MEETING AGENDA
City Council
REGULAR SESSION CITY COUNCIL
May 12, 2020

HAL BALDWIN MUNICIPAL COMPLEX COUNCIL CHAMBERS
1400 SCHERTZ PARKWAY BUILDING #4
SCHERTZ, TEXAS 78154

CITY OF SCHERTZ CORE VALUES
Do the right thing
Do the best you can
Treat others the way you want to be treated
Work cooperatively as a team

AGENDA
TUESDAY, MAY 12, 2020 at 6:00 p.m.

City Council will hold its regularly scheduled meeting at 6:00 p.m., Tuesday, May 12, 2020, at the City Council Chambers. In lieu of attending the meeting in person, residents will have the opportunity to watch the meeting via live stream on the City's YouTube Channel.

Call to Order

Opening Prayer and Pledges of Allegiance to the Flags of the United States and State of Texas. (Councilmember Dahle)

City Events and Announcements

- Announcements of upcoming City Events (B. James/C. Kelm/S. Gonzalez)
- Announcements and recognitions by the City Manager (M. Browne)
- Announcements and recognitions by the Mayor (R. Gutierrez)

Hearing of Residents

Residents who choose to watch the meeting via live stream, but who would like to participate in Residents to be Heard, should email their comments to City Secretary, Brenda Dennis, at bdennis@schertz.com by 5:00 p.m. on Monday, May 11, 2020, ***SO THAT THE CITY SECRETARY MAY READ THE PUBLIC COMMENTS INTO THE RECORD UNDER THE HEARING OF RESIDENTS.*** ***In the body of the email please include your name, your address, phone number, agenda item # if applicable or subject of discussion, and your comments.***

*This time is set aside for any person who wishes to address the City Council. Each person should fill out the speaker's register prior to the meeting. Presentations should be limited to no more than **3** minutes.*

All remarks shall be addressed to the Council as a body, and not to any individual member thereof. Any person making personal, impertinent, or slanderous remarks while addressing the Council may be requested to leave the meeting.

Discussion by the Council of any item not on the agenda shall be limited to statements of specific factual information given in response to any inquiry, a recitation of existing policy in response to an inquiry, and/or a proposal to place the item on a future agenda. The presiding officer, during the Hearing of Residents portion of the agenda, will call on those persons who have signed up to speak in the order they have registered.

Consent Agenda Items

The Consent Agenda is considered self-explanatory and will be enacted by the Council with one motion. There will be no separate discussion of these items unless they are removed from the Consent Agenda upon the request of the Mayor or a Councilmember.

The following was read into record:

1. **Minutes** – Consideration and/or action regarding the approval of the minutes of the meeting of May 5, 2020. (B. Dennis)

2. **Resolution No. 20-R-47** - Consideration and/or action approving a Resolution by the City Council of the City of Schertz, Texas authorizing a Schertz Main Street Local Flavor Economic Development Grant for 409 Main Street (Thirsty Joe's) and related matters in connection therewith. (B. James)

Discussion and Action Items

3. **Resolution 20-R-50 -** Consideration and/or action approving a Resolution by the City Council of the City of Schertz authorizing the City Manager to enter into a Design-Build Agreement with F.A. Nunnelly for the Building 27 "Fleet Facility" Renovation Project. (C. Kelm/C. Hernandez/J. Gohlke)

Roll Call Vote Confirmation

Workshop

4. **Workshop Discussion regarding City Purchasing Policy** - Discussion regarding proposed changes to the City Purchasing Policy. (J. Kurz/J. Gohlke)

5. **Workshop Discussion and Update (Ordinance 20-H-15)** - Discussion and update regarding the COVID-19 virus and our current Ordinance No. 20-H-15 Declaration of Local Disaster. (M. Browne/K. Kong)

6. **Workshop Discussion regarding the Staffing Study** - Presentation of Staffing Study Report (M. Browne/C. Kelm/J. Kurz)

Requests and Announcements

- Announcements by the City Manager.

- Requests by Mayor and Councilmembers that items be placed on a future City Council agenda.

- Announcements by Mayor and Councilmembers

  - City and community events attended and to be attended
  - City Council Committee and Liaison Assignments (see assignments below)
  - Continuing education events attended and to be attended
  - Recognition of actions by City employees
  - Recognition of actions by community volunteers

Information available in City Council Packets - **NO DISCUSSION TO OCCUR**

7. 2019 EMS Annual Report. (J. Mabbitt)

Adjournment

CERTIFICATION

I, BRENDA DENNIS, CITY SECRETARY OF THE CITY OF SCHERTZ, TEXAS, DO HEREBY CERTIFY THAT THE ABOVE AGENDA WAS PREPARED AND POSTED ON THE OFFICIAL BULLETIN BOARDS ON THIS THE 8th DAY OF MAY 2020 AT 2:00 P.M., WHICH IS A PLACE READILY ACCESSIBLE TO THE PUBLIC AT ALL TIMES AND THAT SAID NOTICE WAS POSTED IN ACCORDANCE WITH CHAPTER 551, TEXAS GOVERNMENT CODE.

BRENDA DENNIS

I CERTIFY THAT THE ATTACHED NOTICE AND AGENDA OF ITEMS TO BE CONSIDERED BY THE CITY COUNCIL WAS REMOVED BY ME FROM THE OFFICIAL BULLETIN BOARD ON _____DAY OF _______________, 2020. TITLE: ______________

This facility is accessible in accordance with the Americans with Disabilities Act. Handicapped parking spaces are available. If you require special assistance or have a request for sign interpretative services or other services, please call 210-619-1030.

The City Council for the City of Schertz reserves the right to adjourn into closed session at any time during the course of this meeting to discuss any of the matters listed above, as authorized by the Texas Open Meetings Act.

Closed Sessions Authorized: This agenda has been reviewed and approved by the City's legal counsel and the presence of any subject in any Closed Session portion of the agenda constitutes a written interpretation of Texas Government Code Chapter 551 by legal counsel for the governmental body and constitutes an opinion by the attorney that the items discussed therein may

be legally discussed in the closed portion of the meeting considering available opinions of a court of record and opinions of the Texas Attorney General known to the attorney. This provision has been added to this agenda with the intent to meet all elements necessary to satisfy Texas Government Code Chapter 551.144(c) and the meeting is conducted by all participants in reliance on this opinion.

COUNCIL COMMITTEE AND LIAISON ASSIGNMENTS

Mayor Gutierrez Audit Committee Investment Advisory Committee Main Street Committee	**Councilmember Scagliola – Place 5** Cibolo Valley Local Government Corporation - Alternate Hal Baldwin Scholarship Committee Interview Committee for Boards and Commissions - Alternate Schertz-Seguin Local Government Corporation
Councilmember Davis– Place 1 Audit Committee Interview Committee for Boards and Commissions Main Street Committee - Chair Schertz Housing Authority Board TIRZ II Board	**Councilmember Scott – Place 2** Interview Committee for Boards and Commissions
Councilmember Larson – Place 3 Main Street Committee – Vice Chair	**Councilmember Dahle – Place 4** Cibolo Valley Local Government Corporation Interview Committee for Boards and Commissions TIRZ II Board
Councilmember Heyward – Place 6 Audit Committee Investment Advisory Committee Schertz Animal Services Advisory Commission	**Councilmember Brown – Place 7** Main Street Committee Schertz-Seguin Local Government Corporation - Alternate

Agenda No. 1.

CITY COUNCIL MEMORANDUM

City Council Meeting:	**May 12, 2020**
Department:	**City Secretary**
Subject:	**Minutes – Consideration and/or action regarding the approval of the minutes of the meeting of May 5, 2020. (B. Dennis)**

BACKGROUND

The City Council held a Regular City Council meeting on May 5, 2020.

RECOMMENDATION

Recommend Approval.

Attachments

05-05-2020 Draft minutes

D R A F T

MINUTES
REGULAR MEETING
May 5, 2020

A Regular Meeting was held by the Schertz City Council of the City of Schertz, Texas, on May 5, 2020, at 6:00 p.m. in the Hal Baldwin Municipal Complex Council Chambers, 1400 Schertz Parkway, Building #4, Schertz, Texas. The following members present to-wit:

Present:	Mayor Ralph Gutierrez; Mayor Pro-Tem Mark Davis; Councilmember Rosemary Scott; Councilmember Scott Larson; Councilmember Michael Dahle; Councilmember David Scagliola; Councilmember Allison Heyward; Councilmember Tim Brown
City Staff:	City Manager Dr. Mark Browne; Assistant City Manager Brian James; Assistant City Manager Charles Kelm; City Attorney Clarissa Rodriguez; Assistant to the City Manager Sarah Gonzalez; Deputy City Secretary Gayle Wilkinson

Call to Order – City Council Regular Session

Mayor Gutierrez called the regular meeting to order at 6:00 p.m.

Opening Prayer and Pledges of Allegiance to the Flags of the United States and State of Texas. (Mayor Gutierrez)

City Events and Announcements

- Announcements of upcoming City Events (B. James/C. Kelm/S. Gonzalez)

  Assistant City Manager Brian James made the following announcements:

  - Wednesday, May 6th our contractor is going to be doing some concrete removal and replacement on the Schertz Parkway overlay area causing some short localized single lane closures beginning on Beck Street to Exchange and working their way to Live Oak Rd.
  - Wednesday, May 6th the Lone Oak Subdivision chip seal project will begin. A map of the area affected will be available on our website at schertz.com under engineering, the capital improvements projects.
  - Thursday, May 7th the Greenfield Village chip seal will begin. A map of the

area affected will be available on our website at schertz.com under engineering, the capital improvements projects.

- Announcements and recognitions by the City Manager (M. Browne)

  None at this time.

- Announcements and recognitions by the Mayor (R. Gutierrez**)**

  None at this time.

Hearing of Residents

Residents who choose to watch the meeting via live stream, but who would like to participate in Residents to be Heard, should email their comments to City Secretary, Brenda Dennis, at bdennis@schertz.com by 5:00 p.m. on Monday, May 4, 2020*, *SO THAT THE CITY SECRETARY MAY READ THE PUBLIC COMMENTS INTO THE RECORD UNDER THE HEARING OF RESIDENTS.* *In the body of the email please include your name, your address, phone number, agenda item # if applicable or subject of discussion, and your comments.

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None at this time.

Consent Agenda Items

The Consent Agenda is considered self-explanatory and will be enacted by the Council with one motion. There will be no separate discussion of these items unless they are removed from the Consent Agenda upon the request of the Mayor or a Councilmember.

The following was read into record:

1. **Minutes** – Consideration and/or action regarding the approval of the minutes of the meeting of April 28, 2020. (B. Dennis)

2. **Ordinance No. 20-T-14** - Consideration and/or action approving an Ordinance by the City Council of the City of Schertz, Texas authorizing an Adjustment to the Fiscal Year 2019-2020 Reserves for $250,025.00; repealing all Ordinances or Parts of Ordinances in conflict with this Ordinance; and providing an effective date. ***Final Reading*** (C. Kelm/S. Williams/D. Letbetter)

3. **Ordinance No. 20-S-12** - Consider and/or action on a request for a Specific Use Permit to allow a Convenience Store with Gas Pumps on approximately 2 acres of land, more specifically described as the southeast corner of FM 3009 and Ripps-Kreusler Road, City of Schertz, Guadalupe County, Texas. ***Final Reading*** (B. James/L. Wood/N. Koplyay)

   Moved by Councilmember Michael Dahle, seconded by Councilmember David Scagliola to approve consent agenda items 1-3.

   AYE: Mayor Pro-Tem Mark Davis, Councilmember Rosemary Scott, Councilmember Scott Larson, Councilmember Michael Dahle, Councilmember David Scagliola, Councilmember Allison Heyward, Councilmember Tim Brown

   Passed

Mayor Gutierrez recognized Councilmember Tim Brown who stated he had been asked how the Consent agenda items work. He stated that Council received their packets on Friday before the Tuesday Council Meeting and these packets are also available to the public via our website. Councilmember Brown clarified Council has all weekend to review the agenda packet so when we come to Council we are not just blindly listening to the Mayor read something and approving it.

Workshop

4. **Workshop Discussion and Update (Ordinance 20-H-15)** - Discussion and update regarding the COVID-19 virus and our current Ordinance No. 20-H-15 Declaration of Local Disaster. (M. Browne/K. Kong)

   Mayor Gutierrez recognized Fire Chief Kade Long who provided a PowerPoint and updated Council on the EOC team activities, reopened services in Schertz, and City services. Fire Chief Kade Long recognized Assistant City Manager Charles Kelm who spoke about enforcement during this pandemic. He began by thanking our Code Enforcement officers and Police officers for running a very proactive campaign in educating and working with our business owners and residents. Assistant City Manager Charles Kelm also updated Council on our cleaning contract during this pandemic. Fire Chief Kade Long continued with his PowerPoint showing the new updates and clarifications on businesses able to open on Friday, May 8th and spoke about the projected openings on May 18th. Fire Chief Kade Long and Assistant City Manager Charles Kelm addressed questions from Council.

Mayor Gutierrez thanked the Texas National Guard for facilitating testing this past Monday in Schertz. He also stated the City of Schertz is determined to reopen commerce and to get employers and employees back to work. He thanked staff for getting information needed out and providing guidance on directives given.

Roll Call Vote Confirmation

Mayor Gutierrez recognized Deputy City Secretary Gayle Wilkinson who provided the roll call count confirmation for agenda items 1-3.

Information available in City Council Packets - NO DISCUSSION TO OCCUR

Mayor Gutierrez reminded Council about the informational items that are in their packet, he also stated that the information can be found on-line.

5. Monthly update on major projects in progress/CIP. (B. James/K. Woodlee)

6. SEDC COVID-19 Response. (M. Browne/A. Perez)

Requests and Announcements

- Announcements by the City Manager.

  None at this time.

- Requests by Mayor and Councilmembers that items be placed on a future City Council agenda.

  None at this time.

- Announcements by Mayor and Councilmembers

  - City and community events attended and to be attended
  - City Council Committee and Liaison Assignments (see assignments below)
  - Continuing education events attended and to be attended
  - Recognition of actions by City employees

- Recognition of actions by community volunteers

Councilmember Rosemary Scott recognized Parks Director Lauren Shrum for her quick response to a complaint referencing a trashcan issue in Crescent Park.

Councilmember David Scagliola asked for clarification on the signage (specifically digital signage) being used during the chip seal projects in Lone Oak and Greenfield Village. Assistant City Manager Brian James addressed his question and said he would get an answer on the use of digital signs during the chip seal projects.

Mayor Gutierrez addressed Mothers:

" We are celebrating an amazing day this Sunday - Mother's Day. Mom's, we cannot thank you enough for what you have done for us. You were always there when we needed you, providing us advise, guidance, and support. No other gift in the world can be more special than the gift of motherhood. Happy Mother's Day."

Adjournment

As there was no further business, Mayor Gutierrez adjourned the meeting at 6:40 p.m.

____
Ralph Gutierrez, Mayor

ATTEST:

____
Gayle Wilkinson, Deputy City Secretary

CITY COUNCIL MEMORANDUM

City Council Meeting:	**May 12, 2020**
Department:	**Executive Team**
Subject:	**Resolution No. 20-R-47 - Consideration and/or action approving a Resolution by the City Council of the City of Schertz, Texas authorizing a Schertz Main Street Local Flavor Economic Development Grant for 409 Main Street (Thirsty Joe's) and related matters in connection therewith. (B. James)**

BACKGROUND

The owner of the property at 409 Main, which is the location of Thirsty Joe's has applied for a Schertz Main Street Local Flavor Economic Development Grant. This is the first application for this location. The owner is proposing to do electrical work for the building and HVAC work. This falls under the Systems category and is eligible for up to $15,000 in matching funds. The estimated cost of the work is $33,600. the owner is also planning to do work on the roof which falls under the Facade Improvement category and is eligible for up to $5,000 in matching grant funds. The estimated cost of the work is $9,000 so the 50% match would be $4,500. The total match for both categories is $19,500, below the $20,000 annual cap.

GOAL

Promote and enhance commercial activity along Main Street to promote the economic, cultural, and general welfare of the public. The area around Main Street in Schertz once served as the commercial and social hub of the community. The City seeks to improve the image of the area around Main Street through the inducement of public money to promote local economic development and stimulate business and commercial activities in the City.

COMMUNITY BENEFIT

Encourage the attraction of small businesses that will create local charm and help develop a sense of place in and around Main Street. Promote commercial development. Stabilize and improve property values. Foster civic pride. Strengthen the economy of the City by protecting and enhancing the attractiveness of the Main Street area to residents and visitors, as well as provide support to local businesses.

SUMMARY OF RECOMMENDED ACTION

Staff recommends approval of Resolution 20-R-347 approving a Schertz Main Street Local Flavor Economic Development Grant for up to $19,500 subject to the applicant entering into the incentive agreement.

FISCAL IMPACT

Up to $19,500 for this grant. Staff has seen an increase in local flavor grants this fiscal year. This is the eight grant this year. The Local Flavor Grant is funded via the general fund and staff has been using the contingency line item to fund these. Applicants have up to one year to complete the work and apply for reimbursement. If necessary, due to the timing of the reimbursement requests, staff may seek approval of a budget adjustment late this year to pull funds from excess reserves to cover some of these grants.

RECOMMENDATION

Approval of Resolution 20-R-47

Attachments

Res 20 R 47 LF 409 Main
409 Main LF agreement

RESOLUTION NO. 20-R-47

A RESOLUTION BY THE CITY COUNCIL OF THE CITY OF SCHERTZ, TEXAS APPROVING A REQUEST FOR A SCHERTZ MAIN STREET LOCAL FLAVOR ECONOMIC DEVELOMENT GRANT FOR 409 MAIN STREET IN THE CITY OF SCHERTZ, TEXAS, AND RELATED MATTERS IN CONNECTION THEREWITH

WHEREAS, The City of Schertz desires to protect, enhance, and preserve the historic resources and landmarks which represent distinctive elements of Schertz' historic, architectural, economic, cultural, and social heritage by providing property owners and incentive for protecting their property; and

WHEREAS, the City of Schertz desires to encourage the attraction of small businesses that will create local charm and help develop a sense of place in and around Main Street;

WHEREAS, the City of Schertz desires to stabilize and improve property values; and

WHEREAS, Foster civic pride in the beauty and accomplishments of the past, and to promote the use of the historic structures for the culture, education, and general welfare of residents; and

WHEREAS, Strengthen the economy of the city by protecting and enhancing the attractiveness of the Main Street area to residents and visitors, as well as provide support and stimulus to businesses.

WHEREAS, the City Council approved the Schertz Main Street Local Flavor Economic Development Grant;

WHEREAS, staff is in support of this program and recommended approval of the grant request for 409 Main Street for up to $19,500;

NOW THEREFORE, BE IT RESOLVED, THAT THE CITY COUNCIL OF THE CITY OF SCHERTZ, TEXAS THAT:

Section 1. The City Council hereby approves the Schertz Main Street Local Flavor Economic Development Grant request for 409 Main Street subject to the approved criteria of the program and execution of a funding agreement generally as outlined in Exhibit "A".

Section 2. The recitals contained in the preamble hereof are hereby found to be true, and such recitals are hereby made a part of this Resolution for all purposes and are adopted as a part of the judgment and findings of the City Council.

Section 3. All resolutions, or parts thereof, which are in conflict or inconsistent with any provision of this Resolution are hereby repealed to the extent of such conflict, and the provisions of this Resolution shall be and remain controlling as to the matters resolved herein.

Section 4. This Resolution shall be construed and enforced in accordance with the laws of the State of Texas and the United States of America.

Section 5. If any provision of this Resolution or the application thereof to any person or circumstance shall be held to be invalid, the remainder of this Resolution and the application of such provision to other persons and circumstances shall nevertheless be valid, and the City Council hereby declares that this Resolution would have been enacted without such invalid provision.

Section 6. It is officially found, determined, and declared that the meeting at which this Resolution is adopted was open to the public and public notice of the time, place, and subject matter of the public business to be considered at such meeting, including this Resolution, was given, all as required by Chapter 551, Texas Government Code, as amended.

Section 7. This Resolution shall be in force and effect from and after its final passage, and it is so resolved.

PASSED AND ADOPTED, this 12th day of May, 2020.

CITY OF SCHERTZ, TEXAS

____

Ralph Gutierrez, Mayor

ATTEST:

____

Brenda Dennis, City Secretary

(CITY SEAL)

Exhibit A

STATE OF TEXAS §
§
COUNTY OF BEXAR §

SCHERTZ MAIN STREET LOCAL FLAVOR ECONOMIC DEVELOPMENT PROGRAM FUNDING AGREEMENT BETWEEN THE CITY OF SCHERTZ, TEXAS AND Joe, Frances and Jolean Huerta, FOR EXPENDITURE OF LOCAL FLAVOR GRANT FUNDS

This Local Flavor Development Program Funding Agreement (AGREEMENT) is made and entered into by and between the City of Schertz, Texas (CITY) and Joe, Frances and Jolean Huerta, (ENTITY).

WHEREAS, the ENTITY has developed a proposal to Make additional improvements and repairs, including electrical and HVAC and roof work ceiling work at 409 Main (the "Project"); and

WHEREAS, Section 380.001 of the Texas Local Government Code, as amended, allows the governing body of a municipality to establish and provide for the administration of one or more programs to promote state and local economic development and to stimulate business and commercial activity in the municipality; and

WHEREAS, the Schertz Main Street Local Flavor Economic Development Program is intended to encourage and expansion and attract small businesses that create local charm and help develop a sense of place in and around Main Street, promote commercial development, stabilize and improve property values, foster civic pride, and protect and enhance the attractiveness of the Main Street area to residents and visitors; and

WHEREAS, funding for the Schertz Main Street Local Flavor Economic Development Program will be provided annually through the City's General Fund; and

WHEREAS, the Schertz Main Street Local Flavor Economic Development Program will enhance other city efforts to improve, beautify, and promote economic development in the Main Street area.

WHEREAS, the area around Main Street in Schertz once served as commercial and social hub of the community; and

WHEREAS, the City seeks to improve the image of the area around Main Street through restoration and rehabilitation of structures in the Main Street area to serve as a commercial, social, cultural and tourism hub of the City; and

WHEREAS, the City Council of the City of Schertz desires to provide funds to Joe, Frances and Jolean Huerta (ENTITY).

NOW, THEREFORE, it is mutually agreed by and between the CITY and ENTITY as follows:

GENERAL PROVISIONS

Section 1. Purpose. The purpose of this Agreement is to provide funding to the ENTITY for the project identified in the attached Exhibit "A" (the "Project"), the intent of which is to promote state and local economic development and to stimulate business and commercial activity in the municipality to encourage and expansion and attract small businesses that create local charm and help develop a sense of place in and around Main Street, promote commercial development, stabilize and improve property values, foster civic pride, and protect and enhance the attractiveness of the Main Street area to residents and visitors.

Section 2. Obligation of the ENTITY. The ENTITY shall use all of the awarded funds provided by the CITY in accordance with Chapter 351 of the Texas Tax Code, the ENTITY'S funding application, and the attached Exhibit "A".

Section 3. Reporting Requirements of the ENTITY. The ENTITY shall deliver a detailed accounting of the expenditures for the Project within thirty (30) days after completion of the Project (the "Post Event Report"). The Post Event Report shall include copies of receipts and other documents establishing the expenditures for the project. The CITY shall not make reimbursements for expenditures where no receipt or invoice is provided. Partial or incomplete reports will not be accepted.

Section 4. Authorization of Payment. Subject to the ENTITY'S satisfactory performance and compliance with the terms of this AGREEMENT, the CITY agrees to pay the ENTITY up to fifty percent (50%) of the Project. The Systems Grant portion of the Project is estimated to be approximately $33,600.00 but and fifty percent of the maximum $15,000.00 match so this portion of the project is up $15,000.00. The Façade Improvement portion of the Project is estimated to be approximately $9,000 with a match cap of $5,000.00 so the 50% amount would be $4,500.00. Payment will be made within forty-five (45) days of acceptance of the complete Post Event Report. Partial or incomplete reports will not be accepted. Only expenditures that meet Chapter 351 of the Tax Code and this AGREEMENT shall be reimbursed.

Section 5. Appeal Process. Any ENTITY wishing to appeal the decision of the CITY must present their appeal in writing within ten (10) business days of funding denial.

Section 6. Rights. The City of Schertz has the right, at any time, to inspect the books or records of the ENTITY that may relate to performance of this AGREEMENT. The CITY, at its sole expenses, has the right to conduct an audit of the ENTITY or Project.

Section 7. Term. The AGREEMENT shall become effective as of the date entered below. The AGREEMENT shall terminate one year from its effective date or once the terms have been met, whichever occurs first.

Section 8. Indemnification. The ENTITY agrees to defend, indemnify and hold harmless the CITY, its officers, agents and employees, against any and all claims, lawsuits, judgments, cause of action, costs and expenses for personal injury (including death), property damage or other harm for which recovery of damages is sought, suffered by any person or persons, that may arise out of or be occasioned by the ENTITY's breach of any of the terms or provisions of this AGREEMENT, or by any negligent act or omission of the ENTITY, its officers, agents, servants, employees, contractors, or subcontractors, in the performance of this AGREEMENT; except that the indemnity provided for in this paragraph shall not apply to any liability resulting from the sole negligence of the CITY, its officers, agents, employees or separate contractors, and in the event of joint and concurrent negligence of both the ENTITY and the CITY under Texas law and without waiving any defenses of the parties under Texas law. The provisions of this paragraph are solely for the benefit of the parties hereto and not intended to create or grant any rights, contractual or otherwise, to any other person or entity. Both parties expressly agree that this AGREEMENT does not assign any responsibility for civil liability to the City of Schertz that may arise by virtue of this AGREEMENT.

Section 9. Termination. A party may terminate this AGREEMENT in whole or in part if the other party fails to comply with a term of the AGREEMENT, including the inability of the ENTITY to conform to any change required by federal, state or local laws or regulations; or for the convenience of either party. The terminating party shall provide written notification to the other party of the decision to terminate this AGREEMENT within thirty (30) days before the effective date of termination. A party may terminate the AGREEMENT for breach of any provision of this AGREEMENT, upon written notice of the breach and the breaching party shall have ten (10) days after receipt of the written notice in which to cure the breach to the satisfaction of the non-breaching party.

Section 10. Notice. All notices required or permitted under this AGREEMENT shall be in writing and shall be delivered in person or mailed as follows:

to the CITY at:

City of Schertz
Attention: City Manager
1400 Schertz Parkway
Schertz, TX 78154
(210) 619-1000

To Joe, Frances and Jolean Huerta at:
Attention: Joe Huerta
409 Main
Schertz, Texas 78154

MISCELLANEOUS

Section 11. Entire Agreement. This AGREEMENT constitutes the entire agreement of the parties regarding the subject matter contained herein. The parties may not modify or amend this AGREEMENT, except by written agreement approved by the governing bodies of each party and duly executed by both parties.

Section 12. Approval. This AGREEMENT has been duly and properly approved by each party's governing body and constitutes a binding obligation on each party.

Section 13. Assignment. Except as otherwise provided in this AGREEMENT, a party may not assign this AGREEMENT or subcontract the performance of services without first obtaining the written consent of the other party.

Section 14. Non-Waiver. A party's failure or delay to exercise right or remedy does not constitute a waiver of the right or remedy. An exercise of a right or remedy under this AGREEMENT does not preclude the exercise of another right or remedy. Rights and remedies under this AGREEMENT are cumulative and are not exclusive of other rights or remedies provided by law.

Section 15. Paragraph Headings. The various paragraph headings are inserted for convenience of reference only, and shall not affect the meaning or interpretation of this AGREEMENT or any section thereof.

Section 16. Attorney fees. In any lawsuit concerning this AGREEMENT, the prevailing party shall be entitled to recover reasonable attorney's fees from the nonprevailing party, plus all out-of-pocket expense such as deposition costs, telephone, calls, travel expenses, expert witness fees, court costs, and their reasonable expenses, unless otherwise prohibited by law.

Section 17. Severability. The parties agree that in the event any provision of this AGREEMENT is declared invalid by a court of competent jurisdiction that part of the AGREEMENT is severable and the decree shall not affect the remainder of the AGREEMENT. The remainder of the AGREEMENT shall be in full force and effect.

Section 18. Venue. The parties agree that all disputes that arise of this AGREEMENT are governed by the laws of the State of Texas and venue for all purposes herewith shall be in Milam County, Texas.

Section 19. Certificate of Insurance. The ENTITY agrees to provide a certificate of insurance for liability and worker's compensation insurance or letter of self-insurance on its letterhead indicating its self-insured status before any event awarded funding under this AGREEMENT. The cost of the insurance herein mentioned to be secured and maintained by the ENTITY shall be borne solely by the ENTITY.

IN WITNESS HEREOF, the CITY and ENTITY make and execute this AGREEMENT to be effective this _________day of __________________, 2020.

CITY OF SCHERTZ, TEXAS	ENTITY
______________________________	______________________________
City Manager	(Joe Huerta)

(Frances Huerta)

(Jolean Huerta)

ATTEST:

City Secretary

(Title)

EXHIBIT A

[Describe the project to be performed]

Thirsty Joe's Tavern

409 Main St.
Schertz, Tx 78154
(210)390-1461

Mr. Brian James

I would like to requsest LF Grant for the following Per city recommendations:

two 25ton AC Units at a cost of $5800 each with a total of $11,600 and New Roof at a cost of $9000.

At Thirsty Joe's Tavern for any questions or concerns please contact me.

Thank You,

Joe Huerta
(210) 508-9456

A-NC3819 / T-3850 - 3-part carbonless

contractors proposal

Proposal

Page # 1 of 1 pages

Leon Smoot Electric Co
122 Wayne Dr.
Universal City, TX 78148
(210) 566-2030
TECL 20562

PROPOSAL SUBMITTED TO: Mr. Joe Huerta	JOB NAME Thirsty Joe's Tavern	JOB # 12112019
ADDRESS 400 Marilyn Schertz TX 78154	JOB LOCATION 409 Main Str. Schertz TX 78154	
	DATE 12-11-19	DATE OF PLANS —
PHONE # (210) 508 9456 / FAX # —	ARCHITECT —	

We hereby submit specifications and estimates for: providing and installing a New Meter Loop as Follows.

- Demo of existing old Meter Cans off the existing "Hot Gutter", & enclosures.
- Install a 240V/200A Meter Can, Power Panel w/ Main Breaker, 8"x8"x48" Rain-proof Gutter.
- Re-Wire existing Feeder circuits to: 2 A/C units, 2 Lighting Panels, 2 Elec. Furnaces.
- Ensure the Code Requirements: Grounding, Bonding, Labeling and Sealing
- Obtain a City Elec. Permit.
- Work with GVEC.
- This Exterior Meter/Loop Services Work w/o new discoveries can be accomplished for a cost of $17,000.00.

Interior items on the insp. List; (Note - Some of which are needed to be clarified by the Inspectors.). • Combine Two (2) L. Panels into One and developing "J" Boxes. • P&I for wiring and disconnect to New Furnace.
- Ensuring Emer. Lighting, Labeling Panel & Circuits.
- These Interior Items cost will be $5,000.00

We propose hereby to furnish material and labor — complete in accordance with the above specifications for the sum of: 22,000.00

$ Twenty-Two Thousand and no/100 Dollars

with payments to be made as follows: ≈ 1/3 to start and the Total upon the Completion of the Elec. Work.

Any alteration or deviation from above specifications involving extra costs will be executed only upon written order, and will become an extra charge over and above the estimate. All agreements contingent upon strikes, accidents, or delays beyond our control.

Respectfully submitted Welton L. Smoot

Note — this proposal may be withdrawn by us if not accepted within 90 days.

Acceptance of Proposal

The above prices, specifications and conditions are satisfactory and are hereby accepted. You are authorized to do the work as specified. Payments will be made as outlined above.

Signature Joe Huerta

CITY COUNCIL MEMORANDUM

City Council Meeting:	**May 12, 2020**
Department:	**Purchasing & Asset Management**
Subject:	**Resolution 20-R-50 - Consideration and/or action approving a Resolution by the City Council of the City of Schertz authorizing the City Manager to enter into a Design-Build Agreement with F.A. Nunnelly for the Building 27 “Fleet Facility” Renovation Project. (C. Kelm/C. Hernandez/J. Gohlke)**

BACKGROUND

The City of Schertz has an existing 14,850 SF building (Building 27 - Commercial Place), that was earmarked to be renovated into a state of the art Fleet Maintenance Building. The renovations to the building include creation of office spaces, fleet shop area, exterior drainage and flat work.

An RFQ ("Request for Qualifications") was done to secure a Design-Build firm that would handle a turnkey approach to the renovations from Design, to construction.
SERVICES REQUESTED included:
1. Analysis and assessment of Owner’s facilities to determine deficiencies and needs
2. Development of project proposal(s) for Owner’s consideration
3. Design and Engineering of approved projects
4. Installation / implementation of the approved projects
5. Commissioning of the installed systems

Five (5) responses were received to the RFQ. City entered into negotiations with the highest ranked vendor. However after multiple weeks of negotiations City was not able to reach an agreement for a fee schedule that City was comfortable with based on the knowledge and expertise of City, Owner's Rep Firm, and Scope of Work. Negotiations were then taken up with the second ranked vendor, which is being recommended for award.

GOAL

Enter into a Design-Build agreement with FA Nunnelly to for the design and renovation of Building 27 located in Commercial Place into a State of the Art Fleet Maintenance Building.

COMMUNITY BENEFIT

Having a dedicated fleet maintenance building allows the City to effectively and efficiently maintain, service, and repair the City's Fleet Vehicles. Having this space will reduce the amount of money spent on third-party repairs such as dealerships and will increase the overall life expectancy of the City's Fleet.

SUMMARY OF RECOMMENDED ACTION

Staff recommends Council approve Resolution 20-R-50.

FISCAL IMPACT

The overall budget for this project is $1.5 million dollars and funding for the project was earmarked in a Facilities Improvement Bond.

RECOMMENDATION

Staff recommends Council approve Resolution 20-R-50

Attachments

Resolution 20-R-50

Fee Schedule

Fleet Building PPT

Exhibit A with Fan Exeptions

FAN Exceptions

RESOLUTION NO. 20-R-50

A RESOLUTION BY THE CITY COUNCIL OF THE CITY OF SCHERTZ, TEXAS AUTHORIZING THE CITY MANAGER TO ENTER INTO A DESIGN-BUILD AGREEMENT WITH F.A. NUNNELLY FOR THE FLEET MAINTENANCE BUILDING PROJECT AND OTHER MATTERS IN CONNECTION THEREWITH

WHEREAS, the City of Schertz (the "City") has identified the building at 27 Commercial Place for renovation for the Fleet Maintenance Building; and

WHEREAS, City staff conducted a Request for Qualifications to identify firms with the capabilities to complete the project; and

WHEREAS, City staff has identified F.A. Nunnelly as the firm that is both qualified and provides the best value to the City; and

WHEREAS, City has dedicated Facilities Maintenance Improvement Bond funds for the completion of this project.

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF SCHERTZ, TEXAS THAT:

Section 1. The City Council hereby authorizes the City Manager to execute and deliver an Agreement with F.A. Nunnelly based on the Fee Schedule in Exhibit A.

Section 2. The recitals contained in the preamble hereof are hereby found to be true, and such recitals are hereby made a part of this Resolution for all purposes and are adopted as a part of the judgment and findings of the City Council.

Section 3. All resolutions, or parts thereof, which are in conflict or inconsistent with any provision of this Resolution are hereby repealed to the extent of such conflict, and the provisions of this Resolution shall be and remain controlling as to the matters resolved herein.

Section 4. This Resolution shall be construed and enforced in accordance with the laws of the State of Texas and the United States of America.

Section 5. If any provision of this Resolution or the application thereof to any person or circumstance shall be held to be invalid, the remainder of this Resolution and the application of such provision to other persons and circumstances shall nevertheless be valid, and the City Council hereby declares that this Resolution would have been enacted without such invalid provision.

Section 6. It is officially found, determined, and declared that the meeting at which this Resolution is adopted was open to the public and public notice of the time, place, and subject matter of the public business to be considered at such meeting, including this Resolution, was given, all as required by Chapter 551, Texas Government Code, as amended.

Section 7. This Resolution shall be in force and effect from and after its final passage, and it is so resolved.

PASSED AND ADOPTED, this 12th day of May, 2020

CITY OF SCHERTZ, TEXAS

____

Ralph Gutierrez, Mayor

ATTEST:

____

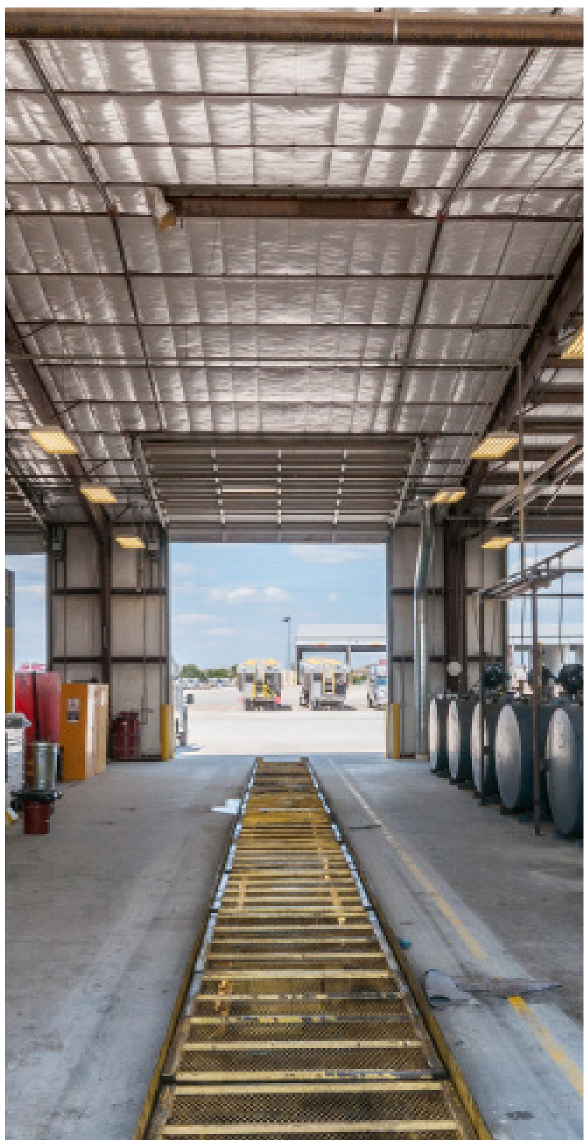
Brenda Dennis, City Secretary

(CITY SEAL)

FA NUNNELLY
GENERAL CONTRACTOR + RVK

DESIGN BUILD SERVICES FOR CITY OF SCHERTZ BUILDING RENOVATIONS

PROPOSAL



City of Schertz, attn: Julie Gohlke
Purchasing and Asset Manager
1400 Schertz Parkway, Building 2
Schertz, TX 78154

May 8th, 2020

Preconstruction Fee Proposal (Based on the completion of 90% Design Documents)

Preconstruction Services (Constructibility/Feasibility/Coordination for SD,DD, & CD's) - $6,000
Survey - $7,800
Civil - $25,000
Structure - $6,000
MEP - $35,000
Architecture - $70,000
Landscape / Tree Preservation / Irrigation - $9,500
Reimbursable / Design Contingency - $15,000
Technology - Not Included
Security - Not Included
Fueling - Not Included
Proposal does not include any other Consultants not specifically requested or scope stated to be provided by the owner including, but not limited to platting, permit fees, asbestos testing/abatement, commissioning, geotechnical services, technology/security design and install, special inspections, etc.

TOTAL PRECONSTRUCTION / DESIGN SERVICES - $174,300

Sincerely,

Blaine Beckman
President

Heath Wenrich
Principal in Charge

SCHERTZ

COMMUNITY ★ SERVICE ★ OPPORTUNITY

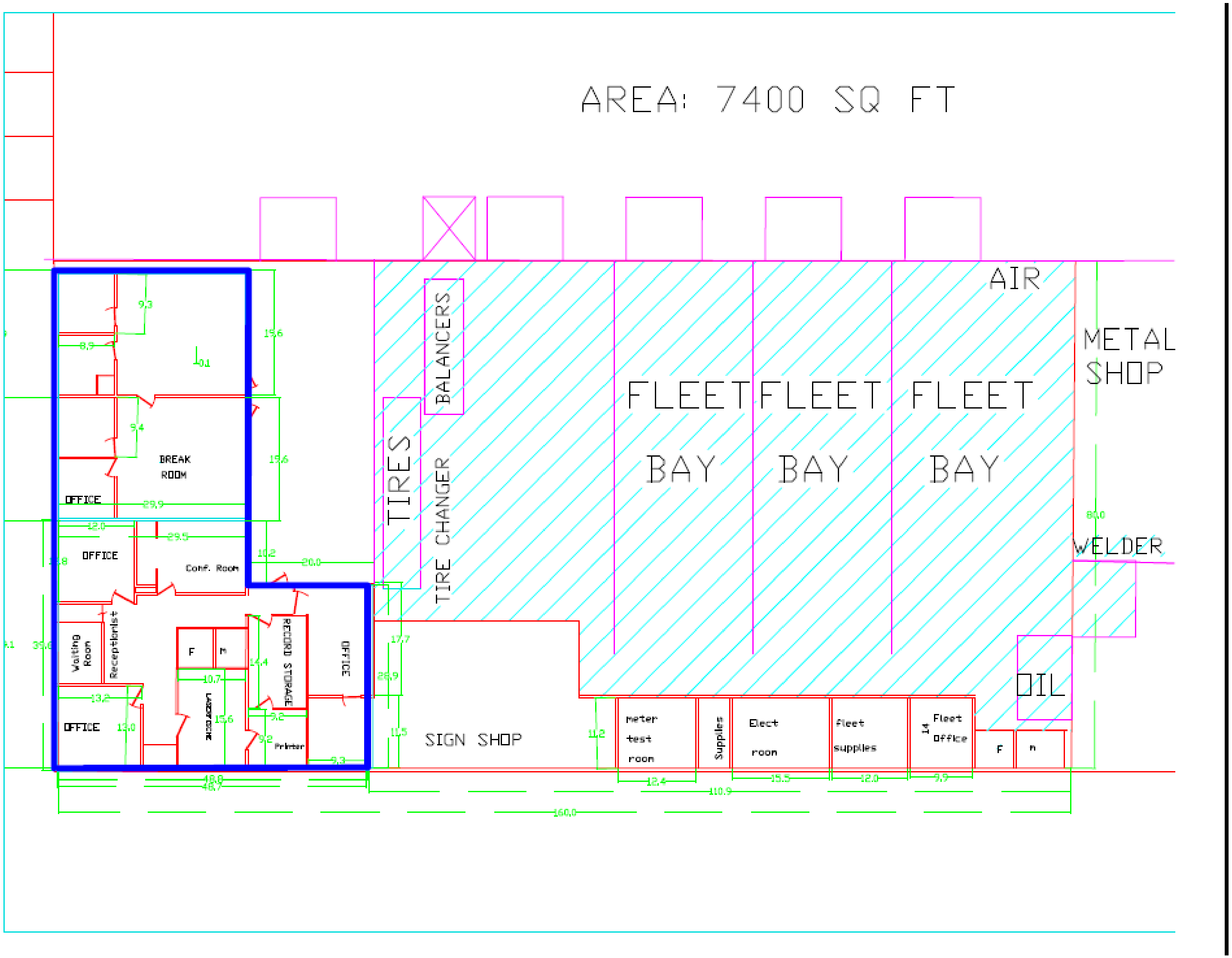
Building 27 Renovations

May 12, 2020

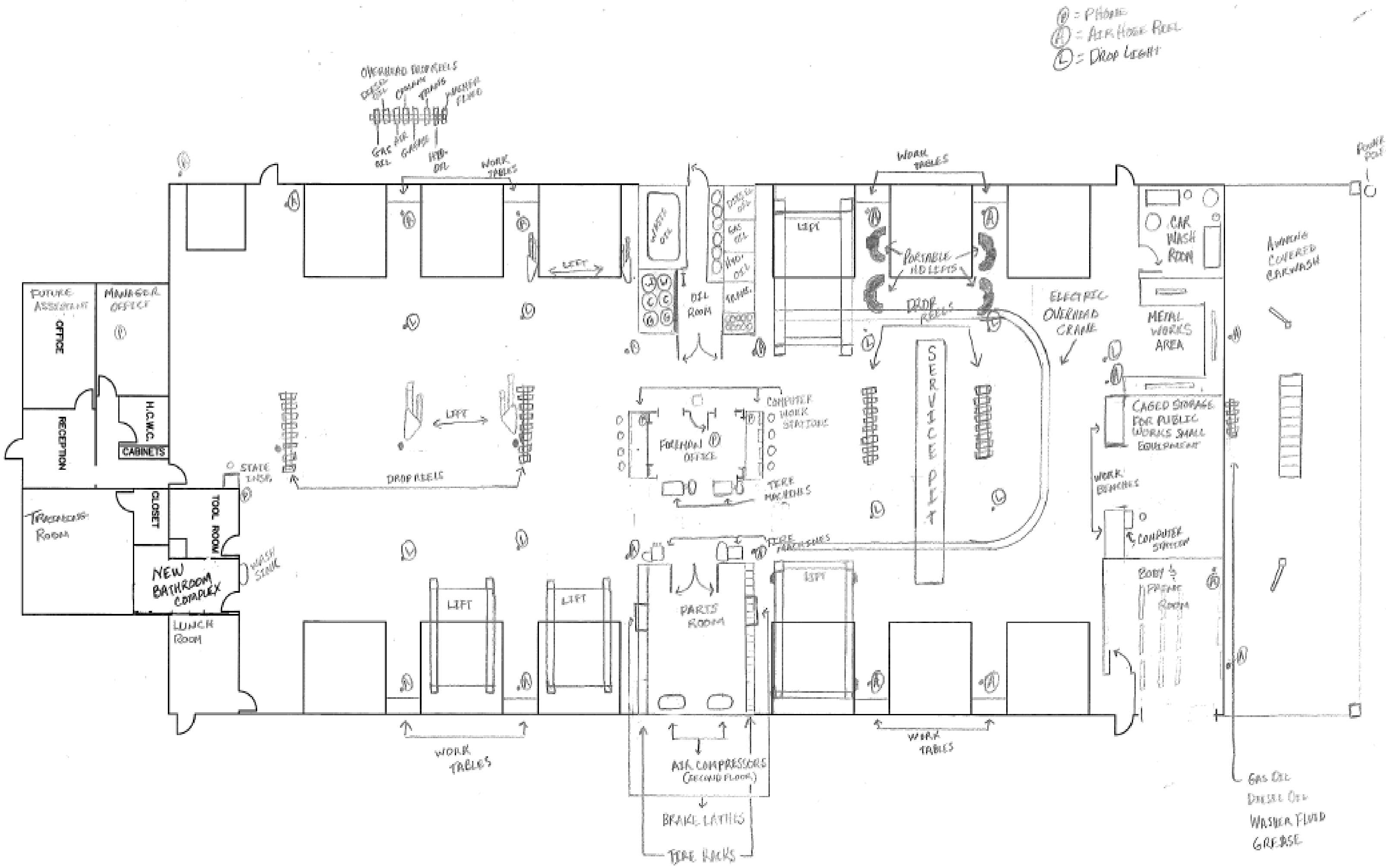

27 Commercial Pl, Schertz, TX 78154, USA
© 2013 Google
Google earth


907-1929

Current Fleet Shop
10 Commercial Place



Proposed Fleet Shop



Recommendation

- Award to FA Nunnley
- Pre-Construction/Design Cost
  - $174,300
- Funding Source
  - Existing Funds - Facility Maintenance Bond

DRAFT **AIA® Document A141™ – 2014 Exhibit A**

Design-Build Amendment

This Amendment is incorporated into the accompanying AIA Document A141™–2014, Standard Form of Agreement Between Owner and Design-Builder dated the « » day of « » in the year « » (the "Agreement")
(In words, indicate day, month and year.)

for the following PROJECT:
(Name and location or address)

« »
« »

THE OWNER:
(Name, legal status and address)

« »« »
« »

THE DESIGN-BUILDER:
(Name, legal status and address)

« »« »
« »

The Owner and Design-Builder hereby amend the Agreement as follows.

ADDITIONS AND DELETIONS: The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

Consultation with an attorney is also encouraged with respect to professional licensing requirements in the jurisdiction where the Project is located.

TABLE OF ARTICLES

ARTICLE A.1 CONTRACT SUM

§ A.1.1 The Owner shall pay the Design-Builder the Contract Sum in current funds for the Design-Builder's performance of the Contract after the execution of this Amendment. The Contract Sum shall be one of the following and shall not include compensation the Owner paid the Design-Builder for Work performed prior to execution of this Amendment:
(Check the appropriate box.)

[« »] Stipulated Sum, in accordance with Section A.1.2 below

[« »] Cost of the Work plus the Design-Builder's Fee, in accordance with Section A.1.3 below

[« »] Cost of the Work plus the Design-Builder's Fee with a Guaranteed Maximum Price, in accordance with Section A.1.4 below

(Based on the selection above, complete Section A.1.2, A.1.3 or A.1.4 below.)

§ A.1.2 Stipulated Sum

§ A.1.2.1 The Stipulated Sum shall be « » ($ « »), subject to authorized adjustments as provided in the Design-Build Documents.

§ A.1.2.2 The Stipulated Sum is based upon the following alternates, if any, which are described in the Design-Build Documents and are hereby accepted by the Owner:
(State the numbers or other identification of accepted alternates. If the Owner is permitted to accept other alternates subsequent to the execution of this Amendment, attach a schedule of such other alternates showing the change in Stipulated Sum for each and the deadline by which the alternate must be accepted.)

« »

§ A.1.2.3 Unit prices, if any:
(Identify item, state the unit price, and state any applicable quantity limitations.)

Item	Units and Limitations	Price per Unit ($0.00)

§ A.1.3 Cost of the Work Plus Design-Builder's Fee

§ A.1.3.1 The Cost of the Work is as defined in Article A.5, Cost of the Work.

§ A.1.3.2 The Design-Builder's Fee:
(State a lump sum, percentage of Cost of the Work or other provision for determining the Design-Builder's Fee, and the method for adjustment to the Fee for changes in the Work.)

« »

§ A.1.4 Cost of the Work Plus Design-Builder's Fee With a Guaranteed Maximum Price

§ A.1.4.1 The Cost of the Work is as defined in Article A.5, Cost of the Work.

§ A.1.4.2 The Design-Builder's Fee:
(State a lump sum, percentage of Cost of the Work or other provision for determining the Design-Builder's Fee and the method for adjustment to the Fee for changes in the Work.)

« »

§ A.1.4.3 Guaranteed Maximum Price

§ A.1.4.3.1 The sum of the Cost of the Work and the Design-Builder's Fee is guaranteed by the Design-Builder not to exceed « » ($ « »), subject to additions and deductions for changes in the Work as provided in the Design-Build Documents. Costs that would cause the Guaranteed Maximum Price to be exceeded shall be paid by the Design-Builder without reimbursement by the Owner.
(Insert specific provisions if the Design-Builder is to participate in any savings.)

« »

§ A.1.4.3.2 Itemized Statement of the Guaranteed Maximum Price

Provided below is an itemized statement of the Guaranteed Maximum Price organized by trade categories, allowances, contingencies, alternates, the Design-Builder's Fee, and other items that comprise the Guaranteed Maximum Price.
(Provide information below or reference an attachment.)

« »

§ A.1.4.3.3 The Guaranteed Maximum Price is based on the following alternates, if any, which are described in the Design-Build Documents and are hereby accepted by the Owner:
(State the numbers or other identification of accepted alternates. If the Owner is permitted to accept other alternates subsequent to the execution of this Amendment, attach a schedule of such other alternates showing the change in the Cost of the Work and Guaranteed Maximum Price for each and the deadline by which the alternate must be accepted.)

« »

§ A.1.4.3.4 Unit Prices, if any:
(Identify item, state the unit price, and state any applicable quantity limitations.)

Item	Units and Limitations	Price per Unit ($0.00)

§ A.1.4.3.5 Assumptions, if any, on which the Guaranteed Maximum Price is based:

« »

§ A.1.5 Payments
§ A.1.5.1 Progress Payments
§ A.1.5.1.1 Based upon Applications for Payment submitted to the Owner by the Design-Builder, the Owner shall make progress payments on account of the Contract Sum to the Design-Builder as provided below and elsewhere in the Design-Build Documents.

§ A.1.5.1.2 The period covered by each Application for Payment shall be one calendar month ending on the last day of the month, or as follows:

« »

§ A.1.5.1.3 Provided that an Application for Payment is received not later than the ~~« »~~25th day of the month, the Owner shall make payment of the certified amount to the Design-Builder not later than the ~~« »~~30th day of the ~~« »~~same month. If an Application for Payment is received by the Owner after the application date fixed above, payment shall be made by the Owner not later than ~~« »~~fifteen (~~« »~~15) days after the Owner receives the Application for Payment.
(Federal, state or local laws may require payment within a certain period of time.)

§ A.1.5.1.4 ~~With each Application for Payment where the Contract Sum is based upon the Cost of the Work, or the Cost of the Work with a Guaranteed Maximum Price, the Design-Builder shall submit payrolls, petty cash accounts, receipted invoices or invoices with check vouchers attached, and any other evidence required by the Owner to demonstrate that cash disbursements already made by the Design-Builder on account of the Cost of the Work equal or exceed (1) progress payments already received by the Design-Builder, less (2) that portion of those payments attributable to the Design-Builder's Fee; plus (3) payrolls for the period covered by the present Application for Payment.~~Intentionally Omitted.

§ A.1.5.1.5 ~~With each Application for Payment where the Contract Sum is based upon a Stipulated Sum or Cost of the Work with a Guaranteed Maximum Price, the Design-Builder shall submit the most recent schedule of values in accordance with the Design-Build Documents. The schedule of values shall allocate the entire Contract Sum among the various portions of the Work. Compensation for design services, if any, shall be shown separately. Where the Contract Sum is based on the Cost of the Work with a Guaranteed Maximum Price, the Design-Builder's Fee shall be shown separately. The schedule of values shall be prepared in such form and supported by such data to substantiate its accuracy as the Owner may require. This schedule of values, unless objected to by the Owner, shall be used as a basis for reviewing the Design-Builder's Applications for Payment.~~Each Application for Payment shall be based on the most recent schedule of values submitted by the Design-Builder in accordance with the Contract Documents. The schedule of values shall allocate the entire Contract Sum among: (1) the various portions of the Work; (2) any contingency for costs that are included in the Guaranteed Maximum Price, if any, but not otherwise allocated to another line item or included in a Change Order; and (3) the Contractor's Fee.

§ A.1.5.1.6 The schedule of values shall be used as a basis for reviewing the Contractor's Applications for Payment.~~In taking action on the Design-Builder's Applications for Payment, the Owner shall be entitled to rely on the accuracy and completeness of the information furnished by the Design-Builder and shall not be deemed to have made a detailed examination, audit or arithmetic verification of the documentation submitted in accordance with Sections A.1.5.1.4 or A.1.5.1.5, or other supporting data; to have made exhaustive or continuous on-site inspections; or to have made examinations to ascertain how or for what purposes the Design-Builder has used amounts previously paid. Such examinations, audits and verifications, if required by the Owner, will be performed by the Owner's auditors acting in the sole interest of the Owner.~~

§ A.1.5.1.7 To the extent the schedule of values allocates a guaranteed maximum price, such allocation shall not constitute a separate guaranteed maximum price for the Cost of the Work of each individual line item in the schedule of values.~~Except with the Owner's prior approval, the Design-Builder shall not make advance payments to suppliers for materials or equipment which have not been delivered and stored at the site.~~

§ A.1.5.2 Progress Payments—Stipulated Sum

§ A.1.5.2.1 Applications for Payment where the Contract Sum is based upon a Stipulated Sum shall indicate the percentage of completion of each portion of the Work as of the end of the period covered by the Application for Payment.

§ A.1.5.2.2 Subject to other provisions of the Design-Build Documents, the amount of each progress payment shall be computed as follows:

.1 Take that portion of the Contract Sum properly allocable to completed Work as determined by multiplying the percentage completion of each portion of the Work by the share of the Contract Sum allocated to that portion of the Work in the schedule of values~~, less retainage of « » percent (« » %) on the Work. Pending final determination of cost to the Owner of Changes in the Work, amounts not in dispute shall be included as provided in Section 6.3.9 of the Agreement~~;

.2 Add that portion of the Contract Sum properly allocable to materials and equipment delivered and suitably stored at the site for subsequent incorporation in the completed construction ~~(~~or~~, if approved in advance by the Owner,~~ suitably stored off the site ~~at a location agreed upon in writing), less retainage of « » percent (« » %)~~;

.3 Subtract the aggregate of previous payments made by the Owner; and

.4 Subtract ~~amounts, if any, the Owner has withheld or nullified, as provided in Section 9.5 of the Agreement~~retainage of 10%.

§ A.1.5.2.3 The progress payment amount determined in accordance with Section A.1.5.2.2 shall be further modified under the following circumstances:

.1 Add, upon Substantial Completion of the Work, a sum sufficient to increase the total payments to the full amount of the Contract Sum, less such amounts as the Owner shall determine for incomplete Work, retainage applicable to such work and unsettled claims; and
(Section 9.8.6 of the Agreement discusses release of applicable retainage upon Substantial Completion of Work.)

.2 Add, if final completion of the Work is thereafter materially delayed through no fault of the Design-Builder, any additional amounts payable in accordance with Section 9.10.3 of the Agreement.

§ A.1.5.2.4 Reduction or limitation of retainage, if any, shall be as follows:
(If it is intended, prior to Substantial Completion of the entire Work, to reduce or limit the retainage resulting from the percentages inserted in Sections A.1.5.2.2.1 and A.1.5.2.2.2 above, and this is not explained elsewhere in the Design-Build Documents, insert provisions here for such reduction or limitation.)

« »

§ A.1.5.3 Progress Payments—Cost of the Work Plus a Fee

§ A.1.5.3.1 Where the Contract Sum is based upon the Cost of the Work plus a fee without a Guaranteed Maximum Price, Applications for Payment shall show the Cost of the Work actually incurred by the Design-Builder through the end of the period covered by the Application for Payment and for which Design-Builder has made or intends to make actual payment prior to the next Application for Payment.

§ A.1.5.3.2 Subject to other provisions of the Design-Build Documents, the amount of each progress payment shall be computed as follows:

- .1 Take the Cost of the Work as described in Article A.5 of this Amendment;
- .2 Add the Design-Builder's Fee~~, less retainage of « » percent (« » %)~~. The Design-Builder's Fee shall be computed upon the Cost of the Work described in the preceding Section A.1.5.3.2.1 at the rate stated in Section A.1.3.2; or if the Design-Builder's Fee is stated as a fixed sum in that Section, an amount which bears the same ratio to that fixed-sum Fee as the Cost of the Work in that Section bears to a reasonable estimate of the probable Cost of the Work upon its completion; and
- .3 ~~Subtract retainage of « » percent (« » %) from that portion of the Work that the Design-Builder self-performs;~~
- ~~.4~~ Subtract ~~the aggregate of previous payments made by the Owner;~~
- ~~.5 Subtract the shortfall, if any, indicated by the Design-Builder in the documentation required by Section A.1.5.1.4 or resulting from errors subsequently discovered by the Owner's auditors in such documentation; and~~
- ~~.6 Subtract amounts, if any, for which the Owner has withheld or withdrawn a Certificate of Payment as provided in the Section 9.5 of the Agreement~~retainage of 10%.

§ A.1.5.3.3 The Owner and Design-Builder shall agree upon (1) a mutually acceptable procedure for review and approval of payments to the Architect, Consultants, and Contractors and (2) the percentage of retainage held on agreements with the Architect, Consultants, and Contractors, and the Design-Builder shall execute agreements in accordance with those terms.

§ A.1.5.4 Progress Payments—Cost of the Work Plus a Fee with a Guaranteed Maximum Price

§ A.1.5.4.1 Applications for Payment where the Contract Sum is based upon the Cost of the Work Plus a Fee with a Guaranteed Maximum Price shall show the percentage of completion of each portion of the Work as of the end of the period covered by the Application for Payment. The percentage of completion shall be the lesser of (1) the percentage of that portion of the Work which has actually been completed; or (2) the percentage obtained by dividing (a) the expense that has actually been incurred by the Design-Builder on account of that portion of the Work for which the Design-Builder has made or intends to make actual payment prior to the next Application for Payment by (b) the share of the Guaranteed Maximum Price allocated to that portion of the Work in the schedule of values.

§ A.1.5.4.2 Subject to other provisions of the Design-Build Documents, the amount of each progress payment shall be computed as follows:

- .1 Take that portion of the Guaranteed Maximum Price properly allocable to completed Work as determined by multiplying the percentage of completion of each portion of the Work by the share of the Guaranteed Maximum Price allocated to that portion of the Work in the schedule of values. ~~Pending final determination of cost to the Owner of changes in the Work, amounts not in dispute shall be included as provided in Section 6.3.9 of the Agreement.~~
- .2 Add that portion of the Guaranteed Maximum Price properly allocable to materials and equipment delivered and suitably stored at the site for subsequent incorporation in the Work~~,~~ or ~~if approved in advance by the Owner,~~ suitably stored off the site ~~at a location agreed upon in writing~~;
- .3 Add the Design-Builder's Fee~~, less retainage of « » percent (« » %)~~. The Design-Builder's Fee shall be computed upon the Cost of the Work at the rate stated in Section A.1.4.2 or, if the Design-Builder's Fee is stated as a fixed sum in that Section, shall be an amount that bears the same ratio to that fixed-sum fee as the Cost of the Work bears to a reasonable estimate of the probable Cost of the Work upon its completion;
- .4 Subtract ~~retainage of « » percent (« » %) from that portion of the Work that the Design-Builder self-performs;~~
- ~~.5 Subtract~~ the aggregate of previous payments made by the Owner; and
- .6 Subtract ~~the shortfall, if any, indicated by the Design-Builder in the documentation required by Section A.1.5.1.4 to substantiate prior Applications for Payment, or resulting from errors subsequently discovered by the Owner's auditors in such documentation; and~~
- ~~.7 Subtract amounts, if any, for which the Owner has withheld or nullified a payment as provided in Section 9.5 of the Agreement~~retainage of 10%.

§ A.1.5.4.3 The Owner and Design-Builder shall agree upon (1) a mutually acceptable procedure for review and approval of payments to the Architect, Consultants, and Contractors and (2) the percentage of retainage held on agreements with the Architect, Consultants, and Contractors; and the Design-Builder shall execute agreements in accordance with those terms.

§ A.1.5.5 Final Payment

§ A.1.5.5.1 Final payment, constituting the entire unpaid balance of the Contract Sum and inclusive of retainage withheld, shall be made by the Owner to the Design-Builder not later than 30 days after the Design-Builder has ~~fully~~ performed the Contract and the requirements of Section 9.10 of the Agreement have been satisfied, except for the Design-Builder's responsibility to correct non-conforming Work discovered after final payment or to satisfy other requirements, if any, which extend beyond final payment.

§ A.1.5.5.2 ~~If the Contract Sum is based on the Cost of the Work, the Owner's auditors will review and report in writing on the Design-Builder's final accounting within 30 days after the Design-Builder delivers the final accounting to the Owner. Based upon the Cost of the Work the Owner's auditors report to be substantiated by the Design-Builder's final accounting, and provided the other conditions of Section 9.10 of the Agreement have been met, the Owner will, within seven days after receipt of the written report of the Owner's auditors, either issue a final Certificate for Payment, or notify the Design-Builder in writing of the reasons for withholding a certificate as provided in Section 9.5.1 of the Agreement~~Intentionally Omitted.

ARTICLE A.2 CONTRACT TIME

§ A.2.1 Contract Time, as defined in the Agreement at Section 1.4.13, is the period of time, including authorized adjustments, for Substantial Completion of the Work.

§ A.2.2 The Design-Builder shall endeavor to achieve Substantial Completion of the Work not later than « » (« ») days from the date of this Amendment, or as follows:

(Insert number of calendar days. Alternatively, a calendar date may be used when coordinated with the date of commencement. If appropriate, insert requirements for earlier Substantial Completion of certain portions of the Work.)

« »

Portion of Work	Substantial Completion Date

, subject to adjustments of the Contract Time as provided in the Design-Build Documents.

(Insert provisions, if any, for liquidated damages relating to failure to achieve Substantial Completion on time or for bonus payments for early completion of the Work.)

« »

ARTICLE A.3 INFORMATION UPON WHICH AMENDMENT IS BASED

§ A.3.1 The Contract Sum and Contract Time set forth in this Amendment are based on the following:

§ A.3.1.1 The Supplementary and other Conditions of the Contract:

Document	Title	Date	Pages

§ A.3.1.2 The Specifications:

(Either list the specifications here or refer to an exhibit attached to this Amendment.)

« »

Section	Title	Date	Pages

§ A.3.1.3 The Drawings:

(Either list the drawings here or refer to an exhibit attached to this Amendment.)

« »

Number	Title	Date

§ A.3.1.4 The Sustainability Plan, if any:
(If the Owner identified a Sustainable Objective in the Owner's Criteria, identify the document or documents that comprise the Sustainability Plan by title, date and number of pages, and include other identifying information. The Sustainability Plan identifies and describes the Sustainable Objective; the targeted Sustainable Measures; implementation strategies selected to achieve the Sustainable Measures; the Owner's and Design-Builder's roles and responsibilities associated with achieving the Sustainable Measures; the specific details about design reviews, testing or metrics to verify achievement of each Sustainable Measure; and the Sustainability Documentation required for the Project, as those terms are defined in Exhibit C to the Agreement.)

Title	Date	Pages

Other identifying information:

« »

§ A.3.1.5 Allowances and Contingencies:
(Identify any agreed upon allowances and contingencies, including a statement of their basis.)

.1 Allowances

« »

.2 Contingencies

« »

§ A.3.1.6 Design-Builder's assumptions and clarifications:

« »

§ A.3.1.7 Deviations from the Owner's Criteria as adjusted by a Modification:

« »

§ A.3.1.8 To the extent the Design-Builder shall be required to submit any additional Submittals to the Owner for review, indicate any such submissions below:

« »

ARTICLE A.4 DESIGN-BUILDER'S PERSONNEL, CONTRACTORS AND SUPPLIERS
§ A.4.1 The Design-Builder's key personnel are identified below:
(Identify name, title and contact information.)

.1 Superintendent

« »

.2 Project Manager

« »

.3 Others

« »

§ A.4.2 The Design-Builder shall retain the following Consultants, Contractors and suppliers, identified below:
(List name, discipline, address and other information.)

« »

ARTICLE A.5 COST OF THE WORK

§ A.5.1 Cost To Be Reimbursed as Part of the Contract

§ A.5.1.1 Labor Costs

§ A.5.1.1.1 Wages of construction workers directly employed by the Design-Builder to perform the construction of the Work at the site or~~, with the Owner's prior approval,~~ at off-site workshops.

§ A.5.1.1.2 W~~ith the Owner's prior approval, w~~ages or salaries of the Design-Builder's supervisory and administrative personnel when stationed at the site.
(If it is intended that the wages or salaries of certain personnel stationed at the Design-Builder's principal or other offices shall be included in the Cost of the Work, identify below the personnel to be included, whether for all or only part of their time, and the rates at which their time will be charged to the Work.)

Person Included	Status (full-time/part-time)	Rate ($0.00)	Rate (unit of time)

§ A.5.1.1.3 Wages and salaries of the Design-Builder's supervisory or administrative personnel engaged at factories, workshops or on the road, in expediting the production or transportation of materials or equipment required for the Work, but only for that portion of their time required for the Work.

§ A.5.1.1.4 Costs paid or incurred by the Design-Builder for taxes, insurance, contributions, assessments and benefits required by law or collective bargaining agreements and, for personnel not covered by such agreements, customary benefits such as sick leave, medical and health benefits, holidays, vacations and pensions, provided such costs are based on wages and salaries included in the Cost of the Work under Section A.5.1.1.

§ A.5.1.1.5 Bonuses, profit sharing, incentive compensation and any other discretionary payments paid to anyone hired by the Design-Builder or paid to the Architect or any Consultant, Contractor or supplier, with the Owner's prior approval.

§ A.5.1.2 Contract Costs. Payments made by the Design-Builder to the Architect, Consultants, Contractors and suppliers in accordance with the requirements of their subcontracts.

§ A.5.1.3 Costs of Materials and Equipment Incorporated in the Completed Construction

§ A.5.1.3.1 Costs, including transportation and storage, of materials and equipment incorporated or to be incorporated in the completed construction.

§ A.5.1.3.2 Costs of materials described in the preceding Section A.5.1.3.1 in excess of those actually installed to allow for reasonable waste and spoilage. Unused excess materials, if any, shall become the Owner's property at the completion of the Work~~ or, at the Owner's option, shall be sold by the Design-Builder. Any amounts realized from such sales shall be credited to the Owner as a deduction from the Cost of the Work~~.

§ A.5.1.4 Costs of Other Materials and Equipment, Temporary Facilities and Related Items

§ A.5.1.4.1 Costs of transportation, storage, installation, maintenance, dismantling and removal of materials, supplies, temporary facilities, machinery, equipment and hand tools not customarily owned by construction workers that are provided by the Design-Builder at the site and fully consumed in the performance of the Work. Costs of materials, supplies, temporary facilities, machinery, equipment and tools that are not fully consumed shall be based on the cost or value of the item at the time it is first used on the Project site less the value of the item when it is no longer used at the Project site. Costs for items not fully consumed by the Design-Builder shall mean fair market value.

§ A.5.1.4.2 Rental charges for temporary facilities, machinery, equipment and hand tools not customarily owned by construction workers that are provided by the Design-Builder at the site and costs of transportation, installation, minor repairs, dismantling and removal. ~~The total rental cost of any Design-Builder-owned item may not exceed the purchase price of any comparable item. Rates of Design-Builder-owned equipment and quantities of equipment shall be subject to the Owner's prior approval.~~

§ A.5.1.4.3 Costs of removal of debris from the site of the Work and its proper and legal disposal.

§ A.5.1.4.4 Costs of document reproductions, electronic communications, postage and parcel delivery charges, dedicated data and communications services, teleconferences, Project websites, extranets and reasonable petty cash expenses of the site office.

§ A.5.1.4.5 Costs of materials and equipment suitably stored off the site~~ at a mutually acceptable location, with the Owner's prior approval~~.

§ A.5.1.5 Miscellaneous Costs
§ A.5.1.5.1 Premiums for that portion of insurance and bonds required by the Design-Build Documents that can be directly attributed to the Contract. With the Owner's prior approval self-insurance for either full or partial amounts of the coverages required by the Design-Build Documents.

§ A.5.1.5.2 Sales, use or similar taxes imposed by a governmental authority that are related to the Work and for which the Design-Builder is liable.

§ A.5.1.5.3 Fees and assessments for the building permit and for other permits, licenses and inspections for which the Design-Builder is required by the Design-Build Documents to pay.

§ A.5.1.5.4 Fees of laboratories for tests required by the Design-Build Documents, except those related to defective or nonconforming Work for which reimbursement is excluded by Section 15.5.3 of the Agreement or by other provisions of the Design-Build Documents, and which do not fall within the scope of Section A.5.1.6.3.

§ A.5.1.5.5 Royalties and license fees paid for the use of a particular design, process or product required by the Design-Build Documents; the cost of defending suits or claims for infringement of patent rights arising from such requirement of the Design-Build Documents; and payments made in accordance with legal judgments against the Design-Builder resulting from such suits or claims and payments of settlements made with the Owner's consent. ~~However, such costs of legal defenses, judgments and settlements shall not be included in the calculation of the Design-Builder's Fee or subject to the Guaranteed Maximum Price. If such royalties, fees and costs are excluded by the second to last sentence of Section 3.1.13.2 of the Agreement or other provisions of the Design-Build Documents, then they shall not be included in the Cost of the Work.~~

§ A.5.1.5.6 ~~With the Owner's prior approval, c~~Costs for electronic equipment and software directly related to the Work.

§ A.5.1.5.7 Deposits lost for causes other than the Design-Builder's negligence or failure to fulfill a specific responsibility in the Design-Build Documents.

§ A.5.1.5.8 ~~With the Owner's prior approval, which shall not be unreasonably withheld, l~~Legal, mediation and arbitration costs, including attorneys' fees, other than those arising from disputes between the Owner and Design-Builder, reasonably incurred by the Design-Builder after the execution of the Agreement and in the performance of the Work.

§ A.5.1.5.9 ~~With the Owner's prior approval, e~~Expenses incurred in accordance with the Design-Builder's standard written personnel policy for relocation, and temporary living allowances of, the Design-Builder's personnel required for the Work.

§ A.5.1.5.10 That portion of the reasonable expenses of the Design-Builder's supervisory or administrative personnel incurred while traveling in discharge of duties connected with the Work.

§ A.5.1.6 Other Costs and Emergencies

§ A.5.1.6.1 Other costs reasonably incurred in the performance of the Work ~~if, and to the extent, approved in advance in writing by the Owner~~.

§ A.5.1.6.2 Costs incurred in taking action to prevent threatened damage, injury or loss in case of an emergency affecting the safety of persons and property.

§ A.5.1.6.3 Costs of repairing or correcting damaged or nonconforming Work executed by the Design-Builder, Contractors or suppliers, provided that such damaged or nonconforming Work was not caused by negligence or failure to fulfill a specific responsibility of the Design-Builder and only to the extent that the cost of repair or correction is not recovered by the Design-Builder from insurance, sureties, Contractors, suppliers, or others.

§ A.5.1.7 Related Party Transactions

§ A.5.1.7.1 For purposes of Section A.5.1.7, the term "related party" shall mean a parent, subsidiary, affiliate or other entity having common ownership or management with the Design-Builder; any entity in which any stockholder in, or management employee of, the Design-Builder owns any interest in excess of ten percent in the aggregate; or any person or entity which has the right to control the business or affairs of the Design-Builder. The term "related party" includes any member of the immediate family of any person identified above.

§ A.5.1.7.2 If any of the costs to be reimbursed arise from a transaction between the Design-Builder and a related party, the Design-Builder shall notify the Owner of the specific nature of the contemplated transaction, including the identity of the related party and the anticipated cost to be incurred, before any such transaction is consummated or cost incurred. If the Owner, after such notification, authorizes the proposed transaction, then the cost incurred shall be included as a cost to be reimbursed, and the Design-Builder shall procure the Work, equipment, goods or service from the related party, as a Contractor, according to the terms of Section A.5.4. If the Owner fails to authorize the transaction in writing, Owner shall nonetheless be deemed to have authorized the transaction~~the Design-Builder shall procure the Work, equipment, goods or service from some person or entity other than a related party according to the terms of Section A.5.4~~.

§ A.5.2 Costs Not to Be Reimbursed as Part of this Contract

The Cost of the Work shall not include the items listed below:

.1 Salaries and other compensation of the Design-Builder's personnel stationed at the Design-Builder's principal office or offices other than the site office, except as specifically provided in Section A.5.1.1;

.2 Expenses of the Design-Builder's principal office and offices other than the site office;

.3 Overhead and general expenses, except as may be expressly included in Section A.5.1;

.4 The Design-Builder's capital expenses, including interest on the Design-Builder's capital employed for the Work;

.5 Except as provided in Section A.5.1.6.3 of this Agreement, costs due to the negligence or failure of the Design-Builder, Contractors and suppliers or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable to fulfill a specific responsibility of the Contract; and

.6 ~~Any cost not specifically and expressly described in Section A.5.1; and~~

~~.7~~ Costs, other than costs included in Change Orders approved by the Owner, that would cause the Guaranteed Maximum Price to be exceeded.

§ A.5.3 Discounts, Rebates, and Refunds

§ A.5.3.1 Cash discounts obtained on payments made by the Design-Builder shall accrue to the Owner if (1) before making the payment, the Design-Builder included them in an Application for Payment and received payment from the Owner, or (2) the Owner has deposited funds with the Design-Builder with which to make payments; otherwise, cash discounts shall accrue to the Design-Builder. Trade discounts, rebates, refunds and amounts received from sales of surplus materials and equipment shall accrue to the Owner, and the Design-Builder shall make provisions so that they can be obtained.

§ A.5.3.2 Amounts that accrue to the Owner in accordance with Section A.5.3.1 shall be credited to the Owner as a deduction from the Cost of the Work.

§ A.5.4 ~~Other Agreements~~Intentionally Omitted.

~~§ A.5.4.1 When the Design-Builder has provided a Guaranteed Maximum Price, and a specific bidder (1) is recommended to the Owner by the Design-Builder; (2) is qualified to perform that portion of the Work; and (3) has~~

~~submitted a bid that conforms to the requirements of the Design-Build Documents without reservations or exceptions, but the Owner requires that another bid be accepted, then the Design-Builder may require that a Change Order be issued to adjust the Guaranteed Maximum Price by the difference between the bid of the person or entity recommended to the Owner by the Design-Builder and the amount of the subcontract or other agreement actually signed with the person or entity designated by the Owner.~~

~~§ A.5.4.2 Agreements between the Design-Builder and Contractors shall conform to the applicable payment provisions of the Design-Build Documents, and shall not be awarded on the basis of cost plus a fee without the prior consent of the Owner. If an agreement between the Design Builder and a Contractor is awarded on a cost plus a fee basis, the Design-Builder shall provide in the agreement for the Owner to receive the same audit rights with regard to the Cost of the Work performed by the Contractor as the Owner receives with regard to the Design-Builder in Section A.5.5, below.~~

~~§ A.5.4.3 The agreements between the Design-Builder and Architect and other Consultants identified in the Agreement shall be in writing. These agreements shall be promptly provided to the Owner upon the Owner's written request.~~

§ A.5.5 Accounting Records

The Design-Builder shall keep full and detailed records and accounts related to the cost of the Work and exercise ~~such~~ commercially reasonable controls ~~as may be necessary~~ for ~~proper~~ financial management under the Contract and to substantiate all costs incurred. ~~The accounting and control systems shall be satisfactory to the Owner.~~ The Owner and the Owner's auditors shall, during regular business hours and upon reasonable advance written notice of at least five (5) working days, be afforded access to, and shall be permitted to audit and copy, the Design-Builder's records and accounts~~, including complete documentation supporting accounting entries, books, correspondence, instructions, drawings, receipts, subcontracts, Contractor's proposals, purchase orders, vouchers, memoranda and other data relating to the Contract~~ relevant to the cost of the Work. The Design-Builder shall preserve these records for a period of ~~three~~ one (1) year~~s~~ after final payment~~, or for such longer period as may be required by law~~.

~~§ A.5.6 Relationship of the Parties~~

~~The Design-Builder accepts the relationship of trust and confidence established by this Agreement and covenants with the Owner to exercise the Design-Builder's skill and judgment in furthering the interests of the Owner; to furnish efficient construction administration, management services and supervision; to furnish at all times an adequate supply of workers and materials; and to perform the Work in an expeditious and economical manner consistent with the Owner's interests.~~

This Amendment to the Agreement entered into as of the day and year first written above.

OWNER *(Signature)*	DESIGN-BUILDER *(Signature)*
« »« »	« »« »
(Printed name and title)	*(Printed name and title)*

DRAFT **AIA® Document A141™ – 2014**

Standard Form of Agreement Between Owner and Design-Builder

AGREEMENT made as of the « » day of « » in the year « »
(In words, indicate day, month and year.)

BETWEEN the Owner:
(Name, legal status, address and other information)

« »« »
« »
« »
« »

and the Design-Builder:
(Name, legal status, address and other information)

« »« »
« »
« »
« »

for the following Project:
(Name, location and detailed description)

«Blank AIA Forms»
« »
« »

The Owner and Design-Builder agree as follows.

ADDITIONS AND DELETIONS: The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

Consultation with an attorney is also encouraged with respect to professional licensing requirements in the jurisdiction where the Project is located.

TABLE OF ARTICLES

TABLE OF EXHIBITS

ARTICLE 1 GENERAL PROVISIONS

§ 1.1 Owner's Criteria

This Agreement is based on the Owner's Criteria set forth in this Section 1.1.
(Note the disposition for the following items by inserting the requested information or a statement such as "not applicable" or "unknown at time of execution." If the Owner intends to provide a set of design documents, and the requested information is contained in the design documents, identify the design documents and insert "see Owner's design documents" where appropriate.)

§ 1.1.1 The Owner's program for the Project:
(Set forth the program, identify documentation in which the program is set forth, or state the manner in which the program will be developed.)

« »

§ 1.1.2 The Owner's design requirements for the Project and related documentation:

(Identify below, or in an attached exhibit, the documentation that contains the Owner's design requirements, including any performance specifications for the Project.)

« »

§ 1.1.3 The Project's physical characteristics:
(Identify or describe, if appropriate, size, location, dimensions, or other pertinent information, such as geotechnical reports; site, boundary and topographic surveys; traffic and utility studies; availability of public and private utilities and services; legal description of the site; etc.)

« »

§ 1.1.4 The Owner's anticipated Sustainable Objective for the Project, if any:
(Identify the Owner's Sustainable Objective for the Project such as Sustainability Certification, benefit to the environment, enhancement to the health and well-being of building occupants, or improvement of energy efficiency. If the Owner identifies a Sustainable Objective, incorporate AIA Document A141™–2014, Exhibit C, Sustainable Projects, into this Agreement to define the terms, conditions and Work related to the Owner's Sustainable Objective.)

« »

§ 1.1.5 Incentive programs the Owner intends to pursue for the Project, including those related to the Sustainable Objective, and any deadlines for receiving the incentives that are dependent on, or related to, the Design-Builder's services, are as follows:
(Identify incentive programs the Owner intends to pursue for the Project and deadlines for submitting or applying for the incentive programs.)

« »

§ 1.1.6 The Owner's budget for the Work to be provided by the Design-Builder is set forth below:
(Provide total for Owner's budget, and if known, a line item breakdown of costs.)

« »

§ 1.1.7 The Owner's design and construction milestone dates:

.1 Design phase milestone dates:

« »

.2 Submission of Design-Builder Proposal:

« »

.3 Phased completion dates:

« »

.4 Substantial Completion date:

« »

.5 Other milestone dates:

« »

§ 1.1.8 ~~The Owner requires the~~ Design-Builder ~~to~~ may retain the following Architect, Consultants and Contractors ~~at the Design-Builder's cost~~:

(List name, legal status, address and other information.)

.1 Architect

« »

.2 Consultants

« »

.3 Contractors

« »

§ 1.1.9 Additional Owner's Criteria upon which the Agreement is based:
(Identify special characteristics or needs of the Project not identified elsewhere, such as historic preservation requirements.)

« »

§ 1.1.10 ~~The Design-Builder shall confirm that the information included in the Owner's Criteria complies with applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities~~Intentionally Omitted..

§ 1.1.10.1 ~~If the Owner's Criteria conflicts with applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, the Design-Builder shall notify the Owner of the conflict~~Intentionally Omitted.

§ 1.1.11 If there is a change in the Owner's Criteria, the Owner and the Design-Builder shall execute a Modification in accordance with Article 6.

§ 1.1.12 If the Owner and Design-Builder intend to transmit Instruments of Service or any other information or documentation in digital form, they shall endeavor to establish necessary protocols governing such transmissions. Unless otherwise agreed, the parties will use AIA Document E203™–2013 to establish the protocols for the development, use, transmission, and exchange of digital data and building information modeling.

§ 1.2 Project Team

§ 1.2.1 The Owner identifies the following representative in accordance with Section 7.1.1:
(List name, address and other information.)

« »
« »
« »
« »
« »
« »

§ 1.2.2 The persons or entities, in addition to the Owner's representative, who are required to review the Design-Builder's Submittals are as follows:
(List name, address and other information.)

« »

§ 1.2.3 The Owner will retain the following consultants and separate contractors:
(List discipline, scope of work, and, if known, identify by name and address.)

« »

§ 1.2.4 The Design-Builder identifies the following representative in accordance with Section 3.1.2:

(List name, address and other information.)

« »
« »
« »
« »
« »
« »

~~§ 1.2.5 Neither the Owner's nor the Design-Builder's representative shall be changed without ten days' written notice to the other party.~~

§ 1.3 Binding Dispute Resolution

For any Claim subject to, but not resolved by, mediation pursuant to Section 14.3, the method of binding dispute resolution shall be the following:
(Check the appropriate box. If the Owner and Design-Builder do not select a method of binding dispute resolution below, or do not subsequently agree in writing to a binding dispute resolution other than litigation, Claims will be resolved by litigation in a court of competent jurisdiction.)

[« X »] Arbitration pursuant to Section 14.4

[« »] Litigation in a court of competent jurisdiction

[« »] Other: *(Specify)*

« »

§ 1.4 Definitions

§ 1.4.1 Design-Build Documents. The Design-Build Documents consist of this Agreement between Owner and Design-Builder and its attached Exhibits (hereinafter, the "Agreement"); other documents listed in this Agreement; and Modifications issued after execution of this Agreement. A Modification is (1) a written amendment to the Contract signed by both parties, including the Design-Build Amendment, (2) a Change Order, or (3) a Change Directive.

§ 1.4.2 The Contract. The Design-Build Documents form the Contract. The Contract represents the entire and integrated agreement between the parties and supersedes prior negotiations, representations or agreements, either written or oral. The Contract may be amended or modified only by a Modification. The Design-Build Documents shall not be construed to create a contractual relationship of any kind between any persons or entities other than the Owner and the Design-Builder.

§ 1.4.3 The Work. The term "Work" means the design, construction and related services required to fulfill the Design-Builder's obligations under the Design-Build Documents, whether completed or partially completed, and includes all labor, materials, equipment and services provided or to be provided by the Design-Builder. The Work may constitute the whole or a part of the Project.

§ 1.4.4 The Project. The Project is the total design and construction of which the Work performed under the Design-Build Documents may be the whole or a part, and may include design and construction by the Owner and by separate contractors.

§ 1.4.5 Instruments of Service. Instruments of Service are representations, in any medium of expression now known or later developed, of the tangible and intangible creative work performed by the Design-Builder, Contractor(s), Architect, and Consultant(s) under their respective agreements. Instruments of Service may include, without limitation, studies, surveys, models, sketches, drawings, specifications, digital models and other similar materials.

§ 1.4.6 Submittal. A Submittal is any submission to the Owner for review and approval demonstrating how the Design-Builder proposes to conform to the Design-Build Documents for those portions of the Work for which the Design-Build Documents require Submittals. Submittals include, but are not limited to, shop drawings, product data, and samples. Submittals are not Design-Build Documents unless incorporated into a Modification.

§ 1.4.7 Owner. The Owner is the person or entity identified as such in the Agreement and is referred to throughout the Design-Build Documents as if singular in number. The term "Owner" means the Owner or the Owner's authorized representative.

§ 1.4.8 Design-Builder. The Design-Builder is the person or entity identified as such in the Agreement and is referred to throughout the Design-Build Documents as if singular in number. The term "Design-Builder" means the Design-Builder or the Design-Builder's authorized representative.

§ 1.4.9 Consultant. A Consultant is a person or entity providing professional services for the Design-Builder for all or a portion of the Work, and is referred to throughout the Design-Build Documents as if singular in number. To the extent required by the relevant jurisdiction, the Consultant shall be lawfully licensed to provide the required professional services.

§ 1.4.10 Architect. The Architect is a person or entity providing design services for the Design-Builder for all or a portion of the Work, and is lawfully licensed to practice architecture in the applicable jurisdiction. The Architect is referred to throughout the Design-Build Documents as if singular in number.

§ 1.4.11 Contractor. A Contractor is a person or entity performing all or a portion of the construction, required in connection with the Work, for the Design-Builder. The Contractor shall be lawfully licensed, if required in the jurisdiction where the Project is located. The Contractor is referred to throughout the Design-Build Documents as if singular in number and means a Contractor or an authorized representative of the Contractor.

§ 1.4.12 Confidential Information. Confidential Information is information containing confidential or business proprietary information that is clearly marked as "confidential."

§ 1.4.13 Contract Time. Unless otherwise provided, Contract Time is the period of time, including authorized adjustments, as set forth in the Design-Build Amendment for Substantial Completion of the Work.

§ 1.4.14 Day. The term "day" as used in the Design-Build Documents shall mean calendar day unless otherwise specifically defined.

§ 1.4.15 Contract Sum. The Contract Sum is the amount to be paid to the Design-Builder for performance of the Work after execution of the Design-Build Amendment, as identified in Article A.1 of the Design-Build Amendment.

ARTICLE 2 COMPENSATION AND PROGRESS PAYMENTS

§ 2.1 Compensation for Work Performed Prior To Execution of Design-Build Amendment

§ 2.1.1 Unless otherwise agreed, payments for Work performed prior to Execution of the Design-Build Amendment shall be made monthly. For the Design-Builder's performance of Work prior to the execution of the Design-Build Amendment, the Owner shall compensate the Design-Builder as follows:
(Insert amount of, or basis for, compensation, including compensation for any Sustainability Services, or indicate the exhibit in which the information is provided. If there will be a limit on the total amount of compensation for Work performed prior to the execution of the Design-Build Amendment, state the amount of the limit.)

« »

§ 2.1.2 The hourly billing rates for services of the Design-Builder and the Design-Builder's Architect, Consultants and Contractors, if any, are set forth below.
(If applicable, attach an exhibit of hourly billing rates or insert them below.)

« »

Individual or Position	Rate

§ 2.1.3 Compensation for Reimbursable Expenses Prior To Execution of Design-Build Amendment

§ 2.1.3.1 Reimbursable Expenses are in addition to compensation set forth in Section 2.1.1 and 2.1.2 and include expenses, directly related to the Project, incurred by the Design-Builder and the Design-Builder's Architect, Consultants, and Contractors, as follows:

.1 Transportation and authorized out-of-town travel and subsistence;
.2 Dedicated data and communication services, teleconferences, Project web sites, and extranets;
.3 Fees paid for securing approval of authorities having jurisdiction over the Project;
.4 Printing, reproductions, plots, standard form documents;
.5 Postage, handling and delivery;
.6 Expense of overtime work requiring higher than regular rates~~, if authorized in advance by the Owner~~;
.7 Renderings, physical models, mock-ups, professional photography, and presentation materials requested by the Owner;
.8 All taxes levied on professional services and on reimbursable expenses; and
.9 Other Project-related expenditures~~, if authorized in advance by the Owner~~.

§ 2.1.3.2 For Reimbursable Expenses, the compensation shall be the expenses the Design-Builder and the Design-Builder's Architect, Consultants and Contractors incurred, plus an administrative fee of « » percent (« » %) of the expenses incurred.

§ 2.1.4 Payments to the Design-Builder Prior To Execution of Design-Build Amendment

§ 2.1.4.1 Payments are due and payable upon presentation of the Design-Builder's invoice. Amounts unpaid « fifteen » (« 15 ») days after the invoice date shall bear interest at the rate entered below, or in the absence thereof at the legal rate prevailing from time to time at the principal place of business of the Design-Builder.
(Insert rate of monthly or annual interest agreed upon.)

« 18 » % « per annum »

§ 2.1.4.2 Records of Reimbursable Expenses and services performed on the basis of hourly rates shall be available to the Owner at mutually convenient times following advance written notice of at least five (5) days for a period of one (1)~~two~~ year~~s~~ following execution of the Design-Build Amendment or termination of this Agreement, whichever occurs first.

§ 2.2 Contract Sum and Payment for Work Performed After Execution of Design-Build Amendment

For the Design-Builder's performance of the Work after execution of the Design-Build Amendment, the Owner shall pay to the Design-Builder the Contract Sum in current funds as agreed in the Design-Build Amendment.

ARTICLE 3 GENERAL REQUIREMENTS OF THE WORK OF THE DESIGN-BUILD CONTRACT

§ 3.1 General

§ 3.1.1 The Design-Builder shall comply with any applicable licensing requirements in the jurisdiction where the Project is located.

§ 3.1.2 The Design-Builder shall designate in writing a representative who is authorized to act on the Design-Builder's behalf with respect to the Project.

§ 3.1.3 The Design-Builder shall perform the Work in substantial accordance with the Design-Build Documents. ~~The Design-Builder shall not be relieved of the obligation to perform the Work in accordance with the Design-Build Documents by the activities, tests, inspections or approvals of the Owner.~~

§ 3.1.3.1 The Design-Builder shall perform the Work in compliance with applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities. If the Design-Builder performs Work it knows to be contrary to applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities, the Design-Builder shall assume responsibility for such Work and shall bear the costs attributable to correction.

§ 3.1.3.2 Neither the Design-Builder nor any Contractor, Consultant, or Architect shall be obligated to perform any act which they believe will violate any applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities. If the Design-Builder determines that implementation of any instruction received from the Owner, including those in the Owner's Criteria, would cause a violation of any applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, the Design-Builder shall notify the

Owner in writing. Upon verification ~~by the Owner~~ that a change to the Owner's Criteria is required to remedy the violation, the Owner and the Design-Builder shall execute a Modification in accordance with Article 6.

§ 3.1.4 ~~The Design-Builder shall be responsible to the Owner for acts and omissions of the Design-Builder's employees, Architect, Consultants, Contractors, and their agents and employees, and other persons or entities performing portions of the Work~~Intentionally Omitted.

§ 3.1.5 General Consultation. The Design-Builder shall schedule and conduct periodic meetings with the Owner to review matters such as procedures, progress, coordination, and scheduling of the Work.

§ 3.1.6 When applicable law requires that services be performed by licensed professionals, the Design-Builder shall provide those services through qualified, licensed professionals. The Owner understands and agrees that the services of the Design-Builder's Architect and the Design-Builder's other Consultants are performed in the sole interest of, and for the exclusive benefit of, the Design-Builder.

§ 3.1.7 The Design-Builder, with the assistance of the Owner, shall prepare and file documents required to obtain necessary approvals of governmental authorities having jurisdiction over the Project.

§ 3.1.8 Progress Reports

§ 3.1.8.1 The Design-Builder shall endeavor to keep the Owner informed of the progress and quality of the Work. On a monthly basis, or otherwise as agreed to by the Owner and Design-Builder, the Design-Builder ~~shall~~ may submit written progress reports to the Owner, showing estimated percentages of completion and other information identified below:

- .1 Work completed for the period;
- .2 Project schedule status;
- .3 Submittal schedule and status report, including a summary of outstanding Submittals;
- .4 Responses to requests for information to be provided by the Owner;
- .5 Approved Change Orders and Change Directives;
- .6 Pending Change Order and Change Directive status reports;
- .7 Tests and inspection reports;
- .8 Status report of Work rejected by the Owner;
- .9 Status of Claims previously submitted in accordance with Article 14;
- .10 Cumulative total of the Cost of the Work to date including the Design-Builder's compensation and Reimbursable Expenses, if any;
- .11 Current Project cash-flow and forecast reports; and
- .12 Additional information as agreed to by the Owner and Design-Builder.

§ 3.1.8.2 In addition, where the Contract Sum is the Cost of the Work with or without a Guaranteed Maximum Price, the Design-Builder ~~shall~~ may include the following additional information in its progress reports:

- .1 Design-Builder's work force report;
- .2 Equipment utilization report; and
- .3 Cost summary, comparing actual costs to updated cost estimates.

§ 3.1.9 Design-Builder's Schedules

§ 3.1.9.1 The Design-Builder, ~~promptly after~~within a reasonable time following execution of this Agreement, shall prepare and submit for the Owner's information a schedule for the Work. The schedule, including the time required for design and construction, shall ~~not exceed~~be substantially consistent with the time limits current under the Design-Build Documents, ~~shall~~ may be revised at appropriate intervals as required by the conditions of the Work and Project in Design Builder's sole discretion, shall be related to the entire Project to the extent required by the Design-Build Documents, shall provide for expeditious and practicable execution of the Work, and shall include allowances for periods of time required for the Owner's review and for approval of submissions by authorities having jurisdiction over the Project.

§ 3.1.9.2 The Design-Builder shall endeavor to perform the Work in general accordance with the most recent schedules submitted to the Owner.

§ 3.1.10 Certifications. Upon the Owner's written request, the Design-Builder shall obtain from the Architect, Consultants, and Contractors, and furnish to the Owner, certifications with respect to the documents and services provided by the Architect, Consultants, and Contractors ~~(a)~~ that, to the best of their knowledge, information and belief, the documents or services to which the certifications relate (i) are consistent with the Design-Build Documents, except to the extent specifically identified in the certificate, and (ii) comply with applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities governing the design of the Project~~; and (b) that the Owner and its consultants shall be entitled to rely upon the accuracy of the representations and statements contained in the certifications~~. The Design-Builder's Architect, Consultants, and Contractors shall not be required to execute certificates or consents that would require knowledge, services or responsibilities beyond the scope of their services.

§ 3.1.11 Design-Builder's Submittals

§ 3.1.11.1 Prior to submission of any Submittals, the Design-Builder shall prepare a Submittal schedule, and shall submit the schedule for the Owner's ~~approval~~information. ~~The Owner's approval shall not unreasonably be delayed or withheld.~~ The Submittal schedule shall (1) be coordinated with the Design-Builder's schedule provided in Section 3.1.9.1, (2) allow the Owner reasonable time to review Submittals, and (3) be periodically updated to reflect the progress of the Work. ~~If the Design-Builder fails to submit a Submittal schedule, the Design-Builder shall not be entitled to any increase in Contract Sum or extension of Contract Time based on the time required for review of Submittals.~~

§ 3.1.11.2 ~~By providing Submittals the Design-Builder represents to the Owner that it has (1) reviewed and approved them, (2) determined and verified materials, field measurements and field construction criteria related thereto, or will do so and (3) checked and coordinated the information contained within such Submittals with the requirements of the Work and of the Design-Build Documents~~Intentionally Omitted.

§ 3.1.11.3 The Design-Builder shall perform no portion of the Work for which the Design-Build Documents require Submittals until the Owner has approved the respective Submittal.

§ 3.1.11.4 The Work shall be in substantial accordance with approved Submittals except that the Design-Builder shall not be relieved of its responsibility to perform the Work consistent with the requirements of the Design-Build Documents. The Work may deviate from the Design-Build Documents only if the Design-Builder has notified the Owner in writing of a deviation from the Design-Build Documents at the time of the Submittal and a Modification is executed authorizing the identified deviation. ~~The Design-Builder shall not be relieved of responsibility for errors or omissions in Submittals by the Owner's approval of the Submittals.~~

§ 3.1.11.5 All professional design services or certifications to be provided by the Design-Builder, including all drawings, calculations, specifications, certifications, shop drawings and other Submittals, shall contain the signature and seal of the licensed design professional preparing them. Submittals related to the Work designed or certified by the licensed design professionals, if prepared by others, shall bear the licensed design professional's written approval. ~~The Owner and its consultants shall be entitled to rely upon the adequacy, accuracy and completeness of the services, certifications or approvals performed by such design professionals.~~

§ 3.1.12 Warranty. The Design-Builder warrants to the Owner that materials and equipment furnished under the Contract will be ~~of good quality and~~ new unless the Design-Build Documents require or permit otherwise. The Design-Builder further warrants that the Work will substantially conform to the requirements of the Design-Build Documents and will be free from defects, except for those inherent in the quality of the Work or otherwise expressly permitted by the Design-Build Documents. Work, materials, or equipment not substantially conforming to these requirements may be considered ~~defective~~non-conforming. The Design-Builder's warranty excludes remedy for damage or defect caused by abuse, alterations to the Work not executed by the Design-Builder, improper or insufficient maintenance, improper operation, or normal wear and tear and normal usage. If required by the Owner, the Design-Builder shall furnish satisfactory evidence as to the kind and quality of materials and equipment. OTHER THAN THE WARRANTY SET FORTH IN THIS SUBPARAGRAPH, THE CONTRACTOR MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, AND ALL OTHER WARRANTIES INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS OF PURPOSE ARE EXPRESSLY DISCLAIMED.

§ 3.1.13 Royalties, Patents and Copyrights

§ 3.1.13.1 The Design-Builder shall pay all royalties and license fees.

§ 3.1.13.2 The Design-Builder shall defend suits or claims for infringement of copyrights and patent rights and shall hold the Owner and its separate contractors and consultants harmless from loss on account thereof, but shall not be responsible for such defense or loss when a particular design, process or product of a particular manufacturer or manufacturers is required by the Owner, or where the copyright violations are required in the Owner's Criteria. ~~However, if the Design-Builder has reason to believe that the design, process or product required in the Owner's Criteria is an infringement of a copyright or a patent, the Design-Builder shall be responsible for such loss unless such information is promptly furnished to the Owner.~~ If the Owner receives notice from a patent or copyright owner of an alleged violation of a patent or copyright, attributable to the Design-Builder, the Owner shall give prompt written notice to the Design-Builder.

§ 3.1.14 Indemnification
§ 3.1.14.1 Design-Builder shall indemnify, hold harmless and defend Owner and any of its officers, directors, employees and agents from and against claims, losses, damages, liabilities, and expenses for bodily injury, sickness or death, and property damage or destruction (other than to the Work itself), but only to the extent caused by the negligent acts or omissions of Design-Builder, anyone employed directly or indirectly by Design-Builder or anyone for whose acts Design-Builder may be liable.~~To the fullest extent permitted by law, the Design-Builder shall indemnify and hold harmless the Owner, including the Owner's agents and employees, from and against claims, damages, losses and expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of the Work, but only to the extent caused by the negligent acts or omissions of the Design-Builder, Architect, a Consultant, a Contractor, or anyone directly or indirectly employed by them or anyone for whose acts they may be liable. Such obligation shall not be construed to negate, abridge, or reduce other rights or obligations of indemnity that would otherwise exist as to a party or person described in this Section 3.1.14.~~

§ 3.1.14.2 If an employee of Design-Builder, anyone employed directly or indirectly by Design-Builder or anyone for whose acts Design-Builder may be liable has a claim against any party indemnified pursuant to Subparagraph 3.1.14.1 above, the~~The~~ indemnification obligations ~~under this~~set forth in Section 3.1.14.1 shall not be limited by a limitation on amount or type of damages, compensation, or benefits payable by or for Design-Builder, Architect, a Consultant, a Contractor, or anyone directly or indirectly employed by them, under workers' compensation acts, disability benefit acts or other employee benefit acts.

§ 3.1.14.3 Owner shall indemnify, hold harmless and defend Design-Builder and its officers, directors, employees and agents from and against claims, losses, damages, liabilities, including attorneys' fees and expenses, for bodily injury, sickness or death, and property damage or destruction (other than to the Work itself) to the extent resulting from the negligent acts or omissions of Owner, anyone employed directly or indirectly by Owner, or anyone for whose acts Owner may be liable.

§ 3.1.14.4 If an employee of Owner, anyone employed directly or indirectly by Owner, or anyone for whose acts Owner may be liable has a claim against any party indemnified pursuant to Subparagraph 3.1.14.3, above, Owner's indemnity obligation set forth in Subparagraph 3.1.18.3 above shall not be limited by any limitation on the amount of damages, compensation or benefits payable by or for Owner or other entity under any employee benefit acts, including workers' compensation or disability acts.

§ 3.1.15 ~~Contingent Assignment of Agreements~~Intentionally Omitted
~~§ 3.1.15.1 Each agreement for a portion of the Work is assigned by the Design-Builder to the Owner, provided that~~
~~.1 assignment is effective only after termination of the Contract by the Owner for cause, pursuant to Sections 13.1.4 or 13.2.2, and only for those agreements that the Owner accepts by written notification to the Design-Builder and the Architect, Consultants, and Contractors whose agreements are accepted for assignment; and~~
~~.2 assignment is subject to the prior rights of the surety, if any, obligated under bond relating to the Contract.~~

~~When the Owner accepts the assignment of an agreement, the Owner assumes the Design-Builder's rights and obligations under the agreement.~~

~~§ 3.1.15.2 Upon such assignment, if the Work has been suspended for more than 30 days, the compensation under the assigned agreement shall be equitably adjusted for increases in cost resulting from the suspension.~~

~~§ 3.1.15.3 Upon such assignment to the Owner under this Section 3.1.15, the Owner may further assign the agreement to a successor design-builder or other entity. If the Owner assigns the agreement to a successor design-~~

~~builder or other entity, the Owner shall nevertheless remain legally responsible for all of the successor design-builder's or other entity's obligations under the agreement.~~

~~§ 3.1.16 Design-Builder's Insurance and Bonds. The Design-Builder shall purchase and maintain insurance and provide bonds as set forth in Exhibit B.~~

ARTICLE 4 WORK PRIOR TO EXECUTION OF THE DESIGN-BUILD AMENDMENT

§ 4.1 General

§ 4.1.1 Any information submitted by the Design-Builder, and any interim decisions made by the Owner, shall be for the purpose of facilitating the design process and shall not modify the Owner's Criteria unless the Owner and Design-Builder execute a Modification.

§ 4.1.2 The Design-Builder shall advise the Owner on proposed site use and improvements, selection of materials, and building systems and equipment. The Design-Builder shall also provide the Owner with recommendations, consistent with the Owner's Criteria, on constructability; availability of materials and labor; time requirements for procurement, installation and construction; and factors related to construction cost including, but not limited to, costs of alternative designs or materials, preliminary budgets, life-cycle data, and possible cost reductions.

§ 4.2 Evaluation of the Owner's Criteria

§ 4.2.1 The Design-Builder shall schedule and conduct meetings with the Owner and any other necessary individuals or entities to discuss and review the Owner's Criteria as set forth in Section 1.1.The Design-Builder shall thereafter again meet with the Owner to discuss a preliminary evaluation of the Owner's Criteria. The preliminary evaluation shall address possible alternative approaches to design and construction of the Project and include the Design-Builder's recommendations, if any, with regard to accelerated or fast-track scheduling, procurement, or phased construction. The preliminary evaluation shall consider cost information, constructability, and procurement and construction scheduling issues.

§ 4.2.2 After the Design-Builder meets with the Owner and presents the preliminary evaluation, the Design-Builder shall provide a written report to the Owner, summarizing the Design-Builder's evaluation of the Owner's Criteria. The report shall also include

- .1 allocations of program functions, detailing each function and their square foot areas;
- .2 a preliminary estimate of the Cost of the Work, and, if necessary, recommendations to adjust the Owner's Criteria to conform to the Owner's budget;
- .3 a preliminary schedule, which shall include proposed design milestones; dates for receiving additional information from, or for work to be completed by, the Owner; anticipated date for the Design-Builder's Proposal; and dates of periodic design review sessions with the Owner; and
- .4 the following:
  (List additional information, if any, to be included in the Design-Builder's written report.)

  « »

§ 4.2.3 The Owner shall review the Design-Builder's written report and, if acceptable, provide the Design-Builder with written consent to proceed to the development of the Preliminary Design as described in Section 4.3. The consent to proceed shall not be understood to modify the Owner's Criteria unless the Owner and Design-Builder execute a Modification.

§ 4.3 Preliminary Design

§ 4.3.1 Upon the Owner's issuance of a written consent to proceed under Section 4.2.3, the Design-Builder shall prepare and submit a Preliminary Design to the Owner. The Preliminary Design shall include a report identifying any deviations from the Owner's Criteria, and shall include the following:

- .1 Confirmation of the allocations of program functions;
- .2 Site plan;
- .3 Building plans, sections and elevations;
- .4 Structural system;
- .5 Selections of major building systems, including but not limited to mechanical, electrical and plumbing systems; and
- .6 Outline specifications or sufficient drawing notes describing construction materials.

The Preliminary Design may include some combination of physical study models, perspective sketches, or digital modeling.

§ 4.3.2 The Owner shall review the Preliminary Design and, if acceptable, provide the Design-Builder with written consent to proceed to development of the Design-Builder's Proposal. The Preliminary Design shall not modify the Owner's Criteria unless the Owner and Design-Builder execute a Modification.

§ 4.4 Design-Builder's Proposal

§ 4.4.1 Upon the Owner's issuance of a written consent to proceed under Section 4.3.2, the Design-Builder shall prepare and submit the Design-Builder's Proposal to the Owner. The Design-Builder's Proposal shall include the following:

.1 A list of the Preliminary Design documents and other information, including the Design-Builder's clarifications, assumptions and deviations from the Owner's Criteria, upon which the Design-Builder's Proposal is based;
.2 The proposed Contract Sum, including the compensation method and, if based upon the Cost of the Work plus a fee, a written statement of estimated cost organized by trade categories, allowances, contingencies, Design-Builder's Fee, and other items that comprise the Contract Sum;
.3 The proposed date the Design-Builder shall achieve Substantial Completion;
.4 An enumeration of any qualifications and exclusions, if applicable;
.5 A list of the Design-Builder's key personnel, Contractors and suppliers; and
.6 The date on which the Design-Builder's Proposal expires.

§ 4.4.2 ~~Submission of the Design-Builder's Proposal shall constitute a representation by the Design-Builder that it has visited the site and become familiar with local conditions under which the Work is to be completed~~Intentionally Omitted.

§ 4.4.3 If the Owner and Design-Builder agree on a proposal, the Owner and Design-Builder shall execute the Design-Build Amendment setting forth the terms of their agreement.

ARTICLE 5 WORK FOLLOWING EXECUTION OF THE DESIGN-BUILD AMENDMENT

§ 5.1 Construction Documents

§ 5.1.1 Upon the execution of the Design-Build Amendment, the Design-Builder shall prepare Construction Documents. The Construction Documents shall establish the quality levels of materials and systems required. The Construction Documents shall be substantially consistent with the Design-Build Documents.

§ 5.1.2 The Design-Builder shall provide the Construction Documents to the Owner for the Owner's ~~information~~review and approval. If the Owner discovers any deviations between the Construction Documents and the Design-Build Documents, the Owner shall promptly notify the Design-Builder of such deviations in writing. The Construction Documents shall not modify the Design-Build Documents unless the Owner and Design-Builder execute a Modification. ~~The failure of the Owner to discover any such deviations shall not relieve the Design-Builder of the obligation to perform the Work in accordance with the Design-Build Documents.~~

§ 5.2 Construction

§ 5.2.1 Commencement. Except as permitted in Section 5.2.2, construction shall not commence prior to execution of the Design-Build Amendment.

§ 5.2.2 If the Owner and Design-Builder agree in writing, construction may proceed prior to the execution of the Design-Build Amendment. However, such authorization shall not waive the Owner's right to reject the Design-Builder's Proposal.

§ 5.2.3 The Design-Builder shall supervise and direct the Work~~, using the Design-Builder's best skill and attention~~. The Design-Builder shall be solely responsible for, and have control over, construction means, methods, techniques, sequences and procedures, and for coordinating all portions of the Work under the Contract~~, unless the Design-Build Documents give other specific instructions concerning these matters~~.

~~§ 5.2.4 The Design-Builder shall be responsible for inspection of portions of Work already performed to determine that such portions are in proper condition to receive subsequent Work.~~

§ 5.3 Labor and Materials

§ 5.3.1 Unless otherwise provided in the Design-Build Documents, the Design-Builder shall provide and pay for labor, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation, and other facilities and services, necessary for proper execution and completion of the Work, whether temporary or permanent, and whether or not incorporated or to be incorporated in the Work.

§ 5.3.2 When a material or system is specified in the Design-Build Documents, the Design-Builder may make substitutions only in accordance with Article 6.

~~§ 5.3.3 The Design-Builder shall enforce strict discipline and good order among the Design-Builder's employees and other persons carrying out the Work. The Design-Builder shall not permit employment of unfit persons or persons not properly skilled in tasks assigned to them.~~

§ 5.4 Taxes

The Design-Builder shall pay sales, consumer, use and similar taxes, for the Work provided by the Design-Builder, that are legally ~~enacted~~ in effect when the Design-Build Amendment is executed~~, whether or not yet effective or merely scheduled to go into effect~~.

§ 5.5 Permits, Fees, Notices and Compliance with Laws

§ 5.5.1 Unless otherwise provided in the Design-Build Documents, the Design-Builder shall secure and pay for the building permit as well as any other permits, fees, licenses, and inspections by government agencies, necessary for proper execution of the Work that are customarily secured after execution of the Contract and legally required at the time the Design-Build Amendment is executed~~and Substantial Completion of the Project~~.

§ 5.5.2 The Design-Builder shall comply with and give notices required by applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities, applicable to performance of the Work.

§ 5.5.3 Concealed or Unknown Conditions. If the Design-Builder encounters conditions at the site that are (1) subsurface or otherwise concealed physical conditions that differ materially from those indicated in the Design-Build Documents or (2) unknown physical conditions of an unusual nature that differ materially from those ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for in the Design-Build Documents, the Design-Builder shall promptly provide notice to the Owner before conditions are disturbed and in no event later than 21 days after first observance of the conditions. ~~The Owner shall promptly investigate such conditions and, i~~If the ~~Owner determines that they~~conditions differ materially and cause an increase or decrease in the Design-Builder's cost of, or time required for, performance of any part of the Work, the Owner shall execute with Design-Builder a Modification providing for ~~recommend~~ an equitable adjustment in the Contract Sum or Contract Time, or both. ~~If the Owner determines that the conditions at the site are not materially different from those indicated in the Design-Build Documents and that no change in the terms of the Contract is justified, the Owner shall promptly notify the Design-Builder in writing, stating the reasons. If the Design-Builder disputes the Owner's determination or recommendation, the Design-Builder may proceed as provided in Article 14.~~

§ 5.5.4 If, in the course of the Work, the Design-Builder encounters human remains, or recognizes the existence of burial markers, archaeological sites, or wetlands, not indicated in the Design-Build Documents, the Design-Builder shall immediately suspend any operations that would affect them and shall notify the Owner. Upon receipt of such notice, the Owner shall promptly take any action necessary to obtain governmental authorization required to resume the operations. The Design-Builder shall continue to suspend such operations until otherwise instructed by the Owner but shall continue with all other operations that do not affect those remains or features. Requests for adjustments in the Contract Sum and Contract Time arising from the existence of such remains or features may be made as provided in Article 14.

§ 5.6 Allowances

§ 5.6.1 The Design-Builder shall include in the Contract Sum all allowances stated in the Design-Build Documents. Items covered by allowances shall be supplied for such amounts, and by such persons or entities as the Owner may direct, but the Design-Builder shall not be required to employ persons or entities to whom the Design-Builder has reasonable objection.

§ 5.6.2 Unless otherwise provided in the Design-Build Documents,

.1 allowances shall cover the cost to the Design-Builder of materials and equipment delivered at the site and all required taxes, less applicable trade discounts;

.2 the Design-Builder's costs for unloading and handling at the site, labor, installation costs, overhead, profit, and other expenses contemplated for stated allowance amounts, shall be included in the Contract Sum but not in the allowances; and

.3 whenever the labor and/or material costs are more than or less than the stated allowances, the Contract Sum shall be adjusted accordingly by Change Order. The amount of the Change Order shall reflect (1) the difference between actual costs and the allowances under Section 5.6.2.1 and (2) changes in Design-Builder's costs under Section 5.6.2.2.

§ 5.6.3 The Owner shall make selections of materials and equipment with reasonable promptness for allowances requiring Owner selection.

§ 5.7 Key Personnel, Contractors and Suppliers

§ 5.7.1 ~~The Design-Builder shall not employ personnel, or contract with Contractors or suppliers to whom the Owner has made reasonable and timely objection.~~ The Design-Builder shall not be required to contract with anyone to whom the Design-Builder has made reasonable and timely objection.

~~§ 5.7.2 If the Design-Builder changes any of the personnel, Contractors or suppliers identified in the Design-Build Amendment, the Design-Builder shall notify the Owner and provide the name and qualifications of the new personnel, Contractor or supplier. The Owner may reply within 14 days to the Design-Builder in writing, stating (1) whether the Owner has reasonable objection to the proposed personnel, Contractor or supplier or (2) that the Owner requires additional time to review. Failure of the Owner to reply within the 14-day period shall constitute notice of no reasonable objection.~~

~~§ 5.7.3 Except for those persons or entities already identified or required in the Design-Build Amendment, the Design-Builder, as soon as practicable after execution of the Design-Build Amendment, shall furnish in writing to the Owner the names of persons or entities (including those who are to furnish materials or equipment fabricated to a special design) proposed for each principal portion of the Work. The Owner may reply within 14 days to the Design-Builder in writing stating (1) whether the Owner has reasonable objection to any such proposed person or entity or (2) that the Owner requires additional time for review. Failure of the Owner to reply within the 14-day period shall constitute notice of no reasonable objection.~~

~~§ 5.7.3.1 If the Owner has reasonable objection to a person or entity proposed by the Design-Builder, the Design-Builder shall propose another to whom the Owner has no reasonable objection. If the rejected person or entity was reasonably capable of performing the Work, the Contract Sum and Contract Time shall be increased or decreased by the difference, if any, occasioned by such change, and an appropriate Change Order shall be issued before commencement of the substitute person or entity's Work. However, no increase in the Contract Sum or Contract Time shall be allowed for such change unless the Design-Builder has acted promptly and responsively in submitting names as required.~~

§ 5.8 Documents and Submittals at the Site

The Design-Builder shall maintain at the site for the Owner one copy of the Design-Build Documents and a current set of the Construction Documents, in good order and marked currently to indicate field changes and selections made during construction, and one copy of approved Submittals. The Design-Builder shall deliver these items to the Owner in accordance with Section 9.10.2 as a record of the Work as constructed.

§ 5.9 Use of Site

The Design-Builder shall confine operations at the site to areas permitted by applicable laws, statutes, ordinances, codes, rules and regulations, lawful orders of public authorities, and the Design-Build Documents, and shall endeavor not to unreasonably encumber the site with materials or equipment.

§ 5.10 Cutting and Patching

The Design-Builder shall not cut, patch or otherwise alter fully or partially completed construction by the Owner or a separate contractor except with written consent of the Owner and of such separate contractor; such consent shall not be unreasonably withheld. The Design-Builder shall not unreasonably withhold from the Owner or a separate contractor the Design-Builder's consent to cutting or otherwise altering the Work.

§ 5.11 Cleaning Up

§ 5.11.1 The Design-Builder shall keep the premises and surrounding area free from accumulation of waste materials or rubbish caused by operations under the Contract. At completion of the Work, the Design-Builder shall remove waste materials, rubbish, the Design-Builder's tools, construction equipment, machinery and surplus materials from and about the Project.

§ 5.11.2 If the Design-Builder fails to clean up as provided in the Design-Build Documents, the Owner may do so and Owner shall be entitled to reimbursement from the Design-Builder.

§ 5.12 Access to Work

The Design-Builder shall provide the Owner and its separate contractors and consultants access to the Work in preparation and progress wherever located. The Design-Builder shall notify the Owner regarding Project safety criteria and programs, which the Owner, and its contractors and consultants, shall comply with while at the site.

§ 5.13 Construction by Owner or by Separate Contractors

§ 5.13.1 Owner's Right to Perform Construction and to Award Separate Contracts

§ 5.13.1.1 The Owner reserves the right to perform construction or operations related to the Project with the Owner's own forces; and to award separate contracts in connection with other portions of the Project, or other construction or operations on the site, under terms and conditions identical or substantially similar to this Contract, including those terms and conditions related to insurance and waiver of subrogation. The Owner shall notify the Design-Builder promptly after execution of any separate contract. If the Design-Builder claims that delay or additional cost is involved because of such action by the Owner, the Design-Builder shall make a Claim as provided in Article 14.

§ 5.13.1.2 When separate contracts are awarded for different portions of the Project or other construction or operations on the site, the term "Design-Builder" in the Design-Build Documents in each case shall mean the individual or entity that executes each separate agreement with the Owner.

§ 5.13.1.3 The Owner shall provide for coordination of the activities of the Owner's own forces, and of each separate contractor, with the Work of the Design-Builder, who shall endeavor to cooperate with them. ~~The Design-Builder shall participate with other separate contractors and the Owner in reviewing their construction schedules. The Design-Builder shall make any revisions to the construction schedule deemed necessary after a joint review and mutual agreement. The construction schedules shall then constitute the schedules to be used by the Design-Builder, separate contractors and the Owner until subsequently revised.~~

§ 5.13.1.4 Unless otherwise provided in the Design-Build Documents, when the Owner performs construction or operations related to the Project with the Owner's own forces or separate contractors, the Owner shall be deemed to be subject to the same obligations, and to have the same rights, that apply to the Design-Builder under the Contract.

§ 5.14 Mutual Responsibility

§ 5.14.1 The Design-Builder shall afford the Owner and separate contractors reasonable opportunity for introduction and storage of their materials and equipment and performance of their activities, and shall endeavor to connect and coordinate the Design-Builder's construction and operations with theirs as required by the Design-Build Documents.

§ 5.14.2 If part of the Design-Builder's Work depends upon construction or operations by the Owner or a separate contractor, the Design-Builder shall, prior to proceeding with that portion of the Work, visually inspect the prior work and report~~prepare a written report~~ to the Owner~~, identifying apparent~~ discovered discrepancies or defects in the construction or operations by the Owner or separate contractor that would render it unsuitable for proper execution and results of the Design-Builder's Work. ~~Failure of the Design-Builder to report shall constitute an acknowledgment that the Owner's or separate contractor's completed or partially completed construction is fit and proper to receive the Design-Builder's Work, except as to defects not then reasonably discoverable.~~

§ 5.14.3 The Owner shall be responsible to the Design-Builder for costs the Design-Builder incurs because of a separate contractor's delays, improperly timed activities, damage to the Work or defective construction~~The Design-Builder shall reimburse the Owner for costs the Owner incurs that are payable to a separate contractor because of the Design-Builder's delays, improperly timed activities or defective construction. The Owner shall be responsible to the Design-Builder for costs the Design-Builder incurs because of a separate contractor's delays, improperly timed activities, damage to the Work or defective construction~~.

§ 5.14.4 The Design-Builder shall promptly remedy damage the Design-Builder wrongfully causes to completed or partially completed construction or to property of the Owner or separate contractors as provided in Section 10.2.5.

§ 5.14.5 The Owner and each separate contractor shall have the same responsibilities for cutting and patching the Work as the Design-Builder has with respect to the construction of the Owner or separate contractors in Section 5.10.

§ 5.15 Owner's Right to Clean Up
If a dispute arises among the Design-Builder, separate contractors and the Owner as to the responsibility under their respective contracts for maintaining the premises and surrounding area free from waste materials and rubbish, the Owner may clean up and will allocate the cost among those responsible.

ARTICLE 6 CHANGES IN THE WORK
§ 6.1 General
§ 6.1.1 Changes in the Work may be accomplished after execution of the Contract, and without invalidating the Contract, by Change Order or Change Directive, subject to the limitations stated in this Article 6 and elsewhere in the Design-Build Documents.

§ 6.1.2 A Change Order shall be based upon agreement between the Owner and Design-Builder. The Owner may issue a Change Directive without agreement by the Design-Builder.

§ 6.1.3 Changes in the Work shall be performed under applicable provisions of the Design-Build Documents, and the Design-Builder shall proceed promptly, unless otherwise provided in the Change Order or Change Directive.

§ 6.2 Change Orders
A Change Order is a written instrument signed by the Owner and Design-Builder stating their agreement upon all of the following:

.1 The change in the Work;
.2 The amount of the adjustment, if any, in the Contract Sum or, if prior to execution of the Design-Build Amendment, the adjustment in the Design-Builder's compensation; and
.3 The extent of the adjustment, if any, in the Contract Time.

§ 6.3 Change Directives
§ 6.3.1 A Change Directive is a written order signed by the Owner directing a change in the Work and stating a proposed basis for adjustment, if any, in the Contract Sum, or, if prior to execution of the Design-Build Amendment, the adjustment in the Design-Builder's compensation, or Contract Time, or both prior to agreement on any such adjustment~~, if any,~~ in the Contract Sum or, if prior to execution of the Design-Build Amendment, the adjustment in the Design-Builder's compensation, or Contract Time. The Owner may by Change Directive, without invalidating the Contract, order changes in the Work within the general scope of the Contract consisting of additions, deletions or other revisions, the Contract Sum or, if prior to execution of the Design-Build Amendment, the adjustment in the Design-Builder's compensation, and Contract Time being adjusted accordingly.

§ 6.3.2 A Change Directive shall be used in the absence of total agreement on the terms of a Change Order.

§ 6.3.3 If the Change Directive provides for an adjustment to the Contract Sum or, if prior to execution of the Design-Build Amendment, an adjustment in the Design-Builder's compensation, the adjustment shall be based on one of the following methods:

.1 Mutual acceptance of a lump sum properly itemized and supported by sufficient substantiating data to permit evaluation;
.2 Unit prices stated in the Design-Build Documents or subsequently agreed upon;
.3 Cost to be determined in a manner agreed upon by the parties and a mutually acceptable fixed or percentage fee; or
.4 As provided in Section 6.3.7.

§ 6.3.4 If unit prices are stated in the Design-Build Documents or subsequently agreed upon, and if quantities originally contemplated are materially changed in a proposed Change Order or Change Directive so that application of such unit prices to quantities of Work proposed will cause substantial inequity to the Owner or Design-Builder, the applicable unit prices shall be equitably adjusted.

§ 6.3.5 Upon receipt of a Change Directive, the Design-Builder shall promptly proceed with the change in the Work involved and advise the Owner of the Design-Builder's agreement or disagreement with the method, if any, provided in the Change Directive for determining the proposed adjustment in the Contract Sum or, if prior to execution of the Design-Build Amendment, the adjustment in the Design-Builder's compensation, or Contract Time.

§ 6.3.6 A Change Directive signed by the Design-Builder indicates the Design-Builder's agreement therewith, including adjustment in Contract Sum or, if prior to execution of the Design-Build Amendment, the adjustment in the Design-Builder's compensation, and Contract Time or the method for determining them. Such agreement shall be effective immediately and shall be recorded as a Change Order.

§ 6.3.7 If the Design-Builder ~~does not respond promptly or~~ disagrees with the method for adjustment in the Contract Sum or, if prior to execution of the Design-Build Amendment, the method for adjustment in the Design-Builder's compensation, the Owner and Design Builder shall cooperate to determine the method and the adjustment on the basis of reasonable expenditures and savings of those performing the Work attributable to the change, including, in case of an increase, an amount for overhead and profit as set forth in the Agreement, or if no such amount is set forth in the Agreement, a reasonable amount; provided, however, the Architect's determined adjustment shall not be less than Design-Builder's actual costs. In such case, and also under Section 6.3.3.3, the Design-Builder shall keep and present, in such form as the Owner may prescribe, an itemized accounting together with appropriate supporting data. Unless otherwise provided in the Design-Build Documents, costs for the purposes of this Section 6.3.7 shall be limited to the following:

.1 Additional costs of professional services;
.2 Costs of labor, including social security, unemployment insurance, fringe benefits required by agreement or custom, and workers' compensation insurance;
.3 Costs of materials, supplies and equipment, including cost of transportation, whether incorporated or consumed;
.4 Rental costs of machinery and equipment, exclusive of hand tools, whether rented from the Design-Builder or others;
.5 Costs of premiums for all bonds and insurance, permit fees, and sales, use or similar taxes related to the Work; and
.6 Additional costs of supervision and field office personnel directly attributable to the change.

§ 6.3.8 The amount of credit to be allowed by the Design-Builder to the Owner for a deletion or change that results in a net decrease in the Contract Sum or, if prior to execution of the Design-Build Amendment, in the Design-Builder's compensation, shall be actual net cost. When both additions and credits covering related Work or substitutions are involved in a change, the allowance for overhead and profit shall be figured on the basis of net increase, if any, with respect to that change.

§ 6.3.9 Pending final determination of the total cost of a Change Directive to the Owner, the Design-Builder may request payment for Work completed under the Change Directive in Applications for Payment. The Owner will make an interim determination for purposes of certification for payment for those costs deemed to be reasonably justified. The Owner's interim determination of cost shall adjust the Contract Sum or, if prior to execution of the Design-Build Amendment, the Design-Builder's compensation, on the same basis as a Change Order, subject to the right of Design-Builder to disagree and assert a Claim in accordance with Article 14.

§ 6.3.10 When the Owner and Design-Builder agree with a determination concerning the adjustments in the Contract Sum or, if prior to execution of the Design-Build Amendment, the adjustment in the Design-Builder's compensation and Contract Time, or otherwise reach agreement upon the adjustments, such agreement shall be effective immediately and the Owner and Design-Builder shall execute a Change Order. Change Orders may be issued for all or any part of a Change Directive.

ARTICLE 7 OWNER'S RESPONSIBILITIES

§ 7.1 General

§ 7.1.1 The Owner shall designate in writing a representative who shall have express authority to bind the Owner with respect to all Project matters requiring the Owner's approval or authorization.

§ 7.1.2 The Owner shall render decisions in a timely manner and in accordance with the Design-Builder's schedule agreed to by the Owner. The Owner shall furnish to the Design-Builder, within 15 days after receipt of a written request, information necessary and relevant for the Design-Builder to evaluate, give notice of or enforce mechanic's lien rights. Such information shall include a correct statement of the record legal title to the property on which the Project is located, usually referred to as the site, and the Owner's interest therein.

§ 7.2 Information and Services Required of the Owner

§ 7.2.1 The Owner shall furnish information or services required of the Owner by the Design-Build Documents with reasonable promptness.

§ 7.2.2 The Owner shall provide~~, to the extent under the Owner's control and if not required by the Design-Build Documents to be provided by the Design-Builder,~~ the results and reports of prior tests, inspections or investigations conducted for the Project involving structural or mechanical systems; chemical, air and water pollution; hazardous materials; or environmental and subsurface conditions and information regarding the presence of pollutants at the Project site. Upon receipt of a written request from the Design-Builder, the Owner shall also provide surveys describing physical characteristics, legal limitations and utility locations for the site of the Project, and a legal description of the site under the Owner's control.

§ 7.2.3 The Owner shall promptly obtain easements, zoning variances, and legal authorizations or entitlements regarding site utilization where essential to the execution of the Project.

§ 7.2.4 The Owner shall cooperate with the Design-Builder in securing building and other permits, licenses and inspections.

§ 7.2.5 The services, information, surveys and reports required to be provided by the Owner under this Agreement, shall be furnished at the Owner's expense, and ~~except as otherwise specifically provided in this Agreement or elsewhere in the Design-Build Documents or to the extent the Owner advises the Design-Builder to the contrary in writing,~~ the Design-Builder shall be entitled to rely upon the accuracy and completeness thereof. ~~In no event shall the Design-Builder be relieved of its responsibility to exercise proper precautions relating to the safe performance of the Work.~~

§ 7.2.6 If the Owner observes or otherwise becomes aware of a fault or defect in the Work or non-conformity with the Design-Build Documents, the Owner shall give prompt written notice thereof to the Design-Builder.

§ 7.2.7 The Owner shall, prior to execution of the Design-Build Amendment and thereafter, furnish to the Design-Builder reasonable evidence that financial arrangements have been made to fulfill the Owner's obligations under the Contract. Furnishing of such evidence shall be a condition precedent to commencement or continuation of the Work. After such evidence has been furnished, the Owner shall not materially vary such financial arrangements without prior notice to the Design-Builder. For purposes of this provision, the following evidence shall be deemed "reasonable evidence that financial arrangements have been made:"

.1 the name, address, and business telephone number of the Owner;

.2 a description, legally sufficient for identification, of the property on which the improvements are being constructed;

.3 the name and address of the surety on any payment bond provided under Subchapter I, Chapter 53, Property Code, to which any notice of claim should be sent;

.4 if a loan has been obtained for the construction of improvements:

  .1 a statement, furnished by the Owner and supported by reasonable and credible evidence from all applicable lenders, of the amount of the loan;

  .2 a summary of the terms of the loan;

  .3 a statement of whether there is foreseeable default of the Owner; and

  .4 the name, address, and business telephone number of the borrowers and lenders; and

.5 a statement, furnished by the Owner and supported by reasonable and credible evidence from all applicable banks or other depository institutions, of the amount, source, and location of funds available to pay the balance of the contract amount if there is no loan or the loan is not sufficient to pay for all of the construction of the improvements.~~Prior to the execution of the Design-Build Amendment, the Design-Builder may request in writing that the Owner provide reasonable evidence that the Owner has made financial arrangements to fulfill the Owner's obligations under the Design-Build Documents and the Design-Builder's Proposal. Thereafter, the Design-Builder may only request such evidence if (1) the Owner fails to make payments to the Design-Builder as the Design-Build Documents require; (2) a change in the Work materially changes the Contract Sum; or (3) the Design-Builder identifies in writing a reasonable concern regarding the Owner's ability to make payment when due. The Owner shall furnish such evidence as a condition precedent to commencement or continuation of the Work or the portion of the Work affected by a material change. After the Owner furnishes the evidence, the Owner shall not materially vary such financial arrangements without prior notice to the Design-Builder.~~

§ 7.2.8 ~~Except as otherwise provided in the Design-Build Documents or when direct communications have been specially authorized, t~~The Owner shall communicate through the Design-Builder with persons or entities employed or retained by the Design-Builder.

§ 7.2.9 ~~Unless required by the Design-Build Documents to be provided by the Design-Builder, t~~The Owner shall, upon request from the Design-Builder, furnish the services of geotechnical engineers or other consultants for investigation of subsurface, air and water conditions when such services are reasonably necessary to properly carry out the design services furnished by the Design-Builder. In such event, the Design-Builder shall specify the services required. Such services may include, but are not limited to, test borings, test pits, determinations of soil bearing values, percolation tests, evaluations of hazardous materials, ground corrosion and resistivity tests, and necessary operations for anticipating subsoil conditions. The services of geotechnical engineer(s) or other consultants shall include preparation and submission of all appropriate reports and professional recommendations. The Design-Builder shall not be held responsible for, and the Owner agrees to waive all claims against the Design-Builder arising from, any errors, inconsistencies, or inaccuracy in any information provided by or on behalf of Owner, whether pursuant to this Section 7.2.9 or otherwise.

§ 7.2.10 The Owner shall purchase and maintain insurance as set forth in Exhibit B.

§ 7.3 Submittals

§ 7.3.1 The Owner shall review and approve or take other appropriate action on Submittals. ~~Review of Submittals is not conducted for the purpose of determining the accuracy and completeness of other details, such as dimensions and quantities; or for substantiating instructions for installation or performance of equipment or systems; or for determining that the Submittals are in conformance with the Design-Build Documents, all of which remain the responsibility of the Design-Builder as required by the Design-Build Documents.~~ The Owner's action will be taken in accordance with the submittal schedule approved by the Owner or, in the absence of an approved submittal schedule, with reasonable promptness while allowing sufficient time in the ~~Owner's~~ Design-Builder's judgment to permit adequate review. ~~The Owner's review of Submittals shall not relieve the Design-Builder of the obligations under Sections 3.1.11, 3.1.12, and 5.2.3. The Owner's review shall not constitute approval of safety precautions or, unless otherwise specifically stated by the Owner, of any construction means, methods, techniques, sequences or procedures. The Owner's approval of a specific item shall not indicate approval of an assembly of which the item is a component.~~

§ 7.3.2 Upon review of the Submittals required by the Design-Build Documents, the Owner shall notify the Design-Builder of any non-conformance with the Design-Build Documents~~ the Owner discovers~~.

§ 7.4 ~~Visits to the site by the Owner shall not be construed to create an obligation on the part of the Owner to make on-site inspections to check the quality or quantity of the Work.~~ The Owner shall neither have control over or charge of, nor be responsible for, the construction means, methods, techniques, sequences or procedures~~, or for the safety precautions and programs~~ in connection with the Work, because these are solely the Design-Builder's rights and responsibilities under the Design-Build Documents.

§ 7.5 ~~The Owner shall not be responsible for the Design-Builder's failure to perform the Work in accordance with the requirements of the Design-Build Documents. The Owner shall not have control over or charge of, and will not be responsible for acts or omissions of the Design-Builder, Architect, Consultants, Contractors, or their agents or employees, or any other persons or entities performing portions of the Work for the Design-Builder~~Intentionally Omitted.

§ 7.6 The Owner has the authority to reject Work that does not conform to the Design-Build Documents. The Owner shall have authority to require inspection or testing of the Work in accordance with Section 15.5.2, whether or not such Work is fabricated, installed or completed. ~~However, neither this authority of the Owner nor a decision made in good faith either to exercise or not to exercise such authority shall give rise to a duty or responsibility of the Owner to the Design-Builder, the Architect, Consultants, Contractors, material and equipment suppliers, their agents or employees, or other persons or entities performing portions of the Work.~~

§ 7.7 The Owner shall, in its reasonable discretion and subject to approval by Design-Builder, determine the date or dates of Substantial Completion in accordance with Section 9.8 and the date of final completion in accordance with Section 9.10.

§ 7.8 Owner's Right to Stop Work

If the Design-Builder defaults or fails to carry out the Work in substantial accordance with the Contract Documents and fails within a ten (10) day period after receipt of a written notice from Owner to commence and continue correction of such default or neglect, the Owner may, after the ten (10) day period, order the Design-Builder to stop work until such deficiencies have been corrected.~~If the Design-Builder fails to correct Work which is not in accordance with the requirements of the Design-Build Documents as required by Section 11.2 or persistently fails to carry out Work in accordance with the Design-Build Documents, the Owner may issue a written order to the Design-Builder to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, the right of the Owner to stop the Work shall not give rise to a duty on the part of the Owner to exercise this right for the benefit of the Design-Builder or any other person or entity, except to the extent required by Section 5.13.1.3.~~

§ 7.9 Owner's Right to Carry Out the Work

If the Design-Builder defaults or neglects to carry out the Work in substantial accordance with the Design-Build Documents and fails within a ten-day period after receipt of written notice from the Owner to commence and continue correction of such default or neglect~~ with diligence and promptness~~, the Owner may~~, without prejudice to other remedies the Owner may have,~~ correct such deficiencies. In such case, an appropriate Change Order ~~shall~~ may be issued deducting from payments then or thereafter due the Design-Builder the reasonable cost of correcting such deficiencies. ~~If payments then or thereafter due the Design-Builder are not sufficient to cover such amounts, the Design-Builder shall pay the difference to the Owner.~~

ARTICLE 8 TIME

§ 8.1 Progress and Completion

§ 8.1.1 Time limits stated in the Design-Build Documents are of the essence of the Contract. By executing the Design-Build Amendment the Design-Builder confirms that the Contract Time is a reasonable period for performing the Work.

§ 8.1.2 The Design-Builder shall not, except by agreement of the Owner in writing, commence the Work prior to the effective date of insurance, other than property insurance, required by this Contract. The Contract Time shall not be adjusted as a result of the Design-Builder's failure to obtain insurance required under this Contract.

§ 8.1.3 The Design-Builder shall proceed expeditiously with adequate forces and shall endeavor to achieve Substantial Completion within the Contract Time.

§ 8.2 Delays and Extensions of Time

§ 8.2.1 If the Design-Builder is delayed at any time in the commencement or progress of the Work by an act or neglect of the Owner or of a consultant or separate contractor employed by the Owner; or by changes ordered in the Work by the Owner; or by labor disputes, fire, unusual delay in deliveries, unavoidable casualties ~~or other causes beyond the Design-Builder's control;~~ or by delay authorized by the Owner pending mediation and binding dispute resolution; or other causes beyond Design-Builder's control; or by other causes that the Owner reasonably determines may justify delay, then the Contract Time shall be extended by Change Order for such reasonable time as ~~the Owner may determine~~equity requires.

§ 8.2.2 Claims relating to time shall be made in accordance with applicable provisions of Article 14.

§ 8.2.3 This Section 8.2 does not preclude recovery of damages for delay by either party under other provisions of the Design-Build Documents.

ARTICLE 9 PAYMENT APPLICATIONS AND PROJECT COMPLETION

§ 9.1 Contract Sum

The Contract Sum is stated in the Design-Build Amendment.

§ 9.2 Schedule of Values

Where the Contract Sum is based on a stipulated sum or Guaranteed Maximum Price, the Design-Builder, prior to the first Application for Payment after execution of the Design-Build Amendment shall submit to the Owner a schedule of values allocating the entire Contract Sum to the various portions of the Work and prepared in such form and supported by such data to substantiate its accuracy as the Owner may require. This schedule, unless objected to by the Owner, shall be used as a basis for reviewing the Design-Builder's Applications for Payment.

§ 9.3 Applications for Payment

§ 9.3.1 Unless otherwise provided in the Contract Documents, a~~A~~t least ten days before the date established for each progress payment, the Design-Builder shall submit to the Owner an itemized Application for Payment for completed portions of the Work. ~~The application shall be notarized, if required, and supported by data substantiating the Design-Builder's right to payment as the Owner may require, such as copies of requisitions from the Architect, Consultants, Contractors, and material suppliers, and shall reflect retainage if provided for in the Design-Build Documents.~~

§ 9.3.1.1 As provided in Section 6.3.9, Applications for Payment may include requests for payment on account of changes in the Work that have been properly authorized by Change Directives, or by interim determinations of the Owner, but not yet included in Change Orders.

§ 9.3.1.2 ~~Applications for Payment shall not include requests for payment for portions of the Work for which the Design-Builder does not intend to pay the Architect, Consultant, Contractor, material supplier, or other persons or entities providing services or work for the Design-Builder, unless such Work has been performed by others whom the Design-Builder intends to pay~~Intentionally Omitted.

§ 9.3.2 Unless otherwise provided in the Design-Build Documents, payments shall be made for services provided as well as materials and equipment delivered and suitably stored at the site for subsequent incorporation in the Work. ~~If approved in advance by the Owner, p~~Payment ~~may~~ shall similarly be made for materials and equipment suitably stored off the site~~ at a location agreed upon in writing~~. Payment for materials and equipment stored on or off the site shall be conditioned upon compliance by the Design-Builder with procedures satisfactory to the Owner to establish the Owner's title to such materials and equipment or otherwise protect the Owner's interest, and shall include the costs of applicable insurance, storage and transportation to the site for such materials and equipment stored off the site.

§ 9.3.3 The Design-Builder warrants that title to all Work, other than Instruments of Service, covered by an Application for Payment will pass to the Owner no later than the time of payment. The Design-Builder further warrants that, upon submittal of an Application for Payment, all Work for which Certificates for Payment have been previously issued and payments received from the Owner shall, to the best of the Design-Builder's knowledge, information and belief, be free and clear of liens, claims, security interests or encumbrances in favor of the Design-Builder, Architect, Consultants, Contractors, material suppliers, or other persons or entities entitled to make a claim by reason of having provided labor, materials and equipment relating to the Work.

§ 9.4 Certificates for Payment

Unless otherwise provided in the Contract Documents, t~~T~~he Owner shall, within seven days after receipt of the Design-Builder's Application for Payment, issue to the Design-Builder a Certificate for Payment indicating the amount the Owner determines is properly due, and notify the Design-Builder in writing of the Owner's reasons for withholding certification in whole or in part as provided in Section 9.5.1.

§ 9.5 Decisions to Withhold Certification

§ 9.5.1 The Owner may withhold a Certificate for Payment in whole or in part to the extent reasonably necessary to protect the Owner due to the Owner's determination that the Work has not progressed to the point indicated in the Design-Builder's Application for Payment, or the quality of the Work is not in accordance with the Design-Build Documents. If the Owner is unable to certify payment in the amount of the Application, the Owner will notify the Design-Builder as provided in Section 9.4. If the Design-Builder and Owner cannot agree on a revised amount, the Owner will promptly issue a Certificate for Payment for the amount that the Owner deems to be due and owing. The Owner may also withhold a Certificate for Payment ~~or, because of subsequently discovered evidence, may nullify the whole or a part of a Certificate for Payment previously issued~~ to such extent as may be necessary to protect the Owner from loss for which the Design-Builder is responsible because of

.1 ~~defective~~ non-conforming Work, including design and construction, not remedied;

.2 third party claims filed against the Project for unpaid labor or materials with respect to amounts already paid to Design-Builder by Owner~~or reasonable evidence indicating probable filing of such claims unless security acceptable to the Owner is provided by the Design-Builder~~;

.3 ~~failure of the Design-Builder to make payments properly to the Architect, Consultants, Contractors or others, for services, labor, materials or equipment;~~

~~.4~~ ~~reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Sum;~~

~~.5~~ damage to the Owner or a separate contractor caused by Design-Builder; or

.6 ~~reasonable evidence that the Work will not be completed within the Contract Time, and that the unpaid balance would not be adequate to cover actual or liquidated damages for the anticipated delay; or~~

~~.7~~ repeated failure to carry out the Work in substantial accordance with the Design-Build Documents and refusal to cure such deficiency.

§ 9.5.2 When the above reasons for withholding certification are removed, certification will be made for amounts previously withheld.

~~§ 9.5.3 If the Owner withholds certification for payment under Section 9.5.1.3, the Owner may, at its sole option, issue joint checks to the Design-Builder and to the Architect or any Consultants, Contractor, material or equipment suppliers, or other persons or entities providing services or work for the Design-Builder to whom the Design-Builder failed to make payment for Work properly performed or material or equipment suitably delivered.~~

§ 9.6 Progress Payments

§ 9.6.1 After the Owner has issued a Certificate for Payment, the Owner shall make payment in the manner and within the time provided in the Design-Build Documents.

§ 9.6.2 The Design-Builder shall pay each Architect, Consultant, Contractor, and other person or entity providing services or work for the Design-Builder no later than the time period required by applicable law, ~~but in no event more than seven days after receipt of payment from the Owner~~ the amount to which the Architect, Consultant, Contractor, and other person or entity providing services or work for the Design-Builder is entitled, reflecting percentages actually retained from payments to the Design-Builder on account of the portion of the Work performed by the Architect, Consultant, Contractor, or other person or entity. The Design-Builder shall, by appropriate agreement with each Architect, Consultant, Contractor, and other person or entity providing services or work for the Design-Builder, require each Architect, Consultant, Contractor, and other person or entity providing services or work for the Design-Builder to make payments to subconsultants and subcontractors in a similar manner.

§ 9.6.3 ~~The Owner will, on request and if practicable, furnish to the Architect, a Consultant, Contractor, or other person or entity providing services or work for the Design-Builder, information regarding percentages of completion or amounts applied for by the Design-Builder and action taken thereon by the Owner on account of portions of the Work done by such Architect, Consultant, Contractor or other person or entity providing services or work for the Design-Builder~~Intentionally Omitted.

§ 9.6.4 ~~The Owner has the right to request written evidence from the Design-Builder that the Design-Builder has properly paid the Architect, Consultants, Contractors, or other person or entity providing services or work for the Design-Builder, amounts paid by the Owner to the Design-Builder for the Work. If the Design-Builder fails to furnish such evidence within seven days, the Owner shall have the right to contact the Architect, Consultants, and Contractors to ascertain whether they have been properly paid. The Owner shall have no obligation to pay or to see~~

~~to the payment of money to a Consultant or Contractor, except as may otherwise be required by law~~Intentionally Omitted.

§ 9.6.5 ~~Design-Builder payments to material and equipment suppliers shall be treated in a manner similar to that provided in Sections 9.6.2, 9.6.3 and 9.6.4~~Intentionally Omitted.

§ 9.6.6 ~~A Certificate for Payment, a progress payment, or partial or entire use or occupancy of the Project by the Owner shall not constitute acceptance of Work not in accordance with the Design-Build Documents~~Intentionally Omitted.

§ 9.6.7 Unless the Design-Builder provides the Owner with a payment bond in the full penal sum of the Contract Sum, payments received by the Design-Builder for Work properly performed by the Architect, Consultants, Contractors and other person or entity providing services or work for the Design-Builder, shall be held by the Design-Builder for the Architect and those Consultants, Contractors, or other person or entity providing services or work for the Design-Builder, for which payment was made by the Owner. Nothing contained herein shall require money to be placed in a separate account and not commingled with money of the Design-Builder, shall create any fiduciary liability or tort liability on the part of the Design-Builder for breach of trust or shall entitle any person or entity to an award of punitive damages against the Design-Builder for breach of the requirements of this provision.

§ 9.7 Failure of Payment

If the Owner does not issue a Certificate for Payment, through no fault of the Design-Builder, within the time required by the Design-Build Documents, then the Design-Builder may~~, upon seven additional days' written notice to the Owner,~~ stop the Work until payment of the amount owing has been received. The Contract Time shall be extended appropriately and the Contract Sum shall be increased by the amount of the Design-Builder's reasonable costs of shut-down, delay and start-up, plus interest as provided for in the Design-Build Documents.

§ 9.8 Substantial Completion

§ 9.8.1 Substantial Completion is the stage in the progress of the Work when the Work or designated portion thereof is sufficiently complete in accordance with the Design-Build Documents so that the Owner can occupy or utilize the Work for its intended use. The date of Substantial Completion is the date certified by the Owner in accordance with this Section 9.8.

§ 9.8.2 When the Design-Builder considers that the Work, or a portion thereof which the Owner agrees to accept separately, is substantially complete, the Design-Builder shall prepare and submit to the Owner a ~~comprehensive~~ list of items to be completed or corrected prior to final payment. Failure to include an item on such list does not alter the responsibility of the Design-Builder to complete all Work in accordance with the Design-Build Documents.

§ 9.8.3 Upon receipt of the Design-Builder's list, the Owner shall make an inspection to determine whether the Work or designated portion thereof is substantially complete. If the Owner's inspection discloses any item, whether or not included on the Design-Builder's list, which is not sufficiently complete in accordance with the Design-Build Documents so that the Owner can occupy or utilize the Work or designated portion thereof for its intended use, the Design-Builder shall, before issuance of the Certificate of Substantial Completion, complete or correct such item upon notification by the Owner. In such case, the Design-Builder shall then submit a request for another inspection by the Owner to determine Substantial Completion.

§ 9.8.4 Prior to issuance of the Certificate of Substantial Completion under Section 9.8.5, the Owner and Design-Builder shall discuss and then determine the parties' obligations to obtain and maintain property insurance following issuance of the Certificate of Substantial Completion.

§ 9.8.5 When the Work or designated portion thereof is substantially complete, the Design-Builder will prepare for the Owner's signature a Certificate of Substantial Completion that shall, upon the Owner's signature, establish the date of Substantial Completion; establish responsibilities of the Owner and Design-Builder for security, maintenance, heat, utilities, damage to the Work and insurance; and fix the time within which the Design-Builder shall finish all items on the list accompanying the Certificate. Warranties required by the Design-Build Documents shall commence on the date of Substantial Completion of the Work or designated portion thereof unless otherwise provided in the Certificate of Substantial Completion.

§ 9.8.6 The Certificate of Substantial Completion shall be submitted by the Design-Builder to the Owner for written acceptance of responsibilities assigned to it in the Certificate. Upon ~~the Owner's acceptance, and consent of surety, if any~~receipt of such Certificate, the Owner shall make payment of retainage ~~applying to the Work or designated portion thereof~~. Payment shall be adjusted for Work that is incomplete or not in accordance with the requirements of the Design-Build Documents.

§ 9.9 Partial Occupancy or Use

§ 9.9.1 The Owner may occupy or use any completed or partially completed portion of the Work at any stage when such portion is designated by separate agreement with the Design-Builder, provided such occupancy or use is consented to, by endorsement or otherwise, by the insurer providing property insurance and authorized by public authorities having jurisdiction over the Project. Such partial occupancy or use may commence whether or not the portion is substantially complete, provided the Owner and Design-Builder have accepted in writing the responsibilities assigned to each of them for payments, retainage, if any, security, maintenance, heat, utilities, damage to the Work and insurance, and have agreed in writing concerning the period for correction of the Work and commencement of warranties required by the Design-Build Documents. When the Design-Builder considers a portion substantially complete, the Design-Builder shall prepare and submit a list to the Owner as provided under Section 9.8.2. Consent of the Design-Builder to partial occupancy or use shall not be unreasonably withheld. The stage of the progress of the Work shall be determined by written agreement between the Owner and Design-Builder. For any partial occupancy or use, the Owner shall reduce retainage proportionately to the Contractor at the time of partial occupancy or use.

§ 9.9.2 Immediately prior to such partial occupancy or use, the Owner and Design-Builder shall jointly inspect the area to be occupied or portion of the Work to be used in order to determine and record the condition of the Work.

§ 9.9.3 Unless otherwise agreed upon, partial occupancy or use of a portion or portions of the Work shall not constitute acceptance of Work not complying with the requirements of the Design-Build Documents.

§ 9.10 Final Completion and Final Payment

§ 9.10.1 Upon receipt of the Design-Builder's written notice that the Work is ready for final inspection and acceptance and upon receipt of a final Application for Payment, the Owner will promptly make such inspection. When the Owner finds the Work acceptable under the Design-Build Documents and the Contract fully performed, the Owner will~~, subject to Section 9.10.2,~~ promptly issue a final Certificate for Payment.

§ 9.10.2 ~~Neither final payment nor any remaining retained percentage shall become due until the Design-Builder submits to the Owner (1) an affidavit that payrolls, bills for materials and equipment, and other indebtedness connected with the Work, for which the Owner or the Owner's property might be responsible or encumbered, (less amounts withheld by Owner) have been paid or otherwise satisfied, (2) a certificate evidencing that insurance required by the Design-Build Documents to remain in force after final payment is currently in effect, (3) a written statement that the Design-Builder knows of no substantial reason that the insurance will not be renewable to cover the period required by the Design-Build Documents, (4) consent of surety, if any, to final payment, (5) as-constructed record copy of the Construction Documents marked to indicate field changes and selections made during construction, (6) manufacturer's warranties, product data, and maintenance and operations manuals, and (7) if required by the Owner, other data establishing payment or satisfaction of obligations, such as receipts, or releases and waivers of liens, claims, security interests, or encumbrances, arising out of the Contract, to the extent and in such form as may be designated by the Owner. If an Architect, a Consultant, or a Contractor, or other person or entity providing services or work for the Design-Builder, refuses to furnish a release or waiver required by the Owner, the Design-Builder may furnish a bond satisfactory to the Owner to indemnify the Owner against such liens, claims, security interests, or encumbrances. If such liens, claims, security interests, or encumbrances remains unsatisfied after payments are made, the Design-Builder shall refund to the Owner all money that the Owner may be compelled to pay in discharging such liens, claims, security interests, or encumbrances, including all costs and reasonable attorneys' fees.~~Intentionally Omitted.

§ 9.10.3 If, after Substantial Completion of the Work, final completion thereof is materially delayed through no fault of the Design-Builder or by issuance of Change Orders affecting final completion, the Owner shall, upon application by the Design-Builder, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance for Work not fully completed or corrected is less than retainage stipulated in the Design-Build Documents, and if bonds have been furnished, the written consent of surety to payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by the Design-Builder to the Owner prior to issuance of payment. Such payment shall be made under terms and conditions governing final payment, except that it shall not constitute a waiver of claims.

§ 9.10.4 The making of final payment shall constitute a waiver of Claims by the Owner except those arising from

- .1 liens, Claims, security interests or encumbrances arising out of the Contract and unsettled;
- .2 failure of the Work to comply with the requirements of the Design-Build Documents; or
- .3 terms of special warranties required by the Design-Build Documents.

~~§ 9.10.5 Acceptance of final payment by the Design-Builder shall constitute a waiver of claims by the Design-Builder except those previously made in writing and identified by the Design-Builder as unsettled at the time of final Application for Payment.~~

ARTICLE 10 PROTECTION OF PERSONS AND PROPERTY

§ 10.1 Safety Precautions and Programs

The Design-Builder shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the performance of the Contract.

§ 10.2 Safety of Persons and Property

§ 10.2.1 The Design-Builder shall be responsible for precautions for the safety of, and reasonable protection to prevent damage, injury or loss to

- .1 employees on the Work and other persons who may be affected thereby;
- .2 the Work and materials and equipment to be incorporated therein, whether in storage on or off the site, under care, custody or control of the Design-Builder or the Architect, Consultants, or Contractors, or other person or entity providing services or work for the Design-Builder; and
- .3 other property at the site or adjacent thereto, such as trees, shrubs, lawns, walks, pavements, roadways, or structures and utilities not designated for removal, relocation or replacement in the course of construction.

§ 10.2.2 The Design-Builder shall comply with, and give notices required by, applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities, bearing on safety of persons or property, or their protection from damage, injury or loss.

§ 10.2.3 The Design-Builder shall implement, erect, and maintain, as required by existing conditions and performance of the Contract, reasonable safeguards for safety and protection, including posting danger signs and other warnings against hazards, promulgating safety regulations, and notify owners and users of adjacent sites and utilities of the safeguards and protections.

§ 10.2.4 ~~When use or storage of explosives or other hazardous materials or equipment, or unusual methods, are necessary for execution of the Work, the Design-Builder shall exercise utmost care, and carry on such activities under supervision of properly qualified personnel.~~Intentionally Omitted.

§ 10.2.5 The Design-Builder shall promptly remedy damage and loss (other than damage or loss insured under property insurance required by the Design-Build Documents) to property referred to in Sections 10.2.1.2 and 10.2.1.3, caused ~~in whole or in part~~ by the Design-Builder, the Architect, a Consultant, a Contractor, or anyone directly or indirectly employed by any of them, or by anyone for whose acts they may be liable and for which the Design-Builder is responsible under Sections 10.2.1.2 and 10.2.1.3; except Design-Builder shall have no obligation to remedy damage or loss attributable to acts or omissions of the Owner, or anyone directly or indirectly employed by the Owner, or by anyone for whose acts the Owner may be liable~~, and not attributable to the fault or negligence of the Design-Builder~~. The foregoing obligations of the Design-Builder are in addition to the Design-Builder's obligations under Section 3.1.14.

§ 10.2.6 The Design-Builder shall designate a responsible member of the Design-Builder's organization, at the site, whose duty shall be the prevention of accidents. This person shall be the Design-Builder's superintendent unless otherwise designated by the Design-Builder in writing to the Owner.

§ 10.2.7 The Design-Builder shall not permit any part of the construction or site to be loaded so as to cause damage or create an unsafe condition.

§ 10.2.8 Injury or Damage to Person or Property. If the Owner or Design-Builder suffers injury or damage to person or property because of an act or omission of the other, or of others for whose acts such party is legally responsible, written notice of the injury or damage, whether or not insured, shall be given to the other party within a reasonable time not exceeding 21 days after discovery. The notice shall provide sufficient detail to enable the other party to investigate the matter.

§ 10.3 Hazardous Materials
§ 10.3.1 The Design-Builder is responsible for compliance with any requirements included in the Design-Build Documents regarding hazardous materials. If the Design-Builder encounters a hazardous material or substance not addressed in the Design-Build Documents and if reasonable precautions will be inadequate to prevent foreseeable bodily injury or death to persons resulting from a material or substance, including but not limited to asbestos or polychlorinated biphenyl (PCB), encountered on the site by the Design-Builder, the Design-Builder shall, upon recognizing the condition, immediately stop Work in the affected area and report the condition to the Owner in writing.

§ 10.3.2 Upon receipt of the Design-Builder's written notice, the Owner shall obtain the services of a licensed laboratory to verify the presence or absence of the material or substance reported by the Design-Builder and, in the event such material or substance is found to be present, to cause it to be rendered harmless. Unless otherwise required by the Design-Build Documents, the Owner shall furnish in writing to the Design-Builder the names and qualifications of persons or entities who are to perform tests verifying the presence or absence of such material or substance or who are to perform the task of removal or safe containment of such material or substance. The Design-Builder will promptly reply to the Owner in writing stating whether or not the Design-Builder has reasonable objection to the persons or entities proposed by the Owner. If the Design-Builder has an objection to a person or entity proposed by the Owner, the Owner shall propose another to whom the Design-Builder has no reasonable objection. When the material or substance has been rendered harmless, Work in the affected area shall resume upon written agreement of the Owner and Design-Builder. By Change Order, the Contract Time shall be extended appropriately and the Contract Sum shall be increased in the amount of the Design-Builder's reasonable additional costs of shut-down, delay and start-up.

§ 10.3.3 To the fullest extent permitted by law, the Owner shall indemnify and hold harmless the Design-Builder, the Architect, Consultants, and Contractors, and employees of any of them, from and against claims, damages, losses and expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of the Work in the affected area, if in fact the material or substance presents the risk of bodily injury or death as described in Section 10.3.1 and has not been rendered harmless, provided that such claim, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury to, or destruction of, tangible property (other than the Work itself), except to the extent that such damage, loss or expense is due to the fault or negligence of the party seeking indemnity.

§ 10.3.4 The Owner shall not be responsible under this Section 10.3 for materials or substances the Design-Builder brings to the site unless such materials or substances are required by the Owner's Criteria. The Owner shall be responsible for materials or substances required by the Owner's Criteria, except to the extent of the Design-Builder's fault or negligence in the use and handling of such materials or substances.

§ 10.3.5 The Design-Builder shall indemnify the Owner for the cost and expense the Owner incurs (1) for remediation of a material or substance the Design-Builder brings to the site and negligently handles, or (2) where the Design-Builder fails to perform its obligations under Section 10.3.1, except to the extent that the cost and expense are due to the Owner's fault or negligence.

§ 10.3.6 If, without negligence on the part of the Design-Builder, the Design-Builder is held liable by a government agency for the cost of remediation of a hazardous material or substance solely by reason of performing Work as required by the Design-Build Documents, the Owner shall indemnify the Design-Builder for all cost and expense thereby incurred.

§ 10.4 Emergencies
In an emergency affecting safety of persons or property, the Design-Builder shall act, at the Design-Builder's discretion, to prevent threatened damage, injury or loss.

ARTICLE 11 UNCOVERING AND CORRECTION OF WORK

§ 11.1 Uncovering of Work

The Owner may request to examine a portion of the Work that the Design-Builder has covered to determine if the Work has been performed in accordance with the Design-Build Documents. If such Work is in accordance with the Design-Build Documents, the Owner and Design-Builder shall execute a Change Order to adjust the Contract Time and Contract Sum, as appropriate. If such Work is not in accordance with the Design-Build Documents, the costs of uncovering and correcting the Work shall be at the Design-Builder's expense and the Design-Builder shall not be entitled to a change in the Contract Time unless the condition was caused by the Owner or a separate contractor in which event the Owner shall be responsible for payment of such costs and the Contract Time will be adjusted as appropriate.

§ 11.2 Correction of Work

§ 11.2.1 Before or After Substantial Completion. The Design-Builder shall promptly correct Work rejected by the Owner or failing to conform to the requirements of the Design-Build Documents, whether discovered before or after Substantial Completion and whether or not fabricated, installed or completed. Costs of correcting such rejected Work, including additional testing and inspections, the cost of uncovering and replacement~~, and compensation for any design consultant employed by the Owner whose expenses and compensation were made necessary thereby,~~ shall be at the Design-Builder's expense.

§ 11.2.2 After Substantial Completion

§ 11.2.2.1 In addition to the Design-Builder's obligations under Section 3.1.12, if, within one year after the date of Substantial Completion of the Work or designated portion thereof or after the date for commencement of warranties established under Section 9.9.1, or by terms of an applicable special warranty required by the Design-Build Documents, any of the Work is found not to be in accordance with the requirements of the Design-Build Documents, the Design-Builder shall correct it promptly after receipt of written notice from the Owner to do so unless the Owner has previously given the Design-Builder a written acceptance of such condition. The Owner shall give such notice promptly after discovery of the condition. During the one-year period for correction of the Work, if the Owner fails to notify the Design-Builder and give the Design-Builder an opportunity to make the correction, the Owner waives the rights to require correction by the Design-Builder and to make a claim for breach of warranty. If the Design-Builder fails to correct nonconforming Work within a reasonable time during that period after receipt of notice from the Owner, the Owner may correct it in accordance with Section 7.9.

§ 11.2.2.2 ~~The one-year period for correction of Work shall be extended with respect to portions of Work first performed after Substantial Completion by the period of time between Substantial Completion and the actual completion of that portion of the Work~~Intentionally Omitted.

§ 11.2.2.3 The one-year period for correction of Work shall not be extended by corrective Work performed by the Design-Builder pursuant to this Section 11.2.

§ 11.2.3 The Design-Builder shall remove from the site portions of the Work that are not in accordance with the requirements of the Design-Build Documents and are neither corrected by the Design-Builder nor accepted by the Owner.

§ 11.2.4 The Design-Builder shall bear the cost of correcting destroyed or damaged construction of the Owner or separate contractors, whether completed or partially completed, caused by the Design-Builder's correction or removal of Work that is not in accordance with the requirements of the Design-Build Documents.

§ 11.2.5 ~~Nothing contained in this Section 11.2 shall be construed to establish a period of limitation with respect to other obligations the Design-Builder has under the Design-Build Documents. Establishment of the one-year period for correction of Work as described in Section 11.2.2 relates only to the specific obligation of the Design-Builder to correct the Work, and has no relationship to the time within which the obligation to comply with the Design-Build Documents may be sought to be enforced, nor to the time within which proceedings may be commenced to establish the Design-Builder's liability with respect to the Design-Builder's obligations other than specifically to correct the Work~~Intentionally Omitted.

§ 11.3 Acceptance of Nonconforming Work

If the Owner prefers to accept Work that is not in accordance with the requirements of the Design-Build Documents, the Owner may do so instead of requiring its removal and correction, in which case the Contract Sum ~~will~~ may be reduced as appropriate and equitable. Such adjustment ~~shall~~ may be effected whether or not final payment has been made.

ARTICLE 12 COPYRIGHTS AND LICENSES

§ 12.1 Drawings, specifications, and other documents furnished by the Design-Builder, including those in electronic form, are Instruments of Service. The Design-Builder, and the Architect, Consultants, Contractors, and any other person or entity providing services or work for any of them, shall be deemed the authors and owners of their respective Instruments of Service, including the Drawings and Specifications, and shall retain all common law, statutory and other reserved rights, including copyrights. Submission or distribution of Instruments of Service to meet official regulatory requirements, or for similar purposes in connection with the Project, is not to be construed as publication in derogation of the reserved rights of the Design-Builder and the Architect, Consultants, and Contractors, and any other person or entity providing services or work for any of them.

§ 12.2 The Design-Builder and the Owner warrant that in transmitting Instruments of Service, or any other information, the transmitting party is the copyright owner of such information or has permission from the copyright owner to transmit such information for its use on the Project.

§ 12.3 Upon execution of the Agreement, the Design-Builder grants to the Owner a limited, irrevocable and non-exclusive license to use the Instruments of Service solely and exclusively for purposes of constructing, using, maintaining, altering and adding to the Project, provided that the Owner substantially performs its obligations, including prompt payment of all sums when due, under the Design-Build Documents. The license granted under this section permits the Owner to authorize its consultants and separate contractors to reproduce applicable portions of the Instruments of Service solely and exclusively for use in performing services or construction for the Project. If the Design-Builder rightfully terminates this Agreement for cause as provided in Section 13.1.4 or 13.2.1 the license granted in this Section 12.3 shall terminate.

§ 12.3.1 The Design-Builder shall obtain non-exclusive licenses from the Architect, Consultants, and Contractors, that will allow the Design-Builder to satisfy its obligations to the Owner under this Article 12. The Design-Builder's licenses from the Architect and its Consultants and Contractors shall also allow the Owner, in the event this Agreement is terminated for any reason other than the default of the Owner or in the event the Design-Builder's Architect, Consultants, or Contractors terminate their agreements with the Design-Builder for cause, to obtain a limited, irrevocable and non-exclusive license solely and exclusively for purposes of constructing, using, maintaining, altering and adding to the Project, provided that the Owner (1) agrees to pay to the Architect, Consultant or Contractor all amounts due, and (2) provide the Architect, Consultant or Contractor with the Owner's written agreement to indemnify and hold harmless the Architect, Consultant or Contractor from all costs and expenses, including the cost of defense, related to claims and causes of action asserted by any third person or entity to the extent such costs and expenses arise from the Owner's alteration or use of the Instruments of Service.

§ 12.3.2 In the event the Owner alters the Instruments of Service without the author's written authorization or uses the Instruments of Service without retaining the authors of the Instruments of Service, the Owner releases the Design-Builder, Architect, Consultants, Contractors and any other person or entity providing services or work for any of them, from all claims and causes of action arising from or related to such uses. The Owner, to the extent permitted by law, further agrees to indemnify and hold harmless the Design-Builder, Architect, Consultants, Contractors and any other person or entity providing services or work for any of them, from all costs and expenses, including the cost of defense, related to claims and causes of action asserted by any third person or entity to the extent such costs and expenses arise from the Owner's alteration or use of the Instruments of Service under this Section 12.3.2. ~~The terms of this Section 12.3.2 shall not apply if the Owner rightfully terminates this Agreement for cause under Sections 13.1.4 or 13.2.2.~~

ARTICLE 13 TERMINATION OR SUSPENSION

§ 13.1 Termination or Suspension Prior to Execution of the Design-Build Amendment

§ 13.1.1 If the Owner fails to make payments to the Design-Builder for Work prior to execution of the Design-Build Amendment in accordance with this Agreement, such failure shall be considered substantial nonperformance and cause for termination or, at the Design-Builder's option, cause for suspension of performance of services under this Agreement. ~~If the Design-Builder elects to suspend the Work, the Design-Builder shall give seven days' written notice to the Owner before suspending the Work.~~ In the event of a suspension of the Work, the Design-Builder shall have no liability to the Owner for delay or damage caused by the suspension of the Work. Before resuming the Work, the Design-Builder shall be paid all sums due prior to suspension and any expenses incurred in the interruption and resumption of the Design-Builder's Work. The Design-Builder's compensation for, and time to complete, the remaining Work shall be equitably adjusted.

§ 13.1.2 If the Owner suspends the Project, the Design-Builder shall be compensated for the Work performed prior to notice of such suspension. When the Project is resumed, the Design-Builder shall be compensated for expenses incurred in the interruption and resumption of the Design-Builder's Work. The Design-Builder's compensation for, and time to complete, the remaining Work shall be equitably adjusted.

§ 13.1.3 If the Owner suspends the Project for more than 90 cumulative days for reasons other than the fault of the Design-Builder, the Design-Builder may terminate this Agreement ~~by giving not less than seven days' written notice~~.

§ 13.1.4 ~~Either party may terminate this Agreement upon not less than seven days' written notice should the other party fail substantially to perform in accordance with the terms of this Agreement through no fault of the party initiating the termination~~Intentionally Omitted.

§ 13.1.5 The Owner may terminate this Agreement upon not less than seven days' written notice to the Design-Builder for the Owner's convenience and without cause.

§ 13.1.6 In the event of termination not the fault of the Design-Builder, the Design-Builder shall be compensated for Work performed prior to termination, together with Reimbursable Expenses then due and any other expenses directly attributable to termination for which the Design-Builder is not otherwise compensated. In no event shall the Design-Builder's compensation under this Section 13.1.6 be greater than the compensation set forth in Section 2.1.

§ 13.2 Termination or Suspension Following Execution of the Design-Build Amendment
§ 13.2.1 Termination by the Design-Builder
§ 13.2.1.1 The Design-Builder may terminate the Contract if the Work is stopped for a period of 30 consecutive days ~~through no act or fault of the Design-Builder, the Architect, a Consultant, or a Contractor, or their agents or employees, or any other persons or entities performing portions of the Work under direct or indirect contract with the Design-Builder,~~ for any of the following reasons:

- .1 Issuance of an order of a court or other public authority having jurisdiction that requires all Work to be stopped;
- .2 An act of government, such as a declaration of national emergency that requires all Work to be stopped;
- .3 Because the Owner has not issued a Certificate for Payment and has not notified the Design-Builder of the reason for withholding certification as provided in Section 9.5.1, or because the Owner has not made payment on a Certificate for Payment within the time stated in the Design-Build Documents; or
- .4 The Owner has failed to furnish to the Design-Builder promptly, upon the Design-Builder's request, reasonable evidence as required by Section 7.2.7.

§ 13.2.1.2 The Design-Builder may terminate the Contract if~~, through no act or fault of the Design-Builder, the Architect, a Consultant, a Contractor, or their agents or employees or any other persons or entities performing portions of the Work under direct or indirect contract with the Design-Builder, repeated~~ suspensions, delays or interruptions of the entire Work by the Owner as described in Section 13.2.3 constitute in the aggregate more than 100 percent of the total number of days scheduled for completion, or ~~120~~ 60 days in any 365-day period, whichever is less.

§ 13.2.1.3 If one of the reasons described in Section 13.2.1.1 or 13.2.1.2 exists, the Design-Builder may, upon seven days' written notice to the Owner, terminate the Contract and recover from the Owner payment for Work executed, including reasonable overhead and profit, costs incurred by reason of such termination, and damages.

§ 13.2.1.4 If the Work is stopped for a period of ~~60~~ 30 consecutive days ~~through no act or fault of the Design-Builder or any other persons or entities performing portions of the Work under contract with the Design-Builder~~ because the Owner has repeatedly failed to fulfill the Owner's obligations under the Design-Build Documents with respect to matters important to the progress of the Work, the Design-Builder may, upon seven additional days' written notice to the Owner, terminate the Contract and recover from the Owner as provided in Section 13.2.1.3.

§ 13.2.2 Termination by the Owner For Cause

§ 13.2.2.1 The Owner may terminate the Contract if the Design-Builder

.1 ~~fails to submit the Proposal by the date required by this Agreement, or if no date is indicated, within a reasonable time consistent with the date of Substantial Completion;~~

~~.2~~ repeatedly refuses or fails to supply an Architect, or enough properly skilled Consultants, Contractors, or workers or proper materials;

.~~3~~2 ~~fails to make payment to the Architect, Consultants, or Contractors for services, materials or labor in accordance with their respective agreements with the Design-Builder;~~

~~.4~~ repeatedly disregards applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of a public authority; or

.~~5~~3 is otherwise guilty of ~~substantial~~ material breach of a provision of the Design-Build Documents.

§ 13.2.2.2 When any of the above reasons exist, the Owner may without prejudice to any other rights or remedies of the Owner and after giving the Design-Builder and the Design-Builder's surety, if any, ~~seven~~ ten (10) days' written notice and opportunity to cure or commence curing, terminate employment of the Design-Builder and may, subject to any prior rights of the surety, ~~:~~

~~.1 Exclude the Design-Builder from the site and take possession of all materials, equipment, tools, and construction equipment and machinery thereon owned by the Design-Builder;~~

~~.2 Accept assignment of the Architect, Consultant and Contractor agreements pursuant to Section 3.1.15; and~~

~~.3 F~~finish the Work by whatever reasonable method the Owner may deem expedient. Upon written request of the Design-Builder, the Owner shall furnish to the Design-Builder a detailed accounting of the costs incurred by the Owner in finishing the Work.

§ 13.2.2.3 ~~When the Owner terminates the Contract for one of the reasons stated in Section 13.2.2.1, the Design-Builder shall not be entitled to receive further payment until the Work is finished~~Intentionally Omitted.

§ 13.2.2.4 If the unpaid balance of the Contract Sum exceeds costs of finishing the Work and other damages incurred by the Owner and not expressly waived, such excess shall be paid to the Design-Builder. ~~If such costs and damages exceed the unpaid balance, the Design-Builder shall pay the difference to the Owner. The obligation for such payments shall survive termination of the Contract.~~

§ 13.2.3 Suspension by the Owner for Convenience

§ 13.2.3.1 The Owner may, without cause, order the Design-Builder in writing to suspend, delay or interrupt the Work in whole or in part for such period of time as the Owner may determine.

§ 13.2.3.2 The Contract Sum and Contract Time shall be adjusted for increases in the cost and time caused by suspension, delay or interruption as described in Section 13.2.3.1. Adjustment of the Contract Sum shall include profit. ~~No adjustment shall be made to the extent~~

~~.1 that performance is, was or would have been so suspended, delayed or interrupted by another cause for which the Design-Builder is responsible; or~~

~~.2 that an equitable adjustment is made or denied under another provision of the Contract.~~

§ 13.2.4 Termination by the Owner for Convenience

§ 13.2.4.1 The Owner may, at any time, terminate the Contract for the Owner's convenience and without cause.

§ 13.2.4.2 Upon receipt of written notice from the Owner of such termination for the Owner's convenience, the Design-Builder shall

.1 cease operations as directed by the Owner in the notice;

.2 take actions necessary, or that the Owner may direct, for the protection and preservation of the Work; and,

.3 except for Work directed to be performed prior to the effective date of termination stated in the notice, terminate all existing Project agreements, including agreements with the Architect, Consultants, Contractors, and purchase orders, and enter into no further Project agreements and purchase orders.

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§ 13.2.4.3 In case of such termination for the Owner's convenience, the Design-Builder shall be entitled to receive payment for Work executed, and costs incurred by reason of such termination, along with reasonable overhead and profit on the Work not executed.

ARTICLE 14 CLAIMS AND DISPUTE RESOLUTION

§ 14.1 Claims

§ 14.1.1 Definition. A Claim is a demand or assertion by one of the parties seeking, as a matter of right, payment of money, or other relief with respect to the terms of the Contract. The term "Claim" also includes other disputes and matters in question between the Owner and Design-Builder arising out of or relating to the Contract. The responsibility to substantiate Claims shall rest with the party making the Claim.

§ 14.1.2 Time Limits on Claims. The Owner and Design-Builder shall commence all claims and causes of action, whether in contract, tort, breach of warranty or otherwise, against the other, arising out of or related to the Contract in accordance with the requirements of the binding dispute resolution method selected in Section 1.3, within the time period specified by applicable law, but in any case not more than 10 years after the date of Substantial Completion of the Work. The Owner and Design-Builder waive all claims and causes of action not commenced in accordance with this Section 14.1.2.

§ 14.1.3 ~~Notice of Claims~~Intentionally Omitted

~~§ 14.1.3.1 Prior To Final Payment. Prior to Final Payment, Claims by either the Owner or Design-Builder must be initiated by written notice to the other party within 21 days after occurrence of the event giving rise to such Claim or within 21 days after the claimant first recognizes the condition giving rise to the Claim, whichever is later.~~

~~§ 14.1.3.2 Claims Arising After Final Payment. After Final Payment, Claims by either the Owner or Design-Builder that have not otherwise been waived pursuant to Sections 9.10.4 or 9.10.5, must be initiated by prompt written notice to the other party. The notice requirement in Section 14.1.3.1 and the Initial Decision requirement as a condition precedent to mediation in Section 14.2.1 shall not apply.~~

§ 14.1.4 Continuing Contract Performance. Pending final resolution of a Claim, except as otherwise agreed in writing or as provided in Section 9.7 and Article 13, the Design-Builder shall proceed diligently with performance of the Contract and the Owner shall continue to make payments in accordance with the Design-Build Documents.

§ 14.1.5 Claims for Additional Cost. If the Design-Builder intends to make a Claim for an increase in the Contract Sum, Design-Builder shall endeavor to provide written notice ~~as provided herein shall be given~~ before proceeding to execute the portion of the Work that relates to the Claim. Prior notice is not required for Claims relating to an emergency endangering life or property arising under Section 10.4.

§ 14.1.6 Claims for Additional Time

§ 14.1.6.1 If the Design-Builder intends to make a Claim for an increase in the Contract Time, written notice as provided herein shall be given. The Design-Builder's Claim shall include an estimate of cost and of probable effect of delay on progress of the Work. In the case of a continuing delay, only one Claim is necessary.

§ 14.1.6.2 If adverse weather conditions are the basis for a Claim for additional time, such Claim shall be documented by data substantiating that weather conditions were abnormal for the period of time, could not have been reasonably anticipated, and had an adverse effect on the scheduled construction.

§ 14.1.7 Claims for Consequential Damages

The Design-Builder and Owner waive Claims against each other for consequential damages arising out of or relating to this Contract. This mutual waiver includes

.1 damages incurred by the Owner for rental expenses, for losses of use, income, profit, financing, business and reputation, and for loss of management or employee productivity or of the services of such persons; and

.2 damages incurred by the Design-Builder for principal office expenses including the compensation of personnel stationed there, for losses of financing, business and reputation, and for loss of profit except anticipated profit arising directly from the Work.

This mutual waiver is applicable, without limitation, to all consequential damages due to either party's termination in accordance with Article 13. Nothing contained in this Section 14.1.7 shall be deemed to preclude an award of liquidated damages, when applicable, in accordance with the requirements of the Design-Build Documents.

§ 14.2 ~~Initial Decision~~Intentionally Omitted

~~§ 14.2.1 An initial decision shall be required as a condition precedent to mediation of all Claims between the Owner and Design-Builder initiated prior to the date final payment is due, excluding those arising under Sections 10.3 and 10.4 of the Agreement and Sections B.3.2.9 and B.3.2.10 of Exhibit B to this Agreement, unless 30 days have passed after the Claim has been initiated with no decision having been rendered. Unless otherwise mutually agreed in writing, the Owner shall render the initial decision on Claims.~~

~~§ 14.2.2 Procedure~~

~~§ 14.2.2.1 Claims Initiated by the Owner. If the Owner initiates a Claim, the Design-Builder shall provide a written response to Owner within ten days after receipt of the notice required under Section 14.1.3.1. Thereafter, the Owner shall render an initial decision within ten days of receiving the Design-Builder's response: (1) withdrawing the Claim in whole or in part, (2) approving the Claim in whole or in part, or (3) suggesting a compromise.~~

~~§ 14.2.2.2 Claims Initiated by the Design-Builder. If the Design-Builder initiates a Claim, the Owner will take one or more of the following actions within ten days after receipt of the notice required under Section 14.1.3.1: (1) request additional supporting data, (2) render an initial decision rejecting the Claim in whole or in part, (3) render an initial decision approving the Claim, (4) suggest a compromise or (5) indicate that it is unable to render an initial decision because the Owner lacks sufficient information to evaluate the merits of the Claim.~~

~~§ 14.2.3 In evaluating Claims, the Owner may, but shall not be obligated to, consult with or seek information from persons with special knowledge or expertise who may assist the Owner in rendering a decision. The retention of such persons shall be at the Owner's expense.~~

~~§ 14.2.4 If the Owner requests the Design-Builder to provide a response to a Claim or to furnish additional supporting data, the Design-Builder shall respond, within ten days after receipt of such request, and shall either (1) provide a response on the requested supporting data, (2) advise the Owner when the response or supporting data will be furnished or (3) advise the Owner that no supporting data will be furnished. Upon receipt of the response or supporting data, if any, the Owner will either reject or approve the Claim in whole or in part.~~

~~§ 14.2.5 The Owner's initial decision shall (1) be in writing; (2) state the reasons therefor; and (3) identify any change in the Contract Sum or Contract Time or both. The initial decision shall be final and binding on the parties but subject to mediation and, if the parties fail to resolve their dispute through mediation, to binding dispute resolution.~~

~~§ 14.2.6 Either party may file for mediation of an initial decision at any time, subject to the terms of Section 14.2.6.1.~~

~~§ 14.2.6.1 Either party may, within 30 days from the date of an initial decision, demand in writing that the other party file for mediation within 60 days of the initial decision. If such a demand is made and the party receiving the demand fails to file for mediation within the time required, then both parties waive their rights to mediate or pursue binding dispute resolution proceedings with respect to the initial decision.~~

~~§ 14.2.7 In the event of a Claim against the Design-Builder, the Owner may, but is not obligated to, notify the surety, if any, of the nature and amount of the Claim. If the Claim relates to a possibility of a Design-Builder's default, the Owner may, but is not obligated to, notify the surety and request the surety's assistance in resolving the controversy.~~

~~§ 14.2.8 If a Claim relates to or is the subject of a mechanic's lien, the party asserting such Claim may proceed in accordance with applicable law to comply with the lien notice or filing deadlines.~~

§ 14.3 Mediation

§ 14.3.1 Claims, disputes, or other matters in controversy arising out of or related to the Contract, except those waived as provided for in Sections 9.10.4, 9.10.5, and 14.1.7, shall be subject to mediation as a condition precedent to binding dispute resolution.

§ 14.3.2 The parties shall endeavor to resolve their Claims by mediation which, unless the parties mutually agree otherwise, shall be administered by the American Arbitration Association in accordance with its Construction Industry Mediation Procedures in effect on the date of the Agreement. A request for mediation shall be made in writing, delivered to the other party to the Contract, and filed with the person or entity administering the mediation. The request may be made concurrently with the filing of binding dispute resolution proceedings but, in such event, mediation shall proceed in advance of binding dispute resolution proceedings, which shall be stayed pending mediation for a period of 60 days from the date of filing, unless stayed for a longer period by agreement of the parties or court order. If an arbitration proceeding is stayed pursuant to this Section 14.3.2, the parties may nonetheless proceed to the selection of the arbitrator(s) and agree upon a schedule for later proceedings.

§ 14.3.3 The parties shall share the mediator's fee and any filing fees equally. The mediation shall be held in the place where the Project is located, unless another location is mutually agreed upon. ~~Agreements~~ Signed Agreements reached in mediation shall be enforceable as settlement agreements in any court having jurisdiction.

§ 14.4 Arbitration

§ 14.4.1 If the parties have selected arbitration as the method for binding dispute resolution in Section 1.3, any Claim subject to, but not resolved by, mediation shall be subject to arbitration which, unless the parties mutually agree otherwise, shall be administered by the American Arbitration Association in accordance with its Construction Industry Arbitration Rules in effect on the date of the Agreement. A demand for arbitration shall be made in writing, delivered to the other party to the Contract, and filed with the person or entity administering the arbitration. The party filing a notice of demand for arbitration must assert in the demand all Claims then known to that party on which arbitration is permitted to be demanded.

§ 14.4.1.1 A demand for arbitration shall be made no earlier than concurrently with the filing of a request for mediation, but in no event shall it be made after the date when the institution of legal or equitable proceedings based on the Claim would be barred by the applicable statute of limitations or statute of repose. For statute of limitations or statute of repose purposes, receipt of a written demand for arbitration by the person or entity administering the arbitration shall constitute the institution of legal or equitable proceedings based on the Claim.

§ 14.4.2 The award rendered by the arbitrator or arbitrators shall be final, and judgment may be entered upon it in accordance with applicable law in any court having jurisdiction.

§ 14.4.3 The foregoing agreement to arbitrate, and other agreements to arbitrate with an additional person or entity duly consented to by parties to the Agreement, shall be specifically enforceable under applicable law in any court having jurisdiction thereof.

§ 14.4.4 Consolidation or Joinder

§ 14.4.4.1 Either party, at its sole discretion, may consolidate an arbitration conducted under this Agreement with any other arbitration to which it is a party provided that (1) the arbitration agreement governing the other arbitration permits consolidation, and (2) the arbitrations to be consolidated ~~substantially~~ involve common questions of law or fact~~, and (3) the arbitrations employ materially similar procedural rules and methods for selecting arbitrator(s)~~.

§ 14.4.4.2 Either party, at its sole discretion, may include by joinder persons or entities substantially involved in a common question of law or fact whose presence is required if complete relief is to be accorded in arbitration, provided that the party sought to be joined consents in writing to such joinder. Consent to arbitration involving an additional person or entity shall not constitute consent to arbitration of any claim, dispute or other matter in question not described in the written consent.

§ 14.4.4.3 The Owner and Design-Builder grant to any person or entity made a party to an arbitration conducted under this Section 14.4, whether by joinder or consolidation, the same rights of joinder and consolidation as the Owner and Design-Builder under this Agreement.

ARTICLE 15 MISCELLANEOUS PROVISIONS

§ 15.1 Governing Law

The Contract shall be governed by the laws of the state of Texas without regard to its conflict of law principles. Venue shall be exclusively in Harris County~~place where the Project is located except that, if the parties have selected arbitration as the method of binding dispute resolution, the Federal Arbitration Act shall govern Section 14.4~~.

§ 15.2 Successors and Assigns

§ 15.2.1 The Owner and Design-Builder, respectively, bind themselves, their partners, successors, assigns and legal representatives to the covenants, agreements and obligations contained in the Design-Build Documents. Except as provided in Section 15.2.2, neither party to the Contract shall assign the Contract as a whole without written consent of the other. If either party attempts to make such an assignment without such consent, that party shall nevertheless remain legally responsible for all obligations under the Contract.

§ 15.2.2 The Owner may, without consent of the Design-Builder, assign the Contract to a lender providing construction financing for the Project, if the lender assumes the Owner's rights and obligations under the Design-Build Documents, including those obligations incurred prior to the date of assignment. The Design-Builder shall execute all consents reasonably required to facilitate such assignment.

§ 15.2.3 If the Owner requests the Design-Builder, Architect, Consultants, or Contractors to execute certificates, other than those required by Section 3.1.10, the Owner shall submit the proposed language of such certificates for review at least 14 days prior to the requested dates of execution. If the Owner requests the Design-Builder, Architect, Consultants, or Contractors to execute consents reasonably required to facilitate assignment to a lender, the Design-Builder, Architect, Consultants, or Contractors shall execute all such consents that are consistent with this Agreement, provided the proposed consent is submitted to them for review at least 14 days prior to execution. The Design-Builder, Architect, Consultants, and Contractors shall not be required to execute certificates or consents that would require knowledge, services or responsibilities beyond the scope of their services.

§ 15.3 Written Notice

Written notice shall be deemed to have been duly served if delivered in person to the individual, to a member of the firm or entity, or to an officer of the corporation for which it was intended; or if delivered at, or sent by registered or certified mail or by courier service providing proof of delivery to, the last business address known to the party giving notice.

§ 15.4 Rights and Remedies

§ 15.4.1 Duties and obligations imposed by the Design-Build Documents, and rights and remedies available thereunder, shall be in addition to and not a limitation of duties, obligations, rights and remedies otherwise imposed or available by law.

§ 15.4.2 No action or failure to act by the Owner or Design-Builder shall constitute a waiver of a right or duty afforded them under the Contract, nor shall such action or failure to act constitute approval of or acquiescence in a breach thereunder, except as may be specifically agreed in writing.

§ 15.5 Tests and Inspections

§ 15.5.1 Tests, inspections and approvals of portions of the Work shall be made as required by the Design-Build Documents and by applicable laws, statutes, ordinances, codes, rules and regulations or lawful orders of public authorities. Unless otherwise provided, the Design-Builder shall make arrangements for such tests, inspections and approvals with an ~~independent testing laboratory or~~ entity reasonably acceptable to the Owner, or with the appropriate public authority, and shall bear all related costs of tests, inspections and approvals as provided for in the Contract Documents. ~~The~~ Upon request, the Design-Builder shall give the Owner timely notice of when and where tests and inspections are to be made so that the Owner may be present for such procedures. The Owner shall bear costs of (1) tests, inspections or approvals that do not become requirements until after bids are received or negotiations concluded, and (2) tests, inspections or approvals where building codes or applicable laws or regulations prohibit the Owner from delegating their cost to the Design-Builder.

§ 15.5.2 If the Owner determines that portions of the Work require additional testing, inspection or approval not included under Section 15.5.1, the Owner will instruct the Design-Builder to make arrangements for such additional testing, inspection or approval by an entity reasonably acceptable to the Owner, and the Design-Builder shall give timely notice to the Owner of when and where tests and inspections are to be made so that the Owner may be present for such procedures. Such costs, except as provided in Section 15.5.3, shall be at the Owner's expense.

§ 15.5.3 If such procedures for testing, inspection or approval under Sections 15.5.1 and 15.5.2 reveal failure of the portions of the Work to comply with requirements established by the Design-Build Documents, all costs made necessary by such failure shall be at the Design-Builder's expense.

§ 15.5.4 Required certificates of testing, inspection or approval shall, unless otherwise required by the Design-Build Documents, be secured by the Design-Builder and promptly delivered to the Owner.

§ 15.5.5 If the Owner is to observe tests, inspections or approvals required by the Design-Build Documents, the Owner will do so promptly and, where practicable, at the normal place of testing.

§ 15.5.6 Tests or inspections conducted pursuant to the Design-Build Documents shall be made promptly to avoid unreasonable delay in the Work.

§ 15.6 Confidential Information
If the Owner or Design-Builder transmits Confidential Information, the transmission of such Confidential Information constitutes a warranty to the party receiving such Confidential Information that the transmitting party is authorized to transmit the Confidential Information. If a party receives Confidential Information, the receiving party shall keep the Confidential Information strictly confidential and shall not disclose it to any other person or entity except as set forth in Section 15.6.1.

§ 15.6.1 A party receiving Confidential Information may disclose the Confidential Information as required by law or court order, including a subpoena or other form of compulsory legal process issued by a court or governmental entity. A party receiving Confidential Information may also disclose the Confidential Information to its employees, consultants or contractors in order to perform services or work solely and exclusively for the Project, provided those employees, consultants and contractors are subject to the restrictions on the disclosure and use of Confidential Information as set forth in this Contract.

§ 15.7 Capitalization
Terms capitalized in the Contract include those that are (1) specifically defined, (2) the titles of numbered articles or (3) the titles of other documents published by the American Institute of Architects.

§ 15.8 Interpretation
§ 15.8.1 In the interest of brevity the Design-Build Documents frequently omit modifying words such as “all” and “any” and articles such as “the” and “an,” but the fact that a modifier or an article is absent from one statement and appears in another is not intended to affect the interpretation of either statement.

§ 15.8.2 Unless otherwise stated in the Design-Build Documents, words which have well-known technical or construction industry meanings are used in the Design-Build Documents in accordance with such recognized meanings.

ARTICLE 16 SCOPE OF THE AGREEMENT
§ 16.1 This Agreement is comprised of the following documents listed below:
.1 AIA Document A141™–2014, Standard Form of Agreement Between Owner and Design-Builder
.2 AIA Document A141™–2014, Exhibit A, Design-Build Amendment, if executed
.3 AIA Document A141™–2014, Exhibit B, Insurance and Bonds
.4 AIA Document A141™–2014, Exhibit C, Sustainable Projects, if completed
.5 AIA Document E203™–2013, Building Information Modeling and Digital Data Exhibit, if completed, or the following:

« »

.6 Other:

« »

This Agreement entered into as of the day and year first written above.

OWNER *(Signature)*	DESIGN-BUILDER *(Signature)*
« »« »	« »« »
(Printed name and title)	*(Printed name and title)*

Agenda No. 4.

CITY COUNCIL MEMORANDUM

City Council Meeting:	**May 12, 2020**
Department:	**Purchasing & Asset Management**
Subject:	**Workshop Discussion regarding City Purchasing Policy - Discussion regarding proposed changes to the City Purchasing Policy. (J. Kurz/J. Gohlke)**

BACKGROUND

The Purchasing Department with the Support of City Management is proposing to modify the Purchasing Policy to align with Local Government Code 252. With this revision, two changes would be made to the policy.

Change 1: Eliminate the need to take cumulative purchases with a single vendor exceeding $50,000.00 for authorization. With this revision, all purchases/projects with an overall contract value exceeding $50,000 would still be presented to council for review and approval prior to the purchase being made or a contract executed. (Reference Texas LGC 252.041)

The currently policy requires Staff to request authorization from City Council to exceed $50,000 in cumulative purchases with a single vendor during a single fiscal year. For example:

Department 1: Purchases Office Furniture from Vendor A in the amount of $25,000.00 in November
Department 2: Purchases Computer Equipment from Vendor A in the amount of $15,000.00 in January
Department 3: Purchases Warehouse supplies from Vendor A in the amount of $9,000.00 in February
Department 4: Plans to purchase office supplies and a desk chair from Vendor A in the amount of $1,100.00. This purchase would take Vendor A over the cumulative purchase amount of $50,000 so Department 4 now is required to put together a CCM/Resolution for Council approval prior to being able to make their purchase.

The $50K cumulative requirement creates an undue administrative burden on staff to track separate and unrelated purchases across all City departments. As recently discussed, this is a manual, time-consuming process as the City's financial system is not equipped to properly track or monitor this.

Change 2: Modify the small dollar purchasing threshold from $1,000.00 to $3,000.00 to align with Texas LGC 252.0215

The small dollar purchasing threshold is the threshold that requires a minimum of three (3) bids be obtained by the department prior to making an award. The $1,000 threshold was put in place prior to 2011 and creates a significant amount of workload for staff. As labor and material rates continue to increase, Staff finds it necessary more often than not to seek additional bids ultimately delaying a much-needed repair to facilities such as HVAC, Electrical, and Plumbing.

The proposed changes to the City Purchasing Policy are in alignment with the City's benchmark and surrounding City Operations, other Cities covered by COS Legal Council, and Local Government Code 252 which outlines procurement requirements for municipalities within the State of Texas.

GOAL

The goal with the proposed modifications are to align City of Schertz Purchasing Policy with State of Texas Local Government Code, Benchmark Cities, and other cities covered by COS Legal Council. In addition, City operations would gain efficiencies that would allow smaller repairs and projects to be completed more quickly.

COMMUNITY BENEFIT

The benefit to the community with this change would be to allow City Departments to more effectively and efficiently respond to the needs of the City.

SUMMARY OF RECOMMENDED ACTION

Although the City Charter delegates the approval to make Operational Policy Changes to the City Managers Office, Purchasing and CMO wish to ensure that Council and Staff are in agreement on the recommendations.

FISCAL IMPACT

This policy change does not carry any fiscal impact.

RECOMMENDATION

Staff recommends City Council concur with the recommended changes to the Purchasing Policy.

Attachments

Policy Change Hilights

Proposed Policy Changes

- Proposed Changes:
  - Eliminate the need to take cumulative purchases with a single vendor exceeding $50,000.00 for authorization.
    - Does not affect purchases/projects with an overall contract value exceeding $50,000 - would still require Council approval. (Reference Texas LGC 252.041)
  - Modify the small dollar purchasing threshold from $1,000.00 to $3,000.00 to align with Texas LGC 252.0215
    - Small dollar purchases can be made without soliciting 3 bids
- Rationale
  - Alignment with Texas LGC 252
  - Alignment with Benchmark Cities
  - Increased efficiencies

CITY COUNCIL MEMORANDUM

City Council Meeting:	**May 12, 2020**
Department:	**City Secretary**
Subject:	**Workshop Discussion and Update (Ordinance 20-H-15) - Discussion and update regarding the COVID-19 virus and our current Ordinance No. 20-H-15 Declaration of Local Disaster. (M. Browne/K. Kong)**

BACKGROUND

Staff will provide Council with an update regarding the COVID-19 Virus. Discussion will include how Phase 1 is progressing and update on the number of cases.

Attachments

20-H-15 Ordinance

Ordinance No. 20-H-15

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF SCHERTZ TEXAS SUPERSEDING ORDINANCE 20-H-13; EXTENDING A DECLARATION OF LOCAL DISASTER; AMENDING THE RULES AND REGULATIONS FOR THE DURATION OF THE DISASTER; RESTRICTING CERTAIN ACTIVITIES; ESTABLISHING PENALTIES FOR VIOLATIONS. PROVIDING AN EFFECTIVE DATE AND DECLARING AN EMERGENCY. FIRST AND FINAL READING

WHEREAS, in December 2019 a novel coronavirus, now designated COVID-19, was detected in Wuhan City, Hubei Province, China. Symptoms of COVID-19 include fever, cough, and shortness of breath. Outcomes have ranged from mild to severe illness, and in some cases death; and

WHEREAS, on January 20, 2020, the World Health Organization (WHO) Director General declared the outbreak of COVID-19 as a Public Health Emergency of International Concern (PHEIC), advising countries to prepare for the containment, detection, isolation and case management, contact tracing and prevention of onward spread of the disease; and

WHEREAS, to date, there have been 25,391 confirmed positive cases in Texas; and

WHEREAS, on Tuesday April 28, 2020, the World Health Organization (WHO) declared the crisis that is now a pandemic had infected nearly 3,052,325 people around the world and killed 211,350. 988,496 cases have been confirmed in the United States according to WHO; and

WHEREAS, on March 13, 2020, President Trump declared a state of emergency due to COVID- 19; and

WHEREAS, President Trump has invoked the Stafford Act, which will allow state and local governments to access federal disaster relief funds; and

WHEREAS, Governor of Texas, issued a disaster proclamation on March 13, 2020, certifying that COVID-19 poses an imminent threat of disaster for counties in the state of Texas; and

WHEREAS, the Texas Department of State Health Services has now determined that, as of March 19, 2020, COVID- 19 represents a public health disaster within the meaning of Chapter 81 of the Texas Health and Safety Code; and

WHEREAS, on March 31, 2020 Governor Abbott issued GA-14 superseding local authority invoked under Chapter 418 of the Government Code, and Chapter 81 and 122 of the Health and Safety Code where local order conflict with GA-14 or any previous order of the Governor related to the pandemic;

WHEREAS, also on April 17, 2020, Governor Abbott issued Executive Order GA-16 to replace Executive Order GA- 14, and while Executive Order GA- 16 generally continued through April 30, 2020, the same social-distancing restrictions and other obligations for Texans according to federal guidelines, it offered a safe, strategic first step to Open Texas, including permitting retail pick-up and delivery services; and

WHEREAS, Texas must continue to protect lives while restoring livelihoods, both of which can be achieved with the expert advice of medical professionals and business leaders; and

WHEREAS, pursuant to the Texas Disaster Act of 1975, the Mayor is designated as the Emergency Management Director of the City of Schertz, and may exercise the powers granted by the governor on an appropriate local scale; and

WHEREAS, Ralph Gutierrez, the Mayor of the City of Schertz previously determined and declared that extraordinary and immediate measures must be taken to respond quickly, prevent and alleviate the suffering of people exposed to and those infected with the virus, as well as those that could potentially be impacted by COVID-19;

WHEREAS, a declaration of local disaster and public health emergency includes the ability to reduce the possibility of exposure to disease, control the risk, promote health, compel persons to undergo additional health measures that prevent or control the spread of disease, including isolation, surveillance, quarantine, or placement of persons under public health observation, including the provision of temporary housing or emergency shelters for persons misplaced or evacuated and request assistance from the governor of state resources.

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

Section 1. The recitals contained in the preamble hereof are hereby found to be true, and such recitals are hereby made a part of this Ordinance for all purposes and are adopted as a part of the judgment and findings of the City Council.

Section 2. That the local state of disaster and public health emergency declared by Mayor Ralph Gutierrez for the City of Schertz, Texas, pursuant to §418.108(a) of the Texas Government Code and renewed and extended to May 5, 2020 at 11:59 p.m. by City Council Ordinance 20-H-13 pursuant to §418.108(b) of the Government Code, including all rules and regulation attached hereto as Exhibit A, is hereby further amended and extended until May 26, 2020.

Section 3. Pursuant to §418.108(c) of the Government Code, this declaration of a local state of disaster and public health emergency shall be given prompt and general publicity and shall be filed promptly with the City Secretary.

Section 4. Pursuant to §418.108(d) of the Government Code, this declaration of a local state of disaster and public health emergency activates the City of Schertz, Texas, emergency management plan.

Section 5. Pursuant to §122.006 of the Health and Safety Code, this declaration authorizes the City to take any actions necessary to promote health and suppress disease, including quarantine, examining and regulating hospitals, regulating ingress and egress from the City, and fining those who do not comply with the City's rules.

Section 6. In accordance with the Guidelines from the President and the CDC, people shall not visit nursing homes, state supported living centers, assisted living facilities, or long-term care facilities unless to provide critical assistance as determined through guidance from the Texas Health and Human Services Commission (HHSC). Nursing homes, state supported living centers, assisted living facilities, and long-term care facilities should follow infection control policies and practices set forth by the HHSC, including minimizing the movement of staff between facilities whenever possible.

Section 7. All ordinances or parts thereof, which are in conflict or inconsistent with any provision of this Ordinance are hereby repealed to the extent of such conflict, and the provisions of this Ordinance shall be and remain controlling as to the matters herein except those portions deemed to conflict with GA-18, or any subsequent emergency orders of Governor Abbott.

Section 8. This Ordinance shall be construed and enforced in accordance with the laws of the State of Texas and the United States of America.

Section 9. If any provision of this Ordinance or the application thereof to any person or circumstance shall be held to be invalid, the remainder of this Ordinance and the application of such provision to other persons and circumstances shall nevertheless be valid, and the City Council hereby declares that this Ordinance would have been enacted without such invalid provision.

Section 10. It is officially found, determined, and declared that the meeting at which this Ordinance is adopted was open to the public and public notice of the time, place, and subject matter of the public business to be considered at such meeting, including this Ordinance, was given, all as required by Chapter 551, Texas Government Code, as amended.

Section 11. Should Governor Abbott lift the statewide disaster orders now in place prior to the date of expiration stated herein, this ordinance shall no longer be subject to enforcement by the City and shall be repealed by the City Council at the first legally posted meeting thereafter.

Section 12. This Ordinance shall be in force and effect from its first and final passage, and any publication required by law.

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF SCHERTZ TEXAS THIS ORDINANCE WAS PASSED, ON FIRST AND FINAL READING, THE 28th DAY OF APRIL 2020.

CITY OF SCHERTZ, TEXAS

By:__________________________

Ralph Gutierrez, Mayor

ATTEST:

Brenda Dennis

Brenda Dennis, City Secretary

EXHIBIT A

THE FOREGOING RULES GOVERNING PRIVATE AND PUBLIC GATHERINGS EXTENDED BY CITY COUNCIL ORDINANCE 20-H-13 IS HEREBY SUPERSEDED BY THE FOLLOWING UPDATED RESTRICTIONS TO RESPOND TO EVOLVING CIRCUMSTANCES THAT ARE DETRIMENTAL TO THE PUBLIC HEALTH. THE FOLLOWING RESTRICTION SHALL TAKE EFFECT AT 11:59 P.M. ON APRIL 30, 2020 AND WILL CONTINUE THROUGH 11:59 P.M., ON MAY 26, 2020.

SECTION 1. In accordance with guidance from DSHS Commissioner Dr. Hellerstedt, and to achieve the goals established by the President to reduce the spread of COVD-19, every person in Texas shall, except where necessary to provide or obtain essential services or reopened services, minimize social gatherings and minimize in-person contact with people who are not in the same household. People over the age of 65, however, are strongly encouraged to stay at home as much as possible; to maintain appropriate distance from any member of the household who has been out of the residence in the previous 14 days; and, if leaving the home, to implement social distancing and to practice good hygiene, environmental cleanliness, and sanitation.

SECTION 2. "Essential services" shall consist of everything listed by the U.S. Department of Homeland Security (DHS) in its Guidance on the Essential Critical Infrastructure Workforce, Version 3.0 or any subsequent version, plus religious services conducted in churches, congregations, and houses of worship. Other essential services may be added to this list with the approval of the Texas Division of Emergency Management (TDEM). TDEM shall maintain an online list of essential services, as specified in this executive order and any approved additions. Requests for additions should be directed to TDEM at EssentialServices@tdem.texas.gov or by visiting the TDEM website at www.tdem.texas.gov/essentialservices.

SECTION 3. Reopened Services: "Reopened services" shall consist of the following to the extent they are not already "essential services:"

1. Retail services that may be provided through pickup, delivery by mail, or delivery to the customer's doorstep.

2. Starting at 11:59 P.m. on Thursday, April 30, 2020:

a) In-store retail services, for retail establishments that operate at up to 25 percent of the total listed occupancy of the retail establishment
b) Dine-in restaurant services, for restaurants that operate at up to 25 percent of the total listed occupancy of the restaurant; provided, however, that (a) this applies only to restaurants that have less than 51 percent of their gross receipts from the sale of alcoholic beverages and are therefore not required to post the 51 percent sign required by Texas law as determined by the Texas Alcoholic Beverage Commission, and (b) valet services are prohibited except for vehicles with placards or plates for disabled parking.
c) Movie theaters that operate at up to 25 percent of the total listed occupancy of any individual theater for any screening.
d) Shopping malls that operate at up to 25 percent of the total listed occupancy of the shopping mall; provided, however, that within shopping malls, the food court dining areas, play areas, and interactive displays and settings must remain closed.

e) Museums and libraries that operate at up to 25 percent of the total listed occupancy; provided, however, that (a) local public museums and local public libraries may so operate only if permitted by the local government, and (b) any components of museums or libraries that have interactive functions or exhibits, including child play areas, must remain closed.
f) Services provided by an individual working alone in an office.
g) Golf course operations.
h) Local government operations, including county and municipal governmental operations relating to permitting, recordation, and document-filing services, as determined by the local government.
i) Such additional services as may be enumerated by future executive orders or proclamations by the governor.

The conditions and limitations set forth above for reopened services shall not apply to essential services. Notwithstanding anything herein to the contrary, the governor may by proclamation identify any county or counties in which reopened services are thereafter prohibited, in the governor's sole discretion, based on the governor's determination in consultation with medical professionals that only essential services should be permitted in the county, including based on factors such as an increase in the transmission of COVTD-19 or in the amount of COVID-19 related hospitalizations or fatalities.

In providing or obtaining essential services or reopened services, people and businesses should follow the minimum standard health protocols recommended by DSHS, found at www.dshs.texas.gov/coronavirus, and should implement social distancing, work from home if possible, and practice good hygiene, environmental cleanliness, and sanitation. This includes also following, to the extent not inconsistent with the DSHS minimum standards, the Guidelines from the President, and the CDC, as well as other CDC recommendations. Individuals are encouraged to wear appropriate face coverings, but no jurisdiction can impose a civil or criminal penalty for failure to wear a face covering.

For further guidance, please see the Governor's report to Reopen Texas at https://gov.texas.gov/uploads/files/organization/opentexas/OpenTexas-Report.pdf

SECTION 4: Religious services should be conducted in accordance with the joint guidance issued and updated by the Attorney General and Governor.

SECTION 5: All public park equipment and fixtures including all playscapes are closed for public use for the duration of this order. Parks are open to the public during regular hours, but their use is limited exercise activity and Social Distancing Requirements must be followed at all times.

SECTION 6: In accordance with the Guidelines from the President and the CDC, people shall not visit nursing homes, state supported living centers, assisted living facilities, or long-term care facilities unless to provide critical assistance as determined through guidance from the Texas Health and Human Services Commission (HHSC). Nursing homes, state supported living centers, assisted living facilities, and long-term care facilities should follow infection control policies and practices set forth by the HHSC, including minimizing the movement of staff between facilities whenever possible.

SECTION 7. This Ordinance does not prohibit people from accessing essential or reopened services or engaging in essential daily activities, such as going to the grocery store or gas station, providing or obtaining other essential or reopened services, visiting parks, hunting or fishing, or engaging in physical activity like jogging, bicycling, or other outdoor sports, so long as the necessary precautions are maintained to reduce the transmission of COVID-19 and to minimize in-person contact with people who are not in the same household.

SECTION 8. Prohibited activities: People shall avoid visiting bars, gyms, public swimming pools, interactive amusement venues such as bowling alleys and video arcades, massage establishments, tattoo studios, piercing studios, or cosmetology salons. The use of drive-thru, pickup, or delivery options for food and drinks remains allowed and highly encouraged throughout the limited duration of this executive order.

All home solicitation shall cease, and any existing home solicitation permits are hereby terminated.

SECTION 9.To the extent of a conflict between this Order and the orders of the Governor or a county judge of Bexar, Comal or Guadalupe County, those orders prevail to the extent of any conflict.

SECTION 10: In accordance with the Guidelines from the President and the CDC, schools shall remain temporarily closed to in-person classroom attendance by students and shall not recommence before the end of the 2019-2020 school year. Public education teachers and staff are encouraged to continue to work remotely from home if possible, but may return to schools to conduct remote video instruction, as well as perform administrative duties, under the strict terms required by the Texas Education Agency. Private schools and institutions of higher education should establish similar terms to allow teachers and staff to return to schools to conduct remote video instruction and perform administrative duties when it is not possible to do so remotely from home.

SECTION 11. Any person, firm, corporation or agent who shall violate a provision of this ordinance, or fail to comply therewith, or with any other requirements thereof, shall be guilty of a Class C misdemeanor. Such person shall be considered guilty of a separate offense for each and every day or portion thereof during which any violation of any of the provisions of this article is committed or continued, and upon conviction of any such violation, such person shall be punished by a fine not to exceed $2,000.00.

SECTION 12. Any peace officer or other person with lawful authority is further authorized to enforce the provisions of this Ordinance or the orders of the Governor in accordance with the authority granted under the Texas Disaster Act of 1975, as applicable, which allows a fine not to exceed $1000.00 and confinement not to exceed 180 days pursuant to Government Code 418.173.

SECTION 13. The Mayor, Local Health Authority and Director of Health may update restrictions set out in this Exhibit as necessary to respond to the evolving circumstances of this outbreak during the duration of the Mayor's Declaration of Public Health Emergency and any extension by the Schertz City Council.

SECTION 14. This Emergency Order amends and supersedes the Emergency Order extended by Ordinance No. 20-H-13.

Agenda No. 6.

CITY COUNCIL MEMORANDUM

City Council Meeting:	**May 12, 2020**
Department:	**Human Resources**
Subject:	**Workshop Discussion regarding the Staffing Study - Presentation of Staffing Study Report (M. Browne/C. Kelm/J. Kurz)**

BACKGROUND

At the direction of Council, the City released a Request for Proposals (RFP) for a staffing study, and two proposals were received. Proposals were reviewed and scored based on criteria including qualifications and experience, company operational information, cost, reputation, capability, resources, and project design and strategy. After evaluation and review of all proposals, the Matrix Consulting Group was identified as the highest-ranking firm and Council approved Resolution 19-R-48 authorizing the City Manager to enter into an agreement with them to conduct a Staffing Study.

The staffing study consisted of review of the City department's workload and performance measures, and those of comparable governments to assess appropriate staffing needs. It is important to note, however, that there are many variables that impact comparison between cities, including operating budgets, community priorities, level of outsourcing, geography, and departmental organization. Initial actions included of an overall review of positions and respective responsibilities, services and activities.

The study consisted of the following activities performed by Matrix:

1. Development of department profiles by reviewing staffing levels, budget size, work flow and use of information technology
2. Interview of staff to obtain operational-specific data (both on-site and telephone)
3. Comparison of City departments to other like-situated municipalities
4. Data compilation, review and analysis

Matrix will be presenting an overview of the study process, methodologies, and their findings and recommendations by department. Below is a summary of the findings and recommendations.

Notable themes that emerged:

1. Overall, the City of Schertz is providing high levels of customer service to the public and generally providing services at a level higher than might be expected with current resource allocations.
2. There is a strong focus on customer service and responsiveness to the public.
3. Some services are provided at levels matching or exceeding relevant industry standards. Where services are not in alignment with these standards, specific staffing recommendations have been proposed to address the staffing requirements.
4. There is strong inter-departmental cooperation and coordination in provision of services.
5. Generally staffing levels throughout the organizational structure have lagged behind the workload increases that would warrant adding additional staff.
6. There is inconsistent use of existing data within the organization and software systems to document and project workloads across all departments. This limits, to some extent, the ability of the organization to effectively plan, manage, and understand emerging service trends.
7. There have been historical difficulties in recruiting and retaining individuals for some positions (including key department leadership positions) which has resulted in the organization facing operational impacts and limited implementation of programs or approaches that would be expected to be in place.
8. Higher growth rates in recent years has impacted the organization, across multiple departments, and has resulted in service constraints and staffing limitations in providing services to the community.
9. Some organizational structure changes have been implemented to address specific operational issues, or to

take advantage of specific skills of individuals, that are not in alignment with typical organizational structures seen in other local governments. While these have been effective, they have resulted, in some cases, in a unique structure within the City of Schertz.

Recommended # of Positions and Costs By Year

	2021	2022	2023	2024	2025
# Positions	45	4	2	12	10.5
Cost	$1,649,107.00	$178,630.00	$75,187.00	$689,725.00	$325,622.00

	2026	2027	2028	2029	2030
# Positions	1	1	0	15	9.5
Cost	$50,268.00	$47,837.00	$0.00	$1,045,757.00	$361,860.00

	Total
# Positions	100
Cost	$4,423,993.00

Staff understands that implementation of all recommendations within the specified timeframes will not be feasible, but the findings will provide an excellent tool to prioritize staffing and other organizational changes during the budget process.

Attachments

staffing study

Staffing Study Final Report

SCHERTZ, TEXAS

matrix consulting group

Table of Contents

1 INTRODUCTION AND EXECUTIVE SUMMARY

This document provides an overview of the key operational, technological and staffing modifications necessary to enhance service delivery, improve operational practices, and/or address staffing limitations. The following report presents the results and findings of the study.

2. Key Themes

Several key themes arose from the assessment that are worth noting to put the following recommendations into context. Overall, the City of Schertz is providing high levels of customer service to the public and generally providing services at a level higher than might be expected with current resource allocations. The notable themes that emerged included:

- Strong focus on customer service and responsiveness to the public.
- Some services are provided at levels matching or exceeding relevant industry standards. Where services are not in alignment with these standards specific staffing recommendations have been proposed to address the staffing requirements.
- Strong inter-departmental cooperation and coordination in provision of services.
- Generally staffing levels throughout the organizational structure have lagged behind the workload increases that would warrant adding additional staff.
- Inconsistent use of existing data within the organization and software systems to document and project workloads across all departments. This limits, to some extent, the ability of the organization to effectively plan, manage, and understand emerging service trends.
- Historical difficulties in recruiting and retaining individuals for some positions (including key department leadership positions) has resulted in the organization facing operational impacts and limited implementation of programs or approaches that would be expected to be in place.
- Higher growth rates in recent years has impacted the organization, across multiple departments, has resulted in service constraints and staffing limitations in providing services to the community.
- Some organizational structure changes have been implemented to address specific operational issues, or to take advantage of specific skills of individuals, that are not in alignment with typical organizational structures seen in other local governments. While these have been effective, they have resulted, in some

cases, in a unique structure within the City of Schertz.

Many of the limitations noted above have been recognized by staff prior to or during the conduct of this evaluation and efforts are underway to mitigate or eliminate these potential impediments for greater efficiency and effectiveness in the organization.

3. Listing of Recommendations.

The following table summarizes the key recommendations contained in the report – grouped by department. For each recommendation, there is a priority and timeframe listed to provide guidance during implementation. The estimated costs of each position is provided in the following section.

	RECOMMENDATION	PRIORITY	TIMEFRAME
	CITY MANAGEMENT		
1	Annual workplans for each department should be adopted as guiding documents that are considered a part of performance evaluations and developed in alignment with overall City priorities and budget.	Medium	2022
2	A Management Analyst position should be added to the City Manager's Office and tasked with overseeing the development and implementation of an enhanced City's performance management program, oversight of the annual work plan program, and providing analytical support to the entire organization on special projects.	Medium	2021
3	The City should expand on their existing performance measures by identifying and adopting additional performance and workload measures to regarding the organization's performance and accomplishments.	Medium	2022
	CITY SECRETARY'S OFFICE		
4	No change in staffing allocations or operational practices.	n/a	n/a
	ECONOMIC DEVELOPMENT		
5	Establish written outcome-based performance measures to better gauge the success of Economic Development efforts.	Medium	2021
6	Consider the use of Customer Relationship Management (CRM) software to increase staff efficiency and effectiveness.	Medium	2021

	RECOMMENDATION	PRIORITY	TIMEFRAME
	EMERGENCY MEDICAL SERVICES		
7	Add a full-time Instructor to assist the Training Coordinator in the delivery of courses.	Medium	2021
8	Continue to measure travel time performance and add units as needed to ensure travel time performance meets the performance expectations of the community.	High	Ongoing
9	Examine the shift schedule and consider staffing shorter shifts for highly utilized ambulances.	High	Ongoing
10	Hire an Assistant EMS Director.	Medium	2025
11	Hire a Logistics Officer.	Medium	2025
12	Hire an Administrative Assistant.	Medium	2022
13	Add a part-time Billing Clerk.	Medium	2021
	ENGINEERING		
14	Create the position of Administrative Assistant to support the City Engineer and the Engineering Department.	Medium	2021
15	Project Managers should manage both vertical and horizontal capital construction projects.	High	2021
16	Increase authorized Engineering Inspector positions from 2 to 3.	High	2021
17	Increase authorized Engineering positions from 3 to 5.	Medium	2021
18	Increase authorized Project Management positions from 1 to 2	High	2021
19	Increase authorized Engineering Inspector positions from 3 to 4.	Medium	2023
20	Increase authorized Engineering positions from 5 to 6	Medium	2024
21	Increase authorized Engineering positions from 6 to 7.	Medium	2029
	FINANCE		
22	Reduce the number of Utility Billing read and cycle dates to 2.	Medium	ASAP
23	Automate electronic utility billing payment receipting and the online new account setup processes.	Medium	ASAP

	RECOMMENDATION	PRIORITY	TIMEFRAME
24	Provide online public access to frequently used court documents.	High	ASAP
25	Increase authorized Utility Billing Clerk positions from 4 to 5.	Medium	2022
26	Increase authorized Municipal Court Deputy Clerk positions from 3 to 4.	Medium	2021
27	Increase authorized Municipal Court Deputy Clerk positions from 4 to 5.	Medium	2024
28	Increase authorized Utility Billing Clerk positions from 5 to 6.	Medium	2029
29	Increase authorized Municipal Court Deputy Clerk positions from 5 to 6.	Medium	2030
	FIRE		
30	Add an additional Deputy Fire Marshal position in 2021. Continue to monitor the growth in the City and add an additional Deputy Fire Marshal (Inspector) as workload demands indicate a need for an additional positions.	High	Ongoing
31	Establish and monitor turnout time performance on a monthly basis and report the performance to each station.	High	Ongoing
32	Continue to measure travel time performance and construct new stations to ensure travel time performance meets the performance expectations of the community.	High	Ongoing
33	Staff the ladder company at Station 2 with three (3) additional personnel daily for a total of 3 Captains, 3 Driver/Operators, and 3 Firefighters.	Medium	2021
34	Hire a dedicated Emergency Management Coordinator.	High	2022
35	Increase staffing by 3 Lieutenants, 3 Driver/Operators and 4 Firefighters to staff Station 4.	High	2024
36	Increase staffing by 3 Lieutenants, 3 Driver/Operators and 4 Firefighters to staff Station 5.	High	2029
	FLEET		
37	The City should convert the ownership of all departmental vehicles and equipment to the Fleet Division.	Medium	2021
38	The Fleet Division should enhance controls over its parts inventory.	High	2021

	RECOMMENDATION	PRIORITY	TIMEFRAME
39	The Fleet Division should hire a Parts Clerk to administer the parts inventory.	High	2021
40	The Fleet Division should hire two Fleet Mechanics in 2021 and increase in future years as fleet expands.	High	2021
41	The Facility Services Division should develop and install a preventive maintenance program for all City facilities.	High	ASAP
42	Add an additional mechanic.	High	2025
43	Add an additional mechanic.	Medium	2030
	GIS		
44	Create a mapping layer for City street signs and their locations.	Medium	2021
45	One GIS employee should spend at least 10% of their time working to implement GIS technology into every department in the City.	Medium	2021
46	In 2022, increase authorized staffing by one position with the addition of a Database/Business Analyst position.	High	2022
	HUMAN RESOURCES AND PURCHASING		
47	The Department should develop a methodology for predicting upcoming retirements based on age and years of service of employees and update it at least annually to anticipate which employees and skills will need to be replaced.	High	2021
48	The Department should prioritize efforts to expand the diversity of applicant pools to enable it to work toward a City workforce that is reflective of the community and to ensure that the best available recruitment avenues and methods are being utilized to attract qualified candidates to the City.	Medium	2021
49	Adopt a comprehensive worker's compensation investigation policy.	Medium	2021
50	Ensure a complete inventory of capital assets occurs at least annually.	High	2021
51	Audit a sampling of inventory at least three times annually	Medium	2021
52	Create and fill a position of Purchasing Specialist	Medium	2021
	INFORMATION TECHNOLOGY		

	RECOMMENDATION	PRIORITY	TIMEFRAME
53	Provide at least one hour of cybersecurity training/education annually to all City employees.	High	ASAP
54	Continue to ensure at least one IT employee is a Subject Matter Expert (SME) for each software and hardware system in use by City Departments. 8	High	Ongoing
55	In 2021, create and fill the position of Information Technology Supervisor.	Medium	2021
56	Fill one additional Client Services Technician position.	Medium	2021
57	Assign the newly created IT Supervisor position oversight responsibility for the Senior Computer Support Systems Engineer, Client Services Technicians, and the Help Desk Coordinator.	High	2021
58	If additional positions in the City are implemented as recommended, an additional Client Services Tech/Help Desk Tech will be required in 2022. In 2030, increase authorized Client Services Tech/Help Desk Tech positions from 5 to 6 based upon projected workload.	Medium	2030
	LIBRARY		
59	Consider obtaining a bookmobile to further enhance the Library's outreach efforts.	High	2021
60	Increase per capita spending to meet minimum State accreditation requirements.	High	Dependent on funding
61	Create the position of Administrative Assistant to support the Library Director and Librarians.	Medium	2021
62	Hire an additional Children's Library Clerk.	Medium	2021
63	Hire an additional Library Assistant.	Medium	2021
64	Hire an additional Library Clerk	Medium	2021
65	Increase authorized Library Clerk positions from 13 to 14.	Medium	2025
66	Increase authorized Library Clerk positions from 14 to 15.	Medium	2030
	PARKS, RECREATION AND COMMUNITY SERVICES DEPARTMENT		

	RECOMMENDATION	PRIORITY	TIMEFRAME
67	The Parks, Recreation and Community Services Department should purchase and install a more robust computerized maintenance management system that facilitates the recording and analysis of work accomplished.	High	2021
68	The Department should first investigate the feasibility of utilizing the same computerized maintenance management system as that used in the Department of Public Works or if a new system is chosen to jointly select a new platform for city-wide use.	High	2021
69	The Parks Maintenance Division should hire three (3) Parks Maintenance Workers I positions with additional staff added in out years based on park acquisition / development.	High	2021
70	The City should transfer the Parks Maintenance Division staff and equipment to the Public Works Department.	Medium	ASAP
71	One new Maintenance Worker position should be added in 2025.	Medium	2025
72	One new Maintenance Worker position should be added in 2030.	Medium	2030
	PLANNING AND COMMUNITY DEVELOPMENT		
73	Implement a Master Building Plan Approval Process to improve customer satisfaction and reduce plan review workload demands.	High	2022
74	Increase Planners from 3 to 4 with the addition of a Senior Planner position to handle current planning activities.	High	2021
75	Increase authorized Plans Examiner positions from 1 to 2.	High	2021
76	Longer-term, once staffing limitations in the plans examiner and building inspections functions are addressed, the City may consider the elimination of the Development Specialist position or one of the Permit Technician positions.	Medium	2022-2025
77	Increase authorized Permit Technician positions from 2 to 3.	Medium	2023
78	Increase authorized Planner positions from 4 to 5.	Medium	2026
79	Increase authorized Building Inspector positions from 5 to 6.	Medium	2027
	POLICE DEPARTMENT		

	RECOMMENDATION	PRIORITY	TIMEFRAME
80	Patrol is appropriately staffed and is effective at utilizing time available to address problems in the community.	n/a	Na
81	Two detective positions should be added to address existing workload.	Medium	2021
82	Add an additional Crime Scene / Evidence Technician in the next 1 to 3 years.	Medium	2021
83	One additional dispatch position and console will be required by 2029.	High	2029
84	One additional records clerk should be authorized for a total of three.	High	2021
85	Warrants should be assigned to patrol as a proactive work assignment to address backlog.	Low	ASAP
86	One additional property/evidence clerk should be authorized.	Medium	2021
87	Four additional kennel technicians should be added to the workforce.	Medium	2021
88	If no other organizational changes are implemented, a second Assistant Chief / Captain position should be added to address span of control and operational oversight issues.	Medium	Dependent on other organizational changes.
	PUBLIC AFFAIRS		
89	Annually the fees associated with Civic Center rentals should be reviewed and adjusted as needed. Additionally, a cost recovery target should be established annually.	High	Ongoing
90	Longer-term, the City should consider the relocation of the Civic Center operations into the Parks and Recreation Department.	Medium	2025-2030
	PUBLIC WORKS		
91	The Public Works Department should define appropriate service levels for the maintenance of the City's infrastructure.	High	2021
92	The Public Works Department should enhance the utility of its computerized maintenance management system as a tool to report on work performed, as well as to plan, manage and schedule work that needs to be performed.	Medium	2021 and ongoing

	RECOMMENDATION	PRIORITY	TIMEFRAME
93	The Public Works Department should critically analyze each of its services on a routine basis to determine the feasibility of insourcing and outsourcing.	High	Ongoing
94	Based on existing workloads, it is estimated that 1 Street Worker II and 2 Street Worker I positions should be authorized.	High	2021
95	Additional staff modifications in 2021 include the additional of an Administrative Assistant.	Medium	2021
96	Staffing adjustments based on growth in workload include: Street Worker II (2025), Street Worker I (2025), Drainage worker I (2025),Serviceman II (2025), Serviceman I (2025), Street Worker II (2030), Street Worker I (2030), Drainage Worker II (2030), Drainage Worker I (2030, and 2 Serviceman Is (2030).	Medium	2025-2030
	ORGANIZATIONAL STRUCTURE CHANGES		
97	No change is recommended at the present time to realign the Human Resources and Procurement Department. However, if other organizational changes are made in the future that impact either the Human Resources or Finance Departments, consideration should be given at that time to realigning the procurement operations under the Finance Department.	n/a	n/a
98	Animal Control should be established as a stand-alone Department with a Director overseeing operations.	Medium	2021
99	The functions related to property maintenance code compliance and enforcement should be moved from the Police Department to the Planning and Community Development Department.	Medium	2021
100	The GIS function should be moved from an independent department to a unit of the Information Technology Department.	High	2021

Greater detail on each recommendation is provided in the individual departmental chapters.

4. Year by Year Listing of Recommended Positions.

The following table summarizes the changes by position and by year to show the annual change in positions recommended.

Positions	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
City Manager's Office										
Management Analyst	1									
EMS										
Instructor	1									
Assistant EMS Director					1					
Logistics Officer					1					
Administrative Assistant		1			1					
Billing Specialist (PT)	1									
Engineering										
Administrative Assistant	1									
Engineering Inspector	1		1							
Engineer	2			1					1	
Project Manager	1									
Finance										
Utility Billing Clerk		1							1	
Municipal Court Deputy Clerk	1			1						1
Fire										
Captain	3									
Deputy Fire Marshall	1									
Driver/Operator	3			3					3	

Positions	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Firefighters	3			4					4	
Emergency Management Coordinator		1								
Lieutenants				3					3	
Fleet										
Parts Clerk	1									
Mechanic	2				1				1	
GIS										
Database/Business Analyst		1								
Human Resources & Purchasing										
HR Generalist					.5					.5
Purchasing Specialist	1									
Information Technology										
Information Technology Supervisor	1									
Client Services Technician	2								1	
Library										
Administrative Assistant	1									
Library Clerk	1				1					1
Children's Program Clerk	1									
Library Assistant	1									
Parks, Recreation & Community Services										
Maintenance Worker I	3				1					1

Positions	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Planning & Community Development										
Senior Planner										
Planner	1					1				
Plans Examiner	1									
Permit Technician			1							
Building Inspector							1			
Police										
Detectives	2									
Dispatch									1	
Property/Evidence Clerk	1									
Kennel Technician	4									
Assistant Chief										
Public Works										
Streets Worker I	2				1					1
Streets Worker II	1				1					1
Administrative Assistant	1									
Serviceman II					1					
Serviceman I					1					2
Drainage Worker II										1
Drainage Worker I										1
TOTAL (net change in positions)	**45**	**4**	**2**	**12**	**10.5**	**1**	**1**	**0**	**15**	**9.5**

5. Cost of Recommended Positions.

The following table summarizes the base salary costs for the recommended positions by year. These costs reflect only the base salary cost for the position with a 3% annual increase included to reflect potential salary adjustments. The total impact of costs to the organizations will also include benefit increases that should be factored into the total costs.

Position	Grade	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
City Manager's Office											
Management Analyst	28	$40,471									
EMS											
Instructor	34	$55,557									
Assistant EMS Director	45					$85,883					
Logistics Officer	36					$60,133					
Administrative Assistant	20		$31,907			$31,907					
Billing Specialist (PT)	23	$17,971									
Engineering											
Administrative Assistant	20	$ 31,907									
Engineering Inspector	26	$40,477		$40,477							
Engineer	32	$102,628			$51,314					$51,314	
Project Manager	30	$47,424									
Finance											
Utility Billing Clerk	17		$28,330							$28,330	
Municipal Deputy Court Clerk	17	$28,330			$28,330						$28,330
Fire											
Captain		$173,409									
Deputy Fire Marshall	38-39	$62,566									
Driver/Operator	33	$262,830			$262,830					$262,830	
Firefighters	28	$131,415			$175,220					$175,220	
Emergency Management Coordinator	37		$70,450								
Lieutenants	37				$187,698					$187,698	
Fleet											
Parts Clerk	17	$28,330									
Mechanic	20	$63,814				$31,907				$31,907	

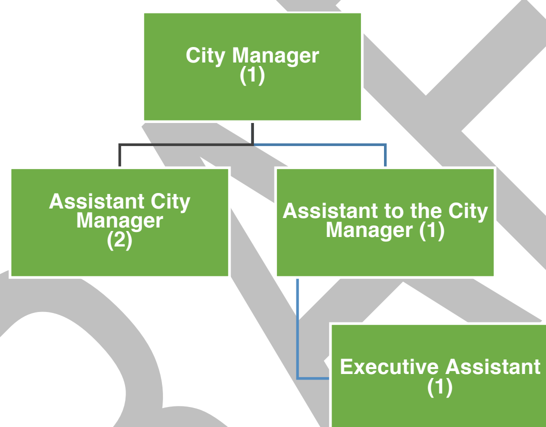
Position	Grade	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
GIS											
Database/Business Analyst	29		$45,573								
Human Resources & Purchasing											
HR Generalist	25					$22,546					$26,136
Purchasing Specialist	21	$33,197									
Information Technology											
Information Technology Supervisor	35	$57,803									
Client Services Technician	21	$66,394								$33,197	
Library											
Administrative Assistant	20	$31,907									
Library Clerk	17	$28,330				$28,330					$28,330
Children's Program Clerk	13	$24,190									
Library Assistant	18	$29,474									
Parks, Recreation & Community Services											
Maintenance Worker I	14	$ 75,504				$25,168					$25,168
Planning & Community Development											
Senior Planner	32										
Planner	27	$51,317					$42,099				
Plans Examiner	30	$47,424									
Permit Technician	17			$28,330							
Building Inspector	25							$38,896			
Police											
Detectives	30	$94,848									
Communications Officer	22									$34,528	
Property/Evidence Technician	24	$37,378									
Kennel Technician	13	$24,190									
Assistant Chief	45										
Public Works											
Streets Worker I	18	$58,948				$29,474					$29,474
Streets Worker II	15	$26,187				$26,187					$26,187

Position	Grade	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Administrative Assistant	20	$31,907									
Serviceman II	20					$31,907					
Serviceman I	17					$28,330					$56,660
Drainage Worker II	18										$29,474
Drainage Worker I	15										$26,187
TOTAL (Base salary costs of positions)		**$1,649,107**	**$178,630**	**$75,187**	**$689,725**	**$325,622**	**$50,268**	**$47,837**	**$ -**	**$1,045,757**	**$361,860**

2 City Manager's Office

The City Manager's Office consists of five positions and is responsible for overall City management and operations. The Office is responsible for advising Council on policy and operational planning issues and ensuring that the policies adopted by the City Council are appropriately implemented. It oversees and manages the daily affairs of the City, determines capital and service delivery needs of the City, and oversees preparation of the annual budget (operating and capital).

The following organizational chart shows the organization and reporting structure of the City Manager's Office.



1 Operational and Technological Changes Needed

There are several opportunities for the City to develop a more defined framework for managing operations that will enhance the ability of the organization to improve service delivery, ensure appropriate resources are identified for service levels, and to define the services that will be provided by the organization while clearly communicating organizational efforts to the City Council and the public.

(1) Departmental Annual Workplans Should be Developed.

The effectiveness of the City's service delivery can be enhanced by ensuring that the key efforts of each department are well delineated and that these are used as the basis for on-going policy and management decisions. In particular, the City should adopt annual departmental workplans that are in alignment with the budget and the highest priorities identified for the coming year and that appropriate performance metrics are utilized to track and manage operations. Annually, departments should develop their annual workplan and notate the key efforts that will further or support the achievement of the strategic goals – or position the City operations to move closer to the achievement of the goals so that there is alignment between these annual workplans and the budget process.

Annual workplans should be a guiding effort for each department's focus during the year, and a portion of the performance evaluation for staff in that department should be linked to accomplishing the workplan. Progress on the workplans should be reviewed at least quarterly between the City Manager, Assistant City Managers and the respective department head. A semi-annual update on progress should be provided to the City Council.

Recommendation: Annual workplans for each department should be adopted as guiding documents that are considered a part of performance evaluations and developed in alignment with overall City priorities and budget.

(2) A Management Analyst Positions should be Authorized and Tasked with leading the City's performance management effort and other special projects for the City Manager's Office.

The City Manager's Office has limited staffing. The Assistant City Manager positions provide support to the City Manager by taking direct oversight of most of the operating departments and provide additional support by handling special projects and initiatives. The Assistant to the City Manager has direct oversight of the Public Affairs functions of City. There is little capacity with the existing positions to easily expand the efforts needed to enhance strategic efforts on planning services and implementing a revised and enhanced performance management program or adoption of annual work plans for operating departments.

It is recommended that a Management Analyst position be added to the City Manager's Office to staff these important initiatives. Given the position's location in the City Manager's Office and the high priority that should be placed on data analysis, data-informed decision-making and the need to fully implement a performance measurement program, it is recommended that the principal duty of this position be allocated to development, implementation and coordination of the performance measurement program, oversight of the annual work plan development and monitoring, and other special projects as assigned by the City Manager. This will take close cooperation and interaction with all departments. This position will also provide analytical support as departments work to enhance their internal data analytical abilities.

In addition, this position should be tasked with conducting special studies, analysis, and analytical activities to support projects and duties performed by the City Manager and Assistant City Managers.

Recommendation: A Management Analyst position should be added to the City Manager's Office and tasked with overseeing the development and implementation of an enhanced City's performance management program, oversight of the annual work plan program, and providing analytical support to the entire organization on special projects.

(3) The City Should Implement an Enhanced Performance Measurement Program.

The City of Schertz should implement a more data-informed decision-making framework to more effectively document existing performance and provide data for future decision-making regarding service levels and, in some cases, staffing levels needed to maintain or change service levels. By collecting, analyzing and utilizing data regarding service provision, the City can improve decision-making and education of the public regarding City overall performance and ensure transparency for the organization regarding service levels.

Ideally, the City will identify a small number of critical performance metrics for each department with the City's performance in meeting these measures widely reported – both to the City Council and the public – and published in a dashboard approach on the City's website. The City should attempt to identify performance metrics that report on outcomes achieved from the services provided and which are linked to the overall adopted strategic goals of the City.

An effective and robust performance measurement program is designed to meet many organizational needs. Some common aspects include:

- Serving as a tool to assist in the evaluation of the quality and effectiveness of operations. It is accomplished by collecting, analyzing, and reporting performance-related data.

- Measures can be based on inputs (resources used), outputs (activities performed), efficiency measures (ratio between inputs and outputs), or outcomes (results achieved). Efficiency and outcome measures are often the most difficult to effectively measure or quantify but provide more useful data than simple input/output counts.

- Government accountability is often a driving factor in local government use of performance measurement. Effective use of performance measures can enhance transparency and public trust.

- Measures should ideally be aligned with adopted strategic goals. Is progress being made toward the highest-level goals? What has the greatest effect on the people served?

- The performance measure should be easily understood by the general public. Overly complicated or obscure measures, even if providing great data on performance, will not be effective if the public cannot understand what it is showing. Some measures are more important for use by managers to make decisions but aren't appropriate for public reporting.

- A department may monitor more performance measures than those reported as part of the City's dashboard. Public facing measures should be ones that inform on overall service outcomes, when possible, and that provide insight to the public and policy makers regarding City performance. Additional measures may be utilized internally, only by the City Manager and Department Heads, as indicators of staff or process efficiency and/or effectiveness.

Ideally, the performance measures would be provided on the City's website with frequent updating (to maintain relevancy) at least quarterly or monthly. Sample performance metrics are presented in Appendix A.

Recommendation: The City should expand on efforts by identifying and adopting additional performance and workload measures to regarding the organization's performance and accomplishments.

2 Staffing Projections

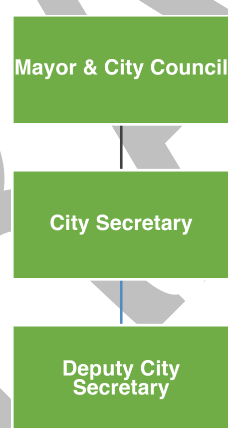
The following table summarizes the proposed staffing allocations for the City Manager's Office. Other than the new position of Management Analyst to support new initiatives identified, no change is projected in the staffing of this office.

Employee Classification	Projection Factor	2020 Auth.	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
City Manager	Executive positions, does not scale.	1	1	1	1	1	1	1	1	1	1	1
Assistant City Manager	Scales based upon number of assigned departments.	2	2	2	2	2	2	2	2	2	2	2
Assistant to the City Manager	Unique position, does not scale.	1	1	1	1	1	1	1	1	1	1	1
Management Analyst	Unique position, does not scale.	0	1	1	1	1	1	1	1	1	1	1
Executive Assistant	Unique position, does not scale.	1	1	1	1	1	1	1	1	1	1	1
TOTAL		4	5	5	5	5	5	5	5	5	5	5

3 City Secretary

The City Secretary is a statutory position required by State law and the City Charter. The City Secretary's Office functions as the primary contact for citizens seeking information, supports the City Council in the fulfillment of their duties and responsibilities, and provides daily assistance to other city departments. The City Secretary serves as a member of the City Management Team and oversees the functions of the City Secretary's Office including election administration, records management and preservation and Council services. The Office is responsible for recording all laws, resolutions, and ordinances approved by the City Council, preparing City Council agendas and providing notice of all Council meetings, countersigning and/or notarizing all contracts, commissions and licenses, coordinating public information requests with other City departments in accordance with state legislation and guidelines, and serving as historian of the City.

The following organizational chart shows the organization and reporting structure of the City Secretary's Office.



1 Operational and Technological Changes Needed

Based upon a review of current operational practices and discussion with staff, there are no specific operational or technological improvements recommended for the City Secretary's Office. The majority of the work performed is statutory and service levels or response timeframes are dictated by statutory or ordinance and the Office is currently meeting these standards. The existing technology utilized, AgendaQuick, for handling agenda development appears to be appropriately and sufficiently meeting the needs of the Office and the organization.

2 Staffing Projections

No staffing changes were identified as needing to be addressed immediately. While the Office has only two staff members, they are able to handle all existing duties at an appropriate level – albeit with some challenges due to the number of evening meetings that must be staffed.

Further, discussions with staff and a review of the limited data available regarding work activities, indicate no pressing need for additional resources at the present time in the future years. The primary future driver for additional staff would be a change in the number, type or service levels for the services currently provided. There are no known changes at the present time that need to be addressed. It is worth noting that the City has recently had a change in Mayor and if this results in requests for additional support or services from the City Secretary's Office, or the City Council changes the service portfolio to be handed by this Office, then staffing for this office should be reconsidered at that point in time.

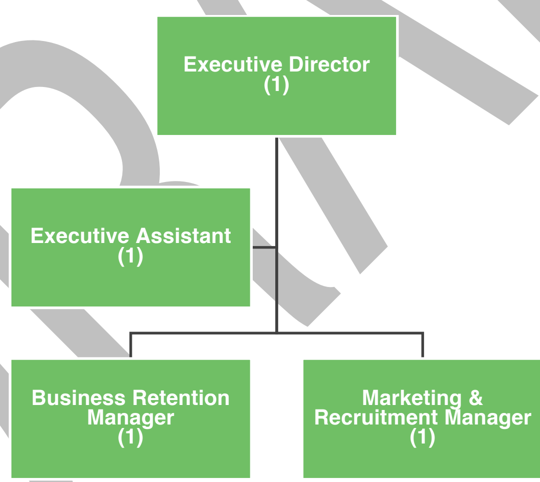
In reviewing organizational structures for other communities, when workload expands beyond the capacity of two positions to handle, the next position added is typically an administrative secretary type position or additional Deputy City Secretary to handle the increase in administrative functions. It would be important that the position be trained in the regulatory requirements of the City Secretary position.

Employee Classification	Projection Factor	2020 Auth.	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
City Secretary	Statutory position, does not scale.	1	1	1	1	1	1	1	1	1	1	1
Deputy City Secretary	Unique position, does not directly scale based upon workload but additional positions at this or another classification would be based upon specific mix of services to be provided.	1	1	1	1	1	1	1	1	1	1	1
TOTAL		2	2	2	2	2	2	2	2	2	2	2

4 Economic Development

Economic Development is a function of the City Manager's Office and consists of four (4) FTE employees who are responsible for growing the Schertz economy through projects that focus on the creation and retention of primary jobs and infrastructure improvements that drive commercial development. Staff implements an industry recruitment program and business retention/expansion program focused on increasing industry investment in Schertz. Industry recruitment includes functions such as specialized research and targeted marketing, prospect development, prospect management, and economic development and infrastructure incentive administration. Retention and Expansion functions include managing service provider relationships and securing engagement from local primary employers to secure new expansions and supplier recruitment targets. Staff also oversees the administration of SEDC Board of Directors which is granted oversight and incentive approval authority by City Council. For purposes of this report, Economic Development is considered a "Department".

The following organizational chart shows the organization and reporting structure of the Economic Development Department.



1 Operational and Technological Changes Needed

Overall the City does an impressive job with its economic development efforts. The Department has appropriate policies and provides regular reports on the status of various activities and economic indicators. While the City does a good job overall, there are two recommended areas for improvement.

(1) Establish Written Outcome-Based Performance Measures to Better Gauge the Success of Economic Development Efforts

The City of Schertz Economic Development Department has an established mission statement and existing performance measures; however, those measures are not always outcome based. Adopting outcome-based performance measures will allow for better analysis of whether employee efforts are successful in achieving specific economic development goals.

The City currently collects numerous economic development-related data points. These include primary jobs; primary job employers; rental prices for industrial, commercial, and office inventory; new residential building permits; new development and expansion projects; industrial site availability, recruitment events attended; number of EDC website visitors; number of company inquiries; number of prospects; number of Twitter impressions; number of blog posts; number of business roundtables, number of business visits; number of retention events/hiring fairs attended; and others.

Those are all excellent metrics to track and the analysis of those metrics year-over-year can help the organization determine areas in which it is successful and areas in which it should modify its economic development approach. The following exhibit is a snapshot of the City's annual economic development report from FY17/18.

Snapshot of Recruitment Efforts from the City of Schertz FY17/18 Economic Development Annual Report

ANNUAL REPORT | FY 2017-18

RECRUITMENT

The SEDC uses the following 'pipeline' to monitor companies as they move through the site selection process. This process allows the SEDC to effectively follow up on each project and help where appropriate.

LEAD → **INQUIRY** → **PROSPECT** → **LOCATES**

- LEAD: Company considering expansion/relocation
- INQUIRY: Company seeking Schertz information
- PROSPECT: Company that has shortlisted Schertz
- LOCATES: Company that has located in Schertz

	Recruitment Events	Inquiries	Prospects
Goal	15	115	50
Quarter 1 (Oct-Dec)	2	26	8
Quarter 2 (Jan-Mar)	7	18	9
Quarter 3 (Apr-Jun)	3	32	10
Quarter 4 (Jul-Sept)	3	46	11
Total	**15**	**122**	**38**

The data show the number of prospects generated; however, there are no data showing whether those prospects were the result of a specific recruitment event or efforts of the City. The City spends considerable time attending recruitment events and so tracked data should include whether prospects are from those events. The City might learn that its approach at the recruitment events is yielding excellent results, or very poor results; however, without data to track it is not possible to determine whether the City is spending its time and financial resources wisely on these events.

A noted absence from tracked data is how many of the new businesses that locate in Schertz were in direct contact with the City's Economic Development Department prior to locating in the City. An example is from the exhibit: "Snapshot of Recruitment Efforts from the City of Schertz FY17/18 Economic Development Annual Report", which shows in FY17/18 there were 38 businesses that the City considered "prospects", or that the organization has short-listed the City in which to move. Knowing how many of those 38 businesses actually started operations in the City could help determine whether specific Economic Development Department employee efforts were successful and enable the department to place greater priority on efforts that directly led to relocation or expansion in the City.

Economic development efforts can be a vital piece in helping a city grow (job base, number of businesses, increased assessed valuation, etc.). The City of Schertz should establish written economic goals with specific objectives to ensure it tracks its economic development success to the efforts of its economic development employees. Currently, there are no measures in place to track whether the number of new businesses coming to Schertz were as the result of any specific economic development effort.

A consistent theme among high performing economic development departments is that there are established written goals and specific objectives/performance measures that are subsequently analyzed to determine whether employee efforts are correlated to the achievement of those goals and objectives.

The following is an overview of local government performance measures:

- A tool to assist in the evaluation of the quality and effectiveness of operations. It is accomplished by collecting, analyzing, and reporting performance-related data.

- Measures can be based on inputs (resources used), outputs (activities performed), efficiency measures (ratio between inputs and outputs), or outcomes (results achieved).

- Government accountability is often a driving factor in local government use of performance measurement.

- Align measurements with your strategic goals. What has the greatest effect on the people served? Tie to outcomes when possible.

- What is the measure? Why is it important? How are we doing?

According to the International City and County Management Association, "These are outcome measures that convert raw improvement into percentage improvement or, better yet, into measures that reflect conditions of economic development vitality that can serve as inspiration to other communities"[1]. Example goals are:

1. Growth in assessed/appraised value of properties in a target area.
2. Percentage of new businesses coming to Schertz outnumber businesses leaving the City.
3. Number of jobs created or retained due to Economic Development Department work.

Suggested performance measures associated with those goals are:

1. Assessed/appraised value of properties in the City's industrial park will increase 3% year-over-year from 2020 through 2025.
2. The City maintains a positive annual new business growth of at least 5% (if 20 businesses leave, at least 21 start up in the City).
3. The number of students graduating local workforce development training programs increases by at least 10% in 2021.
4. At least 150 jobs are created or retained in FY21.

Using those examples and if the City were to have adopted them, there would then be a better ability to measure whether the City's economic development efforts were successful. There should be written goals and outcome-based performance measures established from which the City's Economic Development employees can use to determine their work efforts.

[1] https://icma.org/articles/article/state-art-measures-economic-development-0

By measuring “results” and tracking those results to the efforts of economic development staff, the City will be in a position to better evaluate how it organizes economic development workload activities.

Recommendation: Establish written outcome-based performance measures to better gauge the success of Economic Development efforts.

(2) Utilization of Customer Relationship Management (CRM) Software to Increase Staff Efficiency and Effectiveness

The City does not currently use Customer Relationship Management (CRM) software. In its simplest form, CRM is a technology used to manage an organization’s interactions and relationships with customers and future customers. Numerous economic development organizations across the country utilize CRM software for business retention and expansion (BR&E), investment attraction, entrepreneurial development, workforce development, and a variety of other economic development efforts. Examples of some common modules within CRM solutions for economic development agencies include:

- Business retention,
- Business recruitment and expansion,
- Event management,
- Entrepreneurial development,
- Project management,
- Sites and buildings management,
- Workforce development,
- Inquiry and interaction management,
- Surveys,
- Automation and analytics,
- Regional-based initiatives.

The use of CRM software for economic development functions allows for even better management of data collection, data analysis, process improvements, and marketing efforts. Data can be entered, collated, categorized, and related to other data in an easily searchable format. A CRM’s public facing portal can provide a one-stop-shop for companies looking to easily gather important economic development information about the City of Schertz.

Recommendation: Consider the use of Customer Relationship Management (CRM) software to increase staff efficiency and effectiveness.

2 Staffing Projections

There are currently four authorized positions within Economic Development: An Executive Director, an Executive Assistant, a Business Retention Manager, and a Marketing & Recruitment Manager.

(1) Current Staffing Analysis

Major drivers of workload for Economic Development employees are the number of recruitment events attended, the number of business retention visits completed, the number of business retention roundtables completed, and the number of active projects.

To assess appropriate staffing numbers, the following table shows workload metrics from FY17/18.

FY17/FY18 Economic Development Workload Metrics

Metric	FY 17/18
Workload Metrics	
Recruitment events attended	15
Prospect inquiries	122
Prospects	38
Retention roundtables	9
Retention visits	36
Retention events	4
New projects	4
Active projects	13

The workload data show there were an average of 1.25 recruitment events attended per month, one retention roundtable attended every 5.7 weeks, three retention visits each month, one retention event attended each quarter, and a total of 13 active projects (of which four were new projects throughout the year).

The Economic Development Workload/Time Utilization Table identifies approximate workload functions and associated times for essential economic development functions. The time inputs are estimates and averages, with the knowledge that certain jobs within the same function will take varying amounts of time (i.e. one new retention visit might take two hours while another will take six hours).

The following parameters were used in the staffing model:

- Times are estimated and averaged while taking into consideration that each function can take varying amounts of time to complete based on its complexity.
- An average of 30 minutes per day of “other” time, per employee, is projected.
- The Executive Director’s time is included in the calculations.
- Time estimates are for cumulative employee time (while only one employee might attend a recruitment event, several employees will be involved with planning for the event and preparing marketing materials).
- Staff are available to work 225 days annually when accounting for holidays, vacation, sick leave, training, etc. (252 working days in 2020 minus an average 27 days for vacations, sick leave, and holidays).

Economic Development Workload/Time Utilization

Workload Type	Annual Workload	Time in Hours	Total Hours	Total Days
Recruitment Events Attended	15	100	1500	187.5
Prospect Inquiries	122	3	366	45.75
Prospects	38	8	304	38
Retention Roundtables	9	24	216	27
Retention Visits	36	4	144	18
Retention Events	4	45	180	22.5
New Projects	4	120	480	60
Active Projects	13	120	1,560	195
Job Fairs/Misc. Events	4	40	160	40
Preparing Reports	4	120	480	60
Administrative/Other	225	4	900	112.5
Total			**6,290**	**806.25**
Required Staff				**3.6**

Data show that using existing workload demands, Economic Development functions can be handled with 3.6 employees or almost 4 full time employees. Economic development staffing levels can be challenging to project since each community has different goals and objectives for economic development. This is one of the main drivers for recommending the City adopt outcome-based performance measures in order to help determine if existing staff output numbers are making a difference and if employees are accomplishing established goals and objectives. The current recommendation is based on existing workload data and time utilization for completion of existing workload activities.

In anticipation of the City setting outcome-based goals for Economic Development, the City should keep four economic development positions. Having recently reclassified an Economic Development Analyst position to that of Marketing & Recruitment manager, Economic Development Department employee responsibilities are now better aligned to meet existing and future workload demands.

(2) Projected Economic Development Staffing Requirements

The City's existing Comprehensive Plan estimates the City will see population growth of 28.8% between 2020 and 2030 along with housing growth of 30.82%, approximately 2.9% per year, during that same time. Economic development efforts help drive that growth and as each City has their own unique goals related to economic development, if current goals change and the result is a need for additional time spent on various economic development activities, that could alter these recommendations.

As economic development activities scale with projected business and population growth, there will be an increase in workload hours; however, these are not estimated to increase at a 1:1 ratio with the increase growth (recruitment events, retention events, retention roundtables, and administrative time will likely not change much). If no recommendations are implemented and if the EDC does not further specialize its services or focus on any program enhancements, then the current staffing is sufficient. All positions scale based on workload, including prospect inquiries, number of prospects, retention visits, new projects, and active projects. Based on existing workload demands and projected increases in population, no new positions are recommended in the next 10 years.

3 Staffing Projections.

The following table illustrates the staffing recommendations for the Economic Development Department over the next 10 years:

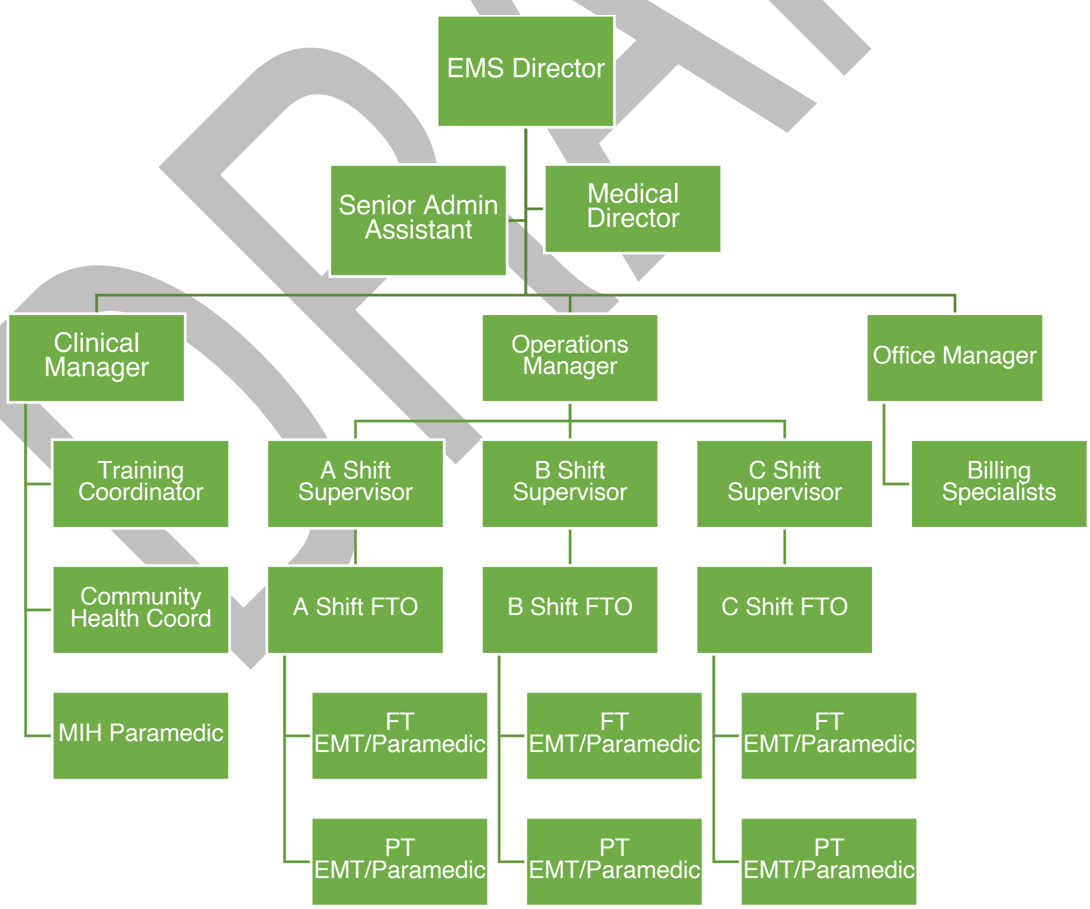
Employee Classification	Projection Factor	2020 Auth	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Executive Director	Executive positions, does not scale.	1	1	1	1	1	1	1	1	1	1	1

Executive Assistant	Support position, scales at 1 per department.	1	1	1	1	1	1	1	1	1	1	1
Business Retention Manager	Scales to the workload demands of unit.	1	1	1	1	1	1	1	1	1	1	1
Marketing & Recruitment Manager	Scales to the workload demands of unit.	1	1	1	1	1	1	1	1	1	1	1
TOTAL		4	4	4	4	4	4	4	4	4	4	4

5 Emergency Medical Services (EMS) Department

The Emergency Medical Services (EMS) Department consists of four divisions: Administration, Billing, Operations and Clinical. The Department is responsible for responding to emergency incidents in a 220 square mile service area that includes the municipalities of Schertz, Cibolo, Live Oak, Marion, Santa Clara, Selma, Universal City, western Guadalupe County, Comal County ESD #6 and a small area of unincorporated Bexar County. The population of the service area is approximately 127,024. The EMS Department also works with at-risk patients to insure they have the appropriate access to primary healthcare. The Department also provides EMS initial and continuing education to their employees and first responders in the service area as well as conducting community education programs. The EMS Department operates as an enterprise fund of the City.

The current organizational structure of the Emergency Medical Services Department is shown in the following organizational chart.



1 Operational and Technological Changes Needed

There are no major technology needs within the EMS. The Department has technology available to meet their service delivery needs. The Department should continue with their plan to barcode EMS supplies to improve inventory control and tracking of supplies. The transition to the ADP program for scheduling did initially create additional workload in the Department related to scheduling, but the EMS Department believes there will be long-term benefits to using the program in terms of efficiencies gained.

2 Staffing Projections.

The following sections outline, by functional areas, staffing projections.

(1) CLINICAL DIVISION

The Clinical Division is responsible for training for the EMS system, which also includes training for eight (8) fire departments/cities. This Division also conducts community education events and immunizations and works to reduce the impact of frequent users on the EMS System. The Office is staffed with one (1) Clinical Manager, one (1) Training Coordinator, one (1) Community Health Coordinator and one (1) MIH Paramedic.

The next table illustrates the time required for various activities in the Clinical Division:

Class Type	2017	2018	2019 Jan - July
ASHI (minutes)	405	440	275
Stop the Bleed (minutes)	25	60	200
Car Seats (minutes)	1,800	2,550	2,640
School CPR Demo Students (hours)	95	98	100
Immunizations (hours)	70	68	5
MIH CE (hours)	0	333	0

The training of the EMS and Fire Department personnel accounts for a large portion of the workload, particularly for the Clinical Manager and Training Coordinator. The Training section is responsible for training a total of 277 personnel with EMS certifications. The Following table illustrates the continuing education hours for the past three (3) years:

Year	2017	2018	2019 Jan - July
Total Classes	128	107	86
Total Participants	1,214	1,005	655
Total Hours	6,078	5,687	3,027

The next table illustrates the hours associated with teaching the three (3) annual Emergency Medical Technician (EMT) courses each year:

Year	2017	2018	2019
Total Class Days	117	116	116
Training Coordinator Hours	92	88	86
Part-Time Instructor Hours	314	286	268

As illustrated above, the Training section is providing approximately 6,000 hours of training per year utilizing one full-time position and a variety of part-time instructors. A full-time instructor should be added to this unit to improve the consistency in delivering the training programs and reduce the reliance on part-time instructors.

Recommendation: Add a full-time Instructor to assist the Training Coordinator in the delivery of courses.

The following table illustrates the workload for MIH for the past three (3) years based on patient care reports documented by the MIH Paramedic:

Complaint	2017	2018	2019 Jan - July
MIH Contact	226	173	186
Breathing Problem	0	3	2
Sick Person	0	1	2
Stroke/TIA	0	1	0
Inhalation Hazard	1	0	0
Fall	0	0	1
Medical Alarm	0	0	1
Psychiatric	0	0	1
Public Assist	0	0	1
Total	**227**	**178**	**194**

As illustrated the patient care reports documented for MIH have declined since 2017. Part of this decline is due to the reporting requirements related to the asthma patients that were part of the grant funding that has ended. The following table illustrates the actual patient contacts for the MIH Paramedic since 2017:

Year	2017	2018	2019
Patient Contacts	292	173	186

As illustrated above, there were 292 designated patient contacts for asthma patients related to the grant in 2017. When this ended there was a decline in patient contacts in 2018 and slight increase in 2019.

The MIH Paramedic also conducts a number of public outreach programs. The following table illustrates the workload related to public outreach for the previous three (3) years.

Class Type	2017 Conducted	2018 Conducted	2019 Conducted
ASHI	81	88	89
Stop the Bleed	50	120	560
Car Seats	60	85	113
School CPR Demo Students	6,059	7,348	7,874
Immunizations	442	594	664
MIH CE	0	13	13

The only class listed above that is a mandated course by the State of Texas is the Stop the Bleed course, which is mandated for the school districts to conduct. The remaining courses and services are provided as a benefit to the community and provide revenue for the EMS Department.

There will also be the need for additional clerical assistance to support the Clinical Division. This position would assist in handling paperwork related to the internal and external classes conducted by the EMS Department as well as other administrative duties.

Recommendation: Hire an Administrative Assistant for the Clinical Division in FY 2022.

2 Operations

The Operations Division is responsible for responding to emergency incidents in the City of Schertz and the communities served by the EMS Department. Services are provided using a mix of part-time and full-time EMTs and paramedics.

The Operations Division is led by an Operations Manager. Each shift also has a supervisor and Field Training Officer assigned to the Shift. There are 25 full-time and 15 part-time paramedics and 3 full-time and 5 part-time EMTs in the Division.

(1) Call Demand

The following table illustrates the workload for the Operations Division the past three (3) calendar years.

	2017	2018	2019 (Jan – July)	Total
Incidents	10,026	10,099	6,361	26,486
Unit Responses	10,026	10,099	6,361	26,486
Patients Transported	6,191	6,179	3,986	16,356

As shown above, the EMS Department responds to over 10,000 calls and transports over 6,100 patients annually.

The next table illustrates the calls by level of care provided:

	2017	2018	2019 (Jan – July)	Total
Advanced Life Support	6,706	6,445	4,250	17,041
Intermediate Life Support	26	25	26	77
Basic Life Support	1,885	2,052	1,108	5,045
Specialty Care	2	3	0	5

As illustrated above, the majority of patients treated by the EMS Department required advanced life support care.

The following table illustrates the calls for service by hour and weekday for January – July 2019:

Calls for Service by Hour and Weekday

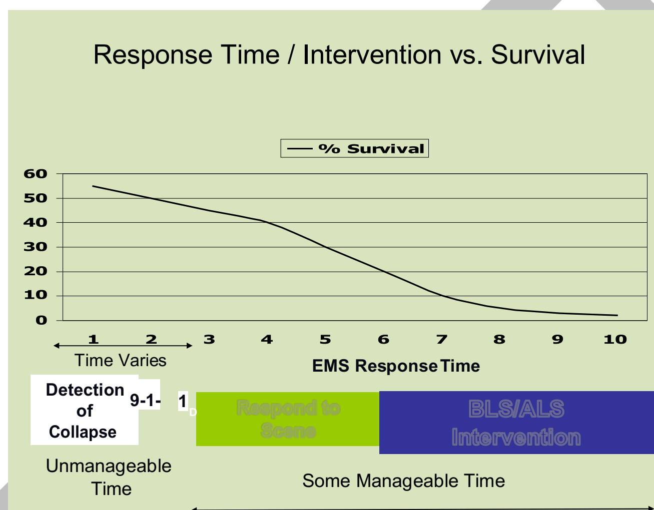
Hour	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Total
12:00 AM	29	14	25	24	22	19	34	167
1:00 AM	29	21	21	22	26	16	26	161
2:00 AM	23	28	21	20	24	21	21	158
3:00 AM	17	21	12	17	14	18	12	111
4:00 AM	19	16	19	15	8	18	14	109
5:00 AM	6	22	17	9	25	13	16	108
6:00 AM	20	33	28	33	21	36	15	186
7:00 AM	18	28	54	28	38	26	21	213
8:00 AM	25	39	42	45	39	31	31	252
9:00 AM	36	50	35	45	47	48	43	304
10:00 AM	35	53	34	42	51	42	48	305
11:00 AM	28	52	54	43	50	47	53	327
12:00 PM	40	53	37	49	44	65	38	326
1:00 PM	39	51	42	46	44	46	48	316
2:00 PM	48	44	61	50	49	55	48	355
3:00 PM	50	42	47	49	48	57	56	349
4:00 PM	46	69	62	45	52	56	45	375
5:00 PM	45	67	57	58	58	59	38	382
6:00 PM	51	48	38	49	40	55	60	341
7:00 PM	33	47	50	45	47	32	42	296
8:00 PM	43	47	46	53	41	46	34	310
9:00 PM	42	39	44	42	37	46	40	290
10:00 PM	39	32	37	26	23	38	40	235
11:00 PM	30	22	26	23	23	35	37	196
Total	**791**	**938**	**909**	**878**	**871**	**925**	**860**	**6,172**

As illustrated above, the busiest hour is the 5:00 pm hour and slowest hour is 5:00 am hour in terms of call demand. Monday is the busiest day of the week with Sunday having the lowest call demand.

(2) Emergency System Dynamics

In making decisions about the emergency services system, it is important for the leadership of Schertz to understand the science behind the location of resources, the deployment strategies of those resources, and other parts necessary to form an effective emergency services system.

Delivery of emergency medical services is another function of the emergency services system to be considered. Emergency medical calls are rising, and the types of calls are wide ranging. However, as a part of a community's healthcare system, one of the primary factors in the design of the emergency medical response is the ability to deliver basic CPR and defibrillation to victims of cardiac arrest. The graph below, demonstrates the survivability of cardiac patients as related to time from onset:



This graph illustrates that the chances of survival of sudden cardiac arrest diminish approximately 10% for each minute that passes before the initiation of CPR and/or defibrillation. These dynamics are the result of extensive studies of the survivability of patients suffering from cardiac arrest. While the demand for services in EMS is wide ranging, the survival rates for full arrests are often utilized as benchmarks for response time standards as they are more readily evaluated because of the ease in defining patient outcomes (a patient either survives or does not). This research results in the recommended objective of provision of basic life support within 4-minutes of notification and the provision of advanced life support within 8 minutes of notification.

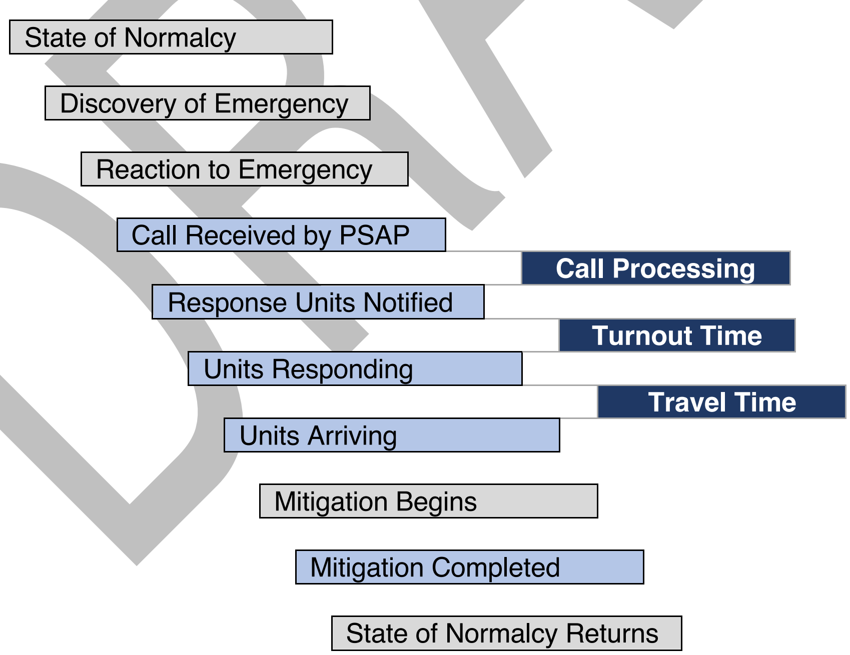
Considering the response time continuum, the response time goal for emergency services is to provide BLS within 6 minutes of the onset of the incident (including detection, dispatch and travel time) and ALS within 10 minutes. This is often used as the foundation for a two-tier system where fire resources function as first responders with additional (ALS) assistance provided by responding ambulance units and personnel.

Additionally, recent research is beginning to show the impact and efficacy of rapid deployment of automatic defibrillators to cardiac arrests. This research, conducted in King County (WA), Houston (TX) and as part of the OPALS study in Ontario, Canada, shows that the AED can be the largest single contributor to the successful outcome of a cardiac arrest particularly when accompanied by early delivery of CPR. It is also important to note that these medical research efforts have been focused on a small fraction of the emergency responses handled by typical EMS systems – non-cardiac events make up the large majority of EMS and total system responses and this research does not attempt to address the need for such rapid and expensive intervention on these events.

(3) Response Time

Response time to an emergency or call for assistance has been broken down into measurable and non-measurable segments. The response time continuum begins when the state of normalcy changes to a recognizable emergency. The following chart outlines the cascade of events that occurs once an emergency starts or is recognized. Those highlighted points represent hard data or that which is quantitative versus soft data or that which is subjective and unknown.

Response Time Continuum



The highlighted points in the chart above represent three segments that can be used for evaluation; call processing, turnout time, and travel time. Each of these components represent a different point in the response time continuum and through their measurement and evaluation areas for improvement can be identified. Below are the definitions for the three components:

- Call Processing is the defined as beginning when the call taker answers the call and ends with the dispatching of appropriate emergency services.

- Turnout Time is defined as beginning when the emergency service receives the call and is on the apparatus responding (wheels rolling) to the call.

- Travel Time is defined as beginning when the apparatus and personnel begin the response (wheels rolling) and ends once on location of the emergency (wheels stopped).

In an EMS system the units are staffed so travel time is the most common used indicator of system performance. The goal is typically to get basic life support on scene within six (6) minutes of notification and advanced life support in 10 minutes.

The expression of response time has changed. In years past the measurement was expressed as an average of time. This essentially represents how the system or department is performing 50% of the time and is not a true reflection of how a department is performing. With the research that has been performed in developing performance standards and practices the use of fractal time has become the best practice in the measurement and presentation of response time components. Fractal response time measures how often (as a percent of calls) a department can perform within each response time component.

Schertz EMS has been using a performance target of 14 minutes or less 90% of the time to report their travel time performance. The following table illustrates this travel time performance over the past three years:

Schertz EMS Department Travel Time System Performance

		2017		2018		2019	
		Performance	Variance	Performance	Variance	Performance	Variance
Goal	14:00	15:12	1:12	14:48	0:48	14:12	0:12
	Avg.:	9:06		8:42		8:30	

As illustrated above, travel times have improved in the past three year, but the EMS Department is performing below their established travel time performance standard of 14 minutes by a few seconds. They are also well below the industry standard of having an ALS unit arrive within 10 minutes of the call. Many EMS jurisdictions have found that developing a varied performance target allows them to better monitor system performance. In these instances, urban and suburban areas would have the 10 minute travel time target while rural areas (areas below 1,000 residents per square mile) would have a longer response time. We typically see 20 minutes as the target for these areas. The City and EMS Department should continue to measure this performance factor as when performance falls below 20% of established guidelines the need for additional units will be required to improve overall system performance.

Recommendation: Continue to measure travel time performance and add units as needed to ensure travel time performance meets the performance expectations of the community.

4. Unit Hour Utilization Rates are high for Several Ambulances

Unit hour utilization is an important factor in EMS systems as it determines how much of the time a unit is committed to mitigating emergencies. Utilization rates vary between EMS systems, but when they exceed 30% there is the risk of fatigue to the responders, especially when working 24 hour shifts as there is limited down time to get appropriate rest.

The following tables illustrate the Unit hour utilization rates for the past three (3) years:

2017 Unit Hour Utilization

	Hours Staffed	Calls	Unit Hour Utilization
Medic 1	8,760	2,537	28.96%
Medic 2	8,760	2,566	29.29%
Medic 3	8,760	2,458	28.06%
Medic 4	8,760	911	10.40%
Medic 5 (Peak Hour)	3,732	1,347	36.09%

2018 Unit Hour Utilization

	Hours Staffed	Calls	Unit Hour Utilization
Medic 1	8,760	2,473	28.33%
Medic 2	8,760	2,570	29.34%
Medic 3	8,760	2,351	26.84%

Medic 4	8,760	942	10.75%
Medic 5 (Peak Hour)	4,260	1,572	36.90%

2019 Unit Hour Utilization Jan - July

	Hours Staffed	Calls	Unit Hour Utilization
Medic 1	5,088	1,541	30.29%
Medic 2	5,088	1,501	29.50%
Medic 3	5,088	1,458	28.66%
Medic 4	5,088	614	12.07%
Medic 5 (Peak Hour)	2,544	1,036	40.72%
Medic 6 (Peak Hour)	408	165	40.44%

As illustrated above, the unit hour utilization rates have risen in the past three (3) years with units exceeding 30 and 40% utilization. It is also important to note the utilization rates of the peak hour units, currently over 40%. This is a strong indicator of the improvement in workload demands on the 24-hour units when peak hour units are deployed. The Department should continue to analyze the need for peak hour units and deploy them to effectively manage the utilization rates of the 24-hour units.

The EMS Department currently has a shift schedule that has personnel working 24 hours on and 24 hours off on several occasions before getting 96 hours off. With high utilization rates this may not allow adequate rest and recovery for these emergency workers between shifts. The EMS Department should examine if alternative shift schedules should be adopted for 24-hour units to ensure personnel are able to get appropriate rest and provide high level patient care. A common shift for EMS services is the 24 hour on 72 hour off shift pattern. This results in a 42 hour average work week using a 28 day pay cycle.

Recommendation: Examine the shift schedule and consider staffing shorter shifts for highly utilized ambulances.

3 Administration

The EMS Director provides overall direction, guidance and leadership for the EMS Department. The Director has responsibility for every area of the Department and ensures that all employees perform their jobs in accordance with the overall mission of the Department and in accordance with the established values. Reporting directly to the

Director are the Senior Administrative Assistant, Clinical Manager, Operations Manager and Office Manager.

The design of an organizational structure to best meet the needs of an agency is not only predicated on the traditional command and control within the EMS Department, but also to help define job duties and responsibilities, ensure efficient and effective workflow, establish a reporting hierarchy, and ultimately determine appropriate lines of authority and accountability. To accomplish this, the design of an organizational structure and placement of employees within the organization should be established on key principles that provide the organizational cohesion necessary to accomplish the primary mission of the Department. These principles include:

- **Accountability and responsibility are clearly identified:** The organizational structure must be consistent with the concept that clear lines of authority and decision making are essential for any organization to achieve excellence. Areas of responsibility are clearly delineated and points of accountability are readily identifiable.

- **Span of control or communication is optimal:** Effective organizations are structured so that lines of communication are identifiable and where there are multiple reporting relationships, responsibility for communication and control are clearly identified and understood.

- **Coordination of Work Efforts:** The organizational structure should facilitate communication and working relationships among staff and work units. Many functions need close or indirect alignment to maximize efficiency and effectiveness. The structure should also provide easy identification of job function to people outside the Department, including other Departments in the City and other service agencies.

- **Degree of Organizational Risk:** This relates to how much risk a function incurs if an activity is not performed or is performed poorly. Risk might involve tactical, financial or political concerns. Generally, higher risk functions have closer management oversight.

- **Supervisor and Management Span of Control:** This relates to whether supervisors are fully devoted to overseeing a select few primary activities or a broader set of duties and responsibilities. Appropriate spans of control are related to both the number of staff directly supervised as well as the complexity of activities overseen.

Nationally recognized best practice for span of control in highly technical and professional positions is to limit direct reports typically to five or six positions. The spans of control in the EMS Director align with these best practices.

There is the issue of the Department not having a clear second in command. As growth continues and the EMS Department grows, there will be the need to add an Assistant EMS Director to provide additional managerial support and leadership in the Department.

A part-time supply coordinator was added to the Department in recent months. This position will assist with several key logistics duties related to the management of the inventory of equipment and supplies and ensure there is proper oversight and control of these assets. As this role expands there will likely be the need to upgrade the position in fiscal year 2025.

The Department currently contracts for the position of Medical Director. This is a very common practice for EMS agencies the size of Schertz. The Department should continue the practice of contracting with the Medical Director.

Recommendation: Hire an Administrative Assistant in FY 2025

Recommendation: Upgrade the part-time supply coordinator to a full time Logistics Officer in FY 2025.

Recommendation: Hire an Assistant EMS Director in FY 2025.

4 Billing

The EMS Department has a four (4) personnel assigned to the billing process. The Division is led by the Office Manager, who also serves as the HIPPA compliance officer for the Department. Staffing also consists of three (3) Billing Specialists.

The Specialists code up to 40 patient care reports per day and when complete will work to collect bills that are past due by making collection calls. Current workloads are high and any time a billing clerk takes leave, the workload is higher than can be accomplished. This causes the work on collections to stop. Also, the specialized nature of the work does not allow a temporary employee to be used as they are unable to process ambulance bills. The increasing call volume and subsequent increases in patient reports and collections will require the need for an additional part-time Billing Specialist. This clerk could be focused on the collection of past due bills to allow the billing specialists to ensure timely billing of current patients.

Recommendation: Add a part-time Billing Specialist in FY 2021.

5 Staffing Summary for the EMS Department

The following table illustrates the staffing recommendations for the EMS Department over the next 10 years:

Unit	Employee Classification	Projection Factors	2020 Authorized	2021 (Rec)	2022	2023	2024	2025	2026	2027	2028	2029	2030
EMS Department													
Administration	EMS Director	Executive officer position; scales at 1 per department	1	1	1	1	1	1	1	1	1	1	1
Administration	Assistant EMS Director	Executive officer position; scales at 1 per department	0	0	0	0	0	1	1	1	1	1	1
Administration	Senior Admin Assistant	Support position; scales at 1 per unit	1	1	1	1	1	1	1	1	1	1	1
Administration	Administrative Assistant	Support position; scales to workload demands of department	0	0	1	1	1	2	2	2	2	2	2
Operations	PT Supply Coordinator becomes FT Logistics Officer	Support position; scales to workload demands of department	.5	.5	.5	.5	.5	1	1	1	1	1	1
Billing	EMS Office Manager	Management position; scales at 1 per team	1	1	1	1	1	1	1	1	1	1	1
Billing	Billing Specialist	Scales to the workload demands of the unit	2	3.5	3.5	3.5	3.5	3.5	4	4	4	4	4
Billing	Billing Clerk	Scales to the workload demands of the unit	1	0	0	0	0	0	0	0	0	0	0
Training	Clinical Manager	Management position; scales at 1 per team.	1	1	1	1	1	1	1	1	1	1	1
Training	Training Coordinator	Scales to the workload demands of the unit	1	1	1	1	1	1	1	1	1	1	1
Training	Instructor	Scales to the workload demands of the unit	0	1	1	1	1	1	1	1	2	2	2
Operations	Operations Manager	Management position; scales at 1 per team	1	1	1	1	1	1	1	1	1	1	1

Unit	Employee Classification	Projection Factors	2020 Authorized	2021 (Rec)	2022	2023	2024	2025	2026	2027	2028	2029	2030
Operations	EMS Supervisor	Scales to supervisory spans of control. Spans of control range between 6 and 9 subordinates.	3	3	3	3	3	4	4	4	4	4	4
Operations	Field Training Officer	Scales to supervisory spans of control. Spans of control range between 6 and 9 subordinates.	3	3	3	3	3	4	4	4	4	4	4
Operations	Paramedic	Scales to the workload demands of the unit	25	25	26	27	28	28	28	30	31	32	33
Operations	Part Time Paramedic	Scales to the workload demands of the unit	15	18	18	18	18	18	21	21	21	21	21
Operations	EMT	Scales to the workload demands of the unit	3	3	6	6	6	7	7	7	8	8	9
Operations	Part Time EMT	Scales to the workload demands of the unit	5	5	5	5	6	6	6	6	6	6	6
Community Health	Community Health Coordinator	Scales to the workload demands of the unit	1	1	1	1	1	1	1	1	1	1	1
Community Health	MIH Paramedic	Scales to the workload demands of the Division	1	1	1	1	1	1	2	2	2	2	2
EMS TOTAL			***65.5***	***70***	***75***	***76***	***78***	***83.5***	***88***	***90***	***93***	***94***	***96***

There are four newly created positions recommended for the EMS Department over the next 10 years. These include an Assistant Director to serve as a clear second in command and improve managerial oversight, an administrative assistant to support clinical services, a logistics officer for improved inventory supply control and an instructor to support the Training Coordinator in the delivery of continuing education efforts. There are also staffing additions in billing and operations over the years to support increased service demands. The Department will also need to add additional paramedics and EMT's as additional peak and 24-hour units are needed to meet performance objectives. To ensure proper spans of control are maintained there will be the need for an additional FTO and Supervisor in FY 2025. The use of part-time positions should continue as it improves the staffing flexibility. One consideration that should be given is the ratio of Paramedics to EMT's. Currently the Department is nearly 90% paramedics. While the system will need a higher percentage of paramedics working toward a ratio of 65% paramedics to 35% EMTs will still ensure there are enough paramedics to properly staff units, while lowering staffing costs. The chart above illustrates the total positions in operations and does not account for this transition in paramedic and EMT staffing levels as the change should be gradual and occur through attrition.

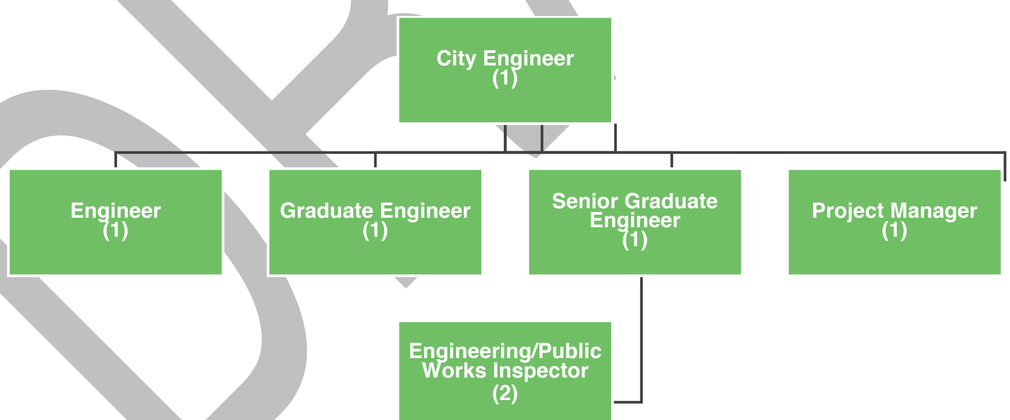
6 Engineering

The Engineering Department provides engineering and technical advisory services to City departments. The Department collaborates with multiple other departments including Public Works, Planning and Community Development, Parks and Recreation, Economic Development, citizens, developers, and other stakeholders to ensure compliance with adopted engineering standards, policies, codes, and City infrastructure master plans.

The Department works to design and implement infrastructure improvement plans and implement the City's Capital Improvement Plan. The Department is responsible for completing plan reviews and inspection services for horizontal capital projects whether privately or publicly constructed.

The Department staffs the Transportation Safety Advisory Commission (TSAC), which is tasked with receiving citizen input on transportation issues and then making recommendations to the City Council on traffic / transportation related matters throughout the City of Schertz.

The following organizational chart shows the organization and reporting structure of the Engineering Department.



1 Operational and Technological Changes Needed

The Engineering Department has appropriate long-term planning in place including: Master Thoroughfare Plan, Pavement Condition Index Report, and 5-year Roadway Capital Improvement Plan. However, there is a need to establish both water and sewer master plans. While this list is not inclusive, additional best practices being met by the Engineering Department are:

- The City's cumulative PCI exceeds 70.0.
- Standard design criteria for the City (such as minimum grades for pipelines, maximum manhole spacing, etc.) have been established in writing.
- 30%/60%/90% reviews of the design of capital improvement projects are conducted by Construction Management.
- A pre-construction conference is conducted at the beginning of each capital project construction contract. The prime contractor, pertinent subcontractors, the project manager, and inspector attend this conference.

The following section identifies needed changes to operations or technology.

(1) An Administrative Assistant Position is Needed to Support the City Engineering and Engineering Department

Currently, there is no Administrative Assistant or dedicated administrative support for the City Engineer or any Engineering staff. The Engineering Department has the workload to justify an executive assistant position (detailed below) and the current approach of having the City Engineer handle all routine daily tasks does not allow for maximum use of the employee's talents. Additionally, employees can be pulled away from their primary duties to support the City Engineer, which negatively impacts their effectiveness.

While there is no definitive best practice or ratio to necessitate the need for an assistant, the lack of an Administrative Assistant assigned to assist the City Engineer in coordinating meetings, scheduling, reviewing and approving specific tasks, and serving as a general gatekeeper, results in the increased administrative workload on the City Engineer and other Engineering employees. A dedicated Administrative Assistant will increase efficiencies for both the City Engineer and other staff in the Engineering Department.

Recommendation: Create the position of Administrative Assistant to support the City Engineer and the Engineering Department.

(2) Project Managers Should Manage Both Vertical and Horizontal Projects

The City's current project manager oversees only horizontal capital construction projects. This particular project manager has the skillset and experience to manage vertical projects as well. At present, the City spends money contracting out management of vertical capital construction projects; however, transitioning that function to an in-house one would likely save considerable money.

Necessary skillsets for project management of vertical construction projects is similar to those found in managing horizontal construction projects (negotiation, scheduling, cost control, risk management, multi-tasking, contract management, critical thinking, communication, and leadership.

As discussed later in this Chapter, there is already going to be a recommendation to hire an additional project manager but there will also be available time utilization so that at least one of them will have the ability to manage at least three vertical capital construction projects. For every in-house vertical project managed internally, the City will not be spending money on third party project manager services.

Recommendation: Project Managers should manage both vertical and horizontal capital construction projects.

2 Staffing Projections

There are currently eight authorized positions within the Engineering Department: A City Engineer, two (2) Engineers, a Graduate Engineer, a Senior Graduate Engineer, a Project Manager, and two Engineering (PW) Inspectors.

(1) Current Staffing Analysis

The Department's major drivers of workload include the number of active capital improvement projects, number of active sub-division projects, number of commercial projects under construction, number of residential subdivision projects, number of projects in the planning phase, number of projects in the warranty phase, number of grading and clearing permits issued, and the number of non-construction plan reviews. Each project under management will often have numerous time commitments associated with it, including multiple plan reviews and inspections. Additionally, with the need to create both water and sewer master plans, those functions will require considerable work effort for a period of time.

The following parameters were used in the Engineering Inspector staffing model:

- Times are estimated and averaged while taking into consideration that each function can take varying amounts of time to complete based on its complexity.

- An average of 30 minutes per day of “admin/other” time, per employee, is projected.

- For clearing and grading permits, 51 active permits at any given time are assumed, with the need to spend approximately one hour per week on each site visit.

- Staff are available to work 225 days annually when accounting for holidays, vacation, sick leave, training, etc. (252 working days in 2020 minus an average 27 days for vacations, sick leave, and holidays).

Workload Type	Annual Workload	Time in Hours	Total Hours	Total Days
Clearing/Grading Insp.	51	52	2,652	331.5
Pre-con/Prep/Plan Reviews	50	4	200	25
Subdivision Insp.	10	338	3380	422.5
Administrative/Other	225	1	225	28.13
Total			**6,457**	**807.13**
Required Engineering Inspectors			**3.58**	

The number of Engineering Inspectors should be increased from two to three and continue to increase as workload demands dictate.

Recommendation: Increase authorized Engineering Inspector positions from 2 to 3.

The following parameters were used in the Engineering staffing model:

- Times are estimated and averaged while taking into consideration that each function can take varying amounts of time to complete based on its complexity.

- An average of 30 minutes per day of “admin/other” time, per employee, is projected.

- The City Engineer’s time is excluded and while the City Engineer works on engineering tasks, the primary responsibility should be to lead and manage the Department.

- Staff are available to work 225 days annually when accounting for holidays, vacation, sick leave, training, etc. (252 working days in 2020 minus an average 27 days for vacations, sick leave, and holidays).

Workload Type	Annual Workload	Time in Hours	Total Hours	Total Days
Projects in Plan Phase	39	80	3,120	390
Non-Con Plan Review	75	4	300	37.5
Subdivision Projects	10	160	1,600	200
Commercial Projects	41	80	3,280	410
Capital Projects	13	40	520	65
Administrative/Other	225	1	225	28.1
Total			**9,045**	**1,130.6**
Required Engineers				**5.02**

There are currently three employees in engineering positions, excluding the City Engineer. This includes the Graduate Engineer and Senior Graduate Engineer classifications. Regardless of classification, the total number of authorized engineering positions should increase from 3 to 5 based on workload demand. The City engineer should determine work assignments based on employee skillset and abilities.

Recommendation: Increase authorized Engineering positions from 3 to 5.

Workload data for the City's only Project Manager shows 13 capital projects under management. Construction project management is a combination of multiple important roles in the life of a capital project. From planning, budgeting, and supervising projects from start to finish, project managers are responsible for the entire project. A partial list of responsibilities includes developing a budget, creating work timetables, determining the best overall strategy for construction, coordinating with City leaders and contractors to ensure timetables are met, understanding technical and contractual details to ensure they are met, ensuring a safe construction site, making sure the project is completed on-time and on-budget, and meeting all of the necessary reporting requirements for each project.

A 2014 study[2] examined project management companies and determined whether they were high performing or low performing companies. They determined that high performing companies had their project management staff handling an average of 8.4 projects while

[2] https://www.pmsolutions.com/reports/State_of_the_PMO_2014_Research_Report_FINAL.pdf

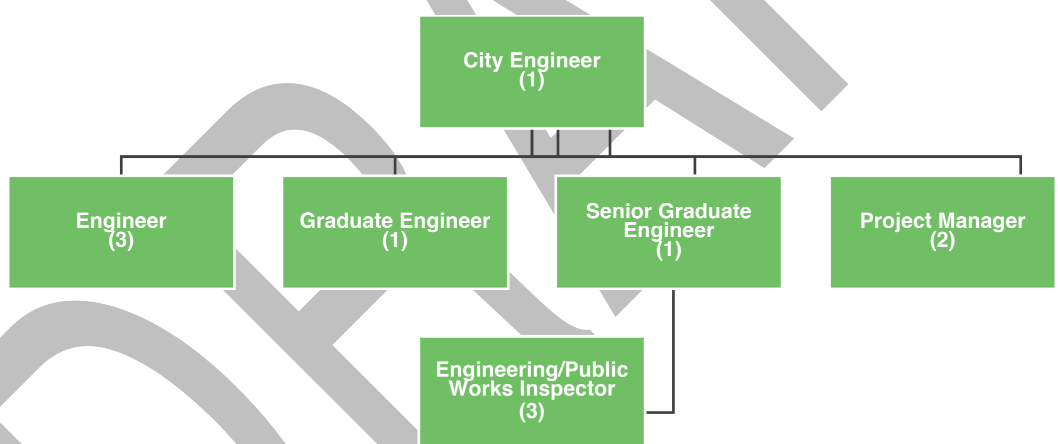
low performing companies had their project managers handling an average of 11.3 projects.

While the City of Schertz's project manager currently manages 13 projects, which is higher than the recommended number of 8 projects per project manager, the total dollar value of those projects is low: only $1.3M. Prevailing practice in many locations is to have project managers handling about 8 projects with a total value of $20 - $25 million. The dollar value is often associated with complexities of the project and thus the projects themselves take more time to manage effectively. With the City's total project count, total dollar value of projects, and a recommendation to begin managing some vertical capital construction projects, the City should hire one additional Project Manager.

Recommendation: Increase authorized Project Management positions from 1 to 2.

The following chart shows the proposed Engineering Department Organizational Chart.

Proposed Engineering Department Organizational Structure



Implementation of the proposed organizational chart will allow the Engineering Department to align staffing levels with existing workload demands.

(2) Projected Engineering Department Staffing Requirements

The City is estimated to grow in population and housing by approximately 2.9% per year from 2020 through 2030. The Engineering workgroup functions are expected to grow at a similar rate due to workload scaling. The City Engineer position and Administrative Assistant position do not scale. The other positions in the Department scale based on workload, including the number of active projects, number of plan reviews to complete, number of clearing and grading permits outstanding, number of subdivision projects, number of commercial projects, and number of capital improvement projects under management.

The following table illustrates the staffing recommendations for the Engineering Department over the next 10 years:

Unit	Employee Classification	Projection Factors	2020 Authorized	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Engineering	City Engineer	Executive position; does not scale	1	1	1	1	1	1	1	1	1	1	1
	Administrative Assistant	Support position; scales at 1 per Department	0	1	1	1	1	1	1	1	1	1	1
	Engineers (includes graduate and senior)	Scales to the workload demands of the unit	3	5	5	5	6	6	6	6	6	7	7
	Engineering Inspector	Scales to the workload demands of the unit	2	3	3	4	4	4	4	4	4	4	4
	Project Manager	Scales to the workload demands of the unit	1	2	2	2	2	2	2	2	2	2	2
Engineering TOTAL			***8***	***12***	***12***	***13***	***14***	***14***	***14***	***14***	***14***	***15***	***15***

Using two Project Management employees as a base for that function, if capital construction workload increases by 30% over the next ten years, that will most likely not result in the need for any additional employees in this classification. However, the City should monitor both the number of projects and dollar value of those projects per Project Manager. If the numbers reach more than 8 projects with at least $20M of project value per Project Manager, the City should consider hiring an additional Project Manager.

Recommendation: In 2023 increase authorized Engineering Inspector positions from 3 to 4.

Recommendation: In 2024 increase authorized Engineering positions from 5 to 6.

Recommendation: In 2029 increase authorized Engineering positions from 6 to 7.

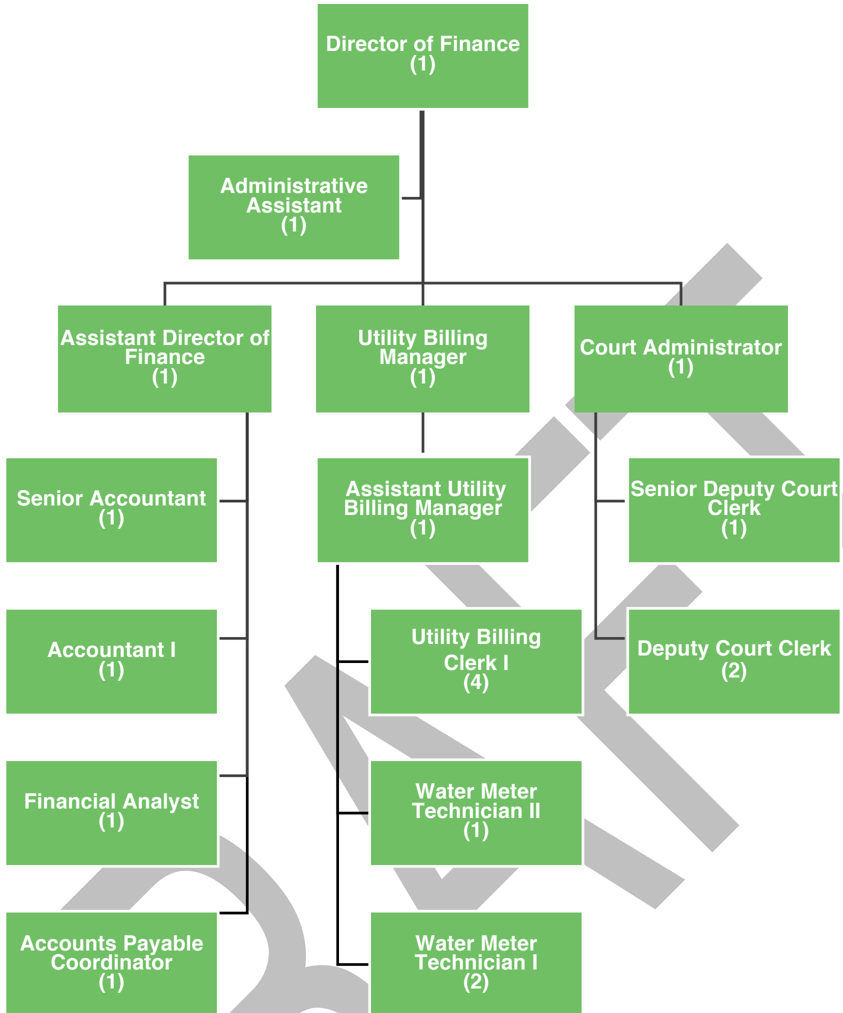
7 Finance Department

The Department consists of three divisions: finance, utility billing, and municipal court. This structure is common for local government operations although some organizations will have the Municipal Court organizationally located elsewhere in the organization. Many Finance Departments are also responsible for purchasing operations which in Schertz has been combined with Human Resources. Finance prepares monthly financial statements, processes accounts payable and accounts receivable transactions, process payroll, completes journal and ledger entries, prepares 10-99s, manages investments, and reconciles monthly bank statements. Finance is responsible for managing unclaimed property, managing debt service and fixed assets, completing the annual budget and Comprehensive Annual Financial Report (CAFR). The City uses ADP for payroll processing.

The Utility Billing division is split between utility billing and meter technicians. The Division is responsible for meter reading and calculating usage, preparing all utility bills for distribution, collecting utility payments and posting to a customer's account, setting up new accounts, conducting sewer usage averaging, resolving customer complaints, maintaining meter boxes, and collecting debt or payments for other departments.

The Municipal Court has jurisdiction over all Class C misdemeanors and City ordinances within the corporate limits of the City of Schertz. Court staff conduct legal proceedings, process payments for fines or other court matters requiring payment, issues warrants, processes subpoenas and summons, processes citations, manages the court docket, and manages jurors (summons, payment to jurors, etc.). Staff make required reports on convictions, Driver's Safety Course and alcohol violations to the Texas Department of Public Safety, and they complete all required accounting reports.

The following organizational chart shows the organization and reporting structure of the Finance Department.



1 Operational and Technological Changes Needed

The Finance Department does an excellent job overall. Employees are appropriately cross-trained to handle priority functions; the Municipal Court, Utility Billing, and Finance each have written policies and workflow mapping to assist staff in completing their responsibilities; employees receive training and professional development; the City's most recent Comprehensive Annual Financial Report (CAFR) received the Government Finance Officers Association (GFOA) Distinguished Financial Reporting Presentation Award; and the City's purchasing card program offers financial incentives.

The following recommendations will further improve Department efficiency and effectiveness:

(1) Reducing Utility Billing "Read and Cycle" Dates Will Improve Staff Efficiency

At present the Utility Billing Division reads utility meters five times each month and there are seven billing cycles. The City has a full AMI system in place, meaning that almost all utility meters are read remotely through "Advanced Metering Infrastructure". With an AMI system, it enables a two-way communication over a fixed network in which the City "reads" meters. Once meters are read, the data are provided electronically to the Utility Billing office.

While there are additional benefits to AMI systems, the point here is that with the ability to read meters without leaving the office, the City should establish fewer meter reading dates. There are some meters that cannot be read with the AMI system due to low energy radio frequency wave interference (often caused by metal lids covering the meter). If the Division's Water Meter Technicians can handle all manual meter reading while they are already in the field, that should create efficiencies by them not having to travel all over the City to different locations several times each month. The fewer times the City reads meters, the more efficient manual meter reading will become.

The City currently has seven billing cycles, done to stagger the times when customer payments come into the office in theory to make it easier on Utility Billing staff by having work come in throughout the month rather than all at once. To use an extreme example, if a City had one billing day for every workday of the month, equally splitting the City into 21 zones and billing each one of them on a different workday, then staff will be spending all of their time managing the billing process, handling customer concerns regarding their bill, etc. Even though the "mailing of bills" function is outsourced, the process to get the data to the vendor takes time as does accepting customer payments. There are efficiencies to be gained by handling that process "all at once" rather than numerous times each month. Conversely, there are reasons to have more than one billing cycle in a month, including the need to not have all bills come in at the same time (which could create workload issues).

While it makes sense to have more than one billing cycle each month, seven of them can create a loss of efficiency for office staff. Many utility companies have multiple billing cycles; however, two or three of them would make more sense for the size operation as exists in the City of Schertz. With fewer utility billing cycles, Utility Billing employees will be able to manage the billing process more effectively and use the rest of the month to focus on handling customer inquiries, setting up new accounts, etc. There is an estimated

10% cumulative employee efficiency to be gained by reducing read and cycle dates down to two each month. Two read dates and two cycle dates are recommended.

Recommendation: Reduce the number of Utility Billing read and cycle dates to 2.

(2) Automating Certain Utility Billing Functions Will Increase Staff Efficiency and Reduce the Risk of Errors.

Utility payments are received in several ways, including electronically. When received electronically, Utility Billing staff are required to manually enter all data received into the Utility Billing software system. This manual entry process adds time and increases the possibility of unintentional errors.

The City also does not allow customers to set up accounts electronically as they must complete a manual form which employees then manually enter into the utility billing software system. This manual process adds time for customers and Utility Billing employees.

Many utility companies have software that allows customers to set up their own account online, upload documents through a secure website (proof of residency, a copy of their driver's license, etc.). The City does not currently offer this service and requests that customers either come into the office to provide documentation or send it by email (which is unsecure).

The City of Schertz should contact its utility billing software vendor to inquire about a module that will allow customers to set up a new account electronically (with employees verifying the data prior to starting service), allow customers to access to a secure portal to make changes to their own utility account and to upload forms/data, and when payments are made electronically, they are automatically uploaded to the customer's account to reduce the risk of data entry errors.

Recommendation: Automate electronic utility billing payment receipting and the online new account setup processes.

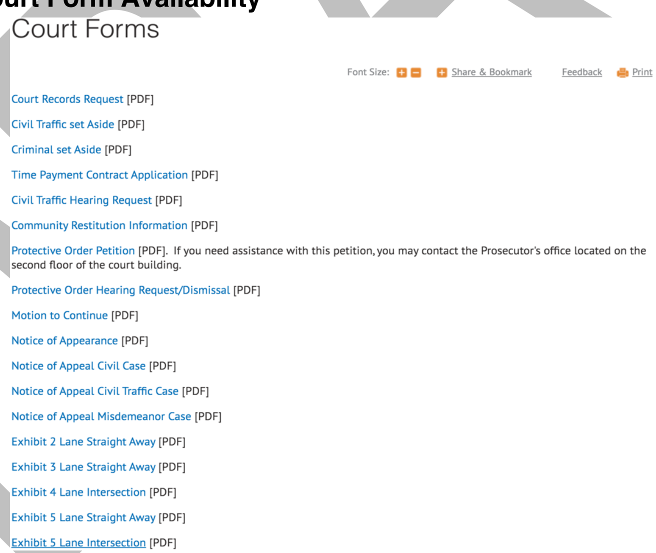
(3) Providing Public Access to Court-Related Paperwork Will Reduce Staff Workload

Public access to court-related paperwork is not readily available on the City's website. Every time someone comes in or calls because they do not have access to a form, this takes time away from staff handling other responsibilities. Some municipal courts offer numerous forms online, in order to make it more convenient for citizens and to lessen employee workload. An example of forms that are online from another City's website include:

– Court Records Request
– Time Payment Contract Application
– Traffic Hearing Request
– Restitution Information
– Protective Order Petition
– Motion to Continue
– Notice of Appearance
– Notice of Appeal
– Fillable Forms (to help someone prepare exhibits for trial)

The following exhibit shows a screen shot from the website for the Municipal Court from Mesa, AZ[3].

Example of Online Court Form Availability


Court Forms

Font Size: Share & Bookmark Feedback Print

Court Records Request [PDF]
Civil Traffic set Aside [PDF]
Criminal set Aside [PDF]
Time Payment Contract Application [PDF]
Civil Traffic Hearing Request [PDF]
Community Restitution Information [PDF]
Protective Order Petition [PDF]. If you need assistance with this petition, you may contact the Prosecutor's office located on the second floor of the court building.
Protective Order Hearing Request/Dismissal [PDF]
Motion to Continue [PDF]
Notice of Appearance [PDF]
Notice of Appeal Civil Case [PDF]
Notice of Appeal Civil Traffic Case [PDF]
Notice of Appeal Misdemeanor Case [PDF]
Exhibit 2 Lane Straight Away [PDF]
Exhibit 3 Lane Straight Away [PDF]
Exhibit 4 Lane Intersection [PDF]
Exhibit 5 Lane Straight Away [PDF]
Exhibit 5 Lane Intersection [PDF]

The more forms the Court can provide online, the fewer people will call or come into the Court. Providing online public access to frequently used court documents is beneficial for

[3] https://www.mesaaz.gov/city-hall/court/court-forms

the citizen and for employees. The Court should work with the City's IT staff to determine how best to implement this recommendation.

Recommendation: Provide online public access to frequently used court documents.

2 Staffing Projections

There are currently 20 authorized positions within the Finance Department. These include the Department Director and an Administrative Assistant, five additional positions in the Finance Division, nine positions in the Utility Billing Division, and four positions in the Municipal Court Division.

(1) Current Staffing Analysis

The Department's major drivers of Finance workload include the size of the City's budget, the number of payroll cycles, the number of invoices and purchase orders, and the number of checks/ACH payments made.

Major drivers for Utility Billing Division workload include the number of utility billing accounts, which correlates to new account set up, the number of utility bills issued each month, the number of customer phone calls and inquiries, account collections and payment plans, etc.

Major drivers for Municipal Court workload include the number of new court cases (which correlates to data entry, payment collection, court scheduling, the number of trials, etc.).

Finance staffing levels are often determined on the size and complexity of the City's operations, including the need to appropriately segregate duties to reduce internal control risks. Based on existing job classifications and staffing allocations, interviews with employees, the size of the City's budget, and the workload data from above, the Finance Department is appropriately staffed.

The following parameters were used in the Utility Billing Division staffing model:

- Times are estimated and averaged while taking into consideration that each function can take varying amounts of time to complete based on its complexity.

- There are approximately 14,000 customer accounts with monthly billing.

- Most account management (billing, receipting payment, etc.) is done in a couple of minutes, while only a few customer accounts take more time to complete.

- An average of 30 minutes per day of “admin/other” time, per employee, is projected.

- The Assistant Utility Billing Manager’s time is calculated in the formula but the Utility Billing Manager’s time is excluded.

- Staff are available to work 225 days annually when accounting for holidays, vacation, sick leave, training, etc. (252 working days in 2020 minus an average 27 days for vacations, sick leave, and holidays).

Utility Billing Staffing Model

Workload Type	Annual Workload	Time in Hours	Total Hours	Total Days
Account/payment management	167,310	.05	8,365.5	1,045.7
New account set up	112	.5	56	7
Phone calls	52	10	520	65
Admin/other	225	2.5	562.5	70.3
Total			**9,503.5**	**1,188**
Required Utility Billing Clerks			**5.28**	

Based on current workload, Utility Billing Clerk staffing should remain the same.

The Division’s Water Meter Technician classification is adequately staffed for handling water shut off/turn-ons, miscellaneous repairs and installations, and a limited number of meter reading each month for the City’s approximate 14,000 meters. With three employees in that classification, approximately 14,000 meters, an estimated one hour per meter installed, repaired, or read (averaged), and a combined 675 working days between the three employees, that represents 5,400 meters that would need work each year to justify existing staffing levels. This represents 38.5% of the City’s total meters, which is a high percentage of meters that will need something done to them on an annual basis. There is however a need to have an adequate number of employees available for immediate problem solving, repairs, meter shut offs, etc. and so the City’s current staffing levels are appropriate.

The following parameters were used in the Municipal Court Division staffing model:

- Times are estimated and averaged while taking into consideration that each function can take varying amounts of time to complete based on its complexity.

- Citation processing is from inception to completion, including payment acceptance/processing.

- Data for the number of citations and warrants are the average from FY17 and FY18.

- Admin/other includes other payment acceptance (non-citation related).

- Court "room" time includes cumulative employee time spent in the courtroom on days court is in session, estimating 30 court days per year (averaging 2.5 each month).

- A projected average of 30 minutes per day of "admin/other" time per employee.

- Phone calls are estimated at 10 hours weekly.

- Staff are available to work 225 days annually when accounting for holidays, vacation, sick leave, training, etc. (252 working days in 2020 minus an average 27 days for vacations, sick leave, and holidays).

Municipal Court Staffing Model

Workload Type	Annual Workload	Time in Hours	Total Hours	Total Days
Citation Processing	7152	.75	5,364	670.5
Court "room" time	30	8	240	30
Phone calls	1	520	520	65
Warrant Processing	2,313	.75	1,734.75	216.84
Admin/Other	225	2	450	56.25
Total			**8,308.75**	**1,038.6**
Required Municipal Court Employees			**4.6**	

Based on current workload, Municipal Court staffing should increase by one Municipal Deputy Court Clerk in 2021.

(2) Projected Finance Department Staffing Requirements

The City is estimated to grow in population and housing by approximately 2.9% per year from 2020 through 2030. Based on that projected growth, Utility Billing and Municipal Court workload is expected to increase 15% by 2025 and 30% by 2030. Finance workload is estimated to increase by 7.5% by 2025 and 15% by 2030.

(3) Projected Staffing Summary

The following table illustrates the staffing recommendations for the Finance Department over the next 10 years:

Unit	Employee Classification	Projection Factors	2020 Authorized	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Finance	Director of Finance	Executive position; does not scale	1	1	1	1	1	1	1	1	1	1	1
	Administrative Assistant	Support position; scales at 1 per Department	1	1	1	1	1	1	1	1	1	1	1
	Assistant Director of Finance	Supervisory position, scales with workload demands and span of control	1	1	1	1	1	1	1	1	1	1	1
	Accountant (Senior or Accountant I)	Scales to the workload demands of the unit	2	2	2	2	2	2	2	2	2	2	2
	Financial Analyst	Scales to the workload demands of the unit	1	1	1	1	1	1	1	1	1	1	1
	AP Coordinator	Scales to the workload demands of the unit	1	1	1	1	1	1	1	1	1	1	1
Utility Billing	Utility Billing Manager	Division manager position; does not scale.	1	1	1	1	1	1	1	1	1	1	1
	Asst. Utility Billing MGR	Scales based on workload, number of employees, and span of control	1	1	1	1	1	1	1	1	1	1	1
	Utility Billing Clerk (I or II)	Scales based on workload demands including number of customer accounts	4	4	5	5	5	5	5	5	5	6	6
	Water Meter Tech (I or II)	Scales based on workload demands including the number of customer accounts/meters	3	3	3	3	3	3	3	3	3	3	3
Municipal Court	Court Administrator	Division manager positions, does not scale	1	1	1	1	1	1	1	1	1	1	1

Unit	Employee Classification	Projection Factors	2020 Authorized	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
	Deputy Court Clerk (incl. Senior designation)	Scales based on workload including number of violations filed, number of warrants issued, fines/fees collected, etc.	3	4	4	4	5	5	5	5	5	5	6
Finance Department TOTAL			***20***	***21***	***22***	***22***	***23***	***23***	***23***	***23***	***23***	***24***	***25***

Recommendation: Increase authorized Municipal Court Deputy Clerk positions from 3 to 4 in 2021.

Recommendation: Increase authorized Utility Billing Clerk positions from 4 to 5 in 2022.

Recommendation: Increase authorized Municipal Court Deputy Clerk positions from 4 to 5 in 2024.

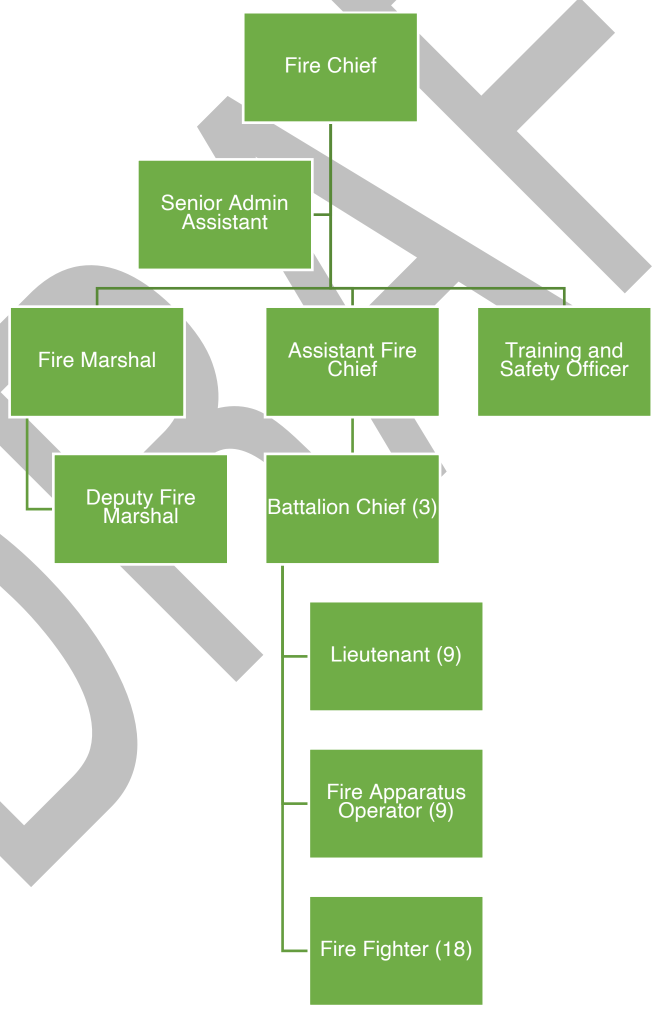
Recommendation: Increase authorized Utility Billing Clerk positions from 5 to 6 in 2029.

Recommendation: Increase authorized Municipal Court Deputy Clerk positions from 5 to 6 in 2030.

8 Fire Rescue Department

The Fire Department is primarily responsible for responding to emergency incidents in the City of Schertz, providing training to personnel to ensure maintenance of licenses and certifications, conducting plan review for fire and life safety components, conducting public education efforts in the community, developing pre-fire plans for commercial occupancies and inspecting commercial occupancies according to established schedules.

The current organizational structure of the Fire Rescue Department is shown in the following organizational chart.



1 Operational and Technological Changes Needed

There are no major technology needs within the Fire Rescue Department. The Department has technology available to meet their service delivery needs.

2 Staffing Projections.

The following sections outlined the staffing projections for each of the functional areas within the Fire Department.

(1) Office of the Fire Marshal.

The Office of the Fire Marshal is responsible for reviewing building plans submitted for new construction projects to ensure compliance with established codes. The office also conducts recurring and initial inspections of commercial occupancies and oversees commercial building prevention activities. In addition to prevention activities the Office of the Fire Marshal is also responsible for the investigation of suspicious fires.

The Office is staffed with one (1) Fire Marshal and one (1) Deputy Fire Marshal.

To assess the adequacy of staffing levels in the Office of the Fire Marshal, the project team utilized a number of quantitative and qualitative indicators, which were used to determine the appropriate staffing levels for providing fire prevention services in the City of Schertz.

- All commercial occupancies are pre-fire planned annually.
- High hazard commercial occupancies are pre-fire planned twice annually.
- There are approximately 530 fire inspections conducted annually.
- There are approximately 250 plan reviews conducted annually.
- There are no personnel permanently assigned to conduct life safety and public education efforts.

The number of inspections conducted as a workload indicator varies as the complexity and size of the occupancy varies depending on the type of occupancy being inspected. The project team evaluated the mandated inspections conducted by SFD prevention personnel in FY 2017, 2018 and 2019 and used the three-year average to determine appropriate staffing levels.

The following table illustrates the workload in the Office of the Fire Marshal for the previous three (3) years and the correlation to staffing requirements.

Inspection/Permit Type	FY 2017 Conducted	FY 2018 Conducted	FY 2019 Conducted	Target per Staff	Current Staff	Staff Needed
Fire Inspections	519	520	530	750	1	**.71**
Plan Reviews	209	395	305	500	1	**.61**
Fire Investigations	10	11	12	80 hours ea.	0	**.46**
Public Education	200	200	200	2 hours ea.	0	**.20**
Fire Code Enforcement	255	260	270	750	0	**.36**
Meeting / Other	504	504	504	1 hour ea.	0	**.24**
Total Workload	**728**	**905**	**835**	1,250	2	**2.58**

As illustrated above, there is currently the need for 2.6 personnel in the Fire Marshal Office to be able to effectively handle average the current workload and required attendance at City and regional meeting. It is important to note that this is a total building envelope target, regardless of the number of occupancies in the building.

Recommendation: Add one additional Deputy Fire Marshal position in FY 2021. Continue to monitor the growth in the City and add an additional Deputy Fire Marshal (Inspector) positions as workload demands indicate the need.

(2) Operations.

The Operations Division is responsible for responding to emergency incidents in the City of Schertz. The Division also conducts pre-fire planning on all commercial occupancies in the City annually. The Assistant Chief is responsible for the oversight of the Division and handles hiring, promotional process and professional standards for the Department. This position also develops specifications for new apparatus and equipment and conducts quality assurance checks on incident reports.

The Operations Division has 40 full time personnel. The Division is led by an Assistant Chief the supervises three (3) Battalion Chiefs, who serve as the head of each shift. A Lieutenant is assigned to supervise shift personnel assigned to each station. There are nine (9) Lieutenants. The staffing also includes nine (9) apparatus operators and 18 Firefighters.

(a) Call Demand

The following table illustrates the workload for the Operations Division the past three (3) calendar years.

Calls for Service by Type

	2017	2018	2019 (Jan – Aug)	Total	Pct.
False Alarm & False Call	158	187	141	486	6.0%
Good Intent Calls	544	551	411	1,506	18.5%
Hazardous Condition	123	90	67	280	3.4%
Fire	131	156	105	392	4.8%
Overpressure Rupture	41	78	46	165	2.0%
Rescue and Emergency Medical	1,418	1,500	1,152	4,070	49.9%
Severe Weather/Natural Disaster	3	1	3	7	0.1%
Service Calls	258	230	238	726	8.9%
Special Incident Type	131	200	198	529	6.5%
Total Calls for Service	2,807	2,993	2,361	8,161	

As shown above, Rescue and EMS calls account for the majority of calls for service at 50% of the call volume, while fires account for 5% of the calls.

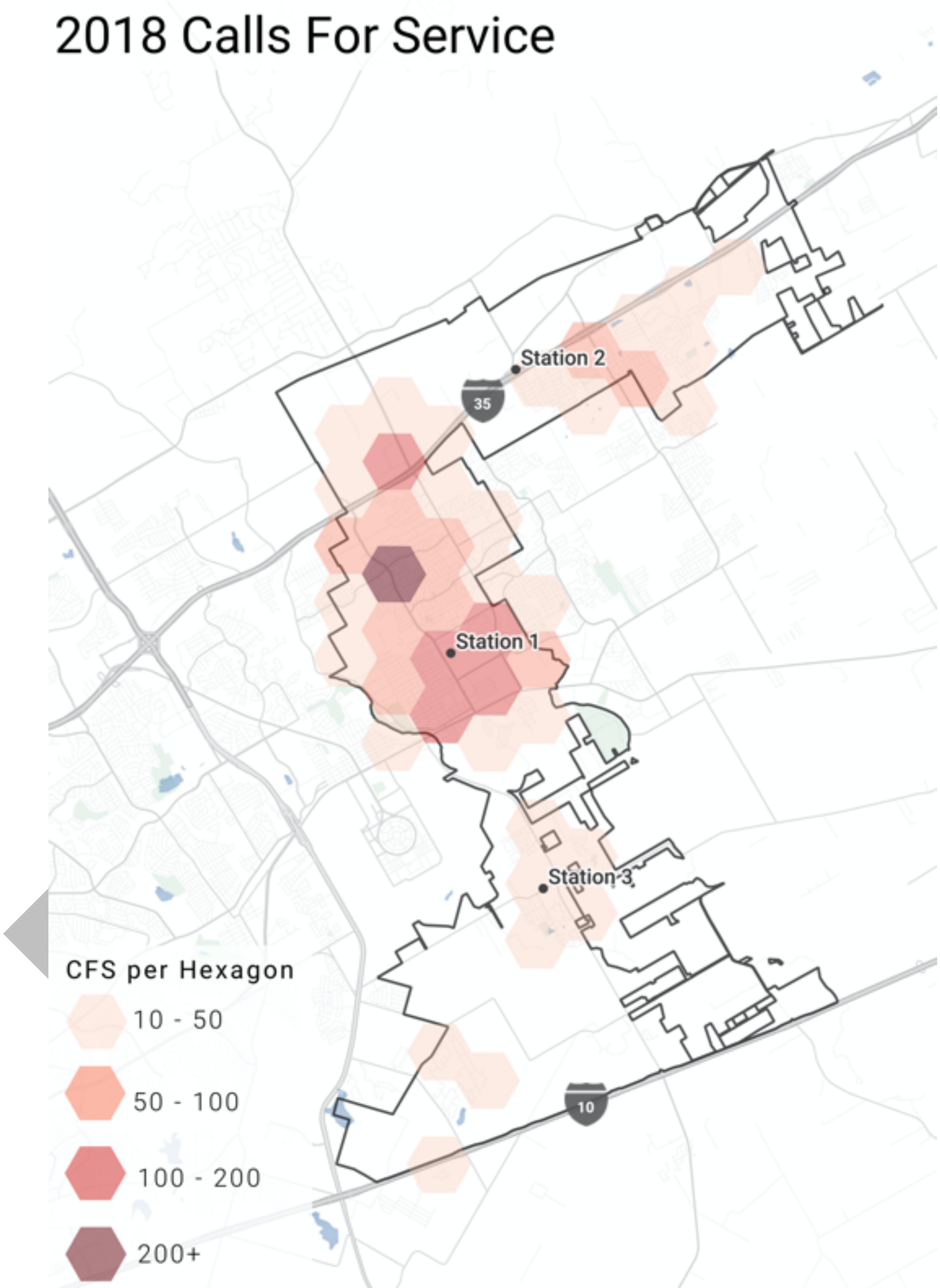
The following table illustrates the calls for service by hour and weekday for January – August 2019:

Calls for Service by Hour and Weekday

Hour	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Total
12:00 AM	7	6	22	13	8	6	14	76
1:00 AM	11	11	2	9	12	5	13	63
2:00 AM	9	12	5	12	6	6	4	54
3:00 AM	8	5	4	3	9	7	3	39
4:00 AM	5	6	11	3	5	3	4	37
5:00 AM	5	6	11	2	8	7	3	42
6:00 AM	11	7	10	13	12	10	5	68
7:00 AM	8	9	23	12	12	11	7	82
8:00 AM	12	17	19	15	14	8	13	98
9:00 AM	9	15	11	19	15	16	15	100
10:00 AM	16	16	11	12	16	13	13	97
11:00 AM	13	14	23	21	15	12	16	114
12:00 PM	20	25	17	14	26	24	10	136
1:00 PM	14	16	12	26	24	15	20	127
2:00 PM	18	17	25	24	27	23	16	150
3:00 PM	11	19	19	19	16	24	14	122
4:00 PM	20	21	27	19	21	23	11	142
5:00 PM	21	33	30	23	33	18	12	170
6:00 PM	18	16	18	18	17	16	17	120
7:00 PM	8	11	18	14	22	10	11	94
8:00 PM	16	20	19	25	25	18	17	140
9:00 PM	12	6	18	17	24	14	20	111
10:00 PM	17	12	11	7	31	17	15	110
11:00 PM	5	7	14	7	14	14	8	69
Total	**294**	**327**	**380**	**347**	**412**	**320**	**281**	**2,361**

As illustrated above, the busiest hour is the 5:00 pm hour and slowest hour is 4:00 am hour in terms of call demand. Thursday is the busiest day of the week with Sunday having the lowest call demand.

The following map illustrates the call demand for fire services in the City in 2018:

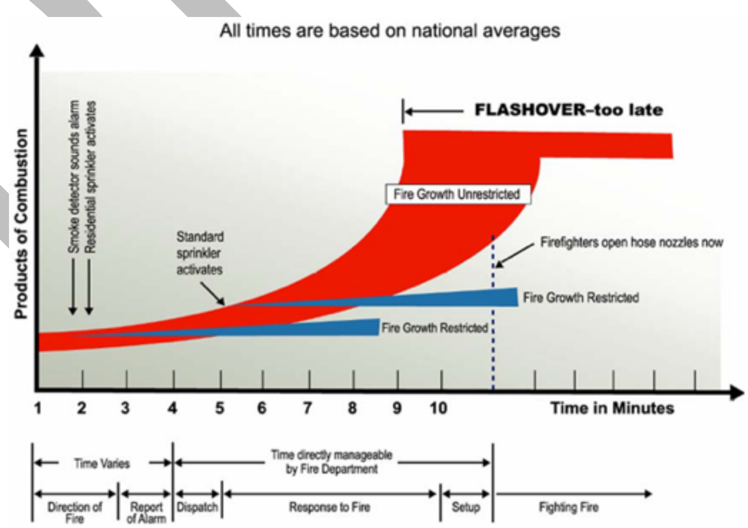

2018 Calls For Service
Station 2
35
Station 1
Station 3
10
CFS per Hexagon
10 - 50
50 - 100
100 - 200
200+

(b) Emergency System Dynamics

In making decisions about the emergency services system, it is important for the leadership of Schertz to understand the science behind the location of resources, the deployment strategies of those resources, and other parts necessary to form an effective emergency services system. For many years the Insurance Services Office (ISO) had set the standard for deployment through their Public Protection Classification system. This system was designed to provide insurers a basis for setting insurance rates and to limit their exposure to large losses and catastrophic events. While these efforts provided a good starting point, there is much more for the leadership to know while making decisions about the fire rescue services in Schertz.

Nationally, a great deal of effort and research has been put into developing performance objectives for the delivery of fire and rescue services. This effort is critical for local governments making decisions about deployment and location of emergency resources. The objectives promoted for Fire/Rescue have their basis derived from research that has been conducted regarding the key point in a fire's "life" for gaining control of the blaze without the impact on the structure of origin and those structures around it:

The chart that follows, shows a typical "flashover" curve for interior structure fires. The point in time represented by the occurrence of "flashover" is critical because it defines when all the contents of a room become involved in the fire. This is also the point at which a fire typically shifts from "room and contents" to a "structure" fire – involving a wider area of the building and posing a potential risk to the structures surrounding the original location of the fire.



Note that this illustration depicts a fire from the moment of inception – not from the moment that a fire is detected or reported. This demonstrates the importance of early detection and fast reporting as well as rapid dispatch of responding units. This also shows the critical need for a rapid (and sufficiently staffed) initial response – by quickly initiating the attack on a fire, "flashover" can be averted. The points below describe the major changes that occur at a fire when "flashover" occurs:

- It is the end of time for effective search and rescue in a room involved in the fire. It means the likely death of any person trapped in the room – either civilian or firefighter.

- After this point in a fire is reached, portable extinguishers can no longer have a successful impact on controlling the blaze. Only larger diameter fire hoses will have enough water supply to affect a fire after this point.

- The fire has reached the end of the "growth" phase and has entered the fully developed phase. During this phase, every combustible object is subject to the full impact of the fire.

- This also signals the changeover from "contents" to "structure" fire. This is also the beginning of collapse danger for the structure. Structural collapse begins to become a major risk at this point and reaches the highest point during the decay stage of the fire (after the fire has been extinguished).

It should be noted that not every fire will reach flashover – and that not every fire will "wait" for the 8-minute mark to reach flashover. A quickly responding fire crew can do things to prevent or delay the occurrence of flashover. These options include:

- Use of a master stream device, using a handline through a window, or other "fast attack" methodology.

- Ventilating the room to allow hot gases to escape before they can cause the ignition of other materials in the room.

- Not ventilating a room – under some circumstances this will stifle a fire and prevent flashover from occurring.

Each of these techniques requires the rapid response of appropriately trained fire suppression resources that can safely initiate these actions. In the absence of automatic fire suppression systems, access to interior fires can again be limited by a safety requirement related to staffing levels. OSHA and related industry standards require the presence of at least 2-firefighters on the exterior of a building before entry can be made to a structure in which the environment has been contaminated by a fire. In the absence of a threat to life demanding immediate rescue, interior fire suppression operations are limited to the extent a fire service delivery system can staff, to assuring a minimum of 4-people actively involved in firefighting operations. Staffing levels also impact property damage, loss of business, and other economic impacts such as utilities, sales and income tax, and property taxes.

The results of these research efforts have been utilized by communities and first responders, often on their own with no single reference, to develop local response time and other performance objectives. However, there are four major sources of information to which responders and local policymakers can refer when determining the most appropriate response objectives for their community:

- The Insurance Services Office (ISO) provides basic information regarding distances between fire stations. However, this “objective” does little to recognize the unique nature of every community’s road network, population, calls for service, call density, etc.

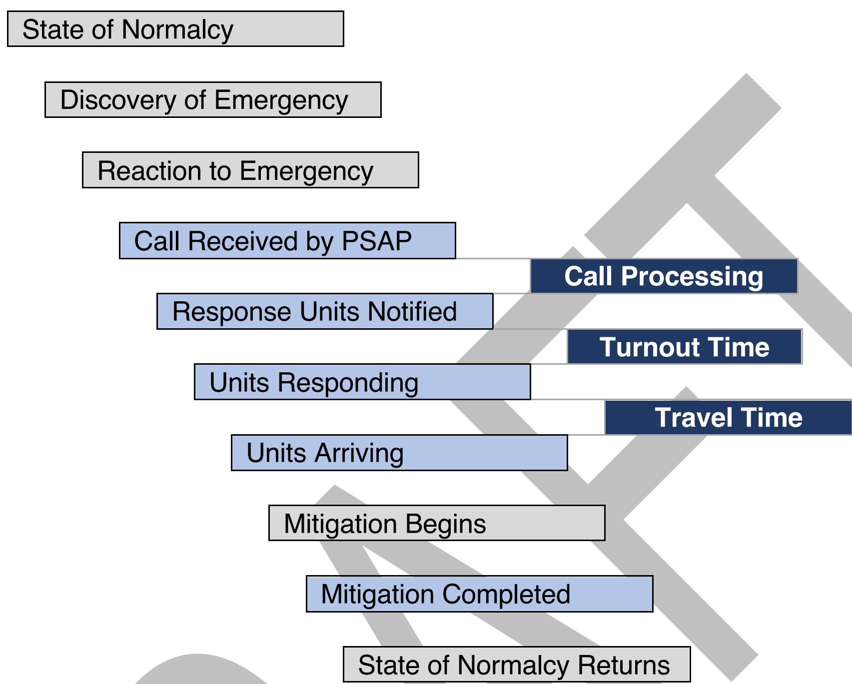
- The National Fire Protection Association (NFPA) promulgated a document entitled: “NFPA 1710: Objective for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments.” This document (NFPA 1710) was published in 2001 and generated a great deal of dialogue and debate – which is still ongoing.

- The Commission on Fire Accreditation International (CFAI) in its “Objectives of Coverage” manual places the responsibility for identifying “appropriate” response objectives on the locality. These objectives should be developed following a comprehensive exercise in which the risks and hazards in the community are compared to the likelihood of their occurrence.

(c) Response Time

Response time to an emergency or call for assistance has been broken down into measurable and non-measurable segments. The response time continuum begins when the state of normalcy changes to a recognizable emergency. The following chart outlines the cascade of events that occurs once an emergency starts or is recognized. Those highlighted points represent hard data or that which is quantitative versus soft data or that which is subjective and unknown.

Response Time Continuum



The highlighted points in the chart above represent three segments that can be used for evaluation; call processing, turnout time, and travel time. Each of these components represent a different point in the response time continuum and through their measurement and evaluation areas for improvement can be identified. Below are the definitions for the three components:

- Call Processing is the defined as beginning when the call taker answers the call and ends with the dispatching of appropriate emergency services.

- Turnout Time is defined as beginning when the emergency service receives the call and is on the apparatus responding (wheels rolling) to the call.

- Travel Time is defined as beginning when the apparatus and personnel begin the response (wheels rolling) and ends once on location of the emergency (wheels stopped).

The National Fire Protections Association (NFPA), Center for Publics Safety Excellence (CPSE), and the Insurance Services Office (ISO) offered reference points for communities to follow relative to fire service responses, however, only NFPA 1710 offers any specificity. It is important to note that the performance objectives (in terms of response times) provided in the NFPA 1710 document are derived from the basic research previously described. These include the following (all are taken from section 4.1.2.1 of NFPA 1710):

- One minute four seconds (64 seconds) for the processing of an incoming emergency phone call, including the completion of the dispatching of fire response units.

- “One minute twenty seconds (80 seconds) for turnout time for fire related incidents.” This is also called reflex time, reaction time, “out-the-chute” time, etc. This is the time that elapses between dispatch and when the units are actively responding.

- “One minute (60 seconds) for turnout time for emergency medical incidents.” This is also called reflex time, reaction time, “out-the-chute” time, etc. This is the time that elapses between dispatch and when the units are actively responding.

- “Four minutes (240 seconds) or less for the arrival of the first arriving engine company at a fire suppression incident and / or 8 minutes (480 seconds) or less for the deployment of a full first-alarm assignment at a fire suppression incident.”

- “Four minutes (240 seconds) or less for the arrival of a unit with first responder or higher-level capability at an emergency medical incident.”

- In section 4.1.2.4, NFPA 1710 goes on to state: “The fire department shall establish a performance objective of not less than 90 percent for the achievement of each response time objective specified in 4.1.2.1”

- The AHA does not promulgate or identify performance objectives it does however provide the background information and motivation for the responses to cardiac arrest and other health related issues.

It is also critical to note that these time objectives apply to emergency calls for service – there is nothing in the NFPA documents (nor in any other objective) that suggests that communities cannot establish a differential response to calls for service determined to be non-emergency in nature. In the response timetables included below, non-emergency responses were removed; only emergency responses are included.

The expression of response time has changed. In years past the measurement was expressed as an average of time. This essentially represents how the system or department is performing 50% of the time and is not a true reflection of how a department is performing. With the research that has been performed in developing performance standards and practices the use of fractal time has become the best practice in the measurement and presentation of response time components. Fractal response time measures how often (as a percent of calls) a department can perform within each response time component. The NFPA and CPSE use the 90th percentile as the standard to meet for benchmark and baseline criteria.

Previously the Center for Public Safety Excellence had defined benchmark and baseline response times for each of the three components. They have since determined they are not a standard making organization and decided to leave the establishment of response time standards to others. However, their body of work is significant and has been used by numerous communities across the country to assist with determining what baseline services should be for a community.

The definitions for the criteria of each service area are defined in the table below. CPSE also gives a community a range of acceptable performance standards from “Baseline”, minimally accepted performance or to “Benchmark”, fully compliant with best practices. CPSE had previously set the following performance standards for urban, suburban and rural areas:

Service Area / Population Density Response Travel Time Standards
Urban: Population density of over 1,000 per square mile

	1st Unit	2nd Unit	1st Alarm Balance	Performance
Benchmark	4 minutes	8 minutes	8 minutes	90%
Baseline	5 minutes/12 seconds	10 minutes 24 seconds	10 minutes/24 seconds	90%
Suburban: Population density between 500 and 1,000 per square mile				
Benchmark	5 minutes	8 minutes	10 minutes	90%
Baseline	6 minutes/30 seconds	10 minutes/24 seconds	13 minutes	90%
Rural: Population density of less than 500 per square mile				
Benchmark	10 minutes	14 minutes	14 minutes	90%
Baseline	13 minutes	18 minutes/12 seconds	18 minutes/12 seconds	90%

Schertz Fire Rescue has been using a performance target of 5 minutes to report their travel time performance. The following table illustrates this travel time performance over the past three years:

Travel Time 5 Minutes or Less

	2017	**2018**	**2019 (Jan – Aug)**
Station 1	44%	35%	36%
Station 2	59%	56%	59%
Station 3	N/A	72%	70%
Overall	50%	48%	50%

As illustrated, the Department is meeting the established performance standard only 50% of the time. Station 1 is performing the lowest at 36% and Station 3 the highest at 70%. When performance is examined using the 90th percentile, the following results are realized for the Department for turnout and travel times over the past three (3) years.

The national standard for turnout time performance is one minute 20 seconds 90% of the time. The following table illustrates how well Schertz is performing against that standard on emergency calls only, non-emergency calls are not used to measure this performance:

Schertz Fire Rescue Department Turnout Time

System Performance

		2017		2018		2019	
Fire Calls Benchmark	1:20	3:08	1:48	2:47	1:27	2:40	0:35
	Avg.:	1:49		1:41		1:30	

The national benchmark standard for travel time is four minutes. Schertz has established a performance objective of 5 minutes for travel time to emergency incidents. The following table illustrates how well Schertz is performing against their travel time objective of 5 minutes:

Schertz Fire Rescue Department Travel Time
System Performance

		2017		2018		2019	
		Performance	Variance	Performance	Variance	Performance	Variance
Goal	5:00	9:53	4:53	8:13	3:13	9:43	4:43
	Avg.:	6:39		5:01		6:33	

As illustrated above, the Fire Rescue Department is performing below industry standards in terms of turnout time performance and below their established travel time performance standard of five (5) minutes. Turnout time is a factor that can be improved by setting and measuring the target of turnout in 80 seconds or less 90% of the time.

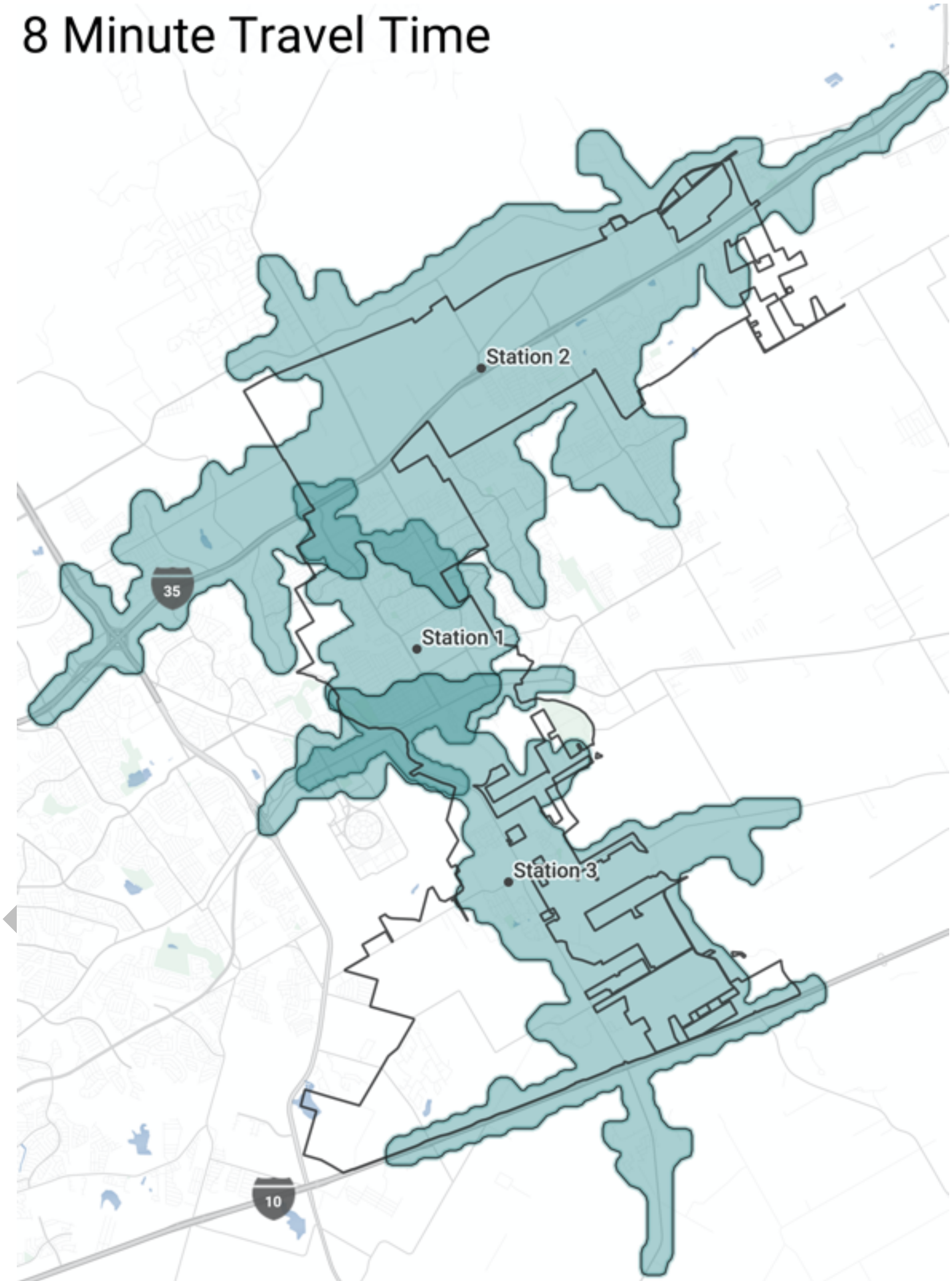
Recommendation: Establish and monitor turnout time performance on a monthly basis and report the performance to each station.

Recommendation: Continue to measure travel time performance and construct new stations to ensure travel time performance meets the performance expectations of the community.

4. The Fire Department Should Staff The Ladder Truck at Station 2

The City of Schertz has realized strong growth along the Interstate 35 corridor. Along with this commercial growth has been an increase in multi-story, high occupancy properties, including several hotels. It is important to have the ability to place an aerial apparatus early in a working fire in these locations to effect rescue operations and ventilate the structure. Ladder companies also serve critical rolls on residential fires including ventilation, salvage and overhaul to protect property from the water used to extinguish the fire. The staffing of the ladder company at Station 2 should be a high priority for the City.

The following map illustrates how well the stations work together to provide an effective response force for emergency incidents utilizing an 8 minute standard for developing an effective response force.


8 Minute Travel Time
Station 2
35
Station 1
Station 3
10

The staffing should include a Captain, Driver Operator and two (2) Firefighters on each shift. The Captain will serve as the overall station commander as there would now be two (2) companies operating from this station. This ensures the Captain is the overall station commander and supervisor of the ladder company, while the Lieutenant remains responsible for supervision of the personnel assigned to the engine company. This will require an additional three (3) Captains, three (3) Driver/Operators and six (6) firefighter positions to cover the three platoons.

Recommendation: Staff the ladder company at Station 2 with four (4) additional personnel daily.

(3) Office of the Chief.

The Chief provides overall direction, guidance and leadership for the Fire Department. The Chief has responsibility for every area of the organization and ensures that all employees perform their jobs in accordance with the overall mission of the Department and in accordance with the established values. Reporting directly to the Chief are the Senior Administrative Assistant, Fire Marshal, Assistant Chief and Training and Safety Officer.

The design of an organizational structure to best meet the needs of an agency is not only predicated on the traditional command and control within the Fire Department, but also to help define job duties and responsibilities, ensure efficient and effective workflow, establish a reporting hierarchy, and ultimately determine appropriate lines of authority and accountability. To accomplish this, the design of an organizational structure and placement of employees within the organization should be established on key principles that provide the organizational cohesion necessary to accomplish the primary mission of the Department. These principles include:

- **Accountability and responsibility are clearly identified:** The organizational structure must be consistent with the concept that clear lines of authority and decision making are essential for any organization to achieve excellence. Areas of responsibility are clearly delineated and points of accountability are readily identifiable.

- **Span of control or communication is optimal:** Effective organizations are structured so that lines of communication are identifiable and where there are multiple reporting relationships, responsibility for communication and control are clearly identified and understood.

- **Coordination of Work Efforts:** The organizational structure should facilitate communication and working relationships among staff and work units. Many functions need close or indirect alignment to maximize efficiency and effectiveness. The structure should also provide easy identification of job function to people outside the Department, including other Departments in the City and other fire service agencies.

- **Degree of Organizational Risk:** This relates to how much risk a function incurs if an activity is not performed or is performed poorly. Risk might involve tactical, financial or political concerns. Generally, higher risk functions have closer management oversight.

- **Supervisor and Management Span of Control:** This relates to whether supervisors are fully devoted to overseeing a select few primary activities or a broader set of duties and responsibilities. Appropriate spans of control are related to both the number of staff directly supervised as well as the complexity of activities overseen.

Nationally recognized best practice for span of control in highly technical and professional positions is to limit direct reports typically to five or six positions. The spans of control in the Chief's Office align with these best practices.

The Fire Chief is also designated as the Emergency Manager for the City. This is a critical function and requires constant attention and planning to ensure the City is operationally ready to mitigate natural and manmade disasters. As the City continues to grow the need for a dedicated emergency management coordinator will be critical to ensure this operational readiness occurs. This position would be responsible for ensuring the emergency management plan is continually updated and practiced ensuring all personnel with responsibilities according to the plan are appropriately trained and ready in the event of a large-scale emergency.

Recommendation: Hire a dedicated Emergency Management Coordinator in FY 2022.

(4) Training and Safety

The Fire Rescue Department has a single person assigned to oversee the training of the Department. This position is also the Safety Officer for the Department. The Training and Safety Officer ensures all certifications and licenses are maintained and up to date for personnel. This position also conducts safety inspections of stations and protective gear to ensure personnel are working in a safe environment and their protective gear meets standards.

The following table illustrates the training hours for fire personnel in the past three fiscal years

Training Hours by Year

Inspection/Permit Type	FY 2017	FY 2018	FY 2019
Training Hours	9,449	8,000	8,500

The Training Officer maintains detailed training records for each employee of the Fire Rescue Department. The data is available by employee and details the type of training attended and the total hours by subject matter.

There are no recommended staffing changes to the Training and Safety Division.

3 Staffing Summary for the Fire Rescue Department

The following table illustrates the staffing recommendations for the Fire Rescue Department over the next 10 years:

Unit	Employee Classification	Projection Factors	2020 Authorized	2021 (Rec)	2022	2023	2024	2025	2026	2027	2028	2029	2030
Fire Rescue Department													
Admin	Fire Chief	Executive officer position; scales at 1 per division.	1	1	1	1	1	1	1	1	1	1	1
Admin	Senior Admin Assistant	Support positions; scales based on workload	1	1	1	1	1	1	1	1	1	1	1
Admin	Emergency Management Coordinator	Executive officer position, scales at one per organization	0	0	1	1	1	1	1	1	1	1	1
Fire Marshal	Fire Marshal	Executive officer position, scales at one per unit	1	1	1	1	1	1	1	1	1	1	1
Fire Marshal	Deputy Fire Marshal	Scales to the workload of the unit	1	2	2	2	2	2	2	2	2	2	2
Training	Training and Safety Officer	Executive officer position, scales at one per unit	1	1	1	1	1	1	1	1	1	1	1
Operations	Assistant Fire Chief	Executive officer position, scales at one per unit	1	1	1	1	1	1	1	1	1	1	1

Unit	Employee Classification	Projection Factors	2020 Authorized	2021 (Rec)	2022	2023	2024	2025	2026	2027	2028	2029	2030
Operations	Battalion Chief	Scales to supervisory spans of control. Spans of control range between 6 and 9 subordinates.	3	3	3	3	3	3	3	3	3	3	3
Operations	Captain	Supervisor; scales at one per two company station	0	3	3	3	3	3	3	3	3	3	3
Operations	Lieutenant	Supervisor Scales at one per assigned apparatus	9	9	9	9	12	12	12	12	12	15	15
Operations	Driver Operator	Scales at one per assigned apparatus	9	12	12	12	15	15	15	15	15	18	18
Operations	Firefighter	Elective priority; scales based on level of coverage desired at the District station.	18	24	24	24	30	30	30	30	30	36	36
FIRE RESCUE TOTAL			***45***	***58***	***59***	***59***	***71***	***71***	***71***	***71***	***71***	***83***	***83***

There are two (2) newly created positions recommended for the Fire Rescue Department over the next 10 years. These include a dedicated position for the oversight of Emergency Management and a Captain position to serve as the supervisor of the ladder company and overall station commander at Station 2. There is also the need for an additional Deputy Fire Marshal position.

Other additional positions are aligned with the staffing of the ladder company and planned construction of a 4th Station in 2023 and 5th station in 2028 and the workload demands in fire prevention. Staffing increases by 3 Lieutenants, 3 Driver/Operators, and 6 Firefighters per new station. As shown, these are estimated to occur in 2024 and 2029.

Recommendation: Increase staffing by 3 Lieutenants, 3 Driver/Operators and 6 Firefighters to staff Station 4 in 2024.

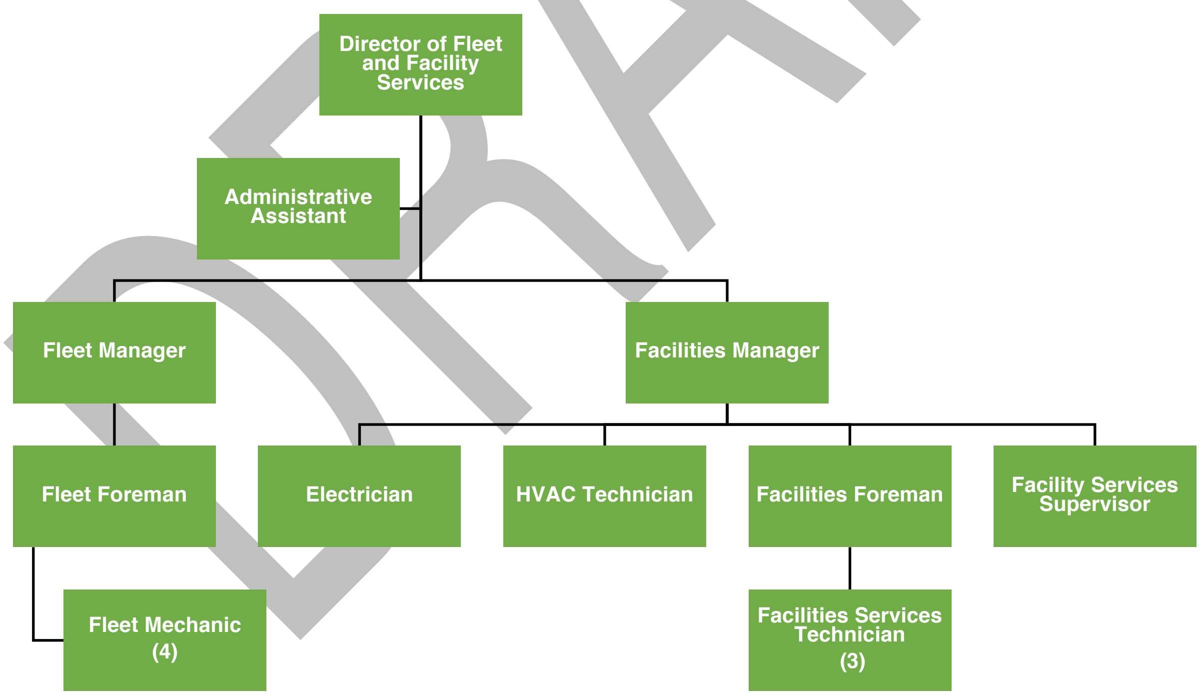
Recommendation: Increase staffing by 3 Lieutenants, 3 Driver/Operators and 6 Firefighters to staff Station 5 in 2029.

9 FLEET AND FACILITY SERVICES DEPARTMENT

The Fleet and Facility Services Department consists of the Fleet Maintenance and Facilities Maintenance divisions. The Department repairs and maintains all City vehicles and equipment, as well as its facilities. The Fleet Division provides maintenance, repair, upgrade and outfitting services for all City owned vehicles and equipment. This includes preventive and corrective maintenance, state inspections, tire services, troubleshooting, and others. The Division also orders, stocks, distributes and manages automotive parts. The Division also develops specifications for the fleet and makes recommendations for replacements. Fleet Services also provides motor pool services.

The Facilities Services Division maintains and repairs all City facilities, consisting of floors, carpet, offices, storage areas, restrooms, cells, conference rooms, and others. The Division also sets up for functions, events, departmental meetings, etc. The Division also oversees the cleaning contract and contracted repairs to City facilities.

The current organizational structure of the Department is shown in the following organizational chart.



1 Operational and Technological Changes Needed

This chapter provides an analysis of the major operational and technological changes required in the Fleet and Facility Services Department.

(1) The City Should Centralize the Ownership and Management of the Fleet under the Fleet Division of the Department.

Currently, the Fleet Maintenance Division of the Fleet and Facility Services Department is responsible for the maintenance and repair of 336 vehicles and pieces of equipment. This listing is summarized below.

Category	Number	Average Age
Sedans	6	9.7
Pickups, Large Vans	98	6.5
Patrol Units	62	4.9
Heavy Equipment	57	7.2
Non-Motorized Units (e.g., trailers)	33	9.0
Small Engines (e.g., pumps, generators)	39	8.3
Mowers	16	13.1
Fire Apparatus	5	14.5
Ambulances	10	4.4
Motorcycles, Boats	10	7.5
Total	**336**	**7.2**

As the table shows, there are 336 distinct units maintained by the Fleet Division. The current practice of the City is that each City department that operates a vehicle or piece of equipment "owns" this unit, and as such, directs its maintenance, repair and replacement. The Fleet Manager may be involved in these decisions, however it is ultimately the responsibility, and authority, of each department to make these decisions.

The fragmentation of ownership of the City's fleet results in disparate bases for decisions regarding maintenance, repair and replacement, and even what constitutes acceptable utilization levels of each of these units. This can result in sub-optimal expenditures over the courses of the useful lives of each piece of equipment. In any case, it is clear that there is a non-standard approach to the management of the fleet.

There are many advantages to centralizing the ownership and management of the fleet under a single City department. These include the following:

- A single department can develop and implement a standardized preventive maintenance (PM) program and enforce compliance with the program. Currently, the Fleet Division cannot enforce compliance with the PM program, and in fact, reports that it does not know with any certainty which vehicles will appear in the shop on a daily basis requiring PM. This has obvious impacts on the ability of Mechanics to plan their work.

- A single department can make better decisions on vehicle and equipment allocation. A key factor in the ability to determine the overall utilization of the fleet is access to fueling events, and by extension, the overall utilization of the fleet, as well as of individual units. Currently, all units are fueled at Valero stations, and the Fleet Division does not receive reports on the amounts of fuel or the miles (or hours) driven by specific units during particular time periods. A central department that is monitoring fleet utilization is best-positioned to make decisions regarding whether specific units may be candidates for eliminating from the fleet, or which of these may be candidates for sharing between departments.

- A single department can make better decisions relating to optimal replacement periods. When the replacement decision is left to individual departments, not only are these decisions made on differing bases, but they are typically made based on the availability of replacement funds in a current year, as opposed to being made in accordance with pre-determined economic life cycles that minimize the total operating cost to the City.

The project team recommends that the ownership of all vehicles and equipment be transferred to the Fleet Division of the Fleet and Facility Services Department. The Fleet Manager should be vested with the authority to make decisions regarding the maintenance, repair and replacement of each unit in the City's fleet. Further, this authority should extend to directing the sharing of equipment when appropriate, and the ability to remove vehicles from individual department fleets when chronic under-utilization is apparent.

The centralization of the fleet can also take the form of converting the Fleet Division to an internal service fund, which would require that the division be self-sustaining from a financial standpoint. This would require that the division establish charge-back rates for maintenance and repair that are designed to ensure that the division break-even on a financial basis at the end of each year. This form of organization ensures the highest degree of accountability for providing efficient and cost-effective services which can be easily compared to private maintenance providers in the area.

The project team recommends that the City convert the ownership of all units to the Fleet Division, however it should delay the conversion of the Fleet Division to a self-sustaining enterprise fund for at least 12 months, as both departments and the Fleet Division become acclimated to the change in ownership.

Recommendation: The City should convert the ownership of all departmental vehicles and equipment to the Fleet Division.

Recommendation: The City should establish the Fleet operation as an internal service fund.

(2) The Fleet Division Should Ensure Greater Accountability for Parts in Inventory.

The Fleet Division maintains a moderate amount of inventory in its parts room that is used by Mechanics when parts are needed for repair. The Mechanics themselves are responsible for procuring their own parts from the parts room, installing the parts on vehicles and equipment, entering the used part within the "Manager Plus" fleet management information system (FMIS), and identifying parts that have reached minimum threshold levels that require re-ordering. The project team's observation of this process indicates that Mechanics make their best efforts to ensure that all parts that are used are also entered in the FMIS, however as their primary jobs are to repair and maintain vehicles and equipment, they may, at times, fall short of this objective.

To determine the degree to which the current Mechanic-driven parts inventory process is functioning well from a financial accountability perspective, the project team selected ten random parts number from the FMIS and enlisted the assistance of the Fleet and Facilities Director in comparing the numbers of parts actually on the parts room shelves to the numbers indicated in the FMIS.

Part Number	Part Description	FMIS Count	Available on Shelf	Difference
(Not recorded)	Ball Kit 2.5	3	3	0
23-5094	Air Drier Accumulator	3	1	(2)
24068	Cabin Air Filter	3	2	(1)
H1BP	Sylvania H1 Headlight Bulb	6	6	0
51060	Wix Oil Filter	7	7	0
38623	Orifice Tube	6	1	(5)
EMD750	Halogen Bulb	7	0	(7)
1683	24 Volt Light Bulb	8	8	0
58847	Wix Transmission Kit	10	0	(10)
27060	Fuel Hose	10 feet	10.5 feet	0.5

As can be seen in the table, there were six instances out of ten that indicated a discrepancy between the inventory figures shown in the FMIS and the actual numbers of parts on the shelf, however only three of these differences were of sufficient size to be considered material.

The project team recommends that the Fleet Division tighten both the security of the parts room, as well as the procedures in place for recording parts usage. Again, Mechanics are generally not focused on the administrative procedures related to parts usage, but rather on repair and maintenance, and the quick turnaround times associated with quality, safe repairs. These administrative procedures are most effectively administered by professional parts personnel who are responsible for ordering, receiving, stocking, disseminating, and accounting for all parts in the parts room.

The project team recommends that the Fleet Division hire a Parts Room Clerk to administer the activities of the parts room. This will alleviate Mechanics of the responsibility of ensuring the accountability of parts, which interviews indicate is consuming a very large percentage of their collective time. Although the Human Resources Department should evaluate the content of the position of Parks Clerk for its appropriate placement in the City's Classification and Compensation Plan, the project team estimates that this position may be placed at a Pay Grade 18 for cost-estimation purposes. The Step 1 salary for this pay grade is $29,473.60. Adding 40% for fringe benefits results in an estimated total annual compensation for this position of $41,263.04.

Recommendation: The Fleet Division should enhance controls over its parts inventory.

Recommendation: The Fleet Division should hire a Parts Clerk to administer the parts inventory.

(3) The Fleet Division Should Add Two Mechanics.

To determine mechanic staffing requirements, we use vehicle equivalent unit (VEU) analysis. In the fleet industry organizations such as NAFA (the National Association of Fleet Administrators) and the American Public Works Association (APWA) have developed and published a standard approach for comparing fleets of differing composition and calculating mechanic staffing requirements. This approach is known as vehicle equivalency analysis (or sometimes maintenance repair unit analysis).

A vehicle equivalency represents a relative repair factor that enables comparisons between different types of vehicles and different fleets. The baseline that is used is the general passenger sedan, having a VEU of 1. All other types of vehicles and equipment are given a VEU based on the relative level of effort to maintain them in comparison to a sedan. For instance, a law enforcement patrol vehicle is generally given a VEU of 2.5, indicating this type of vehicle required 2.5 times the level of effort to maintain than does a sedan. A trailer might be given a VEU of .5, while a fire truck, on the other end of the spectrum, has a VEU of 10.0.

For this project, we assigned a VEU for each make and model of vehicle. The 336 active vehicles in the fleet total 723 VEUs. Therefore, the Fleet Maintenance Division is responsible for maintaining a fleet that is the equivalent of 723 sedans. The following table summarizes VEU calculations.

Category	Number	VEU
Sedans	6	6.0
Pickups, Large Vans	98	147.0
Patrol Units	62	155.0
Heavy Equipment	57	199.0
Non-Motorized Units (e.g., trailers)	33	16.5
Small Engines (e.g., pumps, generators)	39	20.5
Mowers	16	16.0
Fire Apparatus	5	50.0
Ambulances	10	100.0
Motorcycles, Boats	10	13.0
Total	**336**	**723**

Given normal conditions relating to fleet age, terrain driven, normal accident rates, and other factors, vehicle mechanics can each effectively maintain between 90 and 110 VEUs. Given that there are 4.75 mechanic positions at full staffing levels (the 0.75 FTE accounts for the Foreman, who estimates that three-quarters of available time is spent in "wrench-turning" activities), the 723 VEUs indicates that each FTE Mechanic position is responsible for approximately 152.2 VEU, which is well above the top of the range of 90 to 110 VEU. In order to reach the top limit of 110 VEU per Mechanic, the Division requires an additional two (2) Mechanic positions.

Recommendation: The Fleet Division should hire two Fleet Mechanics.

(4) The Facility Services Division Should Develop and Implement a Preventive Maintenance Program for City Facilities.

Many building industry and facilities management groups, including the American Public Works Association, the Building Owners and Managers Association (BOMA) International, the Association of Physical Plant Administrators (now named the Association of Higher Education Facilities Officers), and the Association of School Business Officers agree on the benefits of well-planned preventive maintenance.

These professional associations cite preventive maintenance for its effects on improving equipment's operating efficiency, preventing premature replacement of components, and avoiding interruptions for building occupants. Effective preventive maintenance has been widely proven to reduce long-term costs by maximizing the operating capacities of equipment, minimizing downtime, and avoiding breakdowns that would otherwise lead to higher repair costs later. Studies within individual companies show savings in energy costs and repair costs, as well as reductions in equipment breakdowns, due to preventive maintenance. Some studies have shown that the investment of time and financial resources into preventive maintenance returns $2 in savings for every $1 invested.[4]

[4] "From Preventive to Proactive", Public Works Magazine, November 2007.

The Division should enhance its preventive maintenance program for the heating, ventilating, and air conditioning, electrical and plumbing components for all of the City's buildings. The Division has not yet entered all of the major maintenance equipment into the Manager Plus management information system, which is a critical step in developing maintenance schedules, and reporting on results. The Division should enhance and implement a comprehensive preventive maintenance program and enter these elements into Manager Plus along with the elements of maintenance, and the frequencies with which the maintenance should occur. The elements of this preventive maintenance program are presented below.

- **Establish levels of service necessary to preventively maintain the facilities**. In establishing levels of service, the Division should document what maintenance activities are needed to ensure that a particular system or component meets or exceeds its life expectancy. Manufacturer's literature and the experience of Facility Division staff are some ways to determine both acceptable life-cycles and what preventive maintenance work would result in achieving those life expectancies in the most efficient manner.

- **Prepare an annual work program for preventive maintenance of buildings and building components**. Once the levels of service have been established, setting the tasks into a work plan is the next step. The list of tasks to be performed should be described in detail, and the frequency and nature of the work should be clearly stated. The supplies and materials to be used are specified in considerable depth and the manner in which the work is to be accomplished should be expressed in simple language.

- **Develop a formal work planning and scheduling system for preventive maintenance of buildings and building components.** The core of any preventive maintenance program is in the scheduling and assignment of specific preventive maintenance tasks. This is almost always done using a work order system. This element of the preventive maintenance program takes the work items developed for each facility component, such as the quarterly inspection of a rooftop HVAC unit, and assigns them to Division staff according to the established structure and schedule.

- **Report actual versus planned results of preventive maintenance.** Effective preventive maintenance programs depend on feedback from Facility Services Division staff using the work orders and a reporting/tracking system of costs associated with the work order. This information is used to maintain the proper balance between preventive maintenance and renewal and replacement efforts.

- **Establish a reporting system.** Through a combination of informal evaluations and formal audits, a reporting system could be established to analyze the

Division's maintenance system to ensure cost-effective maintenance.

Although there will be some initial costs and time consumed in setting up the preventive maintenance program, the benefits are typically apparent within 18 to 24 months, although the full benefits may not be realized for some number of additional years. As was noted above, for every dollar expended in preventive maintenance, the City may eventually see two dollars of costs saved in maintenance costs.

Recommendation: The Facility Services Division should develop and implement a preventive maintenance program for all City facilities.

(5) Consideration should be given to moving the functions of Fleet & Facility Services (currently a stand-alone department) to the Public Works Department.

The duties of these operations are closely aligned with duties and services provided by the Public Works Department, including equipment and infrastructure maintenance. Organizationally, it is not uncommon to have Fleet & Facility Services within the Public Works Department. This change would not directly change staffing requirements, existing positions would simply be relocated. It would, however, impact the span of control and oversight responsibilities of the Public Works Department. The City has discussed authorizing a Deputy or Assistant Director of Public Works, and if authorized, these changes made in tandem would add benefit to the City by streamlining maintenance functions.

Recommendation: The functions related to Fleet & Facility Services should be moved to the Public Works Department.

2 Staffing Projections.

The primary driver for staff in the Fleet and Facilities Services Department are the numbers of vehicles and number of buildings in the system. Given that there are no precise figures for these estimates over the planning period, the project team utilizes population growth as a proxy for these estimates. However, the City should develop data on future facility needs and equipment estimates as a better measure for projecting future staffing needs.

The position of Director does not scale and is assumed to remain constant at one employee in this position.

The position of Facilities Technician is assumed to vary with building space maintained and it is anticipated that this position will not increase from the current five employees by 2030. Likewise, the positions of Electrician and HVAC Technician are assumed to vary with population. These positions are expected to remain constant at one employee. Each of these staffing projections is predicated upon the Department continuing to expend current percentages of contracted repairs and maintenance over the planning period.

The positions of Facilities Maintenance Foreman is expected to vary with the number of staff supervised. Given that there are no increases in staff anticipated over the planning horizon, it is expected that a single incumbents will be sufficient over the planning period.

The project team has made the recommendation to increase the number of Fleet Mechanics from four to six in 2021. Based upon estimated increases in workload, the number of Fleet Mechanics is expected to grow from six to eight by 2030. The project team has also made the recommendation to add the position of Parts Clerk in the Fleet Division, and this position is expected to vary with the number of Mechanics. However, it is anticipated that a single Parts Clerk is able to accommodate the demands of eight Mechanics, and therefore no increase in this position is anticipated.

Unit	Employee Classification	Projection Factors	2020 Authorized	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Administration	Director	Executive position; does not scale.	1	1	1	1	1	1	1	1	1	1	1
	Administrative Assistant	Varies with staff supported	1	1	1	1	1	1	1	1	1	1	1
Fleet Services	Fleet Manager	Position does not scale	1	1	1	1	1	1	1	1	1	1	1
	Fleet Foreman	Position does not scale	1	1	1	1	1	1	1	1	1	1	1
	Fleet Mechanic	Varies with fleet size	4	6	6	6	6	7	7	7	7	7	8
	Parts Clerk	Varies with Mechanics supported	0	1	1	1	1	1	1	1	1	1	1
Facilities Services	Facilities Manager	Position does not scale	1	1	1	1	1	1	1	1	1	1	1
	Facilities Foreman	Varies with staff under supervision	1	1	1	1	1	1	1	1	1	1	1
	Facilities Technician	Scales with building space	5	5	5	5	5	5	5	5	5	5	5
	HVAC Technician	Scales with building space	1	1	1	1	1	1	1	1	1	1	1
	Electrician	Scales with building space	1	1	1	1	1	1	1	1	1	1	1
	TOTAL		**17**	**20**	**20**	**20**	**20**	**21**	**21**	**21**	**21**	**21**	**22**

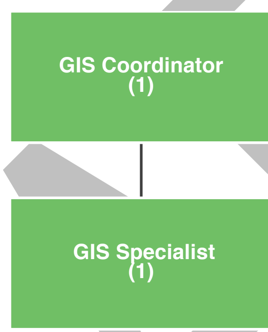
Recommendation: Add an additional mechanic in 2025.

Recommendation: Add an additional mechanic in 2030.

10 Geographic Information Systems (GIS)

The GIS Department uses Geographic Information Systems to create maps, analyze information, and visually examine the geographic features of mapping layers. Services provided by the Department are designed to improve effectiveness and increase efficiency with a department's decision-making processes through spatial analysis of GIS data.

The following organizational chart shows the organization and reporting structure of the GIS Department.



1 Operational and Technological Changes Needed

The GIS Department utilizes appropriate technology and equipment to effectively manage GIS operations throughout the City including regularly updating some GIS mapping layers. There are however two areas in which operational changes would be beneficial.

(1) Complete the Mapping Layer for City Signs and Their Locations

In a modern, technologically integrated public works operation, the City's Public Works Department assets are entered and tracked in GIS layers. By maintaining an inventory of not just the number and specifications of infrastructure components, but also their physical locations, the City can improve its efficiency and level of service in a number of ways:

- Pinpointing the physical locations of assets such as signs, catch basins, and culverts allows workers to locate them in the field more quickly when they need maintenance or repair.

- Tracking the locations of service requests allows management to visualize patterns in damage or wear and tear to City assets.

- Maintaining an accurate database of the locations of existing infrastructure makes it easier for engineering work to be planned and executed when it involves moving, reconfiguring, or working around those assets.

Currently, the City GIS Department has not completed the mapping layer for City street signs (their location, condition and reflectivity, location, age, size, etc.). Efforts have begun but have been limited due to the Public Works Department has not historically allocated the resources necessary to document the existing infrastructure. With other staffing changes made in the report, the Public Works Department should have more sufficient staffing levels and should appropriately prioritize the collection of infrastructure data to support the completion of the data layer so that it can be used for future work planning. There are also other crucial public works infrastructure data layers that should be developed in the future, but since this effort has already begun it should be completed before starting on other efforts.

Recommendation: Create a mapping layer for City street signs and their locations.

(2) Efforts to Reach Out to Departments to Demonstrate the Value of Spatial Analysis of Their Data Should be Enhanced

There are only two GIS employees in the City. With existing workload (discussed later in this Chapter) and the need to maintain 81 existing mapping layers, there is little time availability to proactively reach out to individual departments to demonstrate the value of GIS services. Public Safety and Public Works often use GIS services to spatially view their existing data in order to make more informed decisions; however, not all City departments use GIS technology to their full advantage. For this reason, there is considerable value for GIS employees to proactively reach out to individual department directors to demonstrate how GIS services can help them better manage their individual department.

GIS staff allocate at least 10% of their annual available time to making presentations and working on new projects for departments that do not extensively use GIS services, should prove beneficial.

Recommendation: One GIS employee should spend at least 10% of their time working to implement GIS technology into every department in the City.

2 Staffing Projections

There are currently two authorized positions within the GIS Department: A GIS Coordinator and a GIS Specialist.

(1) Current Staffing Analysis

The Department's major drivers of workload the number of active GIS projects in development, the number of mapping layers to be maintained, and time spent introducing GIS technology to other Departments.

The following parameters were used in the GIS staffing model:

- Times are estimated and averaged while taking into consideration that each function can take varying amounts of time to complete based on its complexity.
- An average of 30 minutes per day of "admin/other" time per employee is projected.
- Training/Education time reflects 10% of one employee's time being spent introducing GIS technologies to all City departments.
- Staff are available to work 225 days annually when accounting for holidays, vacation, sick leave, training, etc. (252 working days in 2020 minus an average 27 days for vacations, sick leave, and holidays).

Workload Type	Annual Workload	Time in Hours	Total Hours	Total Days
Project Mgt/New Data	12	32	384	48
Updating Prior Data	81	32	2592	324
Management/Supervisory	225	1	225	28.13
Admin/Other	225	1	225	28.13
Training/Education	1	180	180	22.5
Total			**3606**	**450.76**
Required GIS Personnel			**2.0**	

The City's current number of GIS is adequate to handle existing workload demand.

(2) Projected GIS Staffing Requirements

The City is estimated to grow in population by 2.9% per year from 2020 through 2030. As an internal service department workload demand will generally grow at a parallel rate as City population and housing growth. As other Departments increase staff and have a need for additional GIS services, the GIS department will want to ensure staffing levels remain adequate to provide those services. Positions will scale based on the workload, including employees of the GIS Department providing additional training, education, and project development to other City Departments

Based on projected increases in City population and housing growth over the next 10 years, workload demands for GIS employees are estimated to increase by 15% by 2025 and 30% by 2030.

The following table illustrates the staffing recommendations for the GIS Department over the next 10 years:

Unit	Employee Classification	Projection Factors	2020 Authorized	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
GIS	GIS Coordinator	Executive position; does not scale	1	1	1	1	1	1	1	1	1	1	1
	GIS Specialist	Scales based on workload	1	1	1	1	1	1	1	1	1	1	1
	Database/Business Analyst	Scales based on workload	0	0	1	1	1	1	1	1	1	1	1
GIS Department TOTAL			***2***	***2***	***3***	***3***	***3***	***3***	***3***	***3***	***3***	***3***	***3***

The increase in authorized positions in 2022 is due to an expected increase in workload from the Department's outreach efforts in 2021 as employees work with other Departments to increase the use of GIS technologies throughout the City and an identified need for a database/business analyst to support the City's data and business process needs. In conjunction with the recommendation later in the report to merge GIS into the IT Department, it is anticipated that this position would be a shared position focusing on both typical GIS duties and business analyst duties that would support IT operations. There might be a need to increase GIS staffing in future years and the City should monitor workload demands to determine if by 2030 there is justification for an additional GIS staff member.

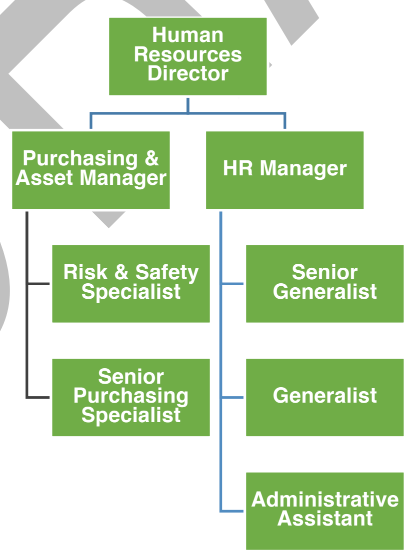
Recommendation: In 2022, increase authorized staffing by one position with the addition of a Database/Business Analyst position.

11 Human Resources & Purchasing and Asset Management

The Human Resources Department is responsible for the providing services and support in the areas of recruitment, selection, staffing, benefits administration, labor law compliance, performance management, employee development and relations, health and wellness and policy administration.

Purchasing and Asset Management is a division within the Human Resources & Purchasing Department. The Purchasing and Asset Management division consists of three (3) FTEs who perform purchasing, risk, and safety management services for the City. The Division is responsible for managing purchasing, inventory, property disposal, contracts, grants, risk management, and safety functions. Staff manage bids, quotes, contracts and agreements, warehouse inventory, purchases, and the disposal of City assets. The Division maintains the City Capital and Fixed Assets inventory, property and liability insurance schedules, processes insurance claims, coordinates insurance litigation, manages the worker's compensation program, schedules safety training, and evaluates loss runs to identify trends and mitigate future risks.

The following organizational chart shows the organization and reporting structure of the Human Resources Department.



1 Operational and Technological Changes Needed

The following section identifies needed changes to operations or technology utilization to enhance service delivery. While this list is not exclusive, it highlights the Department is meeting best practices in several areas:

- Purchasing thresholds and policies are established.
- The organizational proactively researches and seeks out buying discounts.
- The City tracks its worker's compensation losses and has safety committee that reviews all accident and incident reports.

(1) Additional Workforce Planning Should be Undertaken.

Information about upcoming retirements can be used in an organization to determine when vacancies are likely to open up in various departments, which allows HR staff to get a head start on developing a qualified pool of applicants. Anticipating openings due to retirement can help the department begin to make decisions about succession planning tactics sooner rather than later. However, the department does not currently have a formal methodology for projecting the likely retirement of employees over time. While staff within a customer department may know when retirements are upcoming, the HR Department is not always informed about these transitions. In order to optimize the effectiveness of the recruitment staff in this effort, the Department should adopt a more formal workforce and retirement planning model.

One model for projecting employee retirement involves totaling employees' ages and their years of service, and indexing those totals at the current time, as well as for future dates, to determine likely retirements. Both of those figures could easily be obtained from data readily available. An example of this method is depicted in the table below, showing retirement risk at the current time, as well as in 2 years and 5 years:

Employee	Age	Years	Current Total	2 Year Total	5 Year Total
Employee 1	23	1	24	28	34
Employee 2	48	15	63	67	73
Employee 3	45	19	64	68	74
Employee 4	50	19	69	73	79
Employee 5	48	23	71	75	81
Employee 6	48	24	72	76	82
Employee 7	49	27	76	80	86
Employee 8	52	25	77	81	87
Employee 9	54	32	86	90	96
Employee 10	57	35	92	96	102

While a model like this one can be constructed manually, this represents an area where technology can be used to improve the Department's operations. Existing data should be sufficient to generate reports such as the one above (or at least data that can be presented as a report). These projections should be updated on at least an annual basis in order to account for employee turnover and refresh the Department's strategy for replacing lost employees and skills.
Employee skills and certifications could also be included in these projections. This would help the HR department anticipate when skills will be lost and begin strategizing to replace them, either by hiring new employees with the desired skills or by incentivizing existing employees to acquire those skills and certifications.

Recommendation: The Department should develop a methodology for predicting upcoming retirements based on age and years of service of employees and update it at least annually to anticipate which employees and skills will need to be replaced.

(2) Continued and Enhanced Recruitment Efforts Should be Undertaken to Ensure the Workforce Reflects the Community Demographics and that Positions are filled timely.

The Department's recruitment staff currently use multiple avenues for recruiting candidates for open positions. While staff in the Department learn on an informal basis which recruitment sources are the most effective, the Department should focus analytical efforts at determining which recruitment sources have proven reliable in the past in providing both qualified and diverse candidates for consideration.

The Department should work toward a long-term goal of achieving a workforce that is reflective of the Schertz community and the market demographics from their typical recruitment area. Doing this would allow the Department to make an assessment about which recruitment sources produce the greatest numbers and/or diversity of interview-worthy candidates.

Additionally, the Department should utilize the available data regarding recruitment efforts to evaluate the effectiveness of each. From discussions with staff throughout the organization, the City has faced some difficult recruitments in the last several years on select positions. There have been several notable positions that have been difficult to fill including key leadership positions and high-turnover positions (such as part-time and some front-line field positions). While there is some internal belief that a major factor in the recruitment difficulties may be pay and compensation (which is being studies under a separate study), it would be beneficial to evaluating recruitment avenues on an on-going basis to identify which ones have the greatest impact in bringing quality candidates to the City for consideration.

Recommendation: The Department should prioritize efforts to expand the diversity of applicant pools to enable it to work toward a City workforce that is reflective of the community and to ensure that the best available recruitment avenues and methods are being utilized to attract qualified candidates to the City.

(3) The Implementation of a Worker's Compensation Policy Would Ensure Comprehensive Procedures are Followed to Reduce the City's Risk Exposure.

The City's number of worker's compensation claims are higher than the national average for a City the size of Schertz. Per the United Stated Department of Labor, in 2015 there were an average 5.1 work comp incidents per 100 employees in state and local government. Using this as a benchmark, anything above that number could be reason to reevaluate operational procedures, training, discipline, or other aspects of operations to promote a safe workplace.

The following table shows the number of worker's compensation claims for each of the past three fiscal years along with the dollar loss for those claims.

Worker's Compensation Claims and Loss Data

Category	FY16/17	FY17/18	FY18/19*
# of City Employees	350	376	380
# of Work Comp Claims	49	32	33
Claims per 100 Employees	14	8.51	8.68
Total Dollar Loss from Claims	$86,051	$31,924	$104,989
Average Loss per Claim	$1,756	$998	$3,181
Average Loss per City Employee	$246	$85	$276.29

* FY18/19 available data is through 75% of the fiscal year

The following chart provides a visual representation of worker's compensation claims trends for the past three years. FY18/19 data is through nine months of the fiscal year.

Worker's Compensation Claims Trends

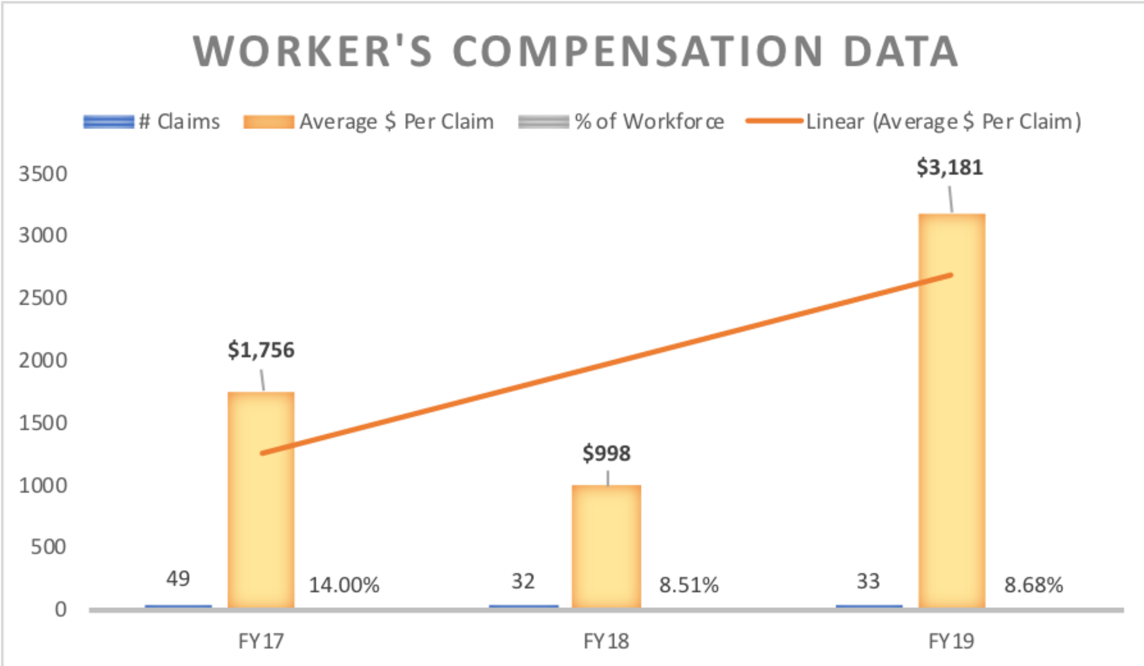


Table and chart worker's compensation loss data show that in FY16/17 the City of Schertz worker's compensation claims per 100 employees was 14, or 174.5% higher than the average injury rate per 100 employees for state and local governments. In FY17/18 that number was 8.51, or 68.8% higher than the average injury rate per 100 employees for state and local governments. Through the first three quarters of FY18/19, the injury rate was 8.68, 70.2% higher than the average injury rate per 100 employees for state and local governments.

The City currently investigates worker's compensation claims and analyzes the results of those investigations to determine appropriate action (employee discipline, training, etc.). Since the City does not have a written policy that clearly identifies individual employee responsibilities during a worker's compensation investigation, the City should create such a policy.

A worker's compensation investigation policy clearly identifies responsibilities for various employees (the injured employee, the supervisor, the witnesses, risk and safety, human resources, etc.) whenever a workplace injury or illness occurs. These responsibilities include a supervisor making sure to obtain photographs of the injury and of the scene where the injury took place, obtaining written statements from possible witnesses, etc. These clear policy directives not only hold everyone accountable to ensure a thorough investigation takes place, but the comprehensiveness of the investigation should reveal whether any safety-policy modifications are necessary to prevent future incidents.

An additional benefit to a policy that clearly identifies employee responsibilities during a worker's compensation incident is that it serves as a deterrent for anyone who might seek to commit worker's compensation fraud or otherwise abuse the system.

The following exhibit is a sample policy that can be used as guidance to create a policy applicable for the City of Schertz. There will be sections within the sample policy that are not necessarily applicable to the City (Company Nurse, light duty/return to duty, etc.); however, the intent is to provide the City with general guidance to assist with the creation of a worker's compensation policy.

Sample Worker's Compensation Policy and Procedures

Sample Worker's Compensation Policy and Procedures

Scope: All employees

Purpose: The City of Schertz desires to maintain a safe workplace; however, there might be a time when an employee is injured while performing his or her job. It is important to have clearly identified directions for employees so everyone knows what is expected of them regarding how we document, investigate, and take corrective action for an employee injury incident.

Policy

Section 1: General Protocol

If an employee injury or illness occurs at work, nothing is more important than getting that employee immediate medical attention if necessary. All of the "requirements" listed below should occur only after immediate medical attention has been provided.

Section 2: Employee's Responsibility:

A. Employees shall immediately (or as soon as reasonably possible) report any work-related illness or injury to their immediate supervisor.

B. Prior to seeking any off-site medical treatment, the injured employee shall call the phone triage service center (Company Nurse) unless it is unreasonable for the employee to do so due to the need for urgently required medical treatment.

C. If treated by a physician, the employee shall notify the treating physician that the injury occurred at work.

D. Every time an employee sees a doctor for treatment of the reported injury, the employee shall submit to the employee's direct supervisor (or designee) written notification from the doctor of the employee's work status and/or work restrictions. If a physician creates or changes any

Sample Worker's Compensation Policy and Procedures

return-to-work restrictions, the employee must notify the his or her direct supervisor (or designee) of those conditions prior to returning to work.

E. Cooperate with any internal administrative investigation into the incident and answer honestly and completely all questions asked by the employee's supervisor.

F. If the employee is off work due to a worker's compensation related injury, the employee is responsible for calling or otherwise contacting his/her supervisor after the employee's next scheduled follow up visit or one (1) time per normal workweek to update the supervisor on the status of your injury.

G. The employee must observe the noted restrictions during all times during the work comp related period, including inside and outside the employee's home during both the Total Temporary Disability (TTD) period and/or treatment period after returning to active work duty.

H. Unless permission is granted by the City, the employee may not work in any capacity (either as an independent contractor or for another employer) during both the Total Temporary Disability (TTD) period and/or treatment period after returning to active work duty. Violation of this restriction may subject the employee to disciplinary action, up to and including immediate termination of employment, and/or loss of workers' compensation benefits.

I. The employee shall notify the appropriate supervisor as soon as possible, but not later than the next business day, of the employee's release to return to work, and discuss scheduling of the resumption of regular work duties (either on an unrestricted or restricted basis).

Section 3: Immediate Supervisor's Responsibility:

A. Ensure that the scene is safe and secure – to prevent further injury and to prevent any potential evidence from being disturbed.

B. In the event of serious injury or death of an employee, ensure that all appropriate authorities are immediately contacted, including but not limited to 911, the Human Resources Director, and the City Manager.

C. The supervisor should ensure that appropriate care is immediately obtained, and then the supervisor should call the phone triage service center (Company Nurse) and make the report of the injury (unless the employee has already done so).

D. Coordinate with the Human Resources Department to complete an investigation into the cause of any reported injury. The supervisor understands the job better than anyone and is in the best position to assess all conditions that led up to the injury.

1. The investigation of the incident shall include at a minimum the following information:

   a. Names of all involved personnel.
   b. Names of all potential witnesses.
   c. Statements from all involved personnel and potential witnesses.

Sample Worker's Compensation Policy and Procedures

d. Photographs of the area where the reported injury took place (for everything except minor injuries). If possible and appropriate under the circumstances, obtain photos of the injury.
e. A narrative report of what the investigation revealed (to include information on whether or not safety procedures or applicable City policies were followed).
f. A recommendation for corrective action if appropriate (this includes a change to current safety procedures and/or specific disciplinary action for any employees who violated policy or safety procedures).

E. Upon learning of any new or change to a return-to-work condition, notify the Human Resources Department as soon as practical during normal business hours.

F. If the injury did not require off-site medical care, and the employee did not call phone triage service, the supervisor must ensure completion of the "Employee Injury or Near Miss" form and submit it to the Human Resources Department within eight (8) hours of being notified of the incident.

G. Complete the "Supervisor's Incident Investigation Form" form and submit it to the Human Resources Department within eight (8) hours of being notified of the incident.

H. If an employee is off work or in limited status due to a worker's compensation related injury, the supervisor should have, wherever reasonable feasible, contact with the employee at least one (1) time per normal workweek to obtain an update of the employee's status of the injury.

I. The supervisor shall be responsible to notify the Human Resources Department of any reported change in the employee's restricted status.

J. The supervisor who has a limited or light duty employee working for them is responsible to ensure that all restrictions are followed.

K. The supervisor for the affected employee – upon that employee's return to full work status – shall review appropriate safety procedures with the employee at some point during the first day the employee returns to work.

Section 4: Purchasing and Asset Management Division <u>Responsibility:</u>

A. Upon learning of a possible worker's compensation claim, notify the work comp third party administrator (hereafter known as the "TPA") by the end of the next business day.

B. If an employee injury is serious or if death occurs, notify the City Manager and TPA as soon as possible.

C. For cases of serious injury or death, respond to the scene and oversee the investigation.

D. If directed, investigate the incident and provide a detailed report as to the situation that led up to the injury, witness statements, photographs of the scene, photographs of the injury (if

Sample Worker's Compensation Policy and Procedures
possible and appropriate under the circumstances), and what, if any, policies were violated. Provide a recommendation for policy or process improvement, if any. E. Complete all work comp TPA required forms, whether in print or on-line format, in a timely manner. F. Notify the work comp TPA and the appropriate department head of any change in the employee's restricted status. G. Notify the work comp TPA of the current status of the employee upon that employee being assigned light duty work or with any change to the employee's job assignment (such as his or her return to full duty). H. After initial return to work, should the employee again take time off related to the original injury, within twenty-four (24) hours, notify the work comp TPA to determine the appropriate course of action. Section 5: Follow Up Office Visits and Treatment: A. Medical office visits or treatment for all employees during non-work hours will be unpaid. Employees who schedule work-related injury medical appointments may attend those appointments during work hours with their supervisor's approval. 1. If the office visit plus travel time away from work exceeds two hours, additional time may be granted by a supervisor if the employee provides a written statement signed by the health care provider explaining the reason for the extended office visit. 2. If such time is payable, the time off during scheduled work hours shall be reported to the Human Resources Department, who shall report the time to the work comp TPA for office visit or treatment payment. 3. Employees must provide supervisor notification of any work-related office visit or treatment as soon as possible, but no later than 24 hours after the office visit or treatment session. Section 6: Non-Work-Related Injury Restrictions: A. Employees with medical restrictions due to non-work-related injuries shall not be allowed to work in any capacity for the City without review of the restrictions and permission from the Human Resources Department. Section 7: Light Duty Work A. A goal of the City is to return the employee back to work as soon as possible. In some circumstances, it may be appropriate to create a limited or "light" duty position for the employee for a limited period, consistent with the work restrictions listed by the employee's physician. Nothing contained herein shall be construed to create a guarantee that the City will offer light duty work to an employee. Any offer of light duty work is at the City's discretion.

Sample Worker's Compensation Policy and Procedures

B. The appropriate supervisor shall work with the Human Resources Department to revise the employee's current job description to be reflective of each unique light-duty position created and ensure that essential job functions are listed. Physician restrictions shall be incorporated into the job description.

C. The "Total Temporary Disability" (TTD) portion of a worker's compensation claim may be denied if an employee is offered light-duty work and that employee refuses the assignment. If offered light-duty work, the employee is expected to accept it. If an employee fails to accept the light-duty job assignment that employee shall not be paid by the City except if they choose to use their own accumulated leave balance.

Section 8: Payments:

A. All employee medical bills resulting from a work-related injury shall be submitted directly to the work comp TPA for processing and payment.

B. Worker's compensation payments for Temporary Total Disability (TTD) are processed and paid by the work comp TPA directly to the employee.

C. If an employee is totally restricted from work by a physician, unless it is known that the time off will be fourteen (14) or more days, the employee must use sick, vacation, or compensatory time for any time missed the day of the injury and for three days after the injury. If the time off from work extends past three days after the date of injury, worker's compensation (if approved) would take effect and the employee will be compensated at the Worker's Compensation approved rate of pay beginning the fourth day after the injury.

   a. If TTD payments are approved by the work comp TPA, and if the first three (3) days are deemed payable, the work comp TPA will make retroactive payment to the employee for the three lost workdays, and the City will go back and replenish the employee's sick, vacation, or compensatory leave balance at 100% for the three days after the date of injury for which the employee took leave.

   b. Upon payment by the work comp TPA for the three lost workdays, the employee shall be responsible to repay any benefit time paid out by the City covering the same three lost workdays.

D. Until a claim is approved by the work comp TPA, an employee will only be paid by using his or her own accumulated leave balances. If TTD payments are approved by the work comp TPA, the City will go back and replenish the employee's sick, vacation, or compensatory leave balance at 100% for all applicable time after the date of injury for which the employee took leave.

E. In the event a claim is denied by the work comp TPA, any bills for medical claims paid by the City, or temporary total disability (TTD) benefits paid to the employee by must be reimbursed to the City.

F. The supervisor of an employee who is off work, due to total restrictions imposed from his or her physician, shall complete the employee's time sheet and submit it at the same time and in the same manner as regular time sheets.

Adoption of a comprehensive worker's compensation policy will enhance the City's ability to better manage its worker's compensation investigations with the goal of reducing its dollar losses and its rate of claims per 100 employees so that those claims are at or lower than the national average for state and local governments.

Recommendation: Adopt a comprehensive worker's compensation investigation policy.

(4) Improve Inventory Management of City Assets

Staff were unable to say when the last inventory of assets was completed but they were able to say that it was not within the past year. The City's annual audit is not responsible for ensuring a complete accounting of City assets and a complete inventory of assets under management should be completed at least once annually by someone not responsible for the inventory. The Purchasing and Asset Management Division is an appropriate group to complete the City's inventory process.

To reduce the inherent risk of inventory theft or misuse, inventory audits are beneficial. At least three times during random intervals throughout the year, employees from the Purchasing and Asset Management Division should sample at least five inventory items per department to ensure items are present.

Estimated staff time to complete quarterly inventory audits is 10 hours per audit, or 30 hours annually. The estimated time to complete the annual inventory of City assets is 80 hours.

Recommendation: Ensure a complete inventory of capital assets occurs at least annually.

Recommendation: Audit a sampling of inventory at least three times annually.

2 Staffing Projections

The Human Resources Division has four positions: HR Manager, Senior Generalist, Generalist, and Administrative Assistant. The Purchasing and Asset Management Division has three positions: Purchasing and Asset Manager, Risk and Safety Specialist, and Senior Purchasing Specialist.

(1) Current Staffing Analysis

During discussions with staff and an evaluation of the positions, it was noted that the existing staff feel there is additional capacity to handle any potential growth in workload in the foreseeable future. The more pressing concern for the Division appears to be the classifications utilized – where the differentiation in duties between the Senior HR Generalist and HR Generalist are not well defined and the differentiation is potentially not necessary for the successful operation of this division. If these positions are addressed during the classification and compensation study, immediate needs related to staffing within the division should be addressed.

Staffing metrics from SHRM and IPMA indicate a wide-range of staffing allocations for human resources staff ranging from 1 HR staff per 100 to 1 HR staff per 250 employees. Currently, Schertz is close to the 1 per 100 staff ratio and appears appropriately staffed. If staff increases across the entire organization increase beyond those recommended in this study (or at a faster pace), the staffing for HR functions (specifically related to recruitment and selection activities) should be reviewed to ensure appropriate resources are allocated to this critical functions. With a ten-year projection of the potential for an additional 93 positions, it is estimated that 1 additional position would be needed at some point near the end of the projection. For planning purposes, we have proposed .5 in 2025 and converting to a full-time position in 2030. As an internal service functions, every other department in the City is dependent upon the Human Resources Department providing timely and accurate service to them and one of the most critical of these is the recruitment and selection of new employees.

The Procurement Division provides internal services to City departments with major drivers of workload related to the number of formal and informal bids processed, the number of contracts reviewed and processed, the number of items auctioned, safety training and worker's compensation management, completion regular inventory counts, and the number of purchase orders processed throughout the year.

The following parameters were used in the Purchasing and Asset Management Division staffing model:

- Times are estimated and averaged while taking into consideration that each function can take varying amounts of time to complete based on its complexity (auction items are always posted but not always sold, which more time is consumed when an item is sold; one RFP might take 8 hours to complete while another more complex one might take in excess of 80 hours; etc.).

- An average of 30 minutes per day of “admin/other” time, per employee, is projected.
- The Division Manager’s time is excluded from the calculations.
- Staff are available to work 225 days annually when accounting for holidays, vacation, sick leave, training, etc. (252 working days in 2020 minus an average 27 days for vacations, sick leave, and holidays).

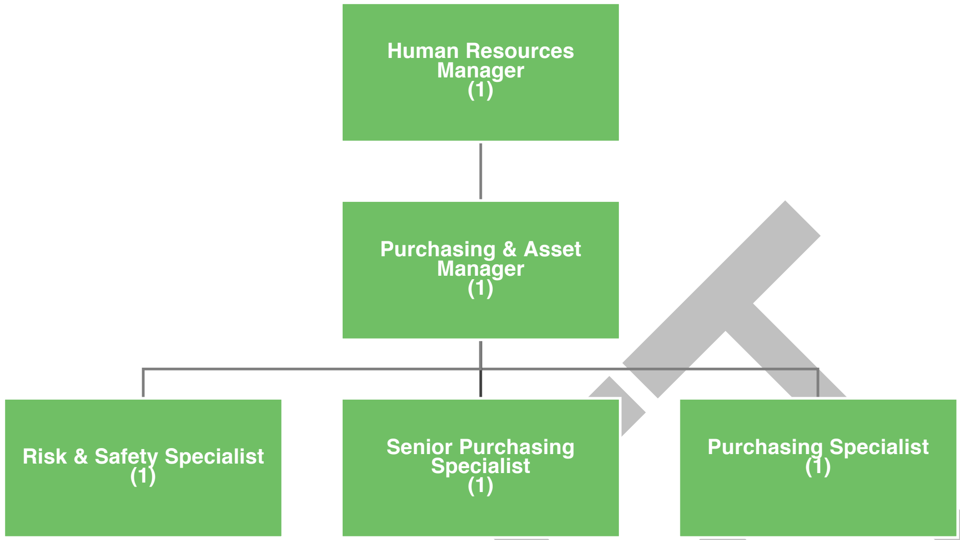
Workload Type	Annual Workload	Time in Hours	Total Hours	Total Days
Processing PO’s	10,812	0.2	2,162	270.25
Buying	48	3	144	18
RFP/Q Prep/Issuance	26	40	1,040	130
Fixed Asset Modification	47	0.5	23.5	2.94
Contract Administration	90	2.5	225	28.13
Auction Item Mgt.	312	0.5	156	19.5
Inventory Mgt.	12	12.5	150	18.75
Safety Training	12	4	48	6
Work Comp Mgt.	45	16	720	90
Administrative/Other	225	1.5	337.5	42.18
Total			**5,006**	**625.75**
Required Staff			**2.78**	

As the Division Manager’s time is excluded from the above workload calculations, the Purchasing and Asset Management Division requires an additional employee to meet current workload demands. An appropriate classification to meet current and future needs is that of Purchasing Specialist.

Recommendation: Create and fill a position of Purchasing Specialist

The following provides the proposed organizational chart for Purchasing and Asset Management:

Proposed Purchasing and Asset Management Organizational Structure



Implementation of the proposed organizational chart will allow the Purchasing and Asset Management Division to align staffing levels with existing workload demands.

(2) Projected Human Resources and Purchasing and Asset Management Department Staffing Requirements

The City is estimated to grow in population by 2.9% per year from 2020 through 2030. As an internal services function, workload is anticipated to increase as other departments in the City grow. The size of the City's budget, the number of capital items under management, the need to issue additional purchase orders and create new RFP/Q's, and the necessity of maintain excellent safety programs for City employees will all play a factor for the Division's future staffing needs.

The Division Manager position does not scale. The other positions in the Division scale based on workload, including the number and value of purchase orders issued, the number of informal and formal bids issued, and the number of contracts reviewed/processed.

Based on projected increases in City population and housing growth over the next 10 years, workload demands for Human Resources and Purchasing and Asset Management are estimated to increase by 15% by 2025 and 30% by 2030.

The following table illustrates the staffing recommendations for Human Resources & Purchasing and Asset Management over the next 10 years:

Unit	Employee Classification	Projection Factors	2020 Authorized	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
HR	**Director**	Management position; does not scale.	1	1	1	1	1	1	1	1	1	1	1
	HR Manager	Management position; does not scale.	1	1	1	1	1	1	1	1	1	1	1
	Sr. HR Generalist	Scales based upon number of employees, workload and assigned duties.	1	1	1	1	1	1	1	1	1	1	1
	HR Generalist	Scales based upon number of employees, workload and assigned duties.	1	1	1	1	1	1.5	1.5	1.5	1.5	1.5	2
	Administrative Assistant	Scales based on size of organization	1	1	1	1	1	1	1	1	1	1	1
Purchasing & Asset Mgmt	Purchasing & Asset Manager	Executive position; does not scale	1	1	1	1	1	1	1	1	1	1	1
	Risk & Safety Specialist	Support position; scales at 1 per Department	1	1	1	1	1	1	1	1	1	1	1
	Senior Purchasing Specialist	Scales based on workload.	1	1	1	1	1	1	1	1	1	1	1
	Purchasing Specialist	Scales based on workload.	0	1	1	1	1	1	1	1	1	1	1
Purchasing & Asset Management Division TOTAL			***3***	***4***	***4***	***4***	***4***	***4***	***4***	***4***	***4***	***4***	***4***

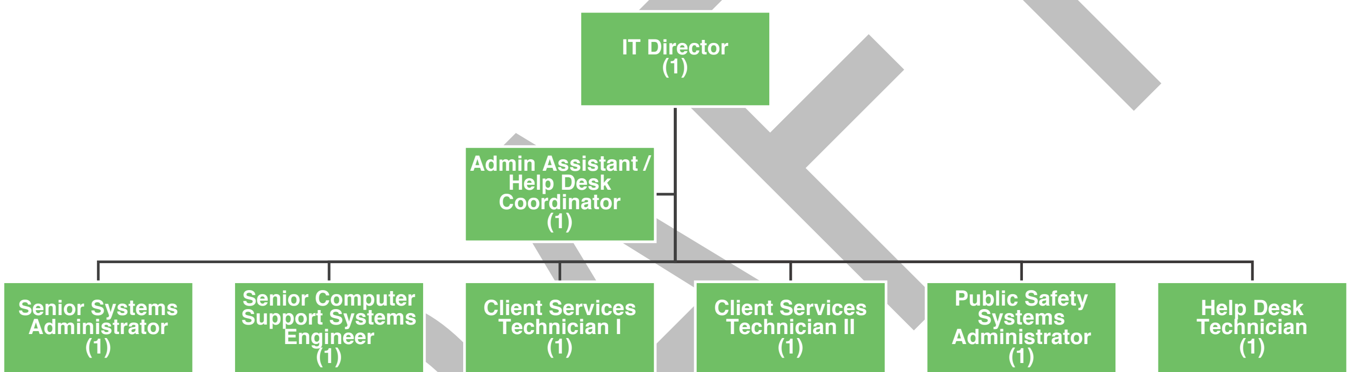
Based on the creation of the Purchasing Specialist position recommended above, no additional positions are anticipated in the Purchasing and Asset Management Division in the next 10 years. Purchasing & Asset Management Division workload is estimated to reach 3.7 FTE's in 2030 and as such the Division should evaluate workload at that time to determine if an additional employee is needed.

With a ten-year projection of the potential for an additional 93 positions, it is estimated that 1 additional position would be needed in Human Resources at some point near the end of the projection. For planning purposes, we have proposed .5 in 2025 and converting to a full-time position in 2030

12 Information Technology

The Information Technology Department consists of eight (8) FTE employees. Staff are responsible for maintaining, operating, and ensuring the security of the City's information technology needs. Staff maintain both system hardware and software and perform daily customer service functions for staff in all departments related to technology utilization, troubleshooting, and repair.

The following organizational chart shows the organization and reporting structure of the Information Technology Department.



1 Operational and Technological Changes Needed

The Information Technology Department does an excellent job overall in numerous aspects of its operations. While this list is not comprehensive, it highlights that the Information Technology Department is meeting best practices in several areas:

- The Department has an established disaster recovery plan in place.
- There is an active anti-phishing campaign.
- It makes effective use of firewall and antivirus technologies.
- There are numerous security protections in place
- Workorders are tracked and monitored.
- The Department enforces computer password security requirements.
- Email attachments are automatically scanned for potential threats.
- A helpdesk is in use and requests for service are tracked with a workorder system.

The following section identifies needed changes to operations or technology.

(1) Providing Additional Cybersecurity Training for City Employees Will Reduce the City's Risk of Harm from a Cybersecurity Incident

There are numerous and ever-changing cybersecurity threats toward local governments. These range from phishing schemes, spear phishing schemes, ransomware attacks, DNS (DDoS) amplification attacks, Telephony Denial of Service (TDoS) attacks, malware intrusion, and others. Numerous local governments have recently been victimized by fraud incidents in which someone claiming to be a vendor was able to convince the City to update the "vendor's" bank account information. Through a variety of cybersecurity-related methods, these people defrauded those governments out of millions of dollars when the government paid its "vendor" amounts due from invoices, only to learn that the new account they sent the money to be fraudulent.

Numerous other cities have fallen victim to ransomware attacks, often introduced into the City's server through am employee clicking on a link within an email. These ransomware attacks can cause significant disruption to operations if a third party is successful at locking the City out of its servers.

To help mitigate the risk of a ransomware attack or malware being introduced into the City's servers, the City conducts phishing security tests. These tests include sending employees an email (seemingly from an outside source) and seeing how many employees click on a link within that email. If the link had been from someone trying to gain access into a City computer system or otherwise introduce malware into a server, clicking on the link could unintentionally facilitate the attack.

In June 2019 the City's Phishing Security Test shows a clickthrough rate of 7.21%. The July 2019 clickthrough rate was 6.56%. For the June test, it means that of the 291 emails sent out in the test to 291 different City email addresses, 21 separate employees clicked on the link. Recommended practice is to always have the clickthrough rate from an anti-phishing campaign be 5% or less; however, ideally a City wants that number as close to zero as possible to best mitigate risk. The more employees are aware of cybersecurity risks and how those incidents occur, the more likely they will be to take appropriate precautions to protect the City.

The City does not currently spend much formal time educating employees on the multiple types of cybersecurity risks that exist or on how they can help prevent a cybersecurity-related incident from happening at the City of Schertz. The Information Technology Department should ensure that all City employees receive at least one hour of training each year related to cybersecurity training and education.

Recommendation: Provide at least one hour of cybersecurity training/education annually to all City employees.

(2) Technology Expertise Should be Maintained

Information Technology employees work with approximately 70 different software systems across all City Departments. The IT employees are responsible for either being Subject Matter Experts (SMEs) for those systems or knowledgeable enough to work with the software vendor SMEs to ensure all systems are working as designed. Additionally, IT employees may need to troubleshoot issues with each of those software systems as well as train City employees on software utilization.

With technology frequently changing and the need for IT employees to be able to quickly address software-related issues for every City Department, the IT Department should ensure that its employees receive adequate time each year to train and educate themselves on every system in which they work.

Recommendation: Continue to ensure at least one IT employee is a Subject Matter Expert (SME) for each software and hardware system in use by City Departments.

(3) The Creation of an Information Technology Supervisor Position Will Provide for Effective Supervision and Succession Planning

The Information Technology Department is currently organized to where all employees are direct reports to the Director, causing the organization to be very flat. The IT Director's span of control of 1:7. The lower the Director's span of control, the better an ability there is to spend time on important senior management tasks such as planning, organizing, staffing, directing, coordinating, reporting, and budgeting.

A narrow span of control provides a better ability for effective communication between manager and employees, it allows for improved feedback, it provides better control over subordinates, and it provides senior management with a better ability to focus on the core responsibilities of the position, rather than day-to-day supervision of all staff. Wide spans of control have advantages in certain situations as well, such as they cost less to implement, and in situations where all employees are doing the exact same function (i.e. working on an assembly line), it is more reasonable to have a flatter organizational structure.

With IT employees working across all City departments, with a current flat organizational structure, to be even more effective at the core responsibilities of leading a Department, and to improve supervisory spans of control, there should be a new Information Technology Supervisor position created. As discussed later in this Chapter, this will reduce the Director's span of control to 1:4 and create a span of control for the IT Supervisor of 1:5. Longer-term this position should be considered for reclassification to an Assistant Director position to provide greater managerial support and succession planning. While this could be done immediately, we recommend a phased approach by first implementing an IT Supervisor position before moving to an Assistant Director position.

Recommendation: In 2021, create and fill the position of Information Technology Supervisor.

2 Staffing Projections

There are currently eight authorized positions within the Information Technology Department: An IT Director, Administrative Assistant/Help Desk Coordinator, Senior Systems Administrator, Senior Computer Support Systems Engineer, two Client Services Technicians, a Public Safety Systems Administrator, and a Help Desk Technician.

(1) Current Staffing Analysis

The Department's major drivers of workload include the number and complexity of Citywide hardware and software systems, workorder quantity, the number of new and ongoing projects, employee cybersecurity training/education, and dedicated time commitments to further mitigate cybersecurity risks.

The position of Public Safety System's Administrator is dedicated to handling public safety IT-related functions. Department time estimates are that public safety work accounts for 39% of time utilization for IT staff. Because other classifications assist with public safety responsibilities and with the creation of a new IT Supervisor position, current staffing levels for the Public Safety System's Administrator classification are appropriate. As public safety IT-related complexities continue to grow, the Department should monitor workload for this unique position to determine if additional staffing levels are appropriate in the future.

Time utilization for IT-related functions vary drastically from project-to-project and therefore it is not appropriate to determine staffing levels based on the time it takes to complete a certain function (i.e. a workorder or managing a new project).

To assess appropriate staffing numbers, the following table shows workload metrics from FY18/19.

FY18/FY19 Information Technology Department Workload Metrics

Metric	FY 18-19
Performance Metrics	
Anti-phishing campaign clickthrough rate	6.56%
Workorders processed	3,000
Average days to complete a workorder	4
Desktops	400+
Switches	75
Servers	66
Data closets	7
Wiring closets	10
Firewalls	27
Firewall rules	450+
Time utilization utility services	13%
Time utilization support services	15%
Time utilization public safety	39%
Time utilization administration	9%
Time utilization citizen services	21%
Time utilization general government	3%

The workload data show there are three (3) FTEs currently working within the classifications of Client Services Technician or Help Desk Technician; each handling requests/workorders from City staff who need technology or computer assistance. In FY18/19 there were 3,000 work orders processed and while some of these were handled by other employees, it averages to approximately 58 work orders per week, or 19.23 work orders per employee per week.

Staff are available to work 225 days annually when accounting for holidays, vacation, sick leave, training, etc. (252 working days in 2020 minus an average 27 days for vacations, sick leave, and holidays). Using 3,000 workorders and 225 working days per employee as an average, this comes to 4.4 workorders per day, per employee. Some workorders are able to be handled over the phone while others require multiple employees working on an issue. Without adequate staffing and depending on the complexity of issues, this could cause delays in getting employees the results they need in a timely manner. To meet current workload demands the City should hire one additional Client Services Technician.

Implementing the staffing recommendation made earlier in this Chapter of creating a new position of Information Technology Supervisor will allow for adequate supervisory coverage and spans of control for IT operations. Additionally, this will be a working supervisor position to help manage information technology needs as the City continues to grow. The new supervisory position should be responsible for a core group of functions within the Department. Recommended functions are those related to computer support (Senior Computer Support Systems Engineer, Client Services Technicians, and the Help Desk Coordinator). This will reduce the Director's span of control to 1:4 and will create a span of control for the IT Supervisor of 1:5.

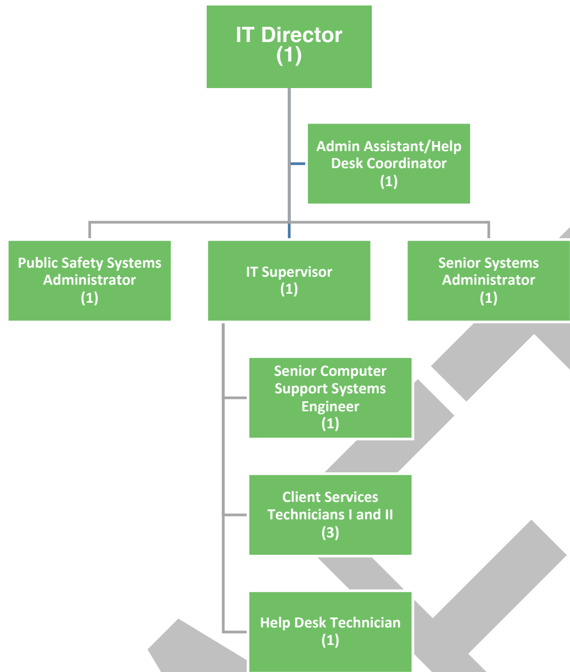
As part of implementing this new structure, the City should consider the implementation of two shifts for the IT function to expand the hours that services can be provided and to better support the organization's operational needs. Moving to a two-shift operation will not necessitate new positions but only reallocation of positions to a new shift. However, it will need to be planned in a manner that ensures that the positions are allocated to the new shift schedule in a manner that will enable the operational needs of the departments served to be best met.

Recommendation: Fill one additional Client Services Technician position.

Recommendation: Assign the newly created IT Supervisor position oversight responsibility for the Senior Computer Support Systems Engineer, Client Services Technicians, and the Help Desk Coordinator.

The following chart shows the proposed Information Technology Department Organizational Chart.

Proposed Information Technology Department Organizational Structure



Implementation of the proposed organizational chart will allow the Information Technology Department to align staffing levels with existing workload demands, it provides for a reduced span of control for the Director, and it allows for more supervision throughout the Department.

(2) Projected Information Technology Staffing Requirements

The City is estimated to grow in population by 2.9% per year from 2020 through 2030. As an internal services department, the Information Technology Department is expected to grow at an equal pace as other departments add more employees and implement new technologies. The recommended staffing adjustments contained in this report show a total of approximately 100 new positions over the 10-year planning horizon with almost half of these projected as necessary in the next several years. If these positions are implemented, the number of IT support positions should be increased to support these additional needs with an additional Help Desk position in 2022 beyond the one recommended based upon existing workload. Additional higher level support staff will be needed over the planning horizon if other departments significantly increase the number of systems they are implementing to further automate operations.

This means there will be an estimated 3,450 workorders by 2025 and 3,900 workorders by 2030. The additional 900 annual workorders over 2019 numbers will create four more workorders per workday for a single employee. This will necessitate hiring one additional Client Services Technician by 2030.

The following table illustrates the staffing recommendations for the Information Technology Department over the next 10 years:

Unit	Employee Classification	Projection Factors	2020 Authorized	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
IT	IT Director	Executive position; does not scale	1	1	1	1	1	1	1	1	1	1	1
	IT Supervisor	Supervisory position, scales based on workload and Department staffing levels	0	1	1	1	1	1	1	1	1	1	1
	Senior Systems Administrator	Scales based on workload.	1	1	1	1	1	1	1	1	1	1	1
	Sr. Support Systems Eng.	Scales based on workload.	1	1	1	1	1	1	1	1	1	1	1
	Client Services Tech/Help Desk Tech	Scales based on workload.	3	5	5	5	5	5	5	5	5	5	6
	Admin Asst/Help Desk Coord.	Unique position that does not scale	1	1	1	1	1	1	1	1	1	1	1
	Public Safety System Admin	Scales based on workload.	1	1	1	1	1	1	1	1	1	1	1
Information Technology Department TOTAL			***8***	***10***	***10***	***10***	***10***	***10***	***10***	***10***	***10***	***10***	***11***

As discussed earlier, the City will want to monitor workload demand for the Public Safety Systems Administrator to determine if Public Safety's IT-related needs require additional dedicated employees to public safety IT functions. Other Department employees will continue to assist the Public Safety Systems Administrator as necessary.

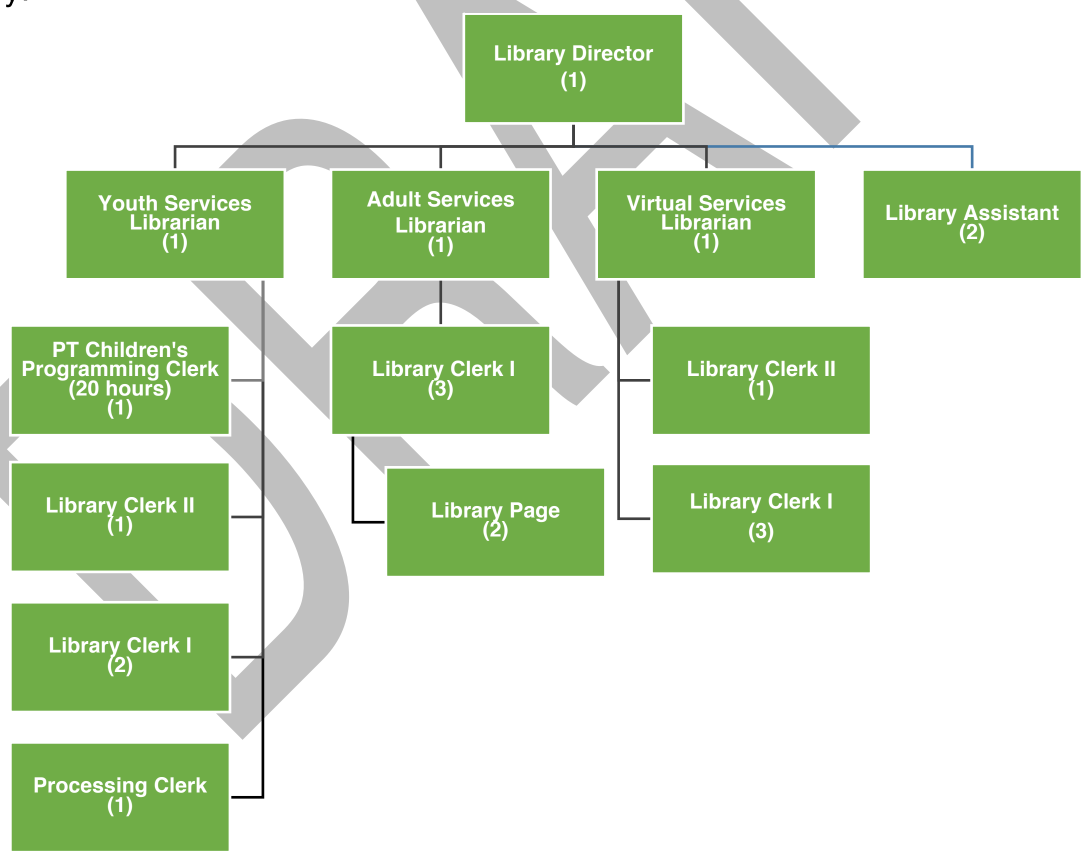
Recommendation: If additional positions in the City are implemented as recommended, an additional Client Services Tech/Help Desk Tech will be required in 2022. In 2030, increase authorized Client Services Tech/Help Desk Tech positions from 5 to 6 based upon projected workload.

13 Library

The Schertz Library supports literacy, recreation, and life-long learning by developing and maintaining a variety of materials and programs for users of all ages. Library services include public access to technology including computers, the Internet, wi-fi, printing services, completion of online employment applications, and other business or educational resources. The library provides meeting and study spaces for individuals and groups and there is an active effort for community outreach to serve underserved residents. The library cooperates and interacts with other libraries including using the integrated Connecting Texas Libraries Statewide system.

The library's primary service area includes the City of Schertz, the City of Selma, the City of Cibolo, and Guadalupe County.

The following organizational chart shows the organization and reporting structure of the Library:



1 Operational and Technological Changes Needed

The following section provides data and analysis related to operational or technical changes for the Library.

The Schertz Library does an excellent job overall. Community programming, outreach efforts, effectively utilizing technology, participating in an integrated library system, and offering numerous programs and services to all age groups are just some of the Library's areas in which Library services and staff excel. Additional best practices being met include, but are not limited to the following:

- Annual circulation per cardholder exceeds 12.
- Workflow mapping and procedures are written for important functions.
- The library makes effective use of services from book vendors (binder replacements, repairs, etc.).
- The library is open to the public during evening and weekend hours.
- The library's digital resources are publicized, advertised, and available to online users.
- Patron workstations exist for word processing, internet access, and printing.
- The library conducts regular user satisfaction surveys.
- On-going staff training and continuing education to stay abreast of emerging trends and practices in the library profession.
- The library has a long-term technology plan.
- Internal and public facing computers/software are replaced at regular and reasonable intervals.

There are limited areas however in which the Library could further improve its performance.

(1) Enhance the Library's Outreach Efforts

The Library places a high degree of importance on customer service and providing excellent services/service levels. With only one main library branch, the City should enhance its existing outreach efforts that currently include visits to area schools, senior living communities, senior centers, and other locations/events.

Numerous other libraries across the country have obtained a mobile vehicle, or "bookmobile", in order to enhance their customer outreach efforts. Communities in Texas that have employed this model include, but are not limited to, Austin, Denton ISD, Georgetown, Houston, Lake Travis, and Midland County. These mobile vehicles allow library staff to visit parks, shopping centers, and other community gatherings in order to bring the library services to citizens. These efforts are seen as enriching lives and strengthening community by providing the opportunity to use library services to those in the community who might otherwise not be able to visit the main library branch due to economic, transportation, or geographic barriers.

A photograph of the New York Public Library's "Book Mobile" is shown below[5]:

To further enhance the Library's community outreach efforts, the City should consider obtaining a bookmobile. Either by direct purchase or through a combination of grants (if available), the City would be able to provide library services to a greater number of people while at the same time help reduce the risk that the library could lose State accreditation (discussed later in this section).

Recommendation: Consider obtaining a bookmobile to further enhance the Library's outreach efforts in the three to five years.

(2) Increase Per Capita Spending

The Library is currently at risk of losing State accreditation due to not having spent enough money per capita in prior years. Using a service population (per capita) number of 105,629 (the most recent number used by the Texas State Library and Archives Commission) the City needs to spend a minimum of approximately $71,000 more than the prior year in the current fiscal year. The Library's most recent per capita expenditure was $9.12 per capita. The minimum per capita spend required for the Schertz library is $9.79; however, the per capital amount is increasing to $9.98 in 2020 and 2021 and again to $10.18 in 2022.

[5] https://www.6sqft.com/the-nypl-is-rolling-out-the-bookmobile-this-summer/

In order for the Library to remain accredited, the City needs to spend another estimated $91,000 in the upcoming fiscal year and an additional $21,000 on top of that in 2022. These numbers do not assume per capita growth. Assuming an average 3% population growth (2.9% is the estimate from the City's Comprehensive Plan), then by 2021 the service population is estimated at 115,424 and 118,887 in 2022. Taking into account the estimated increase in service population and in order to achieve the required per capita spending of $9.98 in 2021 and $10.18 in 2022, the Library will need estimated additional expenditures of $99,000 in 2021 and another $24,000 in 2022, all over 2018 levels.

The following exhibit shows a screenshot of the Library's online annual report regarding minimum per capita expenditures:

Screenshot from Annual Report Showing Minimum Per Capita Expenditures

ITEM #17: Minimum Per Capita Expenditures			
2018 Per Capita Expenditures 2018.4.2/2018PopSrvd	$9.12013746	**AMOUNT NEEDED**	**$70,756.91**
Amount needed to meet minimum per capita	$9.79		
Difference	$ (0.669862540)		
Next Year's MOE Estimate			
2019 Estimated Maintenance of Effort	**$917,681.33**		
Calculation: [(2016 4.2)+(2017 4.2)+(2018 4.2)]/3			
Previous years' data used to derive averages for minimum expenditure requirements.			
.Within the last three years, the number of years the library has been accredited		Member Year	3
2017 Population Served	102,379	2017(4.2) Local Operating Expenditures	$920,103
2016 Population Served	98,625	2016(4.2) Local Operating Expenditures	$869,590
2015 Population Served	95,662	2015(4.2) Local Operating Expenditures	$867,490

Glossary of terms	
Population Served	Assigned population for the library 13 T.A.C.§1.71
Expenditure Average	Average of expenditures for the 3 previous years. (May be less than 3 if the library
Per Capita Average	Per capita average of expenditures for the 3 previous years. (May be less than 3 if
Per Capita [Expenditures]	Total Local Expenditures divided by Population Served
Per Capita Government Support	[Required amount in 13 T.A.C.§1.81(A) ÷ 2] x 2018 Population Served
Minimum Expenditure Average	Minimum level of per capita expenditures per Rule13 T.A.C.§1.81(A) for each

Options for consideration include increasing staffing levels, increasing the amount spent on the Library's collection materials, purchasing a bookmobile, including indirect costs as expenditures for the annual report, or some combination thereof.

Staffing analysis and recommendations related to increased staffing needs are provided in Section 2 of this Chapter.

Recommendation: Increase per capita spending to meet minimum State accreditation requirements.

(3) An Administrative Assistant Position is Needed to Support the Library Director and Librarians

Currently, there is no Administrative Assistant or dedicated administrative support for the City's Library Director or any of the three Librarians.

While there is no definitive best practice or ratio to necessitate the need for an assistant, the lack of an Administrative Assistant assigned to assist library staff in the completion of their responsibilities results in the increased administrative workload on the Library Director and all three of the City's Librarians. A dedicated Administrative Assistant will increase efficiencies for Library staff.

Recommendation: Create the position of Administrative Assistant to support the Library Director and Librarians.

2 Staffing Projections

There are currently 19 authorized positions at the Library. These include the Library Director; an Adult Services Librarian, Youth Services Librarian, and Virtual Services Librarian; 11 Library Clerks; a Children's Programming Clerk; a Process Clerk; and two Library Assistants.

(1) Current Staffing Analysis

Major drivers of workload for the Library are its service population, gate count, circulation, and number of programs offered to all age groups.

The following table shows workload metrics for FY16 through FY18.

Library Workload Metrics

Metric	FY 15-16	FY 16-17	FY 17-18
Performance Metrics			
Staffing expenditures	$671,093	$728,195	$749,871
Operating revenues	$914,288	$898,584	$998,361
Books (print)	75,340	78,876	79,714
E-books	6,026	8,055	8,268
Total collection	96,627	108,652	111,153
Gate count	255,109	235,428	258,695
# of programs	478	543	528

Metric	FY 15-16	FY 16-17	FY 17-18
Volunteer hours	5,657	5,254	5,045
Square footage	30,300	30,300	30,300

The Library works to ensure the its front circulation desk is staffed with two employees at all times, its adult information desk has one employee at all times, and its children's information desk has one employee at all times. With current staffing levels, when an employee calls off sick or otherwise is unavailable to work, it often results in the closure of one or more circulation desks (or pulls other staff members from their normally assigned tasks and work activities – such as cataloging, inter-library loan, collection development, etc.). These closures result in longer wait times for customers (both immediately at the point of service and in the length of time it takes materials to get to the shelves or planned projects completed) and ultimately lead to undesirable service levels.

From July 20 through August 24, 2019, there were 63 hours of lost work time due to employee call offs, training, or staff meetings. These resulted in the closure of the Adult Desk for 16 hours. To maintain exemplary service levels, these challenges are best mitigated by improving Library staffing levels.

To further meet public demand for programming and services, and to help achieve compliance with State accreditation requirements for per capita spending, the Library should hire a second part-time Children's Programming Clerk or make the existing Children's Programming Clerk a fulltime employee, hire another Library Assistant, and hire an additional Library Clerk.

Recommendation: Improve service levels by hiring another Children's Program Clerk, another Library Assistant, and an additional Library Clerk.

(2) Projected Library Staffing Requirements

The City is estimated to grow in population by 2.9% per year from 2020 through 2030. The library's service population comes from areas both within and outside of the Schertz City limits. While this analysis does not account for projected growth outside of the Schertz City limits, as the library's service population comes from adjacent communities, 2.9% growth is assumed throughout the service population area. While time utilization estimates are used in certain other departments to help determine appropriate staffing levels, a more reasonable estimate of future library staffing needs is to consider the recommended current levels as the appropriate baseline and then increase staffing as needed based on estimated future workload.

Several library positions scale based on service population, gate count, circulation, and number of programs offered at all age groups.

The following table shows current and projected Library staffing needs:

Library Staffing Projections

Unit	Employee Classification	Projection Factors	2020 Authorized	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Library	Library Director	Executive position; does not scale.	1	1	1	1	1	1	1	1	1	1	1
	Administrative Assistant	Position does not scale.	0	1	1	1	1	1	1	1	1	1	1
	Adult Services Librarian	Unique position; does not scale.	1	1	1	1	1	1	1	1	1	1	1
	Youth Services Librarian	Unique position; does not scale.	1	1	1	1	1	1	1	1	1	1	1
	Virtual Services Librarian	Unique position; does not scale.	1	1	1	1	1	1	1	1	1	1	1
	Library Clerks	Scales based on workload.	11	13	13	13	13	14	14	14	14	14	15
	Children's Program Clerk	Scales based on workload.	1	2	2	2	2	2	2	2	2	2	2
	Process Clerk	Scales based on workload.	1	1	1	1	1	1	1	1	1	2	2
	Library Assistant	Scales based on workload.	2	2	2	2	2	2	2	2	2	2	2
Library TOTAL			***19***	***23***	***23***	***23***	***23***	***24***	***24***	***24***	***24***	***24***	***25***

While a recommendation is not specifically made to add an additional Librarian, the City could consider the addition of an additional Library later in the planning horizon if the City's population approaches 150,000 to maintain compliance with accreditation standards and to provide additional supervision to increased staffing.

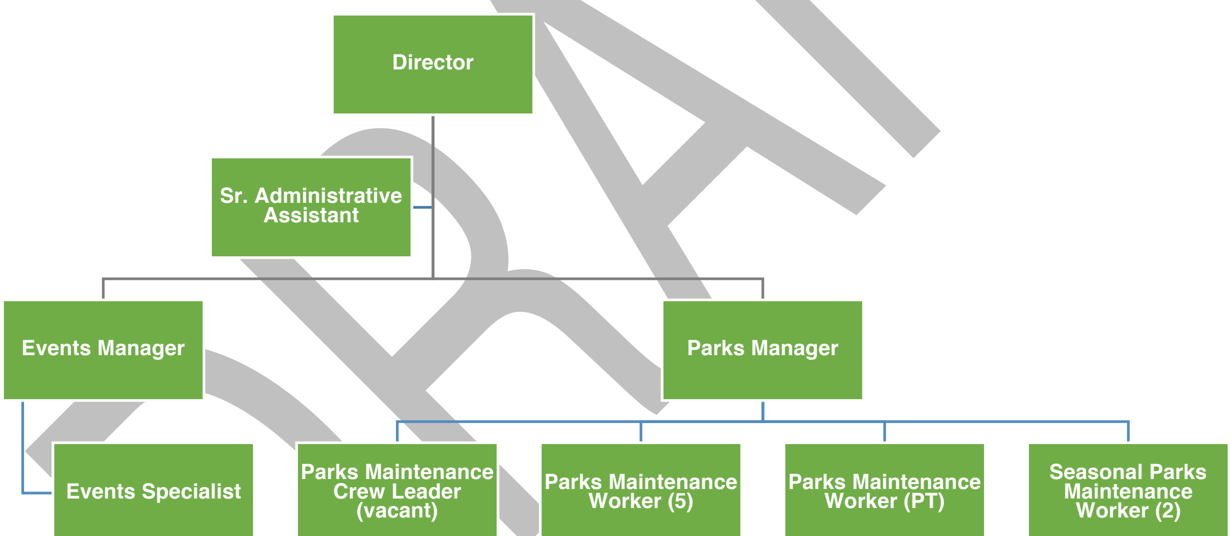
Recommendation: In 2025 increase authorized Library Clerk positions from 13 to 14.

Recommendation: In 2030 increase authorized Library Clerk positions from 14 to 15.

14 PARKS, RECREATION AND COMMUNITY SERVICES DEPARTMENT

The Parks, Recreation and Community Services Department consists of three divisions: Parks Maintenance, Recreational Services and Events. The Department provides recreational programming for youth and adults though programs for athletics, crafts, cultural and social programs. It also maintains and beautifies the City's 24 parks and coordinates City-wide events. The Department has a close working relationship with the YMCA, as that organization provides programming and management of the senior center, summer camps and pools. Finally, the Department, through its Events Division, coordinates and manages four major City-wide events each year, as well as approximately 20 other events.

The current organizational structure of the Department is shown in the following organizational chart.



1 Operational and Technological Changes Needed

This chapter provides an analysis of the major operational and technological changes required in the Parks, Recreation and Community Services Department.

(1) The Department Should Purchase and Install a Computerized Maintenance Management System.

The Parks Maintenance Division is responsible for the maintenance of 24 parks throughout the City. It accomplishes this through the efforts of both internal crews, consisting of a Crew Leader, four full time and one part time Parks Maintenance Workers, two seasonal Workers. These internal crews are supplemented by contractors who mow and trim the parks.

As work is performed in the parks, the Parks Manager records the work accomplished in an internal work recording system, referred to by the Parks Manager as “Teams.” Interviews indicate that the process of recording work involves the recording of hours worked, location and work performed by each crew member, however this is reported in text form, which does not facilitate summarizing work.

The project team recommends that the Department procure and install a computerized maintenance management system (CMMS) that will allow the Parks Maintenance Division to report and analyze the efficiency and effectiveness with which it accomplishes work. This is not facilitated by the current method of recording hours worked in text form. The CMMS should capture the following discrete elements:

- Date
- Location
- Work Category (e.g., “playground inspection”, which should have an alpha-numeric assignment, such as PI0001, for example)
- Crew Member Name (the name should be cross-referenced to a numerical identifier)
- Hours Worked
- Equipment Used
- Equipment Hours
- Materials Used
- Materials Costs
- Contract costs (if applicable)

The objective of this work accumulation method is not simply to record the work that has been accomplished, although this is certainly one benefit. The main objective, however, is to enable an analysis of the efficiency and effectiveness with which the work was accomplished, and to facilitate a comparison to, for example, comparable costs which are available through contractors. In addition, the CMMS will allow the analysis of the utilization of crews. For example, a benchmark of 70% of all individual Maintenance Worker time should be expended in work that is directly attributable to a work order.

The City’s Public Works Department utilizes the Web QA platform as its CMMS, and although the project team makes no recommendation regarding the appropriateness of any single CMMS, there is some value in the two City departments that are primarily involved in maintenance of infrastructure utilizing the same CMMS. This is true from a cost standpoint (it is likely less costly to utilize the same platform) as well as from the standpoint of standardizing the reporting of work up the organizational structure to the City Manager and to the Council. In addition, utilizing the same CMMS across departments has the advantage of presenting a unified interface with residents who make work requests of both departments. As will be discussed in the Public Works chapter, the existing Web QA platform as implemented does not provide the advanced features desired in an asset management/CMMS system that the City of Schertz will need in the future.

Recommendation: The Parks, Recreation and Community Services Department should purchase and install a robust computerized maintenance management system that facilitates the recording and analysis of work accomplished.

Recommendation: The Department, in conjunction with Public Works, should investigate the feasibility of utilizing the same computerized maintenance management system for city-wide use.

(2) The Parks Maintenance Division is Under-Staffed to Provide an Acceptable Level of Maintenance for Its Parks.

Desired staffing levels can be benchmarked based on the type of park acreage noted above and what service levels are applied to that park acreage. By example, fully developed parks that receive very high service levels will require the greatest staff resources. Conversely, park land with no facilities can receive minimal services. The broad industry guidelines that the Matrix Consulting Group has evaluated relate the ratio of park maintenance workers to acres under maintenance for various service levels ranging from "A" to "D".

The following table provides the basic definition for each of these service levels.

Service Level	Service Level Definition and Required Maintenance Staffing
A	State-of-the-art maintenance applied to a high quality, diverse landscape. Turf is lush, free from weeds and cut to a precise level. Plants and trees in parks are pruned for safety, tree health and ornamental beauty. Hardscapes are regularly swept and litter is collected 5-7 times per week. Requires one park maintenance worker per 4 to 6 developed park acres.
B	A reasonably high level of maintenance associated with well-developed park areas with higher visitation rates. Major difference with Service Level "A" is turf is not cut on frequent, regular intervals at precise level and plants and trees in parks are not pruned and trimmed at the same frequency. Litter control is periodic and hardscape maintenance is less frequent. Requires one park maintenance worker per 6 to 10 developed park acres
C	The lowest expected service level for fully developed parks or a moderate level of maintenance associated with park locations of large size, of average development, and/or visitation. Maintenance is accomplished, usually with longer service intervals, to keep the park safe and minimally serviceable to the community. This level requires one park maintenance worker per approximately 12 to 18 park acres.

Service Level	Service Level Definition and Required Maintenance Staffing
D	A minimal service level to parklands or open space with no facilities with the intent to maintain safe grounds and a "natural" ambience. Generally, inspection services and litter control are conducted, but on an infrequent basis. Usually such services are conducted as "fill-in" work by staff but otherwise one park maintenance worker can cover several hundred acres of undeveloped parkland or open space.

The above park maintenance service levels can help frame alternative levels of service that can be provided when maintaining a park system. These modes of service, as formally defined by the NRPA, are further discussed below.[6]

- **Mode A** is state-of-the-art maintenance applied to a high quality, diverse landscape usually associated with City-owned core facilities, destination parks with high levels of visitation, championship golf courses, and the like. Mode A locales have the following characteristics:

  - The turf is lush, dark green in appearance, of high quality and free from weeds, insects, fungus, or any foreign grasses.

  - The turf is cut to a precise level and groomed weekly on a consistent schedule. Trimming along all lawn edges is performed concurrent with mow services.

  - Plants and trees are pruned, trimmed, and shaped to ornamental beauty and are free from insects or fungus.

  - Planter beds are well raked and cultivated weekly and are free of any weeds, grass, or any foreign matter. Significant color planting (flower beds) is noted throughout the park network.

  - Irrigation systems are constantly maintained and tested weekly. There are no brown spots in the lawn as a consequence of irrigation issues or under watering.

  - Litter and/or other debris is removed daily along with emptying trash receptacles.

  - Reseeding and sodding are done rapidly whenever bare spots are present.

- **Mode B** is a high level of maintenance associated with well-developed park areas with reasonably high visitation. Mode B level of service is similar to Mode A level

[6] *Operational Guidelines for Grounds Management*, National Recreation and Park Association, 2001

of service, with a major difference being the degree of plant and turf grooming. The turf has a lush green appearance and is relatively free from weeds and foreign grasses (less than 5%). Precise cutting and mowing (e.g. golf course-like) however, is generally not practiced. Plants and trees are trimmed, pruned, and shaped but not with the same level of frequency. Planter beds are generally free from major weeds, debris, or grasses, but flowerbeds are not as extensive throughout the park network.

- **Mode C** is a modest level of maintenance associated with locations of moderate to low levels of development and moderate to low levels of visitation. Mode C facilities have the following characteristics.

  – Turf management such as mowing, reseeding and sodding, weed control, fertilization and irrigation are practiced to maintain generally healthy grass. However, turf maintenance services are applied less frequently than other maintenance modes (levels). Turf areas under this service level are generally not useful for a variety of high-traffic organized sports and leisure activities (e.g., soccer) unless turf degradation (browning, bare patches, etc.) is tolerable over the course of a season.

  – Weeds and mixed grasses are tolerated in the turf and are considered minimally intrusive since turf conditioning and mowing is practiced on a scheduled basis.

  – Turf edging is performed monthly conducive to a generally neat appearance for a larger portion of the time.

  – Litter and/or other debris are removed weekly. Trash receptacle maintenance can be problematic in certain instances of high activity as refuse is not removed on a more frequent basis.

  – Plants and trees are trimmed and pruned annually to ensure proper growth, risk reduction (e.g. falling limbs), and to maintain a reasonably healthy appearance.

  – Planter bed areas are weeded and cultivated at four-month intervals so wild weeds or grasses may be present for shorter periods of time prior to scheduled maintenance. They are tolerated at this level as long as they are small in size and the area covered with weeds is minimal.

- **Mode D** level of service is for areas in which maintenance is reduced to a minimum. Such areas do not have developed turf or irrigation systems. These areas are maintained only to the extent necessary to control growth to reduce fire hazards and keep native vegetation alive and healthy during the growing season and to eliminate unsafe facilities. However, these facilities will need variations in the level of service defined based upon the type of open space.

These staff to acreage and mode-of-service approaches can be used to frame projected staff resource needs for park maintenance and ultimately determine the efficiency and effectiveness of assigned personnel. The Parks Maintenance Division is responsible for the maintenance and care of 417.4 total acres, including both parks and athletic fields, of which 326.7 is estimated to be developed, or "mowable" acres. In addition, the Division contracts with a private company to mow its parks on a cycle of 36 times per year on campuses and 18 times on parks, for $115,000 annually.

To determine the average parks acreage maintained by contracted crews, the project team obtained the total annual contract amount of $115,000. This cost was divided by the average salary and benefits paid to a Parks Maintenance Worker I in the City ($42,107.52) as an estimation to obtain the number of hours expended by contracted staff. This results in the equivalent of about 2.73 FTEs ($115,000 divided by $42,107.52) added to the six FTEs in the Parks Maintenance Division for a total of 8.73 FTE involved in maintaining the City's parks. Therefore, each worker involved in maintaining the City's parks is responsible for an average of 37.4 developed acres, which is well above a "C" level of maintenance and would be considered a "D" level for most parks' acreage.

The definition of desired service levels for any municipality is a decision that must be made by City management in concert with both the public and the Department of Parks, Recreation and Community Services. However, it is uncommon for a City to opt to maintain its parks at a "D" level.

The project team recommends that the Parks Division immediately hire three (3) Parks Maintenance Workers I to lower the average developed acreage per worker from the current 37.4 to an average of 27.8, which is still a "D" level of maintenance.

Recommendation: The Parks Maintenance Division should hire three (3) Parks Maintenance Workers I positions.

(3) The City Should Consider the Transfer of the Parks Maintenance Division to the Department of Public Works.

The Parks, Recreation and Community Services Department's Maintenance Division is responsible for maintaining 24 parks throughout the City through the efforts of five full time, one part time and two seasonal workers, in addition to contract labor. They perform these services in parallel to the Public Works Department crews who are, in many cases, operating in close proximity.

The field crews in the two departments perform maintenance services that are, in many cases, similar and require similar skills. The Parks Maintenance crew possesses diverse skills that include carpentry, sidewalk repair expertise, roof work, minor plumbing, fence building, heavy equipment operation, and others. These skills are also required within the Public Works Department to varying degrees and could complement the efforts of staff in that Department under a single management structure.

There are advantages and disadvantages to the placement of the parks' maintenance function within either Parks, Recreation and Community Services or Public Works. Clearly, the major advantage to the placement of the function in its current organizational location is that the parks and athletic fields receive dedicated maintenance and oversight, and response times to maintenance-related complaints are likely somewhat faster than if the function competed with other public works-related services. However, there are also advantages to placing parks maintenance within Public Works. These include the use of similar equipment, similar skills of staff, and the ability of Department managers to cross-utilize staff, which increases the utilization and overall skills sets of individual employees. While maintenance work occurs year round, there is a higher level of maintenance required during the months of March through October with decreased field work in the winter months.

This transfer would result in the addition of a new division in the Public Works Department, composed of the current Parks Maintenance staff members (supplemented by the addition of the three staff recommended elsewhere in this report) who would perform the same duties they currently are responsible for providing, but would be available to assist others in the various other Public Works divisions, and would be able to procure assistance from these same staff members as needed, and as the Public Works Director and subordinate managers direct. The project team recognizes the specialized trades and equipment-operational skills of the both the parks maintenance staff and those of Public Works employees. This organizational consolidation is viewed as a way to transfer these skills and to expand the overall expertise of Public Works employees.

In summary, the advantages and disadvantages associated with the transfer of Parks Maintenance function from Parks, Recreation and Community Services to Public Works are provided in the table below.

Advantages	Disadvantages
Central command of deployment of staff results in more normalized utilization among staff members	Possible lag in response to park maintenance issues as compared to current deployment.
Greater ability to deploy staff to fill in workload peaks and valleys throughout the year	Greater need to coordinate field and event preparation between departments compared to current model.
Centralized control of equipment utilization may result in ability to eliminate certain duplicated equipment.	

Advantages	Disadvantages
Cross-utilization of staff between parks maintenance and other functions in DPW will result in a broader base of expertise in all areas.	

The transfer of parks maintenance functions to Public Works is not without its challenges, as the table above makes clear. However, it provides the City with certain efficiencies that are not available under the current model whereby parks maintenance is performed solely by the Parks, Recreation and Community Services Department.

Recommendation: The City should transfer the Parks Maintenance Division staff and equipment to the Public Works Department.

2 Staffing Projections.

The primary drivers of staffing requirements in the Parks, Recreation and Community Services Department vary with projected park expansions. park acreage per resident was used as a proxy and projected based upon population growth forecasts to project future park expansion. The positions of Director, Events Manager and Parks Manager do not scale, and are expected to remain at a single employee in each position over the planning horizon.

The position of Senior Administrative Assistant is assumed to vary with the number of employees supported, however, given the relatively small number of employees, the number of Senior Administrative Assistants is expected to remain at one.

The staffing drive for the Events Specialist is assumed to vary with the number of events supported, however given that there are no reliable estimates for this over the planning horizon, the proxy for this is population increase. Given the expected increase in population there is no projected need for another Events Specialist over the single incumbent currently in the Department.

In projecting the staffing needs in the Maintenance Division, the project team has assumed that the current total acreage per thousand residents will be maintained throughout the planning period. It should be noted, however, that the current level of 8.73 total acres per resident in somewhat below the national average of 13.1, according to the 2017 publication, “Trust for Public Land’s City Parks”.

The project team has made the recommendation to increase the number of full time Maintenance Workers from four to seven in the current year, in keeping with the current ratio. Given the anticipated growth in population over the planning horizon, it is expected that the need for Maintenance Workers will increase from the recommended seven, to nine by 2030. The project team makes no recommendation for increase in part time and seasonal Maintenance Workers. The position of Crew Leader is expected to vary with the staff under supervision, however given the small numbers of staff and the limited span of control, the project team makes no recommendation for an additional Crew Leader over the planning horizon.

Unit	Employee Classification	Projection Factors	2020 Authorized	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Administration	Director	Executive position; does not scale.	1	1	1	1	1	1	1	1	1	1	1
	Sr. Administrative Assistant	Varies with staff supported	1	1	1	1	1	1	1	1	1	1	1
Events	Events Manager	Position does not scale	1	1	1	1	1	1	1	1	1	1	1
	Events Specialist	Varies with # of events handled	1	1	1	1	1	1	1	1	1	1	1
Parks Maintenance	Parks Manager	Position does not scale	1	1	1	1	1	1	1	1	1	1	1
	Parks Maintenance Crew Leader	Varies with numbers of crews	1	1	1	1	1	1	1	1	1	1	1
	Parks Maintenance Worker	Varies with parks acreage	5	7	7	7	7	8	8	8	8	8	9
	Parks Worker I (PT)	Varies with parks acreage	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	Seasonal Parks Worker	Varies with parks acreage	2	2	2	2	2	2	2	2	2	2	2
TOTAL			**12.5**	**15.5**	**15.5**	**15.5**	**15.5**	**16.5**	**16.5**	**16.5**	**16.5**	**16.5**	**17.5**

Recommendation: One new Maintenance Worker position should be added in 2025.

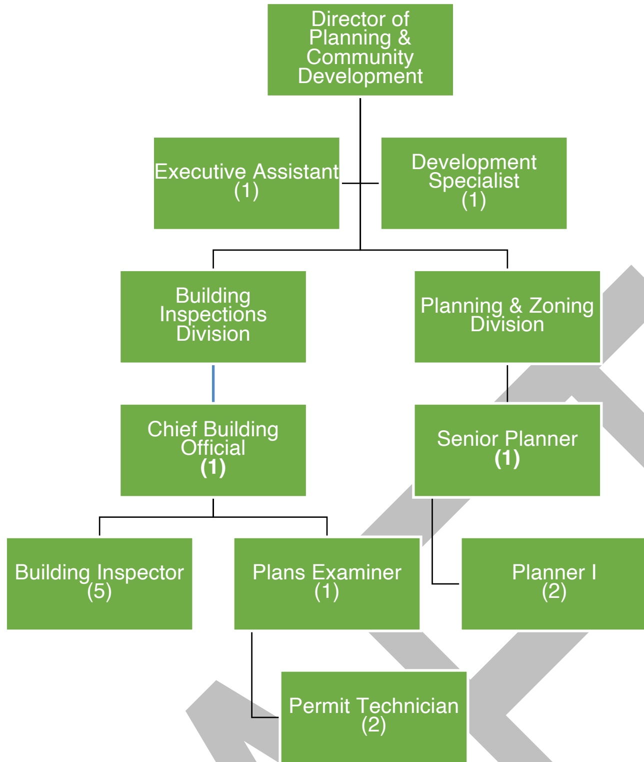
Recommendation: One new Maintenance Worker position should be added in 2030.

15 Planning & Community Development

The Planning and Community Development Department consists of two divisions: Planning & Zoning and Building Inspections.

The Planning & Zoning division is responsible for reviewing and approving plats, site plans, master plans, variances, zoning changes, specific use permits, Comprehensive Plan revisions, and annexation requests. The Division ensures planned and purposeful development with Schertz City limits and the City's Extraterritorial Jurisdiction (ETJ). Staff provide customer service and guidance to citizens, businesses, and developers to help them realize a successful development project.

The Building Inspections Division is responsible for inspection services for new residential construction, new commercial construction, reroof permits, accessory / temporary building permits, deck / patio permits, sign permits, and other miscellaneous permits. The Division assists customers seeking permits and inspections for a variety of residential and commercial construction projects. The Division ensures the health, safety, and welfare of people occupying structures in the City through the professional review of plans and permits while conducting thorough building inspections for compliance with required codes and ordinances. The following organizational chart shows the organization and reporting structure of the Planning and Community Development Department.



1 Operational and Technological Changes Needed

The Department has numerous standard operating procedures including an authority matrix to allow staff to ensure proper procedures are followed for a variety of approval processes. There are several Department process flowcharts with clear guidance, including the planning application process. Building Inspectors are well trained and hold a variety of State licenses and certifications. Additional best practices being met include, but are not limited to the following:

- Zoning ordinances are codified and available to the public in an online format.
- Authority for minor land entitlement permits is given to staff members.
- Inspections provides for online applications/requests.
- The Department notifies applicants of the status of their permit within five days of submittal.
- The cycle time for processing applications meets state requirements.
- The department holds pre-development and pre-construction meetings for new and proposed construction projects.
- Staff reports are clear and concise.
- Building inspection requests are responded to within one business day.
- Customer kiosks, computers, and printers are available in the lobby.
- Employees receive on-going training opportunities.

- Permit Technicians are used to provide customer service at the counter, online and by phone, conduct completeness check on submitted applications, and issue over the counter permits.
- Evening and weekend building inspections are available to the public on an emergency basis.

The following recommendation will further improve Department efficiency and effectiveness.

(1) The Use of a Master Building Plan Approval Process Will Expedite Approval Processes and Ease Department Workload

The master building plan approval process is a common procedure found in many other cities across the country. This process allows the permitting process to be expedited for standard or repetitively built floor plans. The "Master Plan" goes through the normal comprehensive review process; however, once approved, any plan that adheres to the drawings receives an expedited review and faster issuance of building permit. Plan Reviewers review drawings to ensure compliance with the Master Plan and issue building permits after reviewing the list of options included on any particular residential structure.

According to the City of Amarillo, TX website: "The Master Plan Program is an excellent opportunity for contractors who build the same model of homes a number of times. This program reduces the plan review turnaround time to 3-5 business days once the Master Plan has been approved…"[7]

To provide an even better customer experience and to reduce workload demand for plan reviewers, the department should implement a Master Plan Program.

Recommendation: Implement a Master Building Plan Approval Process to improve customer satisfaction and reduce plan review workload demands.

2 Staffing Projections

There are currently 15 authorized positions within Department. These include the Department Director and an Executive Assistant, ten positions in the Building Inspections Division and three positions in Planning & Zoning.

[7] https://www.amarillo.gov/departments/planning-and-development-services/building-safety/master-plans-guide

(1) Current Staffing Analysis

The Department's major drivers of Planning and Zoning workload include the number and complexity of comprehensive plan amendments, the number of new annexation requests, and the number and complexity of new cases (zoning, preliminary plats and extensions, final plats and extensions, variances, site plans, etc.).

Major drivers for Building Inspections workload include the number building permits issued for residential, commercial, and "other" projects (sheds, decks, etc.) and the number and complexity of inspections associated with those projects. The Chief Building Official is also the commercial plans examiner and this employee's time should be spent primarily on managing Division operations, ensuring quality control and quality assurance inspections occur, and handling commercial plans examinations.

The following parameters were used in the Planning and Zoning Department staffing model:

- Times are estimated and averaged while taking into consideration that each function can take varying amounts of time to complete based on its complexity.

- Time includes "cumulative time" for the possibility that on occasion more than one employee will be working on a project.

- An average of 30 minutes per day of "admin/other" time per employee is projected.

- Staff are available to work 225 days annually when accounting for holidays, vacation, sick leave, training, etc. (252 working days in 2020 minus an average 27 days for vacations, sick leave, and holidays).

Workload Type	Annual Workload	Time in Hours	Total Hours	Total Days
Plan Review/Case Mgt.	123	40	4,920	615
Staff Reports/Mtg. Prep	200	4	800	100
Meetings	80	3	240	30
Long-Range Planning	12	80	960	120
Annexations	1	200	200	25
Other Projects	12	30	360	45
Total			**7,480**	**935**
Required Planners				**4.15**

Based on current workload data, which includes having the ability to work on important long-range planning efforts such as Comprehensive Plan updates, the Planning and Zoning Division should increase Planner staffing levels from 3 to 4 through the addition of a Senior Planner to handle current planning activities.

Recommendation: Increase Planners from 3 to 4 with the addition of a Senior Planner position to handle current planning activities.

The following parameters were used in the Building Inspections staffing model:

- Times are estimated and averaged while taking into consideration that each function can take varying amounts of time to complete based on its complexity. Historically, the department has not been able to hire experienced building inspectors requiring significant on-the-job training and certification efforts. This has resulted in some operational issues as staff are not as productive as fully-trained employees and experienced employees would be under typical circumstances.

- An average of 30 minutes per day of “admin/other” time, per employee, is projected.

- Building inspections time includes travel time, time to complete the inspection, time to complete required paperwork, and time to issue permits.

- The Chief Building Official is not calculated into workload as that position should be focused on supervising all Division operations as well providing appropriate quality assurance/quality control activities.

- Staff are available to work 225 days annually when accounting for holidays, vacation, sick leave, training, etc. (252 working days in 2020 minus an average 27 days for vacations, sick leave, and holidays).

- There were 16,930 building inspections completed in FY18 and 13,338 inspections in FY19. As numbers fluctuate from year-to-year, FY18 and FY19 data were averaged for use in this analysis.

Workload Type	Annual Workload	Number of Work Days	Number of Inspections per Day	Inspectors to Maintain 1:14 ratio
Building Inspections	16,634	225	73.93	4.8
Required Building Inspectors				**5.3**

Based on available workload data, the number of Building Inspectors can remain at 5 for FY21 but continued contractual support will be required if inspections remain at present levels.

The following parameters were used in the Plans Examiner staffing model:

- Times are estimated and averaged while taking into consideration that each function can take varying amounts of time to complete based on its complexity.

- An average of 30 minutes per day of "admin/other" time, per employee, is projected.

- Staff are available to work 225 days annually when accounting for holidays, vacation, sick leave, training, etc. (252 working days in 2020 minus an average 27 days for vacations, sick leave, and holidays).

- Plans Examiners, rather than the City's Building Official, should be handling commercial plan reviews. The Building Official should be handling management, supervision, and quality assurance functions. As such, commercial plan reviews are included in the annual workload and time estimates for Plans Examiners.

- There were approximately 5,300 total plans reviewed in FY18 and 3,110 reviewed in FY19. The average of those two years is 4,205. There were 2,358 project plan reviews in FY18 and 1,374 in FY19. The average of those two years is 1,866. The data show that 44.38% of plan reviews are for project plans (generally more time consuming than miscellaneous plans for other permits). This additional time is taken into consideration in the following model.

Workload Type	Annual Workload	Time in Hours	Total Hours	Total Days
Total Plan Reviews	1,866	1.75	3,265.5	408.2
Administrative/Other	225	.5	112.5	14.06
Total			**2,445**	**422.3**
Required Plans Examiners				**1.9**

Based on current workload, the number of Plans Examiners should be increased from 1 to 2.

Recommendation: Increase authorized Plans Examiner positions from 1 to 2.

The following parameters were used in the Permit Technician staffing model:

- Times are estimated and averaged while taking into consideration that each function can take varying amounts of time to complete based on its complexity. New residential or commercial permitting processes will be more time consuming than other types of permits (building a deck, replacing a roof, etc.).

- An average of 30 minutes per day of "admin/other" time, per employee, is projected.

- Staff are available to work 225 days annually when accounting for holidays, vacation, sick leave, training, etc. (252 working days in 2020 minus an average 27 days for vacations, sick leave, and holidays).

- There were 6,153 project permits (a combination of the approved structural/building work and associated trade work – electrical, plumbing, and mechanical) issued in FY18 and 5,958 issued in FY19. The average between these two years was 6,056. Of that total, the average new residential project permits was 377; the average new commercial project permits was 24; the average commercial remodel, addition, or finish out project permits was 43; the average number of miscellaneous building permits was 2,904; and the average number of other permits was 2,709.

Workload Type	Annual Workload	Time in Hours	Total Hours	Total Days
Project Permits issued	6,056	.75	4,542	567.8
Administrative/Other	225	1.0	225	28.125
Total			**4,767**	**595.9**
Required Permit Technicians				**2.6**

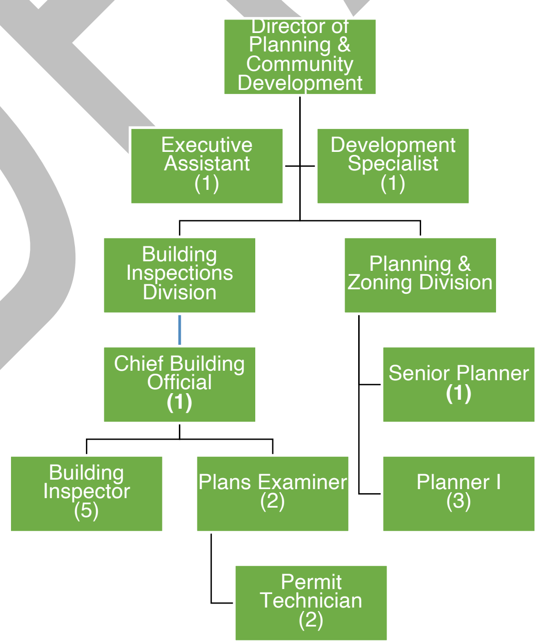
Based on current workload, Permit Technician staffing levels can remain the same for FY21.

The Development Specialist position is split between working for the Municipal Court, Utility Billing, and in Planning and Community Development. This position was created to provide assistance in expediting permit review approval and tracking a duty that is above the level of a Permit Technician. At the time this position was created, the City was faced with a lack of staff conducting plans examining duties and difficulties in hiring and retaining qualified Building Inspectors requiring the Chief Building Official to spend a significant portion of time conducing plan review and inspection duties. The Development Specialist has also been utilized to fill in and conduct work at Courts and Utility Billing as needed. If other recommendations contained in the report are implemented to address staffing needs related to plans review and building inspections, the City has the ability to consider the elimination of the position of Development Specialist (or one of the Permit Technician positions) in the future as other changes are implemented. One benefit of eliminating a Permit Technician position over the Development Specialist is to maintain a higher level of knowledge and skills-sets though this approach would result in less cost savings.

Recommendation: Longer-term, once staffing limitations in the plans examiner and building inspections functions are addressed, the City may consider the elimination of the Development Specialist position or one of the Permit Technician positions.

The following chart shows the proposed Planning and Community Development Department Organizational Chart.

Proposed Planning and Community Development Department Organizational Structure



Implementation of the proposed organizational chart will allow the Planning and Community Development Department to align staffing levels with existing workload demands.

(2) Projected Planning and Community Development Staffing Requirements

The City is estimated to grow in population and housing by 2.9% per year from 2020 through 2030. As the City experiences population and new housing growth, Planning and Community Development functions are expected to grow at a similar rate due to workload scaling.

Based on projected increases in City population and housing growth over the next 10 years, workload demands for Planning and Zoning staff are estimated to increase by 15% by 2025 and 30% by 2030.

The following table shows current and projected Planning and Community Development staffing needs:

Planning & Community Development Staffing Projections

Unit	Employee Classification	Projection Factors	2020 Authorized	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Inspections	Director of Planning & Community Development	Executive position; does not scale	1	1	1	1	1	1	1	1	1	1	1
	Executive Assistant	Position does not scale	1	1	1	1	1	1	1	1	1	1	1
	Chief Building Official	Unique position; does not scale	1	1	1	1	1	1	1	1	1	1	1
	Building Inspector	Scales based on workload.	5	5	5	5	5	5	5	6	6	6	6
	Plans Examiner	Scales based on workload.	1	2	2	2	2	2	2	2	2	2	2
	Permit Tech.	Scales based on workload.	2	2	2	3	3	3	3	3	3	3	3
	Development Specialist	Scales based on workload.	1	1	1	1	1	1	1	1	1	1	1
Planning & Zoning	Planners (Senior or Planner I)	Scales based on workload.	3	4	4	4	4	4	5	5	5	5	5
TOTAL			***16***	***17***	***17***	***18***	***18***	***18***	***19***	***20***	***20***	***20***	***20***

Recommendation: In 2023 increase authorized Permit Technician positions from 2 to 3.

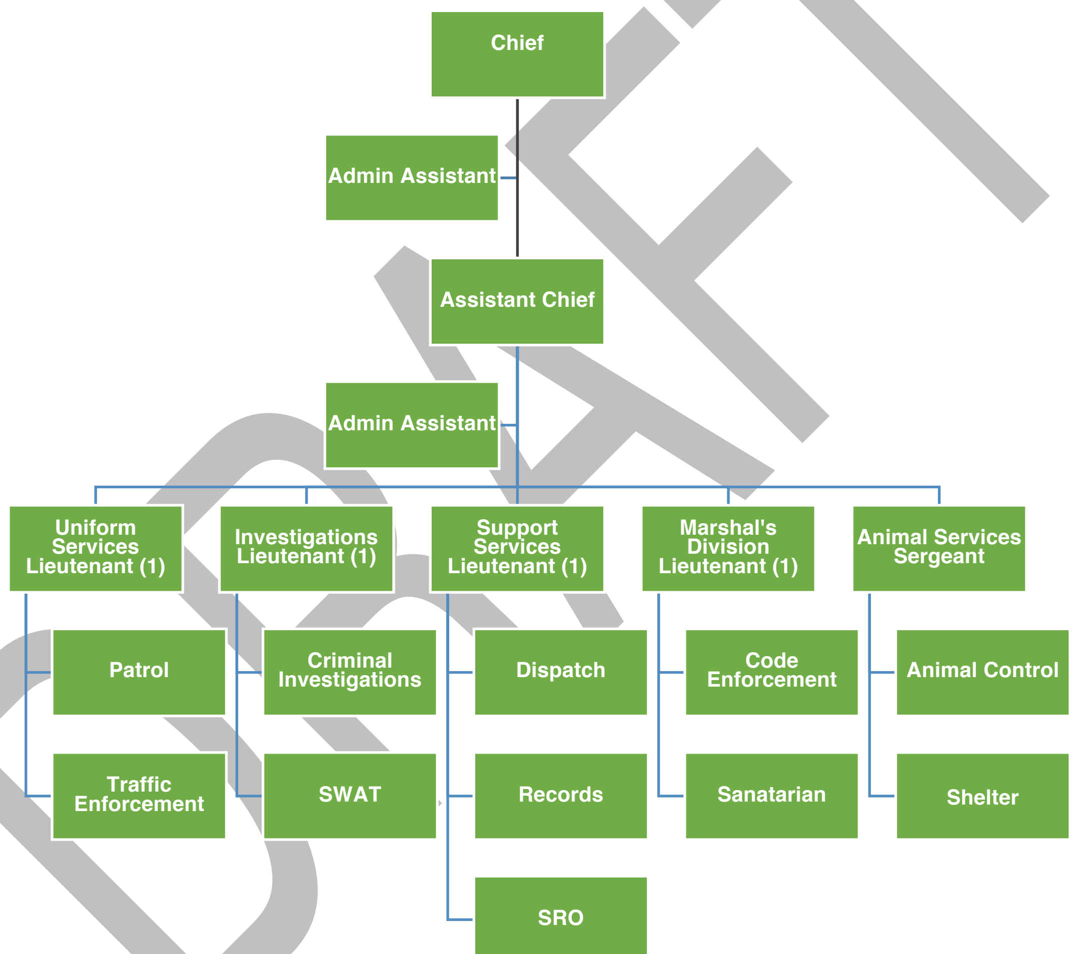
Recommendation: In 2026 increase authorized Planner positions from 4 to 5.

Recommendation: In 2027 increase authorized Building Inspector positions from 5 to 6.

16 Police Department

The Police Department is responsible for providing law enforcement services, code compliance, marshal's and animal control services to the City. The department consists of four separated divisions: Uniform Services, Investigations, Support Services and The Marshal's Division which are each led by a Lieutenant, except Animal Services which is led by a Sergeant.

The following organizational chart shows the functional organization of the Police Department.



1 Uniform Services

Uniform Services is overseen by a lieutenant and includes the traffic unit as well. Each of these functional areas are described in greater detail in the following sections.

1. Overview of the Project Team's Approach

The Matrix Consulting Group utilizes a workload-based approach to evaluating staffing needs in the critical patrol function. Arising from the need to replace indirect methods for determining patrol staffing needs (such as per capita relationships), workload based approaches are preferred because they allow for:

- Quantitative evaluation of workload and service level factors that are unique to a given community rather than national averages.
- Establishing service levels and the impacts of evaluating alternative service levels.
- Evaluating the utilization of staff in responding to community and officer initiated workloads.
- Evaluating the effectiveness of deployments in time (schedules) and space (beats) to achieve equalization of workloads and service capabilities.

There have been a number of approaches developed over the years to determine patrol staffing needs (e.g., the approach utilized by the Matrix Consulting Group, the International City Managers' Association and the International Chiefs' of Police). These approaches all have a number of things in common, including:

- Using an agency's workload associated with field activities, including the time associated with handling these activities.
- Setting a desired service level relationship between 'reactive' and 'proactive' workloads.
  - Reactive workloads are those associated with handling community generated requests for service (though 911, other type of call or alarm).
  - Proactive workloads are those associated with working with the community, being visible in problem areas, officers initiating responses to observed problems, crimes or traffic violations.

Countless studies have shown that while responding to calls for service at a level that is acceptable to the community, the ability to have and to appropriately utilize proactive time is the real test of effectiveness in a police department.

- Workloads are measured against the 'availability' of staff in the field to handle these workloads.

The different approaches utilized in the evaluation of field resources all share this analytical philosophy, even if they vary in the allocation of specific time or time allocation elements. As a result, in the end, they all generate similar results.

2. Analysis of Patrol Workload

The following sections provide analysis of patrol workload and other issues relating to the effectiveness of field services.

(1) CAD Analysis Methodology

Our project team has calculated the community-generated workload of the department by analyzing incident records in the computer aided dispatch (CAD) database, covering the period of August 18, 2018 through August 17, 2019.

For incidents to be identified as community-generated calls for service and included in our analysis of patrol, each of the following conditions needed to be met:

- The incident must have been unique and created within the study year.

- The incident must have involved at least one officer assigned to patrol, as identified by the individual unit codes of each response to the call.

- The incident must have been originally initiated by the community, as identified using the following methods:

  – The incident response has a time for the unit being dispatched.

  – The incident corresponds to a community-generated event. Call types that could be identified as being either self-initiated (e.g., traffic stops) or other kinds of activity (e.g., directed patrol) have not been counted as community-generated calls.

- There must have been no major irregularities or issues with the data recorded for the incident that would prevent sufficient analysis, such as having no unit code.

After filtering through the data using the methodology outlined above, the remaining incidents represent the community-generated calls for service handled by patrol units.

(2) Calls for Service by Hour and Weekday

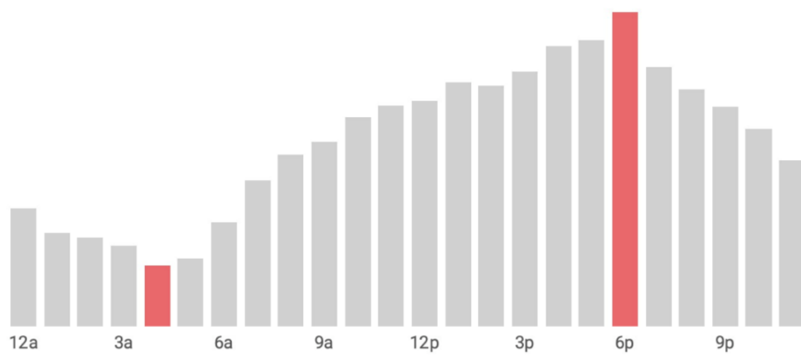
The following table displays the total number of community generated calls for service handled by patrol units by each hour and day of the week:

Community Generated Calls for Service by Hour and Weekday

Hour	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Total
12am	54	51	38	35	40	46	47	**311**
1am	55	33	32	19	27	38	41	**245**
2am	42	34	36	28	32	19	43	**234**
3am	48	30	16	27	25	30	37	**213**
4am	33	18	16	27	20	18	27	**159**
5am	23	32	19	25	32	24	23	**178**
6am	30	45	46	47	41	47	18	**274**
7am	32	64	55	64	67	62	40	**384**
8am	49	79	71	62	71	60	59	**451**
9am	62	70	73	68	76	76	61	**486**
10am	65	84	74	79	66	95	89	**552**
11am	79	84	83	91	74	81	89	**581**
12pm	81	92	73	88	83	93	83	**593**
1pm	80	85	83	99	88	107	100	**642**
2pm	95	98	84	73	101	83	100	**634**
3pm	99	99	67	95	102	105	103	**670**
4pm	96	113	113	99	122	116	78	**737**
5pm	86	109	122	94	120	138	85	**754**
6pm	109	117	108	127	118	150	98	**827**
7pm	79	87	94	119	114	97	93	**683**
8pm	90	88	85	111	79	84	87	**624**
9pm	76	68	80	91	89	89	86	**579**
10pm	84	68	59	76	80	68	86	**521**
11pm	46	55	51	53	61	83	87	**436**
Total	1,593	1,703	1,578	1,697	1,728	1,809	1,660	11,768

The calls for service by hour show a similar pattern that is seen in many police agencies with a rise of calls during the afternoon hours, however in this case the calls for service peak between 5pm and 7pm. Calls for service sharply decline after 9pm. The bar chart below shows the calls for service by hour of day:

Calls for Service by Hour



From 3:00PM until around 8:00PM marks the period of time with the highest activity levels, where incoming community-generated workloads are greatest and require the most resources to be deployed.

(3) Calls for Service by Month

The following table displays calls for service totals by month, showing some seasonal variation as a percentage difference from the quarterly average:

Calls for Service by Month

Month	# of CFS	Seasonal +/-
Jan	925	
Feb	875	-5.3%
Mar	987	
Apr	1,108	
May	1,181	+16.3%
Jun	1,133	
Jul	1,046	
Aug	933	- 4.2%
Sep	839	
Oct	895	
Nov	877	-6.8%
Dec	969	
Total	**11,768**	

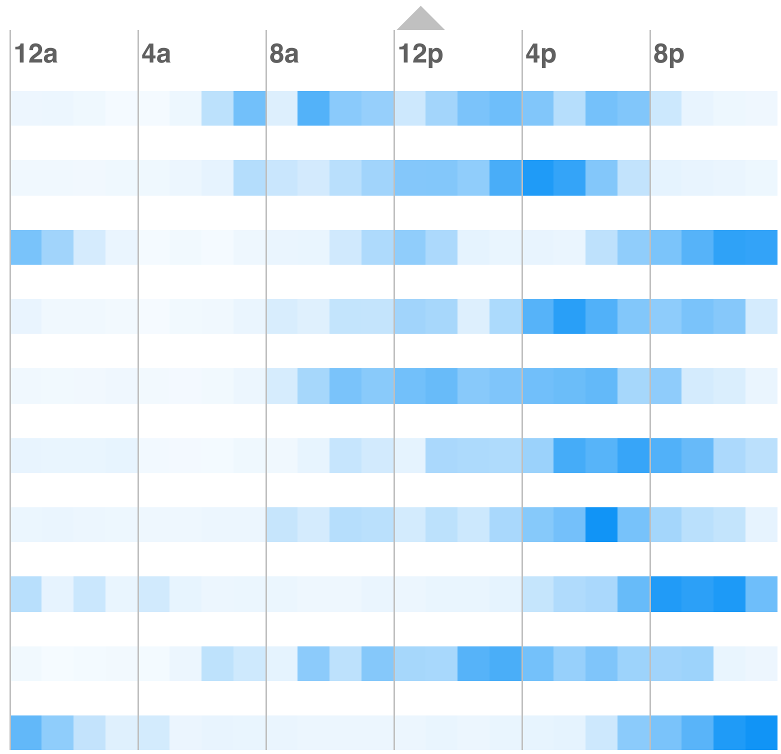
Communities with warmer climates in the summer typically experience decreases in call volume during the summer months and increased call volume during the winter, and the results for Schertz show an increase in spring.

(4) Most Common Types of Calls for Service

The following table provides the ten most common incident categories of calls for service handled by patrol units over the last year, as well as the average call handling time (HT)[8] for each:

Most Common Call for Service Categories

Incident Type	# CFS	HT
Alarm- Burglary	1,459	17.4
Accident- MV No Injury	1,116	40.8
Suspicious	824	26.9
Welfare Concern	807	31.3
Misc. Incident/Info	637	40.1
Disturbance-Non Viol	497	38.9
Civil Matter/Standby	396	38.0
Security Check	378	26.6
Traffic Hazard/Contl	363	25.2
Dist - Noise	343	23.6
All Other Types	4,948	40.7
Total	**11,768**	**34.6**



Burglary Alarm is the most common type of call for service, representing about 12% of the total.

In all, these top 10 call types represent about 57% of all calls for service in Schertz.

3. Analysis of Patrol Resource Needs

Analysis of the community-generated workload handled by patrol units is at the core of analyzing field staffing needs. Developing an understanding of where, when, and what types of calls are received provides a detailed account of the service needs of the community, and by measuring the time used in responding and handling these calls, the

[8] Handling time is defined as the total time in which a patrol unit was assigned to an incident. It is calculated as the difference between the recorded time stamps the unit being dispatched and cleared from the incident.

staffing requirements for meeting the community's service needs can then be determined. To provide a high level of service, it is not enough for patrol units to function as call responders. Instead, officers must have sufficient time outside of community-driven workload to proactively address community issues, conduct problem-oriented policing, and perform other self-directed engagement activities within the community. As a result, patrol staffing needs are calculated not only from a standpoint of the capacity of current resources to handle workloads, but also their ability to provide a certain level of service beyond responding to calls.

With this focus in mind, the following sections examine the process used by the project team to determine the patrol resource needs of the Schertz Police Department based on current workloads, staff availability, and service level objectives.

(1) Overview of the Resource Needs Analysis

An objective and accurate assessment of patrol staffing requires analysis of the following three factors:

i. The number of community-generated workload hours handled by patrol.

ii. The total number of hours that patrol is on-duty and able to handle those workloads, based on current staffing numbers and net availability factors (e.g., leave, administrative time, etc.).

iii. The remaining amount of time that patrol has to be proactive, which can also be referred to as "uncommitted" time.

This study defines the result of this process as, **patrol proactivity**, or the percentage of patrol officers' time in which they are *available and on-duty* that is *not* spent responding to community-generated calls for service. This calculation can also be expressed visually as an equation:

$$\frac{\textbf{Total Net Available Hours} - \textbf{Total CFS Workload Hours}}{\textbf{Total Net Available Hours}} = \textbf{\% Proactivity}$$

The result of this equation is the overall level of proactivity in patrol, which in turn provides a model for the ability of patrol units to be proactive given current resources and community-generated workloads.

There are some qualifications to this, which include the following:

- Optimal proactivity levels are a generalized target, and a single percentage should be applied to every agency. The actual needs of an individual department vary based on a number of factors, including:

– Other resources the department has to proactively engage with the community and address issues, such as a dedicated proactive unit.

– Community expectations and ability to support a certain level of service.

– Whether fluctuations in the workload levels throughout the day require additional or fewer resources to be staffed to provide adequate coverage.

- Sufficient proactivity at an overall level does not guarantee, based on workload patterns, and deployment schedules, that resources are sufficient throughout all times of the day and week.

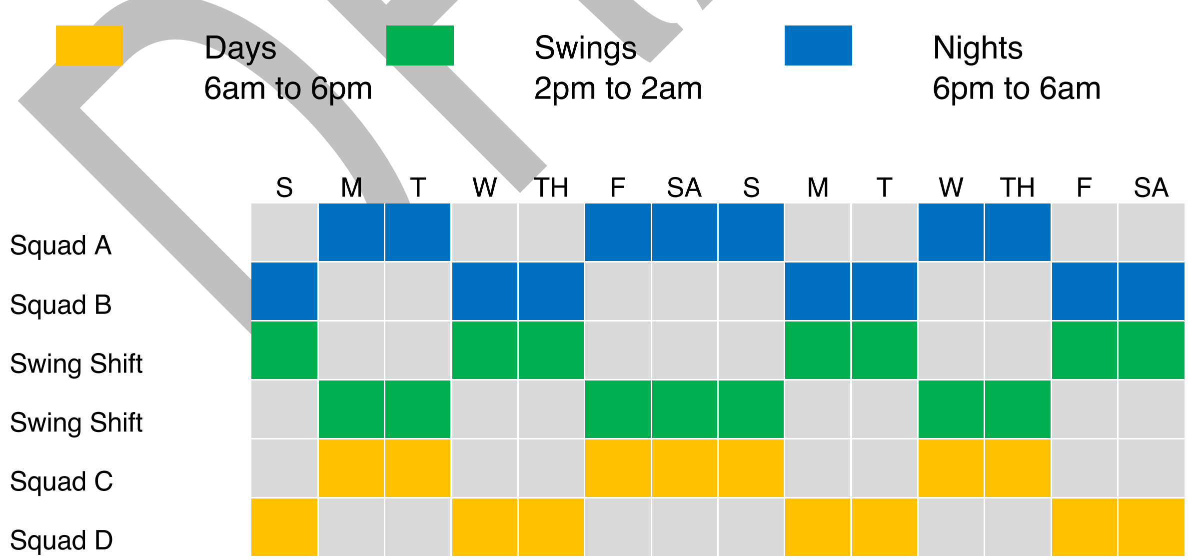
Overall, given that the department does not have many different types of specialized units in the field, SZPD should generally target an overall proactivity level of at least 60% as an effective level of patrol coverage. This is based on the geographic size of the City, the road structure, the availability of back up and most frequent call types.

(2) Patrol Unit Staffing and Net Availability

Before determining availability and staffing needs, it is important to first review the current patrol staffing levels and deployment schedules.

The following chart provides an illustrative example of how the schedule would work over a two-week period:

Illustrative Example of the Patrol Shift Schedule



Day shifts work from 6am to 6pm, while night shifts work from 6pm to 6am. There is also a swing shift 2pm to 2am that covers the busiest times of the day.
While the table provides the scheduled staffing levels, it does not reflect the numbers that are actually on-duty and available to work on at any given time. As a result, it is critical to understand the amount of time that officers are on leave – including vacation, sick, injury, military, or any other type of leave – as well as any hours dedicated to on-duty court or training time, and all time spent on administrative tasks such as attending shift briefings. The impact of each of these factors is determined through a combination of calculations made from SZPD data and estimates based on the experience of the project team, which are then subtracted from the base number of annual work hours per position. The result represents the total **net available hours** of patrol officers, or the time in which they are both on-duty and available to complete workloads and other activities in the field.

The table below outlines this process in detail, outlining how each contributing factor is calculated:

Factors Used to Calculate Patrol Net Availability

Work Hours Per Year

The total number of scheduled work hours for patrol officers, without factoring in leave, training, or anything else that takes officers away from normal on-duty work. This factor forms the base number from which other availability factors are subtracted from.

Base number: **2,080 scheduled work hours per year**

Total Leave Hours (subtracted from total work hours per year)

Includes all types of leave, as well as injuries and military leave – anything that would cause officers that are normally scheduled to work on a specific day to instead not be on duty. As a result, this category excludes on-duty training, administrative time, and on-duty court time.

Calculated from SZPD data: **300 hours of leave per year**

On-Duty Court Time (subtracted from total work hours per year)

The total number of hours that each officer spends per year attending court while on duty, including transit time. Court attendance while on overtime is not included in the figure. Without any data recording on-duty court time specifically for patrol officers, the number of hours is estimated based on the experience of the project team.

Estimated: **20 hours of on-duty court time per year**

On-Duty Training Time (subtracted from total work hours per year)

The total number of hours spent per year in training that are completed while on-duty and not on overtime.

Calculated from SZPD data: **59 hours of on-duty training time per year**

Administrative Time (subtracted from total work hours per year)

The total number of hours per year spent completing administrative tasks while on-duty, including briefing, meal breaks, and various other activities.

The number is calculated as an estimate by multiplying 90 minutes of time per shift times the number of shifts actually worked by officers in a year after factoring out the shifts that are not worked as a result of leave being taken.

Estimated: **223 hours of administrative time per year**

Total Net Available Hours

After subtracting the previous factors from the total work hours per year, the remaining hours comprise the total *net available hours* for officers – the time in which they are available to work after accounting for all leave, on-duty training and court time, and administrative time. Net availability can also be expressed as a percentage of the base number of work hours per year. *Calculated by subtracting the previously listed factors from the base number:* **1,478 net available hours per officer**

The following table summarizes this calculation process, displaying how each net factor contributes to the overall net availability of patrol officers:

Calculation of Patrol Unit Net Availability

Base Annual Work Hours		**2,080**
Total Leave Hours	–	300
On-Duty Training Hours	–	59
On-Duty Court Time Hours	–	20
Administrative Hours	–	223
Net Available Hours Per Officer	**=**	**1,478**
Number of Authorized Officer Positions (Includes Corporals)	*x*	*31*
Total Net Available Hours	**=**	**45,803**

Overall, officers combine for 45,803 net available hours per year, representing the total time in which they are on duty and able to respond to community-generated incidents and be proactive.

(3) Overview of Call for Service Workload Factors

The previous chapter of the report examined various trends in patrol workloads, including variations by time of day and of week, common incident types, as well as a number of other methods. The following section advances this analysis, detailing the full extent of the resource demands that these incidents create for responding patrol personnel.

Each call for service represents a certain amount of workload, much of which is not captured within the handling time of the primary unit. Some of these factors can be calculated directly from data provided by the department, while others must be estimated due to limitations in their measurability.

The following table outlines the factors that must be considered in order to capture the full scope of community-generated workload, providing an explanation of the process used to calculate each factor:

Factors Used to Calculate Total Patrol Workload

Number of Community-Generated Calls for Service

Data obtained from an export of CAD data covering a period of an entire year that has been analyzed and filtered in order to determine the number and characteristics of all community-generated activity handled by patrol officers.

The calculation process used to develop this number has been summarized in previous sections.

Calculated from SZPD data: **11,768 community-generated calls for service**

Primary Unit Handling Time (multiplied by the rate)

The time used by the primary unit to handle a community-generated call for service, including time spent traveling to the scene of the incident and the duration of on-scene time. For each incident, this number is calculated as the difference between ‘call cleared’ time stamp and the ‘unit dispatched’ time stamp.

In the experience of the project team, the average handling time is typically between 30 and 42 minutes in agencies where time spent writing reports and transporting/booking prisoners is *not* included within the recorded CAD data time stamps.

At 34.6 minutes, the average for SZPD is within the normal range.

Calculated from SZPD data: **34.6 minutes of handling time per call for service**

Number of Backup Unit Responses

The total number of backup unit responses to community-generated calls for service. This number often varies based on the severity of the call, as well as the geographical density of the area being served.

This number can also be expressed as the *rate* of backup unit responses to calls for service and is inclusive of any additional backup units beyond the first.

Calculated from SZPD data: **0.75 backup units per call for service**

Backup Unit Handling Time (multiplied by the rate)

The handling time for backup units responding to calls for service is calculated using the same process that was used for primary units, representing the time from the unit being dispatched to the unit clearing the call.

Calculated from SZPD data: **25.9 minutes of handling time per backup unit**

Number of Reports Written

The total number of reports and other assignments relating to calls for service that have been completed by patrol units, estimated at one report written for every three calls for service. This includes any supporting work completed by backup units.

In this case, the number has been estimated based on the experience of the project team.

Estimated/calculated from SZPD data: **0.33 reports written per call for service**

Report Writing Time (multiplied by the report writing rate)

The average amount of time it takes to complete a report or other assignment in relation to a call for service. Without any data detailing this specifically, report writing time must be estimated based on the experience of the project team. It is assumed that 45 minutes are spent per written report, including the time spent by backup units on supporting work assignments.

Estimated: **45 minutes per written report**

Total Workload Per Call for Service

The total time involved in handling a community-generated call for service, including the factors calculated for primary and backup unit handling time, reporting writing time, and jail transport/booking time.

The product of multiplying this value by the calls for service total at each hour and day of the week is the number of hours of community-generated workload handled by patrol units – equating to approximately 13,516 total hours in 2018/19.

Calculated from previously listed factors: **68.9 total minutes of workload per call for service**

Each of the factors summarized in this section contribute to the overall picture of patrol workload – the total number of hours required for patrol units to handle community-generated calls for service, including primary and backup unit handling times, report writing time, and jail transport time.

These factors are summarized in the following table:

Summary of CFS Workload Factors

	Value	%
Total Number of Calls for Service	**11,768**	50%
Avg. Primary Unit Handling Time (min.)	34.6	
Backup Units Per CFS	**0.75**	28%
Avg. Backup Unit Handling Time (min.)	25.9	
Reports Written Per CFS	**0.33**	22%
Time Per Report (min.)	45.0	
Avg. Workload Per Call (min.)	68.9	
Total Workload Hours	**13,516**	

Overall, each call represents an average workload of 74.6 minutes, including all time spent by the primary unit handling the call, the time spent by any backup units attached to the call, as well as any reports or other assignments completed in relation to the incident.

(4) Calculation of Overall Patrol Proactivity

Using the results of the analysis of both patrol workloads and staff availability, it is now possible to determine the remaining time in which patrol units can function proactively. The result can then function as a barometer from which to gauge the capacity of current resources to handle call workload demands, given objectives for meeting a certain service level.

The following table details the calculation process used by the project team to determine overall proactivity levels – the proportion of time that patrol officers have available outside of handling community-generated workloads:

Overall Patrol Proactivity

Total Patrol Net Available Hours		45,803
Total Patrol Workload Hours	–	13,516
Resulting # of Uncommitted Hours	**=**	**32,287**
Divided by total net available hours	÷	45,803
Overall Proactivity Level	**=**	**70.5%**

Overall, the Schertz Police Department maintains a patrol proactivity level of 70.5% – the amount of time that is remaining after handling community-generated workload. It is important to stress that this does not mean that the time is not utilized, as self-initiated activity is not counted in total patrol workload. The results do, however, indicate that patrol at an overall level has sufficient resources to handle incoming community generated calls for service workloads and still have time remaining to be proactive in resolving community livability issues and traffic enforcement.

These findings do not necessarily indicate that proactive time is consistently available at different times of the day. In order to determine that, proactivity is calculated the same way for each time and day of the week given current deployment schedules. The following chart presents the results of this analysis:

Proactivity by Hour and Weekday

Time	S	M	T	W	Th	F	Sa	Overall
2am–6am	83%	87%	89%	88%	85%	88%	83%	**86%**
6am–10am	80%	65%	68%	67%	66%	71%	78%	**71%**
10am–2pm	61%	53%	61%	53%	59%	53%	55%	**57%**
2pm–6pm	65%	61%	63%	66%	58%	59%	66%	**63%**
6pm–10pm	67%	65%	66%	63%	64%	64%	67%	**65%**
10pm–2am	79%	82%	85%	86%	83%	80%	79%	**82%**
Overall	72%	69%	72%	71%	69%	69%	71%	**70%**

The chart shows that the ability for officers assigned to patrol to be proactive are at relatively high levels throughout the day and week.

(5) Officer Initiated Activities

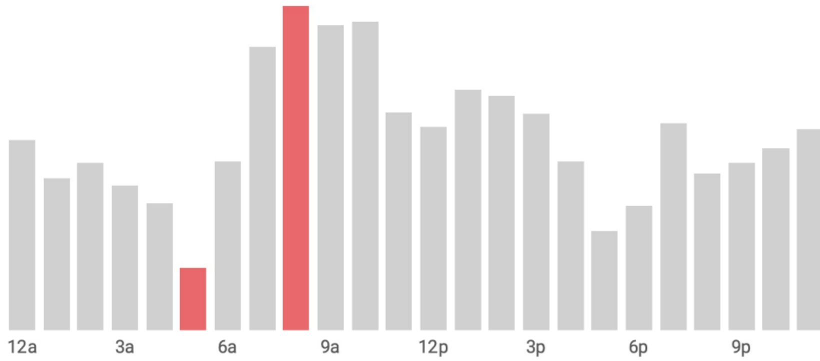
The point of having time to be proactive is not a value in itself – rather, the effective use of proactive time to partner with the community and to anticipate crime or traffic violations in areas with recurring problems is key in law enforcement today. The effective use of proactive time needs to be based on problem analysis, problem deployment and accountability for time utilized.

The first two charts, below, demonstrate the amount and distribution of officer (or self) initiated activities in Schertz for 2019. The third chart portrays the most common types of officer initiated activities handled by Schertz patrol officers.

Self-Initiated Incidents by Hour and Weekday

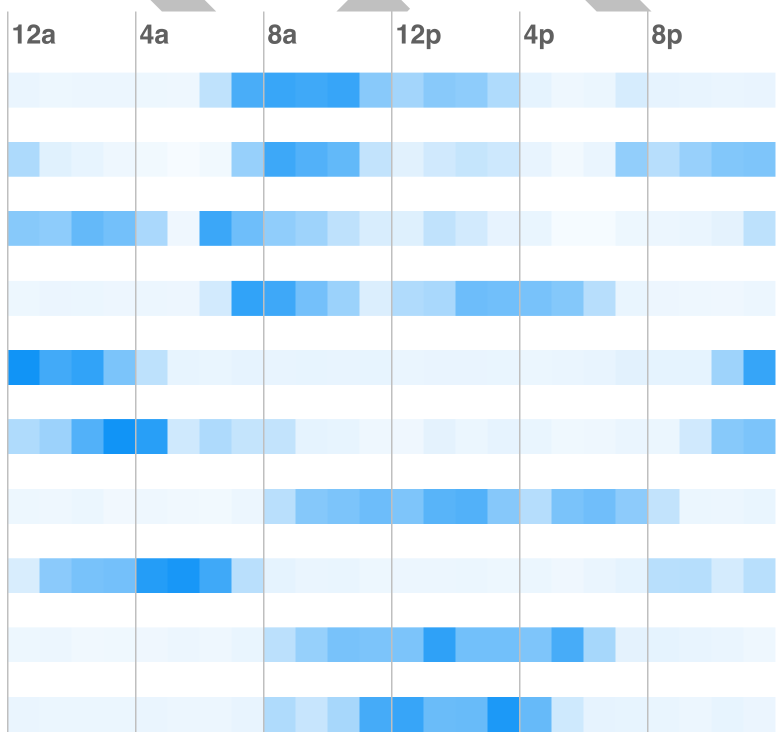
Hour	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Total
12am	97	95	82	99	90	94	93	**650**
1am	84	55	79	86	85	60	73	**522**
2am	90	48	86	98	80	73	98	**573**
3am	78	66	84	61	64	56	87	**496**
4am	64	45	64	64	74	64	58	**433**
5am	33	27	36	37	30	29	21	**213**
6am	79	70	87	91	99	73	80	**579**
7am	101	146	139	162	160	160	105	**973**
8am	138	158	170	198	153	157	138	**1,112**
9am	146	142	157	140	173	156	130	**1,044**
10am	134	144	146	197	151	170	118	**1,060**
11am	89	110	117	138	87	121	85	**747**
12pm	66	101	103	124	105	98	99	**696**
1pm	103	120	113	132	124	127	104	**823**
2pm	74	128	114	147	131	100	108	**802**
3pm	103	121	103	145	109	72	91	**744**
4pm	77	84	84	111	80	51	92	**579**
5pm	38	37	57	58	51	54	45	**340**
6pm	71	53	60	62	56	67	57	**426**
7pm	101	91	85	111	101	122	98	**709**
8pm	77	76	61	77	69	80	96	**536**
9pm	92	72	64	87	70	98	92	**575**
10pm	78	96	70	105	77	102	95	**623**
11pm	74	98	77	105	117	104	113	**688**
Total	2,087	2,183	2,238	2,635	2,336	2,288	2,176	15,943

Self-Initiated Incidents by Hour



Self-Initiated Incident Types

Incident Type	# CFS	HT
Traff Compl/Reckless	5,566	26.0
Traffic Stop	4,878	11.7
Security Check	2,307	31.4
Special Detail	339	84.2
Suspicious	333	15.1
Prisoner Transport	301	73.1
Follow Up	280	32.3
Cell Check	230	11.5
Misc Incident/Info	219	34.3
Assist Public	181	22.7
All Other Types	1,309	32.5
Total	**15,943**	**24.8**



It should be noted, that self-initiated activity is generally undercounted because a log into CAD is not always made for incidents or contacts that are incidental and do not result in a report. In spite of this, just at the total number of incidents, there are 35% more officer initiated activities than there are calls for service, an unusual finding in the project team's experience.

Officer initiated workloads equate to an additional 6,589 hours of direct incident workload (15,943 self-initiated incidents times 24.8 minutes average handling time). At these levels, total officer initiated activity workloads are greater (by about 4%) than the total time spent handling calls for service. As with the counts of proactive events, the time spent on proactive activities can be under-represented – 'proactive visibility' (for example deploying in an area which has experienced higher levels of crime or traffic accidents) is not counted at all even if these deployments result in officer initiated incidents. Additional time in self-initiated activities would be dedicated to incident citations, reports and/or arrests.

In Schertz, uncommitted or proactive time is effectively utilized.

Recommendation: Patrol is appropriately staffed and is effective at utilizing time available to address problems in the community.

4. Analysis of Traffic

Performance metrics for traffic units often very depending the goals for each department. In evaluating the traffic unit for Schertz, the total number of warnings and citations was used. This method is useful for determining unit activity, but not for measuring effectiveness at reducing traffic collisions or speeding in specific traffic corridors. Unlike patrol where there is a calls for service metric, traffic units are almost totally proactive so there is no minimum staffing needed. Traffic is currently staffed with one corporal and two officers with a vacancy. The data below was for 1 officer and 1 partial officer position.

Traffic Unit Activity August 20, 2018- August 19, 2019

Warnings		352
Citations		3,121
Total	**=**	**3,473**
Divided by Estimated Work Hours (1,478)		1,625
Overall Activity per Hour	**=**	**2.13**

As the table above indicates traffic averages 2.1 activities per hour. This is an above average amount of activity compared to other departments. It should be noted there were 1,047 reported accidents last year.

2 Investigations

Investigations is staffed by 1 lieutenant, 1 sergeant, 7 detectives (3 officers and 4 corporals), 1 evidence tech, and 1 victim advocate. The unit is responsible for conducting follow up investigations on calls for service and conducting background investigations.

1. Investigations

The evaluation of staffing levels in Investigations is based on average caseloads per investigator and the complexity of the typical investigation. When reviewing caseloads for law enforcement agencies the project team uses benchmarks from other agencies and available research as summarized in the following table.

Comparative Measure	Detective Workload Expectations
Active cases assigned to Detectives.	For property crimes 12-15 new cases per month while person crimes can effectively investigate 6-8 cases per month. These averages are based on effective case screening before assignment so that only workable cases are assigned.

The table shows the case assignments for detectives for a 1-year period (August 2018-July 2019).

Detectives	Cases for Year	Average per month	Average per month per Investigator
7 (Detectives and Corporals)	1,563	130	18.6

As the table above indicates the caseload for detectives averages 18.6 cases per month, which exceeds an effective caseload for both property crimes and person crimes. The caseload above is much higher than FBI: UCR Part 1 and Part 2 reported crimes for Schertz. Part 1 Crimes are the most serious and include: homicide, rape, aggravated assault, robbery, burglary, larceny, vehicle theft and arson which indicates detective's caseloads also include a significant amount of Part 2 and other crimes as part of their caseloads. Part 2 crimes includes: simple assaults, drug arrests, fraud, possession of stolen property and other lower level crimes.

This caseload does not factor in collateral duties or background investigations. To reduce the caseload to an effective range will require two additional investigator positions and more aggressive case screening so that only the most workable cases are assigned.

Detectives	Approx. Cases for Year	Average per month	Average per month per Investigator
9 (Detectives and Corporals)	972	9	9

The table above would include all of part 1 crimes (most serious) being assigned and some part 2 (less serious). Some cases could be assigned within patrol.

Recommendation: Two detective positions should be added to address existing workload.

2. Property and Evidence

Property and evidence consists of 1 evidence tech. The evidence tech processes "major" crime scenes, maintains chain of custody for evidence and enters evidence and property into property management system. The tech is responsible for the proper storage, inventory and purging of property and evidence. The department is currently nearly out of shelf space for additional property intake and there are more items that could be purged, that are currently stored because of lack of time to conduct more routine purging.

The property section reported the following workloads:

Activity (October 2018- August 2019)	Approx. Cases for Year	10 minutes per item average to intake	15 Minutes per item average to purge / return	Hours per year
Intake	3,593	35.950	N/A	599
Purge / Return	965	N/A	14,475	241
Total				**840**

As the proceeding table indicates the property evidence technician needs approximately 840 hours to conduct property room procedures. The technician has additionally responsibilities for evidence recovery including digital video evidence from crime scenes. They reported responding to about 20 crimes scenes a year. To drive to a crime scene takes about 15 minutes, processing a crime scene takes an average of 1 hour (can vary greatly) and returning to the office and processing evidence takes an additional 40 minutes. This represents approximately 38 hours of work annually. Additionally, the evidence technician performs fingerprinting, conducts auctions and property purging. Time frames for these additional duties is not captured.

Through of interviews it was learned that the evidence technician was responsible for downloading all in-car and body worn camera videos (with cases). This required the technician to view some videos that are not properly tagged, make DVDs for downloads and then assist with putting the DVDs with cases. It was taking the technician 8 to 12 hours per week just complete in -car and body worn camera downloads and case prep. This represents approximately 624 hours of body worn and in-car camera related task work per year. It is reported there are backlogs of videos to be processed from time to time, especially after the weekend.

Most agencies are going away from making CDs for all captured video and are instead uploading it to servers and the cloud. With this change in procedure, many departments are also moving this function to the records units so that they have access to it for prosecution cases, discovery and public records requests. During the course of the study this function was moved to records.

Documented Task Related Work Hours

Activity (October 2018- August 2019)	Hours per year
Property / Evidence intake and storage	840
Video Download and case prep.	624
Crime scene processing	38
Total	**1,502**

As the above table indicates the evidence technician has 1,502 hours of documented task work hours, there are several other tasks completed such as finger printing, evidence processing (fuming, photographing and swab collection), and trips to the crime lab that are not captured by time-tasks measurements. The evidence technician is training to become a polygraph examiner and has been responding to additional crime scenes to provide better crime scene processing. Having dedicated crime scene staff aides in the collection of evidence and typically provides better evidence collection and analysis because it becomes a primary task for the crime scene technician instead of a collateral duty for patrol or investigations. The Schertz Police Department is utilizing the current evidence / crime scene technician to a greater extent for evidence collection, which is best practice for reasons mentioned above. However, with more crime scene processing and an additional duty as a polygraph examiner an additional crime scene / evidence technician will be needed to provide coverage.

Recommendation: Body worn and in car video evidence functions / processes should be moved to the records unit to free up the evidence technician to additional property purging and crime scene evidence recovery (including digital evidence). –This has been completed.

Recommendation: Add an additional Crime Scene / Evidence Technician in the next 1 to 3 years.

3. Crime Victim Liaison

The victim advocate contacts victims and informs of resources available. The crime victim liaison is a City of Schertz employee but assists with Live Oak and Cibolo on contract. The victim advocate reported the following performance metrics for 2018:

Activity (October 2018- August 2019)	Approx. Cases for Year
Victim Referrals	232
Victim Contact / Interviews	175
CPS Screenings (Approx.)	573
Total	**980**

Additionally, the victim reported 358 cases between Live Oaks and Cibolo. The following points provides a summary of the findings for the victim advocate:

- The victim advocate is able to contact major crime victims.
- The current process of shared services is effective.

No changes to staffing are recommended for this unit.

3 Support Services

Support Services includes communications, records, SRO program and crossing guards and consists of 1 Lieutenant, 1 Sergeant, 1 Corporal, 3 Officers, Communications Manager, 4 Communications Supervisors, 12 Communications officers, 1 Records Manager, 2 Records Clerks and 16 Crossing Guards.

1. School Resource Officer (SRO) Program

The SRO program consists of 1 Sergeant, 2 Corporals and 2 Officers. Personnel assigned to the SRO program respond to calls for service at schools, perform community engagement activities, assist with presentations and provide school security. Performance metrics for SRO programs are based on student populations to be assisted, number of buildings and locations between schools. Typically, only high schools and middle schools are staffed with SROs. Schertz has two high schools and one middle school with a combined population of approximately 4,683 students.

National School Resource Officers Association (NSROA) recommends approximately 1 SRO per 1,000 student population. Schertz is slightly below that with 4 SROs assigned plus a Sergeant. It should be noted that the Sergeant assists the SROs.

2. Workload Communications

Communications is responsible for call taking and dispatch for Police and several Fire / EMS departments. Communication consists of 1 manager, 4 supervisors and 12 (authorized) dispatchers. Supervisors are classified as working supervisors and thus may create issues for supervisors to complete administrative tasks while on shift. Staffing shortages cause some overtime and during peak calls for service dispatchers have difficulty with call volume.

The following calculations show the hourly staffing needs of the agency for emergency calls, non-emergency calls, and dispatch needs. A recommended total number of authorized positions is also provided based on rates of leave and employee turnover. These calculations were made using SZPD data and industry best practices. Where data is absent or not tracked, the project team used averages developed over numerous studies.

The following chart shows the standards used:

Occupied dispatch minutes per call for service (police and fire)	3.5
Estimated number of phone calls per year (some non-emergency call data may be incomplete)	45,966
Average phone call duration (in minutes)	3.0
Target Agent Occupancy Rate	50%
Annual Agent Available Hours	1,800
Supervisor availability per shift (for call handling and dispatch relief)	0.1

(1) Current Calls for Service

The following table shows the total calls for service handled by dispatch in 2018 (Includes Fire, EMS and Police – both dispatched and self-initiated).

Calls for Service by Hour and Weekday

Hour	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Total
12am	228	195	196	206	187	186	211	**1,409**
1am	197	149	135	153	176	122	189	**1,121**
2am	204	145	162	176	165	125	197	**1,174**
3am	176	140	134	127	134	115	185	**1,011**
4am	152	105	123	124	135	110	138	**887**
5am	71	88	90	94	94	79	70	**586**
6am	146	151	203	201	201	180	148	**1,230**
7am	177	357	388	418	392	383	217	**2,332**
8am	253	397	458	459	448	445	281	**2,741**
9am	310	373	433	463	481	451	274	**2,785**
10am	288	445	458	562	470	498	287	**3,008**
11am	250	415	443	449	387	406	279	**2,629**
12pm	239	411	366	417	398	409	264	**2,504**
1pm	252	421	392	454	443	436	322	**2,720**
2pm	262	474	406	456	465	418	301	**2,782**
3pm	281	409	357	428	384	358	297	**2,514**
4pm	267	341	339	346	333	313	257	**2,196**
5pm	190	260	324	268	283	283	207	**1,815**
6pm	256	253	249	288	261	295	225	**1,827**
7pm	235	258	258	324	288	293	296	**1,952**
8pm	236	254	236	274	221	249	278	**1,748**
9pm	218	207	238	272	247	300	276	**1,758**
10pm	226	240	202	228	233	257	289	**1,675**

11pm	167	218	182	211	228	270	286	**1,562**
Total	5,281	6,706	6,772	7,398	7,054	6,981	5,774	45,966

As the table indicates a total of 45,966 CAD incidents were recorded. These total were then broken down by average calls received per hour and day of the week. The following table shows the average volume of incoming calls including officer self-initiated activity by hour and day of the week during 2018.

Weekly Calls For Service

	Sun	Mon	Tue	Wed	Thu	Fri	Sat
12am	4.56	3.43	3.64	3.60	3.68	3.47	4.26
1am	4.07	3.04	3.09	3.24	3.37	2.79	3.90
2am	3.73	2.80	2.89	3.07	3.08	2.44	3.63
3am	3.24	2.49	2.56	2.61	2.70	2.18	3.21
4am	2.79	2.25	2.51	2.53	2.62	2.18	2.71
5am	2.37	2.62	2.95	3.02	3.03	2.68	2.41
6am	2.86	3.84	4.52	4.64	4.54	4.23	3.05
7am	3.63	5.74	6.53	6.83	6.62	6.37	3.98
8am	4.65	7.01	7.95	8.39	8.09	7.93	4.89
9am	5.29	7.59	8.45	9.16	8.73	8.61	5.25
10am	5.32	8.01	8.48	9.52	8.58	8.77	5.38
11am	5.03	8.01	8.16	8.98	8.09	8.32	5.41
12pm	4.83	8.14	7.69	8.64	8.05	8.15	5.47
1pm	4.89	8.23	7.52	8.54	8.21	8.00	5.76
2pm	5.04	8.28	7.36	8.37	8.16	7.66	5.70
3pm	5.05	7.59	6.99	7.77	7.42	6.95	5.45
4pm	4.86	6.59	6.49	6.77	6.52	6.24	4.93
5pm	4.47	5.57	5.94	5.95	5.75	5.77	4.59
6pm	4.57	5.08	5.26	5.68	5.27	5.57	4.69
7pm	4.48	4.83	4.93	5.69	5.09	5.47	5.14
8pm	4.48	4.69	4.59	5.39	4.71	5.26	5.33
9pm	4.23	4.41	4.36	5.05	4.64	5.34	5.42
10pm	4.05	4.35	4.02	4.50	4.40	5.05	5.36
11pm	3.61	4.01	3.72	4.08	4.08	4.82	5.10

Based on this data, a formula known as the Erlang model is used to calculate the number of dedicated call-takers which will be required to ensure that a desired level of service can be met. The following table illustrates the variables selected for this calculation.

Average call duration	180 seconds
Target answer time	10 seconds
Required service level	90%

Based on these factors, the following table shows the number of emergency call-taking staff which should be present at each hour of the day to ensure the desired level of service is met.

To determine staffing needs for this volume of workload, the following two key variables are used:

- Average dispatch time per call: This includes time on the radio with responding units, as well as time spent processing the call in the CAD system. From experience with hundreds of fire, law enforcement, and dispatch agencies, we know that this typically averages 3 minutes.

- Target occupancy rate: This is the percentage of time that staff should be engaged with an active call, as opposed to “refresh time” when staff can make outgoing calls and prepare themselves for the next incident. An ideal rate is about 50%. Occupancy rates higher than this can begin to create burnout among staff.

Average dispatch time per call	3 minutes
Target Occupancy Rate	50%

Based on these factors, the following table shows the number of staff needed to process CAD calls and dispatch workload at each hour of the day.

2020 Minimum Staffing Needed at Determined Dispatcher Occupancy Rate (rounded to next highest full number)

	Sun	**Mon**	**Tue**	**Wed**	**Thu**	**Fri**	**Sat**
12am	2	2	2	2	2	2	2
1am	2	2	2	2	2	2	2
2am	2	2	2	2	2	2	2
3am	2	2	2	2	2	2	2
4am	2	2	2	2	2	2	2
5am	2	2	2	2	2	2	2
6am	2	2	2	2	2	2	2
7am	2	2	2	2	2	2	2
8am	2	2	2	2	2	2	2
9am	2	2	2	2	2	2	2
10am	2	2	2	2	2	2	2
11am	2	2	2	2	2	2	2
12pm	2	2	2	2	2	2	2
1pm	2	2	2	2	2	2	2
2pm	2	2	2	2	2	2	2
3pm	2	2	2	2	2	2	2
4pm	2	2	2	2	2	2	2
5pm	2	2	2	2	2	2	2
6pm	2	2	2	2	2	2	2
7pm	2	2	2	2	2	2	2
8pm	2	2	2	2	2	2	2

	Sun	Mon	Tue	Wed	Thu	Fri	Sat
9pm	2	2	2	2	2	2	2
10pm	2	2	2	2	2	2	2
11pm	2	2	2	2	2	2	2

As this chart indicates, current authorized staffing meets current industry standards to meet call taking and dispatch service levels, however these position counts do not account for turnover which typically averages 20%. To meet this the department needs a minimum of 12 dispatchers to meet current service levels. The method of calculation is explained in the following sections.

(2) Calculations

The following section shows staffing calculations through the study period:

Calculations	
2020	
336	Weekly dispatcher hours required
17,520	Annual dispatcher hours required
11.0	Dispatcher count needed
2025	
337	Weekly dispatcher hours required
17,572	Annual dispatcher hours required
11.0	Dispatcher count needed
2030	
347	Weekly dispatcher hours required
18,094	Annual dispatcher hours required
11.3	Dispatcher count needed

These numbers are used to calculate actual staffing numbers based on turnover.

(3) Total Staffing

The following table combines the emergency call-taking staffing needs (calculated using the Erlang model) and the dispatch and non-emergency staffing needs (calculated arithmetically) to arrive at the total daily and hourly staffing needed to ensure high levels of service.

The following charts show the minimum staffing required based upon expected population growth. This indicates that the impact on dispatcher staff needed is negligible and would only impact one hour during the morning shift.

2025 Minimum Staffing Needed at Determined Dispatcher Occupancy Rate

	Sun	Mon	Tue	Wed	Thu	Fri	Sat
12am	2	2	2	2	2	2	2
1am	2	2	2	2	2	2	2
2am	2	2	2	2	2	2	2
3am	2	2	2	2	2	2	2
4am	2	2	2	2	2	2	2
5am	2	2	2	2	2	2	2
6am	2	2	2	2	2	2	2
7am	2	2	2	2	2	2	2
8am	2	2	2	2	2	2	2
9am	2	2	2	2	2	2	2
10am	2	2	2	**3**	2	2	2
11am	2	2	2	2	2	2	2
12pm	2	2	2	2	2	2	2
1pm	2	2	2	2	2	2	2
2pm	2	2	2	2	2	2	2
3pm	2	2	2	2	2	2	2
4pm	2	2	2	2	2	2	2
5pm	2	2	2	2	2	2	2
6pm	2	2	2	2	2	2	2
7pm	2	2	2	2	2	2	2
8pm	2	2	2	2	2	2	2
9pm	2	2	2	2	2	2	2
10pm	2	2	2	2	2	2	2
11pm	2	2	2	2	2	2	2

2030 Minimum Staffing Needed at Determined Dispatcher Occupancy Rate

	Sun	Mon	Tue	Wed	Thu	Fri	Sat
12am	2	2	2	2	2	2	2
1am	2	2	2	2	2	2	2
2am	2	2	2	2	2	2	2
3am	2	2	2	2	2	2	2
4am	2	2	2	2	2	2	2
5am	2	2	2	2	2	2	2
6am	2	2	2	2	2	2	2
7am	2	2	2	2	2	2	2
8am	2	2	2	2	2	2	2
9am	2	2	**3**	**3**	**3**	**3**	2
10am	2	2	**3**	**3**	**3**	**3**	2
11am	2	2	2	**3**	2	2	2
12pm	2	2	2	**3**	2	2	2
1pm	2	2	2	**3**	2	2	2
2pm	2	2	2	2	2	2	2
3pm	2	2	2	2	2	2	2

2030 Minimum Staffing Needed at Determined Dispatcher Occupancy Rate

	Sun	Mon	Tue	Wed	Thu	Fri	Sat
4pm	2	2	2	2	2	2	2
5pm	2	2	2	2	2	2	2
6pm	2	2	2	2	2	2	2
7pm	2	2	2	2	2	2	2
8pm	2	2	2	2	2	2	2
9pm	2	2	2	2	2	2	2
10pm	2	2	2	2	2	2	2
11pm	2	2	2	2	2	2	2

As the above table show, projected workload due to population growth (and resulting call increases) would increase the number of staff needed in 2030 to 3 to handle expected workloads for a portion of the morning shift.

It is important to note that the exact hourly staffing needs can be smoothed to fit with the agency's shift schedule; if the maximum staffing is 2 during periods where the model shows a need for 3 staff, it will keep the dispatcher occupancy rate below 55%, which is still within a reasonable range.

(4) Total Authorized Positions after Turnover and Overtime (Current)

The agency's total annual turnover rate for dispatcher positions is 20%, which means that at a given time, 20% of floor positions (or the equivalent of 2.2 positions) may be empty.

11.0	Total Filled Positions Needed
x	
.20	Turnover Rate
2.2	**Total Positions Empty**

Overtime can compensate in part for staff turnover rates. Overtime should generally not exceed 10% of the total hours needed. In the case of SZPD, this means that the equivalent of 1.1 FTE's can be accounted for using overtime.

11.0	Total Filled Positions Needed
x	
.10	Maximum overtime rate 10%
1.1	**Total Positions Covered by OT**

Overtime alone cannot compensate for a turnover figure this high; to account for turnover, the agency should authorize additional positions with the assumption that some will be empty at any given time.

	2.2	Total Positions Empty
-	1.1	Total Positions Covered by OT
	1.1	**Additional Authorized Positions**

Adding these 1.1 positions to the 11.0 filled positions needed results in an authorized total of 12.1 FTE's.

	11.0	Total Filled Positions Needed
+	1.1	Additional Authorized Positions
	12.1	**Total Authorized Positions**

The agency should authorize 12.1 total FTE's to meet hourly staffing needs while accounting for overtime and turnover rates. This same calculation is carried out through 2030.

The agency's total annual turnover rate for dispatcher positions is 20%, which means that at a given time, 20% of floor positions (or the equivalent of 2.2 positions) may be empty.

11.3	Total Filled Positions Needed
x	
.20	Turnover Rate
2.26	**Total Positions Empty**

Overtime can compensate in part for staff turnover rates. Overtime should generally not exceed 10% of the total hours needed. In the case of SZPD, this means that the equivalent of 1.13 FTE's can be accounted for using overtime

11.0	Total Filled Positions Needed
x	
.10	Maximum overtime rate 10%
1.13	**Total Positions Covered by OT**

Overtime alone cannot compensate for a turnover figure this high; to account for turnover, the agency should authorize additional positions with the assumption that some will be empty at any given time.

2.26	Total Positions Empty
-	
1.13	Total Positions Covered by OT
1.13	**Additional Authorized Positions**

Adding these 1.13 positions to the 11.3 filled positions needed results in an authorized total of 12.43 FTE's.

11.3	Total Filled Positions Needed
+	
1.13	Additional Authorized Positions
12.43	**Total Authorized Positions**

The agency should authorize 12.43 total FTE's to meet hourly staffing needs while accounting for overtime and turnover rates. Rounded to the next FTE would result in the need for 13.

It is important to note that SZPD staffs shift supervisors who can cover in emergencies. They were not used in coverage calculations because they have administrative duties as well, however they are working supervisors who can handle all tasks associated with call taking and dispatch when needed.

Currently, dispatch has only 4 dispatch consoles and as the city grows an additional console will be needed.

Recommendation: An additional dispatch communicator position will be required by 2029.

Recommendation: An additional dispatch console will be required to accommodate future growth.

1. Workload - Records

The Records Unit consists of 1 manager and 2 clerks. The unit is responsible for processing all reports, open records requests, answering phones and assisting community walk-ins.

Records reported the following performance measures for a 1 year time frame:

Activity	Number
Incident reports reviewed	9,646
Counter Contacts	5,933
Phone Calls	17,561
Open Records	1,190
Alarm Permits	432
Solicitor's Permits	85
Video's Processed (Partial year)	350
Total	**35,197**

As the table above indicates the records unit handled 35,197 different functions / processes during a year time-frame. Additionally, they reviewed and destroyed 7 years of crime reports that were unneeded due to retention schedules.

Each of these tasks takes various lengths of time to complete, however through our interviews with records staff it was determined they are near capacity to handle any additional work.

The following provides a summary of the findings for records.

- The records unit is at or near capacity with current tasks.

- Video processing has been moved from property / evidence to records which will require one additional clerk.

Recommendation: One additional records clerk should be authorized for a total of three.

1. Workload – Crossing Guards

Crossing guards assist with student and parent crossings near schools. Crossing locations are chosen by safety concerns or number of pedestrians crossing. The workload is based on the number of crossing locations determined to be a safety concern. There are no performance measures for this unit.

2. Summary of Findings Crossing Guards

The following provides a summary of the findings for crossing guards.

- No changes needed in the number of crossing guards needed.

4 Marshal's Division

The Marshal's Division is staffed by 1 lieutenant, 2 corporals, 2 officers, 2 code officers and 1 sanitarian. The division is responsible for serving arrest warrants, enforcing City Codes, and inspecting food service locations, day care, schools and pools.

The Marshal's Division is broken into warrants, environmental, code enforcement and the sanitarian. The Lieutenant is also responsible for overall operations of the unit and fleet while a Corporal serves as the training coordinator.

The unit reported the following performance metrics for a 1 year time period:

Activity	Number	Hours Each	Total Hours
Sanitarian			
Food Insp.	211	2	422
Foster Insp	18	.5	9

Activity	Number	Hours Each	Total Hours
Complaints Inv.	22	1	22
Total	**517**	**N/A**	**453**
Code Enforcement			
Code Violations	1,398	1	1,398
Code Violations Resolved	2,142	.5	1,071
Complaints	732	1	732
Bandit Signs	1,347	10	224
Property abated	31	3	93
Total		**N/A**	**3,518**
Warrants			
Warrants issued	1,598	.5	799
Warrants Cleared	2,022	1	2,022
Total	**3,620**	**N/A**	**2,821**

As the table above indicates the Sanitarian has approximately 453 hours of tracked work related tasks per year, this does not include filing of reports and other reported activities required of the position.

The table above indicates the Code Enforcement Officers approximately 3,518 hours of tracked work related tasks per year. With 2 officers this equates to 1,759 per position. A July 2019 Community Survey indicated 70% of respondents are satisfied with Code Enforcement, however that same survey indicated community members want more sign and graffiti enforcement. With current resources, the unit is able to keep up with current service demands but would not be able to increase proactivity.

The Environmental Law Enforcement officers respond to illegal dumping cases, sewer leaks or illegal discharge and other more serious cases (Class B cases).
The warrants sections used to have 3 officers, however there are only 2 now (1 corporal) who has the added responsibility of training coordinator. There are over 12 thousand outstanding (unserved) warrants.

The unit is also able to effectively respond to code violations in a timely manner and to be proactive (e.g. bandit sign removal). The sanitarian is current with inspections, however there is no backup.

5 Animal Services

Animal Services responds to animal complaints, investigates crimes against animals and operates a shelter. The unit consists of a sergeant, shelter manager, 4 animal control officers, a kennel technician and two part time kennel technicians.

The unit responds to calls for service during normal work hours. In addition to responding to animal calls the unit assists with adoptions and public outreach. The shelter averages

148 animals in occupancy each day which requires significant time for kennel cleaning. Due to the high number of animals in care and minimum cleaning standards that must be met the shelter requires animal control officers assist with kennel cleaning and relies on overtime from other department areas. In the first seven months of 2019, there were 608 animals taken into care.

The department performed an internal analysis of the steps and time required to maintain kennel cleanliness to industry standards. Maintaining cleanliness standards helps prevent the spread of parvovirus and other diseases throughout the shelter. The internal study indicated it takes approximately 40 hours per day to perform all the tasks required by the kennel tech to clean kennels, feed animals and cycle dogs through the runs. The table below indicates the approximate number of staff hours needed per week to accomplish tasks.

Task Time Period	Hours
Day	40
Week (7 days)	280

The table below shows the approximate amount of staff and volunteer time per week (excluding vacation and sick time):

Position	Hours
Kennel Tech	40
Part Time KT	56
Total	**96**

As the table indicates there is approximately 96 hours of scheduled work per week which is less than needed to complete all tasks. The following table shows the difference between the total scheduled hours and total hours needed:

	Hours
Scheduled Hours	96
Hours needed	280
Difference	**-184**

As the table indicates there is a current shortage of 184 hours work hours scheduled to complete all required tasks, this represents approximately 4.6 full time positions if all tasks are to be performed by the kennel staff.

Adding 4 additional full time kennel technicians for a total of 5 would result in 256 scheduled hours per week (5 Full time, 40 hours each and 2 part time, 28 hours each). This would still leave a shortage of approximately 24 hours per week. The reminder of needed hours could be covered by ACO's and volunteers. This approach is often utilized in other animal shelters.

Supervision of Animal Control is accomplished by a Sergeant and an Animal Control Manager. The Sergeant oversees overall daily activities, works on policy development, budgeting and staffing. The Sergeant is in overall charge of Animal Control which is equal in responsibility to a division.

Recommendation: Four additional Kennel Technician positions should be authorized to meet existing workload demands.

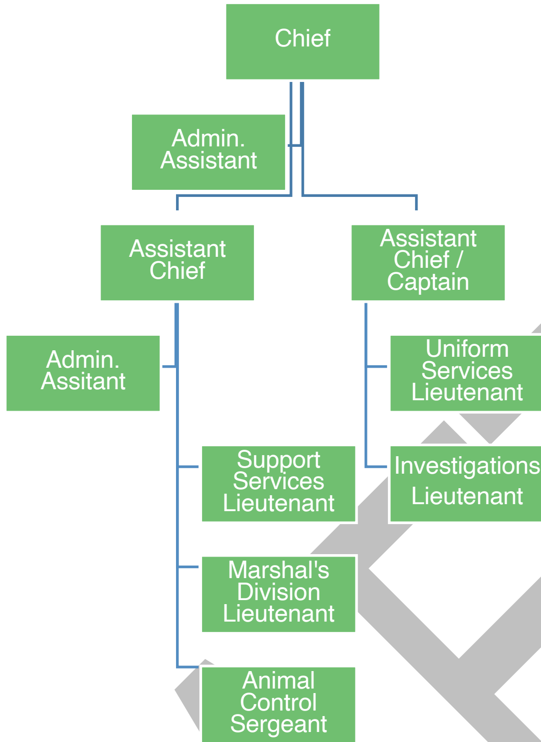
6 | Chief's Office and Administration

The Chief's Office provides overall direction, guidance and leadership for the Department. The Chief has responsibility for every area of the department and ensures that all employees perform their jobs in accordance with the overall mission of the Department and in accordance with the established values.

Reporting directly to the Chief is the Assistant Chief and an Administration Assistant. The Assistant Chief has administrative assistant as well. The current reporting structure is the Chief over the Assistant Chief who has 5 direct reports (not including the admin assistant). At this level this is a larger span of control than is typical especially with tasks assigned to the Assistant Chief. The department had a Captain position in the past which had two divisions under their command. This type of structure would make more sense since it would reduce the span of control and increase the number of direct reports to the Chief.

To reduce the span of control a second Assistant Chief / Captain position could be added.

The proposed organization chart is below:



There are a total of two Administrative Assistants in the organization, one reporting to the Chief and the other to the Assistant Chief. While both Assistants have distinct and separate job duties, both positions provide administrative support to the entire force. The assistants are able to meet current tasks.

Recommendation: If no other organizational changes are implemented, a second Assistant Chief / Captain position should be added to address span of control and operational oversight issues.

7 Summary of Staffing Projections

Overall, the expansive growth Schertz will experience over the next decade will translate to increased police service demand, although that growth will likely occur unequally. Calls for service can be anticipated to increase by nearly 28%, while Part I crimes are likely to increase as well. For instance, the staffing analysis has demonstrated significant deficiencies in investigative staffing and kennel technicians currently, although from that point, there is relatively little growth in needs.

The following table provides a summary of the staffing projections, including a 10-year summary of 2030 forecasted needs versus 2020 authorized:

Summary of Staffing Projections

Unit Name	Classification	Projection Factors	2020 Auth.	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Police Administration													
Administration	**Chief**	Executive position; does not scale.	1	1	1	1	1	1	1	1	1	1	1
	Assistant Chief	Executive officer position; scales to span of control or complexity of command and tasks. This is a recommendation of an increase of one A/C.	1	1	1	1	1	1	1	1	1	1	1
	Captain	Currently Vacant	0	0	0	0	0	0	0	0	0	0	0
	Admin. Asst.	Support position, scales to number of positions supported. No major changes are expected to roles or workload within the projection timeframe.	1	1	1	1	1	1	1	1	1	1	1
	Admin. Asst.	Support position, scales to number of positions supported. No major changes are expected to roles or workload within the projection timeframe.	1	1	1	1	1	1	1	1	1	1	1
Patrol Uniform Services													
Uniform Services	**Lieutenant**	Division Command; does not scale. No major changes are expected to roles or workload within the projection timeframe	1	1	1	1	1	1	1	1	1	1	1
	Sergeant	Shift Leadership, scales at 1 per shift or by span of control 1:6-9.	5	5	5	5	5	1	1	1	1	1	1
	Corporal	Shift Leadership, scales at 1 per shift or by span of control 1:6-9.	4	5	5	5	5	5	5	5	5	5	5
	Officer	Scales to call load.	25	26	30	30	31	31	32	33	34	34	34
Patrol Operations													
Traffic	**Corporal**	Scales to supervisory spans of control.	0	1	1	1	1	1	1	1	1	1	1
	Officer	Elective need; does, not directly scale with service needs, but instead scales with targeted level of coverage/service.	2	2	2	2	2	3	3	3	3	4	4
Marshals													
Administration	**Lieutenant**	Scales to the number of units/functions managed by the lieutenant. No changes to functional span of control are expected within the projection timeframe.	1	1	1	1	1	1	1	1	1	1	1
Environmental Officers	**Corporal**	Supervisor of unit; scales to the number of staff that directly report to the	1	1	1	1	1	1	1	1	1	1	1

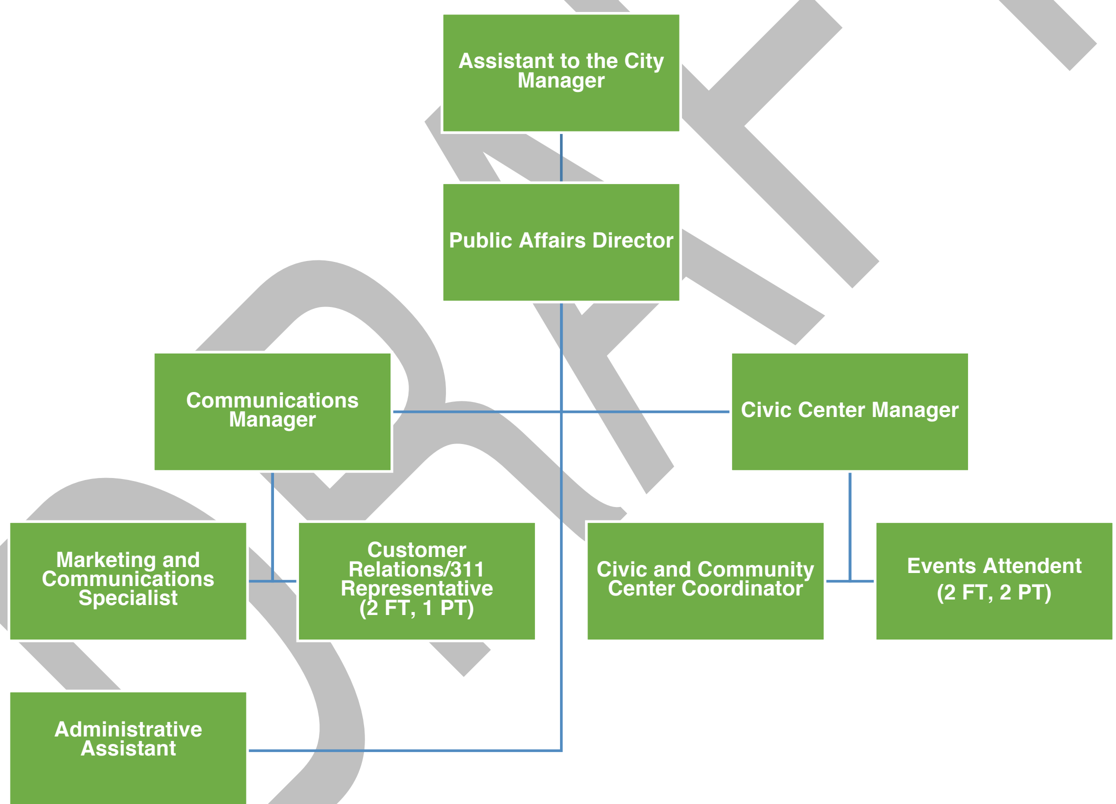
Unit Name	Classification	Projection Factors	2020 Auth.	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
		position or tasks assigned.											
	Officer	Scales to caseload or level of service desired.	1	1	1	1	1	1	1	1	1	1	1
Warrants	**Corporal**	Supervisor of unit; scales to the number of staff that directly report to the position. Based on this type of function, spans of control should be set at a maximum of 1:6-9.	1	1	1	1	1	1	1	1	1	1	1
	Officer	Scales to caseload or level of service desired.	1	1	1	1	1	1	1	1	1	1	1
Sanitarian	**Sanitarian**	Scales to number of tasks or inspections.	1	1	1	1	1	1	1	1	1	1	1
Code Enforcement	**Officer**	Executive position; does not scale.	2	2	2	2	2	2	2	2	2	2	3
Support Services													
Administration	**Lieutenant**	Scales to coverage needs. No changes to the number of positions needed to fulfill these requirements are anticipated within the projection timeframe.	1	1	1	1	1	1	1	1	1	1	1
Dispatch	**Comm. Manager**	Scales to the number of units/functions managed by the lieutenant. No changes to functional span of control are expected within the projection timeframe.	1	1	1	1	1	1	1	1	1	1	1
	Comm. Supervisors	Scales to number of direct reports and shift coverage	4	4	4	4	4	4	4	4	4	4	4
	Comm. Officers	Scales to calls for service and service goals.	12	12	12	12	12	12	12	12	12	13	13
Records	**Manager**	Supervisor of unit; scales to the number of staff that directly report to the position and tasks assigned. Span of control should be set at around 1:6-9.	1	1	1	1	1	1	1	1	1	1	1
	Clerk	Recommended increase in 2020 to include new task of BWC management to meet prevailing practice.	2	3	3	3	3	3	3	3	3	3	3
	Officer	Elective priority; scales based on number of projects. Public Outreach	1	1	1	1	1	1	1	1	1	1	1
School Resource Officers	**Sergeant**	Supervisor of unit; scales to the number of staff that directly report to the position. Based on this type of function, spans of control should be set at a maximum of 1:9.	1	1	1	1	1	1	1	1	1	1	1
	Corporal	This position is both supervisory and response. Based on this type of function, spans of control should be set at a maximum of 1:9.	2	2	2	2	2	2	2	2	2	2	2

Unit Name	Classification	Projection Factors	2020 Auth.	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
	Officer	Based on one SRO per 1000 students at middle and High Schools or desired coverage.	2	2	2	2	2	2	2	2	2	2	2
	Crossing Guards	Based on number of crossing locations.	16	16	16	16	16	16	16	16	16	16	16
Investigations													
Administration	**Lieutenant**	Scales to the number of units/functions managed by the lieutenant. No changes to functional span of control are expected within the projection timeframe.	1	1	1	1	1	1	1	1	1	1	1
Criminal Investigations	**Detective Sergeant**	Supervisor of unit; scales to the number of staff that directly report to the position. Span of control should be set at around 1:6-9, including all personnel assigned to the unit.	1	1	1	2	2	2	2	2	2	2	2
	Detective / Corporals	Scales to caseload.	5	5	7	7	8	8	8	8	9	9	9
Evidence Technician	**Evidence Technician**	Based on the number of scenes processed and property /evidence recovered.	1	2	2	2	2	2	2	2	1	2	2
Animal Control													
Administration	**Sergeant**	Supervisor of unit; scales to the number of staff that directly report to the position or tasks assigned.	1		1	1	1	1	1	1	1	1	1
	Manager	Staffing scales to the number of direct reports or tasks assigned. No changes needed to the unit to expand its current scope and objectives over the projection timeframe.	1	1	1	1	1	1	1	1	1	1	1
	Sergeant	Recommend elevation of this position to lieutenant due to responsibility and complexity of position.	1	1	0	0	0	1	1	1	1	1	1
	Animal Services Officer	Scales directly with coverage needs and calls for service.	4	4	4	4	4	4	4	4	4	4	4
	Kennel Tech	Scales to average kennel population and task time	1	1	5	5	5	5	5	5	5	5	5
	Kennel Tech (Part Time)	Scales to average kennel population and task time	2	2	2	2	2	2	2	2	2	2	2

17 Public Affairs

Public Affairs is responsible for establishing and maintaining internal and external communications for the City of Schertz. The Department promotes, organizes and supports informational, educational and special event activities that benefit the community and City employees through advertising, production of city videos, print ads, press releases, email blasts, website and electronic sign ad creation and posting. Public Affairs publishes *Schertz Magazine* with a circulation of over 15,000. Operations of the Civic Center and 311 Customer Care also fall under the umbrella of Public Affairs.

The following organizational chart shows the departmental organizational chart for Public Affairs.



1 Operational and Technological Changes Needed

There are several opportunities for the City to develop a more defined framework for managing operations that will enhance the ability of the organization to improve service and manage costs.

(1) Cost Recovery Targets and Fees should be evaluated Annually for the Civic Center.

The efforts of the Civic Center should remain an annual focus of discussion prior to budget establishment with annual reviews of the fees charged for services and discussion regarding the cost recovery target of this operation. As a center focused on smaller-events, the clientele of the facility generally are going to be price conscious. However, the Center is dependent on a large number of events to generate the revenues necessary to cover allocated costs. It will be important that annually the fees charged for services are reviewed not only to ensure they are sufficient to cover costs, but that they remain consistent with major competitors in the area.

This review should take place at the same time as there is discussion regarding the appropriate cost recovery target as these two items go hand in hand. Staff can only achieve appropriate cost recovery targets when fees are appropriately set in relation to costs. If fees are set at levels below those needed to recover costs (which is likely as most small Civic Centers do not break even), consideration should be given to adjusting the targeted level of cost recovery to clearly provide direction to staff on the expected level of cost recovery to be achieved.

Recommendation: Annually the fees associated with Civic Center rentals should be reviewed and adjusted as needed. Additionally, a cost recovery target should be established annually.

(2) Longer-term, the Civic Center Should be Considered for Movement to the Parks and Recreation Department.

The location of the Civic Center and Community Center operation as a component unit of the Parks and Recreation Department would ensure that all recreational-type fee generating services are handled under the direction of a single individual who is responsible for and accountable for overall operations of these facilities and programs. It would also reduce the impacts and conflicts that have arisen when there is competing needs for existing space. There are numerous times where city programs and public rentals both want the same facility for the same time period and having one individual overseeing scheduling and programming of these spaces would reduce the potential conflicts. This recommendation is made not due to any current perception of managerial ability, but rather to better align similar functions within the organizational structure. The added benefit this provides is that the focus of the Public Affairs Department can be allocated to the core duties of customer service and communications.

Recommendation: Longer-term, the City should consider the relocation of the Civic Center operations into the Parks and Recreation Department.

2 Staffing Projections

After review of the current staffing allocations, discussions with staff regarding staffing needs and challenges, and evaluating potential impacts due to organizational and community growth, the only major staffing issue that the City should focus on is related to the Event Attendants. These positions are critical to the operation of the Civic Center but have unique schedules and work requirements that make them difficult to fill. At the present time, the staffing is just sufficient, when supplemented with the contractual cleaning services currently in place, to handle the existing workload. If the number of events expand much beyond current capacity, the City will need additional resources to staff the events. Given the historical difficulties that the City has faced in maintaining these positions, this will be a challenge to address. Ideally, what would be needed initially is the addition of additional part-time positions as event levels dictate the need. However, practically, this has been a difficult position to recruit and retain. Given this situation, at the time that additional staff support is needed for the Civic Center, the City may wish to create a hybrid position that is allocated half-time to the Civic Center and half-time to support other City needs (likely within Recreation or Public Works) in order to create a full-time position that is easier to fill and retain, while ensuring that the position is being fully utilized to the City's benefit. We have estimated that one additional event attendant may be required in 2025 if the number of events increases. The timing of this additional staff will be entirely dependent on event-driven workload.

Based upon discussions with staff regarding current capacities, no change is made in the recommended number of staff allocated to Customer Relations as current capacity exists to handle workload increases and it is anticipated that with further expansion of online and remote services, that fewer calls for service will be handled in the future.

Finally, no recommendations were made to increase the number of staff allocated to Public Affairs. In comparison to other similar local government entities, the City of Schertz has allocated more staff resources to the communications function than other similarly sized organizations – and with this, it provides a level of service much greater than these other communities. This is evidenced both by the quality of the items developed, but also by the fact the City produces a monthly magazine of commercial quality.

The following table shows the projected staffing for the Public Affairs Department.

	Employee Classification	Projection Factor	2020 Auth	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Customer Relations	Director	Executive position, does not scale.	1	1	1	1	1	1	1	1	1	1	1
	Cust Relations/ 311 Rep (FT)	Scales based on workload, hours coverage, calls received from residents/public	2	2	2	2	2	2	2	2	2	2	2
	Cust Relations/ 311 Rep (PT)	Scales based on workload, hours coverage, calls received from residents/public	1	1	1	1	1	1	1	1	1	1	1
Communications	Communications Manager	Executive position, does not scale.	1	1	1	1	1	1	1	1	1	1	1
	Marketing/Comm Specialist	Does not scale, based upon workload, programs and service levels.	1	1	1	1	1	1	1	1	1	1	1
	Admin Assistant	Unique position, 1 per unit.	1	1	1	1	1	1	1	1	1	1	1
Civic Center	Manager	Executive position, does not scale.	1	1	1	1	1	1	1	1	1	1	1
	Civic/Comm Center Coord.	Unique position, does not scale.	1	1	1	1	1	1	1	1	1	1	1
	Event Attendants	Scales based on number of events and hours needed for coverage	4	4	4	4	4	5	5	5	5	5	5
	TOTAL		**14**	**14**	**14**	**14**	**14**	**15**	**15**	**15**	**15**	**15**	**15**

18 PUBLIC WORKS DEPARTMENT

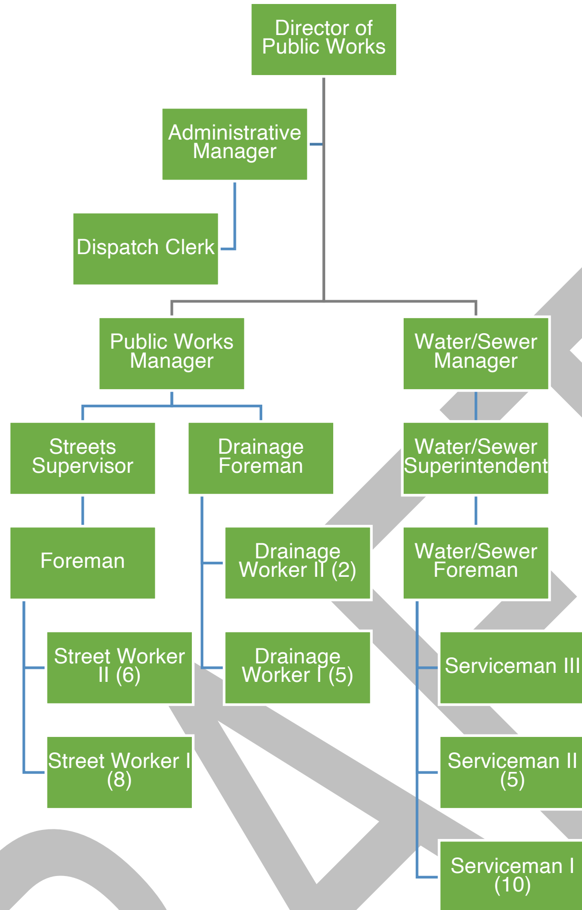
The Public Works Department consists of three divisions and is responsible for maintaining the City's public infrastructure. The Department's Streets Division is responsible for maintaining City streets, sidewalks, signs and striping, as well as other related duties.

The Drainage Division maintains the City's stormwater infrastructure, drainage channels, mowing, pavement markings, storm grates, retention ponds, trees and guardrails, and other related services.

The Water and Sewer Division is responsible for floodplain management, and the maintenance and repair of the water distribution and wastewater collection system, which involves flushing of lines, repair of main breaks, hydrant maintenance, valve exercising, pump and lift station maintenance, locating utility lines, water sampling and other related duties.

All three divisions are responsible for chipping, managing contracts, and attending and participating in special city events outside of normal working hours, such as supporting Planning and Zoning, Schertz Seguin Local Government Corporation (SSLGC), Cibilo Valley Local Government Corporation (CVLGC), and Council meetings.

The current organizational structure of the Department is shown in the following organizational chart.



1 | Operational and Technological Changes Needed

This chapter provides an analysis of the major operational and technological changes required in the Public Works Department.

(1) The Department Should Reallocate Personnel in Order to Provide a More Balanced Level of Service.

The Public Works Department currently provides a set of service levels to its residents that could be more balanced through a reallocation of resources. For example, although the Department does not have accurate records on the precise number of curb miles in the City, if it can be estimated that one-half of the roadways in the City have curbs that are swept, then there are about 163 curb miles in the City. The Department's records for FY 2019 indicate that 11,100 curb miles were swept. The Department reports that it sweeps about 91 curb miles multiple times, as trees drop debris on much of these stretches of roadways. In addition, the sweepers make multiple trips to dump sweeping debris each day, and some parking lots are swept on irregular bases. Therefore, the calculation of the actual curb miles that are swept over any specific period is not possible. However, sweeping over 11,000 miles annually does equate to about 917 miles per month, or about 45 miles per work day. Therefore, if only half of all miles traveled by sweepers is for actual curb-sweeping, this would result in each curb mile being swept seven (7) times monthly. A large number of curb miles are, in fact, swept multiple times as a result of tree debris, however this is a very high level of service.

On the other hand, the Water and Sewer section of the Department is responsible for the maintenance of 228 miles of water main and 115 miles of sewer main, or about 343 linear miles of infrastructure. Using between 15 and 20 center line miles per worker, this is somewhat above the typical amount of infrastructure for which 17 staff members would be responsible, and some services, such as valve exercising and line televising, are not performed on any regular basis. These are critical elements of a preventive maintenance program for the City's underground infrastructure.

The project team recommends that, at a minimum, the Department reallocate staff time from street sweeping to preventive maintenance of the City's water and sewer lines. However, beyond these focused areas, the Department should seek to ensure that service levels are defined for each of the functions it is responsible for performing. Often, service levels are defined to a large degree by the expertise, available equipment and even inertia of the department, rather than by a focused, cyclical analysis of the service levels required by both the residents and the needs of the infrastructure.

Recommendation: The Public Works Department should define appropriate service levels for the maintenance of the City's infrastructure.

(2) The Department Should Enhance the Utility of Its Computerized Maintenance Management System.

The Public Works Department utilizes "Web QA" as its computerized maintenance management system (CMMS). This system is primarily used as a work request tracking system in which the staff input the date of the work request, as well as the location and description of the work request. It is not a comprehensive and robust asset management/CMMS solution. Once crews have addressed the service request, all time is entered into Web QA at the end of the workday; however, there is no detailed breakdown of the work that was associated with any specific work performed. In the project team's review of manually-entered, "Daily Job Time Cards", multiple tasks are reported for multiple crew members within the time designated on the cards, which inhibits a detailed analysis of times expended on specific tasks.

The project team recommends that the Department begin recording both the tasks performed, as well as the hours expended, and the equipment utilized in each task. For example, field crews currently may, in the course of an eight-hour day, perform multiple tasks related to pothole patching, crack sealing and other tasks. These should be individually identified on work orders, and input into a computerized maintenance management system with specific job numbers, along with the actual number of hours worked against it. When crews, or individual crew members, move to a different job site, the hours for each crew member should be entered against a new job number, and this process should be repeated for each successive task performed by the crew, along with the outputs of the performance of the task.

The Public Works Department should begin to schedule its work by analyzing the historical deployment of its staff resources and projecting the probable needs for these staff resources on a monthly basis. There is a tendency among public works professionals to measure the success of their organizations in terms of the responsiveness to work requests, which is understandable, as much of the work of a public works department is, in fact, reactive. However, there are also many tasks that can, and should, be planned and scheduled, such as crack sealing along specific streets, sign condition inspections, roadway inspections, line striping, road preparation for resurfacing, etc. These tasks should be "loaded" into a CMMS, along with identified time periods, crew members, locations, and projected hours of work. This provides managers with a powerful tool that can identify time periods during which excess capacity exists or, alternatively, time periods during which additional resources in the form of contracted labor may be needed. Of course, these plans may, and likely will, be altered as unexpected events occur throughout the year, however without a plan in place, managers cannot assess the impact these unexpected events may have on work that needs to be performed. Moreover, this formalized approach allows the Department to be more accountable to City management for the work that is accomplished, but equally importantly on the impacts that unexpected work has on planned work.

Recommendation: The Public Works Department should enhance the utility of its computerized maintenance management system as a tool to report on work performed, as well as to plan, manage and schedule work that needs to be performed.

(3) The Department Should Take a More Formal Approach to Insourcing and Outsourcing Work.

Interviews and observations by the Project Team indicate that the Public Works Department utilizes contractors for several purposes. However, it is not clear that the services that are outsourced to private contractors are identified in a formal, routine manner. The Department is generally adequately staffed to maintain its current infrastructure, and this typically allows managers to continue to perform certain tasks with in-house staff when, in fact, a formal assessment of all factors may lead to a different conclusion.

Outsourcing work in many cases can be beneficial from not only a financial standpoint (i.e., it may be less costly on a per-unit basis than continuing to perform the same task with internal resources), but can also allow an organization to focus on work that has higher value, or even on a new service that has either been traditionally outsourced or has not been performed at all.

The Public Works Department currently performs certain low-skilled tasks with internal resources, such as mowing (which is outsourced by the Parks, Recreation and Community Services Department) and street sweeping. It also performs line striping internally, which is a function that is largely outsourced in other municipalities, but also requires specialized equipment that is infrequently used, and cannot be used for any other purpose. These are typically candidates for outsourcing.

The project team recommends that the Public Works Department critically analyze each of the services it performs on a routine basis to determine the feasibility of outsourcing functions that are currently performed by internal crews and, alternatively, analyze those functions that may be currently outsourced to determine the feasibility of performing them with internal crews. The bases on which the determination should be made can be found in the table below.

Factor	Comment
The number, and availability, of contractors providing the service	Fewer available contractors may result in either higher costs or less responsiveness on the part of the contractor. If few contractors exist, the Department should take steps to ensure that sufficient staffing levels, and expertise, exist to minimize the reliance on potentially unresponsive and costly contract service providers. However, in a large metropolitan location such as the Greater San Antonio Area, there are likely multiple competitors for any type of service or repair.
The relative cost of the service	Cost is generally an important factor in any outsourcing decision. However, the comparison of internal cost to those of contractors for any specific work order should not be the sole method by which this decision should be made. Contractors will typically have a higher cost structure than the Public Works Department, but if a specific contracted repair costs, for example, $300 compared to $100 if performed internally, it may be a false cost savings to perform this repair with in-house staff if the internal staff member is diverted from higher priority work to perform it. When making the cost comparison, the Division should not only take into account these factors, but also the cost of administering the contract, and of performing quality assurance on the contractor's work.
The frequency with which the service is required	Routinely-performed services, regardless of complexity, should be performed with internal staff unless they occur during peak workloads. Preventive maintenance and other services that occur repetitively should be performed internally to the greatest possible extent.

Factor	Comment
Previous experience with specific service providers.	The Division should document its experience with each contracted service, noting any exceptional service, either positive or negative in its vendor files. Simply put, the Division should discontinue contracting with any deficient service providers. This may limit the number of available contractors, which may also increase the cost of service, but services delivered poorly and unreliably are generally more costly than having performed them well the first time.
The cost of acquiring internal expertise sufficient to perform the service	It is rarely cost-effective to acquire sufficient internal expertise to perform complex repairs that require specialized expertise. Therefore, the Division should generally outsource these services.
The need for special licenses or tools to perform the service	Contractors are especially useful and cost effective when they perform services for which they possess licenses and certifications which are difficult and costly to obtain.
Ability to assure the quality of service provided, and conformance to contractual specifications, by the contractor	Each service provided by a contractor should be monitored to ensure that the work was performed according to quality standards, as well as in conformance with the contract. The cost of this quality check should be factored into every cost calculation when determining the relative cost of internal and contracted service.

Recommendation: The Public Works Department should critically analyze each of its services on a routine basis to determine the feasibility of insourcing and outsourcing.

(4) The Department Should Add a Street Maintenance Crew.

The Streets Division of the Public Works Department is composed of a Street Supervisor, a Street Foreman, six (6) Street Workers II and eight (8) Street Workers I. These staff members are responsible for the maintenance of 163 center line miles of paved surfaces in the City.

In analyzing the responsibilities of the Streets staff, two Worker II positions are dedicated to street sweeping operations, and a Worker II and two (2) Worker I positions are dedicated to the sign shop and sign maintenance. Therefore, in addition to some amount of field assistance from the Street Foreman, there are only nine (9) positions dedicated to street, curb and sidewalk maintenance on a regular basis, and two of these were vacant throughout much of the last year.

The project team utilizes two methods to determine the sufficiency of labor resources dedicated to street maintenance. First, we analyze the hourly expenditures of staff in street maintenance-related tasks and compare this to the available hours of the staff dedicated to maintenance of the paved surface inventory. In data provided to the project team for the 12 months ending in July 2019, the following hours were expended.

Task	Hours
Street Sanitation	1,605.5
Roadway Maintenance	438.5

Potholes	1,853.5
Spray Roadway Vegetation Management	678.2
Paint Striping	194.0
Thermal Plastic (roadway striping task)	126.0
Crack Sealing Maintenance	173.5
Curb and Sidewalk Maintenance	1,005.0
Total	**6,074.2**

Assuming that a full time equivalent worker is available for 1,650 hours per year after vacation, sick time, personal leave, administrative and training time, and assuming the Street Foreman expended 50% of available time in actual field work, the total number of hours that should have been expended in streets maintenance tasks was 10,725 (1,650 * 6.5 workers). However, accounting for the two vacancies in the Division, this was likely only between 7,500 and 8,000 hours. This leaves a discrepancy of between 1,426 and 1,926 hours, which is likely a result of diverting the staff to other non-street-related efforts.

Another measure of the sufficiency of staff dedicated to street maintenance efforts is the comparison of available FTEs to the paved infrastructure for which they are responsible. In this case, the Street Division is responsible for 163 center line miles, and when fully staffed, there are 6.5 workers dedicated to its maintenance. This is a ratio of one worker per 25.1 miles, compared to a typical ratio of one worker per 15 to 20 miles. This equates to a deficit of about two workers. However, given that street crews are composed of three workers each, the project team recommends the addition of three additional Street Workers, which will result in a ratio of one worker per 17.1 center line miles, which is in the mid-range of the typical ratio.

Recommendation: The Street Division should add one (1) Street Worker II and two (2) Street Workers II.

(5) The Department Should Add an Administrative Assistant to Assist with the Increasing Clerical and Administrative Workloads.

The Public Works Department is currently staffed with 48 authorized positions. A summary of these positions is provided in the table below.

Job Title	Authorized Positions
Director	1
Water/Wastewater Manager	1
Administrative Manager	1
PW Receptionist/Dispatcher	1
Water & Sewer Manager	1
Water/Wastewater Superintendent	1
Water & Sewer Foreman	1
Serviceman III	1
Serviceman II	5

Job Title	Authorized Positions
Serviceman I	10
Drainage Foreman	1
Drainage Worker II	2
Drainage Worker I	5
Public Works Manager	1
Street Supervisor	1
Foreman (Streets)	1
Street Worker II	6
Street Worker I	8
Total Department	48
Total Administrative/Clerical Positions	2

As can be seen in the table above, there are 48 authorized positions. Further analysis of this table indicates that, of the 48 authorized positions, only two of these, the Administrative Manager and the PW Receptionist/Dispatcher, are classified as clerical/administrative employees.

There is no “correct” ratio of administrative support staff to managerial and operational staff. These ratios are dependent upon such factors as geographical dispersion of staff supported, workload reporting requirements, public interaction, maturity of the maintenance and financial reporting systems, and others. However, in the experience of the project team, the “typical” ratio of support staff to technical and operational staff varies from 1:9 to 1:25 or more for small- to medium-sized infrastructure maintenance organizations. With two administrative and clerical staff members supporting 46 authorized positions in the Streets and Parks Department and Equipment Maintenance Division, this equates to a ratio of 1:23, which is at the high end of the typical range.

The PW Receptionist/Dispatcher is responsible for a wide range of duties which include answering phones, greeting visitors, receiving and logging complaints, and others. This position has limited opportunities to perform clerical support, however, as the primary duties are related to outside communications, both with field staff and the public. The Administrative Manager conducts the majority of administrative and clerical duties within the Department, which are related to procurement, payroll, regulatory reporting, and others. Therefore, although the mathematical ratio of clerical and administrative support is 1 per 23 staff supported, this ratio at least somewhat overstates the level of clerical support provided to staff.

The Public Works Department should be authorized an additional Administrative Assistant. This position would assist the Administrative Manager in procurement, payroll processing, regulatory reporting, work order entry and reporting, as well as other duties as required.

Recommendation: The Public Works Department should add an Administrative Assistant to assist with the increasing clerical and administrative workload in the Department.

2 Staffing Projections

The primary drivers of staffing requirements in Public Works relate to the infrastructure demands of paved surfaces, grounds and underground utilities. Given that there are no definitive estimates for the growth of these particular attributes going forward, the project team utilized the estimates for housing units in the City, as these are proxies for the demands for additional paved surfaces, as well as water and sewer infrastructure. The lack of data from a well-defined asset management plan or from the more effective utilization of the maintenance management system is a major impediment to this department addressing existing service delivery issues.

The positions of Director and Administrative Manager do not scale and are assumed to remain as single employees per position for the duration of the planning horizon. The position of Dispatch Clerk is assumed to vary with population, as the volume of work varies with the number of calls. However, given the estimate of population growth in the City through 2030, there is a projected need for only one Dispatcher through this period.

In Streets and Drainage, the positions of Public Works Manager, Streets Supervisor and Foreman do not scale, and are assumed to remain at one employee in each position over the planning horizon. The positions of Street Worker I and II (currently eight and six employees, respectively) vary with the number of center line miles. The Department estimates that approximately three (3) miles of paved surfaces will be added each year for the next two years, and five (5) per year thereafter. Therefore, by 2025, there will be a projected 21 additional miles, for total of 183, and by 2030, there will be a projected 208 miles of roadway. However, there appears to be a deficiency in current staffing to address existing workload. The specific calculation on staffing needs in this area are impeded by the lack of data on how existing resources are utilized, however, it is estimated that there is a two (2) FTE deficiency at the present time. Given that crews are composed of three workers, the project team recommends that the Department add three additional crew members (one Street Worker II and two Street Workers I). To address the needs going forward, however, due to the anticipated growth in the road network, the project team estimates that an additional crew will be required by 2030.

Drainage Workers I and II (currently five and two employees, respectively) are expected to increase to seven and three positions, respectively over this time period. The Foreman positions are assumed to vary with the number of employees under supervision and given the small increases in the number of these positions, they are also projected to remain constant at one employee in each position.

In the Water and Sewer Division, the positions of Water/Sewer Manager, and Water/Sewer Superintendent do not scale, and are assumed to remain constant at one employee in each position over the planning horizon. The positions of Serviceman I, II and III (with 10, five and one position in each, respectively) are assumed to vary in concert with the number of street miles added over the planning period. Therefore, by 2025, there are projected to be an additional 21 miles of water and sewer line, for a total of 364 miles, and by 2030, there are projected to be an additional 25 miles, for a total of 389. Maintaining the current ratio of approximately 20 miles of water and sewer line per field worker, this results in the need for an additional two field workers by 2030. The positions of Serviceman I and II are projected to increase from 10 and five, respectively, to 11 and six over the planning horizon. The position of Serviceman III is projected to remain at a single incumbent during the same time period.

As was the case for the Foremen in Streets and Drainage, the Foreman position in the Water/Sewer Division is assumed to vary with the number of employees under supervision but is expected to remain at a single employee over the planning horizon.

Unit	Employee Classification	Projection Factors	2020 Authorized	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Administration	Director	Executive position; does not scale.	1	1	1	1	1	1	1	1	1	1	1
	Administrative Manager	Management position; does not scale.	1	1	1	1	1	1	1	1	1	1	1
	PW Receptionist-Dispatcher	Varies with population/infrastructure maintained by staff	1	1	1	1	1	1	1	1	1	1	1
	Administrative Assistant	New position to address clerical administrative deficit; varies with staff supported	0	1	1	1	1	1	1	1	1	1	1
Streets and Drainage	Public Works Manager	Position does not scale	1	1	1	1	1	1	1	1	1	1	1
	Street Supervisor	Position does not scale	1	1	1	1	1	1	1	1	1	1	1
	Foreman (Streets)	Varies with staff under supervision	1	1	1	1	1	1	1	1	1	1	1
	Street Worker II	Varies with infrastructure maintained	6	7	7	7	7	8	8	8	8	8	8
	Street Worker I	Varies with infrastructure maintained	8	10	10	10	10	12	12	12	12	12	12
	Drainage Foreman	Varies with staff under supervision	1	1	1	1	1	1	1	1	1	1	1
	Drainage Worker II	Varies with infrastructure maintained	2	2	2	2	2	2	2	2	2	2	3
	Drainage Worker I	Varies with infrastructure maintained	5	5	5	5	5	6	6	6	6	6	7
Water and Sewer	Water/Sewer Manager	Position does not scale	1	1	1	1	1	1	1	1	1	1	1
	Water/Sewer Superintendent	Position does not scale	1	1	1	1	1	1	1	1	1	1	1
	Water & Sewer Foreman	Varies with staff under supervision	1	1	1	1	1	1	1	1	1	1	1
	Serviceman III	Varies with infrastructure maintained	1	1	1	1	1	1	1	1	1	1	1
	Serviceman II	Varies with infrastructure maintained	5	5	5	5	5	6	6	6	6	6	6
	Serviceman I	Varies with infrastructure maintained	10	10	10	10	10	11	11	11	11	11	11
TOTAL			**47**	**51**	**51**	**51**	**51**	**57**	**57**	**57**	**57**	**57**	**59**

Recommendation: Increase the number of Street Worker positions by one Street Worker II and 2 Street Worker 1 positions in 2025.

Recommendation: Increase the number of Drainage Worker I positions by one in 2025.

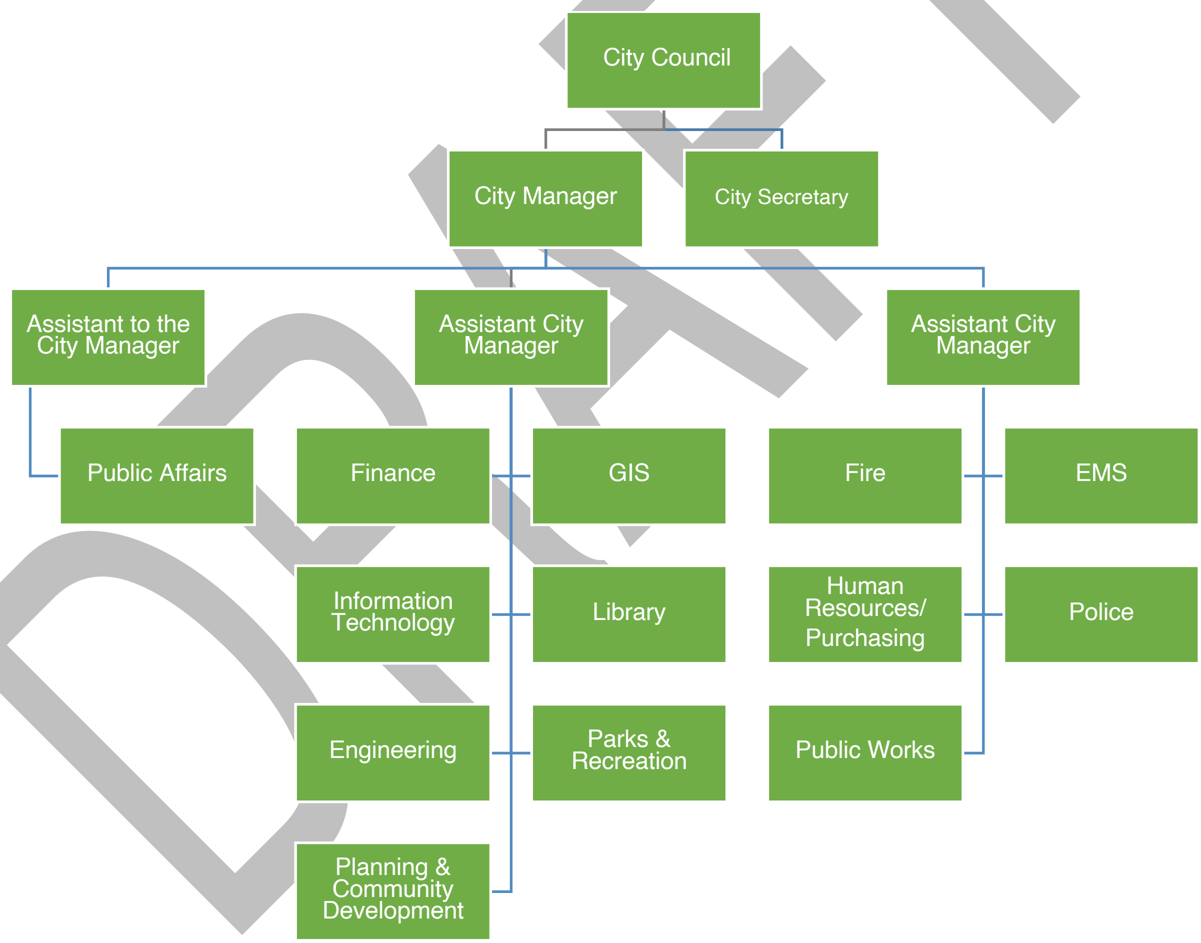
Recommendation: Increase the number of Serviceman positions by one Serviceman II and one Serviceman I in 2025.

Recommendation: Increase the number of Drainage Worker I positions by one and the number of Drainage Worker II positions by one in 2030.

19 Organizational Structure Analysis

This chapter of the report addresses several potential organizational structure changes that may enhance operational practices or bring the City into alignment with typical local government management structures seen in other communities. Where appropriate, a specific recommendation for change is provided.

The following organizational chart shows the overall departmental reporting structure for the City of Schertz.



1 Potential Reorganizations.

During the course of this evaluation, there were several organizational structure issues that were identified where the existing structure of the City of Schertz appears to deviate from the typical structure seen in other municipal organizations that were not addressed in the prior chapters. These have occurred over the preceding years to address specific performance or operational issues the City was facing and by most accounts have addressed operational or performance issues that were present.

(1) Combining Human Resources and Procurement is Uncommon.

It is uncommon within local government operations to find the functions of Human Resources and Procurement combined under a single manager. The typical situations where this is seen is when the organization has established an Administrative Services Department that typically also includes all financial operations and other internal administrative services under a single manager. It is more typical for procurement operations to report to the Finance Department Director.

After review of current operations, the project team does not believe there are significant operational efficiencies or service delivery improvements that would be achieved from realigning this function within the City of Schertz at this point in time. Any operational improvement can be achieved through stricter enforcement of existing policies or procedures and/or greater auditing of the processes but organizational changes are not required to address them. Therefore, no recommendation is made to alter this existing structure. However, should the City undertake other organizational changes in the future that impact either Human Resources or the Finance Departments, consideration should be given to moving Purchasing operations under the Finance Department.

Recommendation: No change is recommended at the present time to realign the Human Resources and Procurement Department. However, if other organizational changes are made in the future that impact either the Human Resources or Finance Departments, consideration should be given at that time to realigning the procurement operations under the Finance Department.

(2) Animal Control Should Be Established as a Stand Alone Department.

The inclusion of Animal Control within the Police Department is not the organizational model typically seen in other communities currently. This model was utilized historically but has fallen out of favor as the Animal Control function has become more professional and services have expanded with a greater focus on community education, placements, rehabilitation, and adoptions and less on simply the enforcement of animal control laws and picking up stray animals.

While placement within the Police Department has worked well to address operational issues that were present, it has diverted resources from typical police operations to the Animal Control function. Additionally, it has created some concerns regarding spans of control and the sufficiency of the number of managerial staff within the Police Department. Movement out of the Police Department would require establishing the Animal Control function as an independent Department with a Director but may lessen the operational need, discussed in the Police Department chapter, for an additional Assistant Chief position.

To effectively implement this model, the City should ensure that it has the leadership at the Animal Control Manager level that can not only handle internal operations of the shelter but provide the direction and leadership to manage an independent department. There is no urgency to making this change, but the implementation of this would realign the structure with not only a more common organizational structure for Animal Control but mitigate the need for some administrative oversight at the Police Department which is a contributing factor to the recommendation for a second Assistant Chief.

Recommendation: Animal Control should be established as a stand-alone Department with a Director overseeing operations.

(3) Consideration should be given to moving code compliance / code enforcement operations from the Police Department to the Planning and Community Development Department.

The City should consider moving the function of property maintenance code compliance / code enforcement operations, including the Sanitarian position, from the Police Department to the Planning and Community Development Department in the longer-term. The duties of this operation are more closely aligned with duties and services provided by the Planning and Community Development Department. Having these staff located within this department would provide the opportunity to more closely involve them in the day-to-day operations of the Department and potentially to cross-train the positions to provide additional field inspections support for certain inspection duties conducted by the department. This could include sign and landscaping enforcement, limited support to Building Inspectors (related to work without permits, stop work orders, and similar functions) and a greater coordination of the work of the Sanitarian in review and enforcement activities. In most local governments, these positions are not filled with prior law enforcement positions and are viewed as a separate professional industry with individuals who make a career in the Code Enforcement arena.

While they could be more fully integrated into operations absent an organizational change, it is easier to accomplish when under the same Director. This change would not directly change staffing requirements, existing positions would simply be relocated, it would impact the span of control and oversight responsibilities of the Planning and Community Development Director. If this approach is implemented, it will be necessary to include an Assistant Director to provide greater executive support and sufficient oversight to the department's various functions As such, it should be done at a point in time where the Director would have sufficient time to dedicate to incorporating those functions into the Department. It should be a priority over the next two years to develop an approach and implement this change. If needed, temporary staffing could be provided to the Director to ensure sufficient time can be directed to implementing this change.

Recommendation: The functions related to property maintenance code compliance and enforcement should be moved from the Police Department to the Planning and Community Development Department.

(4) The GIS Department should be integrated into the Information Technology Department.

GIS operations should transition from a stand-alone department to a component unit of Information Technology.   This is an organizational change raised with the project team by staff and one which after review was determined to be appropriate for the organization. This suggestion was reviewed and it was found that in many organizations the size of Schertz these are not independent operations and that the City would benefit from a more cohesive organizational structure in these functional areas. The benefits of having a combined department include a more cohesive approach to all technology efforts, a single process for prioritization of staff efforts to improve technology utilization, some limited opportunities to more effectively cross-utilize staff, and the ability to more effectively allocate resources to the highest priority technology initiatives.   In reviewing current operations, we see no detriments to the City in making this organizational change and the potential to enhance services from further integrating these two operations. Staff within these departments already work extremely closely together to meet the needs of the organization overall. This organizational change would have no direct staffing impact/ however, if implemented, the City should consider the reclassification of the proposed IT Supervisor position to an Assistant Director position to provide more managerial capacity and succession planning.

Recommendation: The GIS function should be moved from an independent department to a unit of the Information Technology Department.

(5) Longer-term, the Civic Center Should be Considered for Movement to the Parks and Recreation Department.

The location of the Civic Center and Community Center operation as a component unit of the Parks and Recreation Department would ensure that all recreational-type fee generating services are handled under the direction of a single individual who is responsible for and accountable for overall operations of these facilities and programs. It would also reduce the impacts and conflicts that have arisen when there is competing needs for existing space. There are numerous times where city programs and public rentals both want the same facility for the same time period and having one individual overseeing scheduling and programming of these spaces would reduce the potential conflicts. This recommendation is made not due to any current perception of managerial ability, but rather to better align similar functions within the organizational structure. The added benefit this provides is that the focus of the Public Affairs Department can be allocated to the core duties of customer service and communications.

Recommendation: Longer-term, the City should consider the relocation of the Civic Center operations into the Parks and Recreation Department.

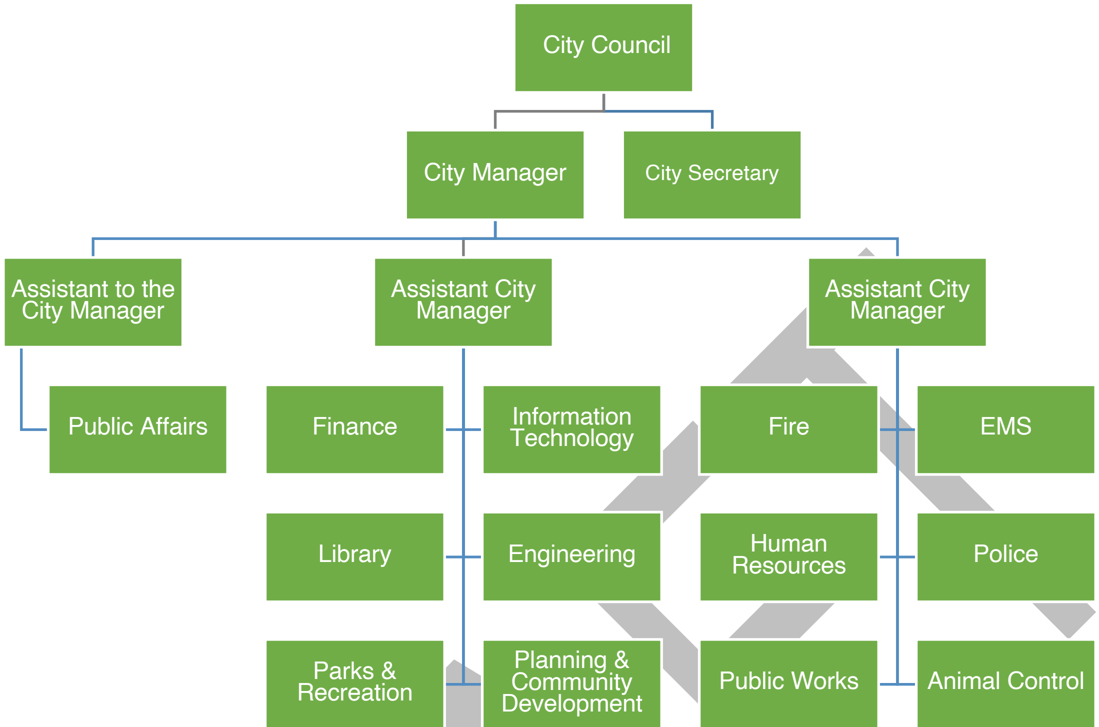
(6) Consideration should be given to moving the functions of Fleet & Facility Services (currently a stand-alone department) to the Public Works Department.

The duties of these operations are closely aligned with duties and services provided by the Public Works Department, including equipment and infrastructure maintenance. Organizationally, it is not uncommon to have Fleet & Facility Services within the Public Works Department. This change would not directly change staffing requirements, existing positions would simply be relocated. It would, however, impact the span of control and oversight responsibilities of the Public Works Department. The City has discussed authorizing a Deputy or Assistant Director of Public Works, and if authorized, these changes made in tandem would add benefit to the City by streamlining maintenance functions.

Recommendation: The functions related to Fleet & Facility Services should be moved to the Public Works Department.

2 Proposed Organizational Structure.

The following organizational chart shows at the Departmental level what the new organizational structure would look like for the City of Schertz if these changes were made. This chart doesn't show the change of Code Enforcement from Police to Planning and Community Development as this occurs at the divisional level and other departments are reflected on this chat. It is important to note however that this change would slightly impact the current spans of control for the Assistant City Managers if no other realignment of department portfolios were implemented.


City Council
City Manager
City Secretary
Assistant to the City Manager
Assistant City Manager
Assistant City Manager
Public Affairs
Finance
Information Technology
Fire
EMS
Library
Engineering
Human Resources
Police
Parks & Recreation
Planning & Community Development
Public Works
Animal Control

Appendix A – Sample Performance Metrics

The following sections provide sample recommended performance measures for major operational areas of the City's organization. It is important to note that in many cases, the City does not currently have data available necessary to report on preferred measures and staff will need to start capturing this data before the measures can be reported on. It is likely to take several years to fully implement a robust performance measurement program and embed into the organizational culture a data-informed approach to management and policy decisions. Notwithstanding this data limitation, there are many measures that can be implemented immediately, or as interim measures, until the data becomes available to implement the desired measures.

1. CITY MANAGEMENT

Measure	Intent	Data Requirements	Suggested Benchmark
City Manager's Office			
% of respondents feeling City is well-managed	Indicator or public perception of overall city operations.	Requires annual survey to be conducted to provide data.	80%
Annual work plans developed for each department with quarterly review conducted.	Ensures annual workplan developed by each department to guide work efforts. A quarterly review should be conducted by the City Manager with one semi-annual update to Council.	n/a	100% of departments.

2. HUMAN RESOURCES AND PURCHASING

Human Resources			
Annual turnover rating	Measures staff turn-over. Over time, this could be established as two separate measures: (1) involuntary; and (2) voluntary.	Data currently exists to measure this.	<10% annually

% of recruitments completed within established targets	To maintain fast moving recruitment processes to attract and acquire best quality candidates.	Data is/or can easily be captured in existing software systems.	<45 days for entry level positions; <60 days for professional positions; <90 days for executive positions.
% of recruitments with qualified applicants from underrepresented groups.		Reports may need to be developed for easy reporting.	>95% of positions filled.
% of employees still employed 1 year after hire.	Measure of effectiveness of the recruitment process to represent both qualified candidates and those that fit the organizational culture.	Data is currently available to measure this though not compiled.	>95%
% of Staff rating training courses as providing valuable content.	Measure to evaluate quality of the training provided to employees.	Surveys will need to be conducted after each training session.	>90%
Contracts & Purchasing			
Purchase orders under $1,000 are made with a rebate p-card or credit card.	With the City using a rebate program for P-card purchases, the more department staff use those cards, the greater the city's rebate (considering payment on the cards are made timely).	The City will need to have its financial software record the total number of invoices under $1,000 and then identify the total number of those purchases made with a P-card.	≥ 80%

3. PUBLIC AFFAIRS

Measure	Intent	Date Requirements	Suggested Benchmark
Design & Communications			
Percent of social media followers who identify their primary language as other than English.	The City's goals include diversity, equity, and inclusion. This metric shows if the City is connecting to a more diverse population group with its social media outreach efforts.	The City will collect data from Facebook, Twitter, and Instagram on how many of the followers on those platforms identify their primary language as other than English.	Comparable to percentage of population with Spanish as primary language.

Measure	Intent	Date Requirements	Suggested Benchmark
Social Media w/tracking ability (Facebook, etc.) shows an increase in people liking or otherwise following the city's posts.	This is an efficiency measure. The goal is to encourage staff to be innovative in ensuring a specific growth measures are achieved with the outcome measure of transparency.	Data of "likes" or people following the city's posts will need to be obtained from each social media site utilized by the City.	≥ 5% annual increase from the prior year
Percentage of design projects completed by the agreed upon deadline.	This is an efficiency measure designed to assist with the evaluation of project staff efficiency.	Before starting a design project, design staff will communicate with the requestor of the work and come up with an agreed upon deadline.	≥ 80% of projects are completed by the agreed upon deadline.

4. FLEET AND FACILITIES

Property Management			
Workorder completed as scheduled.	Measures whether staff are being scheduled effectively.	Work order data is maintained that shows scheduled versus actual start date	≥ 80% or greater start when scheduled.
The number of re-work workorders required	When maintenance staff do a job but have to come back to do it again because something was not completed correctly or as expected, that can be a measure of the quality of work they are providing their customers.	Work order data is maintained that shows whether the work is "re-work".	≤ 5% of total work orders is "re-work"
The percentage of outsourced maintenance work to in-house work on a project basis	Measures whether the City is excessively contracting out repairs. This could be an indication of maintenance issues that need to be addressed or a matter of having staff trained / certified to perform repairs in-house.	Total work orders completed with city staff compared with total work orders outsourced to a vendor.	≤ 10% of work is outsourced

Fleet Maintenance

The number of preventative maintenance tasks performed on schedule	This measures the efficiency of the City's fleet preventive maintenance program.	Total work orders with preventive maintenance work showing a scheduled start date are compared with the actual start date.	≥ 95% of preventive maintenance tasks are performed on schedule
Fleet workorder "re-work" rate	This is an indication of service quality.	Total work orders are compared to the number of re-work workorders.	≤ 5% of total work orders are re-work orders

5. PLANNING AND COMMUNITY DEVELOPMENT

Measure	Intent	Data Requirements	Suggested Benchmark
Building			
Percent of residential building plan reviews completed within 15 business days	Measures the Department's efficiency in quickly routing and reviewing residential plans in order to provide timely customer service.	Data available to calculate – new system will further automate this.	95%
Percent of commercial building plan reviews completed within 20 business days	Measures the Department's efficiency in quickly routing and reviewing commercial plans in order to provide timely customer service.	Data available to calculate – new system will further automate this.	95%
Percent of submittals received electronically	Measures the City's rate of utilization for more efficient and technology-driven methods, as well as the Department's effectiveness in publicizing their availability.	Tracking this measure will require full implementation of electronic document review, including digital plans submittals.	50%
Land Use			
Percent of Simple applications closed within 30 days	Measures the Department's efficiency in quickly reviewing straightforward land use applications and bringing them to a resolution in a timely manner.	Data available to calculate – new system will further automate this.	90%

Measure	Intent	Data Requirements	Suggested Benchmark
Percent of more complex applications closed within 90 days (date of complete application received to date of decision, excluding appeals)	Measures the Department's efficiency in reviewing more complex land use applications and bringing them to a resolution before the State-mandated deadline.	Data available to calculate – new system will further automate this.	90%
Inspections and Code Compliance			
Percent of inspections completed within 1 business day of request	Measures the Department's efficiency in providing timely customer service and ensuring that building and code compliance inspections occur without delay.	This measure can be reported upon already using existing data.	98%
Average number of address stops per inspector workday	Measures the Department's workload per inspector and ability to spread inspections effectively among inspectors.	This measure can already be reported upon with existing data.	15
General			
Percent of "satisfied" and "very satisfied" responses to customer survey	Measures the Department's overall ability to meet customer expectations	This measure requires implementation of a customer survey tool.	80%

6. FINANCE

Measure	Intent	Data Requirements	Suggested Benchmark
Finance Administration			
Credit rating	The City is fiscally responsible and impacts future borrowing costs	Earned credit rating from at least Moody's or Standard & Poor's rating services	Target AA1 / AA+
General Fund Reserve	The City is fiscally responsible and ensures sufficient reserves to weather economic downturn or unexpected financial need of the organization.	Financial statements showing the percent of unassigned general fund reserves as a percentage of the City's total general fund operating budget	≥ 16.67% General Fund reserve balance
Finance Operations			

Measure	Intent	Data Requirements	Suggested Benchmark
Fund balance budget versus actual	This measure shows how accurate city staff are at budgeting in comparison to actual financial performance	The City already maintains budget-to-actual data. Analysis will be completed on the percentage difference between mid-year budget projections and ending actual numbers	≤ 5%
Municipal Court			
Defendants successfully comply with court orders prior to a suspension being issued.	The outcome is theoretical in that you are "connecting" with offenders in a way that is successful enough to get them to comply with court orders.	The City will continue to compare the number of compliance matters compared with those that require additional court action.	≥ 85%
Case clearance rate	Clearance rates measures a court's ability to dispose of incoming cases. The goal is to dispose of as many cases as are received, or as close to this amount as is reasonable. This is a measure of court operations efficiency and could indicate staffing deficiencies.	Total incoming cases and total cleared cases must be recorded.	≥ 97%
Case load aging	The goal is to clear cases in a timely manner.	The date when a case enters the court and the date when the case is resolved (excluding cases that go to warrant) are recorded.	≥ 60% of cases are cleared within 90 days.

7. INFORMATION TECHNOLOGY

Information Technology			
Server intrusion identification	Identifying any attempt to penetrate the City's computer network	Appropriate software that monitors for system intrusion and immediately reports any suspected attempts	Within 24 hours of occurrence

Internal Phishing campaigns clickthrough rates	Reducing the risk of system intrusion caused from employees clicking on email links or opening email attachments	The City will continue to employ an active phishing campaign and keep records of the total emails sent and total emails that were “clicked” or otherwise had an attachment opened	≤ 5%
Helpdesk ticket response times	This is measure of IT workorder ticket effectiveness and efficiency.	IT will monitor total workorder / tickets and record in the workorder system times of ticket creation and initial arrival time in response to the workorder / ticket.	Within 4 hours for priority or emergency incidents and within 3 business days for all other incidents.
Average cycle time for open IT workorder tickets	This measures the time it takes for IT staff to complete a workorder ticket. Cycle times will vary depending on the difficulty of the repair, but if the average per ticket is high, that could be indicative of a need to determine the cause.	IT will monitor and record workorder creation date with workorder closure date.	≤ 3 days

8. LIBRARY

Measure	Intent	Data Requirements	Suggested Benchmark
Collection turnover above x%.	To ensure that the library is making the best use of space available and meeting patron needs.	Tracking circulation overall and by program area.	> 5 times
Proportion of collection replaced per year.	To keep the library current and meeting patron needs for new materials.	Tracking circulation overall and by program area.	> 5% of the collection.
Getting new materials into circulation.	To keep the library current and meeting patron needs for new materials.	Technical services tracking incoming orders and turnaround time to shelves,	3 days
Programs attended do not decline in attendance	To keep programs current and fresh in meeting patron needs; to ensure that staff are constantly using patron feedback and monitoring attendance to improve programs.	Patron surveys Monitoring attendance trends	Depends on the program

Measure	Intent	Data Requirements	Suggested Benchmark
% of programs provided to underserved patrons	Ensure that full needs of the entire community are met by focusing some efforts on underserved populations.	Tracking of the number of programs conducted by target audience category.	>10% of programs (initially). Overtime, program %ages should be reflective of population served.
% of participants indicating satisfaction with the program.	To measure participant perception of program value.	Will need to conduct post program survey to collect data.	>80% per program.

9. PARKS AND RECREATION

Measure	Intent	Data Requirements	Suggested Benchmark
Parks Maintenance			
Percentage of parks receiving a score of "good" or "excellent" in an annual parks condition assessment	Measures the division's ability to keep parks in a condition that is appealing to residents.	This will require an annual parks condition assessment.	90%
Percentage of households living within ½ mile of a park.	Measures the accessibility of parkland and open space to City residents.	This will require GIS analysis to determine the distance of housing units from parks and open spaces.	85%
Park acres per 1,000 residents equals or exceeds national average.	Measures the overall availability of parks and open space to residents of Schertz.	This calculation can already be conducted with available park acreage and population data.	10 (national average)
Proportion of total work orders (or labor hours) spent on routine tasks and preventive maintenance rather than service requests	Measures the degree to which the Department's focus is on routine and preventive maintenance rather than "putting out fires". Indicates the quality of park conditions.	This will require a functional asset management and work order system with reporting capabilities.	70%
Recreation			
Percentage of residents who consider the City's recreation programs to be "good" or "very good"	Measures the recreation program's effectiveness in meeting the needs and expectations of Schertz's residents.	This will require an annual community survey.	75%
Percent of recreation programming costs recovered through user fees	Measures the cost efficiency and value generated by recreation programming – a target cost recovery level should be a policy decision made by City leadership	This metric can be measured currently using budget and recreation revenue figures.	TBD
Percent of recreation programs meeting minimum enrollment	Measures the City's effectiveness in reaching residents with appealing recreation offerings and limiting programs to those in which residents have interest.	This metric will require attendance counts at recreation programming and the establishment of minimum enrollment benchmarks.	80%

10. ENGINEERING

Capital Planning			
Percent of CIP projects which are completed within 90 days of their initially planned completion date	Measures the City's ability to accurately predict and effectively manage the timing of capital project progression.	None, this data is already readily available.	80%
Percent of CIP projects which are completed within the initially planned budget	Measures the City's ability to accurately scope and cost capital projects and manage project-related expenses during the progression of the project.	None, this data is already readily available.	85%
Percent of CIP projects with change orders totaling less than 15% of the initially planned budget	Measures the City's ability to manage change orders and their impact on costs over the life of the project.	None, this data is already readily available.	85%

11. EMS

EMS			
Percent of BLS calls with response within six minutes	Measures the City's ability to respond to industry response standard.	None, this data is already readily available.	>95%
Percent of ALS calls with response within ten minutes	Measures the City's ability to respond to industry response standard.	None, this data is already readily available.	>95%

12. FIRE

FIRE			
Percent of Fire Inspections completed on schedule	Measures the City's ability to timely complete fire inspections.	The City should adopt a response time for fire inspections.	>90%
Percent of calls where turnout time is 80 seconds or below (Fire call)	Measures the City's ability to meet NFPA standard.	None, this data is already readily available.	>90%
Percent of calls where turnout time is 60 seconds or below (medical calls)	Measures the City's ability to meet NFPA standard.	None, this data is already readily available.	>90%

Percent of calls where first arriving engine company on scene in four minutes.	Measures the City's ability to meet NFPA standard.	None, this data is already readily available.	>90%
Percent of calls where full deployment is achieved in eight minutes.	Measures the City's ability to meet NFPA standard.	None, this data is already readily available.	>90%

13. POLICE

DISPATCH			
Average response time for Priority 1 calls	Measures the City's ability to timely handle calls for service.	Data available	Report actual average response time.
Average response time for Priority 2 calls	Measures the City's ability to timely handle calls for service.	Data available	Report actual average response time.
Average response time for Priority 2 calls	Measures the City's ability to timely handle calls for service.	Data available	Report actual average response time.
Annual proactive time	To measure amount of time available for officers on street to interact and engage with the public (excludes all training, administrative, and call response/handling time). Higher proactive time provides greater opportunities for public engagement.	Data readily available from CAD data but will need to be coordinated with other datasets regarding administrative time (training, report writing, etc.) to get net available proactive time.	60% or greater proactive target. Must be adopted in alignment with the staffing allocations adopted.
Case clearance rate	To measure percentage of cases cleared / closed over time.	Data readily available but will need to be tracked consistently.	

Agenda No. 7.

CITY COUNCIL MEMORANDUM

City Council Meeting:	**May 12, 2020**
Department:	**Emergency Medical Services**
Subject:	**2019 EMS Annual Report. (J. Mabbitt)**

BACKGROUND

The EMS Department has created an annual report that will be sent to stakeholders. That report is attached for information for Council. Late to add to Council due to the ongoing COVID-19 pandemic.

Attachments

2019 EMS Annual Report

City of Schertz

EMERGENCY MEDICAL SERVICES

Director's Report

2019

Table of Contents

EMS Director's Report

The EMS Department has seen its share of successes over the years and 2019 was no different. We responded to over 10,000 calls for service and transported over 6,700. This was an increase of overall call volume of 6.96% and an increase of 9.29% in transports compared to the previous fiscal year.

We welcomed several new management positions with the hiring of our Senior Administrative Assistant, Erica Abellas, Operations Manager, Brandon Hill, Community Health Coordinator, Tyler Bowker and MIH Paramedic, Denise Connors.

We continued our commitment to community education, providing several hundred hours of CPR, first aid and Stop the Bleed training. Our EMT program continues to lead the region with National Registry pass rates over 90%.

As the Director, I am very fortunate to be leading some of the best paramedics in Texas who provide some of the best care to the citizens we serve. We have a solid management team who is dedicated to make Schertz EMS one of the best organizations. I'm proud of our team.

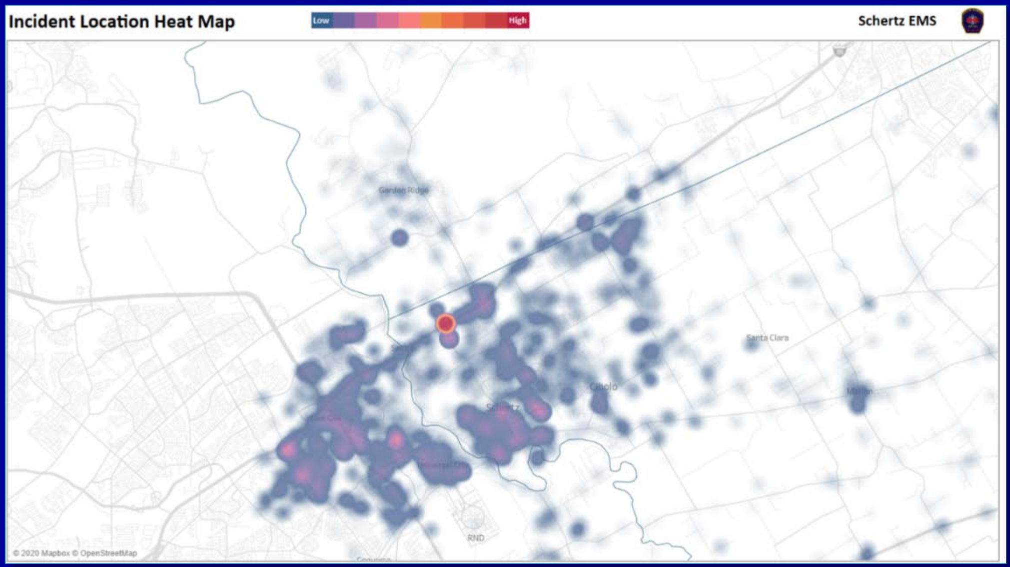


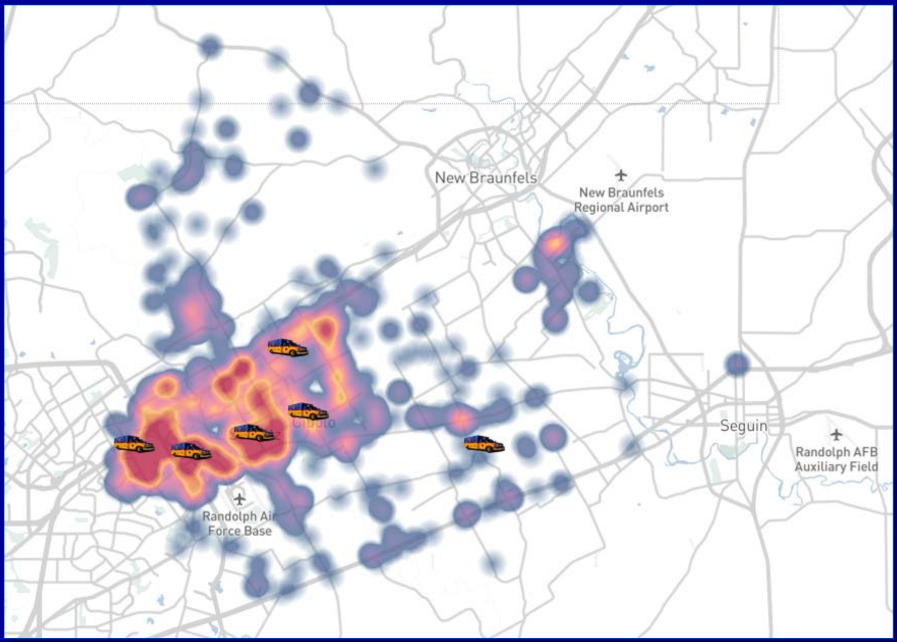




Response Area

Schertz EMS' response area is considered the Greater Randolph area. Coverage includes eight cities, three counties, and one Emergency Services District (ESD). These response areas are determined through interlocal agreements with the eight cities and one county contract. The following heat map displays all calls in 2019. The brightest area is Schertz Baptist Hospital, also known as Emerus. This large concentration of calls is due to an agreement that Schertz EMS provides all transfers from the hospital. Also shown is a heat map with the hospital removed to determine best locations for stations which are indicated by ambulances.





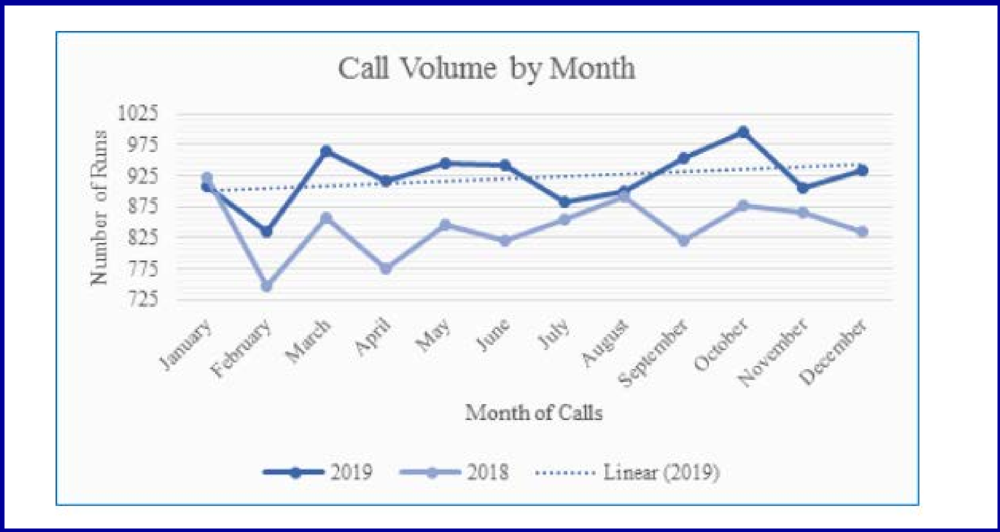
There are currently six stations that house Schertz EMS, four being 24-hour trucks. Station 1 is central headquarters at 1400 Schertz Parkway. Station 2 is housed in Universal City Fire Department. Station 3 is housed in Schertz Fire & EMS Station off IH-35. Station 4 is a standalone location in Marion. Stations 5 and 6 are 12-hour trucks housed in Live Oak Fire Department and Cibolo Fire Department, respectively. In 2019, we began staffing Medic 6 in Cibolo.

Staffing & Scheduling

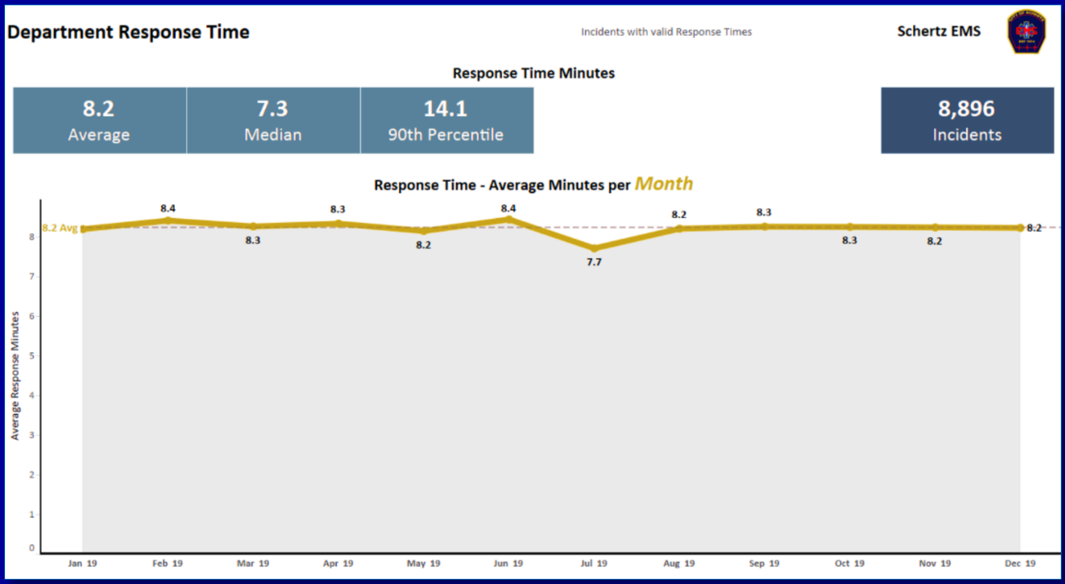
Staffing in 2019 was full with 40 full-time employees and 20 part-time employees. Full-time employees include one Director, one Operations Manager, one Clinical Manager, three Medical Shift Commanders (MSC), three Field Training Officers (FTO), twenty 24-hour Paramedics, six 12-hour Paramedics, one Training Coordinator, one Mobile Integrated Health (MIH) Paramedic, and one Community Health Coordinator. There was some turnover in both full- and part-time employees. There was a 17.5% turnover rate for full-time, losing 7 employees, and 30.0% of part time with 6 employees leaving. Of the 7 full-time employees included in the turnover rate, two remained on staff part-time. There were two paramedics hired, one internal promotion of paramedic and two EMTs hired during the year.

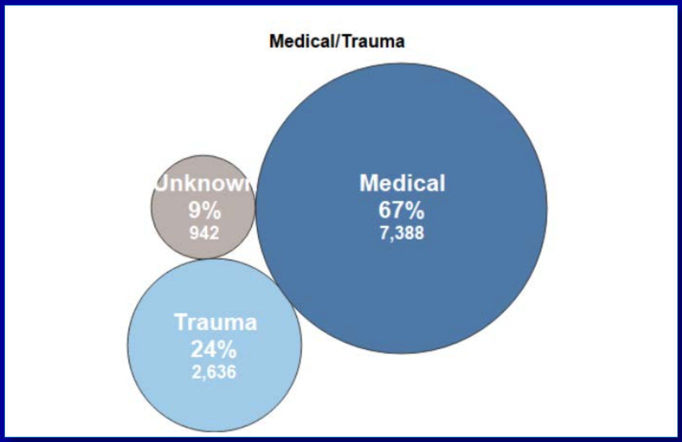
Annual Call Volume

Call Volume. This past year, 2019, has proven to be one of Schertz EMS' busiest yet. Whereas most months in 2018 were below 900 calls per month, 2019 saw most months above 900.

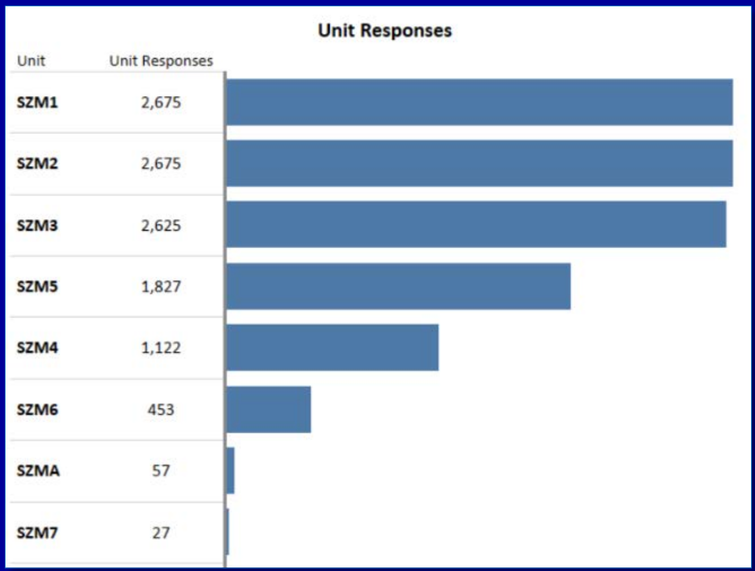


The average response time for 2019 was 8.2 minutes. Charted by month, response times remain consistent throughout the year.

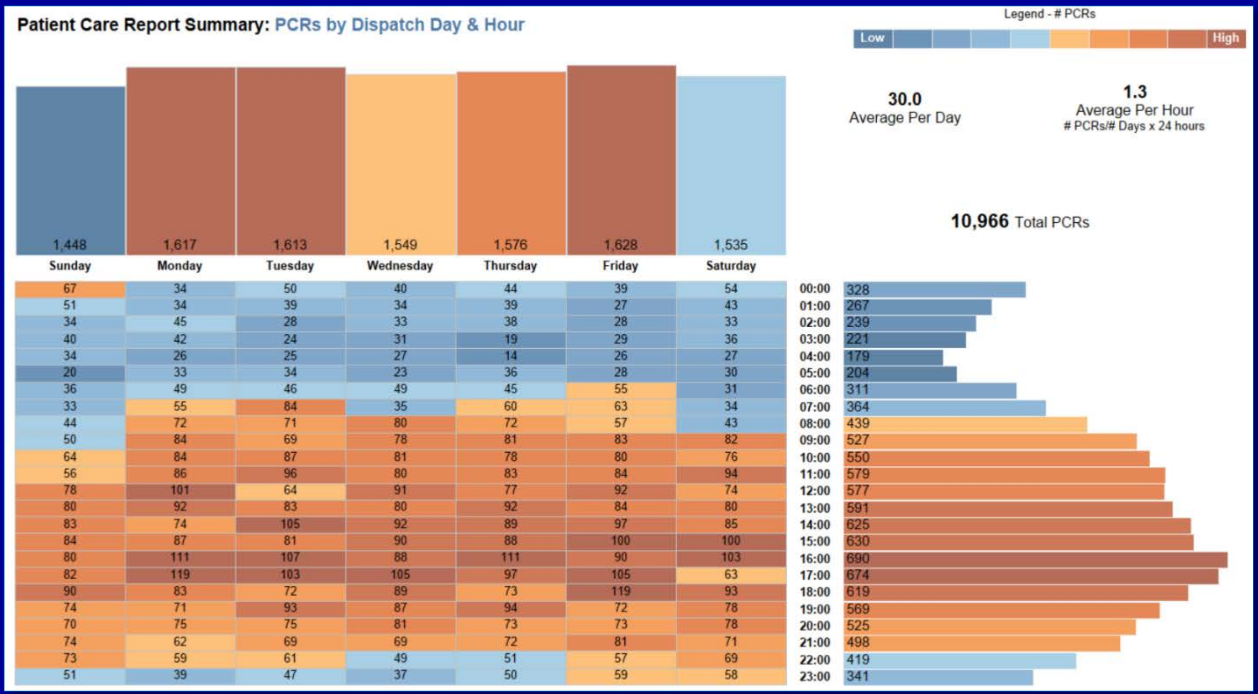




Medic 1, 2, and 3 had the highest response volume in 2019. These are three of the four 24-hour trucks. Medic 5 is a peak hour truck running every day accounting for the higher responses.



The below chart is a great representation of call volume by day and time. This includes all Patient Care Reports for 2019.



Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Hour	Total
67	34	50	40	44	39	54	00:00	328
51	34	39	34	39	27	43	01:00	267
34	45	28	33	38	28	33	02:00	239
40	42	24	31	19	29	36	03:00	221
34	26	25	27	14	26	27	04:00	179
20	33	34	23	36	28	30	05:00	204
36	49	46	49	45	55	31	06:00	311
33	55	84	35	60	63	34	07:00	364
44	72	71	80	72	57	43	08:00	439
50	84	69	78	81	83	82	09:00	527
64	84	87	81	78	80	76	10:00	550
56	86	96	80	83	84	94	11:00	579
78	101	64	91	77	92	74	12:00	577
80	92	83	80	92	84	80	13:00	591
83	74	105	92	89	97	85	14:00	625
84	87	81	90	88	100	100	15:00	630
80	111	107	88	111	90	103	16:00	690
82	119	103	105	97	105	63	17:00	674
90	83	72	89	73	119	93	18:00	619
74	71	93	87	94	72	78	19:00	569
70	75	75	81	73	73	78	20:00	525
74	62	69	69	72	81	71	21:00	498
73	59	61	49	51	57	69	22:00	419
51	39	47	37	50	59	58	23:00	341

Equipment

Ambulances. There are currently nine ambulances in service with Schertz EMS. There's an average of 1,800 miles put on the ambulances in any given month. Already budgeted, a new ambulance will join the fleet in 2020. This will help reduce excess wear on higher mileage ambulances that will remain in service for back up and events. Also available for use is an AMBUS, one of two in the region. This is used for events, deployments or large-scale incidents that is dispatched by MEDCOM.

Ambulance	Year	Mileage *as of December 31*
266	2008	112,157
274	2013	162,318
275	2013	154,764
276	2015	135,162
277	2015	117,472
278	2015	187,486
279	2015	116,193
280	2017	55,341
281	2017	38,211
AMBUS	2011	21,614

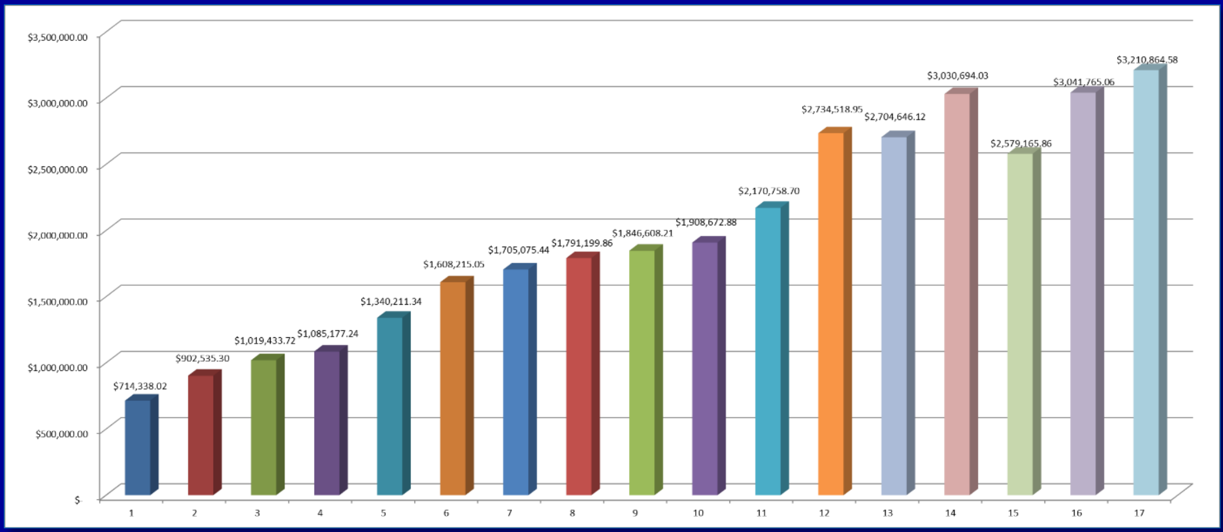
Staff Vehicles. Staff vehicles are take-home vehicles utilized by those that respond to calls on and off duty or are frequently in attendance at meetings away from the office. The MSC truck is not a take-home vehicle, it is left each shift for the on-duty supervisor and is used multiple times a day. There are currently no staff vehicles in reserve.

Vehicle	Year	Mileage
MSC	2015	121,028
Clinical	2016	46,296
Ops 1	2017	20,461
Ops 2	2008	91,761
MIH 1	2007	143,673
MIH 2	2016	39,315

Deployments. In September, our AMBUS and a crew of six were deployed as part of a heavy ambulance strike team when Tropical Storm Imelda threatened the Texas coast.

Financials

We saw our largest annual ambulance revenue collected and our largest cash collection of $353,725.24 in August. We exceeded our predicted revenue over $140,000 and had an overall increase of 5.56% from the previous fiscal year.



Medical Direction

Dr. Donovan Butter is the medical director for Schertz EMS. He has held this position since 1992. Board certified in emergency medicine and family medicine as well as undersea and hyperbaric medicine, Dr. Butter has practiced emergency medicine since 1987 and hyperbaric and wound care medicine since 1999. Prior to his medical education, Dr. Butter also served as a Paramedic with several EMS systems in Texas. He was the recipient of the Texas EMS Medical Director Award for personal and professional dedication to EMS in Texas in 1994.

Awards & Recognition

Mission Lifeline Gold Plus. For the third year in a row, Schertz EMS has received Gold Plus status with Mission: Lifeline EMS, the highest recognition. This program showcases Emergency Medical Service agencies across the nation for excellent STEMI care. These agencies use the most up-to-date evidence-based treatment guidelines to improve care and outcomes in the communities served.

Whole Blood donation. After viewing the lifesaving possibilities of low titer O positive whole blood in surrounding communities, Mr. Twist graciously offered to donate funds to Schertz EMS to get their own equipment. Mr. Twist was able to observe the low titer O positive whole blood training conducted at Schertz EMS and see the equipment his donation purchased. At a special Cibolo city council presentation in October, Mr. Twist, surrounded by family, presented Schertz EMS with the donation. The equipment has already been put to use enhancing the patient care and outcomes.

Commendations. The department receives many commendations throughout the year through notes on ambulance bills, thank you cards, food deliveries, and comments on Facebook. There is also a link available through our website for patients or first responders to provide feedback. Some of the commendations received are:

- *You guys did a great job comforting me and staying with me in the Emergency Department.*
- *Prompt, professional, kind EMTs*
- *Very competent, professional and charming crew. They were wonderful.*
- *Wonderful this early in the morning and appreciate the bedside manner.*
- *These responders were awesome and I'm so grateful for their service.*
- *Your quick response and treatment helped him to survive. Mighty fine folks working there!*
- *Thank you so much for your compassion and kindness.*

Outreach

Blood Drive. Quarterly, Schertz EMS hosts a blood drive. This year, all four blood drives were scheduled without a hitch. This is the first year we needed two buses to handle all of the appointments.

Car Seats. This past year was busy for car seat inspections. The department added a second trained Certified Car Seat Technician in the third quarter. This was much needed as there was a 38% increase in car seat inspections in 2019. This team evaluates the current installation, makes necessary changes, and educates the parent on both the car seat installation and babies fit in the car seat. These are by appointment only, though drops-ins are seen if a technician is available. Over 100 car seats were inspected in 2019 between the two technicians.

CPR, First Aid and Stop the Bleed. May is the busiest month for teaching CPR in the community. The Community Health Department visits the elementary, middle and high schools in the Schertz area providing CPR demos. In 2019, over 7,000 people were trained in CPR, First Aid or Stop the Bleed. The total trained for the year was 9,197, a 21% increase from 2018.

Immunizations. The Schertz EMS Community Health Department provides flu immunizations each year to Schertz city employees and dependents, and employees of the cities in our service area. Clinics are also held at area locations throughout the city, library, senior center, and assisted living, to provide better access for residents and generating revenue for the department. There was also an increase in businesses requesting a flu clinic. This provided one easy location for all employees to get vaccinated. In 2019, there were 664 immunizations provided, a 12% increase over 2018. Although most are for flu vaccines, the Community Health department also offers Hepatitis A and B, Pneumonia, Tetanus, Rabies, and Shingles.

MIH. The Mobile Integrated Health (MIH) division has had a steady increase in visits. In 2019, there were 186 visits with MIH patients, an increase from the 173 visits conducted in 2018. The increase in visits results in a decrease in 911 calls and transports. The MIH team works with high utilizers of emergency services to help coordinate their healthcare and become more self-sufficient.

Public Events. The department participated in many public events throughout the year. There were multiple open houses, Schertz EMS, Universal City Fire Department and Schertz Fire Department. Annual events that we participated in again this year included Moving on Main, National Night Out, Trunk or Treat, and Holidazzle. Employee Wellness Fairs are a great place for outreach, we attended Schertz Employee Wellness Fair, CALTEX Wellness Fair, and The Chamber's health and wholeness fair.

Standbys. Schertz EMS participates in many different standby events throughout the year. The largest revenue producing events are football game standbys. In 2019, Schertz EMS provided standby in either an ambulance or gator with a staff of two for 51 football games between Marion, SCUCISD, OLPH and Randolph. Standby is also provided to anyone that requests it, including local police or fire department testing, marathons, or other one-time sporting events. Revenue in 2019 was just over $20,000 for standby events.

Training

EMT Academy. The EMT Academy continues to strive. Holding three courses a year, 16 weeks each, the course sees around 90 students a year. In 2019, we successfully added an online application process and electronic payments. This streamlined the entire process and ended the line of students camping outside the morning before. This past year two classes had a 95% pass rate with the state. The third class has a current pass rate of 79% with three others scheduled to take the test.