for in the specifications. The Owner shall pay the cost of the tests, including all transportation charges unless otherwise noted in the specifications. The cost of re-testing any failed specimens shall be paid by the Contractor.

- e. All tests, unless otherwise provided, shall be in accordance with the pertinent sections of the latest edition of the standards applicable to the material or devices to be tested. A partial list of the principal societies referred to and their abbreviations follows:

ASTM	American Society for Testing Materials
AISC	American Institute of Steel Construction
ACI	American Concrete Institute
FS	Federal Specifications
AASHTO	American Association of State Highway Officials
AWWA	American Water Works Association

- f. All parts of the improvements shall conform to the standard of construction as given in detail under the various items, and in general to the intent thereof, and if they do not conform, shall be made to do so by rebuilding or replacing or otherwise as directed by the Engineer or Owner before acceptance shall be made.

26. **BARRICADES, LIGHTS, AND WATCHMEN.** Where the work is carried on in or adjacent to any street, alley or public place, the Contractor shall at his own cost and expense furnish and erect such barricades, fences, lights, and danger signals, shall provide such watchmen, and shall provide such other precautionary measures for the protection of persons or property and of the work as are necessary. Barricades shall be painted in a color that will be visible at night. From sunset to sunrise the Contractor shall furnish and maintain at least one light at each barricade and sufficient number of barricades shall be erected to keep vehicles from being driven on or into any work under construction. The Contractor shall furnish watchmen in sufficient numbers to protect the work.

The Contractor will be held responsible for all damage to the work due to failure of barricades, signs, lights, and watchmen to protect it, and whenever evidence is found of such damage, the Engineer may order the damaged portion immediately removed and replaced by the Contractor at his cost and expense. The Contractor's responsibility for the maintenance of barricades, signs, and lights, and for providing watchmen shall not cease until the project shall have been accepted by the Owner.

The Contractor shall use only battery-powered lights, enclosed lanterns or other lights satisfactory to the Engineer. Smudge pots or other lights, which have an open flame, will not be permitted.

27. **DISPOSAL OF WASTE AND SURPLUS EXCAVATION.** All trees, stumps, slashings, brush or other debris removed from the job site as a preliminary to the construction of the work or its appurtenances shall be removed from the property and disposed of in a manner approved by the Engineer.

All excavated earth in excess of that required for backfilling shall be removed from the job site and disposed of in a satisfactory manner except in locations where, in the judgment of the Engineer, it can be neatly spread over and along the right-of-way.

28. **GUARANTY AGAINST DEFECTIVE WORK.** The Contractor shall indemnify the Owner against any repairs which may become necessary to any part of the work performed under the contract, arising from defective workmanship or materials used therein, for a period of two (2) years from the date of final acceptance of the work.

29. **RESTORATION OF SITE & CLEANUP.** Upon completion of the project (or major portions thereof) the Contractor shall restore the site to its original condition or better. Driveways and streets shall be compacted and resurfaced as originally found. All private property disrupted during construction including fences, patios, retaining walls, sidewalks, wooden decks, etc. shall be mended or repaired to their original condition. At the conclusion of the work, all tools temporary structures and materials belonging to the Contractor shall be promptly removed, and all dirt, rubbish and other foreign substances shall be disposed of.

The Contractor shall thoroughly clean all equipment and materials installed by him and shall deliver over such materials and equipment in an undamaged, clean condition.

30. **CONTRACTOR'S AND SUBCONTRACTOR'S INSURANCE.** The Contractor shall not commence work under this contract until he has obtained at his expense all insurance required under this section of the General Conditions and by the Contract Documents, and such insurance has been approved by the Owner, nor shall the Contractor allow any subcontractor to commence work on any subcontract until all similar insurance required of the subcontractor has been so obtained and approved. Such insurance shall remain in full force and effect on all phases of the work, whether or not the work is occupied or utilized by the Owner, until all work under the Contract is completed and has been accepted by the Owner.

Nothing contained in the insurance requirements shall be construed as limiting the extent of the Contractor's responsibility for payment of damages resulting from his operations under the Contract.

Any insurance bearing an adequacy of performance will be maintained after completion of the project for the full guarantee period.

The Contractor shall obtain and maintain for the full period of the Contract the following types of insurance in the form, minimum limits and amounts herein specified or as may be otherwise required in the Contract Documents. The Contractor shall automatically renew any policy which expires during the performance of his Contract and notify the Owner and Engineer of such a renewal prior to expiration date.

A. **Workmen's Compensation including Occupational Disease and Employer's Liability Insurance.** Before commencement of the work, the Contractor shall take out and maintain during the life of this contract Statutory Workmen's Compensation Insurance and Occupational Disease Disability Insurance for all of his employees to be engaged in work under this Contract, and in case any work is sublet, the Contractor shall require the subcontractor similarly to provide Workmen's Compensation and occupational Disease Disability Insurance for the latter's employees engaged in such work unless such employees are covered by the protection afforded by the Contractor's insurance. In case any class of employees engaged in hazardous work under the Contractor is not protected under the Workmen's Compensation statute, or in case there is no applicable Workmen's Compensation Statute, the Contractor shall provide, and shall cause each subcontractor to provide adequate insurance for the protection of his employees not otherwise protected.

B. **Public Liability and Property Damage Insurance:** (Note "Indemnity" clause hereinafter). Before commencement of the work, the Contractor shall submit written evidence that he and all his subcontractors have obtained for the period of the Contract full Comprehensive General Liability and Property Damage Insurance coverage. This coverage shall protect the Contractor; the Owner; the Engineer, its architects and engineers; and each of their officers, agents and employees; from claims for damages for bodily or personal injury, sickness or disease, including death, and from claims for damages to property, which may arise directly or indirectly out of, or in connection with the performance of work under this Contract by the Contractor, by any of his Subcontractors, or by anyone directly or indirectly employed of either of them, or under the control of either of them, and the minimum amount of such insurance shall be as follows unless higher minimum amounts are otherwise required in the Contract Documents:

Public Liability Insurance in an amount not less than One Million Dollars (\$1,000,000) for damages arising out of bodily or personal injury, sickness or disease, or death of one person and subject to the same limit for each person and in an amount not less than One Million Dollars (\$1,000,000) in any one occurrence; and Property Damage Insurance in an amount not less than Five Hundred Thousand Dollars (\$500,000) for all damages arising out of injury to or destruction of property of others in any one occurrence with an aggregate limit in the same amount.

The Property Damage portion of this coverage shall include where applicable explosion, collapse and underground exposure coverage. In addition, where Completed Operation Insurance coverage is applicable, such coverage will be maintained after completion and acceptance of the project for the full guarantee period.

C. **Automobile Liability and Property Damage Insurance:** Before commencement of the work, the Contractor shall submit written evidence that he and all his subcontractors have obtained Automobile Liability and Property Damage Insurance coverage on all self-propelled vehicles used in connection with the Contract, whether owned, non-owned, or hired. The liability limits shall be not less than One Million Dollars (\$1,000,000) for injury or death of one person and in an amount not less than One Million Dollars (\$1,000,000) in any one occurrence; and Property Damage limits of not less than Five Hundred Thousand Dollars (\$500,000) in any one occurrence.

D. **Contractual Liability Coverage:** Each and every policy for Liability Insurance carried by each Contractor and Subcontractor will include a "Contractual Liability Coverage" endorsement sufficiently broad to insure the provision titled "Indemnity" hereinafter set forth.

E. **Indemnity:** The Contractor shall defend, indemnify and hold harmless the Owner; the Engineer, its Engineers; and each of their officers, agents, servants and employees; from any and all suits, actions, claims, losses or damage of any character and from all expenses incidental to the defense of such suits, actions or claims, based upon or arising out of or alleged to be based upon or arising out of (1) any injury, disease, sickness or death of any person or persons, (2) any damages to any property including in part loss of use thereof, caused by any act or omission of the Contractor, of any Subcontractor of the Contractor, or by their officers, agents, servants, employees, or anyone else under the Contractor's direction and control, and arising out of, occurring in connection with, resulting from, or caused by the performance or failure of performance of any work or services called for by the Contract or from conditions created by the performance or non-performance of said work or services, but not including the sole negligence of any party herein indemnified.

F. **Builder's Risk "All-Risk" Insurance:** In addition to such Fire and extended Insurance coverage which the Contractor or his Subcontractors elect to carry for their own protection, the Contractor, before commencement of the work, shall effect and maintain for the life of his Contract Builder's Risk "All-Risk" Completed Value Insurance coverage upon the full insurable value of all portions of the project which is the subject of this Contract and subject to a loss for which Builder's Risk "All-Risk" Insurance coverage gives protection, and shall include completed work and work in progress. This coverage shall be with an insurance company or companies acceptable to the Owner.

Such insurance shall include as Additional Named Insureds: the Owner; The Engineer, its architects and engineers; and each of their officers, agents, and employees; and any other persons with an insurable interest designated by the Owner as an Additional Named Insured.

Duplicate originals of the policy of insurance required herein shall be furnished to the Engineer as provided under "Evidence of Insurance Coverage" hereinafter.

G. **Evidence of Insurance Coverage:** Before commencement of any work, the Contractor shall submit written evidence that he and all his Subcontractors have obtained the minimum insurance required by the Contract Documents. Such written evidence shall be in the form of a Certificate of Insurance (see attached form) executed by the Contractor's insurance carrier showing such policies in force for the specified period or by furnishing a copy of the actual policy or policies. Each policy or certificate will bear an endorsement or statement waiving right of cancellation or reduction in coverage without ten (10) days notice in writing to be delivered by registered mail to the owner.

The Contractor shall furnish duplicate originals of Builders' Risk "All-Risk" Completed Value Insurance coverage to the Engineer, one copy of which shall be for the Owner and one copy for the Engineer.

31. **SAFETY.**

- a. In accordance with generally accepted construction practices, the Contractor alone will be solely and completely responsible for conditions of the job site, including safety of all persons and property during performance of the work. This requirement will apply continuously and not be limited to normal working hours.
- b. The duty of the Engineer or Architect to conduct construction review of the Contractor's performance is not intended to include review of the adequacy of the Contractor's safety measures, in, on, or near the construction site.

32. **EXISTING UTILITIES AND SERVICE LINES.** The Contractor shall be responsible for the protection of all existing utilities or service lines crossed or exposed by his construction operations. Where existing utilities or service lines are cut, broken or damaged, the Contractor shall replace or repair the utilities or service lines with the same type of original material and construction, or better, at his own cost and expense.

33. **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 Engineer, such material, debris, or rubbish constitutes a nuisance or is objectionable.

The Contractor shall remove from the site all of his surplus materials and temporary structures when no further need therefore develops.

34. **COPIES OF PLANS AND SPECIFICATIONS FURNISHED.** Three (3) sets of plans and specifications shall be furnished to the Contractor, at no charge, for construction purposes. Additional copies may be obtained at cost of reproduction upon request.

35. **LIGHT AND POWER.** The Contractor shall provide, at his own expense, temporary lighting and facilities required for the proper prosecution and inspection of the work.

36. **EXISTING STRUCTURES.** The plans show the locations of all known surface and subsurface structures. However, the Owner assumes no responsibility for failure to show any or all of these structures on the plans, or to show them in their exact location. It is mutually agreed that such failure shall not be considered sufficient basis for claims for additional compensation for extra work or for increasing the pay quantities in any manner whatsoever, unless the obstruction encountered is such as to necessitate changes in the lines or grades, or requires the building of special work, provisions for which are not made in the plans and proposal, in which case the provisions in these specifications for extra work shall apply.

37. **USE OF EXPLOSIVES.** Use of explosives will be allowed only upon written approval of their use by the Engineer.

Should the Contractor elect to use explosives in the prosecution of the work, the utmost care shall be exercised so as not to endanger life or property. The Owner shall not be held liable for damages done by the Contractor in the use of explosives. The Contractor shall notify the proper representatives of any public service corporation, any company, or any individual, not less than eight (8) hours in advance of the use of explosives which might endanger or damage their or his property along or adjacent to the work. Whenever explosives are stored or kept, they shall be stored in a safe and secure manner and all storage places be plainly marked "DANGER EXPLOSIVES", and shall be under the care of a competent watchman at all times.

38. **SUNDAYS, HOLIDAYS, AND OVERTIME.** Any work necessary to be performed after regular working hours, on Sundays, or legal holidays, shall be performed without additional expense to the Owner. The Contractor shall notify the Engineer if any work is to be performed on Sundays or holidays.

39. **PAYMENTS NO EVIDENCE OF PERFORMANCE.** No progress or final estimate certificate given or payment made under this contract shall be evidence of the performance of this contract or construed to be acceptance of defective work or improper materials, either wholly or in part.

40. **TEMPORARY SUSPENSION OF THE WORK.** The Engineer shall have authority to suspend the work wholly or in part for such period or periods of time as he may deem necessary due to unsuitable weather or other conditions considered unfavorable for the suitable prosecution of the work; or for the failure of the Contractor to carry out instructions or to perform any provisions of the contract. During periods of suspension, the Contractor shall properly protect the work from possible injury.

41. **OWNER'S RIGHT TO DO WORK.** If the Contractor should neglect to prosecute the work properly or fail to perform any provision of this contract, the Owner, after seven (7) days written notice to the Contractor, may, without prejudice to any other remedy the Owner may have, make good such deficiency and may deduct the cost thereof from the payment then or thereafter due the Contractor. Any money due the Owner after such deduction shall be paid by the Contractor or his sureties who hereby agree to these provisions.

42. **RIGHT OF OWNER TO TERMINATE CONTRACT.** Should it appear at any time that the work is not being prosecuted with sufficient competence or rapidity to insure the proper completion of the work within the stipulated time, and, if upon seven (7) days written notice to the Contractor, he fails to increase the quality or the quantity of his work, or both, the Owner reserves the right to annul and cancel this contract and relent the work or any part thereof, or at the Owner's option to complete it by day labor. The Contractor shall not be entitled to any claims for damages on account of such annulment, and he will be held liable for costs and expenses incurred in relenting or completing the work under this contract. All money due the Contractor will be retained until the work is completed and all expenses and costs have been deducted and any money due the Owner, after such deductions have been made, shall be paid by the Contractor or his Sureties who hereby agree to these provisions.

43. **TERMINOLOGY.** Throughout these specifications, the word "shall" denotes mandatory. The word "may" implies only permission. All other "terms" or "word phrases" shall be interpreted as having the meaning customarily ascribed to them by the several building trades of the United States.

44. **CERTIFICATES AND GUARANTEES.** Four (4) copies of any manufacturer's guaranty or certificate as may be required by the Contract Documents shall be submitted to the Owner prior to the acceptance of the work by the Owner.

45. **STATE SALES TAX.** This Contract is issued by an organization which qualifies for exemption pursuant to the provisions of Article 20.04 (F) of the Texas Limited Sales, Excise and Use Tax Act. The Contractor performing this contract may purchase, rent or lease all materials, supplies, equipment used or consumed in the performance of this contract by issuing to his suppliers an exemption certificate.

46. **COORDINATION WITH OTHERS.** In the event 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.

47. **DE-WATERING EXCAVATION.** The prospective bidders shall make sufficient subsurface explorations to determine the location of groundwater which might be encountered. The Contractor shall, at his own expense, utilize a pumping system in order to place materials in dewatered excavations.

48. **PUBLIC UTILITIES AND OTHER PROPERTY TO BE CHANGED.** In case it is necessary to change or move the property of any owner or of a public utility, such property shall not be moved or interfered with until ordered to do so by the Engineer. The right is reserved to 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 this Contract.

Any time the Contractor intends to expose, cross, or otherwise work in the area of the existing petroleum pipelines, telephone lines, water lines, etc., the Contractor shall notify the Owner(s) of the respective facilities forty-eight (48) hours in advance.

49. **PAY ITEMS.** Pay items are listed in the Proposal. All other items necessary to complete the work as shown and specified shall be considered subsidiary obligations of the Contractor.

50. **MUTUAL RESPONSIBILITY OF CONTRACTORS.** If, through acts or neglect on the part of the Contractor, any other Contractor or Subcontractor shall suffer loss or damage to his work, the Contractor agrees to settle with such other Contractor or Subcontractor by agreement or arbitration, if such other Contractor or Subcontractor will so settle. If such other Contractor or Subcontractor asserts been so sustained, the Owner shall notify the Contractor, who shall indemnify and save harmless the Owner against such claims and for any costs in connection with such claims.

51. **PROTECTION OF PROPERTY.** The Contractor shall, at no additional expense to the Owner, protect by false work, braces, shoring or other property along his line of work or affected directly by his work, against damage and shall repair the damages or repay the injured Owners if such damage occurs.

The Contractor shall exercise care to protect from injury all water pipes, sanitary sewer pipes, gas mains, telephone cables, electric cables, service pipes, and other utilities or fixtures which may be encountered during the progress of the work. All utilities and other service facilities or fixtures if damaged, shall be repaired by the Contractor without additional compensation.

The Contractor shall personally check and verify utility information on the plans. Where existing utilities or structures are shown on the plans or drawings, they are believed to be accurate but are not guaranteed to such or that these are the only utilities or structures in the construction area. Protection is Contractor's responsibility and he must satisfy himself as to the existence and location of all utilities and structures.

The Contractor shall give notice in writing at least 48 hours before breaking ground, to all persons, superintendents, inspectors, or those otherwise in charge of property, streets, water pipes, gas pipes, sewer pipes, telephone cables, electric cables, railroads or otherwise, who may be affected by the Contractor's operation, in order that they may remove any obstruction for which they are responsible and have a representative on the ground to see that their property is properly protected.

52. **EXTENSION OF CONTRACT PERIOD.** The Contractor may be granted an extension of time due to Acts of God, Acts of War, Strikes, or non-delivery of materials provided he submits a request in writing to the Engineer not later than ten (10) days from the date of such occurrence. A separate request must be made for each occurrence.

53. **FAILURE TO COMPLETE WORK WITHIN CONTRACT PERIOD.** If the Contractor fails to complete his work within the contract period, or any extension thereof, as provided in the "Extension of Contract Period" said contract shall upon written notice to the Contractor and Surety be in default.

The Owner may, at its (his) option, permit the Contractor or his surety to complete the work included in the contract, or may proceed to complete the work in accordance with "Completion of Contract in Default". In either event, the Contractor or his Surety shall be responsible for all costs incidental to the completion of the work and also for the liquidated damages stipulated in the proposal form. The Owner may waive such portion of the liquidated damages as may occur after the work is in condition for the safe and convenient use by the Owner.

54. **CONTRACTS IN DEFAULT.** The Owner may declare a contract in default for any one or more of the following reasons:

- a. Failure to complete the work within the contract period or any extension thereof.
- b. Failure or refusal to comply with an order of the Engineer or Architect within a reasonable time.
- c. Failure or refusal to remove rejected materials.
- d. Failure or refusal to perform anew any defective or unacceptable work.
- e. Bankruptcy or insolvency, or the making of an assignment for the benefit of creditors.
- f. Failure to provide a qualified superintendent, competent workmen or subcontractors to carry on the work in an acceptable manner or failure to prosecute the work according to the agreed schedule of completion.
- g. Disregard or violation of any other important provisions of the Contract Documents as determined by the Engineer.

55. **COMPLETION OF CONTRACTS IN DEFAULT.** If for any reason, a contract is declared in default, the Owner shall have the right, without process or action at law to take over all or any portion of the work and complete it at its (his) option, either by day labor or by relenting same. Written notice shall be given the Contractor by the Owner that his contract has been declared in default and upon receiving such notice, the Contractor shall peaceably relinquish possession of said work or the parts thereof specified in the notice.

The Owner may, at its (his) option and at a rental, which it considers reasonable, retain all materials, equipment, and tools on the work until the work is complete.

Neither the Owner nor the Owner's officers, agents, or employees shall be in any way liable or accountable to the Contractor or his Surety for the method by which the completion of the said work, or any portion thereof, may be accomplished, or for the price paid therefor. Should the cost of completing the work be in excess of the original contract price, the Contractor and his Surety shall be held responsible for such excess cost. Should the cost of such completion including all proper charges, be less than the original contract price, the amount so saved shall be paid to the Contractor. Neither by taking over the work nor by declaring the contract in default shall the Owner forfeit the right to recover damages from the Contractor or his Surety for failure to complete the entire contract. Maintenance of the work shall continue to be the Contractor's and Surety responsibilities as provided for in the Bond and Guaranty of the Contractor.

56. **EXCAVATION IN HIGHWAY RIGHTS-OF-WAY.** No trench excavation within a highway right-of-way shall be carried closer than 10 feet of all pavement edges. No dirt from trench excavation shall be piled on roadway shoulders; slopes, ditches, and berms shall be restored to their original condition.

The Contractor shall notify the Highway Department of his construction schedule not less than five (5) days prior to commencing the work within the right-of-way. The Contractor shall conform to the requirements of the Texas Highway Department as to details of construction methods and time of construction.

57. **PROVISIONS FOR REROUTING AND DETOUR OF TRAFFIC.** The Contractor will be required to furnish all barricades, lights, signs, and flagmen where it becomes necessary to reroute traffic during the time construction is in progress in the City streets or highways. The detour will be determined by the Engineer and approved by the Owner and the Texas Highway Department.

58. **REMOVAL AND REPLACEMENT OF EXISTING PIPE CULVERTS.** Existing pipe culverts in conflict with the proposed construction shall be unearthed carefully, disjointed, and stockpiled adjacent to the right-of-way. The pipe culverts shall be cleaned and replaced immediately after the sewer line construction is clear so as to cause no serious inconveniences to the property owners and to allow access to their property as quickly as possible. Pipe culverts shall be laid to grade on firm bedding and shall be back filled and mechanically tamped to a density such that settlement will not occur. Where existing rubble or concrete headwalls are cut, damaged, or removed, they shall be replaced in an equal or better condition as determined by the Engineer.

Removal and replacement of existing pipe culverts will not be measured and paid for each. No separate payments will be made for removing and replacing headwalls on culverts and all costs in connection therewith shall be included in other items listed in the Proposal.

59. **SCHEDULE OF WORK SEQUENCE.** Upon award and prior to any construction, it shall be the responsibility of the Contractor to present, to the Owner and Engineer for approval, a tentative schedule of the sequence in which the work will be performed. The schedule should include the following information:

- a. The sequence of work in which the construction will be done.
- b. The approximate period of time in constructing and testing of the facilities.
- c. Coordination of work using two (2) or more crews.
- d. Schedule of possible night work in making tie-ins and road crossings.

60. **COST BREAKDOWN.** Immediately after being awarded a contract for the work, the Contractor shall furnish the Engineer with a cost breakdown of each lump sum bid. Such a breakdown shall be in sufficient detail to permit its use in the preparation of progress estimates by the Engineer. Progress payments for materials and equipment on hand shall be based on invoice prices and invoice copies must be presented to the Engineer.

61. **FINAL FIELD-TESTS.** Upon completion of the work and prior to final payment, all equipment and appliances installed under this Contract shall be subjected to acceptance tests as specified or required to prove compliance with the Contract Documents.

The Contractor shall furnish labor, fuel, energy, water and all other material, equipment, and instrument necessary for all acceptance tests, at no additional cost to the Owner.

62. **WATER FOR CONSTRUCTION.** Water used for testing and flushing of the pipeline or any other purpose incidental to this project will be furnished by the Contractor. The Contractor shall make the necessary arrangements for securing and/or transporting such water and shall take such water in a manner and at such times that will not produce a harmful drain on the source of water. The Contractor shall be fully responsible for the draining and disposal of all water used in flushing and testing. The Contractor shall obtain approval of the Owner and Engineer of the manner in which the water will be drained and disposed of.

63. **ELECTRICITY FOR CONSTRUCTION.** Except as provided elsewhere in these specifications, the Contractor shall provide all electricity required.

64. **SPECIAL CONSTRUCTION REQUIREMENTS IN STATE HIGHWAY RIGHT-OF-WAY.**

- a. All Highway signs removed or disturbed shall be restored to original condition.
- b. All surplus material shall be removed from right-of-way and the excavation finished flush with surrounding natural ground.
- c. Operation along highways shall be performed in such a manner that all excavated materials be kept off the pavements at all times as well as all operating equipment.
- d. Barricades, warning signs and flagmen shall be provided by the Contractor.

65. **CONTRACT DOCUMENTS.** The Contract Documents shall consist of all documents contained herein as stated in the Table of Contents including the Notice to Bidders (Advertisement), Special Conditions, Instructions to Bidders, Proposal, signed Agreement, Performance and Payment Bonds (when required), Special Bonds (when required), General Conditions of Agreement, Technical Specifications, Plans, and all modifications thereof incorporated in any of the documents before the execution of the Agreement.

66. **POLES, SIGNS, GUY WIRES, ETC.** All utility poles, guy wires, private sign posts, signs, and similar private obstructions which interfere with the construction of this project will be removed and replaced by the Contractor at his own expense.

The removal and replacement of City Street signposts and signs are the responsibility of the Contractor. The Contractor shall be responsible for all damage to street signposts and signs within the limits of his operations that remain in place or are removed and replaced.

In event street sign posts and signs are injured or destroyed by the Contractor's operations, they shall be replaced by the Contractor. No separate compensation will be paid for this work, but the costs thereof shall be included in such contract pay items as are provided.

67. **PROTECTION OF TREES, PLANTS AND SHRUBS.** The Contractor shall make every effort to protect all trees, plants, and shrubs encountered during construction and shall notify property owners, as specified above, before removal of any such item. In all cases where questions arise, the Contractor shall request clarification from the Engineer.

68. **PROPERTY LINES AND MONUMENTS.** The Contractor shall protect all property lines, monuments and stakes encountered in his work. All monuments, and stakes for later use, that are disturbed or destroyed by the Contractor shall be replaced at his expense.
69. **HORIZONTAL AND VERTICAL CONTROL POINTS.** Location of the centerlines and grades will be determined and staked by the Contractor. The Contractor shall assume full responsibility for construction in accordance with the approved lines and grades.
70. **CONFINED SPACE ENTRY.** The Contractor shall be responsible for compliance with any and all Federal and State confined space entry and permitting requirements.
71. **ALLOWANCE FOR MISCELLANEOUS EXTRA WORK.** A discretionary allowance may have been established in the Bid Proposal for miscellaneous extra work which may arise during the construction phase of the project due to the discovery of unknown obstructions or other unexpected project conditions for which a method of payment, such as individual bid items, is not established. This allowance, if established in the Bid Proposal, is not intended to be used to procure payment for items specifically named as subsidiary to other bid items within the contract documents. Prior to initiating any item of extra work under this bid item, the Owner, Engineer, and Contractor will agree as to the scope of extra work to be performed and the amount of payment to be made for the particular item of extra work under consideration. A written field order for the extra work will be approved by all parties before commencing with extra work. Expenditure of the allowance funds is at the sole discretion of the Owner. The allowance may be used in full or in part, as the Owner deems necessary. If no extra work is identified and approved by the Owner, the allowance funds will not be expended.

TECHNICAL SPECIFICATIONS

TECHNICAL SPECIFICATIONS

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LIST OF ATTACHMENTS

The Texas Department of Transportation 2014 Standard Specifications for Construction and Maintenance of Highways, Streets and Bridges shall govern the following Items and any other Items of work required to complete the work as shown or specified. These Items shall be considered included in these Specifications in their entirety with the exception of the Measurement and Payment sections:

Item 216	Proof Rolling
Item 310	Prime Coat
Item 340	Dense-Graded Hot-Mix Asphalt (Small Quantity)
Item 341	Dense-Graded Hot-Mix Asphalt
Item 360	Concrete Pavement
Item 401	Flowable Backfill
Item 420	Concrete Substructures
Item 421	Hydraulic Cement Concrete
Item 427	Surface Finishes for Concrete
Item 438	Cleaning and Sealing Joints
Item 440	Reinforcement for Concrete
Item 464	Reinforced Concrete Pipe
Item 465	Junction Boxes, Manholes and Inlets
Item 466	Headwalls and Wingwalls
Item 529	Concrete Curb, Gutter, and Combined Curb and Gutter

SECTION G
GENERAL REQUIREMENTS

TECHNICAL SPECIFICATIONS

SECTION G1 - GENERAL INFORMATION

- G1.1. **PERMITS AND RIGHT-OF-WAY:** The Owner will provide rights-of-way for the purpose of construction without cost to the Contractor by securing permits in areas of public dedication or by obtaining easements across privately owned property. It shall be the responsibility of the Contractor, five (5) days prior to the initiation of construction on easements through private property, to inform the Owner's Representative of his intent to begin construction. The Owner's representative will notify property owners of 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.

- G1.2. **CONSTRUCTION IN PUBLIC ROADWAYS AND PRIVATE DRIVEWAYS:** No public road shall be entirely closed overnight. It shall be the responsibility of the Contractor to build and maintain by-passes and detours, if necessary, and to properly light, barricade and mark all by-passes and detours that might be required on and across the road 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 all driveway entrances located along the roads. Owners and 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 drive-ins or entrances and informed as to the length of time driveways will be closed, which period shall not exceed ten (10) hours.

The Contractor shall be responsible for all road and entrance reconstruction, and repairs and maintenance of same, for a period of one (1) year from the date of acceptance. In the event the repairs and maintenance are not made immediately to the satisfaction of the Engineer, and it becomes necessary for the Owner to make such repairs, the Contractor shall reimburse the Owner for the cost of such repairs.

Where sufficient right-of-way is not available and prior approval is obtained from the Engineer, dirt from the excavation may be temporarily placed on city streets. Where this is necessary, the Contractor shall provide proper barricading and other traffic control measures to provide at least one lane of open traffic. Where prior approval of the Engineer is obtained, the roadway may be completely closed, provided alternate routes for traffic are available and detour routings clearly marked by the Contractor.

Where construction alongside roadways is required, it shall be the Contractor's responsibility to ensure that precautions are taken to avoid damage to the roadway surface. Damages to the roadway from the Contractor's construction activities shall be repaired by the Contractor to return the roadway to its original condition prior to construction.

The Contractor is responsible for traffic handling and safety in the construction area during the construction period. Signs, barricades and other necessary devices shall be furnished and maintained by the Contractor in compliance with Part IV of the Texas Manual of Uniform Traffic Control Devices, current edition.

- G1.3. **PUBLIC UTILITIES AND OTHER PROPERTY TO BE CHANGED:** In case it is necessary to change or move the property of any owner or of a public utility, such property shall not be moved or interfered with until ordered to do so by the Engineer. The right is reserved to 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 this Contract.

Any time the Contractor intends to expose, cross, or otherwise work in the area of the existing petroleum pipelines, telephone lines, water lines, etc. the Contractor shall notify the Owner's Representative five (5) days in advance. The Owner's Representative will notify the utility or pipeline owner.

- G1.4. POLES, GUY WIRES, ETC.: All utility poles, guy wires, private signposts, signs and similar private obstructions which interfere with the construction of this project will be removed and replaced by the Contractor at his own expense.
- G1.5. PROTECTION OF TREES, PLANTS AND SHRUBS: The Contractor shall make every effort to protect all trees, plants, and shrubs encountered during construction outside of the construction area. Where Owner-planted shrubbery must be removed for construction, it shall be stored by the Contractor and replaced in good condition. In all cases where questions arise, the Contractor shall request clarification from the Engineer.

Contractor shall not cut down, remove or trim existing trees without prior approval from the Engineer. Trees noted as "DO NOT DISTURB" on the plans shall be protected from construction activity by construction of a barrier fence at a minimum of 5 ft. radius around the trunk of the trees. The barrier fence shall be constructed a minimum of 4 ft. high with polyethylene/polypropylene grid safety barricade fencing supported by steel t-posts or approved equivalent. Payment for tree protection shall be considered subsidiary to various items of work within the contract. The alignment of the storm sewer pipe may need to be slightly adjusted in the field to avoid significant root damage to the trees. Field alignment adjustments shall have prior approval of the Engineer.

- G1.6. ARCHEOLOGICAL DISCOVERIES: The Contractor may encounter unanticipated cultural or archaeological deposits during construction. If archeological sites or historic structures are discovered after construction operations are begun, the Contractor shall immediately cease operations in that particular area and notify the Owner. The Contractor shall take reasonable steps to protect and preserve the discoveries until they have been inspected by the Owner's Representative. The Owner will promptly coordinate with the Texas Historical Commission and any other appropriate agencies to obtain any necessary approvals or permits to enable the work to continue. The Contractor shall not resume work in the area of the discovery until authorized to do so by the Owner.
- G1.7. CONSTRUCTION STAKING: The Contractor shall provide for his own horizontal and vertical construction staking as a subsidiary cost to his bid. The plans include locations and elevations of temporary bench markers along the right-of-way.

TECHNICAL SPECIFICATIONS
SECTION G2 - EXISTING UTILITIES

G2.1. DESCRIPTION: This section covers the requirements with respect to existing public or private utilities.

G2.2. PROXIMITY TO WATER MAINS: All plans are drawn in such manner that all known utilities are shown using the best available information including utility maps, field surveys, or other sources of information. A minimum distance of 9' clear horizontally shall be maintained between water and sanitary sewer lines where possible. Where this separation distance cannot be achieved, clearance shall be provided in accordance with TCEQ rules contained in Chapter 290 and 317, the following procedures of which are summarized below:

- A. Where a new sanitary sewer parallels the new water main, the sanitary sewer shall be constructed of cast iron, ductile iron, or PVC pipe meeting AWWA Specifications, having a minimum working pressure rating of 150 psi or greater, and equipped with pressure type joints. The water main and sanitary sewer shall be separated by a minimum vertical distance of two feet, and a minimum horizontal distance of four feet, measured between the nearest outside diameters of the pipes, and the water main shall be located above the sewer.
- B. Where a new sanitary sewer crosses the new water main, and that portion of the sewer within 10 feet of the water is constructed as described in G2.2.(A) above, an absolute minimum distance of 6 inches between outside diameters shall be maintained. In addition, the sewer shall be located below the water line where possible and one length of the sewer pipe must be centered on the water line.

G2.3. DAMAGE TO EXISTING UTILITIES:

Approximate locations and depths of all known utilities are shown using the best available information. The Contractor is responsible for verifying the existence and location of all utilities shown or not shown on the plans. The Contractor shall hold the Owner harmless from damages to existing utilities arising from the Contractor's operations. Repair expense and any damages suffered by the utility owner shall be at the Contractor's expense.

G2.4. RELATIONSHIP WITH EXISTING FACILITIES: The Contractor is advised that, unless otherwise indicated, existing utilities must be available at all times for use. The Contractor, therefore, shall at all times take particular care to avoid needless confusion, clutter and debris at the site of the work. At no time shall the Contractor's personnel, equipment, or material prevent the normal conveyance of water and wastewater flows. If it is necessary to request the Contractor to move his equipment, materials, or any material included in the work, he shall do so promptly and place said equipment or material in an area which does not interfere with proper service. The Contractor is further cautioned against adjusting or altering any private property without the written consent of the Owner.

G2.5. PROTECTION OF EXISTING INSTALLATIONS: The Contractor shall correct or replace, without delay any and all damage to existing structures, surfaces, equipment, controls or systems resulting from his operations.

The Contractor's attention is particularly directed to the dust, abrasive particles, debris and dirt generated by the placement, chipping, cutting, finishing and grinding of new or existing concrete, and the dust debris and dirt generated by excavation and backfill operations; and the filters, protective shieldings, and other dust suppression methods at all times to adequately protect private property.

G2.6. PERMANENT UTILITIES: The existing site is presently served with utilities. The utilities to be modified by the Contractor are as shown on the plans.

- G2.7. CLEANING UP: The Contractor shall not allow the site of the work to become littered with trash and waste material but shall maintain the site of the work in a neat and orderly condition throughout the construction period. On or before the completion of the work, the Contractor shall carefully clean out all pits, drain lines and drains, chambers or conduits and shall remove all temporary structures built by him and rubbish of all kinds from any of the grounds which he has occupied and leave them in first-class condition to the satisfaction of the Engineer.

TECHNICAL SPECIFICATIONS

SECTION G3 - FINISH GRADING, REPLACEMENT OF TOPSOIL, SODDING OR HYDROMULCHING

- G3.1 GENERAL: The work to be performed under this section of the Specifications shall consist of the removal and disposal of excess excavation, construction of finished grading, replacement of previously stripped topsoil and providing ground cover by hydromulching or sodding.
- G3.2 FINISH GRADING: Excess excavation from all sources shall be placed in accordance with the site grading plans. Materials placed under access roads and parking areas shall be compacted according to the applicable Specifications. Excavated material in excess of the requirements of the grading plan shall be disposed of off-site at the Contractor's expense.
- G3.3 REPLACEMENT OF TOPSOIL AND GROUND COVER: The work to be performed under this section of the Specifications shall consist of replacement of topsoil previously stockpiled to conform to the finish grades as indicated on the Plans and providing ground cover by hydromulching.
- A. Topsoil: The topsoil shall consist of material previously stockpiled. Topsoil shall be placed at a depth of 4" over all disturbed areas prior to placing ground cover.
- B. Hydromulching: This item shall consist of furnishing and applying fertilizer, seed, mulch cover, and water on all areas disturbed by construction except within residential lots as noted on the Plans.

Application of ground cover shall be by hydromulching. The mulch, fertilizer, and seed may be incorporated into one operation, or if the Contractor so elects, the fertilizer may be applied during preparation of the seedbed. Water used in hydromulching shall be of drinking water quality.

After application of the mulch cover, water shall be applied as necessary at the direction of the Engineer for a period of at least three (3) weeks. The time required for application of water will not be included in the computations of contract time for completion of the project provided all other work under the Contract has been completed. Fertilizer shall be a commercial grade, uniform in composition, free flowing, and suitable for application with mechanical equipment, delivered to the site in labeled containers, to current State Fertilizer Laws and bearing the name, trademark, and warranty of the producer.

All seed shall be labeled in accordance with the current rules and regulations of State law and shall be free of noxious weeds. Seed shall be furnished in sealed, standard containers unless otherwise authorized by the Engineer in writing. Seed which has become wet, moldy, or otherwise damaged in transit or storage will not be acceptable. The minimum percentage by weight of pure live seed shall not be less than 85 when tested according to current regulations under the Federal Seed Act. All legumes must be inoculated with an approved culture as per the manufacturer's recommendations.

Seed shall be composed of the varieties and amounts by weight as shown below.

<u>VARIETY</u>	<u>WEIGHT, LBS. PER ACRE</u>
Rye Grass (Gulf Coast or Italian)	50
Crimson Clover	2
Bermuda (Common)	10

The Common Bermuda seed shall be applied during the months of March, April and May only. Rye Grass and Crimson Clover shall be applied with hydromulch and fertilizer immediately upon completion of finish grading. The Contractor shall be responsible for all seeding at the specified times, whether accomplished in single or multiple applications.

For maximum soil holding ability the mulch shall be a wood cellulose fiber. This mulch shall be applied at the rate of 1200 lbs. per acre on 4:1 slopes or flatter or at 1500 lbs. per acre on slopes steeper than 4:1.

Fertilizer shall be composed of 16% nitrogen, 8% phosphorous, and 8% potash and applied at a minimum rate of 400 lbs./acre.

- C. Sod: Slab sod shall be provided where indicated on the Plans. Slab sod shall be approved nursery grown grass. Nursery grown grass sod shall be centipede or St. Augustine. Sod shall be free from noxious weeds or other vegetation. Water shall be of drinking water quality.

Slab sod shall be cut with approved mechanical or manual sod cutters. The designated area shall be mowed when necessary, and sod shall be cut to a minimum depth of 1 inch for nursery grown grass, and to a uniform width and in convenient lengths for handling. Care shall be exercised to retain soil on roots of sod during excavating, hauling and planting.

Sod cut more than 48 hours before placing shall not be used unless authorized. Sod taken from bare areas that may produce inferior growth will not be accepted. Watering required in connection with digging, storing or hauling sod will not be paid for.

Areas to receive slab sod shall be thoroughly pulverized to a depth of approximately 3 inches and dressed to a reasonable grade. Slab sod shall receive fertilizer as specified for hydromulching with 90% broadcast over the area to receive slab sodding, and the remaining 10% shall be broadcast over sod after placing and rolling. Upon delivery to the planting site, slab sod shall be transferred onto the surface of the soil. Areas to be sodded shall be watered as directed. Slabs of sod shall be placed with a minimum amount of space between slabs. Slabs which do not fit closely shall be pulled together with suitable tools and pegged when necessary.

Slab sod shall be rolled as soon after planting as practicable with plain rollers or cultipackers. Where rolling is impracticable, sod shall be tamped by approved hand methods.

Slab sodding shall be watered as directed. If nursery grown grass sod is used, particular attention shall be paid to watering per the supplier's recommendations.

- D. Construction Methods: The area to receive hydromulch shall be brought to a smooth and uniform surface to conform to an elevation 4" below the finished grade indicated on the Plans. The surface of the topsoil stockpile shall be thoroughly disced to a depth of 6" prior to loading. The topsoil shall then be dumped upon the prepared area and spread to a uniform depth of 4". Ground cover shall then be applied by hydromulching as described above.
- E. Maintenance of Ground Cover: Areas which have been sodded or hydromulched shall be maintained by the Contractor in a manner to ensure that grass cover is established. The Contractor shall further maintain areas to specified grades for a period of one year from the date of receiving the Notice of Substantial Completion on the project. Final payment will not be made until ground cover is established in accordance with these Specifications.

TECHNICAL SPECIFICATIONS

SECTION G4 - BARRICADES AND WARNING DEVICES

- G4.1. DESCRIPTION: This Item shall consist of the construction, maintenance and removal, if required, of detours of the type and length, and to the lines, grades and typical cross sections shown on the plans. The work shall be done in accordance with the provisions of this specification.
- A. Prior to closing any section of the project to traffic, the Contractor shall furnish, erect, and maintain barricades, warning signs and devices, temporary suitable removable lane delineation striping and all other applicable requirements at and in the vicinity of all road and bridge construction projects at all times; both day and night during the construction period of the contract. The Texas Manual on Uniform Traffic Control Devices (TMUTCD) shall serve as a guideline for the installation and maintenance of barricades and warning devices. All of the above does not preclude the requirements of the City of Marshall.
 - B. Responsibility for damage or claims: The Contractor shall hold harmless the Owner, the City of Marshall, and Hayes Engineering, Inc. and all its representatives from all suits, actions or claims of any damages sustained by any person or property in consequence of any neglect in safeguarding the work or through the use of unacceptable materials in the construction of the improvement, or on account of any act of omission by said Contractor. He shall not be released from said responsibility until the roadway shall have been completed and accepted, and so much of the money due the said Contractor under and by virtue of his contract may be retained by the Owner, the City of Marshall and Hayes Engineering, Inc., or his surety may be held until such claims have been settled and suitable evidence to that effect furnished to the Engineer.
 - C. In areas where traffic re-alignment is required, all conflicting existing lane lines shall be obliterated and re-alignment made by use of temporary, removable lane delineation striping until construction is completed and then the temporary striping is removed and permanent striping applied in accordance with the TMUTCD specifications for traffic lane striping or buttons.

Whenever temporary pavement marking is required either for re-aligning existing traffic lane striping or for new temporary locations it shall be provided in accordance with TMUTCD requirements.

TECHNICAL SPECIFICATIONS

SECTION G5 – STORM WATER POLLUTION PREVENTION

- G5.1. DESCRIPTION: This item shall consist of the work required to provide storm water pollution prevention meeting the requirements of the Texas Commission on Environmental Quality (TCEQ) and the City of Marshall. The TCEQ requirements are specified in the Texas Pollutant Discharge Elimination System (TPDES) Construction General Permit (CGP) No. TXR150000. The City of Marshall requirements are specified in the City of Marshall Drainage Criteria and Erosion Control (DC&EC) Manual.
1. REQUIREMENTS – 5 OR MORE ACRES DISTURBED. For construction activities that will disturb 5 or more acres, the Contractor shall perform all activities required by TCEQ and the City of Marshall DC&EC Manual. TCEQ requirements include, but are not limited to the following tasks:
 - a. Obtain a copy of the TCEQ CGP (TPDES Permit No. TXR150000).
 - b. Obtain a copy of the City of Marshall Drainage Criteria and Erosion Control Manual.
 - c. Develop a storm water pollution prevention plan (SWP3) meeting the requirements of the TCEQ General Permit and the DC&EC Manual.
 - d. Complete and submit a Notice of Intent (NOI) to the TCEQ using the TCEQ form. Include all necessary fees with the NOI submittal. The NOI and all fees must be submitted at least two (2) days prior to commencement of construction.
 - e. Complete and submit an annual Project fee to the TCEQ.
 - f. Provide the Owner and the Engineer with a copy of the NOI and a copy of the check to the TCEQ and a written notice indicating the date that the NOI was submitted to the TCEQ.
 - g. Implement the SWP3. Perform maintenance and inspection as required by the SWP3.
 - h. Continue to submit the annual project fee as the project continues.
 - i. Modify the SWP3 during construction as necessary.
 - j. Complete and submit a Notice of Termination (NOT) to the TCEQ once the site has reached final stabilization.
 2. REQUIREMENTS – 1 OR MORE ACRES BUT LESS THAN 5 ACRES DISTURBED. For construction activities that will disturb 1 or more acres, but less than 5 acres, the Contractor shall perform all activities required by TCEQ and the City of Marshall DC&EC Manual. TCEQ requirements include, but are not limited to the following tasks:
 - a. Obtain a copy of the TCEQ CGP (TPDES Permit No. TXR150000).
 - b. Obtain a copy of the City of Marshall Drainage Criteria and Erosion Control Manual.
 - c. Develop a storm water pollution prevention plan (SWP3) meeting the requirements of the TCEQ General Permit and the DC&EC Manual.
 - d. Complete and post a Construction Site Notice (CSN) on the job site at least two (2) days prior to commencement of construction.
 - e. Send a copy of a completed Construction Site Notice Application to the MS4.
 - f. Implement the SWP3. Perform maintenance and inspection as required by the SWP3.
 - g. Modify the SWP3 during construction as necessary.
 3. REQUIREMENTS – LESS THAN 1 ACRE DISTURBED. For construction activities that will disturb less than one acre, coverage under the TCEQ permit is not required. The Contractor shall, regardless of the size of the area disturbed, provide storm water pollution prevention measures meeting the criteria of the City's DC&EC Manual. If construction activity increases and the disturbed area increases to 1 or more acres, the Contractor will be required to comply with the applicable sections above.

SECTION SD
STREETS and DRAINAGE

TECHNICAL SPECIFICATIONS

SECTION SD101 - ROADWAY PREPARATION

SD101.01 DESCRIPTION: Work under this section consists of roadway preparation and clean-up. The work shall cover but not be limited to the following areas: area to be occupied by the improvement, necessary abutting work areas, any area used for stockpiling of excavated material, and areas within the project used for storage.

SD101.02 SITE PREPARATION: The Contractor shall remove all debris, concrete, or asphalt, culverts, abandoned utilities, and any other obstructions on the site of the project which will interfere with construction of the project. Materials or obstructions removed under this item shall be disposed of by the Contractor.

The Contractor shall adjust to the finished grade of the street all manhole covers, cleanout covers, and valve covers. Manhole frames and covers shall be adjusted using precast concrete grade rings and mortar riser section. Cleanouts shall be adjusted by removing the casting and resetting the casting to grade on a Class C concrete foundation poured around the cleanout stack and placing Class C concrete around the adjusted casting. Valve covers shall be adjusted by adjusting the valve cover housing to the finished grade.

SD101.03 CLEAN UP: From time to time the Contractor shall clean up the site, including all areas as stipulated in Section 101.02 above, in order that the site present a neat appearance and the progress of work not be impeded. One such period of 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 operation, and leave the site in a condition fully acceptable to the Owner.

TECHNICAL SPECIFICATIONS

SECTION SD102 - CLEARING AND GRUBBING

SD102.01 DESCRIPTION: This section will govern the removal and disposal of trees, stumps, roots, logs, brush, vegetation, rubbish and other objectionable matter from the designated portions of the right-of-way and from authorized borrow areas.

On areas required for roadway, channel or structural excavation, all stumps, roots, etc., shall be removed to a minimum depth of one foot below the existing ground surface, except that where excavated material is used as construction material, all organic matter and/or rubbish will be removed to the extent necessary to prevent such objectionable matter becoming mixed with the material to be used in construction.

TECHNICAL SPECIFICATIONS

SECTION SD110 - ROADWAY EXCAVATION

SD110.01 DESCRIPTION: This section shall govern the furnishing of all labor, equipment, materials, tools and incidentals necessary to perform the required excavation within the limits of the roadway, the removal, proper utilization, and/or disposal of all excavated materials; and the construction, shaping, and finishing of all earthwork on the entire length and width of roadway and approaches to same in conformity with the required lines, grades and cross-sections (including drainage ditches) as shown on the Plans and in accordance with specification requirements herein outlined. Prior to commencing excavation all clearing and grubbing shall be complete in excavation areas.

SD110.02 CLASSIFICATION: Unless classification of roadway excavation is indicated on the Plans or so determined by the Engineer, these specifications shall include all materials encountered regardless of their nature or the manner in which they are removed.

SD110.03 CONSTRUCTION METHODS: All roadway excavation shall be performed as specified herein and the completed roadway shall conform to the established lines, grades, and cross sections.

In constructing the specified roadway sections all suitable excavated materials shall be utilized insofar as practicable. Excavated materials from the roadbed shall be removed, utilized or disposed of as follows:

- A. Excavated material, suitable and necessary for roadway fill shall be utilized in that manner.
- B. Excavated material suitable but not necessary for construction of the required section, may, at the option of the Engineer, be disposed of by depositing in or on designated "waste" areas. Or, if so authorized, the Contractor may dispose of such material to his best advantage.
- C. Excavated material unsuitable for incorporation into the required section and unsatisfactory for "waste" disposal shall be disposed of as directed by the Engineer.

During the construction period the roadbed, slopes and ditches shall be maintained in such condition as to ensure proper drainage at all times.

TECHNICAL SPECIFICATIONS

SECTION SD140 - EMBANKMENT

SD140.01 **DESCRIPTION:** This section shall govern the placement and compaction of all materials obtained from roadway, borrow, channel and structural excavation for utilization in the construction of roadway embankments.

SD140.02 **CONSTRUCTION METHODS:**

- (I) General: Prior to placing any embankment, all "Clearing and Grubbing" operations shall have been completed on the excavation sources and areas over which the embankment is to be placed. Stump holes or other small excavations in the limits of the embankments shall be backfilled with suitable material and thoroughly tamped by approved methods before commencing embankment construction. The surface of the ground, including plowed loosened ground, or surface roughened by small washes or otherwise, shall be restored to approximately its original slope by blading or other methods and, where indicated on the Plans or required by the Engineer, the ground surface thus prepared shall be compacted by sprinkling and rolling.

Unless otherwise indicated on plans the surface of the ground of all unpaved areas other than rock which are to receive embankment shall be loosened by scarifying or plowing to a depth of not less than four inches. The loosened material shall be recompacted with the new embankment as hereinafter specified.

Where indicated on plans or directed by the Engineer, the surface of hillsides to receive embankment shall be loosened by scarifying or plowing to a depth of not less than four inches or cut into steps before embankment materials are placed. The embankment shall then be placed in layers, as hereinafter specified, beginning at the low side in part width layers and increasing the widths as the embankment is raised. The material which has been loosened shall be recompacted simultaneously with the embankment material placed at the same direction.

Where embankments are to be placed adjacent to or over existing roadbeds, the roadbed slopes shall be plowed or scarified to a depth of not less than six inches and the embankment built up in successive layers, as hereinafter specified, to the level of the old roadbed before its height is increased. Then, if directed, the top of the roadbed shall be scarified and recompacted with the next layer of the new embankment. The total depth of the scarified and added material shall not exceed the permissible depth of layer.

Trees, stumps, roots, vegetation or other unsuitable materials shall not be placed in embankment. Except as otherwise required by the plans, all embankment shall be constructed in layers approximately parallel to the finished grade of the roadbed and unless otherwise specified each layer shall be so constructed as to provide a uniform slope of 1/4 inch per foot from the center line of the roadbed to the outside, except that on superelevated curves each layer shall be constructed to conform to the superelevation required by the governing standard.

Embankments shall be constructed to the grade established by the Engineer and completed embankments shall correspond to the general shape of the typical sections shown on the plans and each section of the embankment shall correspond to the detailed section or slopes established by the Engineer. After completion of the roadway, it shall be continuously maintained to its finished section and grade until the project is accepted.

- (2) Earth Embankments: Earth embankments shall be defined as those composed principally of material other than rock and shall be constructed of accepted material from approved sources.

Except as otherwise specified, earth embankments shall be constructed in successive layers for the full width of the individual roadway cross section and in such lengths as are best suited to the sprinkling and compaction methods utilized.

Layers of embankment may be formed by utilizing equipment which will spread the material as it is dumped, or they may be spread by blading or other acceptable methods from piles or windrows dumped from excavating or hauling equipment in such amounts that material is evenly distributed.

No material placed in the embankment by dumping in a pile or windrow shall be incorporated in a layer in that position, but all such piles or windrows shall be mixed by blading or similar methods. Clods or lumps of material shall be broken and the embankment material mixed by blading, harrowing, disking or similar methods.

Water required to bring the material to the moisture content necessary for maximum compaction shall be evenly applied and it shall be the responsibility of the Contractor to secure a uniform moisture content throughout the layer by such methods as may be necessary.

Compaction of embankments shall be obtained by the method described below.

- (3) Compaction: Each layer shall be compacted to the required density by suitable equipment as hereafter described. The depth of layer, prior to compaction, shall not exceed that depth which will produce a six-inch compacted layer. Prior to and in connection with the rolling operation each layer shall be brought to the moisture content necessary to obtain the required density and shall be kept leveled with suitable equipment to insure uniform compaction of the entire layer.

For each layer of earth embankment and select material, it is the intent of this specification to provide the density as required herein, unless otherwise shown on the plans. Embankment soils shall be sprinkled as required and compacted to the extent necessary to provide not less than 95 percent of Modified A.A.S.H.T.O. density (A.S.T.M. Method D1557). Field density determinations will be made in accordance with approved methods.

When the Contractor submits each layer of earth embankment or select material for approval prior to placement of the next layer, tests as considered necessary by the Engineer will be made by an approved testing laboratory at the expense of the City. If the material fails to meet the density specified, the course shall be reworked as necessary to obtain the specified compaction, and the compaction method shall be altered on subsequent work to obtain specified density. Such procedure shall be determined by, and subject to, the approval of the Engineer.

Should the embankment, due to any reason or cause, lose the required stability, density, or finish before the pavement structure or base is placed, it shall be recompact and refinished at the sole expense of the Contractor. Excessive loss of moisture in the embankment shall be prevented by sprinkling, sealing or covering with a subsequent layer of granular material. Excessive loss of moisture shall be considered to exist when the soil moisture content is more than four percent below the optimum for the density specified.

SD140.03 **SELECTION OF MATERIALS:** In addition to the requirements in the roadway excavation section of the specifications which cover the general selection and utilization of materials to improve the roadbed, embankments shall be constructed in proper sequence to receive the select material layers shown on plans, with such modifications as may be directed by the Engineer. The layer of embankment immediately preceding the upper layer of select material shall be constructed to the proper section and grade within a tolerance of not more than 0.10 foot from the established section and grade when properly compacted and finished to receive the select material layer.

TECHNICAL SPECIFICATIONS

SECTION SD164 - SEEDING FOR EROSION CONTROL

SD164.01 DESCRIPTION: "Seeding for Erosion Control" shall consist of preparing ground, providing and planting seed, or a mixture of seeds, of the kind specified along and across such areas as are designated on the plans and in accordance with these specifications.

SD164.02 MATERIALS: All seed used must carry a Texas Testing Seed Label showing purity and germination, name and type of seed that the seed meets all requirements of the Texas Seed Law. Seed furnished shall be of the previous season's crop and the date of analysis shown on each tag shall be within 9 months of the time of delivery to the project. Each variety of seed shall be furnished and delivered in separate bags or containers. A sample of each variety of seed shall be furnished for analysis and testing when directed by the Engineer.

The specified seed shall equal or exceed the following percentages for purity and germination:

<u>COMMON NAME</u>	<u>SCIENTIFIC NAME</u>	<u>PURITY GERMINATION</u>	
Bermuda Grass	Cynodon dactylon	95%	90%
Rye Grass	Lolium multiflorum	95%	85%
Buffalo Grass	Buchloe dactyloides	40%	40%
Blue Grama Grass	Bouteloua gracilis	30%	75%
Side-Oats Grama Grass	Bouteloua curtipendula	20%	50%
Little Bluestem Grass	Andropogon scoparius	20%	50%
Big Bluestem Grass	Andropogon furcatus	20%	50%
K-R Bluestem Grass	Andropogon species	20%	50%
Buffel Grass	Pennisetum ciliare	90%	75%
Sudan Grass	Sorghum vulgare		
	var. Sudanense	80%	80%
Dropseed Grass	Sporobolus Texanus	90%	60%
Western Wheat Grass	Agropyron Smithii	65%	65%
Yellow Glover	Melilotus officinalis	90%	90%
Oats	Avena sativa	85%	85%

Planting Season: All planting shall be done between the dates specified for each type except as specifically authorized in writing.

The seeds planted per acre shall be of the type specified with the mixture, rate and planting dates as follows:

Type 1.	Bermuda Grass, hulled	8 lb.	April through Sept.
Type 2.	Buffel Grass	10 lb.	March through May
Type 3.	Rye Grass	35 lb.	Sept. through Jan. 15
Type 4.	Bermuda Grass, unhulled	12 lb.	
	Rye Grass	30 lb.	Sept. through Jan. 15
Type 5.	Bermuda Grass, hulled	8 lb.	
	Sudan Grass	10 lb.	Feb. through May
Type 6.	Blue Grama	15 lb.	
	Side-oats Grama	4 lb.	
	Western Wheat	5 lb.	
	Yellow Clover	4 lb.	
	Dropseed Grass	4 lb.	
	Sudan Grass	8 lb.	March through May
Type 7.	Mixture, rate, and planting dates as shown on plans. Fertilizer shall conform to the requirements of the item, "Fertilizer".		

SD164.03 CONSTRUCTION METHODS: After the designated areas have been completed to the lines, grades and cross sections shown on the plans and as provided for in other items of this contract, seeding of the type specified shall be performed in accordance with the requirements hereinafter described.

1. Watering. The seeded areas shall be watered as directed by the Engineer so as to prevent washing of slopes or dislodgement of the seed.
2. Finishing. Where applicable, the shoulders, slopes, ditches shall be smoothed after seed bed preparation has been completed and shaped to conform to the cross sections previously provided and existing at the time planting operations were begun.

SD164.04 BROADCAST SEEDING: The seed or seed mixture in the quantity specified shall be uniformly distributed over the areas shown on plans or where directed. If the sowing of seed is by hand rather than by mechanical methods, the seed shall be sown in two directions at right angles to each other. Seed and fertilizer may be distributed at the same time provided the specified uniform rate of application for both is obtained.

"Finishing: as specified under Article 3 is not applicable since no seed bed preparation is required.

SD164.05 DISKED SEEDING: The soil over the area shown on the plans, or as directed to be seeded, shall be loosened to a minimum depth of 3 inches, and all particles in the seed bed shall be reduced to less than 1 inch in diameter or they shall be removed. The area shall then be finished to line and grade as specified under "finishing" in Article 3.

The seed or seed mixture specified shall then be planted at the rate required and the application shall be made uniformly. If the sowing of seed is by hand, rather than by mechanical methods, the seed shall be sown in two directions at right angles to each other. Seed and fertilizer may be distributed at the same time provided the specified uniform rate of application for both is obtained. After planting, the seed shall be raked or harrowed into the soil to a depth of approximately 1/8 inch. The planted area shall be rolled with a corrugated roller of the "Cultipacker" type. All rolling of slope area shall be on the contour.

TECHNICAL SPECIFICATIONS

SECTION SD166 - FERTILIZER

SD166.01 DESCRIPTION: "Fertilizer" shall consist of providing and distributing fertilizer over such areas as are designated on the plans and in accordance with these specifications.

SD166.02 MATERIALS: All fertilizer used shall be delivered in bags or containers clearly labeled showing the analysis. The fertilizer is subject to testing by the State Chemist in accordance with the Texas Fertilizer Law. A pelleted or granulated fertilizer shall be used with an analysis of 12-12-12 for 16-8-8 or having the analysis shown on the plans. The figures in the analysis represent the percent of nitrogen, phosphoric acid, and potash nutrients respectively as determined by the methods of the Association of Official Agricultural Chemists.

In the event it is necessary to substitute a fertilizer of a different analysis, it shall be a pelleted or granulated fertilizer with a lower concentration. The total amount of nutrients furnished and applied per acre shall equal or exceed that specified for each nutrient.

SD166.03 CONSTRUCTION METHODS: When an item for fertilizer is included in the plans and proposal, pelleted or granulated fertilizer shall be applied uniformly over the area specified to be fertilized and in the manner directed for the particular item or work. The fertilizer shall be dry and in good physical condition. Fertilizer that is powdered or caked will be rejected. Distribution of fertilizer for the particular item of work shall meet the approval of the Engineer.

Unless otherwise indicated on the plans, fertilizer shall be applied uniformly at the average rate of 300 pounds per acre for all types of "Sodding for Erosion Control" and 400 pounds per acre for all types of "Seeding for Erosion Control".

TECHNICAL SPECIFICATIONS

SECTION SD204 - SPRINKLING

SD204.01 DESCRIPTION: This section shall govern the authorized application of water on those portions of roadway shown on the Plans or as directed by the Engineer.

SD204.02 CONSTRUCTION METHODS: The Contractor shall furnish and operate approved sprinklers equipped with positive and rapidly working cutoff valves and approved spray bars which will insure the distribution of water in a uniform and controllable rate of application. The Contractor shall apply the water in the required quantity where shown on the Plans and/or as directed by the Engineer.

TECHNICAL SPECIFICATIONS

SECTION SD210 - ROLLING

SD210.01 DESCRIPTION: This section shall govern the equipment used for compaction of subgrade, sub-base, base or asphaltic concrete pavements by the operation of approved power rollers, tamping rollers or pneumatic tired rollers as herein specified and/or as directed by the Engineer.

210.02 EQUIPMENT:

(1) Subgrade, Sub-base and Base:

- (a) Pneumatic Tired Rollers: Large pneumatic tired rollers shall be of a type having five or more tires, with each tire capable of being inflated to a pressure of 100 pounds per square inch. Total weight of the unit when loaded shall be not less than twenty-five tons. The load shall be equally distributed to all wheels and the tires shall be uniformly inflated.

Small pneumatic tired rollers shall consist of not less than nine pneumatic tired wheels running on axles in such a manner that the rear group of tires will not follow in the track of the forward group and mounted in a rigid frame and provided with a body suitable for ballast loading. The wheelbase of the roller shall be not less than five nor more than ten feet. The front axle shall be attached to the frame in such a manner that the roller may be turned within a minimum circle. The pneumatic tired roller under working conditions shall have an effective rolling width of approximately sixty inches and shall be so designed that by ballast loading the load may be varied uniformly from a minimum of 100 to a maximum of 400 pounds per inch of width of tire tread.

The tire pressure and compression to be provided by the pneumatic roller shall be as directed by the Engineer. Pneumatic tired rollers shall be drawn by a suitable crawler type tractor, a pneumatic tired tractor, or a truck of adequate tractive effort, or may be of the self-propelled type, and the roller when drawn or propelled by either type of equipment shall be considered a pneumatic tired roller unit.

Unless otherwise directed, pneumatic tired rollers shall be operated within a speed range from two to four miles per hour.

- (b) Tamping Rollers: Tamping rollers shall consist of two metal rollers, drums or shells of forty inches minimum diameter; each not less than forty-two inches in length and unit-mounted in a rigid frame in such a manner that each roller may oscillate independently of the other; and each roller, drum or shell shall be surmounted by metal studs with tamping feet projecting not less than seven inches from the surface and spaced not less than seven inches from the surface and spaced not less than six nor more than ten inches measured diagonally center to center; and the cross-sectional area of each tamping foot measured perpendicularly to the axis of the stud, shall be not less than five nor more than eight square inches. The roller shall be supplemented with cleaning teeth to provide self cleaning. The roller shall be so designed that by ballast loading, the load on each tamping foot may be varied uniformly from 125 to 175 pounds per square inch of cross-sectional area. The load per tamping foot will be determined by dividing the total weight of the roller by the number of tamping feet in one row parallel to (or approximately so) the axis of the roller. The compression to be provided shall be as directed by the Engineer. The tamping roller shall be drawn by suitable power equipment of adequate tractable effort. Two tamping rollers, consisting of four cylinders, drawn by approved power equipment shall be considered a roller unit. Unless otherwise directed, tamping rollers shall be operated within a speed range of two to three miles per hour.

(2) Hot Mix Asphaltic Concrete Pavement:

- (a) Power Flat Wheel Rollers: Power flat wheel rollers shall be self-propelled and shall be of the three wheel or tandem type, weighing not less than five tons nor more than twelve tons. Power flat wheel rollers shall be operated with a speed range from two to three miles per hour and/or as directed.
- (b) Pneumatic Tired Rollers: Pneumatic tired rollers for hot mix asphaltic concrete pavement shall conform to the specifications as noted above for pneumatic rollers.

SD210.03 CONSTRUCTION METHODS: The compaction shall be accomplished by the methods outlined in the specifications on Subgrade, Sub-base, Base and Flexible Pavement. Tracked or lugged equipment will not be allowed on pavements at any time. In the event the indicated rollers are not sufficiently weighted, nor have sufficient tire inflation capacity, to produce the required degree of compaction, additional larger size rollers will be required at no additional expense to the Owner.

Sufficient rollers shall be provided to compact the material in a satisfactory manner.

TECHNICAL SPECIFICATIONS

SECTION SD230 - SUBGRADE PREPARATION AND COMPACTION

SD230.01 DESCRIPTION: This section shall govern the scarifying, blading and rolling of the subgrade to obtain uniform texture and density throughout the required depth as shown on the Plans.

SD230.02 CONSTRUCTION METHODS: The roadbed shall be excavated and shaped in conformity with the typical sections shown on the plans and to the lines and grades established by the Engineer. The entire roadway cross-section shall be bladed clear of vegetation and scarified as directed by the Engineer. All soft, unstable, or otherwise objectionable material and other portions of the subgrade which will not compact readily or serve the intended purpose shall be removed or broken off to a depth of not less than six inches below the surface of the subgrade. Holes or depressions resulting from the removal of such material shall be backfilled with suitable material compacted in layers not to exceed six inches. No direct payment will be made for such removal and/or replacement.

The subgrade shall be scarified then bladed and compacted in the manner directed in the paragraph on "Finishing and Compaction". The surface of the subgrade shall be finished to line and grade as established and be in conformity with the typical sections shown on the Plans. Material excavated in the preparation of the subgrade shall be disposed of as directed by the Engineer.

SD230.03 FINISHING AND COMPACTION: The subgrade course, shall be sprinkled as required and rolled as directed until a uniform compaction and the required density is obtained. Compaction of the subgrade may be done by use of the rolling equipment outlined in the specifications on "Rolling". Rolling shall continue until the subgrade has been compacted to ninety-five percent of the Modified A.A.S.H.T.O. Density (A.S.T.M. Method D-1557) within three percent of optimum moisture content.

Rolling shall progress gradually from the sides to the center of the land under construction by lapping uniformly each proceeding tract by at least twelve inches.

After rolling and watering, the subgrade shall be checked by the use of string line or instrument and all portions that do not conform to the lines and grades as shown on the Plans shall be corrected and re-compacted to correct elevation.

Until the base course or pavement is placed, the subgrade shall be maintained free from ruts and depressions, in a smooth and compacted condition true to lines and grade and to the density requirements contained herein. All of the Contractor's hauling and other equipment used in such a way as to cause rutting and raveling of the subgrade shall either be removed from the work or suitable run-ways or other equivalent means shall be provided to prevent rutting.

The Contractor shall be responsible for maintaining and protecting the roadbed for the entire length of the project.

During construction, grading of the subgrade shall be conducted so that berms of earth or other material do not prevent immediate drainage of water to the side. Ditches and drains along the subgrade shall be maintained so as to drain effectively.

TECHNICAL SPECIFICATIONS

SECTION SD260 - LIME TREATMENT FOR MATERIALS IN PLACE

SD260.01 DESCRIPTION: This item shall consist of treating the subgrade, existing base by the pulverizing, addition of lime, mixing and compacting the mixed material to the required density. This item applies to natural ground, embankment, or existing pavement structure and shall be constructed as specified herein and in conformity with the typical sections, lines, and grades as shown on the plans or as established by the Engineer.

SD260.02 MATERIALS:

- (1) The lime shall meet the requirements of 2004 TxDOT Item 260 for the type of lime specified.

When Type B, Commercial Lime Slurry, is specified, the Contractor shall select, prior to construction, the class to be used and shall notify the Engineer in writing before changing from one class to another.

- (2) If the minimum design strength or percent of lime to be used for the treated subgrade, existing subbase or existing base is specified, it will be determined by preliminary tests performed in accordance with Test Method Tex-121-E.

SD260.03 EQUIPMENT:

- (1) The machinery, tools and equipment necessary for proper prosecution of the work shall be on the project and approved by the Engineer prior to the beginning of construction operations.

All machinery, tools and equipment used shall be maintained in a satisfactory and workmanlike manner.

- (2) Hydrated lime shall be stored and handled in closed weatherproof containers until immediately before distribution on the road. If storage bins are used they shall be completely enclosed. Hydrated lime in bags shall be stored in weatherproof buildings with adequate protection from ground dampness.

- (3) If lime is furnished in trucks, each truck shall have the weight of lime certified on public scales or the Contractor shall place a set of standard platform truck scales or hopper scales at a location approved by the Engineer.

Scales shall conform to the requirements of the Item, "Weighing and Measuring Equipment".

- (4) If lime is furnished in bags, each bag shall bear the manufacturer's certified weight. Bags varying more than 5 percent from that weight may be rejected and the average weight of bags in any shipment, as shown by weighing 50 bags taken at random, shall not be less than the manufacturer's certified weight.

SD260.04 CONSTRUCTION METHODS:

- (1) General. It is the primary requirement of this specification to secure a completed course of treated material containing a uniform lime mixture, free from loose or segregated areas, of uniform density and moisture content, well bound for its full depth and with a smooth surface suitable for placing subsequent courses. It shall be the responsibility of the Contractor to regulate the sequence of his work, to use the proper amount of lime, maintain the work and rework the courses as necessary to meet the above requirements.

The roadbed shall be constructed and shaped to conform to the typical sections, lines and grades as shown on the plans or as established by the Engineer. The material, either before or after lime is added, shall be excavated to the secondary grade (proposed bottom of lime treatment) and removed or windrowed to expose the secondary grade. Any wet or unstable materials below the secondary grade shall be corrected, as directed by the Engineer, by scarifying, adding limes, and compacting, or other methods until satisfactory stability is obtained.

If the Contractor elects to use a cutting and pulverizing machine that will remove the subgrade material accurately to the secondary grade and pulverize the material at the same time, he will not be required to expose the secondary grade nor windrow the material. However, the Contractor shall be required to roll the subgrade, as directed by the Engineer, before using the pulverizing machine and correct any soft areas that this rolling may reveal. This method will be permitted only where a machine is provided which will insure that the material is cut uniformly to the proper depth and which has cutters that will plane the secondary grade to a smooth surface over the entire width of the cut. The machine shall be of such design that a visible indication is given at all times that the machine is cutting to the proper depth.

- (2) Application. Lime shall be spread only on that area where the first mixing operations can be completed during the same working day.

The application and mixing of lime with the material shall be accomplished by the methods hereinafter described as "Dry Placing" or "Slurry Placing". When Type A, Hydrated Lime, is specified, the Contractor may use either method, unless otherwise noted on the plans.

- (a) Dry Placing. The lime shall be spread by an approved spreader or by bag distribution at the rates shown on the plans or as directed by the Engineer.

The lime shall be distributed at a uniform rate and in such manner as to reduce the scattering of lime by wind to a minimum. Lime shall not be applied when wind conditions, in the opinion of the Engineer, are such that blowing lime becomes objectionable to traffic or adjacent property owners. A motor grader shall not be used to spread the lime.

The material shall be sprinkled as directed by the Engineer, until the proper moisture content has been secured.

- (b) Slurry Placing. Where Type B, Commercial Lime Slurry is to be used, it shall be of the minimum solids and purity for the applicable grade being used. The distribution of lime at the rates shown on the plans or as directed by the Engineer shall be attained by successive passes over a measured section of roadway until the proper moisture and lime content has been secured.

The distributor truck shall be equipped with an agitator which will keep the lime and water in a uniform mixture.

When Type B, Commercial Lime Slurry is used, the quantity of lime shall be calculated from the required minimum percent solids based upon the use of Grade 1, Grade 2, or Grade 3 as follows:

Grade 1: The "Dry Solids Content" shall be at least 31 percent by weight of the slurry and the quantity of lime will be calculated by the ton of 2000 pounds based on the 31 percent, as delivered on the road.

Grade 2: The "Dry Solids Content" shall be at least 35 percent by weight of the slurry and the quantity of lime will be calculated by the ton of 2000 pounds based on the 35 percent, as delivered on the road.

Grade 3: The "Dry Solids Content" shall be at least 46 percent by weight of the slurry and the quantity of lime will be calculated by the ton of 2000 pounds based on the 46 percent, as delivered on the road.

- (3) Mixing. The mixing procedure shall be the same for "Dry Placing" or "Slurry Placing" as herein described.

The material and lime shall be thoroughly mixed by approved road mixers or other approved equipment, and the mixing continued until, in the opinion of the Engineer, a homogeneous friable mixture of material and lime is obtained, such that when all nonslaking aggregates retained on the 3/4" sieve are removed, the remainder of the material shall meet the following requirements when tested from the roadway in the roadway condition by laboratory sieves:

	<u>Percent</u>
Minimum passing 1-3/4" sieve	100
Minimum passing 3/4" sieve	85

The soil-lime mixture shall be sprinkled during the mixing operation as directed by the Engineer to provide optimum moisture in the mixing.

During the interval of time between application and mixing, hydrated lime that has been exposed to the open air for a period of 6 hours or more or has had excessive loss due to washing or blowing will not be accepted for payment.

- (4) Compaction. Compaction of the mixture shall begin immediately after final mixing unless approval is obtained from the Engineer. The material shall be aerated or sprinkled as necessary to provide the optimum moisture. Compaction shall begin at the bottom and shall continue until the entire depth of mixture is uniformly compacted by the method of compaction hereinafter specified as the "Ordinary Compaction" method or the "Density Control" method as indicated on the plans.

If the total thickness of the material to be treated cannot be mixed in one operation, the previously mixed material shall be bladed to a windrow just beyond the area to be treated and the next layer mixed with lime as specified in Section (3). The first layer of the treated material shall be compacted in such a manner that the treated material will not be mixed with the underlying material.

When the "Ordinary Compaction" method is indicated on the plans the following provisions shall apply:

The material shall be sprinkled and rolled as directed by the Engineer. All irregularities, depressions or weak spots which develop shall be corrected immediately by scarifying the areas affected, adding or removing material as required and reshaping and recompacting by sprinkling and rolling. The surface of the course shall be maintained in a smooth condition, from undulations and ruts, until other work is placed thereon or the work is accepted.

When the "Density Control" method of compaction is indicated on the plans the following provisions shall apply:

The course shall be sprinkled as required and compacted to the extent necessary to provide the density specified below as determined by the use of the compaction ratio method:

<u>Description</u>	<u>Density, Percent</u>
For lime treated subgrade, existing subbase or existing base that will receive	Not less than 95 except when otherwise shown on the plans.

subsequent subbase or base courses.

For lime treated existing subgrade or existing base that will receive surface courses.

Not less than 98 except when otherwise shown on the plans.

The testing will be as outlined in Test Method Tex-114-E or other approved methods. In addition to the requirements specified for density, the full depth of the material shown on the plans shall be compacted to the extent necessary to remain firm and stable under construction equipment. After each section is completed tests as necessary will be made by the Engineer. If the material fails to meet the density requirements, it shall be reworked as necessary to meet these requirements. Throughout this entire operation the shape of the course shall be maintained by the blading, and the surface upon completion shall be smooth and in conformity with the typical section shown on the plans and to the established lines and grades. Should the material, due to any reason or cause, lose the required stability, density and finish before the next course is placed or the work is accepted, it shall be reprocessed and refinished at the expense of the Contractor.

SD260.05 FINISHING, CURING AND PREPARATION FOR SURFACING. After the final layer or course of the lime treated subgrade, subbase or base has been compacted, it shall be brought to the required lines and grades in accordance with the typical sections. The completed section shall then be finished by rolling as directed with a pneumatic tire or other suitable roller sufficiently light to prevent hair cracking. The completed section shall be moist-cured for a minimum of 7 days before further courses are added or any traffic is permitted, unless otherwise directed by the Engineer. In cases where subgrade treatment or subbase sets up sufficiently to prevent objectionable damage from traffic, such layers may be opened to construction and/or access traffic, and covered by other courses, the day following compaction, unless otherwise directed by the Engineer. If the plans provide for the treated material to be sealed or covered by other courses of material, such seal or course shall be applied within 14 days after final mixing is completed, unless otherwise directed by the Engineer.

TECHNICAL SPECIFICATIONS

SECTION SD400 - EXCAVATION AND BACKFILL FOR STRUCTURES

SD400.01 DESCRIPTION: This section shall govern the excavation for construction to the lines, grades and extent indicated on the Plans of any and all structures and subsequent backfill of these structures.

SD400.02 CONSTRUCTION METHODS: Excavation shall extend a sufficient distance from walls and footings to allow for form, installation of services, and for inspection, except where concrete for walls and footing is authorized or required to be deposited directly against excavated surfaces. Where the excavation is made below the elevations indicated on the drawings or directed by the Engineer, the excavation shall be restored to the proper elevation with lean concrete or other selected material, at the expense of the Contractor.

In order that the Engineer may judge the adequacy of a proposed foundation, the Contractor, if requested, shall make soundings to determine the character of the subgrade materials. The maximum depth of such soundings will not be required to exceed five feet below the proposed footing grade. It is the intent of this provision that soundings shall be made at the time the excavation in each foundation is approximately complete.

The final elevation to which a foundation is to be constructed shall be as shown on the drawings or as raised or lowered by written order from the Engineer when such alterations are judged proper to satisfactorily comply with design requirements of the structure. Should it be found necessary to increase the depth of footings from that shown on the drawings the necessary alterations in the details or the structure shall be accomplished in a manner as directed by the Engineer, who shall have the right to substitute revised details if necessary.

When a structure is to rest on an excavated surface other than rock, special care shall be taken not to disturb the bottom of the excavation, and removal of the last material required to reach foundation final grade shall not be performed until just before the footing is to be placed.

All rocks 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 shall be cleaned out and filled with concrete at the time the footing is placed.

Water encountered in excavations shall be attended to by the Contractor who shall do all bailing, pumping, and dewatering at his expense so that foundations and all other structures may be "constructed in the dry".

Earth from excavations shall be used to backfill around structure as required. Earth from excavation not required for backfill shall be disposed on areas within reasonable proximity to the project site. Excavated material required to be used for backfill may be deposited by the Contractor in storage piles at points convenient for rehandling the material during the backfilling operations. The location of storage pile shall be subject to the approval of the Engineer.

TECHNICAL SPECIFICATIONS

SECTION SD420 – CONCRETE (Not for Pavement Structure)

SD420.01 **GENERAL:** The work covered by this section includes furnishing all materials and equipment and performing all necessary labor to do all concrete work shown on the drawings or incidental to the proper execution of the work, as herein after specified as directed by the Engineer.

SD420.02 **COMPOSITION:** Concrete shall be composed of cement, fine aggregate, coarse aggregate and water so proportioned and mixed as to produce a plastic, workable mixture in accordance with all requirements under this section and suitable to the specific conditions or placement.

SD420.03 **CLASSIFICATION:** Except where required to meet special conditions, all concrete shall be Class "A" or Class "C", meeting the requirements of 2004 TxDOT Specification Item 421 as designated on the drawings.

SD420.04 **STRENGTH:** The mixes will be designed to secure concrete having the following compressive strength at the age of 28 days, as determined by breaking standard 6-inch diameter by 12-inch height test specimens in accordance with the procedure set forth in ASTM Designations C31-69 and C39-66:

<u>Class</u>	<u>Minimum Average for any 5 consecutive cylinders</u>	<u>Minimum for any one cylinder</u>
A	3,000 lbs. per sq. in.	3,000 lbs. per sq. in.
C	3,600 lbs. per sq. in.	3,100 lbs. per sq. in.

SD420.05 **HIGH-EARLY STRENGTH CONCRETE:** High-early strength concrete made with high-early strength Portland cement or other special cements shall be used only when specifically authorized by the Engineer. The 7-day compressive strength of concrete of any class, when made with high-early strength cement shall be at least equal to the specified minimum 28-day compressive strengths for that class. All provisions of these specifications, except for cement, shall be applicable to such concrete. High-early strength cement shall be approved by the Engineer before use.

SD420.06 **CEMENT:**

- (1) Portland Cement: Portland cement shall conform to ASTM C-150 Type I or Type III, except as specified in subparagraph (2) below.
- (2) High-early Strength Portland Cement: Cement for high-early strength concrete shall conform to Federal Specification SS-C-201, or ASTM C-150, Type III.
- (3) Special Test Requirements: Cement shall be tested by a recognized testing laboratory or agency satisfactory to the Engineer. Samples to be tested shall be taken at the mill. The Contractor shall arrange and pay for the testing and shall furnish the Engineer certified copies of all test reports. No cement shall be used until notice has been given by the Engineer that the test results are satisfactory. Cement which has been stored for more than 4 months after being tested shall be retested by the Contractor at his own expense before use. Ordinarily, no cement shall be used until after it has satisfactorily passed both the 7 and 28-day tests, but in cases of emergency the Engineer may waive the 28-day tests and permit the use of cement which has satisfactorily passed the soundness and 7-day tests, provided it is the product of a quarry and mill having an established reputation for the production of high-grade cement.

SD420.07 **FINE AGGREGATE:**

- (1) Composition: Fine aggregate shall be natural sand.

(2) Quality: Fine aggregate shall consist of hard, strong, durable and uncoated particles.

(3) Grading: The grading shall conform to the following requirements:

<u>Sieve Size</u>	<u>Percent Retained by Weight</u>
3/8" Sieve	0
No. 4 Sieve	0-5
No. 8 Sieve	0-20
No. 16 Sieve	15-50
No. 30 Sieve	35-75
No. 50 Sieve	65-90
No. 100 Sieve	90-100
No. 200 Sieve	97-100

(4) Deleterious Substances: The substances designated below shall not be present in excess of the following amounts:

	<u>Percent by Weight</u>
Clay Lumps	0.5
Material removed by decantation from aggregates, not more than	4.0
Other deleterious substances such as coal, shale, coated grains and soft flaky particles	2.0

(5) Mortar Strength: Mortar specimens made 1 part cement to 3 parts of the fine aggregate shall have a compressive strength at 28 days of at least 90 percent of the strength of similar specimens made with Ottawa sand having a fineness modulus of 2.40 ± 0.10 .

(6) Tests: When given ASTM C-40 test for organic impurities the color shall not be darker than the standard. Mineral filler may be added to sand if approved by the Engineer.

SD420.08 COARSE AGGREGATE:

(1) Composition: Coarse aggregate shall be gravel or crushed stone suitably prepared.

(2) Quality: Coarse aggregate shall consist of hard, tough and durable particles free from adherent coating. It shall contain no vegetable matter, nor soft, friable, thin or elongated particles in quantities considered deleterious by the Engineer. The substance designated shall not be present in excess of the following amount by weight:

Deleterious substances including friable, thin, elongated or laminated pieces	3.0%
Soft fragments	3.0%
Clay lumps	1/4%
Removed by decantation	1%
The sum of all deleterious ingredients exclusive of that removed by decantation, shall not exceed	5%

When the material removed by decantation consists essentially of crusher dirt the maximum amount permitted may be raised to 1 1/2%. Aggregate which has disintegrated or weathered badly under exposure conditions similar to these which will be encountered by the work under consideration shall not be used. When crushed stone is used the crusher shall be equipped with a screening system which will entirely separate the dust from the stone and convey it to a separate bin.

- (3) Size: Coarse aggregate shall be well graded from fine to coarse so that concrete of the required workability, density and strength can be made without the use of an excess amount of sand, water or cement. When tested by approved methods, the coarse aggregate shall conform to the following grading requirements:

<u>Concrete</u>	<u>Percent passing on each Sieve</u>							
	2-1/2"	2"	1-1/2"	1"	3/4"	1/2"	3/8"	No. 4 No. 8
Class A			100	95-100		25-60		0-10 0-5
Class A (extruded curbs)						100	95-100	20-65 0-10
Class C				100		90-100	40-70	0-15 0-5

- (4) Tests: Where the concrete in the finished work will be exposed to contact with aggressive soils or waters, or other destructive agents as determined by the Engineer, the coarse aggregate shall be subjected to the sodium sulphate accelerated soundness test in accordance with ASTM Designation C 88 and failure to pass such test shall be cause for rejection of the aggregate. However, aggregate failing to pass this test may be used with the approval of the Engineer, provided it has given satisfactory service for a period of not less than five (5) years under exposure conditions similar to those to which it will be subjected in the proposed work.

SD420.09 WATER: The water used in mixing concrete shall be fresh, clean and free from injurious amounts of oil, acid, alkali or organic matter.

SD420.10 STORAGE:

- (1) Cement: Immediately upon receipt, at the site of the work, cement shall be stored in a thoroughly dry, weather tight, and properly ventilated building or barge, with adequate provisions for the prevention of the absorption of moisture. Storage shall be such as to permit easy access for inspection and definite identification of each shipment.
- (2) Aggregate: The fine aggregate and each size of the coarse aggregate shall be stored separately and in such manner as to be free to drain and to avoid the inclusion of any foreign material in the concrete. Stock piles of coarse aggregates shall be built in horizontal layers to avoid segregation. Aggregates shall be protected from freezing and the inclusion of frost, and heating of aggregates may be required as directed by the Engineer when concreting is performed in cold weather.

SD420.11 PROPORTIONING:

- (1) Control: The exact proportions of all material entering into the concrete shall be as directed by the Engineer. The Contractor shall provide all equipment necessary positively to determine and control the actual amounts of all materials entering the concrete. The proportions will be changed whenever in the opinion of the Engineer, such change becomes necessary to obtain the specified strength and the desired durability, density, uniformity, and workability, and the Contractor will not be compensated because of such change except that he will be compensated for an increase in the specified minimum unit cement content as stated in subparagraph (3) below, when such increase is authorized by the Engineer.
- (2) Measurement: All materials shall be measured by weight or volume as directed by the Engineer. One (1) bag of cement will be considered as 94 pounds in weight, or one (1) cubic foot loose, in volume, and one (1) gallon of water as 8.33 pounds.
- (3) Maximum water / cement ratio: Each cubic yard of concrete shall contain no more than the following maximum water / cement ratios by weight:

Class "A"	-	0.60
Class "C"	-	0.45

(4) Water Content:

- (a) An increase in the maximum water content to improve workability will not be permitted unless comparative tests under job conditions show conclusively that such increase in water content will not result in a decrease in concrete strength and durability and provided further that such increase does not exceed one (1) gallon per cubic yard.

(5) Aggregate Content: The total volume of aggregates to be used in each cubic yard of concrete shall be than necessary to produce a dense mixture of the required workability as determined by the Engineer.

(6) Admixtures: Admixtures may be used only with the approval of the Engineer.

SD420.12 MIXING AND PLACING:

(1) Equipment: The Contractor shall operate one or more approved batch-type mixing plants. The rating capacity of any individual mixer shall be one-half (1/2) cubic yard or more. The mixing plant or plants shall be provided with adequate equipment and facilities for accurate measurement and control of all materials and water for readily changing the proportion to conform to the varying conditions of the work, in order to produce concrete of the required uniform strength and workability. The plant or plants shall include provisions to facilitate the inspection of all operations at all times and shall be subject to the approval of the Engineer.

(2) Ready-Mixed Concrete: At the option of the Contractor, ready-mixed concrete may be used in lieu of concrete mixed at the job. All mixing requirements specified herein for concrete mixed at the site shall be enforced and the Engineer shall have free access to the mixing plant at all times.

(3) Time: The minimum time for mixing each batch, after all materials are in the mixer, shall be one and one-half (1 1/2) minutes. The mixer shall revolve a minimum of twelve (12) revolutions after all materials have been placed herein, and at a uniform speed. Neither the speed nor the volume capacity of the mixer shall exceed those recommended by the manufacturer. Excessive overmixing, requiring additions of water to preserve the required consistency, will not be permitted.

(4) Conveying: Concrete shall be conveyed from mixer to forms as rapidly as practicable and by methods which will prevent segregation or loss in ingredients. It shall be deposited as nearly as practical in its final position. Chutes used shall be such that the concrete slides in them and does not flow. Chutes, if permitted, shall have a slope of less than 1 on 2. Where a vertical drop greater than five (5) feet is necessary, placement shall be through elephant trunks or similar devices to prevent segregation.

(5) Placing: Concrete shall be placed before initial set has occurred, and in no event after it has contained its water content for more than thirty (30) minutes. Unless otherwise specified, all concrete shall be placed upon clean, damp surfaces, free from running water, or upon properly consolidated fills, but never upon soft mud or dry porous earth. The concrete shall be compacted and worked in an approved manner into all corners and angles of the forms and around reinforcement and embedded fixtures in such a manner as to prevent segregation of the coarse aggregate. Construction of forms for the lifts of vertical walls shall be such as to make all parts of the walls easily accessible for the placement, spading and consolidation of the concrete as specified herein.

(6) Vibration: All concrete shall be placed with the aid of mechanical vibrating equipment as approved by the Engineer. Vibration shall be transmitted directly to the concrete, and in no case shall it be transmitted through the forms. The duration of vibration at any location in the forms shall be held to the minimum necessary to produce thorough compaction.

- (7) Finish: All top surfaces, other than slabs, not covered by forms and which are not to be covered by additional concrete of fill shall receive a wood float finish without additional mortar. Care shall be taken that no excess water is present when this finish is made. Other surfaces shall be brought to finish elevations and left true and regular.
- (8) Construction Joints: Construction joints shall be formed as indicated in the drawings or as approved or directed by the Engineer. Where indicated or required, dowel rods shall be used. All concrete at the joint shall have been in place not less than twelve (12) hours, and longer if so directed by the Engineer, before concrete resting thereon is placed. Before placing is resumed or commenced all excessive water and laitance shall be removed and the concrete shall be cut away, where necessary, to insure a strong dense concrete at the joint. In order to secure adequate bond the surface of the concrete already in place shall be cleaned and roughened and shall then be spread with a 1/2 inch layer of mortar of the same cement sand ratio as is used in the concrete, immediately before the new concrete is deposited.
- (9) Existing Concrete Structures: In those instances where existing concrete structures are modified or extended, the concrete used in the modification shall contain an approved non-shrinkage additive. Concrete surfaces which will be in contact with new construction shall be roughened and cleaned prior to placing of the new concrete. These surfaces shall be wetted and painted with a thin coat of neat cement mortar, or cement epoxy, at the direction of the Engineer, immediately in advance of placing of concrete.

SD420.13 CURING AND PROTECTING:

- (1) Curing: All concrete shall be kept wet for a period of seven (7) days unless otherwise specifically prescribed by the Engineer, by covering with water, an approved water-saturated covering, or other approved method which will keep all surfaces continuously wet.
- (2) Membrane Curing: When, in the opinion of the Engineer, satisfactory results can be obtained by membrane curing, permission will be given to the Contractor to substitute an approved curing compound for the water curing specified. If a curing compound is used it shall be applied in two (2) coats and it shall be of such composition that it will adhere to fresh, damp concrete and form a thoroughly bonded, dense, continuous, water-tight membrane which will not run or sag and will dry satisfactorily within three hours after application. The coverage shall not exceed 300 square feet per gallon per coat and shall be applied in a uniform coat with approved pressure-spraying equipment. The compound used shall contain at least 30 percent of non-volatile solids. Samples consisting of at least one gallon, of any compound proposed for use shall be sent to a laboratory designated by the Engineer, if required, at least 30 days previous to the date upon which it is proposed to use the material. If concrete has become dry, it shall be thoroughly moistened with water, immediately previous to application of the compound. When curing compound is used on surfaces to which new concrete is to be bonded, any compound film remaining at the expiration of the curing period shall be carefully removed by sand blasting or the adequate use of steel wire brooms or brushes.
- (3) Protection from the Sun: All concrete shall be adequately protected from injurious action of the sun in a manner satisfactory to the Engineer.
- (4) Protection in Cold and Freezing Weather: In cold weather concrete shall be mixed and placed only when the temperature is at least 40 deg. F and rising, unless permission for placement of concrete is obtained from the Engineer, in which event all materials shall be heated in a manner approved by the Engineer. In freezing weather, suitable means shall be provided for maintaining the concrete at a temperature of at least 50 deg. F for not less than 72 hours after placing, or until the concrete has thoroughly hardened. The methods of heating the materials and protecting the concrete shall be subject to approval of the Engineer. Salt, chemicals or other foreign materials shall not be mixed with the concrete for the purpose of preventing freezing.

SD420.14 FORMS:

- (1) Materials: Forms shall be of wood, steel or other approved material. All exposed surfaces shall be constructed with forms lined with plyboard masonite, steel or other smooth material specifically approved. Surfaces or not exposed may be formed with tongue-and-groove lumber or lined forms as mentioned above. The type, size, shape, quality and strength of all materials of which the forms are made shall be subject to the approval of the Engineer.
- (2) Construction: Forms shall be built true to line and grade and shall be mortar-tight and sufficiently rigid to prevent displacement or sagging between supports. Responsibility for their adequacy shall rest with the Contractor. Form surfaces shall be smooth and free from Form surfaces shall be smooth and free from irregularities, dents, sags, or holes when used for permanently exposed faces. Bolts and rods used for internal ties shall be so arranged that, when the forms are removed, all metal will be not less than 2 inches from any concrete surface. Wire ties will not be permitted where the concrete surface will be exposed to weathering and discoloration will be objectionable. All forms will be so constructed that they can be removed without hammering or prying against the concrete. Unless otherwise indicated, suitable moulding shall be placed to bevel or round exposed edges, at expansion joints and any other points as may be required by the Engineer.
- (3) Coating: Forms, other than those having absorptive form lining for exposed surfaces shall be coated with a non-staining mineral oil which shall be applied shortly before the concrete is placed. Forms for unexposed surfaces may be thoroughly wetted in lieu of oiling, immediately before the placing of concrete except that in freezing weather oil shall be used.
- (4) Removal: Forms shall not be removed without the approval of the Engineer and all removal shall be accomplished in such manner as will prevent injury to the concrete. Forms shall not be removed before the expiration of the minimum number of days indicated below, except when specifically authorized by the Engineer. When, in the opinion of the Engineer, conditions on the work are such as to justify it, forms may be required to remain in place for longer or shorter periods.

Beams and slabs	10 days
Columns and piers	7 days
Walls and vertical faces	2 days
- (5) Form Lining for Buildings: In addition to the requirements for work specified above, the forms for walls of buildings which will be visible in the finished structure shall be lined with pressed wood sheets, absorptive form lining or approved equal. Such lining shall be applied directly to the sheeting. Forms for window and door jams, and their flat or arched soffits shall be lined also and the corner intersections chamfered. Jointing of the lining shall be neat and close and no patch pieces, cleats, nor blocking will be permitted. Overrun of lining shall be trimmed to secure proper fit to adjoining surfaces. Lining with bruises, imprints, or hammer marks shall not be used.

SD420.15 REINFORCEMENT:

- (1) General: The Contractor shall furnish and install all reinforcement, including rods, fabric and structural shapes, as indicated on the plans or otherwise required. All bar reinforcement shall be open hearth new billet steel of structural, intermediate, or hard grade or shall be rail concrete reinforcement. Billet steel shall conform to applicable ASTM Designation A615.

Rail Steel reinforcement shall conform to applicable ASTM Designation A-616 (bars produced by the piling method not acceptable) or the reinforcement may conform to the requirements of Federal Specification QQ-B71, and Amendment 1, dated December 1940. Unless otherwise indicated, all bars shall be Type B (deformed), Grade 2, 3, 4, or 5 wire mesh. All welded wire fabric reinforcement shall conform to ASTM Designation A-185-68. All reinforcement shall be

when surrounding concrete is placed, entirely free from rust, scale, grease or other coating which might destroy or reduce its bond with concrete. Shop drawings, lists and placing details shall be furnished by the Contractor when required.

- (2) Minimum Spacing of Rods: The clear distance between parallel rods shall be not less than 1 1/2 times the diameter of round rods, or twice the side dimensions of square rods unless specifically authorized, shall in no case be less than one inch. Splices may be tied together if 45 Diameters lap is provided.
- (3) Protective Covering:
 - (a) All main reinforcement in sewer conduits, culverts, wall and column footings and similar structures, embedded in earth or submerged in water shall be placed not less than 3 inches from any concrete surface, unless otherwise set forth.
 - (b) All main reinforcement in beams, slabs, and wall or culverts and bridges, and similar structures of comparatively thin sections, exposed to the weather shall be placed not less than 2 inches from any concrete surface, unless otherwise set forth.
 - (c) All main reinforcement in walls and slabs of buildings exposed to the weather and in fire-resistant construction, shall be placed not less than one inch from the surface in walls and slabs, 1 1/2" in floor beams, and 2" in girders and columns. In interior flat slab construction, the minimum cover may be reduced to 3/4 inch. For interior work where fire hazard does not exist, the main reinforcement shall be placed not less than 3/4 inch from the surface in walls and slabs, one inch on floor beams and 1 1/2 inches in girders and columns.
 - (d) The covering of stirrups, spacer-rods, and similar secondary reinforcement may be reduced by the diameter of such rods. The above dimensions shall be measured from the face of the reinforcement to the face of the forms.
- (4) Splicing: Where splices in reinforcement, in addition to those indicated, are necessary, there shall be sufficient lap to transfer the stress by bond, as may be directed. Rods shall be lapped not less than 40 diameters and splices shall be staggered. The lapped end of rods shall be separated sufficiently or connected properly to develop the full strength of the rod. Adjacent shoots of mesh reinforcement shall be spliced by lapping not less than six inches, the lapped ends being securely wired together.
- (5) Supports: All reinforcement shall be secured in place true to the lines and grades indicated, by the use of metal or concrete supports, spacers or ties as approved by the Engineer. Such supports shall be of sufficient strength to maintain the reinforcement in place throughout the concreting operation, and shall be used in such a manner that they will not be exposed on the face of, nor in any way discolor or be noticeable in the surface of the finished concrete. The costs of furnishing and placing all supports, spacers, ties and/or other devices required shall be included in the contract prices for the various types of reinforcement specified.
- (6) Protection for Future Use: Exposed reinforcement intended for bonding with future work shall be protected from corrosion by heavy wrapping of burlap saturated with bituminous material.

SD420.16 **EMBEDDED ITEMS:** Before placing concrete, care shall be taken to determine that any embedded metal or wood parts are firmly and securely fastened in place as indicated. They shall be thoroughly clean and free from coating, rust, scale, oil, or any foreign matter. The embedding of wood in concrete shall be avoided whenever possible, metal being used instead. If wood is allowed, it shall be thoroughly wetted before the concrete is placed.

SD420.17 EXPANSION AND CONTRACTION JOINTS: Expansion and contraction joints shall be constructed at such points and of such dimensions as may be indicated on the drawings or required by the Engineer. The method and materials used shall be subject to the approval of the Engineer. Unless otherwise indicated on the drawings, or required by the Engineer, expansion joints shall be made by the use of an approved premoulded mastic expansion joint fill or 1/2 inch in thickness and of width as shown on the drawings.

- (1) Asphalt Mastic Strips (preformed) shall be composed of approximately 75% asphalt, 15% fibre and 10% mineral matter.
- (2) Mastic for Poured Joints shall be composed of refined asphaltic pyrobitumen and natural asphalt bitumens, with or without suitable plasticisers, and volatile solvent, contain at least 2.0% inert filler and show no tendency to separate or as shown on the drawings.
- (3) Waterstops for construction joints shall consist of a durable, elastic, cured rubber compound or polyvinyl chloride capable of effectively sealing joints in concrete against the infiltration of moisture, such as "Servicised" or equal, all subject to the approval of the Engineer.

SD420.18 SURFACE FINISH: All exposed concrete surfaces, except floors and roof decks shall receive a first rubbing to remove all blemishes. Where necessary, a second rubbing with a finer stone will be required.

TECHNICAL SPECIFICATIONS
SECTION SD464 – STORM DRAINAGE
(REINFORCED CONCRETE PIPE)

SD464.1 GENERAL

This section shall govern reinforced concrete culvert, storm drain, pipe and precast reinforced concrete box sections.

SD464.2 REINFORCED CONCRETE CULVERT, STORM DRAIN, AND PIPE

- A. General: Materials and work shall be in accordance with the Texas Department of Transportation Standard Specifications for Construction of Highways, Streets, and Bridges, 2004 edition.

Unless otherwise shown on the plans, all culverts shall be a minimum of 18" diameter Class III tongue and groove joint RCP conforming to the referenced specification.

Joints shall be wrapped with filter fabric for a distance of 12" on each side of the joint. Joint shall be sealed with RamNek or approved joint sealer.

Reinforced concrete pipe shall conform to the current specifications for Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe, ASTM Designation C76 (C 76M) of the class as designed on the plans subject to the following modifications:

All pipe shall be machine-made by a process which shall provide for uniform placement of zero slump concrete in the form and compaction by mechanical devices which shall assure a dense concrete in the finished product.

Sizes larger than 60" diameter shall be manufactured, using two lines of circular reinforcement.

Where Class III pipe of sizes larger than 60" (1500 mm) diameter are specified, the manufacturer may at its option furnish pipe manufactured with either Wall "B" or Wall "C": minimum thicknesses and the applicable minimum steel area as listed for circular cages in Table II of Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe, ASTM Designation C 76 (C 76M), provided test strength requirements for Class III pipe are satisfactorily met.

- B. Joints: Pipe to be placed along curves shall consist of whatever pipe joint lengths or beveled end joints of pipe, or combination thereof that are required to place the pipe on the designated centerline curve with no more than one-half of the tongue length of the pipe exposed from its fully closed joint position. The amount of bevel, "drop" or shortening of the pipe joint length by the bevel shall not exceed the amount shown below for the pipe sizes indicated.

Pipe Diameter	Maximum Amount of Bevel or Drop
From 12" to 27" inclusive	2"
From 30" to 51" inclusive	3"
From 54" to 84" inclusive	4"

Where pipe joints are not fully closed, special care shall be taken to fill completely, on both inside and outside, the entire annular space at the joint with cement mortar firmly caulked or pressed and compacted to form a dense, tight joint. Unless otherwise specified on the plans or in the special provisions, pipe joints shall be made with cold applied preformed plastic gaskets.

The gasket sealing the joint shall be produced from blends of refined hydrocarbon resins and plasticizing compounds reinforced with inert mineral filler and shall contain no solvents, irritating fumes nor obnoxious odors.

- C. Tests: The acceptability of the pipe in all diameters and classes shall be determined by the results of the three-edge bearing test for the load to produce a 0.01 inch crack; but such material tests as are required in Reinforced concrete culvert, Storm Drain, and Sewer Pipe, ASTM Designation C 76 (C 76M), by absorption tests on selected samples from the wall of the pipe; and by inspection of the finished pipe to determine its conformance with the design prescribed in these specifications and its freedom from defects.

Test specimens shall be selected on the basis of not more than 0.5 percent of the number of pipe of each size included in the order, except that in no case fewer than two specimens shall be furnished. Pipes that have been tested only to the formation of a 0.01 inch crack and that meet the 0.01 inch test load requirements shall be accepted for use. Tested pipe accepted for use shall be marked "TEST" or otherwise appropriately identified. Should any of the test specimens fail to meet the test requirements, two consecutive joints in the same mix series shall be tested and results shall be a basis of accepting or rejecting the pipe of the series.

All classes or strengths of reinforced concrete pipe shall be tested in accordance with the current specifications for concrete Pipe, Sections, or Tile, ASTM Designation C 497 (C497M).

- D. Rejection: Reinforced concrete pipe may be rejected for failure to meet any of the requirements of this specification.

SD464.3 PRECAST REINFORCED CONCRETE BOX SECTIONS

Precast reinforced concrete box sections shall conform to the current specifications for Precast reinforced concrete box Sections for culverts, Storm Drains, and Sewers, ASTM Designation C 1433, as specified on the Plans. Two-piece box culverts, if approved by the Owner, must meet or exceed the load requirements of ASTM C 1433.

SD464.4 STORM DRAIN CONDUIT INSTALLATION

- A. Description: This item shall govern and control the furnishing and placing of culvert pipe and/or conduits or storm drainage lines, including pipe fittings, connecting drain line to curb inlets, all joints, all connections to new or existing pipe or headwalls, manholes, catch basins, etc., to the lines and grades shown on the plans. All pipe and fittings shall be of the types, shapes, classes, sizes and dimensions as shown thereon; and as may be required to complete the work as shown on the plans.

SD464.5 REINFORCED CONCRETE CULVERT PIPE

- A. General: This item shall govern and control the furnishing and placing of reinforced concrete culvert pipe.

- B. Materials:

1. General. Except as modified herein, materials, manufacture and design of pipe shall conform to ASTM Designation C 76 for circular Pipe or ASTM Designation C 506 for Arch Pipe. All pipe shall be machine made or cast by a process which shall provide for uniform placement of the concrete in the form and compaction by mechanical devices which shall assure a dense concrete. Concrete shall be mixed in a central batch plant or other approved batching facility from which the quality and uniformity of the concrete can be assured. Transit mixed concrete shall not be acceptable for use in precast concrete pipe.

2. Design. The pipe shall be Class III unless otherwise indicated on the plans. The shell thickness, the amount of circumferential reinforcement, and the strength of the pipe shall conform to the requirements of ASTM Designation C 76 for Circular Pipe or C 506 for Arch Pipe, except as modified as follows:
- (a) All pipe shall be machine made by a process which shall provide for uniform placement of zero slump concrete in the form and compaction by a mechanical device which shall assure a dense concrete in the finish.
 - (b) Sizes larger than 60-inch diameter shall be manufactured using two lines of circular reinforcement.
 - (c) When Class III pipe of sizes larger than 60-inch diameter is specified on plans, minimum "Wall B" shell thickness shall apply, and the minimum steel areas as listed for two circular cages under Table II may be submitted at the manufacturer's option, for those listed in Table III, provided test strength requirements for Class III pipe are satisfactorily met.

3. Physical Test Requirements. The acceptability of the pipe shall be determined by the results of the three-edge-bearing test for the load to produce the one-hundredth (0.01) inch crack and the ultimate load; by such material tests as are required in ASTM Designation C 76 or C 506; by absorption tests on selected samples from the wall of the pipe; and by inspection of the finished pipe to determine its conformance with the design prescribed in these specifications and its freedom from defects. Three-edge-bearing tests for the one-hundredth inch crack only shall be performed on eight-tenths percent of the pipe joints. Three-edge-bearing tests for both the one-hundredth inch crack and the ultimate load shall be performed on two-tenths percent of the pipe joints.

Pipe which has been tested only to the formation of a one-hundredth inch crack and meet the requirements for this test shall be accepted for use. Tested pipe accepted for use shall be marked "TEST" or otherwise appropriately identified so that such may be used at the end of the structure or other location not subject to impact loads. The methods of testing shall conform to ASTM Designation C 76 or C 506.

As an alternate to the three-edge-bearing test, concrete pipe 60 inches in diameter and over may be accepted, at the option of the manufacturer, on the basis of material tests and inspection of the completed product. Acceptability of pipe on this basis shall be determined by the results of material tests as required in ASTM Designation C 76 or C 506; by crushing tests on cores taken from the barrel of the completed and cured pipe; by absorption tests on samples from the wall of the pipe; and by inspection of the finished pipe, including amount and placement of reinforcement, to determine its conformance with the design prescribed in these specifications and its freedom from defects.

The manufacturer shall furnish facilities and personnel for taking the cores from the pipe barrel and for determining the compressive strength of the samples. When the cores cut from a section of pipe successfully meet the strength requirement, the core-holes shall be plugged and sealed by the manufacturer in a manner such that the pipe section shall meet all of the test requirements of ASTM Designation C 76 or C 506. Pipe sections, so sealed, shall be accepted for use.

4. Sizes and Permissible Variations.

- (a) Variations. Variations in diameter, size, shape, wall thickness, reinforcement, placement of reinforcement, laying length and the permissible underrun of length

shall be in accordance with the applicable ASTM Specification for each type of pipe as referred to previously.

- (b) Rubber Gasket Pipe Joints. Where rubber gasket pipe joints are to be used, the design of joints and permissible variations in dimensions shall be in accordance with ASTM Designation C 443, Section 5 and 6.

- 5. Workmanship and Finish. Pipe shall be substantially free from fractures, large or deep cracks and surface roughness. The ends of the pipe shall be normal to the walls and centerline of the pipe within the limits of variations allowed as stated previously.
- 6. Curing. Pipe shall be cured in accordance with the applicable ASTM Specification for each type of pipe as referred to above.
- 7. Pipe Marking. The following information shall be clearly marked on each section of pipe:
 - (a) the class of pipe.
 - (b) the date of manufacture
 - (c) the name of trademark of the manufacturer.
 - (d) where elliptical reinforcement is used, one end of each section or joint of pipe shall be clearly marked during the process of manufacture or immediately thereafter on the inside and the outside of opposite walls to show the location of the "top" or "bottom" of the pipe as it should be installed. Markings shall be indented on the pipe section or painted thereon with waterproof paint.

"Top" and "bottom" shall not be required on pipe having such an external shape that the correct position of the top and bottom is obvious.

- 8. Rejection of Pipe. Pipe shall be subject to rejection on account of failure to conform to any of the specification requirements.

All rejected pipe shall be plainly marked by the engineer and shall be replaced by the Contractor with pipe which meet the requirements of these specifications. Such rejected pipe shall be removed immediately from the site of the work.

- 9. Jointing Materials. Unless otherwise specified on the plans or in the special provisions, pipe joints shall be made with cold applied preformed plastic gaskets.

The gasket sealing the joint shall be produced from blends of refined hydrocarbon resins and plasticizing compounds reinforced with inert mineral filler and shall contain no solvents, irritating fumes, nor obnoxious odors. The gasket joint sealer shall not depend on oxidizing, evaporating nor chemical action for its adhesive or cohesive strength; and shall be supplied in extruded rope-form of suitable cross section. The size of the plastic gasket joint sealer shall be in accordance with the manufacturer's recommendations and sufficient to obtain the squeeze out as described under Part III, "Construction Methods". The gasket joint sealer shall be protected by a suitable removable two-piece wrapper. The two-piece wrapper shall be so designed that one-half may be removed longitudinally without disturbing the other half to facilitate application as noted below.

The chemical composition of the gasket joint sealing compound as shipped shall meet the following requirements when tested in accordance with the test methods shown.

<u>Composition</u>	<u>Test Method</u>	<u>Analysis</u>
Bitumen (petroleum plastic content), % by weight	ASTM Designation D4	50-70
Ash-Inert Mineral Matter, % by weight	AASHTO Designation T-111	30-50
Volatile Matter at 325° F, % by weight	ASTM Designation D6	2.0 Max.

The gasket joint sealing compound when immersed for 30 days at ambient room temperature separately in five percent solution of caustic potash, a mixture of five percent hydrochloric acid, a five percent solution of sulfuric acid, and a saturated H₂S solution, shall show no visible deterioration.

The physical properties of the gasket joint sealing compound as shipped shall meet the requirements shown in the following table:

<u>Property</u>	<u>Test Method</u>	<u>Typical Analysis</u>
Specific Gravity at 77° F	ASTM D 71	1.20 - 1.35
Ductility @ 77° F (cm), min.	ASTM D 113	5.0
Softening Point °F	ASTM D 36	320° F, min.
Penetration		
32° F. (300g) 60 sec., min.	ASTM D 217	75
77° F. (150g) 5 sec.	ASTM D 217	50 -120
115° F (150g) 5 sec, max.	ASTM D 217	150
Flashpoint C.O.C., °F.	ASTM D 92	600
Fire Point C.O.C., °F.	ASTM D 92	625.

C. Construction Methods:

1. Excavation and Embedment. All excavation and pipe embedment shall conform to the requirements of Section UC2.
2. Installation of Pipe. The Contractor shall furnish, at his own expense, and place in position as directed by the Engineer all necessary batter boards, string lines, plummets, graduated poles, etc. required in establishing and maintaining the lines and grades. The batter boards and all location stakes must be protected from possible damage or change of location.
 - (a) Trench Location. All pipe and fittings shall be laid and jointed in a dry trench.
 - (b) Pipe Laying. Unless otherwise authorized by the Engineer, the laying of the pipe on the prepared foundation shall be started at the outlet or downstream end with the spigot or tongue end of the pipe joint pointing downstream. Laying shall proceed toward the inlet or upstream end with each abutting section of pipe properly matched, true to the established lines and grades. Approved facilities shall be provided for hoisting and lowering the sections of pipe or the sides of the trench. The ends of the pipe shall be carefully cleaned before the pipe is placed in the trench. As each length of the pipe is laid, the open end shall be protected to prevent the entrance of earth or bedding material. The pipe shall be fitted and matched so that when laid in the prepared bedding, it shall form a smooth, uniform conduit. When elliptical pipe with circular reinforcing, or circular pipe with elliptical reinforcing, is used, the pipe shall be laid in the trench in such a position that the markings "top" or "bottom" shall not be more than five degrees from the vertical plane through the longitudinal axis of the pipe.
3. Jointing. Joints using cold applied preformed plastic gaskets shall be made as follows:

A suitable primer of the type recommended by the manufacturer of the gasket joint sealer shall be brush applied to the tongue-and-groove joint surfaces and the end surfaces and allowed to dry and harden. No primer shall be applied over mud, sand or dirt or sharp cement protrusions. The surface to be primed must be clean and dry when primer is applied.

Before laying the pipe in the trench, attach the plastic gasket sealer around the tapered tongue or tapered groove near the shoulder or hub of each pipe joint. Remove the paper wrapper from one side only of the two-piece wrapper on the gasket and press it firmly to the clean, dry pipe-joint surface. The outside wrapper is not to be removed until immediately before pushing the pipe into its final position.

Then the tongue is correctly aligned with the flare of the groove, remove the outside wrapper on the gasket and pull or push the pipe home with sufficient force and power (backhoe shovel, chain hoist, ratchet hoist or winch) to cause the evidence of squeeze-out of the gasket material on the inside or outside around the complete pipe joint circumference. Remove any joint material that pushed out into the interior of the pipe that would tend to obstruct the flow. (Pipe shall be pulled home in a straight line with all parts of the pipe on line and grade at all times.)

Pipe damaged by this operation shall be subject to review by the Owner and, if necessary, a change in the jointing procedure may be required. Backfilling of pipe laid with plastic gasket joints may proceed as soon as the joint has been inspected and approved by the engineer. Special precautions shall be taken in placing and compacting backfill to avoid damage to the joints.

When the atmospheric temperature is below 60 deg F., plastic joint seal gaskets shall either be stored in an area warmed to above 70 deg F., or artificially warmed to this temperature in a manner satisfactory to the engineer. Gaskets shall then be applied to pipe joints immediately prior to placing the pipe in the trench, followed by connection to previously laid pipe.

4. Backfill. All backfill of pipe trenches shall be in accordance with Section UC2.

5. Fittings for Concrete Pipe.

- (a) Poured Concrete Pipe Collars. At all changes in pipe sizes in the conduit line, except at manholes, a pipe collar, as shown in detail on the plans, shall be provided. The locations at which such collars are to be provided are shown on the plan-profile sheets, and their costs are to be included in the price bid for furnishing and installing reinforced concrete pipe. No extra payment shall be made for the installation of concrete pipe collars as shown on the plan-profile sheets.
- (b) Shop and Field Fabricated Wyes, Tees, Crosses and Bends. Shop or field fabricated wyes, tees, crosses or bends shall be furnished and installed where indicated on the plans or required by the Engineer. Fittings for pipe, the largest size of which is less than 24 inches in diameter, shall be shop fabricated. Fittings for larger pipe, which is 24 inches in diameter and increasingly larger, may be field fabricated. Care shall be taken in the fabrication that the concrete walls of the pipe are broken back only enough to provide the required finished opening. The reinforcing mesh or bars in each pipe shall be joined by bending, twisting or spot welding, which shall provide a rigid connection. Concrete or mortar (as specified in this Section) shall be wiped over the reinforcing wires connecting the two-pipe joints, compacted by light blows, shaped to the contour of the pipe barrels, lightly brushed for finish and cured under wet burlap.

- (c) Poured Concrete Pipe Plugs. When conduit lines terminate at locations which do not include connection to drainage structures, the end of the pipe shall be plugged with a field-cast unit as shown on the plan-profile sheets; and the costs thereof are to be included in the price bid to furnish and install reinforced concrete pipe. No extra payment shall be made for the installation of concrete pipe plugs as shown on the plan-profile sheets.

SD464.6 STORM SEWER APPURTENANCES

- A. Description: This section shall govern for the construction of all miscellaneous storm sewer structures such as junctions, transitions, special concrete manholes, creek crossings, river crossings, utility supports; and for the construction of appurtenances such as manholes, cleanouts, deep-cut connections, wyes, stoppers and bulkheads, fittings and such other miscellaneous structure or appurtenances which may be shown on the plans.
- B. Materials: All materials used in the construction of work specified in this section shall conform to the applicable sections of these specifications.

Unless otherwise specified, all concrete shall have an average compressive strength of 28 days equal to or greater than 3000 psi.

- C. Construction Requirements: The construction of reinforced concrete storm sewer structures including junctions, transitions, special concrete manholes, vaults and such other similar structures as may be covered by this specification shall be performed in accordance with the requirements of these specifications.

Excavation shall be made to the required depth and of sufficient width to construct the work to grade, form and dimensions. All soft and yielding materials shall be removed and replaced with acceptable materials. The subgrade shall be moistened to a minimum depth of two inches before placing of the concrete. All formed surfaces of the concrete exposed to public view shall be given a rubbed finish. All other formed surfaces shall be given the "ordinary horizontal finish". Corrosion protection shall be applied as may be called for on the plans or the proposal and shall be measured for payment and paid for at the contract price as set out in the invitation for bids.

SD464.7 STORM SEWER MANHOLES

Storm sewer manholes shall be fabricated in different configurations to meet with specific needs required in the storm sewer system.

- A. General Construction: Unless specified otherwise, standard manholes shall be constructed as monolithic concrete structures or as a precast reinforced concrete structure.
 - 1. Standard Manhole. Standard Manholes shall meet the following requirements:
 - (a) Standard manholes shall be water-containment structures. Therefore, when precast reinforced concrete manhole sections are used, the precast sections shall be of the bell-and-spigot design incorporating trapped O-ring gaskets, or tongue-and-groove with premolded plastic gasket joint. Prior to placing each section of manhole riser or cone, the bells and spigots to be joined shall be thoroughly cleaned, the O-ring gasket properly placed, lubricated and the joint pushed home.
 - (b) In precast manhole construction, combinations of joint lengths shall be selected to minimize the number of individual segments required to provide the total depth

specified. Long joints shall be used in the bottom with the shorter segments utilized for top adjustments.

- (c) Poured-in-place manholes may be used in lieu of precast manholes. The base, wall and cone shall be poured and vibrated to assure a monolithic structure free from infiltration.
 - (d) Standard manhole shall be four feet inside diameter and shall be constructed to the proper elevation as required and to a depth of at least six feet above the invert of the sewer main(s) or lateral(s) in the system.
- 2. Shallow Manhole. Shallow manholes shall be constructed for specific locations in a storm sewer system for depth less than six feet when specifically designated on the project plans, or when so directed by the Owner. Pipe cradling, formed invert, etc., shall be constructed as described under "Standard Manhole" preceding.
 - 3. Drop Manhole. Drop manholes shall be constructed in accordance with the detail provided in the project documents. The basic construction for drop manholes shall be identical to that described for standard manholes preceding with special provisions incorporated to provide drop piping and appurtenance as detailed.
 - 4. Type "S" Manhole. Type "S" manholes shall be constructed in accordance with the plans and these specifications for materials and construction.

B. Specified Requirements: Specified requirements include the following:

- 1. The first full joint of pipe extending from the manhole shall be cradled in concrete to the pipe joint in the same pour as that for the manhole base slab as shown on the plans.
- 2. For all manhole installations in streets, the manhole covers shall be provided with picks slots in lieu of pick holes. If the rim elevation above the surrounding ground is prohibited by land use or other reasons, a cover with a pick slot as described for used in street locations shall be used.

C. Test Requirements: Each manhole or water-containment vault structure shall be required to contain water from rim elevation with a range exfiltration as specified below:

Allowable Leakage = 0.008 gal/sq.ft. opening/ft. depth/Hr.

TECHNICAL SPECIFICATIONS

SECTION SD471 - FRAMES, GRATES, RINGS, AND COVERS

SD471.01 DESCRIPTION: This item shall govern for furnishing and installing frames, grates, rings and covers for inlets, manholes and other structures in accordance with the plans and this item.

SD471.02 MATERIALS: Welded steel grates and frames shall conform to the member size, dimensions and details shown on the plans and shall be welded into an assembly in accordance with those details. Steel shall conform to the requirements of ASTM A36 or equal.

Castings, whether Carbon-Steel, Gray Cast Iron or Ductile Iron shall conform to the shape and dimensions shown on the plans and shall be clean substantial castings, free from sand or blow holes or other defects. Surfaces of the castings shall be free from burnt-on sand and shall be reasonably smooth. Runners, risers, fins, and other cast-on pieces shall be removed from the castings and such areas ground smooth. Bearing surfaces between manhole rings and covers or grates and frames shall be cast or machined with such precision that uniform bearing shall be provided throughout the perimeter area of contact. Pairs of machined castings shall be matchmarked to facilitate subsequent identification at installation.

Steel castings shall conform to the requirements of the specifications for "Mild to Medium Strength Carbon Steel Castings for General Application", ASTM A27. Grade 70-36 shall be furnished unless otherwise specified.

Cast iron castings shall conform to the requirements of "Gray Iron Castings", ASTM A48, Class 30.

Ductile iron castings shall conform to the requirements of "Ductile Iron Castings", ASTM A536. Grade 60-40-18 shall be used unless otherwise specified.

Commercial type frames, rings, risers and/or appurtenances may be used with prior approval of the Engineer.

Manhole lids and covers shall be Bass & Hayes.

Mill test reports or manufacturer's certification shall be furnished to the Engineer for each lot or shipment.

SD471.03 CONSTRUCTION METHODS: Frames, grates, rings and covers shall be constructed in accordance with the details shown on the plans and shall be installed to the lines and grades indicated on the plans or as directed by the Engineer.

All welding shall conform to the requirements of Item 448, "Structural Field Welding". Grates and covers shall be tack welded to the frame or ring when directed by the Engineer.

All bolts and nuts shall be galvanized. Commercial grade galvanizing will be acceptable.

TECHNICAL SPECIFICATIONS

SECTION SD800 – HIGH DENSITY POLYETHYLENE (HDPE) CORRUGATED AND SMOOTH LINED THERMOPLASTIC PIPE (FOR GRAVITY FLOW DRAINAGE PIPE APPLICATIONS)

SD800.1 DESCRIPTION: This item shall govern for the furnishing and installing of all High Density Corrugated Polyethylene (HDPE) Smooth Lined Pipe and / or materials for constructing of culverts, side road pipes, storm sewers, stubs, and all related connections and fittings, all of which shall conform to ASTM F2306, latest editions. The pipes shall be of the sizes, types, and dimensions shown on the plans, and contained in this specification. In addition, it shall include all connections and joints to new or existing pipes, storm sewer manholes, inlets, headwalls, and other appurtenances as may be required to complete the work.

SD800.2 MATERIALS: Unless otherwise specified on the plans or herein, thermoplastic pipe and joint fittings shall conform to the following:

- A. High Density Polyethylene (HDPE) Corrugated and Smooth Lined Pipe & Fittings shall be manufactured in accordance with requirements of ASTM F2306, latest editions.
- B. High Density Polyethylene (HDPE) Corrugated and Smooth Lined Pipe shall be manufactured from virgin PE compounds which conform with the requirements of cell class 335500C as defined and described in ASTM D 3350.
- C. Minimum Pipe Stiffness (PS) at five percent deflection shall be as described in ASTM F2306 when tested in accordance with Section 7.5 of ASTM D 2412.
- D. Representative samples of the HDPE Smooth Lined Pipe shall be submitted, tested, and recorded by the manufacturer then submitted to the Agency representative or designee stating conformance to the specification herein. The following data will be checked and recorded:

- | | |
|---|--|
| 1) Weight | 7) Brittleness |
| 2) Material Distribution | 8) Environmental Stress Crack Resistance |
| 3) Pipe Dimensions (See Attached Table) | 9) Workmanship |
| 4) Water Inlet Area | 10) Markings (Per AASHTO) |
| 5) Pipe Stiffness | 11) Manufacturing Plant |
| 6) Pipe Flattening | |

Table 1:
Typical Nominal Dimensions of Corrugated Smooth Lined Polyethylene Pipe:

NOMINAL DIMENSIONS, IN.
12
15
18
24
30
36
42
48
60

The pipe shall have a full circular cross section, with an outer corrugated pipe wall and a smooth inner wall.

SD800.3 **INSTALLATION:** Installation shall be in accordance with ASTM D 2321, "Standard Practice for Underground Installation of Thermoplastic Pipe for Sewers and Other Gravity Flow Applications" and / or ASTM D2321, "Standard Practice for Underground Installation of Thermoplastic Pipe for Sewers and Other Gravity-Flow Applications".

- A. General Installation Requirements: Thermoplastic pipe shall be unloaded and handled with reasonable care. Pipe shall be placed in the bed starting at the downstream end. Trenches must be excavated in such a manner as to ensure that the sides will be stable under all working conditions. Trench walls shall be sloped or supported in conformance with all standards of safety. Only as much trench as can be safely maintained shall be opened. All trenches shall be backfilled as soon as practicable but no later than the end of each working day.
- B. Trench Widths: Trench width shall be sufficient to ensure working room to properly and safely place and compact haunching and other backfill materials. Minimum trench width shall not be less than 1.25 times the pipe outside diameter plus 12 inches ($1.25 \times \text{O.D.} + 12"$). Note: On multiple pipe barrel runs the clear distance between pipes is as follows:

12"-24" Diameters: Clear span = 12"

24" & Greater Diameter: Clear span = $\frac{1}{2} \times \text{Diameter}$

- C. Foundation and Bedding: Foundation and bedding shall meet the requirements of ASTM D 2321 Class 1 or 2. A stable and uniform bedding shall be provided for the pipe and any protruding features of its joint and / or fittings. The middle of the bedding equal to $\frac{1}{3}$ rd of the pipe O.D. may be loosely placed, while the remainder shall be compacted to a minimum 90% of Standard Proctor Density. A minimum of 4" of bedding shall be provided prior to placement of the pipe, unless an unyielding material (rock cuts) is present in the trench bottom, then a 6" cushion of bedding is recommended. Bedding material size shall be 1.25" maximum granular material.
- D. Structural Backfill: Structural backfill shall also meet the requirements of ASTM D 2321, Class 1 or 2. Class 1 material may be dumped and worked into the haunch area by hand to assure full pipe contact. Class 2 backfill shall be placed and compacted in layers 8" loose lift thickness and brought up evenly and simultaneously on both sides of the pipe to an elevation not less than one (1') foot above the top of the pipe. Structural backfill must be worked into the haunch area and compacted by hand. Structural backfill shall be 1.25" maximum granular size and a minimum compaction level of 90% Standard Proctor Density.
- E. Minimum Cover: The minimum cover is one foot (1.0') for HS-25 Live Loads (12"-48" Diameters) and two foot for 60" Diameters; however, care should be taken when heavy construction equipment loads cross the pipe trench during construction. If the passage of construction equipment over an installed pipeline is necessary during project construction, compacted fill in the form of a ramp shall be constructed to a minimum elevation of three (3.0') feet over the top of the pipe. Any damaged pipe shall be replaced at the contractor's expense.
- F. Joints: Joints shall be installed so that the connection of pipe sections will form a continuous line free from irregularities in the flow line. All joints shall be of silt-tight design when the design discharge hydraulic grade line is below the pipe overt. Water-tight joints shall be provided when the design discharge hydraulic grade line exceeds the pipe overt.
- G. Testing: All HDPE pipe shall be tested after no less than 30 days following final backfill with a mandrel to assure a pipe deflection of 5% or less.

SECTION MP
MEASUREMENT AND PAYMENT

TECHNICAL SPECIFICATIONS

SECTION MP - MEASUREMENT AND PAYMENT

- MP.1. GENERAL: This section of the specifications covers the components to be a portion of each pay item as may or may not be listed in the Unit Price Schedule and is furnished to aid the Contractor in preparing his bid. Of necessity, the items described as components of the various items are discussed in a general manner only, describing the major pieces of equipment and/or materials. Failure to list all items and/or appurtenances does not relieve the Contractor from furnishing all apparatus, devices, labor, or materials of whatever nature required for a complete and operating installation in accordance with the intent of the Drawings, approved Shop Drawings, and these Specifications.
- MP.2. BID ITEM DESCRIPTION: Tabulated in the paragraphs below are descriptions of the various bid items listed in the proposal.

GENERAL ITEMS

1. TRAFFIC CONTROL AND BARRICADES: Item shall consist of furnishing all tools, equipment, materials, and labor necessary to install and maintain traffic control and barricades in accordance with the latest revision of the Texas Manual of Uniform Traffic Control Devices and in accordance with City of Marshall requirements. The Contractor will be responsible for preparation of the traffic control plan. Measurement and payment for this item shall be on a lump sum basis.
2. MOBILIZATION, BONDS AND INSURANCE: Item shall consist of furnishing all tools, equipment, materials, and labor necessary to provide performance bonds, payment bonds, temporary water service deposits and fees, subcontractor permits, development permits, certificates of insurance, maintenance bond, and related work, and mobilization, storage, and demobilization of equipment, materials, and related items. Measurement and payment shall be lump sum as shown in the Proposal.
3. REMOVE AND DISPOSE OF EXISTING CONCRETE AND ASPHALT STRUCTURES AND RELATED ITEMS (including driveways, pavements, and drainage structures): Item shall consist of removing and disposing of any and all structures and other items in the line of work including loading, hauling, disposal costs, and all related work necessary to perform the work as specified in the Contract Documents. Measurement and payment for this item shall be on a lump sum basis. Contractor shall provide documentation of actual cost for this item to receive partial payments.
4. STORM WATER POLLUTION PREVENTION AND EROSION CONTROL PER TCEQ REQUIREMENTS: Item shall consist of all fees, tools, equipment, materials, and labor necessary to furnish, install, maintain, and remove all filter fabric fencing, hay bale dikes, and erosion control matting necessary to perform SWPP, to establish final stabilizing vegetation for erosion control, the development of a Storm Water Pollution Prevention Plan (SWP3), submitting and posting required notices, paying all required fees, and performing maintenance and inspection per TCEQ and City of Marshall requirements. Measurement and payment for this item shall be on a lump sum basis. Contractor shall provide documentation of actual cost for this item to receive partial payments.
5. LANDSCAPING DISTURBED AREAS WITH TOPSOIL, FERTILIZER AND WHOLE BLOCK SOD: Item shall consist of furnishing all tools, equipment, materials, and labor necessary to provide topsoil, whole block sod and fertilizer in all disturbed areas. Measurement and payment shall be per square yard as shown in the Proposal.
6. TRENCH SAFETY: Item shall consist of furnishing all tools, equipment, materials, and labor necessary to perform trench safety. Measurement and payment for this item shall be on a lump sum basis. Contractor shall provide documentation of actual cost for this item to receive partial payments.

STREET AND TRAFFIC FACILITIES

1. **CONSTRUCT 10" THICK CONCRETE (CLASS "P") PAVEMENT:** Item shall consist of furnishing all materials, tools, equipment, and labor necessary to furnish and install concrete pavement in compliance with the Construction Plans and Technical Specifications. Item shall include any and all transporting, hauling, disposal, finishing, tooling, formwork, bracing, rubbing, steel reinforcement, dowels, joint materials, curing, and other work necessary. Measurement and payment shall be per square yard as shown in the Proposal.
2. **CONSTRUCT 24" CONCRETE CURB AND GUTTER:** Item shall consist of furnishing all materials, tools, equipment, and labor necessary to furnish and install a concrete curb and gutter in compliance with the Construction Plans and Technical Specifications. Item shall include any and all transporting, hauling, disposal, finishing, tooling, formwork, bracing, rubbing, and other work necessary. Measurement and payment shall be per linear foot as shown in the Proposal. Measurement shall not include portions of curb in 10' gutter transitions at storm drain inlets or curbs within the limits of commercial or residential driveways.
3. **CONSTRUCT 6" CONCRETE CURB:** Item shall consist of furnishing all materials, tools, equipment, and labor necessary to furnish and install a concrete curb in compliance with the Construction Plans and Technical Specifications. Item shall include any and all transporting, hauling, disposal, finishing, tooling, formwork, bracing, rubbing, and other work necessary. Measurement and payment shall be per linear foot as shown in the Proposal. Measurement shall not include portions of curb in 10' gutter transitions at storm drain inlets or curbs within the limits of commercial or residential driveways.
4. **CONSTRUCT CONCRETE COMMERCIAL DRIVE APRON:** Item shall consist of furnishing all tools, equipment, materials, and labor necessary to construct commercial concrete drive aprons per the Contract Documents. Measurement and payment shall be by the square yard as shown in the Proposal.
5. **FURNISH AND INSTALL 4" (COLOR) REFLECTORIZED LANE LINE (TYPE 1 MARKING):** Item shall consist of furnishing all tools, equipment, materials, and labor necessary to provide reflectORIZED thermoplastic pavement markings. Measurement and payment shall be per lineal foot for each type and color as shown in the Proposal. Broken lane lines shall only be measured for painted length.

STORM WATER DRAINAGE FACILITIES

1. **FURNISH AND INSTALL (SIZE) RCP, COMPLETE, IN PLACE:** Item shall consist of furnishing all tools, equipment, materials, and labor necessary to provide a complete, operational reinforced concrete pipe culvert including, but not limited to, excavation, subgrade compaction, dewatering, trench safety systems, shoring, sheeting, formwork, bends, joint sealant, select material backfill, compaction, dressing, grading, and related work. Measurement and payment shall be per linear foot as shown in the Proposal.
2. **FURNISH AND INSTALL CONCRETE SEAL SLAB, COMPLETE, IN PLACE:** Item shall consist of furnishing all tools, equipment, materials, and labor necessary to provide a complete concrete working platform including, but not limited to, excavation, subgrade compaction, dewatering, concrete, formwork, compaction, grading, and related work. Measurement and payment shall be per square yard as shown in the Proposal.
3. **CONSTRUCT (SIZE) JUNCTION BOX, COMPLETE IN PLACE:** Item shall consist of furnishing all materials, tools, equipment, and labor necessary to construct the storm drain junction box base, walls, and top. Item shall include any and all reinforcement, concrete, ties, mesh, formwork, finishing, and curing to construct the junction box in compliance with the Construction Plans and Technical Specifications. Measurement and payment shall be per each as shown in the Proposal. Openings shown on the plans and indicated in the bid proposal shall not be measured separately and shall be considered subsidiary to the bid item.

4. FURNISH AND INSTALL FLOWABLE FILL: Item shall include all forming, placing, site preparation, and related work to install flowable fill as shown on the plans. Measurement and payment shall be per cubic yard as shown in the Proposal. Flowable fill associated with rock rip rap will NOT be paid under this item.



TO: City Council
DATE: December 11, 2025
ITEM #: 9.A
SUBJECT: Consider the approval of the FY 2025 and FY 2026 Hotel Occupancy Tax (HOT) Fund Grant Application recommendations from the Visit Marshall Board. (Tourism & Main Street)

Recommendation for Action: Should the City Council agree with the Visit Marshall Advisory Board's recommendations, staff recommends that the Council make a motion to approve the Board's proposed funding allocations for the FY 2025 Hotel Occupancy Tax (HOT) Funds.

Alternatively, the Council may choose to discuss or modify the recommended allocations as deemed appropriate, as final approval of the HOT Fund distributions rests with the City Council. If changes are made, the Council's motion should identify and include a statement outlining any modifications to the Advisory Board's recommended allocations.

Executive Summary:

The Visit Marshall Board reviewed and evaluated all applications submitted for Hotel Occupancy Tax (HOT) funding for Fiscal Years 2025 Based on eligibility and alignment with tourism development goals, the Board has prepared funding recommendations for City Council review and consideration.

During this process, staff and the Board collaborated to identify ways to improve the efficiency and evaluation process of the HOT Grant program. Efforts to enhance the application and review procedures will continue to ensure greater effectiveness and transparency in future funding cycles.

FY 2025		
Applicant Organization	Event(s) Recommended for Funding	Board Recommendation
Josey Ranch	15 Events; Feb-Dec 2025	\$11,500
Marshall Regional Arts Council	3 Events; Oct-Dec 2025	\$3,000
Gobble Up the Cash Barrel Race	November 28-30, 2025	\$5,000
Piney Park	December 27 and 31	\$3,000
Marshall Symphony Society	Sept – Nov. 2025	\$3,000
East Texas Performing Arts	Texas Sounds Oct. 2-5, 2025	\$5,500
Boogie Woogie Corporation	Boogie Woogie Fest 2025	\$5,000
Marshall Lions Club	Marshall Lions Club Annual Charity Horse Show	\$1,500

Marshall Mercantile	Snow Slide December 20, 2025	\$3,000
	Total	\$40,500

Additional details and the Board's funding recommendations are attached for Council consideration.

Focus Area(s): This item aligns with the following council adopted focus area(s): Improving Communication

Budget Cost: FY 2025 - \$40,500

Staff Contact: Lacy Burson, Tourism and Main Street Administrator

Attachments: 1. HOT Fund Grants Recommendations 2025

BACKGROUND

The Visit Marshall Advisory Board reviewed and evaluated applications for Hotel Occupancy Tax (HOT) funding during its September 2025 meetings. Traditionally, HOT grants are evaluated and awarded annually for a single fiscal year. However, because an application cycle was held earlier in 2024, the Board conducted a combined review for Fiscal Years 2025.

To ensure continuity and support for local tourism events, the Board allowed the submission of both retroactive applications and applications for events occurring through the remainder of FY 2025, in addition to traditional applications for FY 2026. All HOT grants are reimbursement-based and require proof of tourism and economic impact following the event.

HOT FUNDING AVAILABLE

- FY 2025 Allocation: \$64,000

Following a full review, recommended awards for both fiscal years do not exhaust the total funds available, leaving a remaining balance in each year's HOT allocation.

APPLICATION REVIEW PROCESS

The Visit Marshall Board and staff evaluated all applications using the State of Texas two-step HOT review process, which ensures:

Step 1 – Statutory Eligibility

Each application must qualify under at least one of the seven state-authorized categories for HOT funding:

1. Construction or enhancement of convention centers or visitor information centers
2. Registration of convention delegates
3. Advertising and promotion to attract tourists and convention delegates
4. Promotion of the arts
5. Historical restoration and preservation projects or activities attracting tourists
6. Sporting events that substantially increase hotel activity
7. Enhancement or upgrading of sports facilities or fields that substantially increase hotel activity

Step 2 – Tourism Impact

Applications meeting an eligible category were then evaluated on:

- Expected overnight hotel room generation
- Demonstrated tourism draw beyond local participants
- Event size, attendance, and economic impact
- Completeness and quality of application materials

All awarded applicants must submit a post-event report detailing hotel nights, attendance, marketing impact, and economic activity prior to reimbursement.

APPLICATIONS REVIEWED

Applications were received from organizations hosting events that promote tourism across arts, sports, history, and entertainment sectors. Organizations reviewed included:

For 2025

- Josey Ranch
- Piney Park
- Marshall Lions Club
- East Texas Performing Arts
- Gobble Up the Cash Barrel Race
- Marshall Symphony
- Marshall Regional Arts Council
- Boogie Woogie
- Marshall Mercantile

Each organization submitted a separate application for each event held, consistent with HOT fund requirements. Staff reviewed each application for every event. Staff then made recommendation to the Visit Marshall Board for Each organization.

BOARD RECOMMENDATIONS

After completing the two-step eligibility and tourism impact evaluation, the Visit Marshall Board finalized recommended funding amounts for FY 2025. These recommendations fall within the available HOT allocations for the fiscal year.

Approval will allow Visit Marshall to process reimbursement-based grants for qualifying tourism-generating events in accordance with Texas HOT statutes.

HOT Fund Request and Recommendations FY 2025

FY 2025 Awards

<i>Organization</i>	<i>Event</i>	<i>Event Date</i>	<i>Requested</i>	<i>Staff Rec</i>	<i>Board Rec</i>
<i>Josey Ranch</i>	15 Events	Feb – Dec 2025	\$23,000	\$23,000	\$11,500
<i>Marshall Regional Arts Council</i>	3 Events	Oct- Dec 2025	\$16, 900	\$3,000	\$3,000
<i>Gobble Up the Cash Barrel Race</i>	17th Year Gobble Up the Cash Barrel Race	November 28-30, 2025	\$5,000	\$5,000	\$5,000
<i>Piney Park</i>	5 Events	December 12-31	\$25,000	\$15,000	\$3,000 for December 27 and 31 Events
<i>Marshall Symphony Society</i>	3 Events	Sept. – Nov 2025.	\$15,000	\$3,000	\$3,000
<i>East Texas Performing Arts</i>	Texas Sounds International Country Music Awards	October 2-5, 2025	\$5,500	\$5,500	\$5,500
<i>Boogie Woogie Corporation</i>	Boogie Woogie Fest 2025	September 26-27, 2025	\$3,500	\$3,500	\$5,000
<i>Marshall Lions Club</i>	Marshall Lions Club 63rd Annual Charity Horse Show	March 6-7, 2026	\$2,500 To attend another horse show as a Vendor to promote the 2026 Event	\$1,500	\$1,500
<i>Marshall Mercantile</i>	Snow Slide	Dec. 20, 2025	\$8,030	\$3,000	\$3,000
<i>Total</i>			\$104,430	\$62,500	\$40,500



TO: City Council
DATE: December 11, 2025
ITEM #: 9.B
SUBJECT: Consider approval of a Procurement Policy applicable to all Procurements made with Federal Funds. (Finance)

Recommendation for Action: Motion to approve the Procurement Policy Applicable To All Procurements Made With Federal Funds.

Executive Summary:

The Procurement Policy for Purchases Made with Federal Funds outlines the requirements the City must follow when using federal dollars for goods, services, equipment, or construction. It aligns with federal regulations under 2 CFR 200 and ensures all federally funded purchases are competitive, ethical, and fully compliant.

The policy covers approved procurement methods, required federal contract clauses, documentation and audit requirements, conflict-of-interest rules, and steps to include small, minority, and women-owned businesses. Adoption of this policy is necessary to maintain eligibility for federal grants and ensure proper oversight of federally funded purchasing activities.

Focus Area(s): This item aligns with the following council adopted focus area(s): Improving Communication and Improving Customer Service.

Budget Cost: None

Staff Contact: Rebecca Roseberry, Interim Finance Director

Attachments: 1. TO BE APPROVED_- Procurement Policies and Procedures_City of Marshall (1)

CITY OF MARSHALL, TEXAS
PROCUREMENT POLICY APPLICABLE TO ALL PROCUREMENTS MADE WITH
FEDERAL FUNDS

Adopted:

PREAMBLE

All procurements made by the City involving the expenditure of Federal funds must be conducted in accordance with the procedures set forth in this Policy. This Policy is in accord with all applicable Federal, State, and local government statutes and regulations, including the Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards, 2 C.F.R. 200.317 to 200.327.

It is the policy of the City to conduct all procurements in the highest ethical manner, and in accordance with all applicable laws and regulations. To the extent required by law and regulation, and the maximum extent practical, the City will conduct all procurement transactions in a manner providing full and open competition, consistent with the standards set forth 2 C.F.R. 5 200.319.

Subject to specified cost thresholds and documented delegation of authority, all procurements will be reviewed by the City Manager to ensure compliance with this Policy.

I. SOLICITATIONS

Procurements subject to this Policy will be made on the basis of a written solicitation, after careful consideration by City Staff (with, as applicable, the support of a selection committee) of the needs of the City and available resources. The written procedures in this Policy are intended to ensure that all solicitations meet the following Federal requirements as well as contracting best practices.

A. Clear Description

The solicitation must incorporate a clear and accurate description of the technical requirements for the material, product, or service to be procured. This description should include a written statement of work. 2 200.319(c)(1).

B. Nonrestrictive Specification

The description of the technical requirements must not contain features that unduly restrict competition. 2C.F.R.§ 200.3

C. Qualitative Requirements

The description of the technical requirements may include a statement of the qualitative nature of the material, product, or service to be procured and, when necessary, must set forth those minimum essential characteristics and standards to which it must conform if it is to satisfy its intended use. 2 C.F.R. S 200.319 (c) (1). Product specifications should be limited to essential specifications only.

a. Brand Name or Equal

When it is impractical or uneconomical to write a clear and accurate description of the technical requirements of the property or services to be acquired, "brand name or equal" descriptions may be used to define the performance or other salient

requirements of procurement. The specific features of the named brand which must be met by offerors must be clearly stated. The need for a "brand name or equal" specification should be documented.

b. Preference for Performance Specifications

Product or service specifications based on performance, rather than designed specifications, are preferred. A performance specification describes an end result, an objective, or standard to be achieved, and leaves the determination of how to reach the result to the contractor. Performance specifications describe what the product should be able to do or the services to accomplish, without imposing unnecessarily detailed requirements on how to accomplish the tasks.

D. Requirements

The solicitation must identify all requirements which the offerors must fulfill and all other factors to be used in evaluating bids or proposals. 2 C.F.R. 5200.319 (c) (2). All solicitations for competitive proposals must notify offerors that the City reserves the right to award to other than the lowest-priced offeror. Generally, the City will make a best value determination, balancing cost against technical merits, in awarding competitive contracts.

E. Type of Federal Funding

The solicitation must acknowledge the source of the Federal funding for the contract, in compliance with the terms of its financial assistance award.

a. The solicitation should inform prospective contractors that they will need to comply with all applicable Federal Laws, regulations, Executive Orders, and requirements affecting the procurement. As appropriate, specific flow-down requirements may be included in the solicitation itself, in any resulting contract, or incorporated by reference.

F. Contract Type The solicitation should state the type of contract that will be awarded.

a. Fixed Price

A fixed price contract provides for a firm price that remains irrespective of the contractor's actual cost of performing the scope of work under the contract. The risk of performing the work, at the fixed price, is borne by the contractor. Fixed price contracts may include an economic price adjustment, incentives, or both.

b. Cost Reimbursement

Cost-reimbursement type contracts provide for payment of certain incurred costs to the extent provided in the contract. They normally provide for the reimbursement of the contractor for its reasonable, allocable, actual, and allowable costs, with an agreed-upon fee. There is a limit to the costs that a contractor may incur at the time of contract award, and the contractor may not exceed those costs without the City's prior approval. Cost allowability is determined by Federal regulations. There are many varieties of cost reimbursement contracts, such as cost-plus-fixed-fee, cost-plus-incentive-fee, and cost-plus-award-fee. Because the City incurs more risk in a cost-reimbursement contract, these types of contracts should only be entered into after a careful analysis of the benefits compared to other contract types.

c. Time and Materials Contracts

A time and materials type contract is a contract whose cost to the City is the sum of the actual cost of materials and direct labor hours charged at fixed hourly rates that reflect wages, general and administrative expenses, and profit. 2 C.F.R. § 200.318(j)(1)(i) and (ii) This type of contract is used if no other contract is suitable and if the contract includes a ceiling price that the contractor exceeds at its own risk.

d. Cost Plus Percentage of Cost

The use of cost-plus percentage of cost and cost plus a percentage of construction cost methods of contracting are prohibited.

G. Prohibitions

Certain provisions that unduly restrict competition are prohibited. 2 C.F.R. § 200.319(a). The following are some examples of these prohibited provisions. Note that the provisions described below are not prohibited when they are improper or excessive. For example, some qualifications and experience may be required for a particular type of contract; only "excessive" or "unnecessary" requirements are not allowed:

a. Excessive Qualifications

Placing unreasonable requirements on firms in order for them to qualify to do business. 2 C.F.R. 200.3196(1).

b. Unnecessary Experience

Requiring unnecessary experience. 2 C.F.R. § 200.319(a)(2).

c. Unnecessary Bonding

Requiring excessive bonding. 2 C.F.R. § 200.3

d. Improper Qualification

Using improper prequalification procedures that conflict with 2 C.F.R. § 200.319Cd).

e. Retainer Contract

Making a noncompetitive solicitation only to a person or firm on retainer contract where that award is not for property or services specified for delivery under the scope of work of the retainer contract. 2 C.F.R. § 200.319(a)(4). f. In-State, Local, or Tribal Geographic Preferences Imposing prohibited in-state, local, or tribal geographic preferences that conflict with 2 C.F.R. 200.319(b).

g. Organizational Conflicts of Interest

Allowing entities to submit bids or proposals in response to the solicitation where there would be a prohibited organizational conflict of interest. 2 C.F.R. § 200.319(a)(5).

II. METHODS FOR PROCUREMENT

Procurements shall be made using one of the following methods: (A) Micro-Purchases (B) Small Purchase procedures, (C) Competitive sealed bids, (D) Competitive negotiations, (E) Non-competitive negotiation. All procurements shall be made in accordance with these procedures.

A. Micro-Purchases

Purchases below the Simplified Acquisition Threshold may be awarded without soliciting competitive proposals if the City considers the price to be reasonable. Efforts will be made to get the lowest and best price, but written records of such efforts are

not necessary. Procurements may not be disaggregated for the purpose of falling below the Micro-Purchase threshold.

B. Small Purchases

Purchases of supplies, equipment and services which cost below \$50,000 require written supplier estimates but no formal procurement is required. The city will solicit a verbal or written response from at least three (3) vendors and will document why the vendor was selected if it is not the lowest priced offeror. If no such responses are available, a statement explaining the procurement will be prepared and filed.

C. Competitive Sealed Bids

The use of sealed bids will be employed when detailed specifications for the goods or services to be procured can be prepared and the primary basis for award is cost. When the cost of a contract, lease or other agreement for materials, supplies, equipment, or contractual services, other than those personal (procuring the services of an individual for staff augmentation services) or professional (provided by a degreed, licensed professional, principally engineering, accounting, and legal services), exceeds \$50,000, an Invitation for Bids ("IFB") notice will generally be prepared. This notice will be published in the City newspaper of record and/or such other places as the City deems appropriate. This notice will appear at least fourteen (14) days before the due date for bid proposals. The city may also solicit sealed bids from responsible perspective suppliers by sending them a copy of such notice. To the extent possible, City Staff is encouraged to maintain an open Bidders List.

The IFB will include a complete, accurate, and realistic specification and description of the goods or services to be procured, any required bid deposit, the amount of a payment bond and bond performance required (if applicable), the location where bid forms and specifications may be secured, the time and place for opening bids, and whether the bid award will be made on the basis of the lowest price or the lowest evaluated price. If the lowest evaluated price is used, the measurable criteria to be used must be stated in the IFB,

Sealed bids will be opened in public at the time and place stated in the IFB. The bids will be tabulated by the TABULATOR at the time of bid opening. The results of the tabulation and the bid procurements will be examined for accuracy and completeness by the EXAMINER who will make recommendations to the City. In addition, the City shall determine that all firms are responsive and responsible. The City will make the decision as to whom the contract shall be awarded. After the bid award is made by the City, a contract will be prepared for execution by the successful bidder. After the contract is signed, all bid deposits will be returned to all unsuccessful bidders.

The City may cancel an Invitation for Bid or reject all bids if it is determined that such is in the best interests of the City. Bidders will be notified in writing of such cancellation or rejection. The city may allow a vendor to withdraw a bid if requested at any time prior to the bid opening. Bids received after the time set for bid opening shall be returned to the vendor unopened. Bids which do not accept all terms and conditions of the IFB shall be deemed to be non-responsive and will be rejected. Any changes to the bidding terms and conditions shall be communicated to all bidders, and

all bidders will have an equal chance to submit a bid responsive to those changed terms and conditions.

D. Competitive Negotiations

The City will use competitive negotiations, regardless of contract amount, upon a written determination that either of the following conditions apply:

- a. Specifications cannot be made specific enough to permit the award of a bid on the basis of either the lowest bid or the lowest evaluated bid price (in other words, sealed bidding is not feasible); or
- b. The services to be procured are professional (provided by a degreed, licensed professional, principally engineering, accounting, and legal services) in nature.

Competitive negotiations will proceed as follows:

1. Proposals will be solicited through advertisement in the City newspaper of record and/or such other places as the City deems appropriate; additionally, a Request for Proposal (RFP) may be prepared and mailed, emailed, or faxed to qualified vendors. The RFP will describe the services needed and identify the factors to be considered in the evaluation of proposals and the relative weights assigned to each selection factor. The RFP will also state where further details regarding the RFP may be obtained. The RFP will call attention to the applicable regulations. Requests for proposals will always include cost as a selection factor.
2. Award must be made to the offeror whose proposal is determined in writing by the City to be the most advantageous to City with price and other factors considered. This evaluation and award process contemplates a balancing of cost and technical merit in arriving at a determination as to which proposal provides the best value to the City. Evaluations must be based on the factors set forth in the Request for Proposal and a written evaluation of each response prepared. The selection committee may contact the firms regarding their proposals for the purpose of clarification and record in writing the nature of the clarification. If it is determined that no acceptable proposal has been submitted, all proposals may be rejected. New proposals may be solicited on the same or revised terms or the procurement may be abandoned.

For the procurement of certain professional services, an alternative to RFPs may be used. The City may publish a Request for Qualifications, RFQ's are handled in a similar method to RFP's with the exception that cost is not a factor in the initial evaluation. The selection committee will evaluate the responses and rank them by comparative qualifications. The highest scoring person or firm will be contacted and the City will negotiate cost if the City is unable to negotiate a satisfactory cost arrangement, the second highest scoring person or firm will be invited to negotiate. The City will maintain a written record of all such negotiations.

E. Noncompetitive Negotiations

The City requires competitive bids for purchases of goods or services including consulting services) over, however, some exceptions apply.

In some circumstances, when competition cannot be obtained or the situation necessitates the required number of competitive bids to be reduced, a Sole Source or Reduction Justification Form must be submitted. The following information is a guide for requesting the waiver or reduction of competitive bids on RFPs for goods or services greater than \$50,000. The City may purchase goods and services through non-competitive negotiations when it is determined in writing by the City that competitive negotiation or bidding is not feasible and that:

1. SOLE SOURCE DEFINITION AND CRITERIA

A single supplier that is exclusively capable of meeting the City's requirements within the time available, including emergency and other situations, which preclude conventional planning and processing. These situations include:

- a. One-of-a-Kind/Specialized - the commodity or service has no competitive product or must meet specialized seaport, boat or marine requirements, or specialized professional or technical services, and is available from only one supplier.
- b. Compatibility - the commodity or service must match an existing brand of equipment for compatibility and is available from only one vendor.
- c. Replacement Part - the commodity is a replacement part for a specific brand of existing equipment and is available from only one supplier.
- d. Delivery Date only one supplier can meet necessary delivery requirements.
- e. Emergency - URGENT NEED for the item or service does not permit soliciting competitive bids; including purchases needed to address major facility failures damages due to disasters or purchases necessary to address immediate safety and security issues.
- f. Only one satisfactory proposal is received through RFP or RFQ
- g. The Federal or State awarding agency has authorized the particular type of noncompetitive negotiation.

Procurement by noncompetitive negotiation requires the strictest attention to the observation of impartiality toward all suppliers. The City must approve all procurements by non-competitive negotiation when only one supplier is involved or only one bid or response to an RFP/RFQ is received.

F. Bids will be accepted only from those contractors who have a proven record of ability to successfully complete the scope of work being bid. References will be requested along with the contractor's bid proposal. Any contractors submitting a bid must produce (along with his/her bid documents) written proof of liability insurance and worker's compensation coverage. Consideration will be given to such matters as contractor integrity, compliance with public record of past performance and financial and technical resources in awarding contracts.

III. CONTRACTS

Generally, all procurement in excess of the Simplified Acquisition Threshold will be memorialized and supported by a written contract where it is not feasible or is impractical

to prepare a contract, a written finding to this effect will be prepared and some form of documentation regarding the transaction will also be prepared.

A. All contracts will contain language which allows the City the opportunity to cancel any contract for cause. Said cause shall include (but not be limited to) demonstrated lack of ability to perform the work specified, unwillingness to complete the work in a timely fashion, cancellation of liability insurance or worker's compensation, failure to pay suppliers or workers, unsafe working conditions caused by the contractor, failure to comply with Davis-Bacon wage laws (where applicable), failure to keep accurate and timely records of the job, or failure to make those records available to the City (on request) or any other documented matter which could cause a hardship for the City if a claim should arise or the work not be completed on schedule at the specified cost.

B. All contracts will contain a termination for convenience provision, which allows the City to cancel the contract without fault on the part of the contractor. In the event of a termination for convenience, the contractor will receive reimbursement and/or pro-rate payment for costs and work done until the point of termination, but not anticipated profits on the work that was canceled. The termination provision will specify the procedures for the contractor to submit a claim for termination costs,

C. Except as otherwise provided under 41 C.F.R, Part 60, all contracts that meet the definition of "Federally assisted construction contract" in 41 C.F.R. 604.3 must contain the applicable contract clauses described in Appendix II to the Uniform Rules (Contract Provisions for non-Federal Entity Contracts Under Federal Awards), which are set forth in 2 C.F.R. 5200.326. These provisions will be provided to all bidders.

D. Federal 2 CFR 200.327 – Contract Provisions: The non-Federal entity's contracts must contain the applicable contract provisions as described in Appendix II of 2 C.F.R. Part 200 – Contract Provisions for Non-Federal Entity Contracts Under Federal Awards.

IV. DOCUMENTATION

All source documents supporting any given transaction (receipts, purchase orders, invoices, RFP/RFQ data and bid materials) will be retained and filed in an appropriate manner. Where feasible, source documents pertinent to each individual procurement shall be separately filed and maintained. Where it is not feasible to maintain individual procurement files, source documents will be filed and maintained in a reasonable manner (examples include chronologically, by vendor, by type of procurement, etc.). Whatever form of documentation and filing is employed, the purpose of this section is to ensure that a clear and consistent audit trail is established. At a minimum, source document data must be sufficient to establish the basis for selection, basis for cost, (including the issue of reasonableness of cost), rationale for method of procurement and selection of contract type, and basis for payment.

V. LOCALLY OWNED, MINORITY-OWNED, FEMALE-OWNED AND SMALL BUSINESSES

All necessary affirmative steps will be taken and documented to solicit participation of small and minority businesses, women's business enterprises, and labor surplus area

firms. Where possible and feasible, delivery schedules will be established, and work will be subdivided to maximize participation by small businesses or minority or women-owned businesses. Subdivided components will be bid as a separate contract. A list of locally owned, minority-owned, female-owned, and small businesses and also minority businesses located within the trade region shall be used when issuing IFBs, RFPs and RFQs. This list shall also be consulted when making small purchases. The City will use the services and assistance of the Small Business Administration and the Minority Business Development Agency of the Department of Commerce when appropriate. The successful bidder will be required to use these same criteria in the selection of suppliers and subcontractors whenever possible.

VI. CODE OF CONDUCT

A. Conflict Of Interest

No City member, employee, consultant, elected official, appointed official or designated agent of the City will take part or have an interest in the award of any procurement transaction if a conflict of interest, real or apparent, exists. A conflict of interest occurs when the official, employee or designated agent of the City, partners of such individuals, immediate family members, or an organization which employs or intends to employ any of the above has a financial or other interest in any of the competing firms, or will otherwise benefit financially or otherwise from a contract award.

No City member, employee or designated agent of the City may acquire a financial interest in or benefit in any way from any activity which uses any Federal funding, nor shall they have any interest in any contract, subcontract or agreement for themselves or any family members.

NOTE: These rules apply to all named parties and shall be effective for the period of service and for one year after leaving said position (or office, in the case of elected officials).

B. Acceptance of Gratuities

No City member, employee or designated agent of the City shall solicit or accept gratuities, favors or anything of monetary value from contractors, potential contractors, subcontractors, or potential subcontractors.

C. Penalties

Any City member, employee or designated agent of the City who knowingly and deliberately violates the provisions of this code will be open to civil suit by the City without the legal protection of the City. Furthermore, such a violation of these procurement standards is grounds for dismissal by the City (if an employee) or such sanctions as available under the law (if an elected official).

Any contractor or potential contractor who knowingly and deliberately violates the provisions of these procurement standards will be barred from future transactions with the City.

VII. ADDITIONAL PROVISIONS

The following provisions are required for non-federal entity contracts under Federal awards, pursuant to Appendix II to 2 C.F.R., Part 200:

A. Contracts for more than the simplified acquisition threshold (currently set at\$250,000), which is the inflation adjusted amount determined by the Civilian Agency Acquisition Council and the Defense Acquisition Regulations Council (Councils) as authorized by 41 U.S.C. 1908, must address administrative, contractual, or legal remedies in instances where contractors violate or breach contract terms, and provide for such sanctions and penalties as appropriate.

B. All contracts in excess of \$10,000 must address termination for cause and for convenience by CITY including the manner by which it will be effected and the basis for settlement.

C. Equal Employment Opportunity. Except as otherwise provided under 41 CFR Part 60, all contracts that meet the definition of "federally assisted construction contract" in 41 CFR Part 60-1.3 must include the equal opportunity clause provided under 41 CFR 60-1.4(b), in accordance with Executive Order 11246, "Equal Employment Opportunity" (30 FR 12319, 12935, 3 CFR Part, 1964-1965 Comp., p. 339), as amended by Executive Order 11375, "Amending Executive Order 11246 Relating to Equal Employment Opportunity," and implementing regulations at 41 CFR part 60, "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor."

D. Davis-Bacon Act, as amended (40 U.S.C. 3141-3148). When required by Federal program legislation, all prime construction contracts in excess of \$2,000 awarded by CITY must include a provision for compliance with the Davis-Bacon Act (40 U.S.C. 3141- 3144, and 3146-3148) as supplemented by Department of Labor regulations (29 CFR Part 5, "Labor Standards Provisions Applicable to Contracts Covering Federally Financed and Assisted Construction"). In accordance with the statute, contractors must be required to pay wages to laborers and mechanics at a rate not less than the prevailing wages specified in a wage determination made by the Secretary of Labor. In addition, contractors must be required to pay wages not less than once a week. CITY must place a copy of the current prevailing wage determination issued by the Department of Labor in each solicitation. The decision to award a contract or subcontract must be conditioned upon the acceptance of the wage determination. CITY must report all suspected or reported violations to the Federal awarding agency. The contracts must also include a provision for compliance with the Copeland "Anti-Kickback" Act (40 U.S.C. 3145), as supplemented by Department of Labor regulations (29 CFR Part 3, "Contractors and Subcontractors on Public Building or Public Work Financed in Whole or in Part by Loans or Grants from the United States"). The Act provides that each contractor or subrecipient must be prohibited from inducing, by any means, any person employed in the construction, completion, or repair of public work, to give up any part of the compensation to which he or she is otherwise entitled. The non-

Federal entity must report all suspected or reported violations to the Federal awarding agency.

E. Contract Work Hours and Safety Standards Act (40 U.S.C. 3701-3708). Where applicable, all contracts awarded by CITY in excess of \$100,000 that involve the employment of mechanics or laborers must include a provision for compliance with 40 U.S.C. 3702 and 3704, as supplemented by Department of Labor regulations (29 CFR Part 5). Under 40 U.S.C. 3702 of the Act, each contractor must be required to compute the wages of every mechanic and laborer on the basis of a standard work week of 40 hours. Work in excess of the standard work week is permissible provided that the worker is compensated at a rate of not less than one and a half times the basic rate of pay for all hours worked in excess of 40 hours in the work week. The requirements of 40 U.S.C. 3704 are applicable to construction work and provide that no laborer or mechanic must be required to work in surroundings or under working conditions which are unsanitary, hazardous or dangerous. These requirements do not apply to the purchases of supplies or materials or articles ordinarily available on the open market, or contracts for transportation or transmission of intelligence.

F. Rights to Inventions Made Under a Contract or Agreement. If the Federal award meets the definition of "funding agreement" under 37 CFR §401.2 (a) and the recipient or subrecipient wishes to enter into a contract with a small business firm or nonprofit organization regarding the substitution of parties, assignment or performance of experimental, developmental, or research work under that "funding agreement," the recipient or subrecipient must comply with the requirements of 37 CFR Part 401, "Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements," and any implementing regulations issued by the awarding agency.

G. Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act (33 U.S.C. 1251-1387), as amended-Contracts and subgrants of amounts in excess of \$250,000 must contain a provision that requires the non-Federal award to agree to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act as amended (33 U.S.C. 1251-1387). Violations must be reported to the Federal awarding agency and the Regional Office of the Environmental Protection Agency (EPA).

H. Debarment and Suspension (Executive Orders 12549 and 12689)-A contract award (see 2 CFR 180.220) must not be made to parties listed on the government wide exclusions in the System for Award Management (SAM), in accordance with the OMB guidelines at 2 CFR 180 that implement Executive Orders 12549 (3 CFR part 1986 Comp., p 189) and 12689 (3 CFR part 1989 Comp., p. 235), "Debarment and Suspension." SAM Exclusions contains the names of parties debarred, suspended, or otherwise excluded by agencies, as well as parties declared ineligible under statutory or regulatory authority other than Executive Order 12549.

I. Byrd Anti-Lobbying Amendment (31 U.S.C. 1352)-Contractors that apply or bid for an award exceeding \$50,000 must file the required certification. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant or any other award covered by 31 U.S.C. 1352. Each tier must also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the non-Federal award.

J. Procurement of Recovered Materials. When federal funds are expended, CITY and its contractors must comply with section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act. The requirements of Section 6002 include: (1) procuring only items designated in guidelines of the Environmental Protection Agency (EPA) at 40 CFR part 24.7 that contain the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of competition, where the purchase price of the item exceeds \$10,000 or the value of the quantity acquired during the preceding fiscal year exceeded \$10,000; (2) procuring solid waste management services in a manner that maximizes energy and resource recovery; and (3) establishing an affirmative procurement program for procurement of recovered materials identified in the EPA guidelines.

K. Domestic Preferences for Procurements - As appropriate and to the extent consistent with law, CITY should, to the greatest extent practicable under a Federal award, provide a preference for the purchase, acquisition, or use of goods, products, or materials produced in the United States (including but not limited to iron, aluminum, steel, cement, and other manufactured products). The requirements of this section must be included in all subawards including all contracts and purchase orders for work or products under this award. For purposes of 2 CFR Part 200.322, "Produced in the United States" means, for iron and steel products, that all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States. Moreover, for purposes of 2 CFR Part 200.322, "Manufactured products" means items and construction materials composed in whole or in part of non-ferrous metals such as aluminum, plastics and polymer-based products such as polyvinyl chloride pipe, aggregates such as concrete, glass, including optical fiber, and lumber.

L. Ban on Foreign Telecommunications. Federal grant funds may not be used to purchase equipment, services, or systems that use "covered telecommunications" equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. "Covered telecommunications" means purchases from Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities), and video surveillance and telecommunications equipment produced by Hytera

Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities).

Adopted by the City of Marshall on this ____ day of _____ 2025.

Amy Ware, Mayor

Attest:

Nikki Smith
City Secretary



TO: City Council
DATE: December 11, 2025
ITEM #: 9.C
SUBJECT: Consider approval of the Hayes Engineering Inc. Work Order for Professional Services for the FY26 Street Improvements Program (\$118,500). (Public Works)

Recommendation for Action: Motion to approve the Hayes Engineering Inc. Work Order for Professional Services for the 2026 Street Improvements Program in the amount of \$118,500.

Executive Summary:

The proposed project involves the design of storm sewer inlets and storm piping for three outfalls along Fisher Drive, with the goal of addressing drainage issues at roadway sags. The engineering team will provide comprehensive design, bidding, and construction-phase services to support the City of Marshall throughout the project lifecycle.

The scope begins with the **Preliminary Design Phase**, during which input will be gathered from city council members and staff to prioritize streets and define project needs. A recommended street program list, including maps and cost opinions, will be developed and formally presented to City leadership.

During the **Final Design Phase**, detailed schematics, specifications, and construction contract documents will be completed. Field measurements of individual streets will be incorporated into the plans, along with reviews of signage, pavement markings, and traffic control requirements to ensure that all recommended improvements are fully addressed.

In the **Bid Phase**, the consultant will assist the City in advertising, receiving, and evaluating contractor bids, providing recommendations and support during contract negotiations.

Throughout the **Construction Phase**, the engineering team will perform periodic site visits over the 120-day construction period, coordinate material testing with the City's geotechnical firm, attend progress meetings, and prepare monthly pay estimate reviews.

Additional services include field data acquisition necessary to support design development.

The total cost for engineering and design services associated with this project is **\$118,500**.

Focus Area(s): This item aligns with the following council adopted focus area(s): Improving Infrastructure

Budget Cost: \$118,500

Staff Contact: Douglas Box, Interim Director of Public Works

Attachments: 1. 2388_001



HAYES ENGINEERING, INC.

Texas Registered Engineering Firm F-1465 www.hayesengineering.net
2126 ALPINE RD. LONGVIEW, TX 75601-3401
V 903.758.2010 F 903.758.2099

WORK ORDER FOR PROFESSIONAL SERVICES W.O. NO. MA-26-01

This will constitute authorization by the **City of Marshall, Texas** (Owner) for **Hayes Engineering, Inc.** (Engineer) to proceed with the following described "Project":

2026 Street Improvements Program

The Project consists of designing storm sewer inlets and storm piping for three outfalls at sags in Fisher Street. Project representative and materials testing services are not included within this scope of services and will be provided by the City of Marshall. We understand the scope of services for the Project as follows:

BASIC ENGINEERING SERVICES:

PRELIMINARY DESIGN PHASE

- | | | | |
|----|--|----|--------|
| 1) | Solicit input from city commissioners and staff on streets to be considered. | \$ | 50,000 |
| 2) | Prepare recommended street program list, maps, and opinion of cost. | | |
| 3) | Prepare preliminary engineering design documents and review with City staff. | | |
| 4) | Attend meetings and make presentations of recommended street program. | | |

FINAL DESIGN PHASE

- | | | | |
|----|---|----|--------|
| 5) | Finalize schematics, specifications and contract documents for construction. | \$ | 50,000 |
| 6) | Individual streets will be measured and extents of work clearly identified on schematics. Review with City Staff. | | |
| 7) | A review of street signage, pavement markings and traffic control will be performed. Recommended improvements will be included in the contract documents. | | |

BID PHASE

- | | | | |
|----|---|----|-------|
| 8) | Assist in advertising and receiving bids, tabulate and make recommendation on bids received, and assist with negotiations for a construction contract.
(Bid Phase Services will not be required if existing street contract is extended) | \$ | 2,000 |
|----|---|----|-------|

CONSTRUCTION PHASE

- | | | | |
|-----|--|----|-------|
| 9) | Perform periodic site visits for 120 day construction period. Coordinate material testing with City's geotechnical firm. Attend update meetings as needed. | \$ | 5,500 |
| 10) | Review monthly progress estimates with field representative and prepare monthly pay estimates for a 120 day construction period. | \$ | 5,000 |

BASIC ENGINEERING TOTAL \$ 112,500

ADDITIONAL SERVICES:

- | | | | |
|-----|------------------------------------|----|-------|
| 11) | Field data acquisition for design. | \$ | 6,000 |
|-----|------------------------------------|----|-------|

ADDITIONAL SERVICES TOTAL \$ 6,000

PROJECT TOAL \$ 118,500

Design phase will be completed within approximately one hundred twenty (120) days at an estimated cost of \$100,000. Bid Phase will be completed in approximately thirty (30) days at an estimated cost of \$2,000 if required. Construction Phase will coincide with the construction contract that is projected at one hundred twenty (120) days at an estimated cost of \$10,000 for engineering services. Additional Services includes \$6,000 for field data acquisition that will coincide with the preliminary design. Partial payments for services shall be made monthly, as evidenced by monthly statements submitted by the Engineer and approved by the Owner. Total of all services shall not exceed \$118,500.

APPROVED:
CITY OF MARSHALL, TEXAS

BY: _____
Melissa Vossmer, City Manager

ACCEPTED:
HAYES ENGINEERING, INC.

BY:  _____
Stanley R. Hayes, P. E., Principal

TO: City Council
 DATE: December 11, 2025
 ITEM #: 9.D
 SUBJECT: Discussion and approval of the 2025 Joint Funding Agreement with the Marshall Firefighters' Relief & Retirement Fund (Pension), which increases the City's contributions beginning FY26 by 2% each year, through FY28, growing to a normal, annual contribution base rate of 27.8%; and, upon reaching the annual fixed rate of 27.8%, approve the development of an Actuarially Determined Contribution (ADC) Agreement for consideration by the City which will, on an annual basis, utilize the updated Fund Actuarial analysis to determine that fiscal years rate of contribution by the City, not to exceed 34.8%.



Recommendation for Action: Motion to Approve the recommended 2025 Joint Funding Agreement which increases the City's contributions beginning FY26 by 2% each year, through FY28, growing to a normal, annual contribution fixed rate of 27.8%; and, upon reaching the annual fixed rate of 27.8%, approve the development of an Actuarially Determined Contribution (ADC) Agreement for consideration by the City which will, on an annual basis, utilize the updated Fund Actuarial analysis to determine that fiscal years rate of contribution by the City, not to exceed 34.8%.

Executive Summary: As Council is aware, I began attending the Marshall Firefighters' Relief & Retirement Fund Board (Pension Board) along with the Mayor and Interim Finance Director. The City Manager is not a member of the Pension Board and the City is represented only by the Mayor and Finance Director.

By way of history, the Marshall Firefighters' Relief and Retirement Fund was created under the Texas Local Fire Fighters Retirement Act (TLFFRA). The Act provides general guidelines for fund management, including some investment restrictions, but leaves the administration, plan design, contributions and specific investments to each system's local board. Systems operating under this act are entirely locally funded and each have their own boards of trustees governed by state statute. The State Pension Board website shows the following about the Marshall Pension:

Membership	Total Net Assets	Social Security Participation	Contributions	Contribution Type	Fiscal Year End
Active: 44 Annuitant: 40	\$9,244,997	No	Employee: 16.00 % Employer: 21.80 %	Fixed	December

The State Pension Board strongly recommends an amortization period of no more than 30 years and prefers 25 years. The Marshall Pension amortization is currently 65+ years. As I have shared over the last seven months, we have a long way to go to move the fund to a healthier position.

During this time, the Pension Board has taken a series of positive steps to address the financial health of the fund. Most importantly, they voted to send out a request for proposals for financial management / investment services. The process to identify a new provider of these services has been completed, and the Board is working on the issues to address the transition.

It should be noted that the City really has no role in directing investments, as it is directed by the Board.

The poor financial condition of the Fund is the result of years of neglect or the will for the Pension Board to do what was necessary to improve its financial health. This is an instance where the problems we are aware of have been kicked down the road. The City's role, though a minority of the membership of the Board, is also responsible for the conditions we are addressing with the proposed agreement. Going forward, we know to truly be successful we must actively work with the Pension Board to address the issues impacting the membership in a timely manner.

Utilizing my reports to the Council, I have provided a narrative of the discussions, issues, and sticking points for the last several months and now this item is on the Council's agenda to approve the results of our discussions / negotiations with Board leadership as a means of initiating a more permanent solution.

In short, the following plan design is proposed:

1. Increase the City's contributions to the Pension Fund by 2% of payroll each year for the next three (3) years. This would mean the City's fixed contributions will grow from 21.8% as follows:

FY26	23.8%*
FY27	25.8%
FY28	27.8%

2. Firefighters will vote to reduce benefits with lower annual funding costs by 2%.

3. Beginning FY29, contribution requirements of the fund will be subject to actuarial review and will be adjusted upwards or downwards depending on the annual performance of the Fund. Increases / decreases will be shared with the Firefighters in accordance to the 2:1 (City:Firefighters) ratio.

For FY29 and going forward, working with the Pension Board, an Actuarially Determined Contribution (ADC) Agreement will be developed and presented to all parties. This will capture the fixed contributions in place at that time, and with approval, will negate the need for the Pension Board and City to conduct a yearly negotiation on levels of contributions.

4. The performance of the Fund will dictate how much of any additional increase will be required. Contributions could also go down. However, contributions will be capped as follows:

	CURRENT CONTRIBUTIONS	PROPOSED 1-2-29 CONTRIBUTIONS	CAPPED CONTRIBUTIONS
CITY OF MARSHALL	21.8%	27.8%	34.8%
FIREFIGHTERS	16.0%		17.5%

5. The commitment to reaching the 27.8% contribution will move the amortization from 65+ years to less than 30 years. Between the reduction in benefits by firefighters and the increase in the City's contribution, a total of 8% is needed to reach the 30-year amortization. This will be viewed as very positive by the State Pension Board.

*Funds are available in the approved FY26 Budget for the proposed 2% increase in the City's contributions.

There is additional information found in what the Pension Board is calling the 2025 Joint Funding Agreement, copy attached. This document not only includes the information contained herein but addresses "what if" scenarios, normal actual costs, fixed contributions and priority of contribution reductions based on the performance of the fund.

It should be noted that there must be a vote by membership to accept the recommendations contained here. In addition, the Board must then approve the membership vote. As of preparation of the agenda, the membership vote was not complete. If the membership does not support these recommendations, we will have to go back to the Pension Board and continue discussions / negotiations.

Finally, the City's actuary, Brad Heinrichs, will be present at the meeting and will provide an overview to Council and go through the recommendations.

Focus Area(s): This item aligns with the following council adopted focus area(s): Improving Customer Service, Improving Infrastructure and Investing in our Workforce.

Budget Cost: The FY26 Approved Budget anticipated an increase would be needed. The additional 2% increase will be calculated on the actual payroll as is the current 21.8% contribution. This changes frequently due to promotions, gaining certifications required, new hires, reductions due to retirements etc. With the FY26 budget, we made a variety of assumptions and included a flat 3% overall increase in contributions. As such, the approved FY26 Budget will be sufficient to implement this funding agreement for FY26.

Staff Contact: Melissa Byrne Vossmer, City Manager

Attachments: 1. Final 2025 Joint Funding Agreement Firefighters Pension

2025 Joint Funding Agreement

Firefighters: Vote for prospective benefit reductions which lower annual ongoing funding costs by 2.0% of covered payroll.

City of Marshall: Increase contributions from 21.8% to 23.8% in FY2026, 25.8% in FY2027, and 27.8% in FY2028

Additional Details:

- Beginning in FY2029, an Actuarially Determined Contribution will be calculated and administered prospectively.
- From the implementation of the ADC until the Fund reaches 65% funded, contributions will not be less than 16% Firefighters, and 27.8% City. If these contribution rates surpass the ADC rate, then the portion of contribution amounts that exceeded the ADC may be utilized as a “pre-payment” and applied as a credit toward future ADC increases.
- Increases and Decreases from the 2028 rates will be adjusted according to a 2:1 (City:Firefighter) ratio.
- There is a cap on Firefighter contributions at 17.5%.
- There is a cap on City contributions at 34.8%
- If the Firefighters’ contribution rate reaches 17.5%, any future reductions will first be applied to reach the total Firefighters’ Normal Cost Rate, but reductions below the Normal Cost will serve to restore the original 2:1 rate. To be clear, the City will pay for or receive full benefit of 100% of the increases/decreases to their contribution rate between 30.8% and 34.8%, but reductions below 30.8% will first serve to reduce the Firefighters’ contribution rate to their Normal Cost Rate.
- The cost of any future benefit enhancements will not be shared by the City without their approval.
- Pension Board will implement 5-year asset smoothing and a 30-year layered amortization periods for all subsequent amortization bases, unless a shorter amortization period is required to avoid triggering a new FSRP.

-For clarification, if the Firefighters’ contribution rate escalates to 17.5%, at this point the City’s contribution requirement would be 30.8%, which yields a total required contribution of 48.3%. Any changes in total funding requirements beyond the 48.3% and up to 52.3% in total would be 100% attributable to the City, up until the City’s portion hits their cap of 34.8%. If the ADC for the City increases beyond 34.8%, the Firefighters must bear any cost increases through an increase in member contributions or a reduction in benefits to bring the City’s contribution rate down to 34.8%.

-For clarification, the cost increase that is required to fund a benefit enhancement will not be imposed on the City without their approval. If the City does choose to share in the cost of a benefit increase, then the sharing ratio will be determined at that time for that specific instance. It will not automatically fall subject to the ADC cost sharing mechanism of 2:1.

-For clarification, beginning with the 12/31/2028 valuation, an Actuarially Determined Contribution will be calculated and administered effectively on January 1st of the year following the publication of the

actuarial report. For clarification, the 12/31/2028 valuation is expected to be published in the summer of 2029 with any contribution increases becoming effective January 1, 2030.

-For clarification, it is possible that the 2026 valuation could result in an amortization period above 30 years. Without the language allowing the amortization period to be reduced below 30 years to avoid an FSRP we could become subject to a new FSRP if not a R-FSRP. Adding this language allows for the board Actuary to automatically adjust projections under the necessary amortization period to avoid triggering a new FSRP.

This document serves to show the changes we feel will be approved by the Board.

Prepared by: Tanner Lane, Fire Captain
Firefighters Pension Board Member

Approved:	_____	_____
	Amy Ware	Date
	Mayor	

Attest:	_____	_____
	Nikki Smith	Date
	City Secretary	