



Town of Westlake

1500 Solana Blvd
Building 7, Suite 7100
Westlake, TX 76262



Town Council/Board of Trustees Agenda - Final

Tuesday, January 21, 2025

4:00 PM

Council Chamber

The Town Council of the Town of Westlake serves as the governing board for Westlake Academy. This agenda may contain both municipal and Westlake Academy items, which will be clearly identified. In an effort of transparency, this meeting will be viewable to the public via Live Stream and also available for viewing after the meeting. In an effort of meeting efficiency, any residents wishing to speak on action items must submit a speaker request form to the Town Secretary prior to the start of the meeting.

NOTE: As authorized by Section 551.071 of the Texas Government Code, Town Council may enter into closed Executive Session for the purpose of seeking confidential legal advice from the Town/School Attorney on any agenda item listed herein.

A. CALL REGULAR MEETING TO ORDER AND ANNOUNCE A QUORUM PRESENT

B. INVOCATION AND PLEDGES OF ALLEGIANCE

C. CITIZEN/PARENT COMMENTS

This is an opportunity for citizens to address the Town Council or Board of Trustees on any matter, whether or not it is posted on the agenda. Any residents wishing to speak on action items must submit a speaker request form to the Town Secretary. Individual citizen comments are normally limited to three (3) minutes. The presiding officer may ask the citizen to hold their comment on an agenda item if the item is posted as a Public Hearing. The Town Council and Board of Trustees cannot by law take action nor have any discussion or deliberations on any presentation made at this time concerning an item not listed on the agenda. The Town Council and Board of Trustees will receive the information, ask staff to review the matter, or an item may be noticed on a future agenda for deliberation or action.

D. ITEMS OF COMMUNITY INTEREST

D.1. [25-29](#) Items of Community Interest (Communications Director Jon Sasser)

E. PRESENTATION

Texas Student Housing Authority Annual Report (Tracy Harrow, Executive Director, TSHA)

F. CONSENT AGENDA

All items listed below are considered routine by the Town Council and/or Board of Trustees and will be enacted with one motion. There will be no separate discussion of items unless a Council/Board Member or citizen so requests, in which event the item will be removed from the general order of business and considered in its normal sequence.

- F.1.** [25-20](#) Discuss, consider and act to approve the Town Council/Board of Trustees Minutes for the January 6, 2025 Regular Meeting (Dianna Buchanan, Town Secretary)
- F.2.** [25-27](#) Discuss, consider and act to approve corrected April 1, 2024 Joint Town Council and Planning & Zoning Commission Meeting Minutes (Town Secretary Dianna Buchanan)
- F.3.** [WA RES 25-01](#) Discuss, consider and act to approve WA Resolution 25-01 to approve amended 2024-2025 Athletic Stipend Schedule. (Sandy Garza, Human Resources Director)

G. REGULAR AGENDA ITEMS

- G.1.** [ORD-1018](#) Discuss, consider and act to adopt Ordinance 1018 approving architectural standards and an architectural pattern book for the Villaggio Residential Development.
- G.2.** [RES 25-04](#) Discuss, consider and act to approve Resolution 25-04 approving a Development Agreement between the Town of Westlake, Texas and Otter Partners, LP, for subdivision improvements for Westlake Ventanas, a residential development to be designed and built in adjacency to Solana Boulevard. (Jason Alexander, AICP, CEcD, Deputy Town Manager)
- G.3.** [25-25](#) Discuss, consider and act to approve the purchase of a new fire engine not to exceed \$1.3 million dollars (Fire Chief John Ard)
- G.4.** [RES 25-02](#) Consider approving Resolution 25-02 authorizing the Town Manager to contract with inCon-Trol Water Systems to repair and update the existing well system at Glenwyck Park through a Master Interlocal Agreement with the City of Southlake in an amount not to exceed \$71,000. (Cheryl Taylor, Director of Public Works)
- G.5.** [25-26](#) Consider and act to excuse Mayor and Council absence(s), if any.

H. EXECUTIVE SESSION

The Town Council/Board of Trustees will conduct a closed session pursuant to Section 551.071 (2) of the Texas Government Code, for the purpose of seeking confidential legal advice from the Town Attorney/Westlake Academy Attorney for the following:

- H.1.** [25-17](#) Section 551.087: Deliberation regarding Economic Development Negotiations to deliberate the offer of a financial or other incentive to a

business prospect: Project ED 25-01.

- H.2. [25-21](#) Section 551.074(1): Deliberation regarding Personnel Matters - to deliberate the appointment, employment, evaluation, reassignment, duties, of a public officer or employee:
a) Planning and Zoning Commission
b) Westlake Development Corporation, Inc. Board (EDC Type 4B)
- H.3. [25-22](#) Section 551.071: Consultation with and legal advice from the Town Attorney regarding pending litigation - Vertical Bridge v. Town of Westlake
- H.4. [25-30](#) Section 551.071: Consultation with and legal advice from the Academy Attorney regarding special education due process complaint

I. TAKE ANY ACTION, IF NEEDED, FROM EXECUTIVE SESSION ITEMS

J. FUTURE AGENDA ITEMS

K. STAFF RECAP OF COUNCIL DIRECTION

L. ADJOURNMENT

I certify that the above notice was posted on the bulletin board at Town of Westlake, Town Hall, located at 1500 Solana Blvd., Building 7, Suite 7100, Westlake, TX 76262, in compliance with the Texas Open Meetings Act, Chapter 551 of the Texas Government Code.



Town Secretary

Disabilities Notice: If you plan to attend the meeting and have a disability that requires special needs, please contact the Town Secretary's Office 48 hours in advance at Ph. 817-490-5711 and reasonable accommodations will be made to assist you.



Town of Westlake

1500 Solana Blvd
Building 7, Suite 7100
Westlake, TX 76262

Staff Report

File #: 25-29

Agenda Date: 1/21/2025

Agenda #: D.1.

TOWN STAFF REPORT RECOMMENDATIONS

Items of Community Interest (Communications Director Jon Sasser)

STAFF: Communications Director Jon Sasser

BACKGROUND:

Pursuant to Texas Government Code Section 551.0415 the Town Council (and or designee) may report on the following items: (1) expression of thanks, congratulations, or condolences; (2) information about holiday schedules; (3) recognition of individuals; (4) reminders about upcoming Town Council events; (5) information about community events; and (6) announcements involving imminent threat to public health and safety.

NOTABLE ITEMS AND UPCOMING EVENTS:

Red Cross Blood Drive

Monday, January 27, 2025; 7-2:30 pm
Westlake Academy Fieldhouse

Town Council Meeting

Monday, February 3, 2025; 4 pm
1500 Solana Blvd, Westlake, TX

Planning & Zoning Meeting

Tuesday, February 4, 2025; 5 pm
1500 Solana Blvd, Westlake, TX

Town Hall/Municipal Court CLOSED

Presidents' Day
Monday, February 17, 2025

Town Council Meeting

Tuesday, February 18, 2025; 4 pm
1500 Solana Blvd, Westlake, TX

ADDITIONAL ITEMS

- Winter Weather recap

Filing Period for May 3, 2025 General and Special Election

The filing period for the May 3, 2025, General and Special Election began January 15, 2025 and ends on February 14, 2025. As of 1/17/25, there have been no candidate applications filed.



Town of Westlake

Staff Report

1500 Solana Blvd
Building 7, Suite 7100
Westlake, TX 76262

File #: 25-20

Agenda Date: 1/21/2025

Agenda #: F.1.

TOWN STAFF REPORT RECOMMENDATIONS

Discuss, consider and act to approve the Town Council/Board of Trustees Minutes for the January 6, 2025 Regular Meeting (Dianna Buchanan, Town Secretary)

STAFF: Town Secretary Dianna Buchanan

BACKGROUND:

The Town Council Board of Trustees Minutes from the January 6, 2025 Regular Meeting are attached for review and consideration of approval.

Once approved, all meeting minutes will be executed and uploaded to the Town of Westlake website for transparency and Laserfiche software for state retention compliance.

ATTACHMENTS:

01.06.2025 TC/BOT Regular Meeting Minutes Draft

TOWN COUNCIL ACTION/OPTIONS:

- 1) Motion to approve minutes, as presented.
- 2) Motion to approve the minutes with the following corrections/changes (please state corrections/changes in motion)
- 3) Motion to table
- 4) Motion to deny



Town of Westlake

1500 Solana Blvd
Building 7, Suite 7100
Westlake, TX 76262



Town Council/Board of Trustees

Meeting Minutes - Draft

Monday, January 6, 2025

4:00 PM

Council Chamber

A. CALL REGULAR MEETING TO ORDER AND ANNOUNCE A QUORUM PRESENT

Mayor Greaves called the meeting to order at 4:00 pm and announced a quorum present.

PRESENT:

Mayor Kim Greaves
Mayor Pro Tem Tammy Reeves
Council Member Todd Gautier
Council Member Michael Yackira
Council Member Anna White

ABSENT:

Council Member Mike Asselta

STAFF PRESENT:

Deputy Town Manager Jason Alexander
Town Secretary Dianna Buchanan
Communications Director Jon Sasser
IT Director Jason Power
Finance Director Cayce Lay Lamas
Human Resources Director Sandy Garza
Academic Finance Manager Marlene Rutledge
Keller Police Chief Brad Fortune

Head of School Dr. Kelly Ritchie
Dir. Innovation & Dev. Michelle Briggs
Town Attorney Stan Lowry
School Attorney Janet Bubert
Fire Chief John Ard
Public Works Director Cheryl Taylor
Academic Accountant Stacie Wrehe

B. INVOCATION AND PLEDGES OF ALLEGIANCE

Pastor Franklin, New Day Church at Southlake, provided the invocation. Mayor Greaves and Westlake Academy Head of School Dr. Kelly Ritchie introduced Westlake Academy students Caroline Justak (8th grade) and Connor Justak (6th grade), to assist with leading the pledges to the U.S. Flag and the Texas Flag. Pledges recited.

C. CITIZEN/PARENT COMMENTS

Mr. Stephen Thornton addressed Town Council regarding a 501(c)3 organization he is part of called Inspirare Productions that holds various events at Mr. Thornton's property located in Westlake. He wants to partner with the Town of Westlake for an historical marker, future community events and also requested funds from the Town for road base for the drive to his property.

D. ITEMS OF COMMUNITY INTEREST

D.1. 25-04 Items of Community Interest (Communications Director Jon Sasser)

Communications Director Jon Sasser reported upcoming items of community interest including the first day to file to be a candidate for Town Council for the May 3, 2025 Election is January 15, 2025.

E. CONSENT AGENDA**E.1. 25-10** Discuss, consider and act to approve the Town Council/Board of Trustees Minutes for the December 9, 2024 Regular Meeting (Dianna Buchanan, Town Secretary)

Motion by Council Member White and Motion Second by Mayor Pro Tem Reeves to approve the Consent Agenda. Mayor Greaves called for the vote.

MOTION TO APPROVE THE CONSENT AGENDA APPROVED UNANIMOUSLY. COUNCIL MEMBER ASSELTA WAS ABSENT.

F. PUBLIC HEARINGS AND CORRESPONDING ACTION ITEMS**F.1. WA 24-52** Hold a public hearing, receive and discuss the 2024 Charter FIRST rating for Westlake Academy based on School Year 2022-2023 data, and the Annual Financial Management Report (Marlene Rutledge, Academic Finance Manager)

Finance Director Cayce Lay Lamas presented the Westlake Academy 2024 Charter FIRST rating report which is presented to the Board of Trustees to comply with reporting requirements. The report is to be received by the Board (Council), but no action is required except to hold a public hearing. Mayor Greaves opened the public hearing and asked if anyone wanted to speak regarding this matter. There was no one to speak. Mayor Greaves closed the public hearing. REPORT RECEIVED AND PUBLIC HEARING HELD.

F.2. ORD-1015 Hold a public hearing, discuss, consider and act to adopt Ordinance 1015 approving text amendments to PD, Planned Development District No. 3-8 generally located at the southeast corner of U.S. Highway 377 and State Highway 170; providing a penalty; providing a cumulative clause; providing a severability clause; providing a savings clause; and establishing an effective date.

Deputy Town Manager Jason Alexander presented the item. The proposed text amendments are intended to introduce more contemporary rules and regulations to facilitate appropriate development and growth along US Highway 377 by defining lot coverage, relaxing some aesthetic standards for specific uses, and updating some building height and landscaping standards. Mayor Greaves opened the public hearing and asked if there was anyone present to speak regarding the item. There was no one to speak. Mayor Greaves closed the public hearing. Motion by Council Member White and Motion Second by Council Member Yackira to approve adopting Ordinance 1015 as presented. Mayor Greaves called for the vote.

MOTION TO ADOPT ORDINANCE 1015 APPROVING TEXT AMENDMENTS TO PD, PLANNED DEVELOPMENT DISTRICT NO. 3-8 GENERALLY LOCATED AT THE SOUTHEAST CORNER OF U.S. HIGHWAY 377 AND STATE HIGHWAY 170 APPROVED UNANIMOUSLY. COUNCIL MEMBER ASSELTA WAS ABSENT.

G. REGULAR AGENDA ITEMS

- G.1. ORD-1016** Discuss, consider and act on a request from Pearson 35 Opportunities, LLC to deviate from the required first floor square footage in Westlake Ranch by removing that provision and allowing the building setbacks to govern.

Item presented by Deputy Town Manager Jason Alexander. The current regulations for Westlake Ranch limit the square footage of the first floor to a maximum of 7,800 square feet which hinders the ability of developers and builders to respond to market demand. The proposed ordinance removes this limitation. The Planning & Zoning Commission recommended Town Council approval of the proposed ordinance. Representatives of Pearson 35 Opportunities, the requestor, were present to answer questions. Motion by Council Member White and Motion Second by Mayor Pro Tem Reeves to approve Ordinance 1016 as presented. Mayor Greaves called for the vote. MOTION TO ADOPT ORDINANCE 1016 REMOVING THE REQUIREMENT FOR A MAXIMUM FIRST FLOOR SQUARE FOOTAGE OF 7,800 SQUARE FEET FOR WESTLAKE RANCH APPROVED UNANIMOUSLY. COUNCIL MEMBER ASSELTA WAS ABSENT.

- G.2. 25-13** Discuss, consider and act on a request from Fox Brothers Holdings, LLC to deviate from permitted roofing materials in Entrada for a site known as Entrada Block M1, also known as La Cima de Entrada, which contains 18 townhomes generally located on the southeast corner of Girona Drive and Arta Drive.

Deputy Town Manager Jason Alexander presented the request to permit a deviation from the required roofing material as outlined in the Entrada Design Guidelines. The Planning and Zoning Commission recommended approval of the deviation request. Representatives of the requestor, including Mr. Greg Fox, addressed Town Council regarding the benefits of allowing the alternative roofing material. Motion by Council Member White and Motion Second by Council Member Yackira to grant the request as presented. Mayor Greaves called for the vote.

MOTION TO GRANT THE REQUEST BY FOX BROTHERS HOLDINGS, LLC TO DEVIATE FROM PERMITTED ROOFING MATERIALS FOR A SITE KNOWN AS ENTRADA BLOCK M1 IN ENTRADA, ALSO KNOWN AS LA CIMA DE ENTRADA APPROVED UNANIMOUSLY. COUNCIL MEMBER ASSELTA WAS ABSENT.

- G.3. RES 25-03** Discuss, consider and act regarding a Resolution to take appropriate action to amend Resolution 24-52 increasing the Westlake Academy's contribution towards the Westlake Academy Field Renovation project from five hundred thousand dollars (\$500,000) to one million dollars (\$1,000,000) and instruct the Town Manager to provide a Letter of Intent and a Purchase Order to Geo Surfaces to begin the project (Mayor Greaves)

Mayor Greaves led the discussion regarding the proposed improvements and funding of same for the Westlake Academy athletic fields. Motion by Council Member White and Motion Second by Council Member Yackira to approve Resolution 25-03 amending Resolution 24-52 to transfer \$1,000,000 from the fund for athletic facilities to this project, and take no further action on the project until the additional funds required to complete it are raised. Mayor Greaves called for the vote.

MOTION TO APPROVE RESOLUTION 25-03 AMENDING RESOLUTION 24-52 TO TRANSFER \$1,000,000 FROM THE FUND FOR ATHLETIC FACILITIES TO THIS PROJECT, AND TAKE NO FURTHER ACTION ON THE PROJECT UNTIL THE ADDITIONAL FUNDS REQUIRED TO COMPLETE THE PROJECT ARE RAISED APPROVED UNANIMOUSLY. COUNCIL MEMBER ASSELTA WAS ABSENT.

- G.4. ORD 1017** Discuss, consider and act to adopt Ordinance 1017 Calling and Ordering the General Election for May 3, 2025, for the purpose of electing a Council Member Place 1, Council Member Place 3, and Council Member Place 5 for the two-year term of May 2025 through May 2027; and in conjunction Calling and Ordering a Special Election for May 3, 2025, for the purpose of electing Council Member Place 2 for the unexpired term ending May 2026; prescribing time, designating the locations and manner of conducting the election to be in accordance with the Joint Election Agreements for Election Services with Tarrant and Denton Counties; and Authorizing the Town Manager to Execute the Agreements (Dianna Buchanan, Town Secretary)

MOTION BY MAYOR PRO TEM REEVES AND MOTION SECOND BY COUNCIL MEMBER GAUTIER TO ADOPT ORDINANCE 1017 CALLING AND ORDERING THE GENERAL ELECTION FOR MAY 3, 2025, FOR THE PURPOSE OF ELECTION COUNCIL MEMBER PLACE 1, COUNCIL MEMBER PLACE 3, AND COUNCIL MEMBER PLACE 5 FOR THE TWO-YEAR TERM OF MAY 2025 THROUGH MAY 2027; AND IN CONJUNCTION CALLING AND ORDERING A SPECIAL ELECTION FOR MAY 3, 2025, FOR THE PURPOSE OF ELECTING TOWN OF WESTLAKE COUNCIL MEMBER PLACE 2 FOR THE UNEXPIRED TERM ENDING MAY 2026, AS PRESENTED. Mayor Greaves called for the vote.

MOTION TO ADOPT ORDINANCE 1017 AS PRESENTED APPROVED UNANIMOUSLY. COUNCIL MEMBER ASSELTA WAS ABSENT.

- G.5. 25-16** Consider and act to excuse Mayor and Council absence(s), if any.

There was no action on this item.

H. EXECUTIVE SESSION

Mayor Greaves announced the items for executive session and recessed the Regular Meeting

- H.1. 25-05** Section 551.087: Deliberation regarding Economic Development Negotiations to deliberate the offer of a financial or other incentive to a business prospect.
- H.2. 25-11** Section 551.074(1): Deliberation regarding Personnel Matters - to deliberate the appointment, employment, evaluation, reassignment, duties, of a public officer or employee: Planning and Zoning Commission
- H.3. 25-15** Section 551.071: Consultation with and legal advice from the Town Attorney regarding pending litigation - Vertical Bridge v. Town of Westlake

Mayor Greaves reconvened the Regular Meeting from Executive Session at 5:19 p.m.

I. TAKE ANY ACTION, IF NEEDED, FROM EXECUTIVE SESSION ITEMS

There was no action as a result of Executive Session.

J. FUTURE AGENDA ITEMS

No future agenda items were mentioned.

K. STAFF RECAP OF COUNCIL DIRECTION

Deputy Town Manager Jason Alexander noted Town Council directed that on Item G.3. to transfer \$1,000,000 from the fund for athletic facilities to this project, and take no further action on the project until the additional funds required to complete it are raised.

L. ADJOURNMENT

Mayor Greaves adjourned the meeting at 5:20 p.m.

Kim Greaves, Mayor

ATTEST:

Town Secretary Dianna Buchanan



Town of Westlake

1500 Solana Blvd
Building 7, Suite 7100
Westlake, TX 76262

Staff Report

File #: 25-27

Agenda Date: 1/21/2025

Agenda #: F.2.

TOWN STAFF REPORT RECOMMENDATIONS

Discuss, consider and act to approve corrected April 1, 2024 Joint Town Council and Planning & Zoning Commission Meeting Minutes (Town Secretary Dianna Buchanan)

STAFF: Town Secretary Dianna Buchanan

BACKGROUND:

The April 1, 2024, Town Council and Planning & Zoning Commission Joint Meeting Minutes were audited by the Town Secretary for accuracy following a staff inquiry regarding Ordinance 994 which was approved at the same April 1, 2024 meeting.

DISCUSSION:

On April 1, 2024, the Town Council and the Planning and Zoning Commission (P&Z) met in a joint meeting. Item E.5. on this meeting agenda was a proposed ordinance, "Conduct a public hearing and consider approving Ordinance 994 approving amendments to Ordinance 959 conditions, and approving a development plan for a portion of Lot 2R1, Block 1, Westlake/Southlake Park Addition Number One; and take appropriate action (Ron Ruthven, Planning and Development Director)". This ordinance was conditionally approved by both the P&Z and the Town Council at the same meeting. Minutes for this meeting were prepared by former staff then approved by both P&Z and Town Council at later meetings. Fast forward many months later when Ordinance 994 was reviewed while preparing a different ordinance and current staff realized that the version of Ordinance 994 that was recorded as final in the Town's permanent records did not reflect the correct conditions for approval as stated during the meeting. The minutes as prepared were reviewed and compared with the meeting video recording. The minutes have been corrected to reflect the correct conditions for approval as stated at the meeting. The corrected set of minutes are attached for consideration of Town Council approval.

STAFF RECOMMENDATION:

Staff recommends approval of the corrected April 1, 2024 Town Council and Planning & Zoning Commission Joint Meeting Minutes as presented.

ATTACHMENT(S):

04.01.2024 Corrected Town Council and Planning & Zoning Commission Joint Meeting Minutes

TOWN COUNCIL ACTION/OPTIONS:

- 1) Motion to approve
- 2) Motion to amend with the following stipulations (please state stipulations in motion)
- 3) Motion to table
- 4) Motion to deny



Town of Westlake

1500 Solana Blvd
Building 7, Suite 7100
Westlake, TX 76262



Town Council/Board of Trustees

Corrected Meeting Minutes

Monday, April 1, 2024

5:00 PM

Council Chamber

JOINT TOWN COUNCIL AND PLANNING & ZONING COMMISSION

Present Town Council: Mayor Sean Kilbride, Kim Greaves, David Quint, and Tim Shiner (*Anna White, Absent*)

Present Planning & Zoning Commission: Adam Coffey, Nizar Didarali, David Ricci, and Tammy Reeves

A. CALL TO ORDER (5:00 P.M.)

Mayor Kilbride and Planning and Zoning Chair Adam Coffey called the joint meeting to order at 5 p.m.

B. PLEDGE OF ALLEGIANCE

Mayor Kilbride led the Pledge of Allegiance and Pledge to the Texas Flag.

C. CITIZEN/PARENT COMMENTS:

There were no citizens that spoke regarding this item.

D. PROCLAMATION(S)

D.1. 24-057 Presentation of a Proclamation recognizing the HOC (House of Commons) for their services (Mayor Kilbride)

Mayor Kilbride provided the Speaker of House for the House of Commons (HOC) Ms. Dahlia Hassani Yasar with a proclamation recognizing the House of Commons.

D.2. 24-080 Presentation of a Proclamation recognizing the DAWGS (Dads Assisting Westlake's Great Students) for their services (Mayor Sean Kilbride)

Mayor Kilbride recognized the Dads Assisting Westlake's Great Students (DAWGS) for volunteering and provided a proclamation in appreciation.

E. PUBLIC HEARING(S):

E.1. ORD - 987 Conduct a public hearing and consider approving Ordinance 987 adopting an amendment to Ordinance 315, Article Two, Section One - Land Use Schedule, allowing the listed use of "Commercial Amusement (Inside)" as a permitted use within the "Retail" and

described and depicted in Ordinance 315; and take appropriate action (Ron Ruthven, Director Planning)

Planning Director Ron Ruthven briefed Town Council regarding this item.

The Town Council discussed the site development plan, and why this specific project (Pinstack entertainment) was chosen, hours of operation, and Police presence.

Mr. Robert Span, Hillwood Development Manager, spoke noting this is a good first step to trigger more opportunities for the area. He explained there are no immediate plans but expects a retail mixed-use plan for the future.

After discussion, a motion was made by Mayor Pro Tem Quint to approve Ordinance 987, as presented. Motion seconded by Council Member Greaves. Motion approved unanimously.

- E.2. ORD - 988 Conduct a public hearing and consider approving Ordinance 988 adopting a PD Site Plan of an approximately 5.5-acre portion of Planned Development District 3, Planning Area 9 (PD3-9), established by Ordinance 315. The PD Site Plan is for "Pin Stack" to be located along Parish Lane west of State Highway 170; and take appropriate action (Ron Ruthven, Director of Planning and Development)**

Motion made by Council Member Greaves to approve Ordinance 988, as presented. Motion seconded by Mayor Pro Tem Quint. Motion approved unanimously.

- E.3. ORD-993 Conduct a public hearing and consider approving Ordinance 993 approving amendments to Ordinance 769, as amended, approving a concept and development plan for a portion of the PD3-5A zoning district, located between State Highway 114/170 and Schwab Way; and take appropriate action (Ron Ruthven, Planning and Development Director)**

Mayor Kilbride noted this item would be discussed in conjunction with Agenda Item E.4, (Resolution 24-24).

- E.4. RES 24-24 Conduct a public hearing and consider approval of Resolution 24-24 approving a preliminary site evaluation for the Circle T Front 44 Phase One development, containing 16.38 acres, located between State Highway 114/170 and Schwab Way; and take appropriate action (Ron Ruthven, Planning and Development Director)**

Director of Planning Ron Ruthven suggested combining Item E.3 (Ordinance 993) and E.4 (Resolution 24-24) together.

Mr. Ruthven provided an update on both items.

The Town Council discussed the following items: percentage of land being developed in this phase (25-30%), zoning and future use, public access to the development, utilities, and infrastructure (Public Works), and next steps.

Commissioner Coffey opened the public hearing for Items E.3 (Ordinance 993) and E.4 (Resolution 24-24). There were no speakers present. Chairman Coffey closed the public hearings. A motion was made by Commissioner Ricci to approve Item E.3 (Ordinance 993), as presented. Motion seconded by Commissioner Reeves. Motion approved unanimously.

Motion was made by Commissioner Didarali to approve Agenda Item E.4 (Resolution 24-24), as presented. Motion seconded by Commissioner Ricci. Motion approved unanimously.

Motion made by Mayor Pro Tem Quint to approve Agenda Item E.3 (Ordinance 993), as presented. Motion seconded by Council Member Shiner. Motion approved unanimously.

Motion made by Mayor Pro Tem Quint to approve Agenda Item E.4 (Resolution 24-24), as presented. Motion seconded by Council Member Greaves. Motion approved unanimously.

E.5. ORD-994

Conduct a public hearing and consider approving Ordinance 994 approving amendments to Ordinance 959 conditions, and approving a development plan for a portion of Lot 2R1, Block 1, Westlake/Southlake Park Addition Number One; and take appropriate action (Ron Ruthven, Planning and Development Director)

Director of Planning Ron Ruthven briefed Council regarding this item.

The Town Council discussed number of homes (51), The Knolls verses Entrada design guidelines, guarded/gated community, traffic flow and anti stacking device, road size at Entrada, the process, ...

The Planning and Zoning Commission discussed: reason for changing to Entrada design, zoning exhibit changes with entrance at Solana ensuring stacking, traffic flow, blending and perimeter fencing/barrier to Entrada, parking, road size and the use of solar.

Mr. Frank Bonilla spoke addressing Council regarding his requested changes.

Planning and Zoning Chairman Adam Coffey suggested not mixing the builds and suggested either constructing the Entrada design or to construct the Knolls design, but not both.

Mr. Bonilla expressed concerns with the bond.

Mayor suggested approving Section(s) ~~ABHKMS~~ ^{AGHKMS} remove the \$500k bond and to allow only the Knolls architecture designs.

Reeves requested clarification of separating from Entrada, options to develop Knolls or Entrada, buffer to Solana, depth of buffer, lot sizes, Entrada verses The Knolls design standards, and the neighborhood concept plan.

After discussion, Chairman Coffey opened the public hearing. No comments provided; Chairman Coffey closed the public hearing. A motion was made by Commissioner Didarali to approve the proposed plan as discussed by the Mayor's recommendation (*Sections A, ~~B,G,H~~, K, M, S of the submitted guidelines with removal of the \$500k bond, and to authorize the Knolls design only.*) Motion seconded by Commissioner Coffey.

Motion approved by the following vote:

In Favor: Didarali, Coffey

Opposed: Ricci

Abstained: Reeves

Commissioner Reeves asked for further discussion regarding the percentage of open space and the larger lot located on southeastern side.

After discussion, Commissioner Coffey asked for a revote. A motion was made by Commissioner Didarali to approve (*Sections A, ~~B,G,H~~, K, M, S of the submitted guidelines with removal of the \$500k bond, and to authorize the Knolls design only.*) Motion seconded by Commissioner Reeves. Motion approved by the following vote:

In Favor: Didarali, Coffey, Reeves

Opposed: Ricci

Motion passed by vote of 3-1.

Council Member Shiner made a motion to approve (*Sections A, ~~B,G,H~~, K, M, S of the submitted guidelines with removal of the \$500k bond, and to authorize the Knolls design only.*) Motion seconded by Council Member Greaves. Motion approved unanimously.

***Post approval correction: As stated in video recording of actual meeting, Section G in Lieu of Section B. (Sections A,G,H,K,M and S) DKB 10/31/24**

F. CONSENT AGENDA ITEM(S)

Motion to approve Consent Items F.1 and F.2, as presented was made by Council Member Greaves. Motion seconded by Mayor Pro Tem Quint. Motion approved unanimously.

F.1. 24-074 Receive a Racial Profiling Report from the Keller Police Department (Police Chief Brad Fortune)

F.2. 24-075 Consider approving Town Council Board of Trustees Meeting Minutes from the following meeting(s): February 5, 2024 (Regular Meeting) and March 21, 2024 (Special Meeting); and take appropriate action (Amy Piukana, Town Secretary)

F.3. RES 24-15 Consider approving Resolution 24-15 authorizing an interlocal agreement with City of Midlothian for Medical Supplies; and take appropriate action (Jon Ard, Fire Chief)

G. REGULAR AGENDA ITEM(S)

- G.1. 24-052** **Discuss and consider an amendment to an Economic Development agreement with Granada Residential Community for Park Maintenance and other agreements as necessary; and take appropriate action. (Sean Kilbride, Mayor)**

Mayor Kilbride reviewed this item with G.2, (Vaquero).

After discussion, Mayor Kilbride suggested asking Granada to deed the park land to the Town of Westlake and maintain 40% of the cost, with the Town paying for the remaining 60% and for the Town will pay for the median area.

Motion made by Mayor Pro Tem Quint that the Town Manager draft a contract for Granada to deed the park land to the Town of Westlake and Granada to maintain 40% of the cost, with the Town of Westlake paying for the remaining 60% of the cost. Motion seconded by Council Member Shiner. Motion approved unanimously.

- G.2. 24-066** **Discuss and consider the amendments to Economic Development Agreements between the Town of Westlake and Quail Hollow, Res 16-35 and 17-16, and the Economic Development Agreement between the Town of Westlake and Vaquero, Ordinance 360 and 444, accepting the responsibility and costs associated with median maintenance on Davis Boulevard adjacent to Vaquero and Quail Hollow and take appropriate action. (Sean Kilbride, Mayor)**

Planning Chair Adam Coffey spoke (as a resident) on behalf of the Vaquero's Homeowner's Association regarding this item noting this property is located in the middle of Davis Boulevard and is a city owned median.

The Town Council discussed the following items: costs to maintain city owned medians, complete analysis of public owned land and the impact to maintain, and quality of life to residents.

After discussion, a motion was made by Mayor Pro Tem Quint that the Town Manager draft a contract with Vaquero that the Town pay for the median maintenance at Vaquero and Quail Hollow, as discussed. Motion seconded by Council Member Shiner. Motion approved unanimously.

- G.3. 24-067** **Discuss and consider the addition of a streetlight at Davis Boulevard adjacent to Quail Hollow and Vaquero entrance and take appropriate action (Sean Kilbride, Mayor)**

Planning and Zoning Chairman Adam Coffey spoke regarding this item noting with increased traffic and the need for discussion of traffic patterns, explaining it's difficult to turn left on Davis Boulevard.

The Town Council discussed: the need for a traffic study, resident feedback from Vaquero residents in regard to adding a signal light at Quail Hallow and Vaquero entrance.

Motion made by Council Member Greaves to authorize the Town Manager to conduct a traffic warrant study for the Vaquero and Quail Hallow intersection. Motion seconded by Mayor Pro Tem Quint seconded. Motion approved unanimously. *(Mayor Kilbride noted complete study with all options. Council Member Greaves requested a speed study be included.)*

G.4. 24-079

Discuss and consider the sale of Town owned property within Entrada, specifically 0.646 acres 34 Cortez, Westlake Entrada - Cortez Block L Lot 6, through public auction by sealed bid as required by Local Government Code 253 and notice such auction as required in Local Government Code 272 and take appropriate action. (Sean Kilbride, Mayor)

Mayor Kilbride briefed Council regarding this item.

The Town Council discussed: the appraisal (completed last year), sealed bid, newspaper publication (twice in newspaper, one week apart), PID annual payment, interests on the property.

Council Member Greaves made a motion to approve the sale of Town owned property within Entrada specifically 0.646 acres 34 Cortez, Westlake Entrada - Cortez Block L Lot 6, through public auction by sealed bid as required by Local Government Code 253. Motion seconded by Council Member Shiner. Motion approved unanimously.

H.

FUTURE AGENDA ITEMS:

No future agenda items were discussed.

I.

CLOSED EXECUTIVE SESSION

I.1. 24-070

The Town Council will conduct a closed session pursuant to Texas Government Code, annotated, Chapter 551, Subchapter D for the following:

(a)Section 551.076 Deliberation regarding WA Security Audit Report (Carolyn Anderson, Interim Head of School)

J.

ADJOURNMENT

The Planning and Zoning Chairman Adam Coffey adjourned the Planning and Zoning portion of the meeting at 6:14 p.m.

Mayor Kilbride adjourned the Council meeting at 6:22 p.m.

Signed by:

Mayor Kim Greaves

Adam Coffey, Chairman P&Z

Attested by:

Dianna Buchanan, Interim Town Secretary



Janaury 21, 2025

The foregoing corrected April 1, 2024 Joint Town Council and Planning and Zoning Commission Meeting minutes were approved by the Town of Westlake Town Council on the 21st day of January, 2025.

Mayor Kim Greaves

ATTEST:

Dianna Buchanan, Town Secretary



Town of Westlake

Staff Report

1500 Solana Blvd
Building 7, Suite 7100
Westlake, TX 76262

File #: WA RES 25-01

Agenda Date: 1/21/2025

Agenda #: F.3.

ACADEMY STAFF REPORT RECOMMENDATIONS

Discuss, consider and act to approve WA Resolution 25-01 to approve amended 2024-2025 Athletic Stipend Schedule. (Sandy Garza, Human Resources Director)

STAFF: Sandy Garza, Human Resources Director

BACKGROUND:

The Athletic Stipend Schedule will be updated to reflect the addition of the Head Cheer Coach - Winter with a stipend of \$4,000.00. The Schedule will reflect the deletion of the Softball Coach stipend/position of \$5,000.00. There is no request for additional funds as the Softball Coach funded stipend will be utilized for the Head Cheer Coach - Winter stipend.

DISCUSSION:

The Winter sport coverage for cheerleading will be piloted during this school year and if successful a stipend will be requested for future years.

FISCAL IMPACT:

No impact.

STAFF RECOMMENDATION:

Staff recommends approval of the updated 2024-2025 Athletic Stipend Schedule

ATTACHMENT(S):

WA Resolution 25-01

2024-2025 Athletic Stipend Schedule - revised 01/21/2025

BOARD OF TRUSTEES ACTION/OPTIONS:

- 1) Motion to approve
- 2) Motion to amend with the following stipulations (please state stipulations in motion)
- 3) Motion to table
- 4) Motion to deny

WESTLAKE ACADEMY

RESOLUTION NO. 25-01

**A RESOLUTION OF THE BOARD OF TRUSTEES OF WESTLAKE ACADEMY
ADOPTING THE PROPOSED AMENDED ATHLETIC STIPEND SCHEDULE FOR
FISCAL YEAR 2024-2025.**

BE IT RESOLVED BY THE BOARD OF TRUSTEES OF WESTLAKE ACADEMY:

WHEREAS, Westlake Academy desires to amend the 2024-2025 Athletic Stipend Schedule to add a Head Cheer Coach-Winter stipend and eliminate the Head Softball Coach stipend; and,

WHEREAS, the leaders of Westlake Academy desire to provide cheer support to winter sport teams; and

WHEREAS, there will be no additional funding required to provide this support; and

WHEREAS, the Board of Trustees finds that the passage of this Resolution is in the best interest of the citizens of Westlake as well as the students, their parents, and faculty of Westlake Academy.

**NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF TRUSTEES OF
WESTLAKE ACADEMY:**

SECTION 1: That, all matters stated in the recitals hereinabove are found to be true and correct and are incorporated herein by reference as if copied in their entirety.

SECTION 2: That the Board of Trustees of Westlake Academy hereby adopts the proposed amended 2024-2025 Athletic Stipend Schedule.

SECTION 3: That a copy of the official adopted 2024-2025 Employee Compensation Plan which includes the Athletic Stipend Schedule shall be kept on file in the office of the Town Secretary and posted on the Westlake Academy website.

SECTION 4: If any portion of this Resolution shall, for any reason, be declared invalid by any court of competent jurisdiction, such invalidity shall not affect the remaining provisions hereof and the Council hereby determines that it would have adopted this Resolution without the invalid provision.

SECTION 5: That this resolution shall become effective from and after its date of passage.

PASSED AND APPROVED ON THIS 21st DAY OF JANUARY 2025.

Kim Greaves, President

ATTEST:

Dianna Buchanan, Board Secretary

Dr. Kelly Ritchie, Head of School

APPROVED AS TO FORM:

Janet S. Bubert or L. Stanton Lowry,
School Attorney

2024-2025 Athletic Stipend Schedule

Sport	Position	Stipend Amount
Football - HS	Head Coach / HS	\$ 6,000.00
	Assistant / HS	\$ 3,000.00
	Assistant / HS	\$ 3,000.00
	Assistant / HS	\$ 3,000.00
Football - JH	Assistant/JH-Coord.	\$ 3,000.00
	Assistant / JH	\$ 2,400.00
	Assistant / JH	\$ 2,400.00
	Assistant / JH	\$ 2,400.00
Basketball - Boys	Head Coach / HS	\$ 5,000.00
	Assistant/JV	\$ 3,000.00
	Assistant/HS 9	\$ 3,000.00
Basketball - Boys - JH	Assistant/JH 8	\$ 2,400.00
	Assistant/ JH 7	\$ 2,400.00
Basketball - Girls	Head Coach / HS	\$ 5,000.00
	Assistant/JV	\$ 3,000.00
	Assistant/HS 9	\$ 3,000.00
Basketball - Girls - JH	Assistant/JH 8	\$ 2,400.00
	Assistant/JH 7	\$ 2,400.00
Volleyball	Head Coach / HS	\$ 5,000.00
	Assistant/JV	\$ 3,000.00
	Assistant/HS 9	\$ 3,000.00
Volleyball - JH	Assistant /JH 8	\$ 2,400.00
	Assistant/JH 7	\$ 2,400.00
Track - Boys	Head Coach / HS	\$ 5,000.00
	Assistant/JV	\$ 3,000.00
Track - Boys - JH	Assistant/JH 8	\$ 2,400.00
	Assistant/JH 7	\$ 2,400.00
Track - Girls	Head Coach / HS	\$ 5,000.00
	Assistant/JV	\$ 3,000.00
Track - Girls - JH	Assistant/JH 8	\$ 2,400.00
	Assistant/JH 7	\$ 2,400.00
Soccer - Boys	Head Coach / HS	\$ 5,000.00
	Assistant/JV	\$ 3,000.00
Soccer - Boys - JH	Assistant/JH 8	\$ 2,400.00
	Assistant/JH 7	\$ 2,400.00
Soccer - Girls	Head Coach / HS	\$ 5,000.00
	Assistant/JV	\$ 3,000.00
Soccer - Girls - JH	Assistant/JH 8	\$ 2,400.00
	Assistant/JH 7	\$ 2,400.00
Baseball	Head Coach / HS	\$ 5,000.00
	Assistant/JV	\$ 3,000.00
Softball	Head Coach / HS	\$ 5,000.00
	Assistant/JV	
Cross Country	Head Coach / HS	\$ 4,000.00
	Assistant/JH	\$ 2,400.00
Golf	Head Coach / HS	\$ 4,000.00
	Assistant/JH	\$ 2,400.00
Tennis	Head Coach / HS	\$ 4,000.00
	Assistant/JH	\$ 2,400.00

Cheer / Dance	Head Coach / HS - Fall	\$	4,000.00
	Head Coach / HS - Winter	\$	4,000.00
	Assistant/JV	\$	3,000.00
	Assistant/JH	\$	2,400.00

This salary schedule is for the 2024-2025 school year only and is not a predictor of future compensation.
Rates are approved by the Board of Trustees each year.

HR 01/21/2025



Town of Westlake

1500 Solana Blvd
Building 7, Suite 7100
Westlake, TX 76262

Staff Report

File #: ORD-1018

Agenda Date: 1/21/2025

Agenda #: G.1.

TOWN STAFF REPORT RECOMMENDATIONS

Discuss, consider and act to adopt Ordinance 1018 approving architectural standards and an architectural pattern book for the Villaggio Residential Development.

STAFF: Jason Alexander, AICP, CECd, Deputy Town Manager

BACKGROUND:

The planned development standards for Villaggio --- as adopted by Ordinance No. 965 by the Town Council on February 27, 2023 --- requires that the architectural standards for the development (i.e., the “Design Guidelines”) be submitted to the Town Council for review and approval. The same provisions in Ordinance No. 965 also requires that the Design Guidelines “shall incorporate the recommendations contained in the Westlake Building Quality Manual”.

As proposed --- and presented --- the Design Guidelines focus extensively on the materials, configurations, and techniques for building walls, roofs, openings (e.g., doors and windows), and attachments (e.g., courtyards, patios, terraces, et cetera). Further, there are additional specifications provided for landscaping, driveways, and address signs.

DISCUSSION:

The Design Guidelines --- as provided --- ensure that the real estate developer and the future builders within Villaggio deliver residential applications that will exceed the expectations for excellence in architecture, landscape architecture, and site design. Moreover, the Design Guidelines reflects the collaboration between the Department of Planning and Development and the real estate developer. As Exhibit “A” depicts, the Design Guidelines have been condensed to provide a concise set of standards for architecture and landscape architecture that can lead to expedient and accurate reviews and approvals for new homes in Villaggio. Furthermore, some of the provisions for architecture and landscape architecture will be predetermined by the Architect for the development, which will reduce the potential for delays in reviewing and approving plans for

new homes in this development.

FISCAL IMPACT:

N/A.

DEPARTMENT OF PLANNING AND DEVELOPMENT RECOMMENDATION:

The Department of Planning and Development recommends approval of the Design Guidelines as presented.

PLANNING AND ZONING COMMISSION RECOMMENDATION:

N/A.

TOWN COUNCIL ACTION / OPTIONS:

- 1) Motion to approve;
- 2) Motion to approve with additional conditions (please state additional conditions in motion);
- 3) Motion to deny; OR
- 4) Motion to table (must table to a specific date).

ATTACHMENT(S):

- 1) Exhibit "A" - Villaggio General Standards
- 2) Exhibit "B" - Villaggio Architectural Pattern Book

Villaggio Architectural General Standards and Provisions

All homes designed for Villaggio shall conform to the following standards of both architecture and landscaping, to ensure a consistent level of aesthetic and construction quality.

Massing

1. The maximum height limit shall be 32' to the midpoint of the highest pitched roof.
2. All homes shall have a maximum height of 23' to the top of a parapet wall or flat roof.
3. Contemporary style homes, as determined stylistically by the Committee, shall not be permitted to have square footage on the second floor that exceeds 50 percent of the total square footage on the first floor, to meet appropriate vertical articulation required by the Architectural Pattern Book. Other architectural styles, as determined by the Committee may be exempted from this standard. An approval letter shall be prepared by (or on the behalf) the Committee and shall clearly state if the architectural style, so this standard can be enforced as appropriate during review. This letter shall be submitted at the same time that the site plans are submitted for review.
4. All styles shall be limited to no more than one turret, tower or shed roof.

Foundations

1. The elevation of the front entry for each home shall be at least 1 foot and 6 inches above finished grade. Steps shall be surfaced in an approved masonry material (brick, stone, etc.); washed aggregate surfacing is not permitted.
2. The masonry ledge for all foundation work visible from the street shall be dropped to an elevation that is no more than 6 inches above the finished grade.
3. When the grade is sloping, the masonry ledge shall be stepped so that no more than 12 inches of concrete is visible above grade of any one point along the grade.

4. Water tables shall be constructed of masonry materials and shall project from the plane of the main exterior material a minimum of 3 inches to provide a wider base to the foundation. Stucco will not be approved for a water table veneer.
5. A single plane shall not exceed 35 feet horizontally, then at 35 feet, shall be a minimum of 24" articulation is required. Increased articulation may be required, if stylistically appropriate.

Materials

1. Wood framing for exterior walls shall be constructed of 2" x 6", even when CMU block is required.
2. Vertical material changes shall not be permitted within the same plane.
3. Horizontal material changes shall take place with a minimum depth of 4", with a cast stone or heavy timber detail.
4. Synthetic materials such as metal or vinyl siding, Masonite, Styrofoam, etc., are prohibited.
5. Visually heavier materials shall be installed below visually lighter materials. I.E. stone materials shall be installed below stucco, or stucco shall be installed below siding.

Brick

1. Brick (where stylistically appropriate) shall be hard fired modular brick or queen size brick. All brick materials shall be greater than 2 1/2" in thickness.
2. All mortar joints shall be tooled. "Slump" or "weeping" joints shall not be allowed. Flush mortar joints may be used on slathered brick finishes. Mortar joints to be a maximum of 3/8".

Stone

1. Stone may be quarried rustic, chopped or cut stone. Artificial or manufactured stones shall not be allowed. Cast stone may be used as accent material.

2. Acceptable stone patterns include rubble, coarse rubble, random ashlar and coarse ashlar. Mosaic stone patterns shall not be allowed. Maximum mortar joint size shall be 1/2" for rustic or chopped stone. For honed and cut stone, the maximum mortar joint size shall be 1/3".
3. Stacked joints shall not be allowed.

Stucco

1. Stucco exteriors over 20% of the total exterior material, shall be a 3 coat application over a masonry or CMU product. Dormers, clerestories or 2nd floor exterior walls that are not directly supported by the masonry below may be applied over wood framing in an authentic lath and stucco manner.
2. Stucco shall be an authentic lath and stucco technology (provided less than 20% of the total wall exterior).
3. Dryvit-type systems, Exterior Insulation Finishing Systems (EIFS) or Styrofoam products shall not be allowed.
4. Control joints (if used) shall be coordinated with the architectural design and shall be indicated on the plans submitted, and shall be filled with expandable material that is flush with the stucco and undistinguishable in the fact that it is finished in the same texture and color as the surrounding stucco, and not detract from the overall facade design (concealed control joints). If no control joints are submitted with the architectural drawings, none shall be allowed on the final construction.
5. Any decorative profiles (opening surrounds, sills, bands, water tables, etc.) shall not be made of stucco. Cut stone, cast stone or GFRC (glass fiber reinforced concrete) are examples of acceptable materials for decorative profiles.

Wood

1. When stylistically appropriate, wood trim and siding shall be high quality finish grade wood stock or thermally modified wood products, and will be stained or painted.
2. Wood siding is not to exceed 20% of the total wall exterior (cumulative with other non-masonry materials).
3. Faux wood siding and cementitious board shall not be allowed (such as Trespa and James Hardie).

Other

Corten Steel or other metal panels shall not exceed 20% of the total exterior materials (cumulative with other non-masonry materials).

Doors**Entry Doors**

1. Entry doors shall be consistent with the architectural style of the home. When wood doors are used, brick moulding profiles (made from wood) shall be used as well.
2. Entry doors shall be recessed a minimum of 4" from exterior face of finish, with the exception of walls with a siding veneer or stucco over wood framing, which shall be required to be recessed a minimum of 2 1/2" from exterior face of finish.

Secondary Doors

1. Secondary doors shall match the colors and materials of the windows selected for the home, or be consistent with the entry door design (though subordinate to the entry door.)
2. Along the rear elevation of the main level, glazing may be installed as undivided or butt jointed glass. This installation shall not be allowed on the upper level, regardless of location including the side or front elevations.

Garage Doors

1. All garage doors shall be recessed at least 12" from the exterior face of the wall that they are placed in. All adjacent garage doors shall be separated by at least 12" of exterior material. A fence with landscaping, or a wall with evergreen landscaping shall screen all garage doors facing the street.

2. Garage doors shall be natural wood or natural wood veneer. Metal and / or glass garage doors shall not be approved.

Windows

1. Windows shall be wood, wood clad, steel or bronze windows, and shall be uniform in material and color within the entire design. Vinyl windows shall not be allowed.
2. All windows on the front and side elevations, or any windows that are visible from the street view, shall have fully divided light.
3. Windows that are 6 square feet or less will not require mullions.
4. Windows that are mullied shall be done so by matching exterior finish of windows. Cut or cast stone mullions or shaped bricks are acceptable (if stylistically appropriate, and a minimum of 6" wide). Mullions may not be of regular bricks or rough stone.
5. Fixed windows shall dimensionally match operable ones with regard to frames and brick mouldings.
6. All windows shall be below the cornice detail.
7. Stained glass, where stylistically appropriate, shall be crafted by soldered "H" coming. No acrylic or fake stained glass appliques are allowed, but authentic stained glass panels may be placed in modern wood or wood clad window frames.
8. For a masonry wall condition, window frames are to be recessed a minimum of 4" from exterior face of finish. Stucco over wood framing conditions (such as at dormers) shall be recessed a minimum of 2 1/2" from exterior face of finish. A window recess is not required with a siding veneer condition.

Shutters

1. When stylistically appropriate, shutters shall be operable and shall be sized so as to fully cover the adjacent window when closed.

2. All shutter hardware (hinges, shutter dogs, locks and or tie-backs, etc.) shall be required for true operation and also stylistically appropriate.

Soffits

1. Faux wood siding or cementitious board shall not be approved

Roofs

1. Maximum Height shall be 32' to midpoint of pitched roof. For feature roofs, the maximum height shall be 23' to top of parapet walls or flat roofs.
2. Acceptable roofing materials include natural slate, flat or barrel-shaped terracotta or concrete tiles and standing seam metal roofs. Standing seam metal roof shall be a closed seam, and shall be factory finished or copper. Black roofing colors shall not be approved. The use of asphalt, composition or wood shingles is prohibited.
3. No plumbing stacks, venting stacks, skylights or attic vents shall penetrate the roof planes facing the street.

Chimneys

1. Every home shall have at least one stylistically appropriate prominent chimney. To be considered prominent, it shall be located on an exterior wall and forward of the main ridgeline of the roof. (No minimum or maximum dimension, except what is required by building code.) For symmetrical designs, 2 chimneys shall be required.
2. Chimneys shall match the predominate exterior material of the home appropriate for the architectural style.
3. All metal chimney spark arrestors shall be enclosed inside a decorative envelope of masonry or fabricated metal.

Landscape Standards

Fences, Walls, Gates, Screening

1. A landscape plan must accompany each building plan set for each lot, and comply with the Town of Westlake Code of Ordinances.
2. When considering a corner lot, the same requirement shall be applied to the side, street-facing yard.
3. Ball and burlap trees shall not be allowed; container trees shall be specified on the landscape plan.
4. Using a combination of ground cover, ornamental grasses, perennials and shrubs shall be designated as landscape area, with a minimum of 30% coverage of the front yard. Turf grass shall cover the remainder of the front yard, using either Bermuda or Zoysia.
5. Foundation plantings are required at the base of the residence shall be distributed as follows:
 - a. 5 gallon to 35 gallon shrubs shall cover a minimum of 50% of the landscape area
 - b. 1 gallon shrubs or ornamental grasses shall cover a minimum of 15% of the landscape area
 - c. Ground cover and perennials shall cover a minimum of 35% of the landscape area
 - d. 15 gallon vines and espaliers may be planted on low garden or courtyard walls, connected to the home or on the façade of the home.
 - e. Bamboo and Palm trees shall not be allowed in Villaggio.
6. The public space (front yard) and private space (side and rear yards) shall be totally integrated into the landscape design of the gardens for the residence.
7. Fencing between Owner Lots will have the option to use one of the approved fence designs, and shall be fully connected to the existing development wall. Fencing between the column or wing wall that is attached to the house shall use Type D fence, of 5'-0" in length. Significant topography shall require the fence to follow the terrain, using the Type C fence, with a minimum of 6" and maximum of 1' step height. Type D wrought iron fencing is required to have a landscape planting layer along 50% or more of the linear feet of the wrought iron installation.
8. Wood or chain-link fencing is prohibited.

9. Side yard gates and arches are to be made of decorative iron (OMF) or wood, and shall be between 5'-6" and 8'-0" in height, and may be attached at the column or wing wall that is attached to the house will use Type D fence, of 5 feet in length.
10. Drive gates shall be built behind the building setbacks and shall be placed between stone columns matching the Villaggio perimeter wall, of sufficient width to screen motorized gate equipment. Motorized gates integrated in a porte cochere design shall provide screening for gate equipment.
11. Retaining walls are to be no higher than 4'-0" and shall be constructed of masonry materials complementary to the home, if connected directly to the home. If retaining walls are independent of the main home, materials will match the Villaggio perimeter wall.
12. Fences are to be installed on the property line.
13. Screening, by using a combination of evergreen landscaping and walls, is required for the following: air conditioning equipment, pool equipment, utility meters, etc.
14. Ultimately all gates shall meet safety code.

Driveways and Auto Courts

1. In order to highlight the home and landscape, effort shall be taken to minimize the visual impact of the automobile circulation and storage area.
2. All driveways shall complement the materials of the home, walkways and patios.
3. Auto Courts shall be screened from view by evergreen landscaping and / or by wing walls (no higher than 3'-6"), when a porte cochere is not part of the home design.
4. Driveways and Auto Courts shall not exceed 8% grade.

Specifications

1. Driveways shall be located to minimize the amount of paving.
2. Driveways shall be a minimum of 12' and maximum of 16' in width, except where required for garage access or motor courts.

3. Driveways shall allow a minimum of two feet from the side property line and permanent structure, such as a home wall, to allow for landscape and/or fencing.
4. Auto Courts shall be screened from public view using evergreen landscaping or wall.
5. Auto Courts within the front 1/3 of the property shall have a minimum 20' setback from the street curb, and a maximum of 40' wide paved area.
6. The leadwalk and driveway shall be one cohesive material as to not give a physical or visual split between the two.
7. The use of center groundcover plantings and/or similar materials to visually break up the driveway is encouraged.
8. For guest parking visible from the street, placed in addition to the driveway lane, a maximum of two spaces are allowed.

Materials

1. Driveways shall be hard paved with natural color salt finish, broom finish or sandblasted. Other materials include precast concrete pavers, brick or stone.
2. Concrete from the curb of the street into the garage entry shall be without change of color or texture.
3. Decorative stone or brick-edged concrete bands are encouraged and may not occur in front of the public sidewalk.
4. Materials of Driveways and Auto Courts shall complement the home, walkways and patio materials.
5. Asphalt material shall not be approved.

Terraces, Courtyards, Patios

1. Paving materials shall complement the home, whether attached or detached. Courtyards and Auto Courts shall be completely integrated into the landscape design.
2. Terraces, courts and patios attached to the home, or detached within the garden, shall be complementary to the architecture.

3. Courtyard walls in front or side yard are to be no higher than 3'-6" and shall be constructed of masonry materials complementary to the home. If an integrated column or ornamental wrought iron is used in addition to the masonry wall, the total height shall be limited to 5'-0" with the masonry portion limited to 3'-6" in height.

Walkways and Steps

1. Lead walkway materials, including steps, shall be complementary to the house and driveway, not visually competing.
2. Ground cover plants from the approved plant list shall be planted between individual pavers.
3. Lead walkways shall be made up of broom, salt or sandblasted finished concrete, or rectangular masonry units such as brick or stone and shall be natural in color with decorative bands of stone or brick.
4. All lead and private walks shall be represented and show size, width, configuration and material on the landscape plans submitted for approval.
5. Lead walks from the public sidewalk to the front door shall be five feet wide.
6. Front steps and porch material shall be a brick or stone veneer. Only veneers of brick, stone or tile consistent with the masonry of the house and finish of walkways and driveway are approved for front entry surfaces.

Address plaques

1. Address plaques shall be consistent throughout Villaggio, manufactured from Corten steel, using the Villaggio design and shall be ordered through the Villaggio Committee.
2. Each home shall have the plaque mounted upon a column or front facing exterior wall at the left side of the entry at 2/3 of the height from the bottom of the entry door and centered from the exterior edge of the column (or the street-facing plane at the entry door). Alternatively, address plaques may be mounted to a plinth, retaining wall or courtyard wall at the left side of the entry.

Accessory Buildings

1. Accessory Buildings shall be consistent with the style and materiality of the main residence and comply with Town of Westlake lot coverage and height restrictions.
2. Privacy screening shall be used to minimize visibility from street views and neighbors.

VILLAGGIO

WESTLAKE

Pattern Book



By Heritage Design Studio

Appreciation of the history of a land is a significant factor when creating a neighborhood vision. With that in mind, we want to mention the foundation of Westlake.

At less than seven square miles, the small Town of Westlake is a tight-knit community, famous for its rolling hills and heritage oak trees. The renown Westlake Academy is a charter school with a mission *"To provide students with an internationally-minded education of the highest quality so they are well-balanced and respectful life-long learners."*

The progression of development within the Town of Westlake has a unique story from much of the North Texas region. To protect the natural terrain, the Town holds to a strict tree preservation standard. Additionally, the Town encourages an increased quality of new homes, supporting those whose vision is true to long-lasting quality, such as the community of Villaggio.

Today, we know the Town of Westlake as a distinct community of quality and charm. Villaggio is planned to be a boutique neighborhood of excellence in both construction and design, with rambling lots and architectural standards that ensure long-lasting appeal. Villaggio will welcome discerning families to this community for many generations.

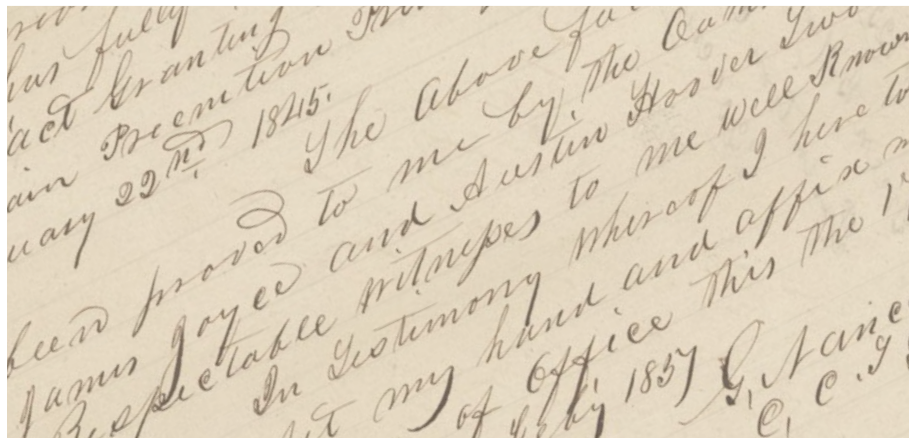
Table of Contents

Westlake, a City with Roots		2	SECTION 2: ARCHITECTURAL STYLES		SECTION 3: LANDSCAPE ARCHITECTURE	
SECTION 1: COMMUNITY OVERVIEW			English Styles	14	Introduction	64
			Tudor Revival	15	Landscape Standards	66
			English Arts and Crafts	20		
			Cotswold	23	Credits	70
English	4		French Styles	26		
French Eclectic	5		Symmetrical French	27		
Mediterranean	6		Asymmetrical French	30		
Texas Regional Vernacular	7		Mediterranean Styles	34		
Contemporary	7		Italian Renaissance	35		
General Standards and Provisions	8		Spanish Eclectic	38		
Submittal process	10		Tuscan	41		
Construction Review	11		American Styles	44		
			Texas Regional Vernacular	45		
			Contemporary	48		
			Transitional Variants	53		
			English Arts and Crafts	54		
			Asymmetrical French	56		
			Texas Regional Vernacular	58		
			Architectural Materials Chart	60		

Westlake, a City with Roots

The Beginning

Westlake, Texas was first established in 1847 by Charles and Matilda Medlin as settlers from the Missouri Colony. Over the years, Westlake has been home to numerous ranches, the most famous being Circle T. Ranch. Founded in 1952 by prominent Dallas lawyer J. Glenn Turner, it grew to 2,700 acres, and was an anchor for the town of Westlake. The city of Hurst attempted an annex of Westlake in 1955 but neighbors rallied and deflected the effort. On December 27, 1956 Westlake was officially incorporated and became part of both Tarrant and Denton Counties. Circle T. Ranch and its prime serene hills eventually became zoned “mixed-use,” as businesses purchased pieces of land. The stage was set for development.



The Little House

There is a small home that sits on the corner of North Pearson and Dove Road. Don Medford was born in this very house in the 1930s. Don’s father had been given 200 acres of land on Circle T. Ranch for his work as ranch foreman. After he passed, the property



was divided among his heirs. Don received 40 acres in addition to his childhood home. Villaggio’s land was purchased by Joseph Bonola and Kristen Duwe Bonola from the Medford family in 1995. The Bonolas intend to preserve the house by moving it next to the pond on their lot in Villaggio. Interestingly, Don Medford had also worked as Kristen’s guidance counselor during her middle school years in Fort Worth. What are the odds?

The chimney may be all that remains from the farmstead of Buck King.

There is a mysterious chimney that still stands at the intersection of Pearson and Aspen Lanes. A 2001 investigation by historian I.E. Wiseman and lifelong farmer Phillip White revealed that the property’s original owner had been Buck King. King, a farmer of cotton, peanuts, corn, and poultry, had bought the property for \$300 in January of 1924. A historical marker now stands on his old homestead.

The Paigebrooke Estate

Ted Dealy’s 1938 Ranch house was designed by renowned architect Charles Dilbeck. After Mr. Dealy’s passing, the home suffered neglect for eight years, inviting a massive colony of raccoons to enjoy Dilbeck’s design. Scott and Kelly Bradley purchased the home, renaming it Paigebrooke Estate after their two daughters. The decade-long restoration process included additions, based upon Dilbeck’s original plans found in the attic. These included a basement, a geothermal heating system, a wine cellar, several secret rooms, and a guest suite designed by Nancy McCoy, doubling the house’s stature.

Thanks to Kelly Bradley, Jack Wiesman, Joyce Gibson Roach, and Lydia Smith White - Westlake’s first historian. Without them, much of Westlake’s past would have been lost.

Community Overview

English

This category includes the Tudor Revival style, as well as its derivatives: the English Arts and Crafts style and the Cotswold style. These styles take their cues primarily from the historical Elizabethan and Jacobean periods of English history for massing and detailing inspiration.



Tudor Revival

Popularized in the early 20th century in America, the Tudor Revival style is based on a variety of medieval English buildings, from simple cottages to formal manors. The primary characteristics of this style include steeply pitched roofs, front facing gables and oversized chimneys. Half timbering is commonly associated with this style in particular, even though in reality it was found in other styles as well, and historically only one-third of all Tudor Revival styled homes built in America.



Cotswold

Named after the Cotswold region of England, this style leans more towards the picturesque style of medieval stone buildings associated with that locale. While sharing similarities with the Tudor Revival style, these homes are simple in massing and detail, and are comprised exclusively of limestone exteriors (usually a combination of cut and rough stone). Gables, when present, are often parapeted with limestone caps. Half timbering is not found in this particular style.



Arts and Crafts

Based also on the medieval prototypes, this style sought to promote the work of the craftsman, in lieu of the machine, back to the masses. While the form of these homes draws inspiration from medieval buildings, they tend toward minimized massing and details, while allowing freedom of creative expression to the architect. The works of Sir Edwin Lutyens, C.F.A. Voysey, and M.H. Baillie Scott are all excellent examples of this style.

French Eclectic

This category is derived from homes built in America in the early 20th century, with original roots in the buildings of medieval France. Soldiers returning from World War I experienced the French countryside where they saw firsthand a myriad of historical homes, brought that inspiration back to America and began to reproduce these types of buildings. From grand châteaux to the humble farmhouse, subcategories for this style include both the symmetrical as well as the asymmetrical variations.



Symmetrical

A more formal expression of the French vernacular, these homes typically have defined classical or renaissance detailing with regard to the entry and opening surrounds. The design of the façade is based on the entry being central, with equal bays spreading out to either side, as well as openings at regular, defined intervals. Roofs are steeply pitched, but front facing gables are not seen in this style of home. The more grand estates of France inspire these designs.



Asymmetrical

While there may be some renaissance detailing in this variation, the overall design is more informal than the symmetrical variant, and is based upon the rustic French farmhouses. Their off-center entries and façades are not symmetrical, and allow a wider range of material types.

Mediterranean

This category derives its inspiration from the southern European countries, which border the Mediterranean Sea. Lower pitched roofs covered with barrel tiles characterize all homes of this style. Variants of this category include Italian Renaissance, Tuscan and Spanish Eclectic styles.



Italian Renaissance

Based on the classical buildings of southern Italy from the 15th century and forward, this category has primarily symmetrical façades, half round arched openings, and often classical columns at the entry. The roof overhang is deeper than other Mediterranean subcategories, often with decorative brackets at the eaves. Asymmetrical façades do occur, but are uncommon.



Tuscan

Drawing inspiration from the Tuscan region of Italy, this style is predominately constructed with rough stone exterior walls, pitched roofs (often gabled) and rambling massing inherent to medieval villages growing organically over time. Roof overhangs are not as pronounced and exposed rafter tails are common at the eaves. Details tend to be more rustic as opposed to elaborate.



Spanish Eclectic

Based on buildings of the Andalusian region of Spain, and popularized in California after the 1915 Panama-California exposition, this style is most noted for its red tile roof and white stucco exterior walls. Detailing in the form of cut stone is limited to feature windows and the main entry, and is primarily Spanish Baroque in design. Low-pitched and gabled roofs, simple massing and little to no roof overhang are also key characteristics.

Texas Regional Vernacular

Evolving from the central part of Texas with a large proportion of German immigrants, the style began as small rustic stone buildings grouped together, forming a central courtyard, to protect from wildlife and invaders. These original structures were utilitarian farmhouse buildings. Simple massing dominates the general design, with a low to moderately sloped roof, often in standing seam metal.

As the style evolved to its contemporary interpretation, these buildings show an organic growth of additions, as generations continued to expand the existing main building, by adding wings or connections between main structures and accessory ones. These connections may be in the form of breezeways or glassed-in hallways, providing an interesting play between solid and void as outdoor rooms and courtyards become important spaces for this style. Materials include walls comprised of rough-cut limestone, accented with rough-cut local timbering and exposed rafter tails at the eaves. Stucco is occasionally seen as a subordinate exterior material. Limestone with a smooth or honed finish may be used as an accent material.



Contemporary

A term that literally means “style of the day” (meaning the 21st Century), the exact specifics of any design that fits into this category can be hard to quantify. While much of the design elements draw from the roots of the Modern Movement, the Contemporary Style allows a much broader range of forms and details overall. However, all of them avoid the more traditional language of classically derived historical architecture.

For Villaggio, extra guidelines and parameters are given within this Pattern Book to provide the framework to ensure that any approved design of this style will fit into the fabric of the neighborhood as whole. One significant guide is that all roofs shall be between a 2:12 to 6:12 pitch, but “feature roofs” may be incorporated into the design. The feature roofs may be flat, curved or shed, but is also limited to a maximum of 20% of the overall roof. The Contemporary Style within Villaggio also allows for a much larger undivided panes of glass within a window assembly than other approved styles.

General Standards and Provisions

All homes designed for Villaggio shall conform to one of the approved architectural styles as defined by this pattern book (See *Section 3* for detailed parameters of each approved style). Determination of adherence to the selected style shall be at the discretion of the Villaggio Architectural Review Committee.

Massing

- I. The maximum height limit shall be 32’ to the midpoint of the highest pitched roof.
- II. All homes shall have a maximum height of 23’ to the top of a parapet wall or flat roof.
- III. Contemporary style homes with an upper floor level shall not exceed 50% of the main floor level in square footage, to meet appropriate vertical articulation.
- IV. All styles shall be limited to no more than one turret or tower.
- V. Contemporary homes shall be limited to no more than one shed roof.

Foundations

- VI. The elevation of the front entry for each home shall be at least 1 foot and 6 inches above finished grade. Steps shall be surfaced in an approved masonry material (brick, stone, etc.); washed aggregate surfacing is not permitted.
- VII. The masonry ledge for all foundation work visible from the street shall be dropped to an elevation that is no more than 6 inches above the finished grade.
- VIII. When the grade is sloping, the masonry ledge shall be stepped so

that no more than 12 inches of concrete is visible above grade of any one point along the grade.

- IX. Water tables shall be constructed of masonry materials and shall project from the plane of the main exterior material a minimum of 3 inches to provide a wider base to the foundation. Stucco will not be approved for a water table veneer.
- X. A single plane shall not exceed 35 feet horizontally, then at 35 feet, shall be a minimum of 24” articulation is required. Increased articulation may be required, if stylistically appropriate.

Materials

- I. Wood framing for exterior walls shall be constructed of 2” x 6”, even when CMU block is required.
- II. Material changes in the same wall plane shall be prohibited unless it is part of a detail that is characteristic of that approved architectural style.
- III. Vertical material changes shall not be permitted within the same plane and shall occur at an inside corner only.
- IV. Horizontal material changes shall take place with a minimum depth of 4", with a cast stone or heavy timber detail.
- V. Synthetic materials such as metal or vinyl siding, Masonite, Styrofoam, etc., are prohibited.
- VI. Visually heavier materials shall be installed below visually lighter materials. I.E. stone materials shall be installed below stucco, or stucco shall be installed below siding.

BRICK

- I. Brick (where stylistically appropriate) shall be hard fired modular brick or queen size brick. All brick materials shall be greater than 2 1/2" in thickness.
- II. All mortar joints shall be tooled- “slump” or “weeping” joints shall not allowed. Flush mortar joints may be used on slathered brick finishes if approved by the Committee. Mortar joints to be a maximum of 3/8”.

- III. Stacked joints shall be approved on a case-by-case basis, and shall only be applied for stylistically appropriate details.

STONE

- I. Stone may be quarried rustic, chopped or cut stone. Artificial or manufactured stones shall not be allowed. Cast stone may be used as accent material.
- II. Acceptable stone patterns include rubble, coarse rubble, random ashlar and coarse ashlar. Mosaic stone patterns shall not be allowed. Maximum mortar joint size shall be 1/2" for rustic or chopped stone. For honed and cut stone, the maximum mortar joint size shall be 1/3".
- III. Stacked joints shall not be allowed.

STUCCO

- I. Stucco exteriors over 20% of the total exterior material, shall be a 3 coat application over a masonry or CMU product. Dormers, clerestories or 2nd floor exterior walls that are not directly supported by the masonry below (provided less than 20% of the total wall exterior) may be applied over wood framing in an authentic lath and stucco manner.
- II. Stucco shall be an authentic lath and stucco technology.
- III. Dryvit-type systemss, Exterior Insulation Finishing Systems (EIFS) or Styrofoam products shall not be allowed.
- IV. Concealed control joints (if used) shall be coordinated with the architectural design and shall be indicated on the plans submitted, and shall be filled with expandable material that is flush with the stucco and undistinguishable in the fact that it is finished in the same texture and color as the surrounding stucco, and not detract from the overall facade design. If no control joints are submitted with the architectural drawings, none shall be allowed on the final construction.
- V. Any decorative profiles (opening surrounds, bands, water tables, etc.) shall not be made of stucco. Cut stone, cast stone or GFRC (glass fiber reinforced concrete) are examples of acceptable materials for decorative profiles.

WOOD

- I. When stylistically appropriate, wood trim shall be high quality finish grade wood stock, stained or painted as approved by the Committee.
- II. Proposed alternate wood trim products and soffits, such as thermally modified wood products, shall be submitted to the Architectural Review Committee for approval.
- III. Wood siding is not to exceed 20% (cumulative with other non-masonry materials).
- IV. Faux wood siding and cementitious board shall not be allowed (such as Trespa and James Hardie). Thermally Modified Wood shall be approved on a case-by-case basis..

OTHER

- I. Siding, Wood, Corten Steel or other metal panels shall not exceed 20% of the total exterior materials (cumulative with other non-masonry materials) and shall be approved on a case-by-case basis.

Doors

ENTRY DOORS

- I. Entry doors shall be consistent with the architectural style of the home. When wood doors are used, brick moulding profiles (made from wood) shall be used as well.
- II. Entry doors shall be recessed a minimum of 4" from exterior face of finish, with the exception of walls with a siding veneer or stucco over wood framing, which shall be required to be recessed a minimum of 2 1/2" from exterior face of finish.
- III. Homes which are an English, Tuscan or Spanish archetype shall have a natural wood entry door and shall not be metal.

SECONDARY DOORS

- I. Secondary doors shall match the colors and materials of the windows selected for the home, or be consistent with the entry door design (though subordinate to the entry door.)
- II. Along the rear elevation on the main level, glazing may be installed as undivided or butt jointed glass. This installation shall not be allowed on the upper level regardless of location, the side or front elevations.

GARAGE DOORS

- I. All garage doors shall be recessed at least 12" from the exterior face of the wall that they are placed in. All adjacent garage doors shall be separated by at least 12” of exterior material. A fence with landscaping, or a wall with evergreen landscaping shall screen all garage doors facing the street.
- II. Garage doors shall be natural wood or natural wood veneer. Metal garage doors shall not be approved.

Windows

- I. Windows shall be wood or wood clad, uniform in material and color within the entire design. Vinyl windows shall not be allowed.
- II. Steel or bronze windows (Hope’s brand or equivalent) may be used if approved by the Committee.
- III. All windows shall have fully divided light. Divided light patterns shall be stylistically appropriate.
- IV. Windows that are 6 square feet or less will not require mullions.
- V. Windows that are mulled shall be done so by matching exterior finish of windows. Cut or cast stone mullions or shaped bricks are acceptable (if stylistically appropriate, and a minimum of 6” wide). Mullions may not be of regular bricks or rough stone.
- VI. Fixed windows shall dimensionally match operable ones with regard to frames and brick mouldings.
- VII. Windows that are placed at head or sill heights differing from the set default on the design shall require approval by the Committee.
- VIII. All windows shall be below the cornice detail
- IX. Stained glass, where stylistically appropriate, shall be crafted by soldered “H” coming. No acrylic or fake stained glass appliques are allowed, but authentic stained glass panels may be placed in modern wood or wood clad window frames.
- X. For a masonry wall condition, window frames are to be recessed a minimum of 4" from exterior face of finish. Stucco over wood framing conditions (such as at dormers) shall be recessed a minimum of 2 1/2" from exterior face of finish. A window recess is not required with a siding veneer condition.

Shutters

When stylistically appropriate, shutters shall be operable and shall be sized so as to fully cover the adjacent window when closed. All shutter hardware (hinges, shutter dogs, locks and or tie-backs, etc.) required for true operation shall be present and also stylistically appropriate.

Soffits

- I. Soffit materials shall stylistically match the archetype, as detailed on pages 60 and 61 of this Pattern Book.
- II. Faux wood siding or cementitious board shall not be approved

Roofs

- I. Maximum Height of 32’ to midpoint of pitched roof. For feature roofs, the maximum height is 23’ to top of parapet walls or flat roofs.
- II. Acceptable roofing materials include natural slate, flat or barrel shaped terra cotta or concrete tiles and standing seam metal roofs. Standing seam metal roof shall be a closed seam, and shall be factory finished or copper. Color selections shall be approved by the Committee, however, black roofing colors shall not be approved. The use of asphalt, composition or wood shingles is prohibited.
- III. No plumbing stacks, venting stacks, skylights or attic vents shall penetrate the roof planes facing the street.

Chimneys

Every home shall have at least one stylistically appropriate prominent chimney. To be considered prominent, it shall be located on an exterior wall and forward of the main ridgeline of the roof. For symmetrical designs, 2 chimneys shall be required.

Chimneys shall match the predominate exterior material of the home appropriate for the architectural style. All metal chimney spark arrestors shall be enclosed inside a decorative envelope of masonry or fabricated metal. Chimney pots or caps shall emulate a decorative extension of the chimney shaft and the overall architectural style, and shall be submitted to the Committee for approval.

Submittal process

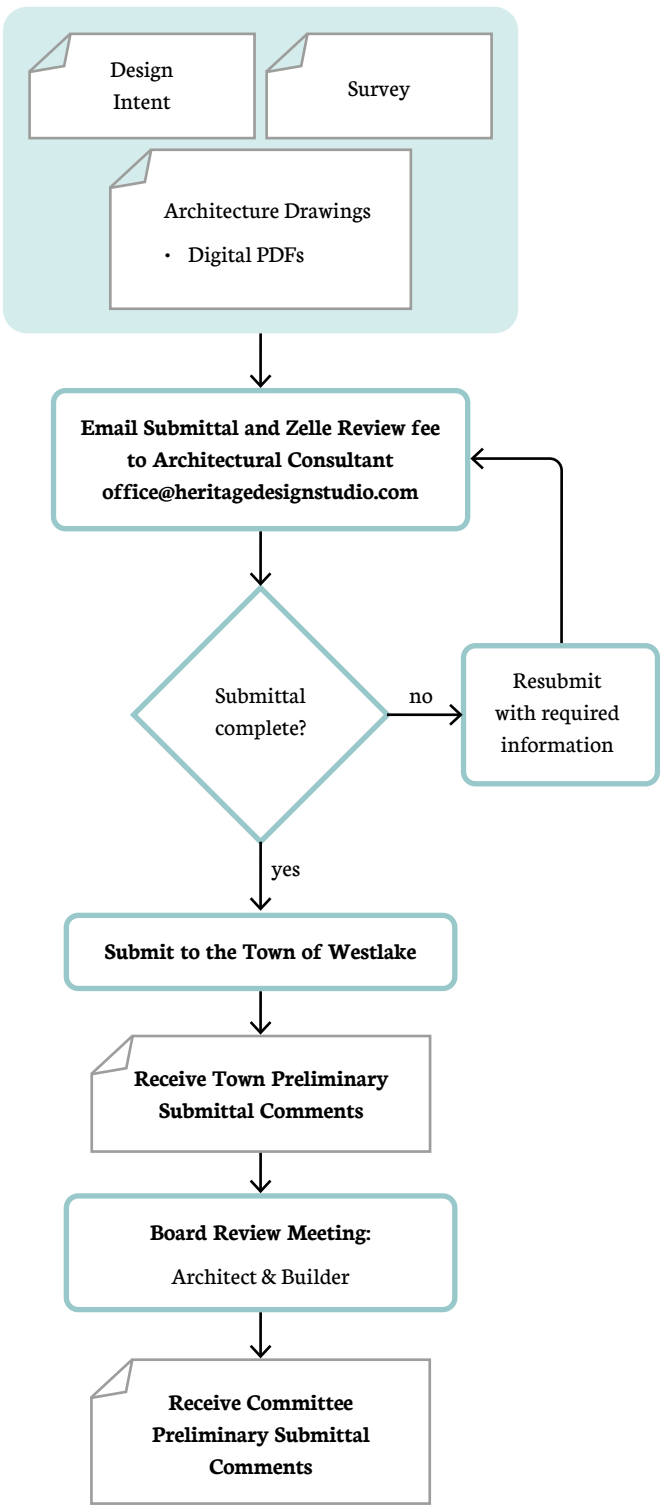
The architectural review process consists of three submittals.

1. Preliminary Architectural Submittal

Intended to give the Review Committee a preview of the project before final design decisions are made.

REQUIRED DRAWINGS (MIN 1/8" SCALE):

- Preliminary Site Plan
- Preliminary Floor Plan
- Exterior Concept (May be hand sketched or computer generated)
- Survey
- Letter of Design Intent
- Review fee of \$4,500

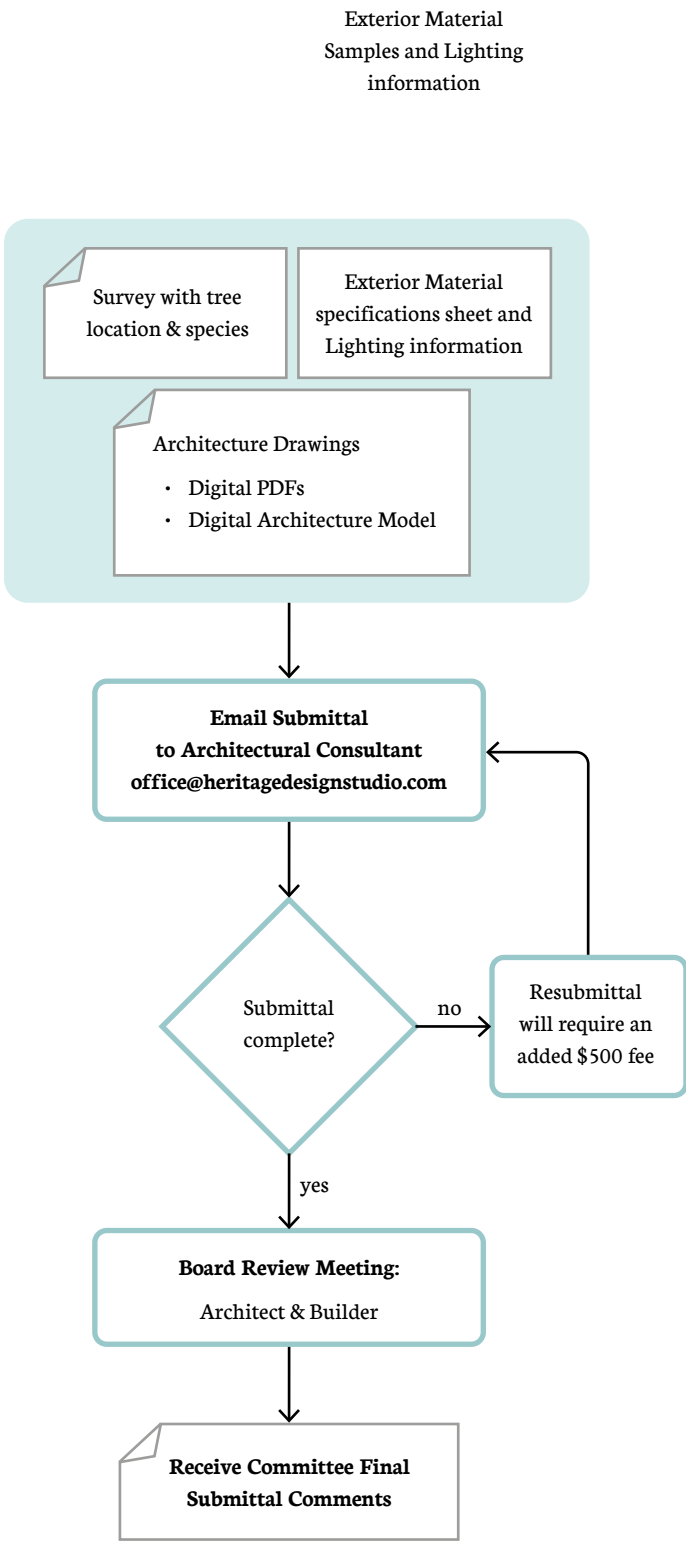


2. Final Architectural Submittal / Preliminary Landscape Submittal

A full review of the final architectural design. Drawings submitted shall include a permit set, plus all architectural details necessary to satisfy the requirements of the Villaggio design requirements, including exterior materials, color and fixture selections. Preliminary drawings showing the proposed landscaping shall be submitted at this time as well (at 1/8" scale).

REQUIRED DRAWINGS:

- Site Plan (showing proposed topography, existing trees, all drives, walkways and sidewalks and other exterior flatwork, exterior mechanical equipment, lot coverage and all proposed fences)
- Site Section
- Architectural Floor Plans
- Roof Plan (showing penetrations, gutters and downspouts, and overhangs)
- Architectural Elevations (all exterior materials labeled)
- Building/ Wall Sections (as needed - min. 1 each)
- Details (as needed such as: door & window surrounds, eaves, chimney design, gate design, etc.)
- Door/ Window (schedules, types, specifications and colors)
- Electrical Plans
- Materials shown on specifications sheet (walls, roofs, fascia/trim, gutters, surrounds, front and garage door, windows)
- Exterior lighting shown on specifications sheet with cut sheet (finishes, locations)
- Foundation Plans (sealed by registered Engineer)
- Preliminary Landscape Plan
- Survey with tree location and species



Construction Review

The following items shall be compared to Committee-approved drawings and materials for verification of compliance.

Foundation (Pre-pour)

- Brick Ledge
- Finish Floor Elevation
- Steps (location and height)

Mock Wall

Exterior materials review:

- Masonry, stucco or cladding
- Roofing
- Trim and eave (profile, size, material and color)
- Gutters & Downspouts
- Typical Window (front facade detailing, surrounds, materials & color)
- Front facade details (such as water tables, quoins, bands, etc.)

Framing

Verification that construction matches submitted drawings, including:

- Plate Heights
- Roof Pitch
- Elevation Details
- Window locations, sizes and heights

Installation of exterior veneers

Verification that construction matches submitted materials.

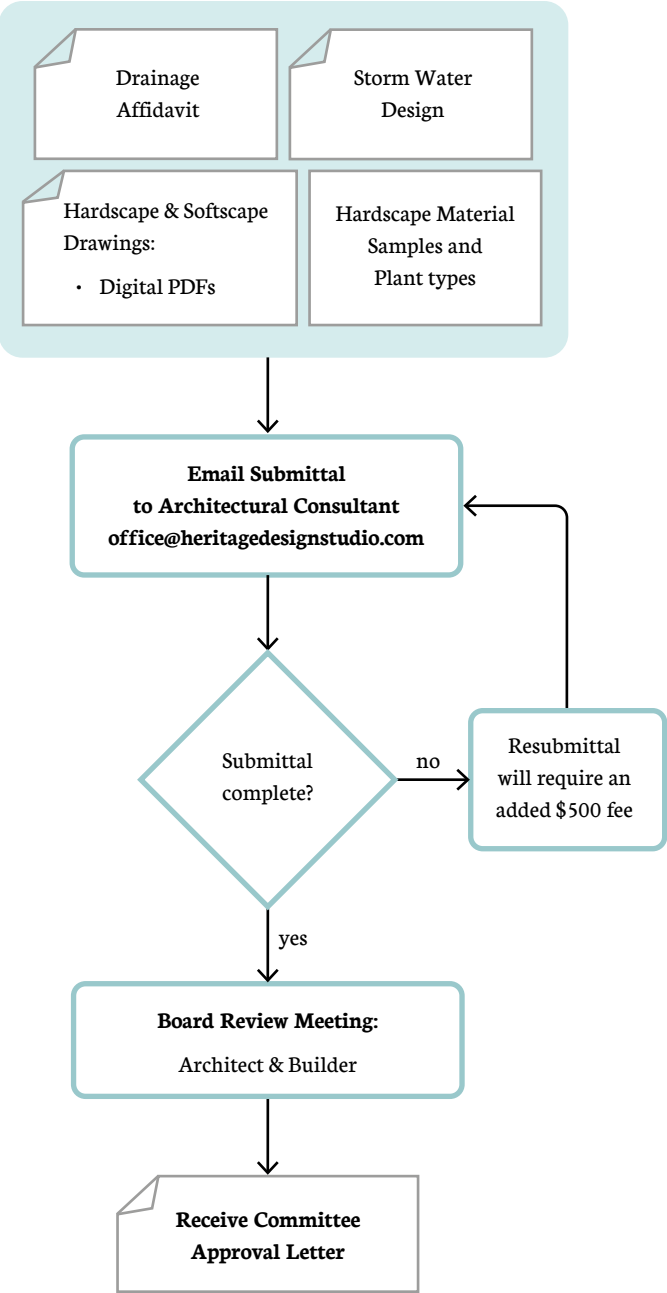
Landscape and hardscape installation

Verification that all hardscape and plantings match submitted drawings.

3. Final Landscape Submittal

A final review of the proposed plantings and hardscape drawings, including:

- Hardscape materials shown on specifications sheet, selections and colors
- Plant and tree types (existing and new)
- Drainage affidavit, with any grading and drainage plans by licensed engineer
- Irrigation plans
- Landscape Lighting plan with type and finish



Architectural Styles

This section is intended to provide more direct guidance as to how each style is classified by its overall characteristics. It is the intention for Villaggio to express architecture that will remain true to the historical context of each style so the neighborhood as a whole may remain timeless many decades from today.

Examples are given for proper massing, proposed chimney design along with door and window shapes. This section is intended to provide a framework for design, and is not intended to be literally copied or as the only allowable instances of acceptable characteristics for each style. For example, each style shows a depiction of three to four entry doors, however that is not to say that ONLY those presented here are the acceptable doors for their given style.

Villaggio is meant to have a balanced variety of architectural styles spread throughout the subdivision to promote a neighborhood that will age gracefully. While a design submitted may fit within the guidelines presented in this section, it may still be deemed inappropriate given the context of the street, should one particular style begin to dominate the subdivision. Final discretion is given to the Villaggio Review Board to determine stylistic appropriateness not only for an individual home, but also for how that home fits within the context of the developing neighborhood. We strongly recommend early communication with the Committee as to stylistic intent for a design to avoid conflicts.

English Styles

Historically, American architecture has often looked to its English roots for trendsetting. Villaggio draws from a variety of medieval archetypes as inspiration for architecture that will fit well into the neighborhood. The styles listed here all draw heavily on the notion of the “English Country” home, a romantic notion of more casual homes set into the countryside, but each style has their own characteristics that make them unique. The English styles permitted in Villaggio are:

- Tudor Revival
 - English Arts & Crafts
 - Cotswold
-



Tudor Revival

Tudor revival architecture refers to a style originally developed in England in the late 1800s; it increased in popularity (particularly in America) until it reached a height in the 1920-30s. The name is a bit of a misnomer, as the architecture style is actually based on the Jacobean and Elizabethan eras of England as opposed to the earlier Tudor period it's named after. The style was brought about by architects such as Norman Shaw and George Devey, who were looking to recreate a romanticized version of medieval architecture for their era.

Some of the identifying features of the style include:

- Steeply pitched roof (12:12 or greater), usually side gabled
- Front facade dominated by at least one front facing gable
- Tall, narrow rectangular windows in groups, often with transom windows
- Large and often elaborately detailed chimneys
- Entryway and door often with a half round or Tudor arch

While the style is often associated with half timbering (exposed wood truss structure with masonry infill), in reality only about 1/3 of Tudor revival homes incorporated this feature historically. While appropriate to the style, it is certainly not a requirement.



TUDOR REVIVAL

Massing

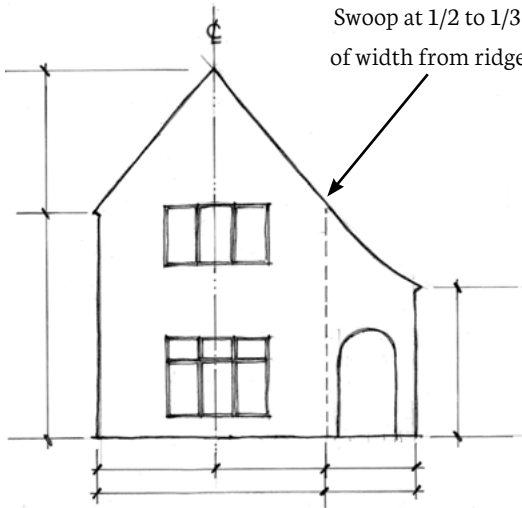
As Tudor Revival is a style based on medieval architecture, the forms tend to be somewhat randomized and not based on regular bays or modules. Front facing gables are an important defining characteristic though, and at least one shall be incorporated into the design. These homes also tend to have a continuous, uninterrupted ridge line at the center of the home, or as part of the dominant roof massing.

Gables may be symmetrical or asymmetrical, but all gables shall be designed with appropriate proportions. Tudor Revival rarely creates gables that are taller than they are wide - for example, if a gable is 12 feet wide, then it is rarely taller than 12' to the plate line; however a gable with a 12' plate line may often be significantly wider than 12'. Often rooms placed on the 2nd floor have sloped ceilings as part of the interior architecture to make these exterior portions work out properly. Window headers are rarely placed below 2nd story plate lines.

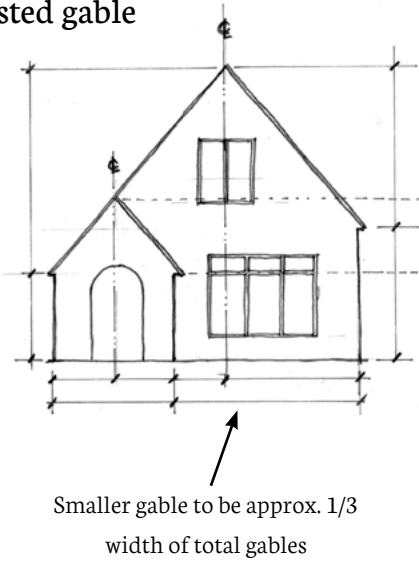
Nested gables may also be incorporated in the design (particularly at the entry) but this is usually limited to a single feature on the design - typically combining a subdominant single story entry with a 2 story, dominate gable behind. However, plan manipulation such as jogging front facing walls at the garage face solely to achieve a nested gable configuration is strongly discouraged.

Asymmetrical gable configurations

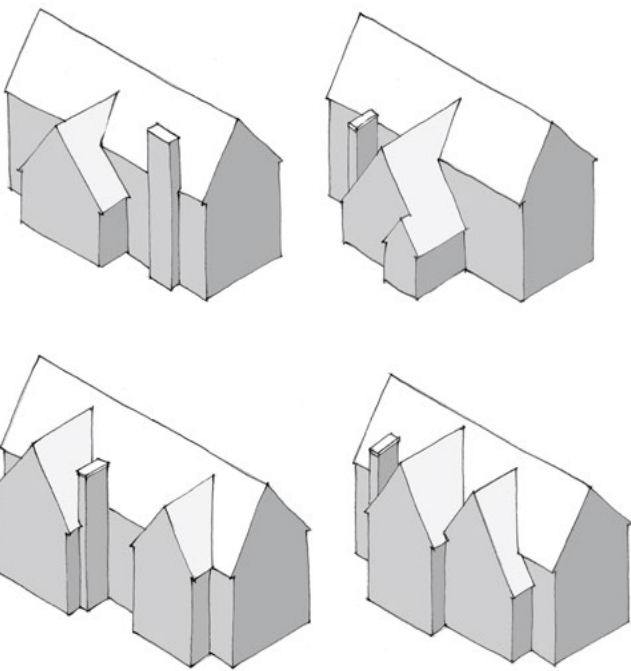
Swooped gable



Nested gable



Potential massing configurations



Ratio

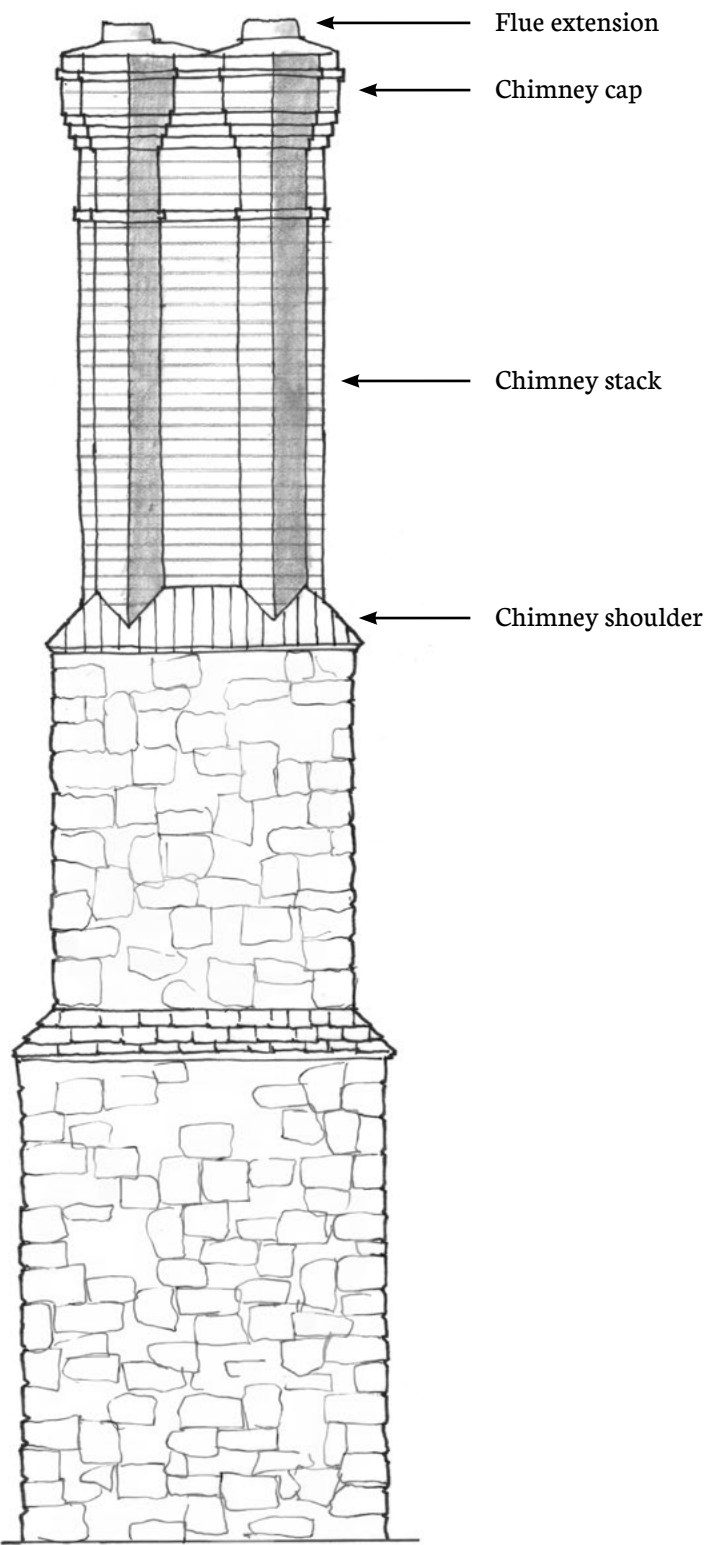


TUDOR REVIVAL

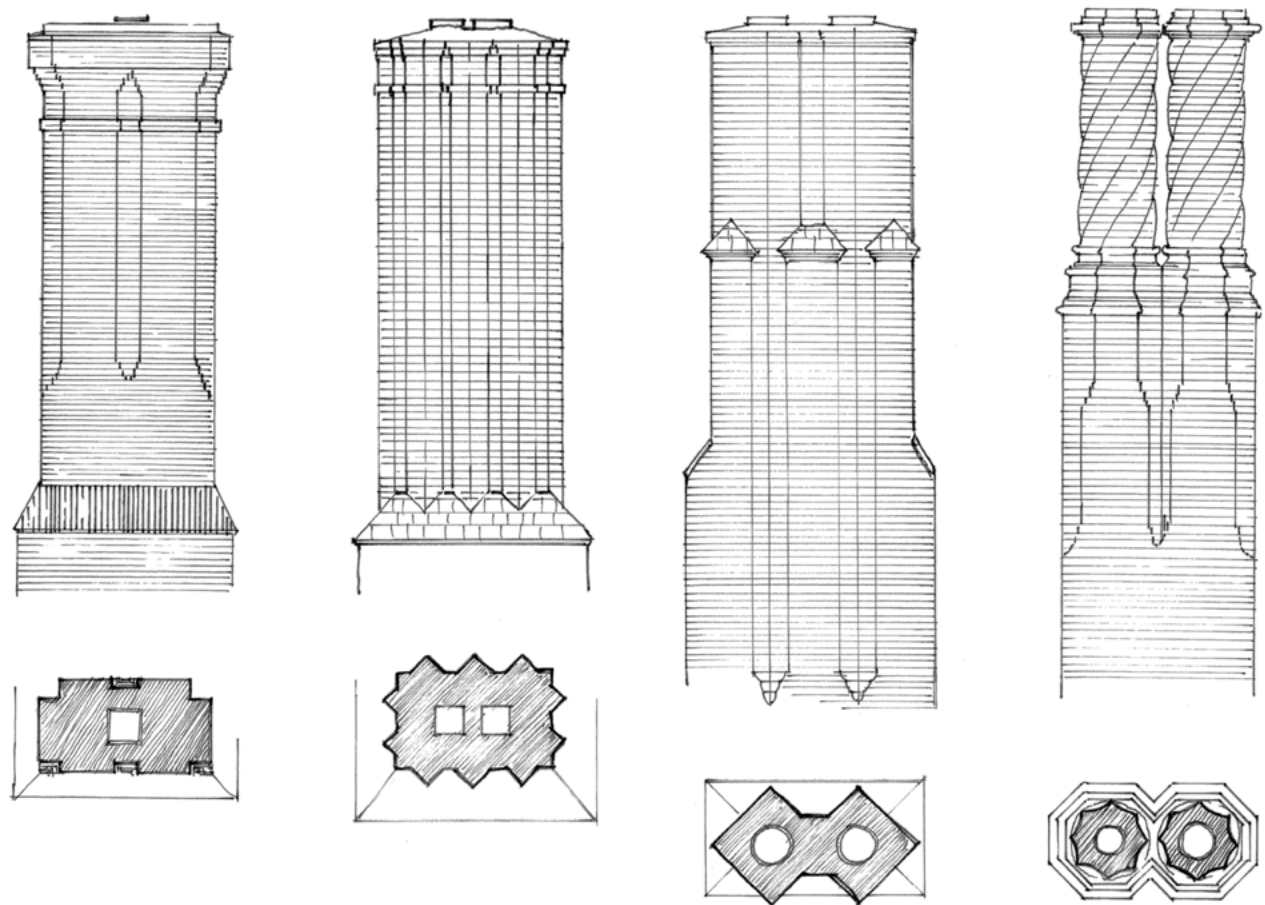
Chimneys

Chimneys are an important feature of the Tudor Revival style. They evolved to become highly elaborate and decorative features architecturally and often master masons would embellish the top third (also called the chimney stack) with shaped bricks and complex patterns with a huge degree of variety. While the base of the chimney below the shoulder would typically match the main veneer of the home, the chimney stack was often made from brick, and occasionally cut limestone. Historically multiple flues were often ganged together in a single chimney stack, and the design of the stack usually expressed each flue in it's geometry. Even today when a chimney is typically tied to only a single fireplace, the dimensions and size of the stack typically allude to the notion of multiple flues in the design.

Most Tudor Revival chimneys are projected from the face of the external wall, engaged with the wall but articulated as it's own structure. They are often located at the side of gables and occasionally at the corners, but they are always highly visible elements of the main facade of the design. Chimney pots may or may not be used in conjunction with the chimney design.



Chimney stack examples:



TUDOR REVIVAL

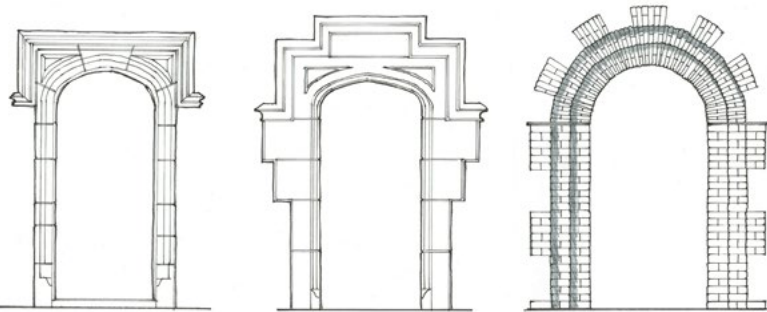
Doors & Windows

Doors were mostly wood, often board and batten planks assembled together joined with heavy nails in a decorative pattern, although simple panels were also occasionally used. Large hinge straps on the doors became both a functional and decorative feature of these doors.

Arch shapes were typically reserved for the entry, and were most commonly the “Tudor” arch (also known as a fourpointed arch, as it uses four radius points to complete the shape). Elliptical arches were also used, as well as half round.

Some more recent interpretations opted for the easier to construct segmental arch shape, which is not historically correct for the style. Gothic arches, while used often in the medieval era, were typically reserved for religious builds as opposed to housing, and fewer examples can be found of this style incorporating this particular shape.

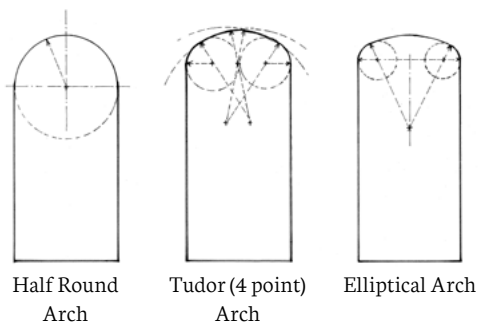
Typical Entry Surrounds:



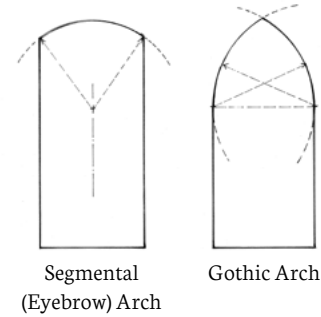
Typical Entry Doors:



Appropriate shapes for Tudor Revival:



NOT USED FOR THIS STYLE:

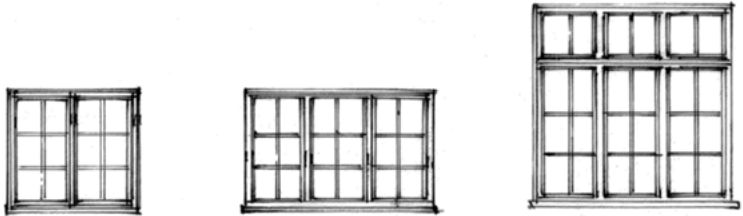


As glass was uncommon in the medieval era (which the Tudor Revival style draws much of its characteristics from) windows typically used smaller panes of glass grouped together. Windows were then grouped together to form a larger assembly of glass. Diagonal glazing was also commonly used at the time, though less seen in modern versions of this style.

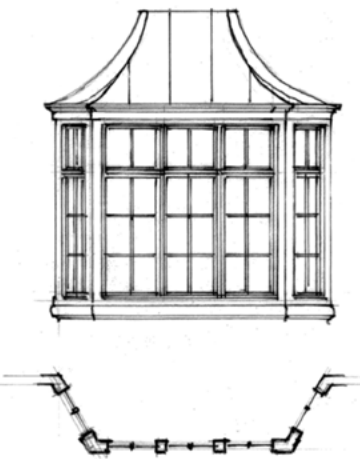
Arches were uncommon for most of the windows, instead typically being a collection of rectangular windows grouped together. Occasionally half round arched windows were used for smaller decorative windows.

Oriel and bay windows are also a common feature of this style, and may be either smaller assemblies or large 2 story features.

Typical window configurations:

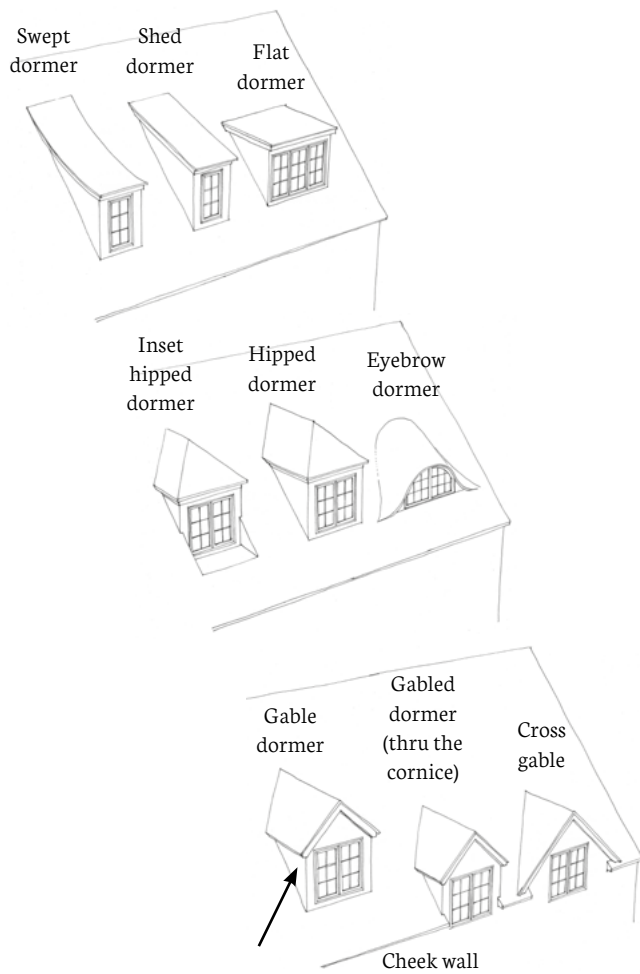


Feature windows:



Dormers are also a common feature and can take on a variety of expressions. Hipped, shed, swept, flat and gabled dormers may all be seen in this style. They may be full dormers existing as attic windows on top of the roof, inset within the roof (typically to allow for more light in an interior room) or flush with the exterior wall below and cutting through the soffit. Cross gables (dormers without cheek walls) are also a common feature of this style. Eyebrow dormers are the least commonly seen in the Tudor Revival style, however they are used more frequently in the Arts and Crafts style.

Typical Dormers:



TUDOR REVIVAL

Gable and Eave Details

Gables are a significant feature for this style. They may be simple and clean with very little rake fascia or overhang, or detailed with half timbering and have larger bargeboards overhanging the rake.

When half timbering is used as a design feature, it shall be made to look as representative of a structural element, as opposed to the purely decorative half timber detail used in Neo-Tudor architecture, which has very thin decorative wood strips spaced further apart. Half timbering design shall be constructed of wood, and not as a purely masonry decorative pattern.

A variety of half timber design patterns may be used, but the proportions of each wood member shall be of sufficient width to convey it's intent as a structural member (despite being a decorative detail in modern construction). Diagonals were commonly used as members interspaced with the vertical and horizontal members. Half timber is almost exclusively used on 2nd story (or over 2nd story) parts of the design, and often projected out from the face of the wall below it.

When a half timbering design includes a window within that portion of the facade, the half timbering itself becomes the surround detail for the window. Windows shall be recessed from the face of any half timbering a minimum of 3 inches to help convey a thickened wall structure.

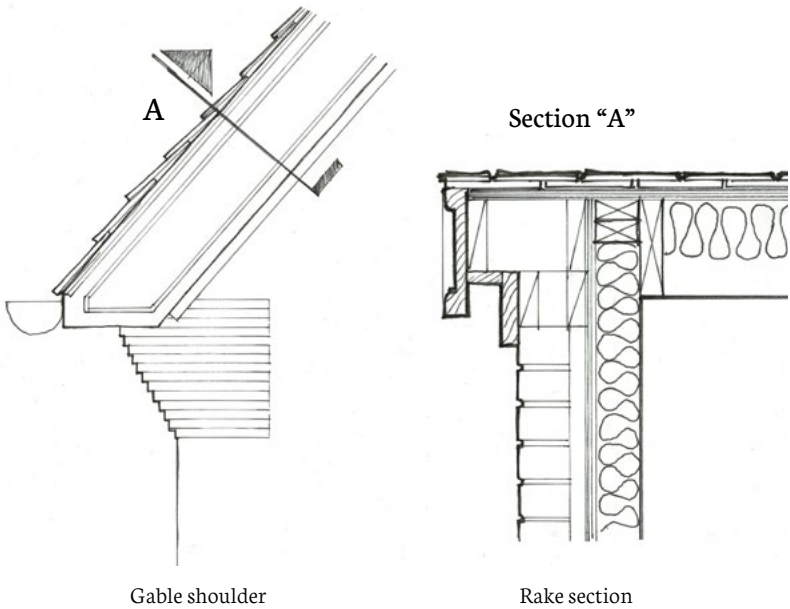
Infill for half timber walls may be brick, stone, or stucco and shall be flush or recessed within 1/2" of the face of the half timbering. Brickwork, when used as infill, was often laid at irregular coursing (herringbone or diagonal) to emphasize it's function as purely decorative infill.

Common gable details also included small decorative attic windows or attic vents, sometime as square patterns laid within the masonry itself.

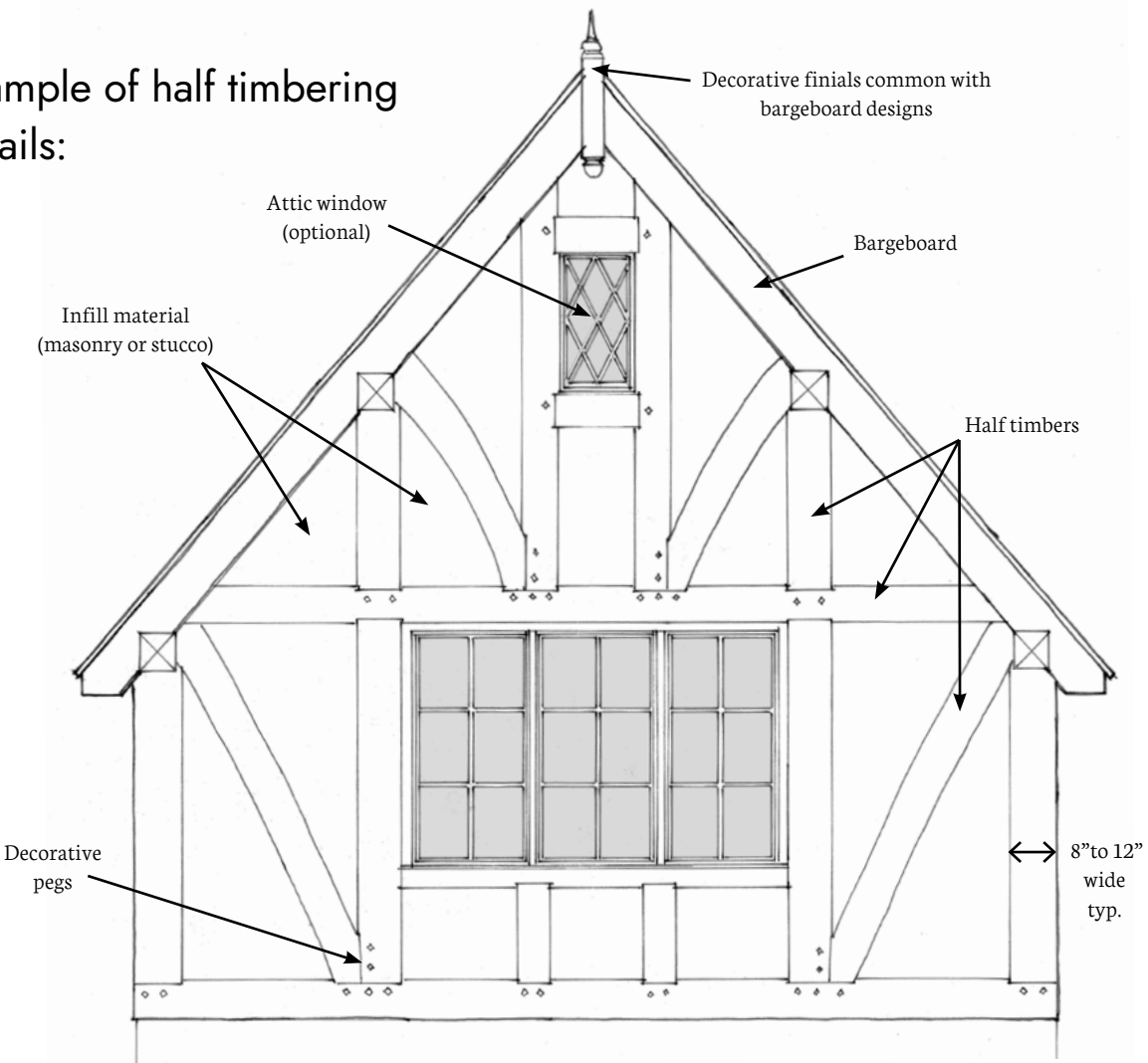
Bargeboard design example:

Gable shoulders may be made of:

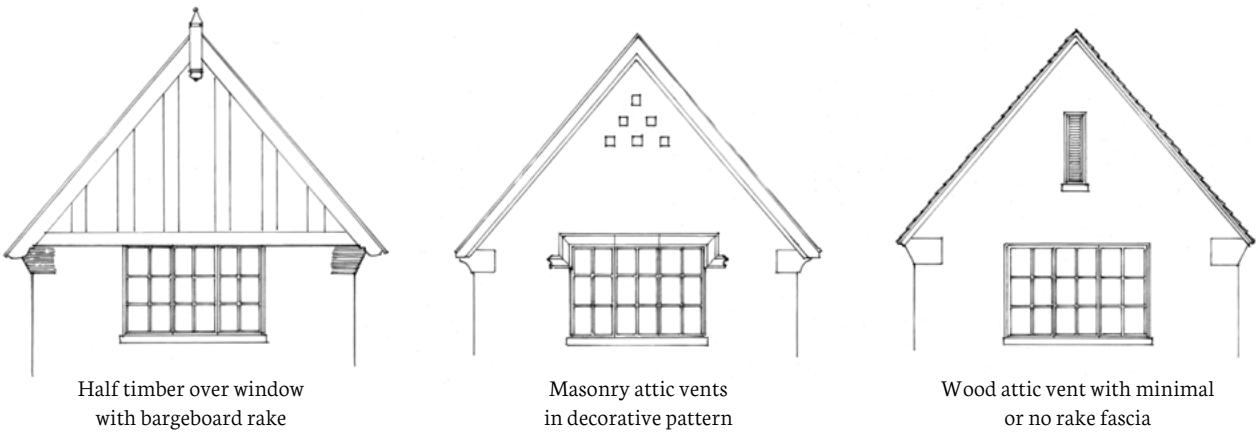
- Brick Tile
- Stacked Slate
- Cut or Cast Stone
- Wood Timber



Example of half timbering details:



Examples of gable elaborations:



English Arts and Crafts

The Arts and Crafts movement began in England in the mid 1800s from a variety of trade disciplines. Tradespeople of the era became increasingly frustrated with the intrusion of machines into the production process, and felt that homes were losing essential character by using mass produced parts for interior and exterior details. They sought to restore the craftsman of old, who produced great works of art over multiple generations, such as the grand gothic cathedrals. As such, the style drew heavily from medieval prototypes, but sought to modernize those designs and allowed for much more freedom of the individual architect's creativity within the style.

Some of the identifying features of the style include:

- Steeply pitched roof (12:12 or greater), usually side gabled
- Front facade dominated by at least one front facing gable
- Tall, narrow rectangular windows in groups
- Large and often elaborately detailed chimneys
- Entryway and door often with a half round or rectangular shapes

While the overall massing closely matches the Tudor Revival, the detailing is much more streamlined. Architects such as CFA Voysey, Rennie Mackintosh, Edwin Lutyens and Bailie Scott sought to merge medieval architecture with “modern” (for the day) aesthetics by reproducing the forms of generations past while reducing the elaborate detailing to create a more distilled design. Features such as the half timbering often associated with medieval construction was very rarely reproduced in the Arts and Crafts movement, since it was no longer representative of the actual construction techniques used at the time and architects typically wanted an honesty of materials represented in their designs. Any details placed on the design were incorporated with intention to show the work of the craftsman involved, be they featured carvings or sophisticated masonry work.



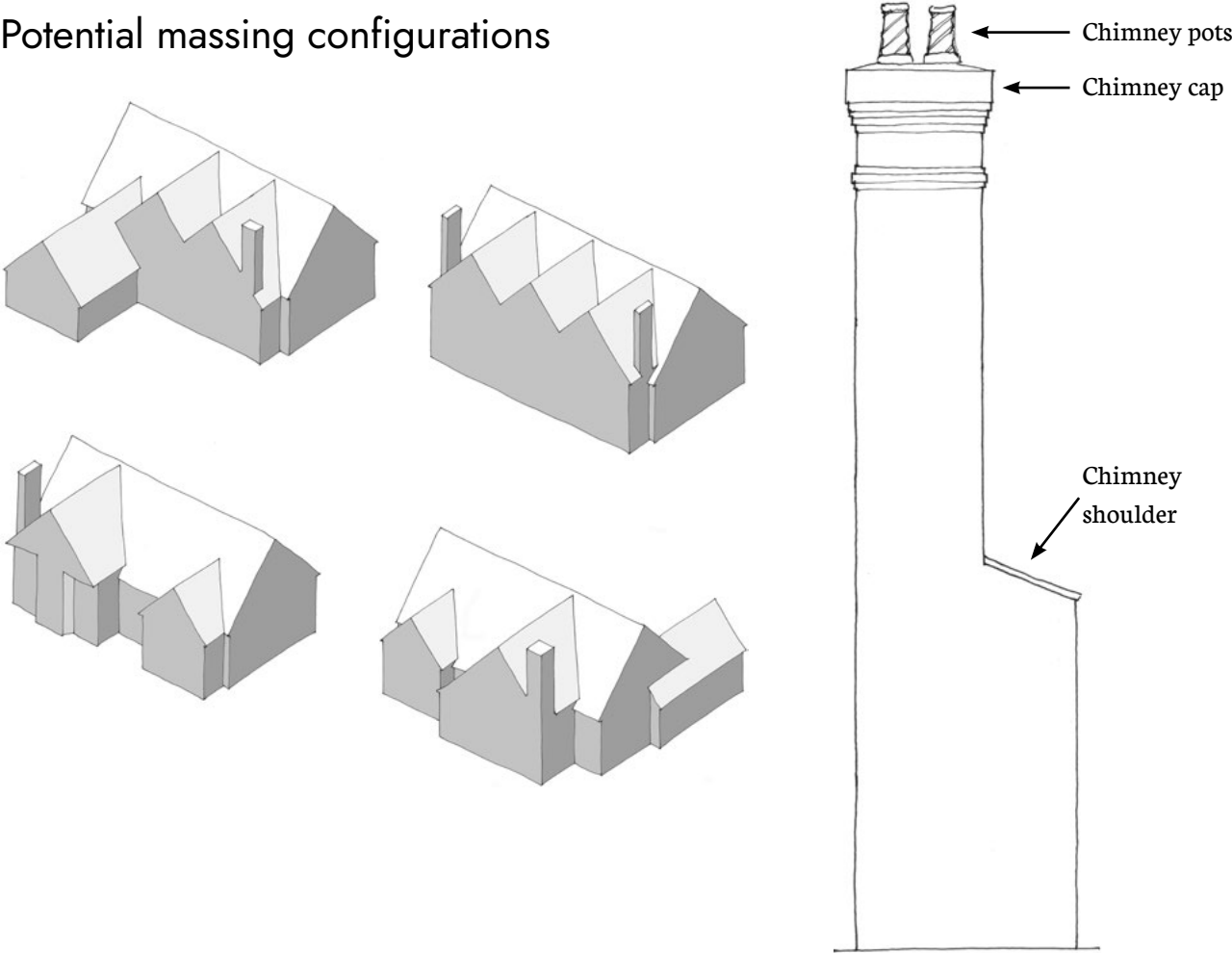
ENGLISH ARTS AND CRAFTS

Massing & Chimneys

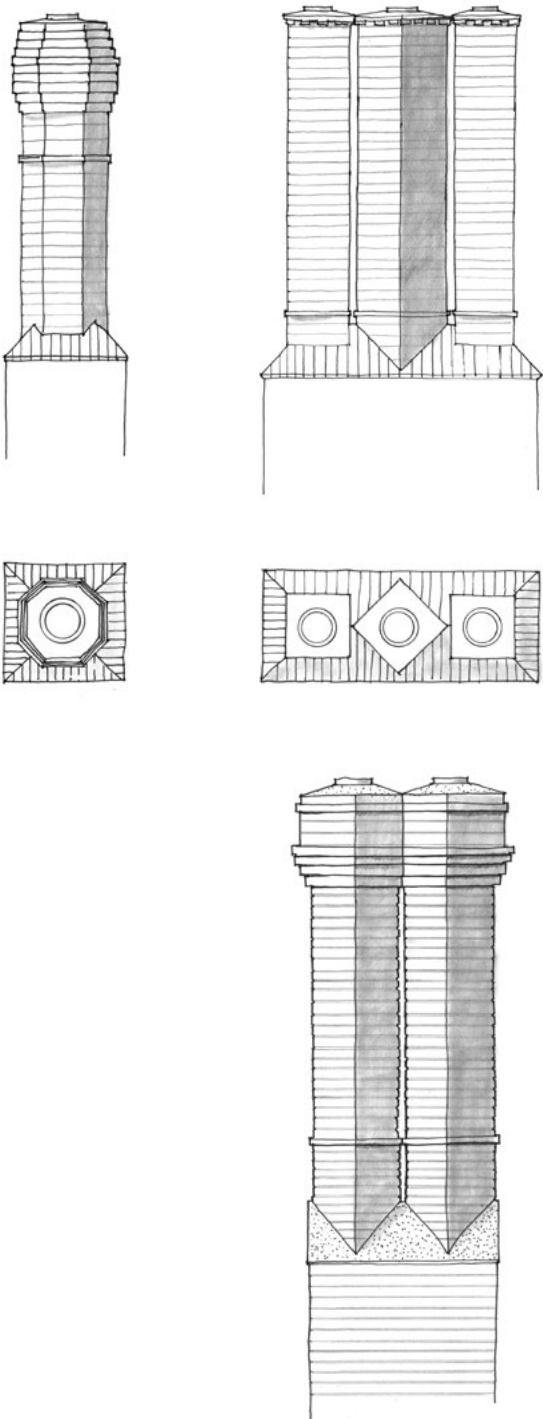
While the Arts and Crafts movement drew from Medieval roots as partial inspiration, it sought to merge a more stylized version of those attributes while often bringing other design philosophies. For example, Lutyens often brought classical elements into his works, while both Voysey and Mackintosh sought to modernize their particular variations. As such there is a pretty wide range of expressions that the movement takes on. In general though, massing are less articulated across the facade, with fewer jogs of the exterior walls. Features such as double and even occasionally triple gables all occurring within that same plane, uninterrupted ridge lines and entries that typically recess into the home rather than project out are examples of a simpler massing than the Tudor Revival style.

Chimneys are often fully integrated with the design of the facade, with the lower portions frequently being flush with the plane of the exterior walls instead of the firebox projecting out from the facade, as is more common with the Tudor Revival style. And while the Arts and Crafts style did have decorative chimney stacks on the top 1/3 of the chimney structure, they were more simple geometric shapes, such as rotated square flues, as opposed to highly elaborated masonry patterns and spiraling designs of the Tudor Revival style. Double and triple stacks of flues are often seen within this style, though on occasion a single large stack was carried all the way up with multiple flue vents shown on the chimney cap.

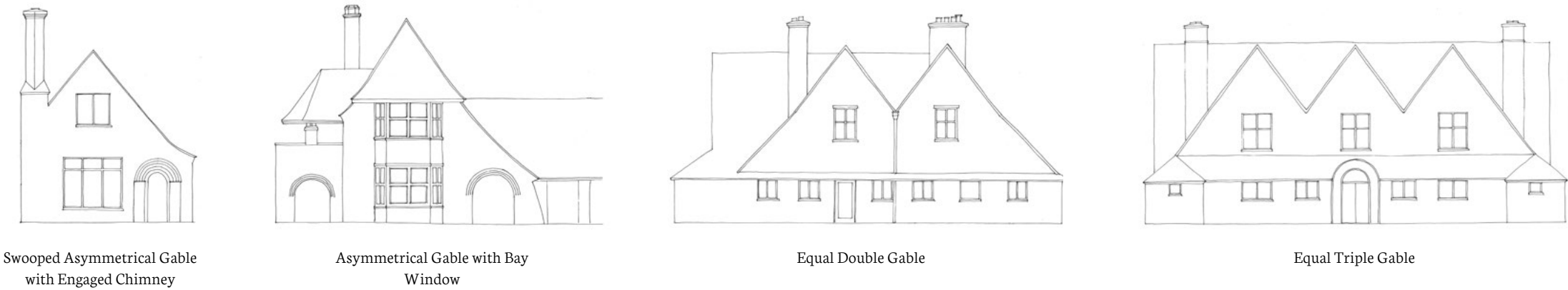
Potential massing configurations



Chimney Stack examples:



Common facade configurations:

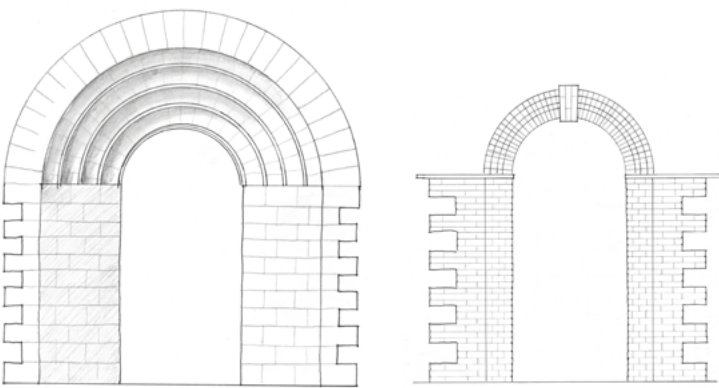


ENGLISH ARTS AND CRAFTS

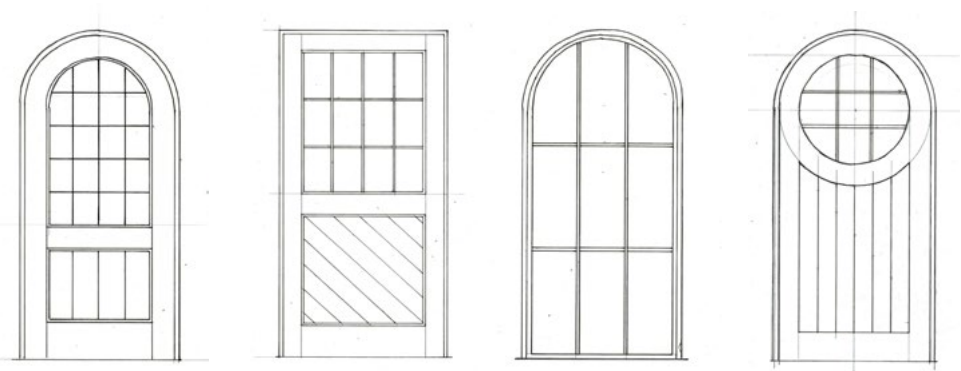
Doors & Windows

Entry doors in the Arts and Crafts movement were predominately deep set half round arches. While rectangular doors and even occasionally the elliptical arch were used, the simplicity of the half round arch seemed to be the preferred choice for most architects in this style. A pretty wide range of glass patterns within these arched doors were used. While heavier, more medieval inspired doors were used on occasion, most designed seemed to prefer to allow light though the entry door through the use of incorporating glass into the design of the door.

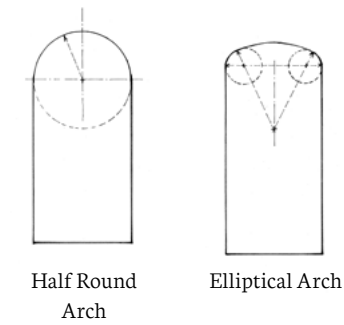
Typical Entry Surrounds:



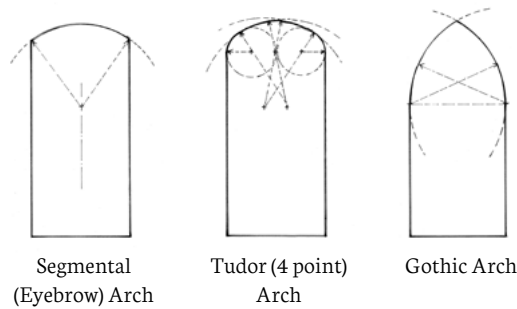
Typical Entry Doors:



Appropriate shapes for Arts & Crafts:

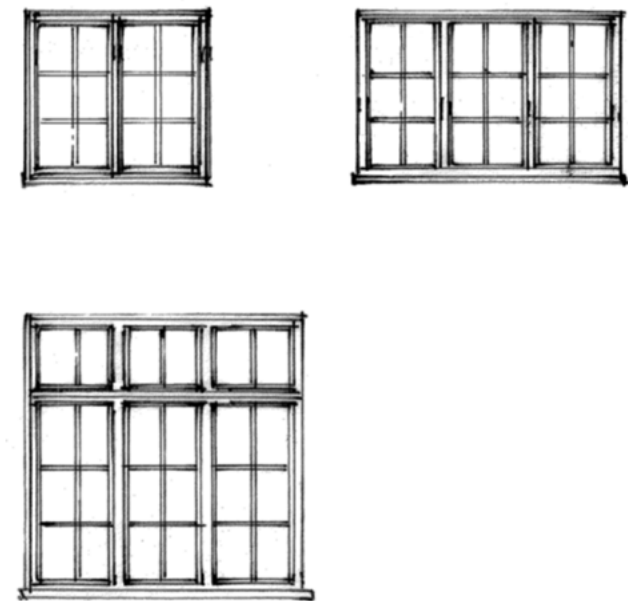


NOT USED FOR THIS STYLE:

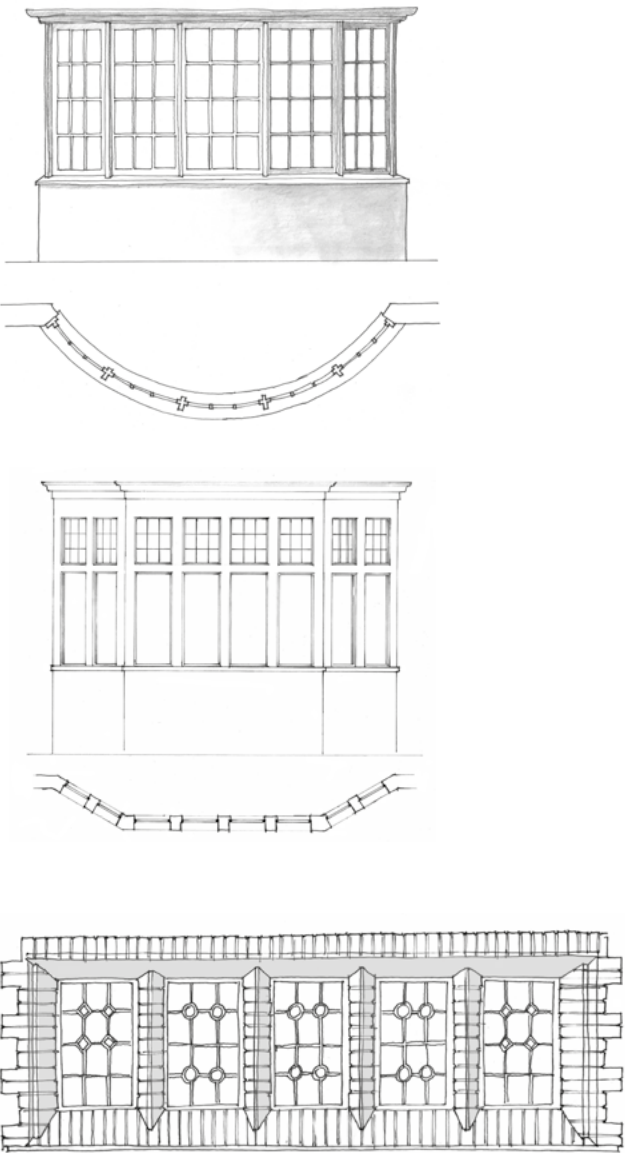


As with other English medieval inspired architectural styles, arches are rarely seen in the window designs except in a few cases as very small ornamental windows. Typical fenestration for the Arts and Crafts style was to group several rectangular windows together horizontally and vertically to create larger bays and ribbon windows. The use of different mullion patterns was seen in some of the more stylized interpretations where architects were using the glazing as decorative elements of the design.

Typical window configurations:



Feature windows:



Cotswold

The Cotswolds is a region of England of approximately 787 square miles in size, stretching from Bath in the south to Chipping Campden and Broadway in the north. It was designated in 1966 officially as an “Area of Outstanding Natural Beauty”. The region became wealthy in the mid 1200s due to the natural habitat being excellent for raising sheep, and the wool export that came from that trade. The Cotswold homes that developed through the ages in this region were nearly exclusively constructed from the local limestone that was found in abundance there.

Some of the identifying features of the style include:

- Steeply pitched roof (12:12 or greater), usually side gabled
- Through the cornice gabled dormers, front facing gables (or both)
- Tall, narrow rectangular windows in groups
- Large and often dominate chimneys
- Entryway and door often with a half round, Tudor or rectangular shapes
- Exterior walls predominately built from local rough limestone with cut limestone accents

Cotswold homes were typically much more simplified in their overall massing than the other English Medieval styles, with gables often occurring within the same plane as the rest of the front facade. They are made exclusively from rough or cut limestone exteriors, and often have cut limestone window surrounds. Gables are either very simplified rakes of stacked stone roof tile on top of limestone walls, or sloped gable parapets capped with cut limestone.



COTSWOLD

Massing & Chimneys

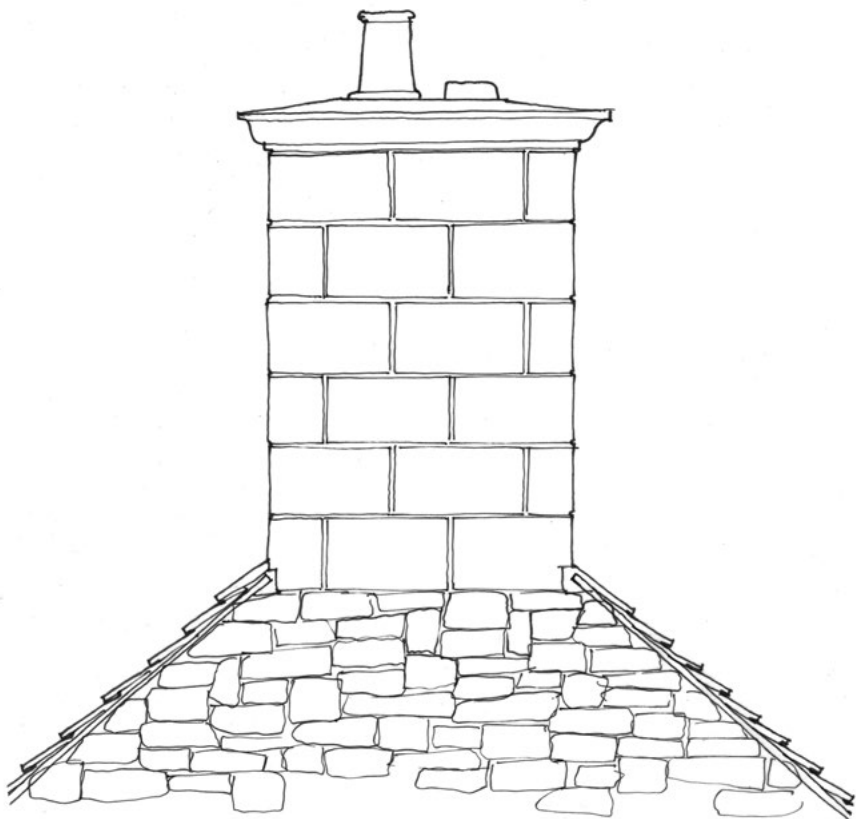
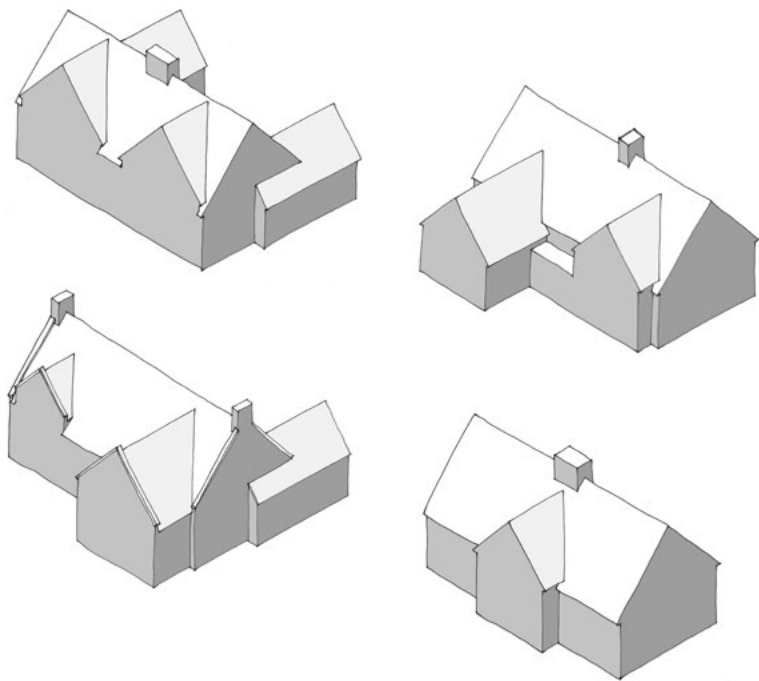
Cotswold architecture has existed since the medieval era and has not changed much in form. As such, the overall shapes tend to be very simplified, consistent typically of a single ridge parallel to the front facade and often with cross gables or thru the cornice gabled dormers that are both flush with the exterior walls. While there may be elaboration along the plate line with these cross gables, and dormers, the overall shape of the home is typically rectangular in plan, though some designs will incorporate an offset gable or added wing to the massing, Parapets are very common on the gables, otherwise a simple stacked slate roof is placed directly on top of the gable.

Chimneys are typically fully integrated into the design, most commonly aligning with the center of the main ridge line of the home and centered on the side gables. They are most often flush with the exterior walls as opposed to having projected fireboxes, and the top of the chimney is typically finished in either a brick or a cut limestone. Simple rotated chimney stacks are seen on occasion, though more frequently a single large chimney carrying multiple flues extends past the roofline to the chimney cap.

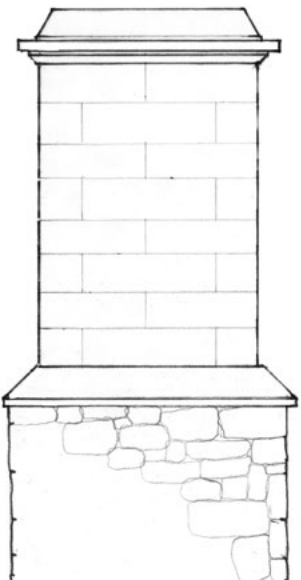
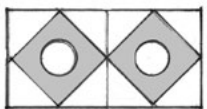
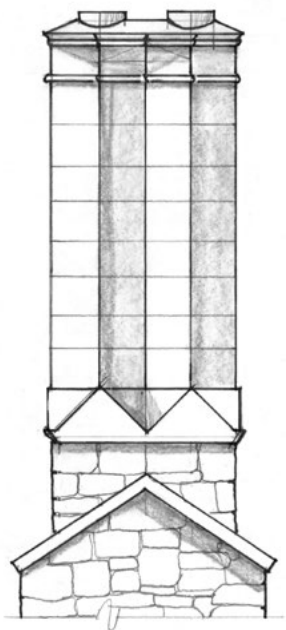
Common gable configurations:



Potential massing configurations



Chimney Stack examples:

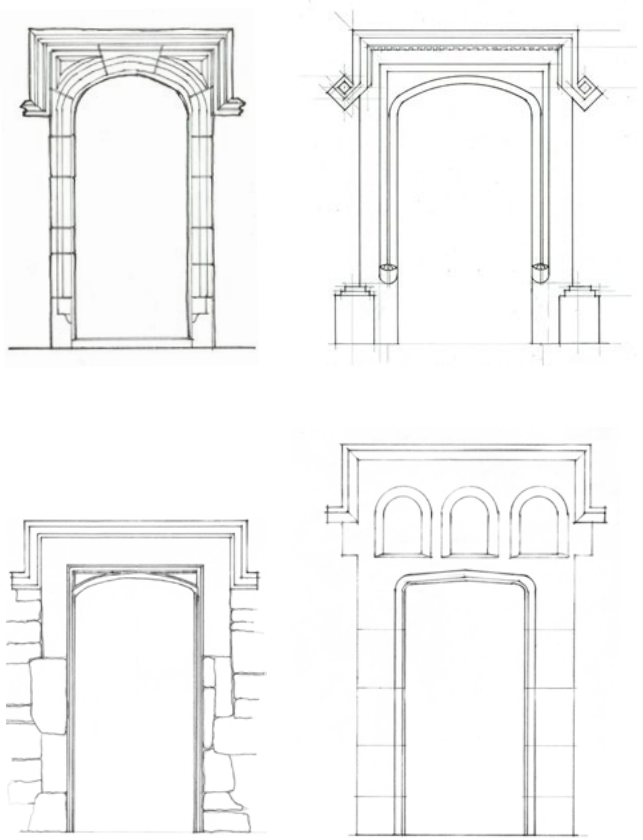


COTSWOLD

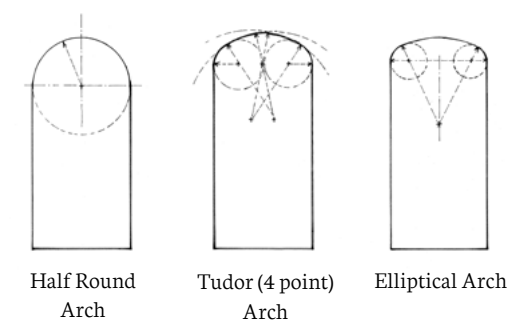
Doors & Windows

Doors and entries for the Cotswold region were typically done in the medieval style and were typically heavy wood doors using the Tudor “4 point” shallow arch. Rectangular doors or elliptical arches were also used occasionally, while half round arches were seen much less frequently. Original doors were most likely solid wood without any glass, but newer remodels brought doors of the same shape with more glass as part of the door design to allow for more light to come into the entry of the homes. Often the doorways are surrounded by finely carved stone surrounds, often with hood molding that sheds water off the face of the door itself.

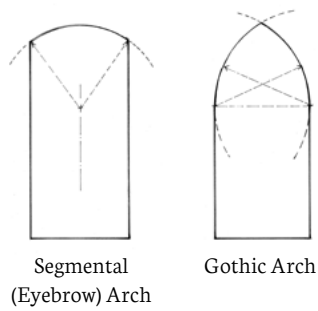
Typical Entry Surrounds:



Appropriate shapes for Cotswold:

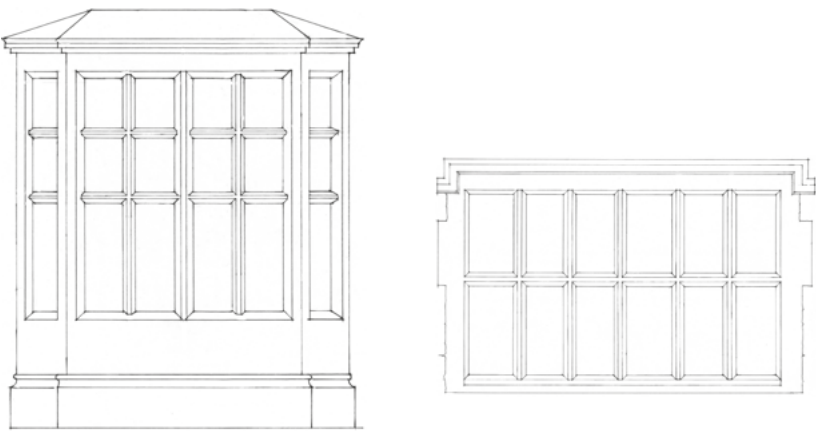


NOT USED FOR THIS STYLE:

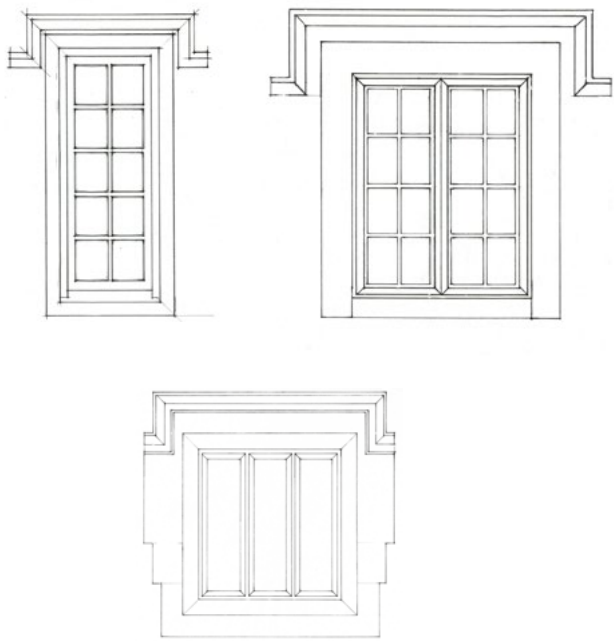


Windows in most of the simpler homes were double and triple wide groupings of casement windows or dormer windows. In some of the larger and more grand buildings, faceted bays and large groupings of windows with transoms are seen in parts of the facade where larger rooms would be located in the home. Mullion patterns for these homes remained relatively small and were mostly rectangular in shape, though some diamond leaded glass patterns could be seen on occasion in some of the older designs. Most windows and doors were trimmed with cut stone and angled hood molds at the top of the surround which helped shed water away from the face of the glass or door.

Feature windows:



Typical window configurations:



Typical Entry Doors:



French Styles

While America drew heavily from its English heritage for inspiration, there were occasionally other regions of Europe that had influence as well. However, it wasn't until after soldiers returned from the French Countryside following WWI that French architecture really took the spotlight for a while. Virginia McAlester gives a broad category to these homes as belonging to the "French Eclectic" style in her book, 'A Field Guide to American Homes'. This classification allows for a fairly broad range of homes of various massing and detailing to be grouped together, which is understandable as the inspiration for this style was derived from a very wide range of French buildings - from the rustic farmhouses to the grand Chateaux.

For Villaggio, the French styles of allowed homes are divided into 2 categories:

- Symmetrical French
 - Asymmetrical French
-



Symmetrical French

Symmetrical homes done in the French style tended to be more formal, being based on buildings created during the French Renaissance. As such, these homes tend to have more classical detailing involved in the design, such as classical columns or pilasters, and often have arched pediments over the entryway or primary windows. The massing being symmetrical in design, the facade is thus broken into equal spacing across the front with regard to window placement and subdominant wings. The entry to these homes are typically raised up several steps relative to the surrounding grade. These homes are often a full 2 stories in height.

Some of the identifying features of the style include:

- Steeply pitched hipped roof
- No dominate front facing gable
- Eave often swept (or swooped) at roof edge
- Entry, windows or dormers often use a segmented arch shape
- Symmetrical front facade
- Optional features consistent with this style may include balconies and shutters

As these homes are based on more grand french buildings, they tend to be made of cut stone veneers, or a smooth stucco exterior that provides a similar look without the high cost. Occasionally brick with cut stone accents is also found as an exterior material in a few examples of this style.

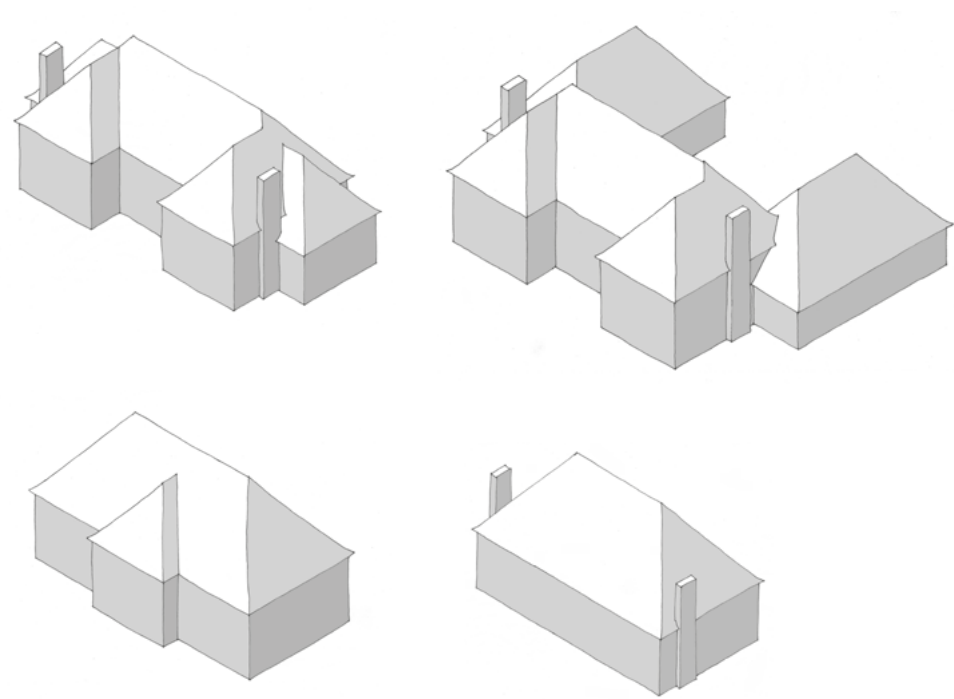


SYMMETRICAL FRENCH

Massing & Chimneys

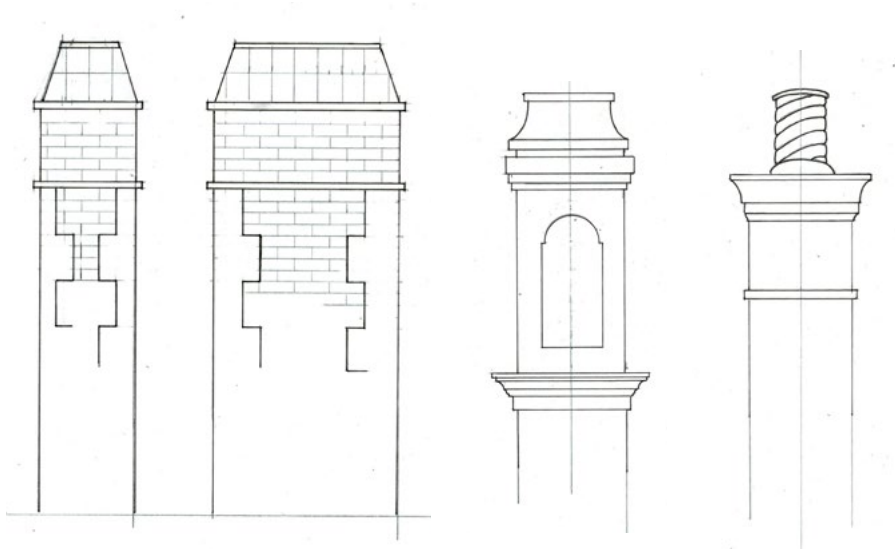
The primary massing for any Symmetrical French styled home is of course going to be symmetrical in nature, with the entry being centered in the design. The central portion of the home shall be the tallest portion, and may have “wings” to either side that may project forwards of the center or behind it. Wings that project forward shall do so in such a way as to not dominate the entry portion of the facade and maintain a subdominant hierarchy with the central massing. Openings, windows, dormers, chimneys and other features of the design shall also be arranged in a symmetrical configuration relative to the entry. These homes are not well suited to porte-cochere configurations due to the symmetrical nature of the facade.

Potential massing configurations



Chimneys in most French styled homes are fairly simplified compared to their English counterparts. While they may include some profiled stone caps and bands, or occasionally quoins (if used on other aspects of the facade) the overall shape is typically a simple rectangular chimney stack. Chimney caps are used on occasion, as are tapered metal shrouds.

Chimney Stack examples



Common facade configurations

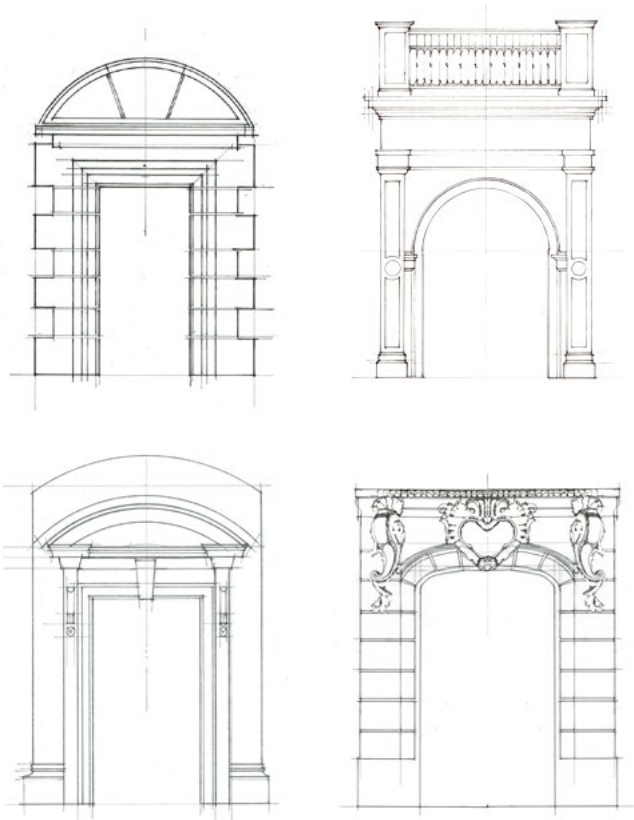


SYMMETRICAL FRENCH

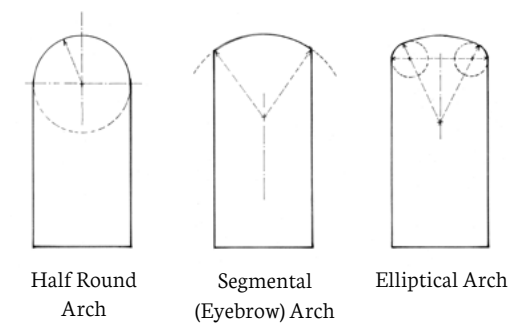
Doors & Windows

The entry for any Symmetrical French home shall be centered on the facade and primary focal point for the overall composition. The design of the surround for the entry often includes classical elements such as columns, entablatures and balusters (or decorative railings) at the window over the entry door. Pediments (both arches and triangular) are also common elements of the entry portion of the facade. Doors may be either solid wood paneled or have glass sections, and come in both rectangular shapes as well as arches, though the segmented arch shape is more commonly seen than the half round.

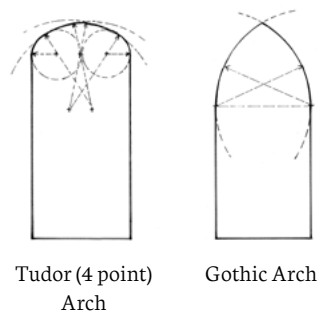
Typical Entry Surrounds:



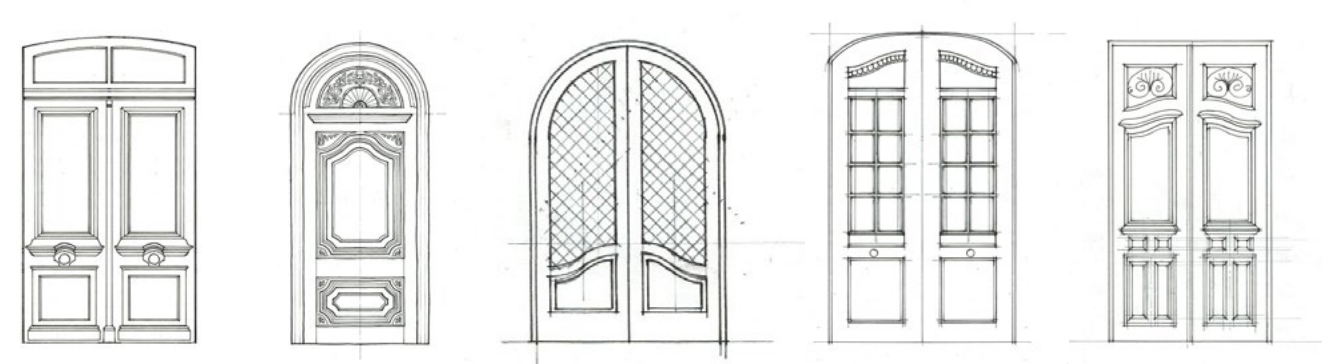
Appropriate shapes for Symmetrical French:



NOT USED FOR THIS STYLE:

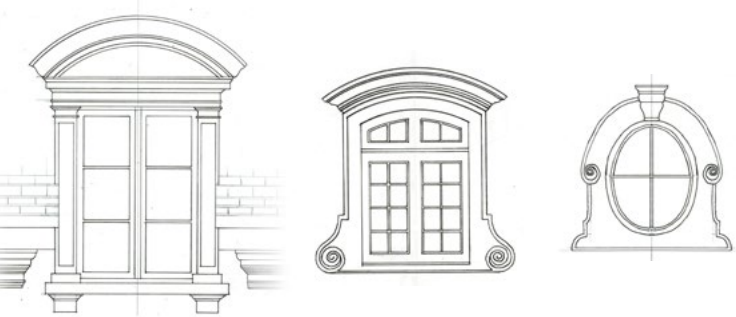


Typical Entry Doors:



Windows are typically grouped in such a way that the overall opening is taller than wide. It is also common to see a particular window shape to be repeated across one of the floors and a different shape used for the other floor. Again segmented arches are the most commonly used window shape, along with rectangular windows also being used frequently. It is also common for the primary windows to have elaborate cut stone surrounds with classical elements such as pediments, pilasters and brackets as part of the surround design. Dormers, both full and through-the-cornice designs, are also a common element in this style, as are roof vents (though typically not used together). Operable louvered shutters may also be part of the window assembly, though less frequently.

Typical dormers:



Feature windows:



Asymmetrical French

Asymmetrical homes done in the French style tended to be less formal, being based more on rural homes and farms of the french countryside. While they may still incorporate classical detailing into the facade design, they are more likely to be simpler in elaboration. These homes are often massed as story and a half, with the plate line on the 2nd story ceiling lower than the 2nd floor ceiling height, and 2nd floor windows in these conditions are often provided in a “through-the-cornice” configuration.

Some of the identifying features of the style include:

- Steeply pitched hipped roof
- No dominate front facing gable
- Eave often swept (or swooped) at roof edge
- Entry, windows or dormers often use a segmented arch shape
- Asymmetrical front facade
- Optional features consistent with this style may include balconies and shutters

Materials for these homes may also include a rough faced stone veneer as well as stucco. These homes may also incorporate brick or heavy timber accents into the design, particularly at the 2nd floor. Shutters are more commonly seen in the Asymmetrical French style.



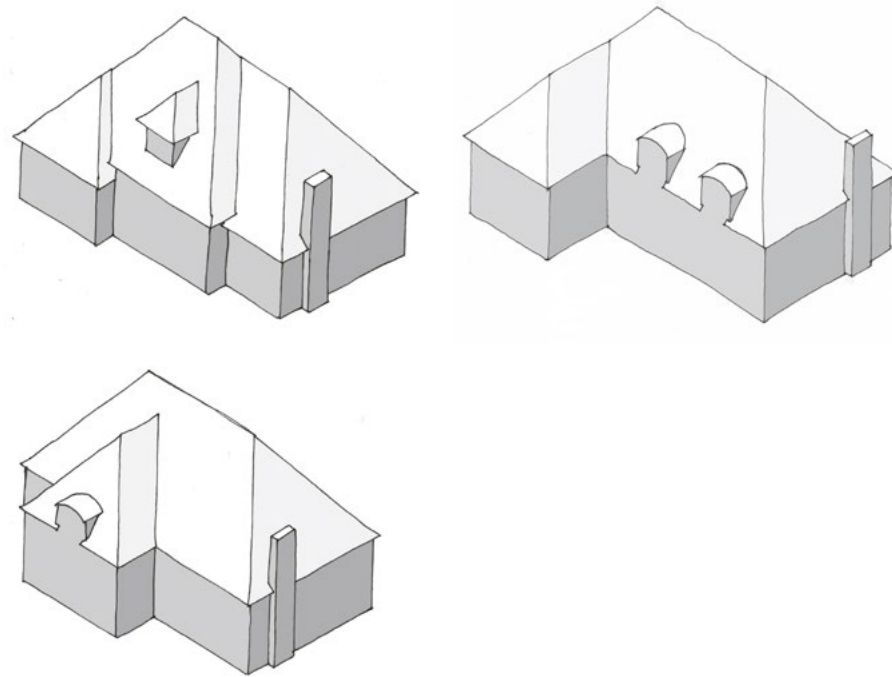
ASYMMETRICAL FRENCH

Massing & Chimneys

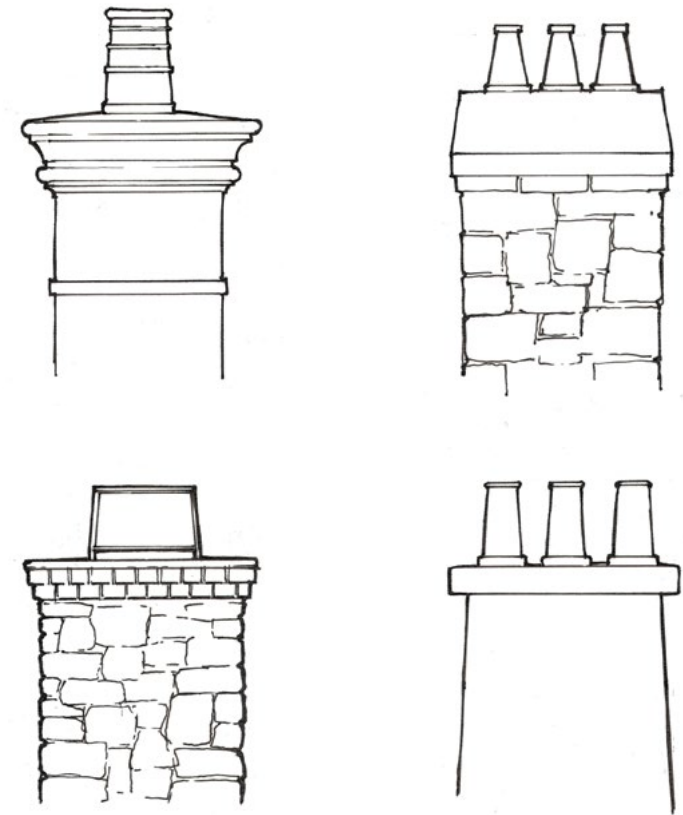
While the massing for an Asymmetrical French home is going to be asymmetrical in nature, the design shall still be well portioned and balanced visually. Wings may project forward on one side and or may recede back, but the overall facade shall be composed so that hierarchy is still primarily given to the entry. The entry shall be a part of the dominate (tallest) massing at the center of the home, but may still be off center. These homes are better suited to porte-cochere garage configurations than their symmetrical counterparts. Also 1 1/2 story designs (2nd floor plate lower than the 2nd floor ceiling) are more typical for this style than full 2 story or single story configurations.

Chimneys in most French styled homes are fairly simplified compared to their English counterparts. Nevertheless they are still an important feature of any French home and shall be incorporated into the facade as to be prominent feature visually from the front of the home. While they may include some profiled stone caps and bands, or occasionally quoins (if used on other aspects of the facade) the overall shape is typically a simple rectangular chimney stack as opposed to the twisted and rotated stacks seen in the English styles. Chimney caps are used on occasion, as are tapered metal caps.

Potential massing configurations



Chimney Stack examples



Common gable configurations:

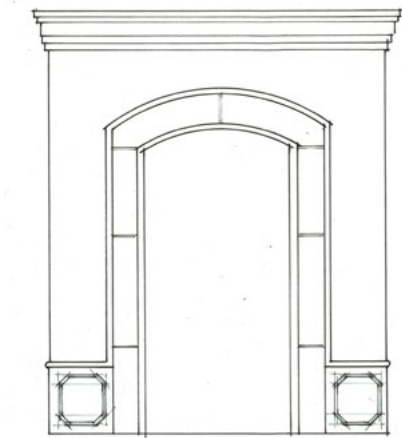
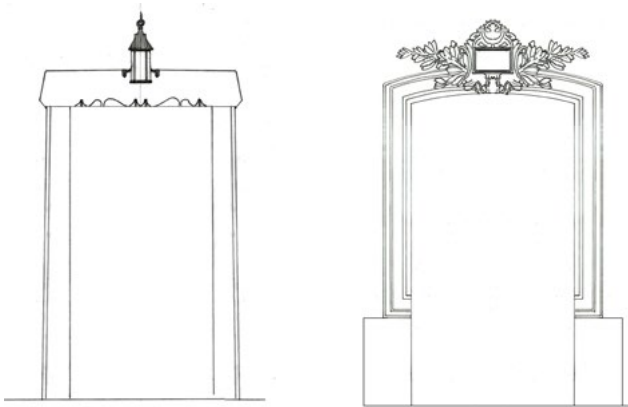


ASYMMETRICAL FRENCH

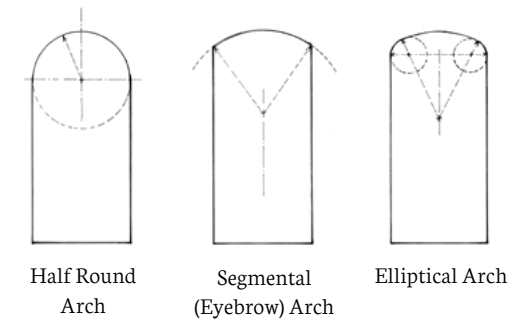
Doors & Windows

The entry for an Asymmetrical French styled home is typically simpler than the Symmetrical counterparts, though they may still incorporate classical elements such as columns and entablatures in cut stone. Pediments (both arches and triangular) are occasionally seen on the entry portion of the facade. Doors are more likely to have glass sections, and come in both rectangular shapes as well as arches, though the segmented arch shape is more commonly seen than the half round. Elaborate wrought iron scrollwork is commonly seen on entry doors.

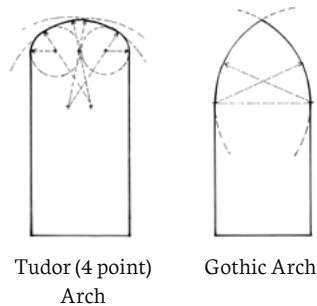
Typical Entry Surrounds:



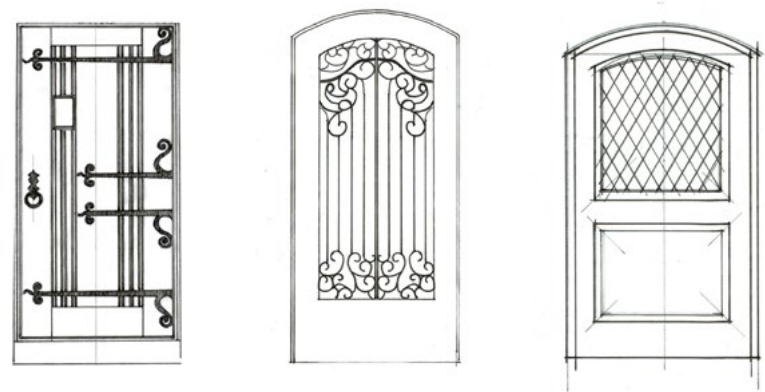
Appropriate shapes for Asymmetrical French:



NOT USED FOR THIS STYLE:



Typical Entry Doors:

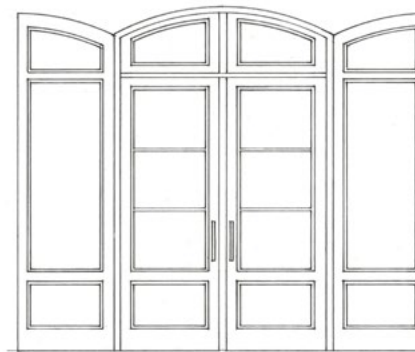
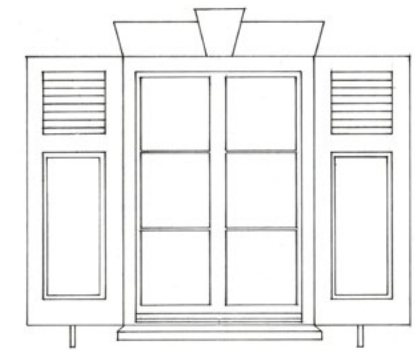


Windows are typically grouped in such a way that the overall opening is taller than wide. It is also common to see a particular window shape to be repeated across one of the floors and a different shape used for the other floor. Segmented arches are the most commonly used window shape, along with rectangular windows also being used frequently. While the primary windows may have elaborate cut stone surrounds with classical elements such as pediments, pilasters and brackets as part of the surround design, a simpler cut stone profiled casing is often used instead. Through-the-cornice dormers are very common in the Asymmetrical French style. Operable louvered or paneled shutters are seen frequently in this style as well.

Feature windows:



Common shutter examples:



Mediterranean Styles

A variety of architectural styles in America were inspired by the southern regions of Europe that bordered on the Mediterranean sea. The overall design of these structures took on a distinctly different aesthetic that responded to both the building materials available in those regions as well as the local climates. The predominate material for roofs (and a unifying feature among all these Mediterranean styles) was a terra cotta clay tile, typically done in a “C” or “S” shape, and often found in the natural red to orange color of the clay that was found locally. Each style however developed their own unique characteristics that responded to local conditions.

For Villaggio, the approved Mediterranean styles are divided into 3 categories:

- Italian Renaissance
 - Spanish Eclectic
 - Tuscan
-



Italian Renaissance

This style made its way into American architecture in the late 1800s and was a very close approximation of the renaissance structures of Italy. This was primarily due to the fact that photography and printing techniques allowed for a much more accurate interpretation of these Italian prototypes and also cross Atlantic travel was much more accessible by that time. The Renaissance in Italy was a resurgence of ancient Greek and Roman classical architecture and sought perfection through pure geometry and ideal ratios and proportions.

Some of the identifying features of the style include:

- Low pitched hipped roof
- Roof covered with terra cotta barrel tiles
- Wide overhanging eaves with decorative brackets
- Entryway often with classical columns
- Commonly 1st floor entry and windows use half round arch shapes
- Upper windows typically smaller and less elaborate than 1st floor
- Optional features consistent with this style may include balconies, arcades and loggias

The vast majority of Italian Renaissance homes were designed with symmetrical facades, though a few asymmetrical examples can be found. They draw heavily on Classical embellishments such as columns, pilasters, entablatures, balusters and half round arches. These homes are almost exclusively found in a stucco exterior finish, though examples in cut stone and even brick can be found in certain areas of America.



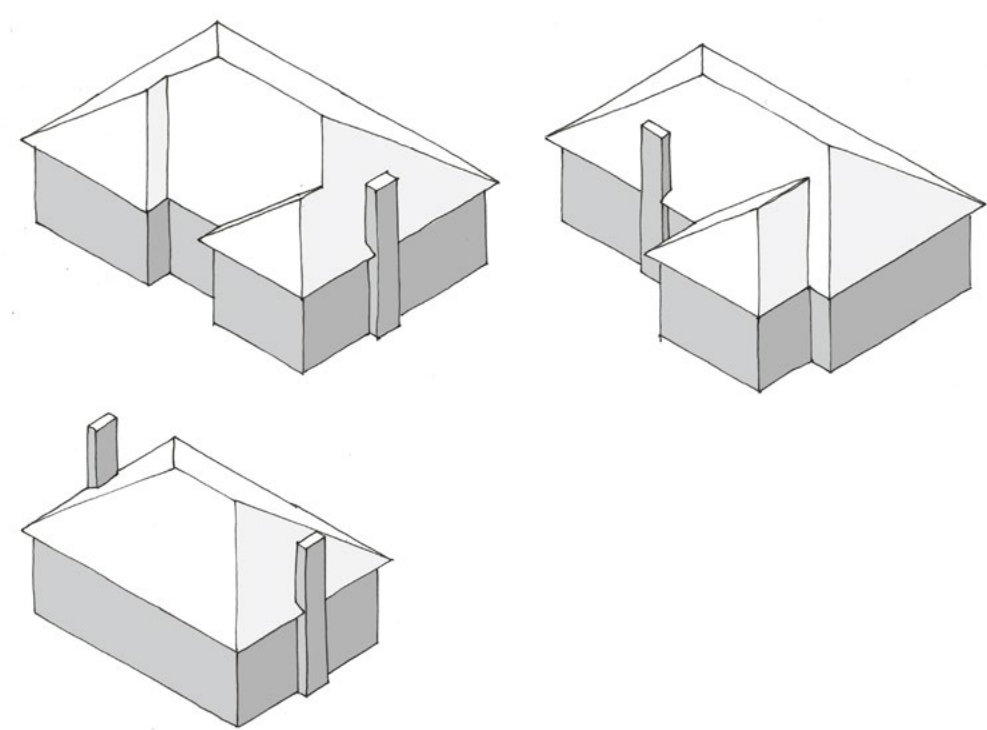
ITALIAN RENAISSANCE

Massing & Chimneys

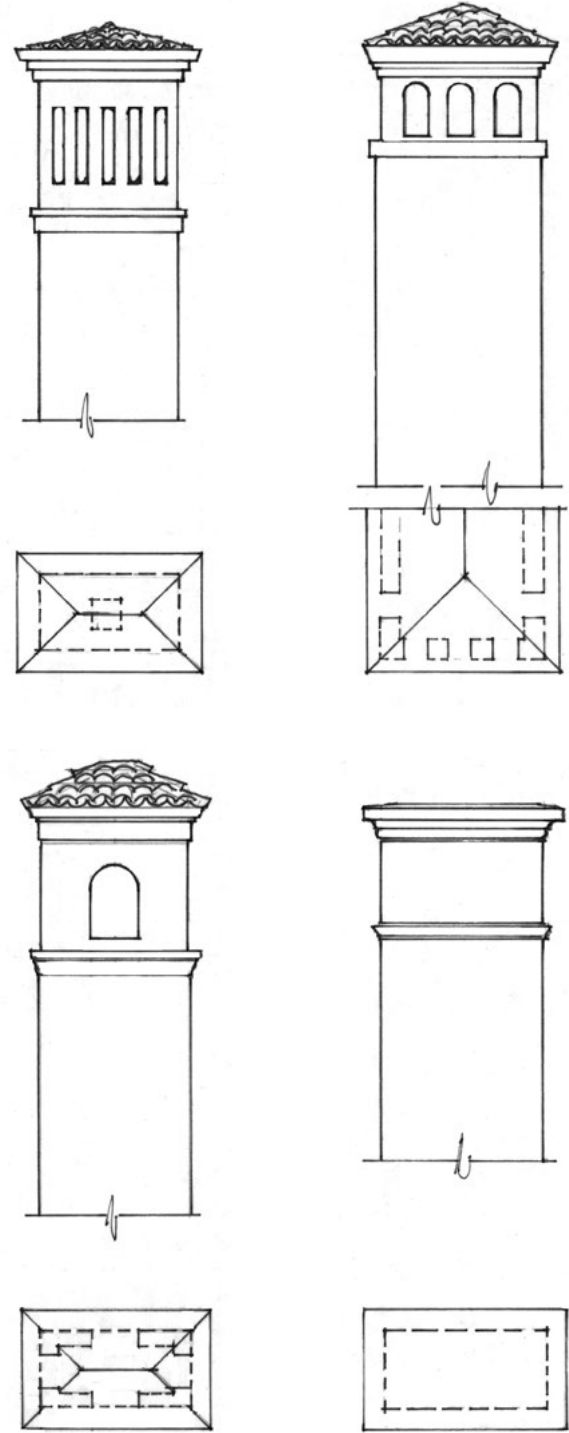
While most of the Italian Renaissance homes are symmetrical in massing with the entryway being centered in the design, there are a few landmark examples of asymmetrical designs that can be found. Asymmetrical design still maintains a balanced and well proportioned design, and are almost always full 2 story facades, though they may have attached 1 story wings to the sides. The roofs are generally very simplified with consistent plate and the overall shape of the structure is typically a simple rectangle, “U” or “H” shaped plans. Roof overhangs shall be a minimum of 2'-0” and always have decorative brackets on the underside.

Chimneys are typically a simple design vertically, being square or rectangular in shape without twisted or rotated shafts. They are often capped with a sloped roof that mirrors the main roof of the home and openings that allow venting of the small to the side of the top, capped with a profile above and below the vent openings. A simpler flat top with projecting chimney flue is seen on occasion in simpler versions of the style.

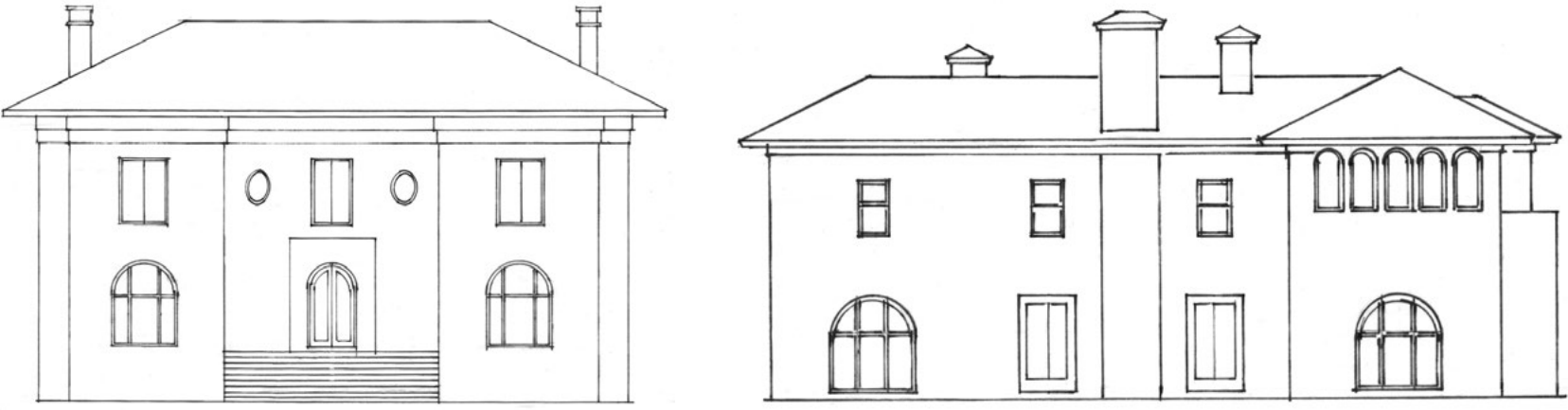
Potential massing configurations



Chimney Stack examples:



Common facade configurations:



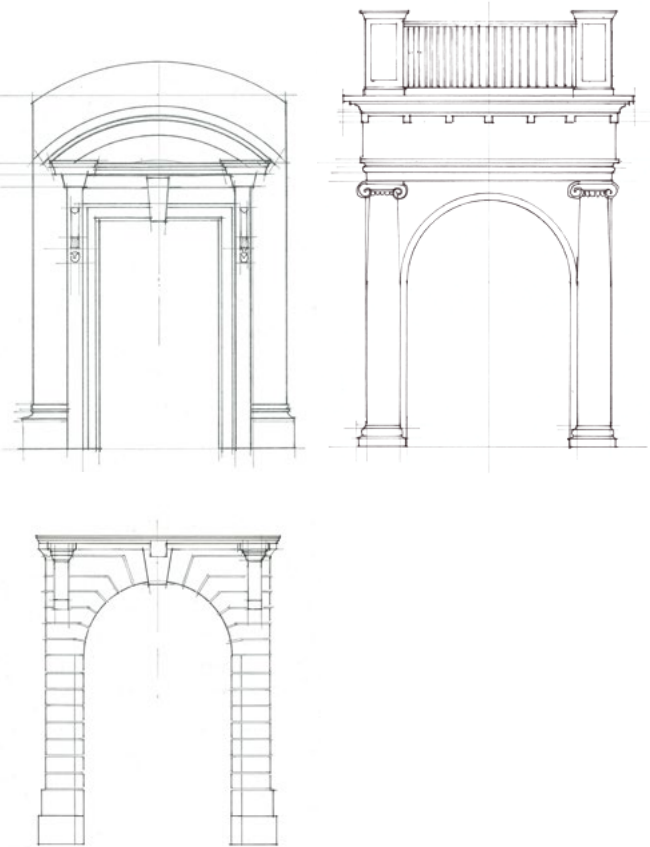
ITALIAN RENAISSANCE

Doors & Windows

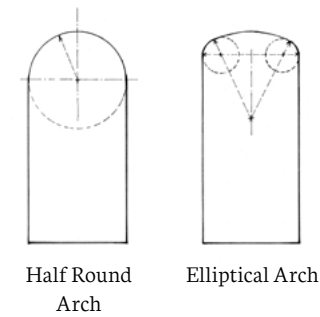
Entry doors in the Italian Renaissance style are typically ornately wood paneled, often double doors in a half round arch shape. Glass paneled doors are seen less frequently and are consistent in design with the windows used on the home. The entry doors are most often surrounded by classically inspired cut stone surrounds and often include engaged columns and pilasters carrying entablatures and sometime pediments.

Half round shapes are often incorporated through the facade and used for doors, opening and windows, though wider openings and doors may also use the elliptical arch to span a greater distance.

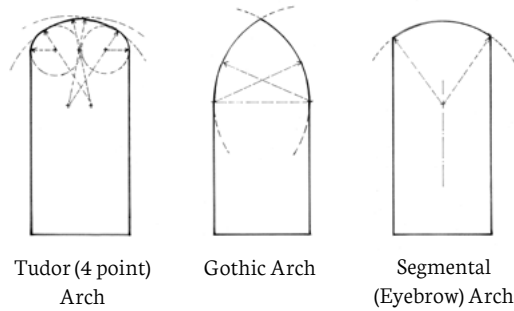
Typical Entry Surrounds:



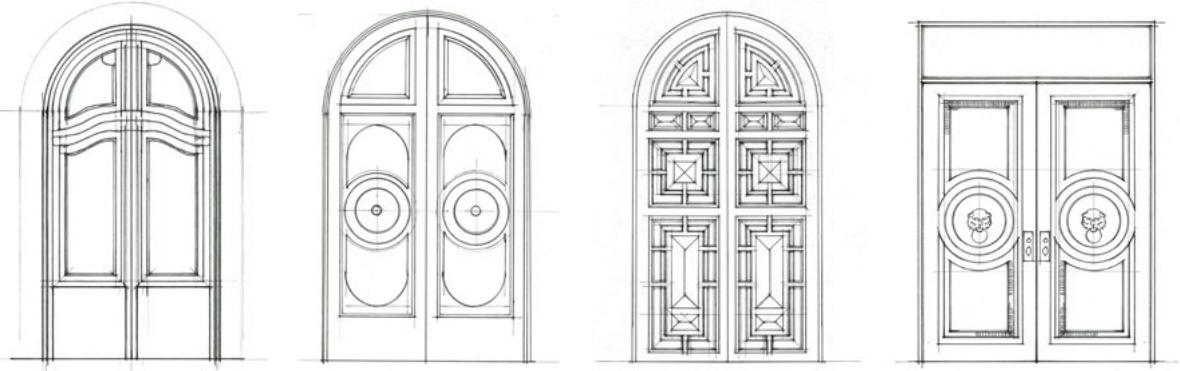
Appropriate shapes for Italian Renaissance:



NOT USED FOR THIS STYLE:

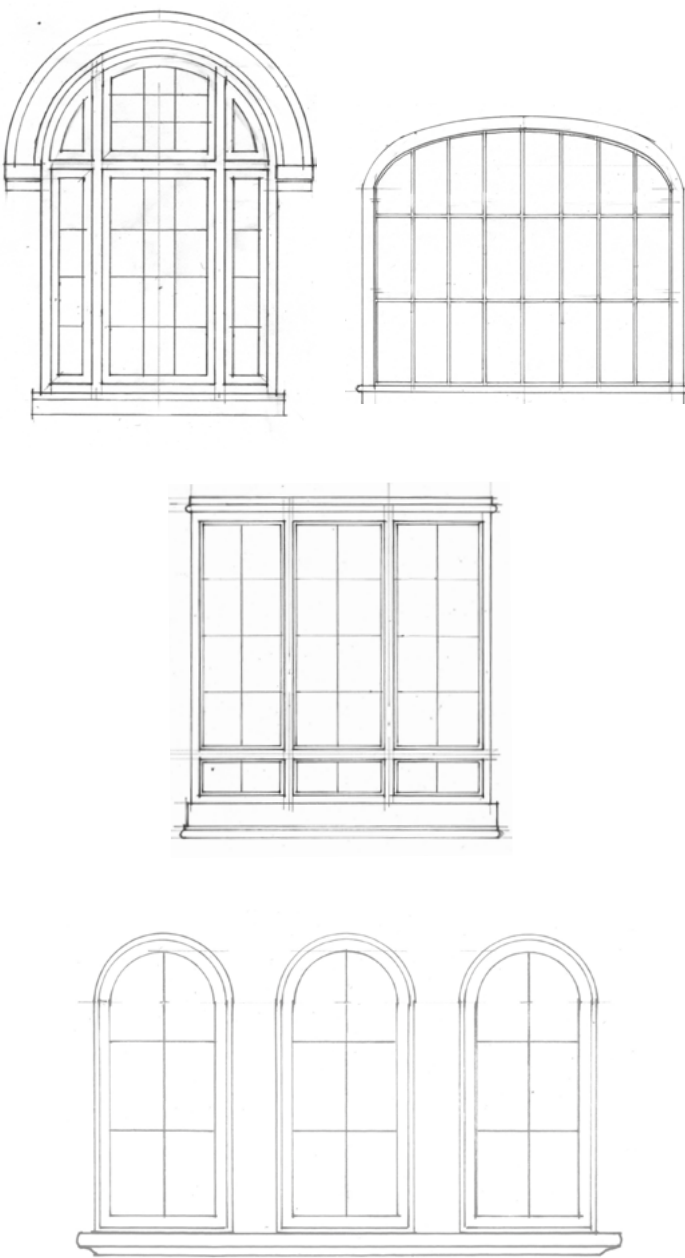


Typical Entry Doors:



This style in particular is known for having larger half round windows on the 1st floor and smaller rectangular windows are typical of the 2nd floor, though exceptions can be found to this trend. The windows are often framed with cut stone profiled surrounds, though occasionally the surround may include engaged columns of classical design. Dormers and decorative roof vents are very rare in this architectural style.

Feature windows examples:



Spanish Eclectic

The Spanish Eclectic style was popularized in America after the 1915 California-Panama Exposition of 1915. The halls and building created for that event by Bertram Grosvenor Goodhue drew heavily on architecture of the Spanish Baroque style. The exhibition was a huge success and the style rapidly replaced the Mission style of architecture that had been used in America prior to it.

Some of the identifying features of the style include:

- Low pitched roof, often gabled
- Red barrel tiled roof
- Predominately stucco exteriors
- Eaves with little to no overhang
- Arches on main doors and feature windows
- Asymmetrical facade design
- Optional features consistent with this style may include balconies on the front elevation, or arcades and loggias on side or rear elevations

While the style draws heavily from the Spanish Baroque movement for the detailing, influences may include Moorish, Gothic, Byzantine and Renaissance inspiration. Projected balconies on the 2nd floor are a common feature. As the original homes were made from plaster covered masonry construction, the windows and openings tended to take on a “sculptural” quality to the edges as the doors and windows were deeply recessed from the face of the exterior wall. Ogee and other multi radius arch styles are a common occurrence.



SPANISH ECLECTIC

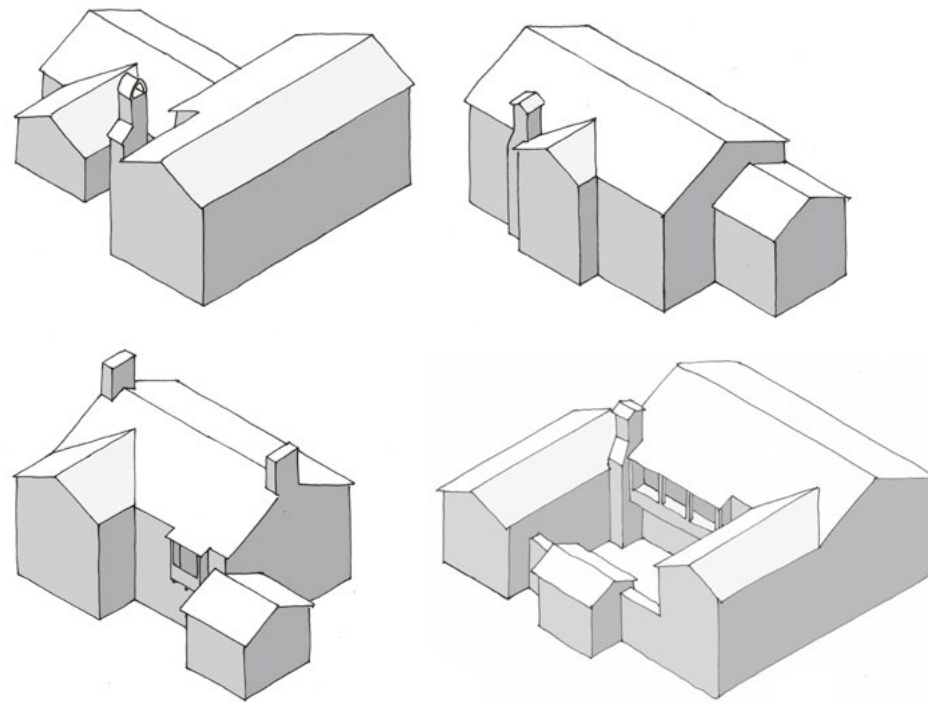
Massing & Chimneys

Massing for the Spanish Eclectic style is typically a collection of simple rectangular forms placed together at right angles to one another. The plate heights will often vary between the different connected masses, but typically the entry is part of the dominate portion of the overall composition. This approach to the shape draws its inspiration from the Andalusian region simple farmhouses that were multi generational buildings and continually added on to over many years of use.

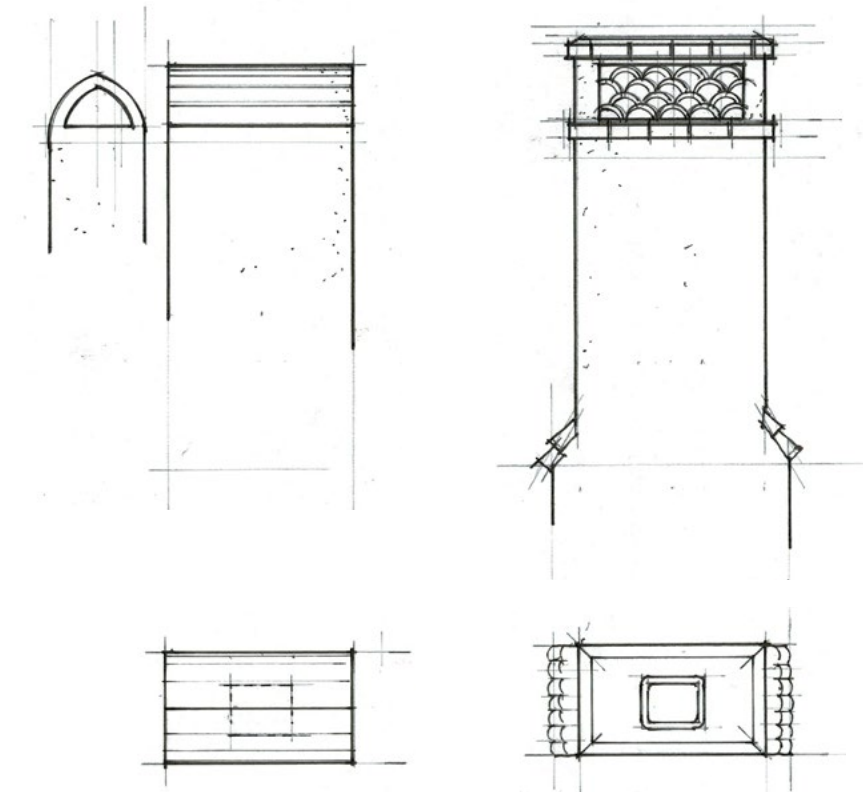
Another common feature is the use of round or square stair towers in the overall composition of the facade. Cantilevered balconies with turned wood columns are also a common feature, as are walled gardens and courtyards with fountains. Gables often have either tile details near the top center, or roof tiles that act as attic vents (decorative in modern interpretations). Carved stone medallions are also seen in this location on some designs as well.

Chimneys are often fully integrated into the facade so as to be flush with the exterior wall. They may be either centered to align with a gable or placed on a corner to one side of a gable. They can (less frequently) be projected and offset from the face of wall. In these cases they will have a wider base with shoulders that narrow the chimney shaft as it rises. The chimney top is often capped with small tiled roofs and small openings on the side of the chimney for venting, though pointed arch chimney caps are a common feature seen as well.

Potential massing configurations



Chimney Stack examples:



Common facade configurations:

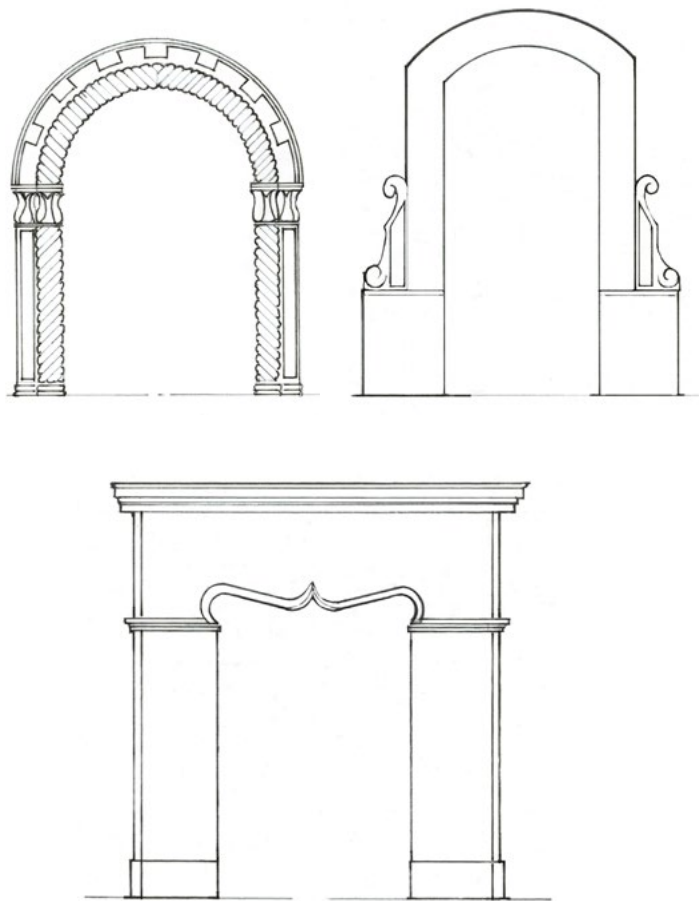


SPANISH ECLECTIC

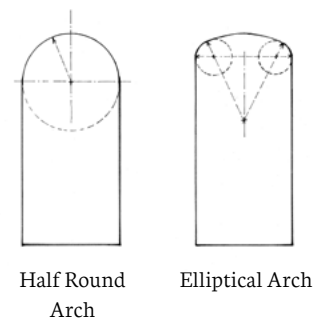
Doors & Windows

Spanish Eclectic style utilizes a variety of dramatically carved and paneled doors. These are more common on the high style examples, but can be seen even in more modest expression of the style. Doors are often accompanied with adjacent spiral columns, pilasters, carved stonework or even patterned tiles. Splayed and elaborated shapes mirroring the design of the doorway may be shaped into the stucco work of a deep set door. Doors that lead out to gardens and patios are often paired and glazed with multiple panes of rectangular glass.

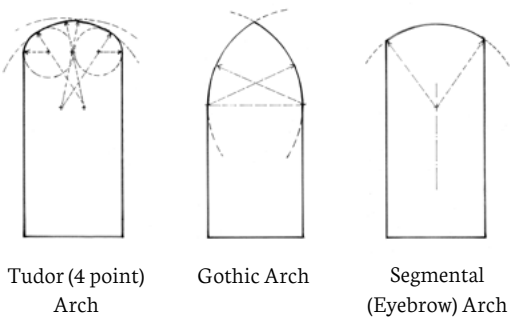
Typical Entry Surrounds:



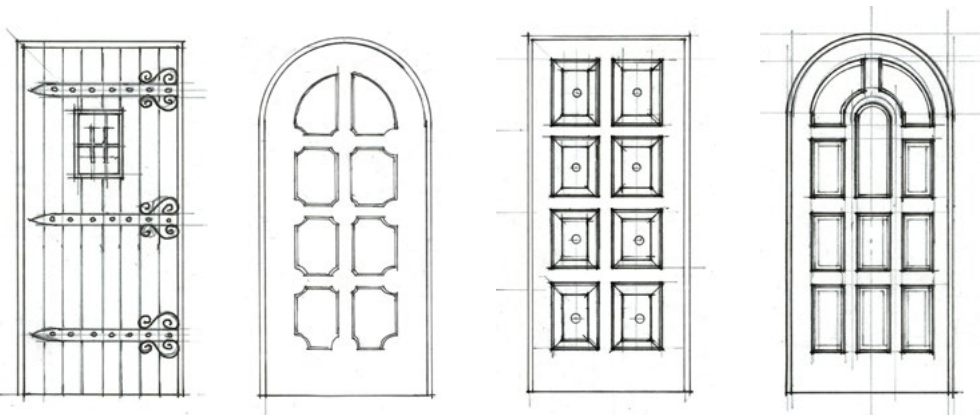
Appropriate shapes for Spanish Eclectic:



NOT USED FOR THIS STYLE:

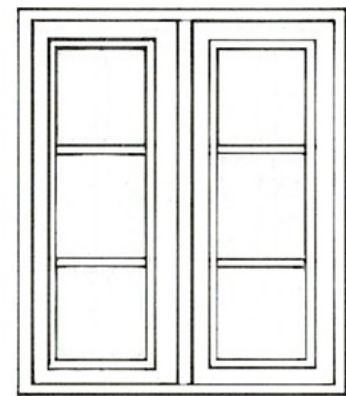


Typical Entry Doors:

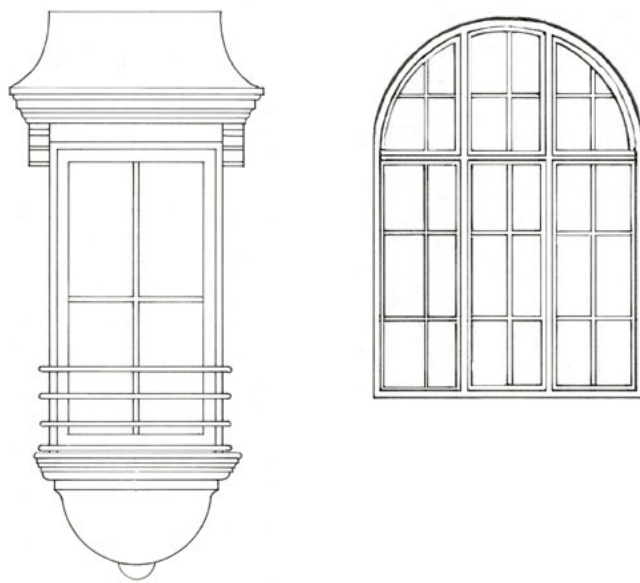


Most designs have at least one focal window, that are usually double or triple half round arches with spiraled columns between them, or large parabolic arched windows, often with stained glass accents integrated into the design of these windows. Window grills made from wrought iron (or occasionally turned wood) are also a common design feature. Focal windows may have elaborate cut stone surrounds but most of the other windows will have little to no embellishment surrounding the window in the stucco. Windows are often deeply inset relative to the exterior face of stucco though, and in these cases the stucco around the window may splay or radius at the window edge. Dormers are not typical in this style due to the low roof pitch.

Typical window configurations:



Feature windows examples:



Tuscan

The Tuscan style in America is a much more recent development; unlike other styles mentioned in this pattern book, this style was not seen in the US until well after WWII. Its origins in America seem to originate from the state of California, somewhere in the 1980s, most likely developed as local architects saw a similarity in climate and geography to the Tuscany region of Italy, and sought to replicate the local architecture of that part of the world. Since then it has gained popularity in other parts of the country, including Texas. The Tuscany region of Italy that the style draws its inspiration from is predominately medieval Romanesque styled buildings, and not the classically inspired Renaissance buildings of central Italy. As such they are typically lacking any classical embellishments and are much more rustic in nature and detailing.

Some of the identifying features of the style include:

- Low pitched roof, often gabled
- Red barrel tiled roof
- Predominately rough stone exteriors (may finish portions in stucco as an accent material)
- Eaves with little overhang, often with rafter tails (no overhang at the gable rake)
- Arches on main doors and feature windows
- Asymmetrical facade design
- Simple heavy timber lintels, or brick arches for windows and openings
- Optional features consistent with this style may include shutters, balconies, arcades and loggias

The overall design of this style shares many similarities with the Spanish Eclectic style, but the main differences can be seen in the lack of elaborate cut stonework at the entry and windows, and the use of rough stone and brickwork as a dominate exterior material as opposed to stucco. Both styles place an emphasis on exterior rooms and courtyards surrounded with half walls that often contain fountains.



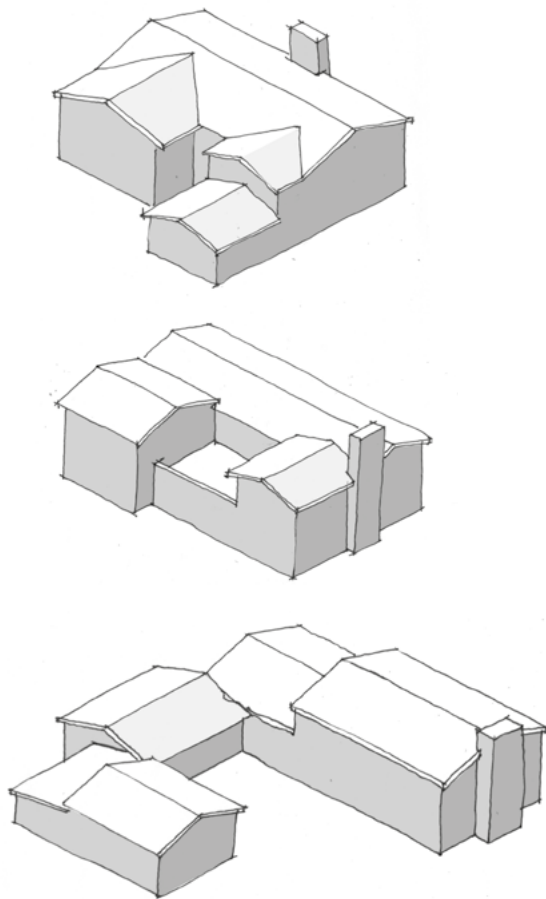
TUSCAN

Massing & Chimneys

Similar to the Spanish Eclectic style, the Tuscan style is typically a collection of simple rectangular forms placed together at right angles to one another. The plate heights will often vary between the different connected masses, but typically the entry is part of the dominate portion of the overall composition. This approach to the shape draws its inspiration from the rural homes of Tuscany that were multi generational buildings and continually added on to over many years of use.

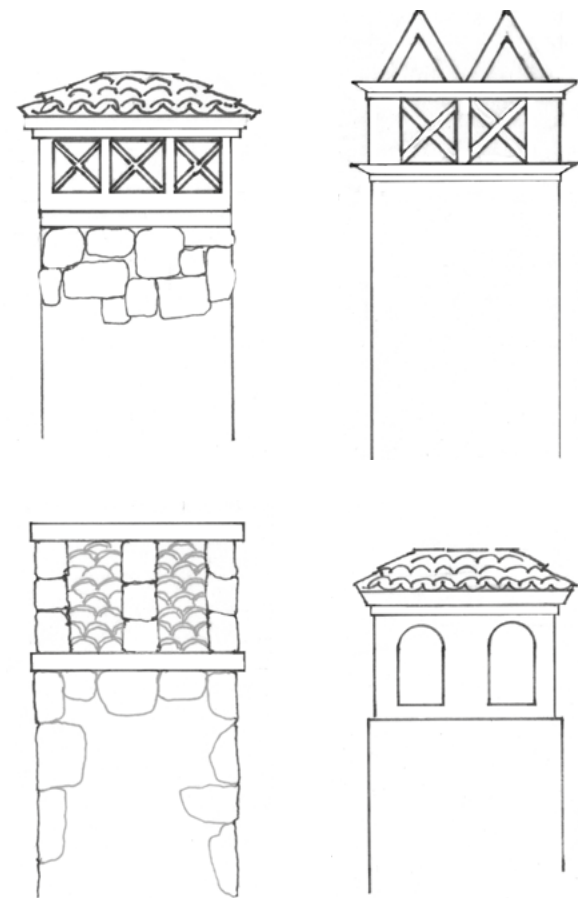
Another common feature is the use of square towers in the overall composition of the facade. A focus is placed on outdoor “rooms”, walled gardens and courtyards with fountains. Gables often have decorative collection of roof tiles that act as attic vents. Carved stone medallions and louvered vents are also seen in this location to a lesser degree.

Potential massing configurations:



Chimneys are an essential part of the facade as a whole. They may either align with a gable center or be placed on a corner of a gable. They will often be projected and offset from the face of the wall. The chimney top is often capped with small tiled roofs and small openings on the side of the chimney for venting. Roof tiles are used on occasion as a decorative screen for these chimney vent openings.

Chimney Stack examples:



Common facade configurations:

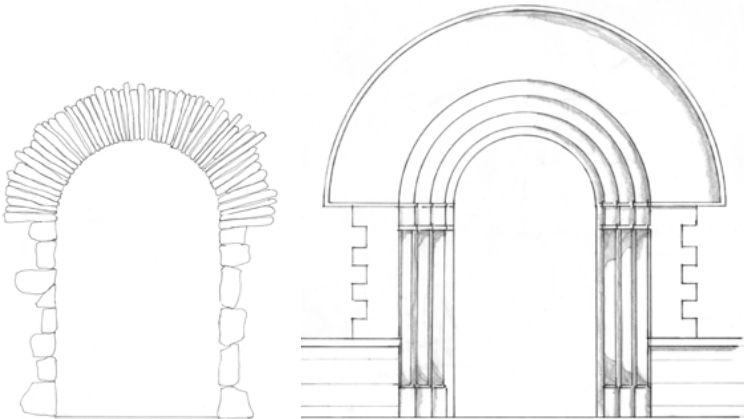
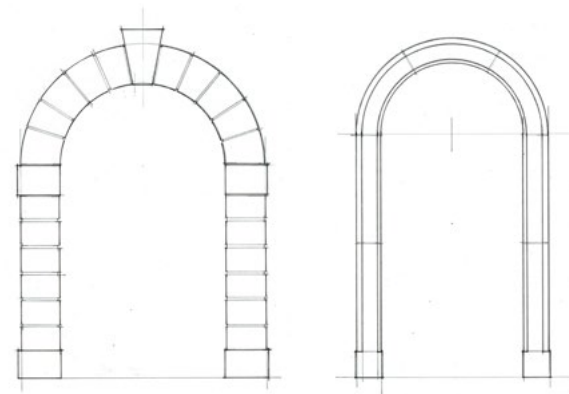


TUSCAN

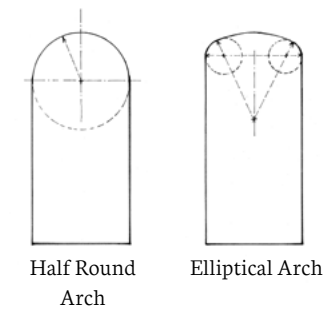
Doors & Windows

The Tuscan style uses a variety of wood paneling for its entry doors. They are typically half round arched or rectangular in shape. Entryways surrounding the doors are typically made of rough cut stone block, brickwork or a combination of these. Cut stone profiles are seen less frequently, and while there are a few examples of integrated columns, they are of Romanesque medieval design as opposed to classical and renaissance styles and orders. Secondary doors are commonly fully glazed glass doors, both rectangular and arched assemblies.

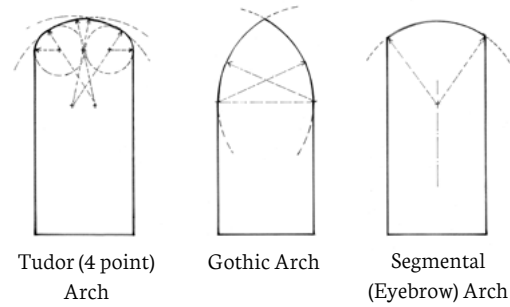
Typical Entry Surrounds:



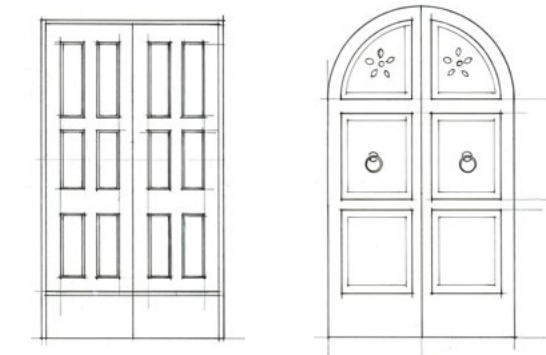
Appropriate shapes for Tuscan:



NOT USED FOR THIS STYLE:

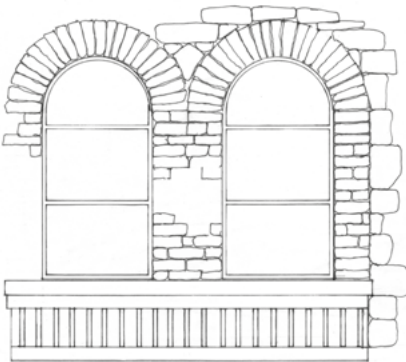
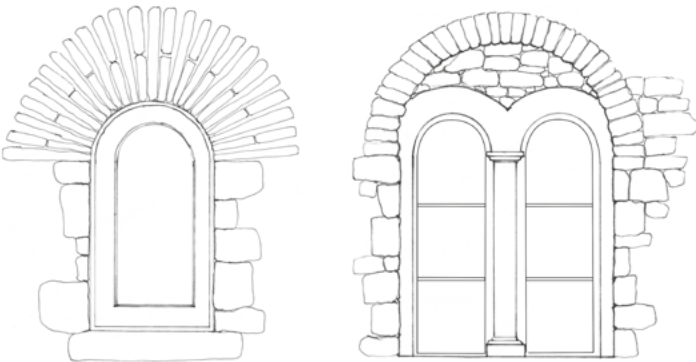


Typical Entry Doors:

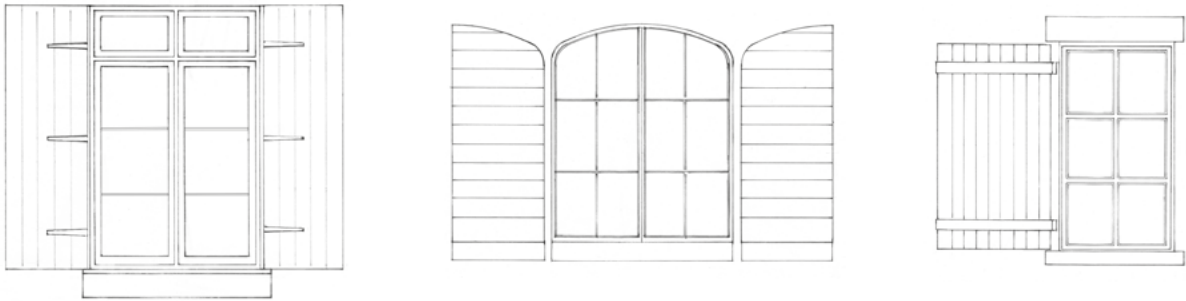


Most designs have at least one focal window that are usually single (or paired double) half round arches. Simple window grills made from wrought iron are seen occasionally. Window surrounds often are made from masonry patterns in a radial design on an arched window that are flush with the exterior wall finish. Simple stone or heavy timber lintels are used for rectangular windows and doors. Slatted operable wood shutters are common in this style,. On smaller windows it is common to see a single shutter on one side that covers the entire window. Windows, doors and openings are often deeply set into the wall in this style as the majority of buildings in Tuscany are full masonry construction with very thick walls and the depth helped provide extra screening from both weather and sunlight. Oversized half round windows and opening (with the spring point of the arch starting much lower) are more likely to be used with this style than the elliptical arch shape when a wider opening is needed. Dormers are not typical in this style due to the low roof pitch.

Feature windows examples:



Common shutter examples



American Styles

As America had many different people groups immigrating from many different countries, it's no surprise that much of its architectural inspiration is derived from those places. However, by the early 1900's, people began to develop styles that are complete unique to America, a trend which continues to this day. We have selected 2 different styles that are specific to American that would fit well into the context of Villaggio:

- Texas Regional Vernacular
 - Contemporary
-



Texas Regional Vernacular

Texas Regional Vernacular has its roots in the Austin region of Texas, where many of the original settlers in the mid 1800s began using local materials to build small stone and wood farmhouses. Limestone and Sandstone were found in abundance, as was live oak, mesquite and cypress. These small buildings were often arranged in such a way as to surround outdoor spaces for protection both from wildlife as well as climate and connected with breezeways and covered patios.

More recently modern Texas architects such as Lake Flato have rethought the idea of these original rural buildings into something more sophisticated with the use of glass to express the idea of visual transparency and contrasting massing such as solid and void between indoor and outdoor spaces. This allows the separation between indoor and outdoor spaces to blur and be less defined.

Some of the identifying features of the style include:

- Long simple rectangular massing joined with glass breezeways
- Low pitched, standing seam metal roofs
- Use of local limestone or sandstone
- Large expanses of glass with minimal divisions
- Wide overhangs with exposed rafter tails
- Use of outdoor rooms such as courtyards, patios and terraces

Limestone is a predominate material seen on the exterior of this style, typically in a random ashlar pattern, or as a linear stacked stone in more modern expressions. Roof lines shall be simple and have unbroken ridges. Board and batten siding is seen on more traditional expressions, and a large expanse of floor to ceiling glass and clerestory windows is used in more modern designs. Exterior spaces shall be integrated into the design as fully or partially enclosed courtyards and patios.

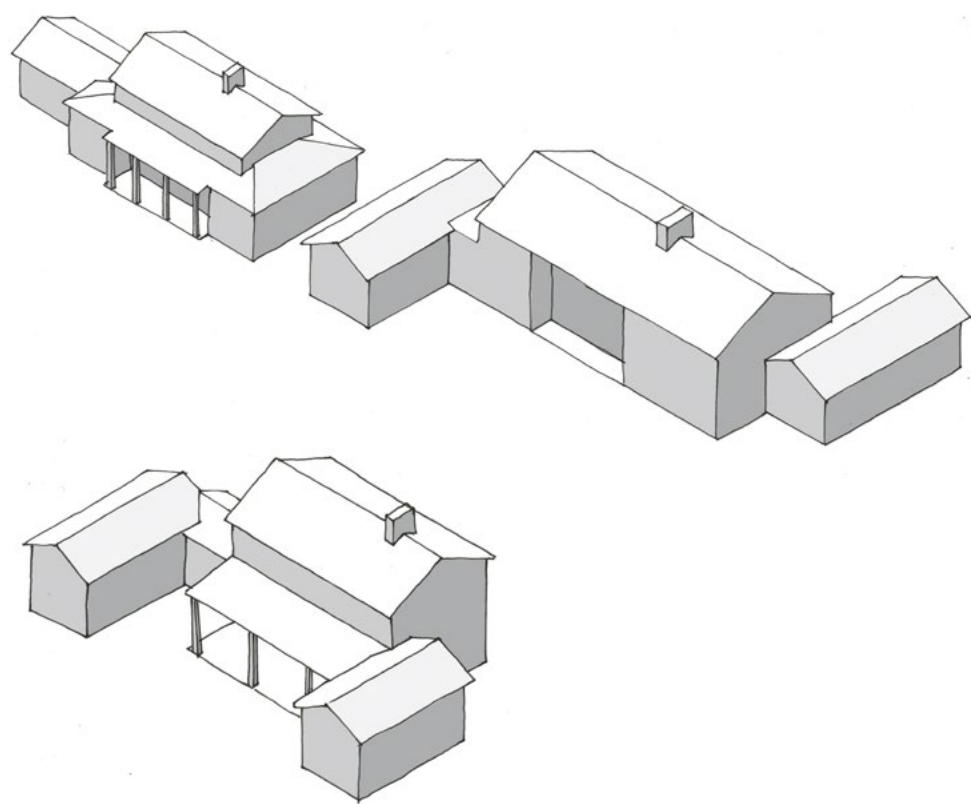


TEXAS REGIONAL VERNACULAR

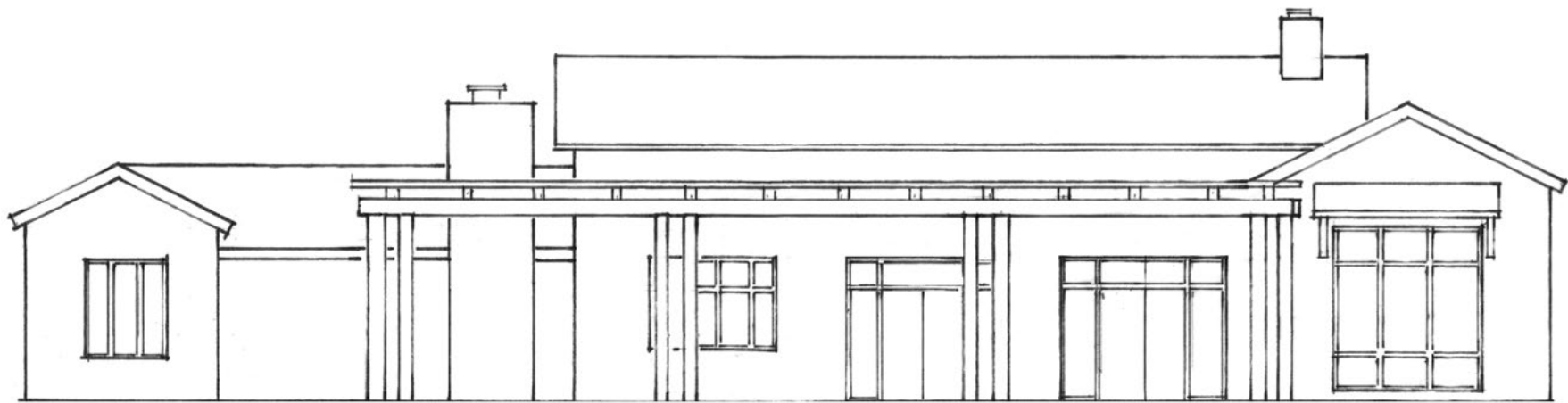
Massing & Chimneys

This style is primarily made of rectangular shapes connected with covered walkways and enclosed glass hallways or rooms. The dominate central massing is typically parallel with the street and may have subdominant wings to either side, typically in an asymmetrical configuration. Shaping the overall mass to enclose one or more exterior spaces as in an “H” or “C” shaped plan is common. Covered porches and patios are also commonplace, both at the entry and in the backyard.

Potential massing configurations:

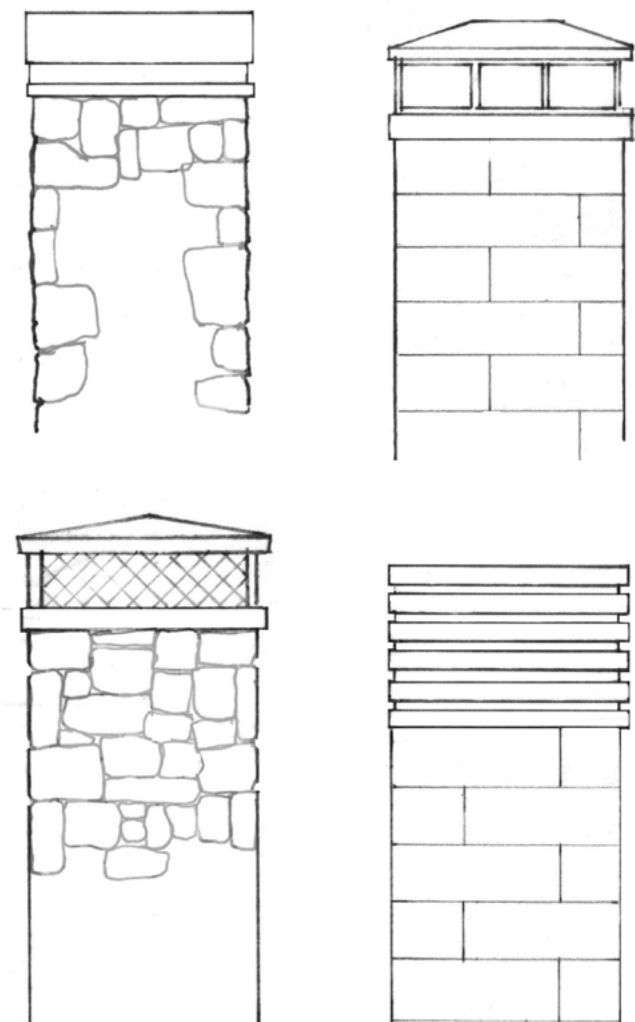


Common facade configurations:



Chimneys in the style are very simplified and often are located in the center of the dominate mass of the building. Exterior fireplaces are commonplace as well. They are exclusively rectangular in plan and may be capped with either a metal shroud or a simple stone slab with vent openings at the sides or through the center. Chimneys are typically made from the same stone material as the rest of the home.

Chimney Stack examples:

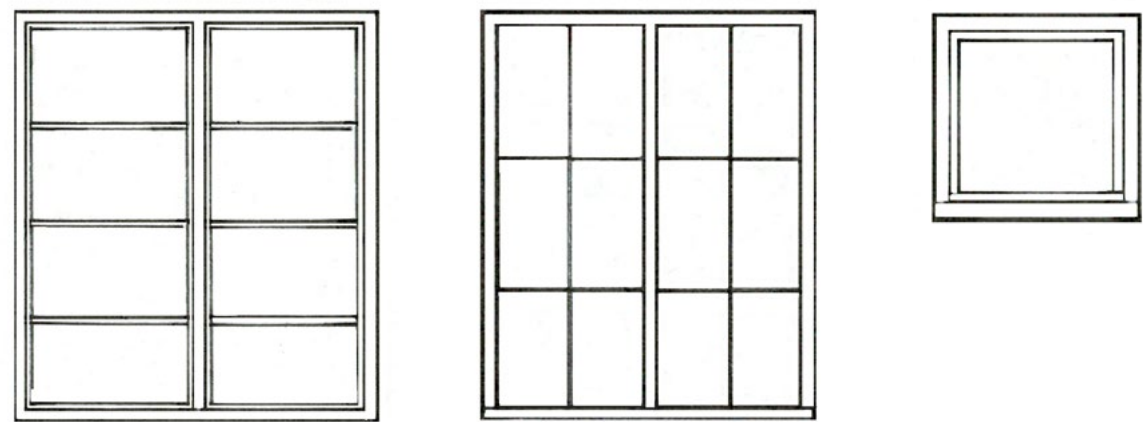


TEXAS REGIONAL VERNACULAR

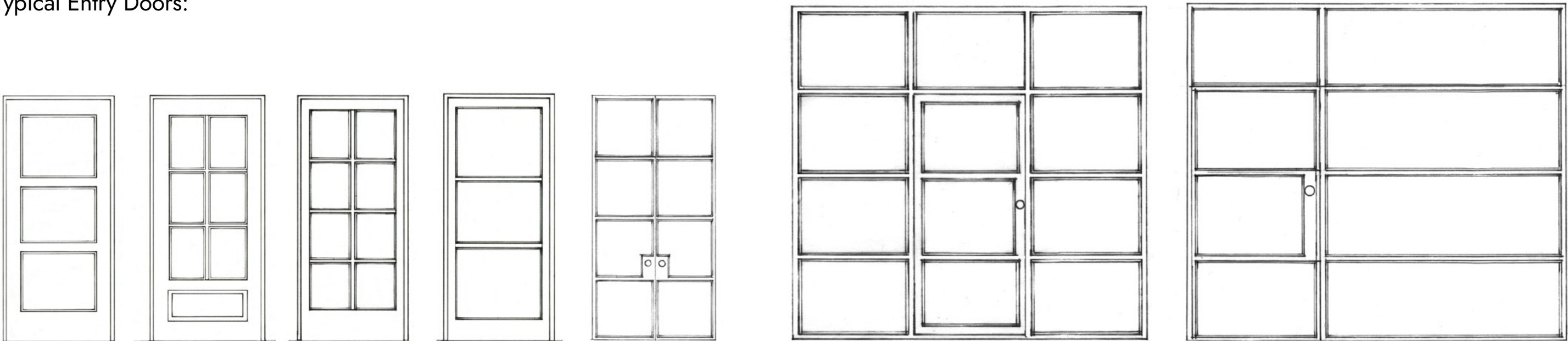
Doors & Windows

Texas Regional Vernacular style uses exclusively rectangular doors and windows in its design. The mullions in doors and windows are typically horizontal in the more modern expressions, but some of the more traditional variants will have vertical divisions as well. Thin framed steel doors and windows are often seen in both modern and traditional versions, though the traditional may include wood doors and windows. Transom and clerestory windows are also seen throughout the style, and most windows will go from floor to ceiling in main living spaces and connecting hallways. It is also common to find large expanses of folding or sliding doors that lead to patio and terraces from the main living areas as well.

Typical window configurations:



Typical Entry Doors:



Contemporary

The classification of the style known as “contemporary” can be vague. The word (in the context of architecture) simply means “architecture of the 21st century”. While the design can take on a variety of forms and design intents, one thing that is consistent is that these designs are based on the aesthetics and philosophies of the Modern Movement. This evolved in the early 1900s as architecture developed new construction techniques and materials in seeking to create a new style as opposed to building on “classical” elements of the past.

As such, the language you would see in a more traditional home in terms of classical columns, moulding and profiles, door and window surrounds are uniformly absent in this style. The detailing of the design is based on a more “minimalist” philosophy - clean lines, simple forms and elegant joints without decorative embellishment. Technically within those parameters, architects are generally free to explore any and all forms they wish in the classification of Contemporary Architecture.

For Villaggio however, the intention is to establish a few design boundaries to ensure that the finished home fits into the context of this residential neighborhood without creating an aesthetic so unique that it overwhelms the surrounding homes.



The parameters that will define Contemporary for Villaggio shall include:

- Roof shape shall be predominately low pitched (2:12 to 6:12) hipped (or gabled) roofs. The design may however, include FEATURE ROOFS of forms including sheds, curves or flat sections, but these feature may only comprise 20% of the overall roof surface. Larger overhangs are encouraged (greater than 24"), but not required.
- Larger panes of glass are typical for this style. Limitations for all street facing windows shall be:
 - Individual Window - 12 sf of undivided glass
 - Multi-panel Window System - 32 sf of uninterrupted glass (for the largest pane of the assembly)
 - Multi-panel Window System (floor to ceiling condition) - 81 sf of uninterrupted glass (for the largest pane of the assembly)
- A divided glass system shall be comprised of metal frames and not silicone joints
- These same windows standards shall be applied for non-street facing views of the house on the 2nd floor only - 1st floor windows on non-street views are exempt from the above restrictions



- Slanted walls are not allowed except as a battered, widened base (walls that slope “inward” (within limits) are allowed- walls that slope “outward” are not)
- Classically inspired details and elements (or exaggerated elements of these) are not allowed on the design (such as columns, profiled surrounds, profiled moldings and trim designs)
- Maximum Height of 32' to midpoint of pitched roof (For flat roofs or parapets, 23' to top of parapet wall or flat roofs)
- 2nd floor levels may not exceed 50% of the lower floor to allow for vertical articulation
- Windows in wood siding need not be recessed, but shall be finished out by an approved articulation detail (See typical details for examples)
- Enhanced eaves are required- see “Typical Details” for more information
- Box gutters and downspouts are required

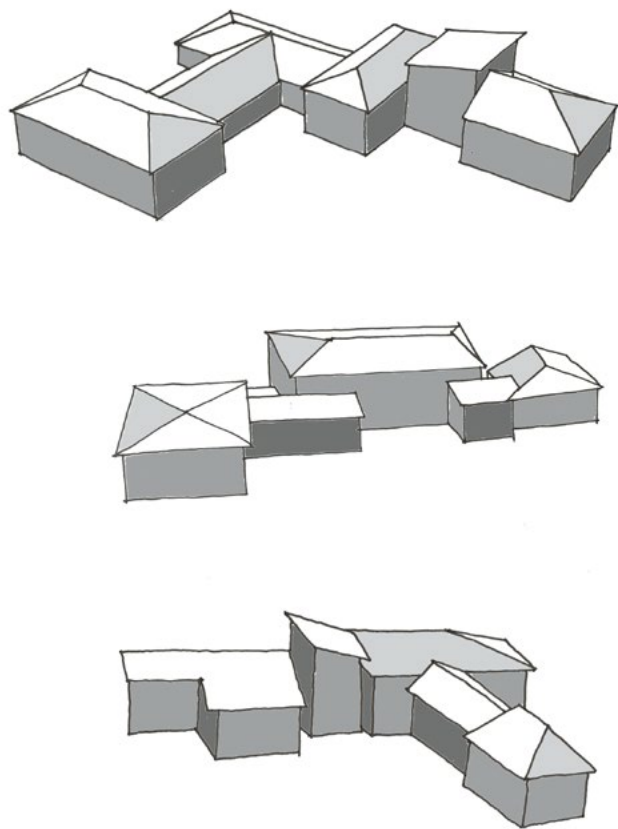
CONTEMPORARY

Massing & Chimneys

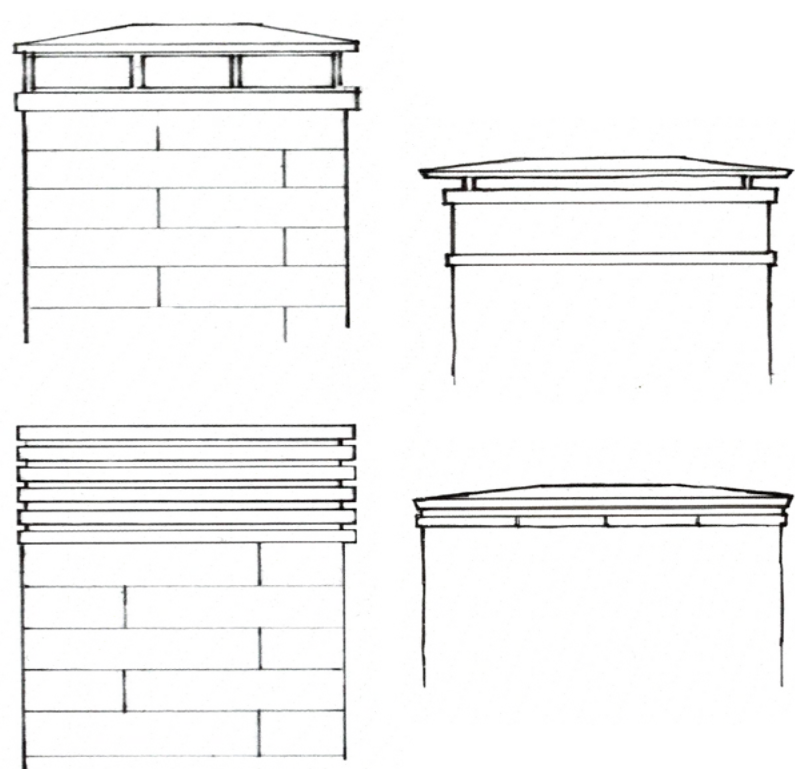
This style is primarily consists of rectangular forms of varying height adjoining one another. The dominate central massing is typically the entry to the home may have subdominant wings to either side, typically in an asymmetrical configurations. Shaping the overall mass to enclose one or more exterior spaces is in an “H” or “C” shaped plan is common. Covered porches and patios are also commonplace, both at the entry and in the backyard.

Chimneys in the style are typically simplified with minimalist detailing. Exterior fireplaces are commonplace as well. They are generally rectangular in plan and may be capped with either a metal shroud or a simple stone slab with vent openings at the sides or through the center. Chimneys shall be of a material that is consistent with the rest of the house.

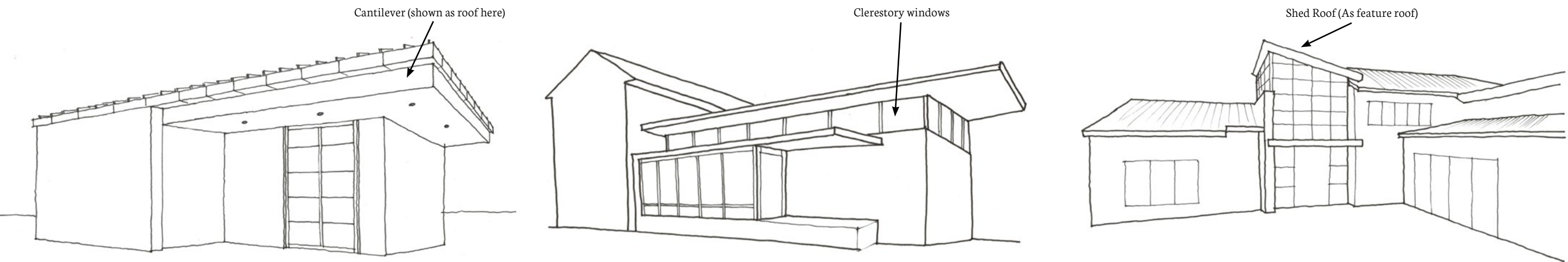
Potential massing configurations:



Chimney Stack examples:



Common facade configurations:

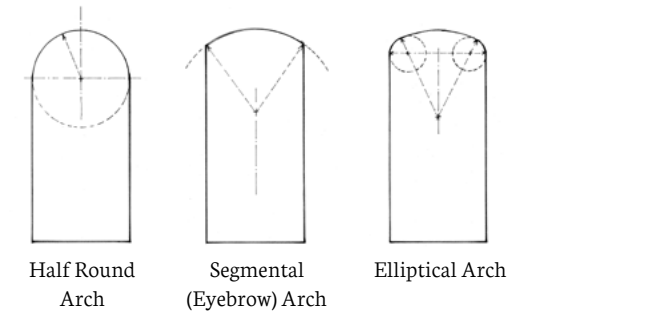


CONTEMPORARY

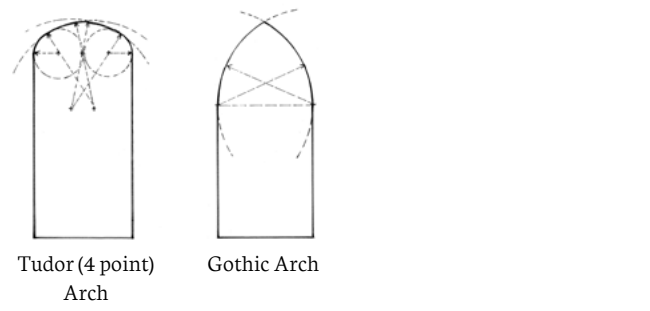
Doors & Windows

Contemporary style uses predominately rectangular doors and windows in its design, but could employ some arch shapes in conjunction with a feature roof. The mullions in doors and windows are typically lean more horizontal. Thin framed steel doors and windows are often seen. Transom and clerestory windows are also seen throughout the style. It is common to have the massing separated in such as way that portions of the facade read as “transparent” with windows from floor to ceiling in main living spaces and connecting hallways. It is also common to find large expanses of folding or sliding doors that lead to patio and terraces from the main living areas as well.

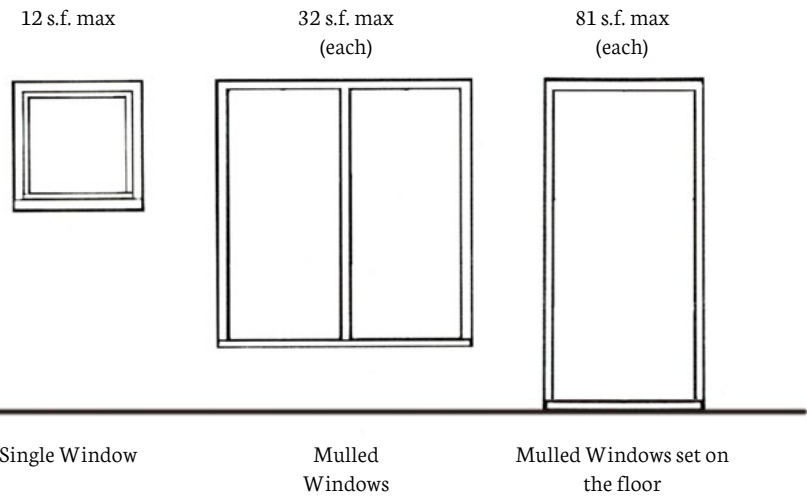
Allowable arch shapes for Contemporary:



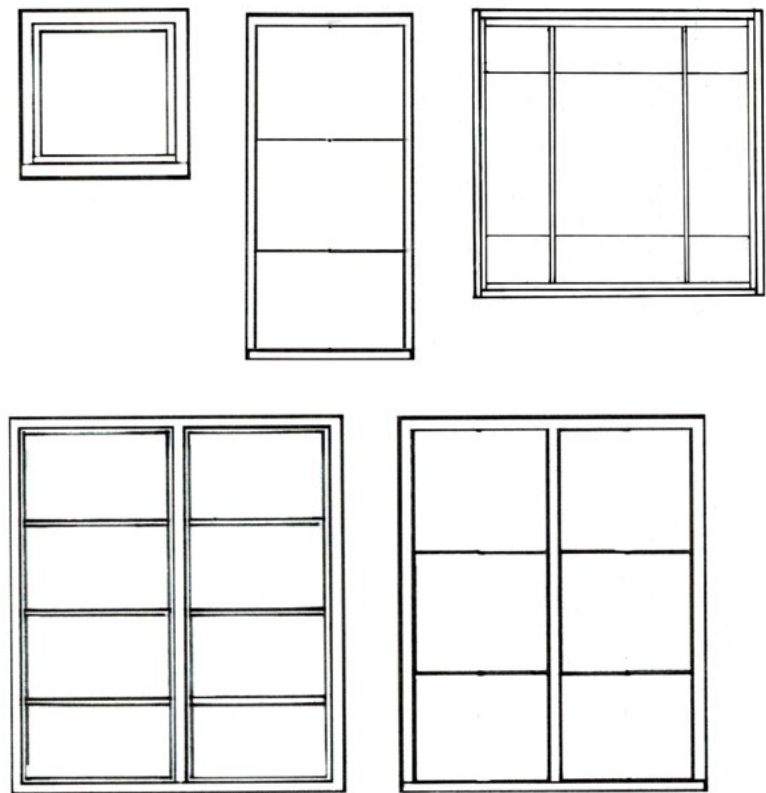
NOT USED FOR THIS STYLE:



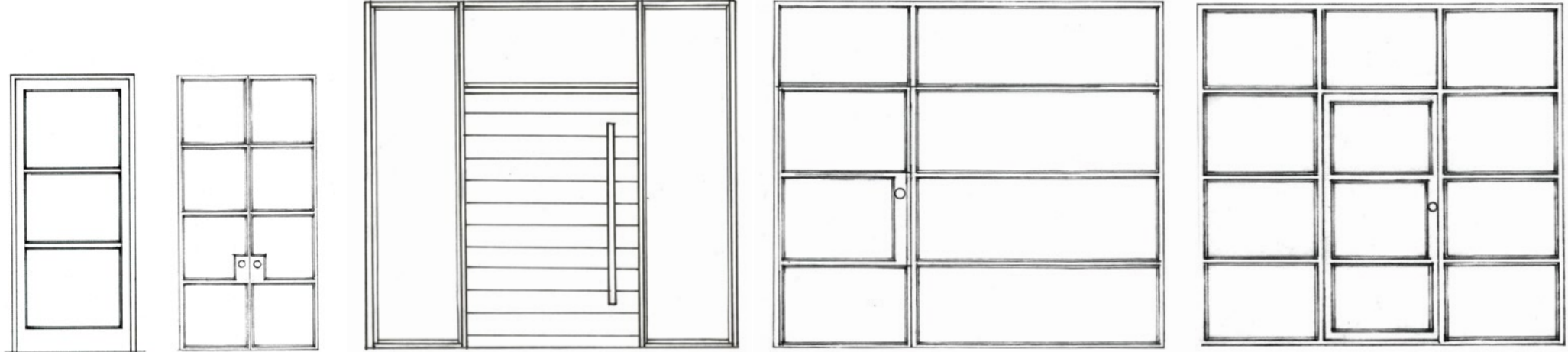
Maximum clear glass conditions:



Typical window configurations:



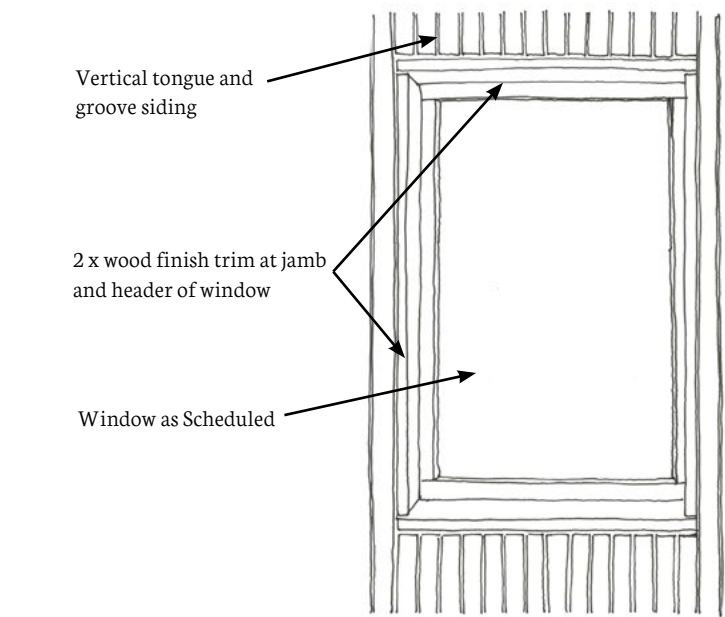
Typical Entry Doors:



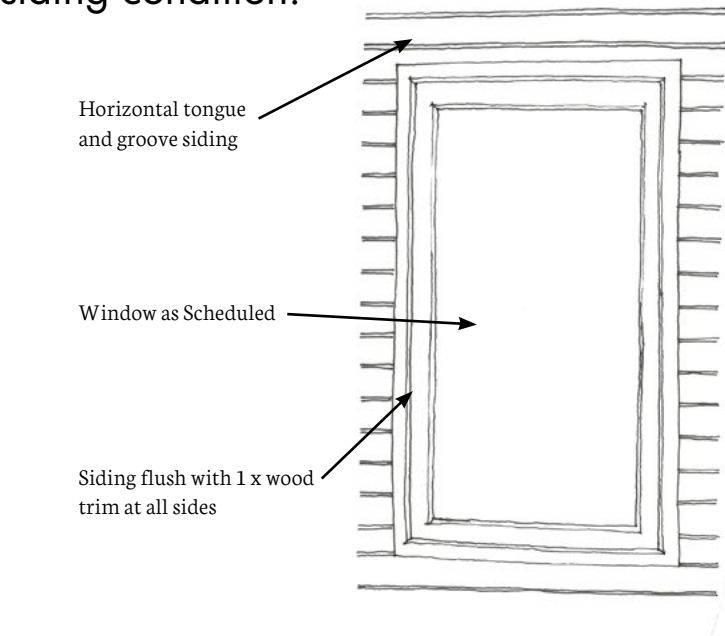
CONTEMPORARY

Typical details

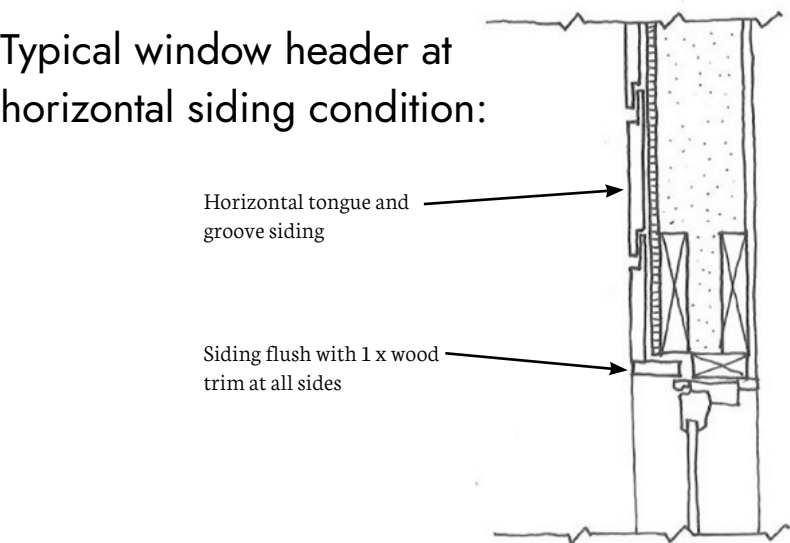
Typical window at vertical siding condition:



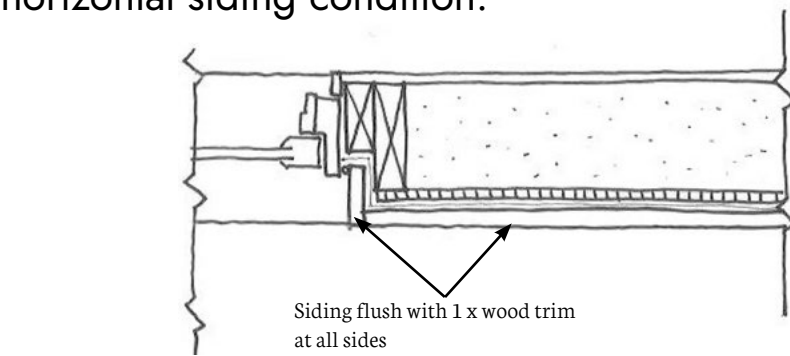
Typical window at horizontal siding condition:



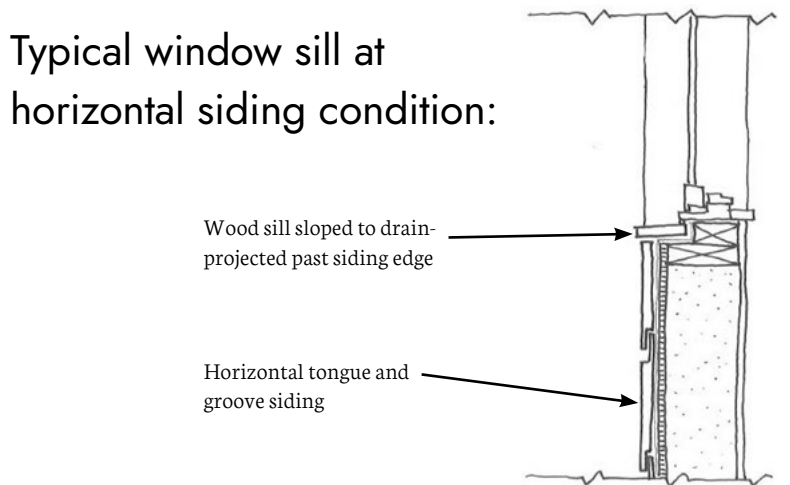
Typical window header at horizontal siding condition:



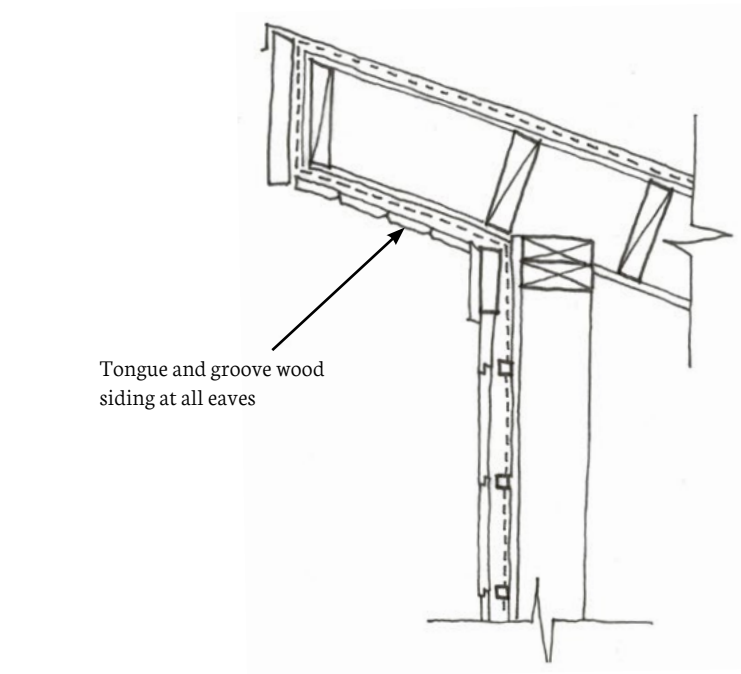
Typical window jamb at horizontal siding condition:



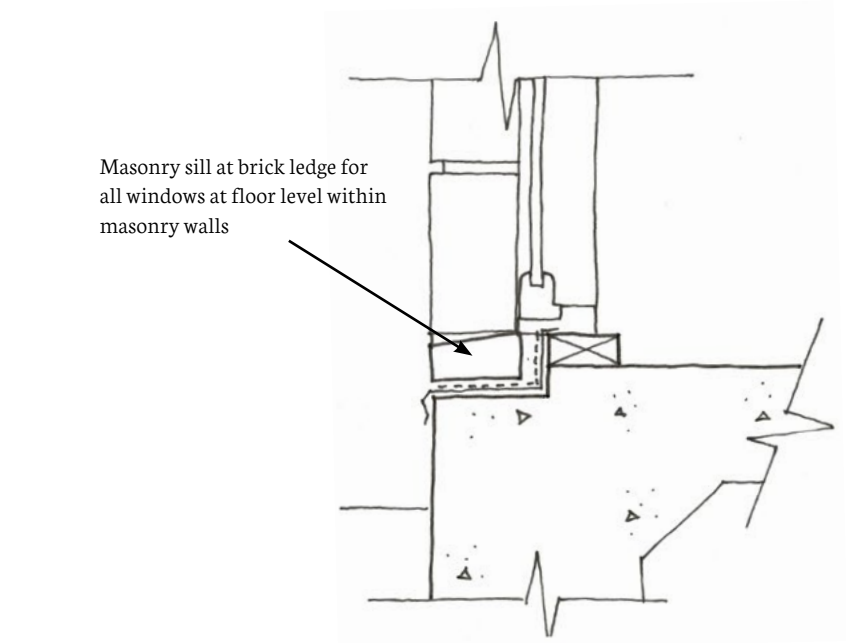
Typical window sill at horizontal siding condition:



Typical soffit detail:



Typical window sill at floor level detail:



Transitional Variants

Transitional Architecture has been an ongoing process of many architectural styles over the years as they evolve and new architects bring a fresh perspective to these design. Styles are reinvented and rethought as different philosophies and ideals come into popularity. The English Arts and Craft style is a prime example of someone rethinking what a medieval home would have been in an industrial age, for example.

A current trend for Transitional homes is to take an existing traditional style but to merge it with a more modern, minimalist aesthetic. This involves greatly reducing the ornamentation and detailing that would have been in the original, creating simpler window divisions and thinner frames, and a more streamlined massing overall. This seems like a simple process at face value but shall be handled with care as essential basics of good design (scale, proportion, balance) should not be lost in rethinking a traditional style into something new. One shall also take care that not so much is removed that the origins of the style are lost. As the overall details are reduced, those that are left shall be treated with great craftsmanship and care so as not to distract from the design as a whole.

Some styles will work well as as Transitional variations by their use of materials and overall design, and some will be harder to make successful. Here is a list of the above styles which we feel would work well as Transitional Variants of the original style:

- English Arts and Crafts
 - Asymmetrical French
 - Texas Regional Vernacular
-
-

NOTE:

While Transitional styles are particularly popular at this point in time, the intention for Villaggio is to have a balanced variety of architectural styles spread throughout the subdivision to promote a neighborhood that will age gracefully. While an overall design submitted may fit within the guidelines of the standards presented in this section, it may still be deemed not appropriate given the context of the street, should one particular style begin to dominate the subdivision. Final discretion is given to the Villaggio Review Board to determine stylistic appropriateness not only for an individual house but also for how that house fits within the context of the developing neighborhood.

English Arts and Crafts

When you compare the characteristics of the Tudor Revival style to those of the Arts and Crafts style (in the English section), you can see how the details and overall massing of the architecture vary yet maintain a common language. High pitched roofs, prominent chimneys, grouped rectangular windows and arched entryways are shared features between these styles. But the overall design of the Arts and Crafts is overall a more modernized interpretation of the English archetype (comparatively).

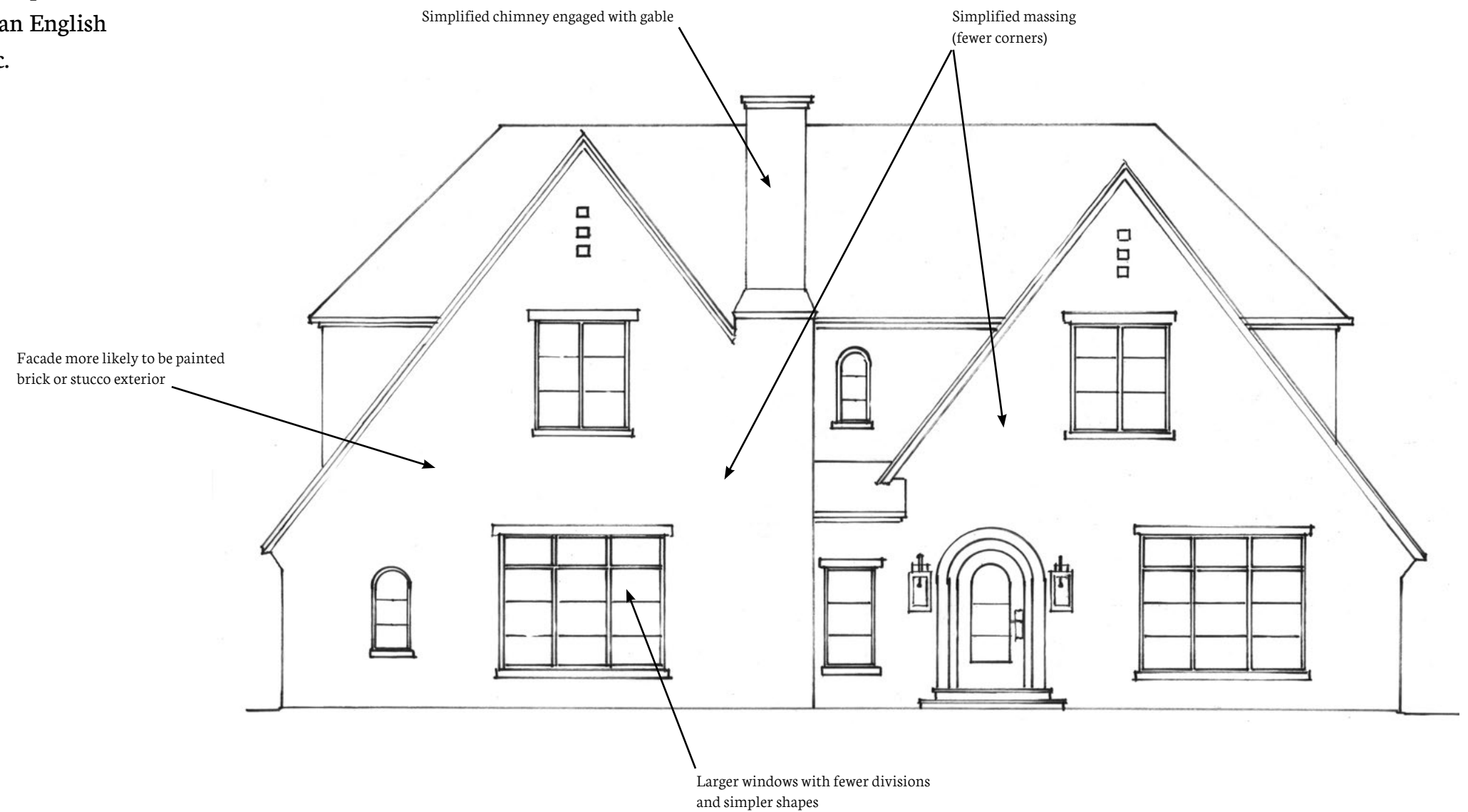
Similarly, a Transitional interpretation of an English style shall retain many of the base proportions and identifying features that are fundamental to its origins. It shall still need to have a steeply pitched roof, a prominent chimney and groupings of rectangular windows. And while the window divisions will be fewer, they shall not be completely eliminated. The key to pushing a design from a Traditional interpretation to a more modern aesthetic is how much can be simplified while still retaining the integrity of the original architecture. And while details may be less complex, they need to be crafted and designed with care and precision that gives meaning to their simplicity as opposed to ill proportioned or elementary.

Traditional:



The English Transitional in particular shall aim to simplify the overall massing by engaging chimneys when possible (the exterior face of the chimney is flush with the exterior facade), reducing nested gables and simplifying the roof shape. Arches are minimized (or used for exclusively the front door) and window divisions are typically 2 or 3 horizontal bars opposed to smaller panes of glass. Soffits and rakes typically are expected to have minimal profiles and depth. Light fixtures shall also be selected to reflect an English heritage but also with a minimalist and modern aesthetic.

Transitional:



Asymmetrical French

Creating a Transitional French style can be difficult as much of this style is steeped in Classical and Renaissance architectural detailing, which the Modern movement completely dismissed. The challenge in designing with these opposing philosophies lies in finding a balance between removing too much detail or not enough. While the heavy detailing inherent in the original architecture must be distilled down, the character of the original architecture shall not become so simplified that it is no longer identifiable.

The sample below provides the notion of how one can simplify a classically designed exterior into something elegant yet still retaining the essential components of the original architecture. For example, you can see that the central pediment over the entry door, while simplified, has been left to retain some of the language of the original architecture. The arched pediments over the windows to the right were removed however. Note that the proportions of the Transitional design (height to width of the parts, as well as the assembly as a whole) remain very close to its Traditional counterpart. And while details such as the collection boxes for the downspouts complimented the Traditional version, they would have been out of character on the Transitional style, but the placement of the vertical lines of the downspouts remains a critical component to both designs.

Traditional:



It's also important that the window surrounds were not completely eliminated in the Transitional interpretation of this French home. While the elaborate profiles shown in the Traditional style were greatly simplified in the Transitional version, the connection of exterior wall and the window surround align to be flush with one another. This emphasizes the craftsmanship of the minimalist detail, while the profile of the Traditional style would be able to project from the face of the exterior veneer. The profile itself is the focal point for the Traditional version as opposed to the joint becoming the focal point in the Transitional design.

Transitional:

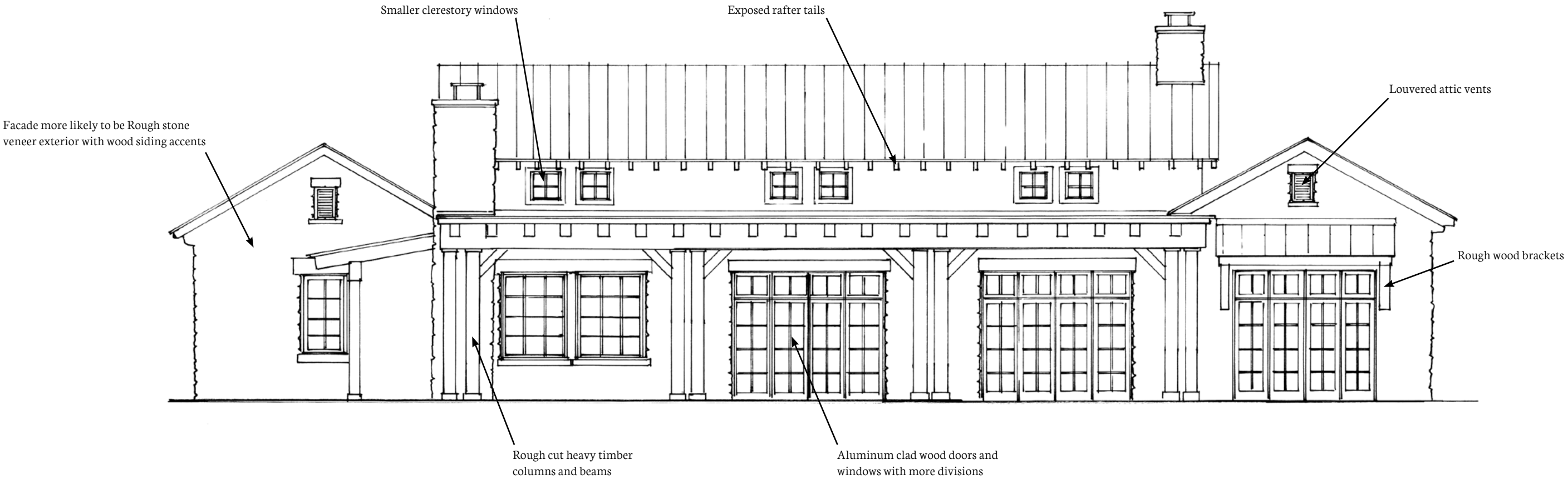


Texas Regional Vernacular

The Texas Regional Vernacular style is a relatively recent architectural category, and is a style that has both rustic and modern interpretations. While the small German farmhouses were the origins of the style, they eventually evolved into the homes that became very popular in the Austin area, sometimes also coined as Austin or Texas “Hill Country” homes.

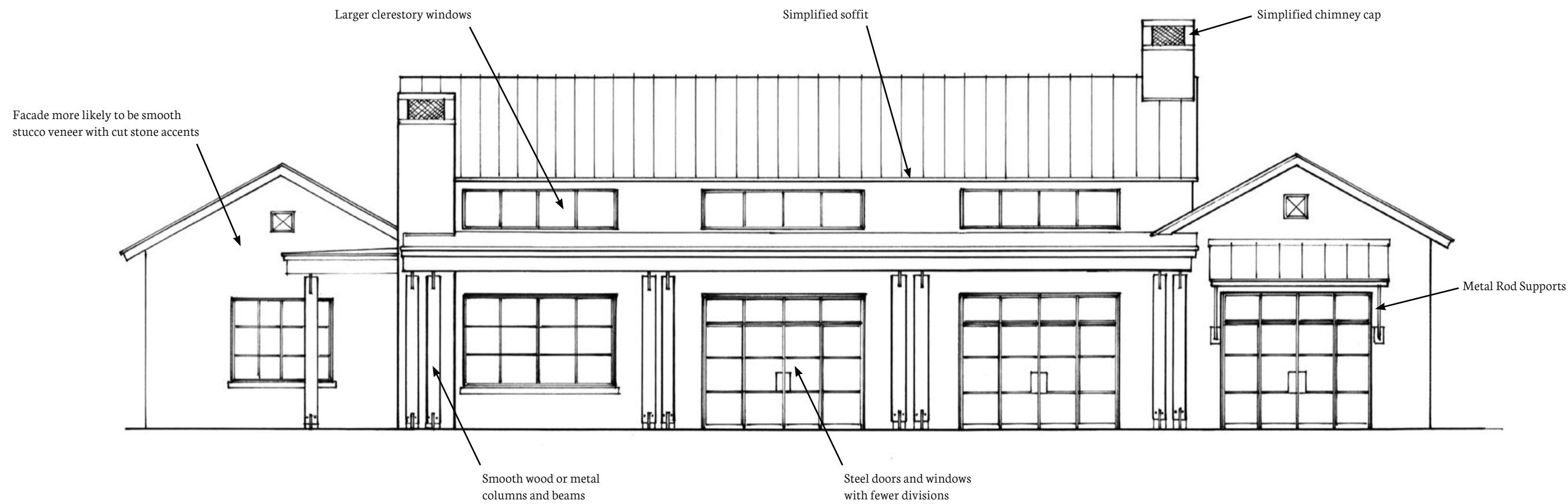
While Traditional interpretations of this style draw from their German roots with rough native limestone veneers and exposed rough cedar structure and accents to add texture to the facade, Transitional variants of the style emphasize the simplicity of the architecture with smooth stucco veneers and cut limestone accents. Standing seam metal roofs are common in both, but the exposed rafter tails and gable brackets found in the eaves of the Traditional style are removed in the eaves and rakes of the Transitional version, which are minimized and simplified.

Traditional:



Glass is an important component of both styles, but the Transitional style shall use much larger panes of glass and much thinner frames, preferring steel doors and windows over wood clad ones.

Transitional:



Architectural Materials Chart

English

WALL SURFACE

Brick, stucco or stone, projected gables and/or dormers to be decorative half timber and/or light colored stucco on 2nd level. Optional parapeted gables.

ROOF

Gabled with slate or flat tile, minimum 10:12 roof pitch in public view. Accent roofing material to be copper.

WINDOWS, DOORS AND SURROUNDS

Solid wood prominent doors. Tall narrow windows, diamond-shaped leaded glass for accent windows, or oriel windows. Surrounds to be cast stone, cut stone or heavy timber.

GUTTERS

Copper or painted steel half round gutters and round downspouts.

BALCONIES, TOWERS AND PORCHES

Balcony details to be cut stone or cast stone. Balconies only on rear elevation or upon review board approval.

SOFFITS, CHIMNEYS & MISC. DETAILS

Soffit overhang will vary, with a minimum overhang of 18", with finish grade wood eaves. Semi-hexagonal one and two story bay windows. Acceptable dormers include: shed, gabled, hipped and eyebrow. Massive chimneys on a prominent elevation, with clay chimney pots.

HARDSCAPING

Patio surfaces to be brick or stone.

Spanish Eclectic

WALL SURFACE

Stucco.

ROOF

Gabled with barrel tile earth-toned roof with mission or s-curve tiles, no gray or black colors. Minimum 4:12 to maximum 7:12 roof pitch in public view.

WINDOWS, DOORS AND SURROUNDS

Dramatically carved prominent wood doors. Surrounds to be cast stone, cut stone, decorative tile or heavy timber. If no surround is used, windows or doors shall be deep set at a minimum of 6". Prominent window(s) will typically be arched. Wrought iron grills on accent windows. Windows shall be more vivid colors, such as cranberry, turquoise, etc.

GUTTERS

Copper half round gutters and round downspouts.

BALCONIES, TOWERS AND PORCHES

Balcony details and balustrades to be turned or carved wood, stucco, roof tile or wrought iron. One round, square or polygonal tower shall be allowed, and shall be placed on an inside corner of the front elevation. A round tower shall have a conical tile roof.

SOFFITS, CHIMNEYS & MISC. DETAILS

Soffits to be a maximum overhang of 6", to be roof tile, stucco or cast stone eaves . Elaborately carved semi-hexagonal one story bay window. Shaped wing walls. Stucco or tile decorative gable vents. Elaborate chimney tops with stucco or tile roofs.

HARDSCAPING

Patio surfaces to be terra cotta, brick or stone.

Italian - Symmetrical Only

WALL SURFACE

Stucco, painted or light-colored uniform brick or cut stone. If brick is used, masonry joints shall be flush.

ROOF

Hipped with barrel tile earth-toned roof with mission or s-curve tiles, no gray or black colors, minimum 4:12 to maximum 7:12 roof pitch in public view.

WINDOWS, DOORS AND SURROUNDS

Decorative metal or dramatically carved prominent wood doors. Surrounds to be cut stone or cast stone with or without pediments. Smaller windows on upper floor.

GUTTERS

Copper half round gutters and round downspouts.

BALCONIES, TOWERS AND PORCHES

Balcony details and balustrades to be wrought iron, cut stone or cast stone.

SOFFITS, CHIMNEYS & MISC. DETAILS

Soffits to be a minimum overhang of 18", with tongue and groove finish grade wood eaves. Wood brackets or corbels at eaves. Cut stone or cast stone quoins or classical columns. Chimneys to be rectangular.

HARDSCAPING

Patio surfaces to be terra cotta, brick or cut stone.

Tuscan

WALL SURFACE

Predominately rough stone, with stucco and/or brick accents.

ROOF

Gabled with barrel tile earth-toned roof with mission or s-curve tiles, no gray or black colors, minimum 4:12 to maximum 7:12 roof pitch in public view.

WINDOWS, DOORS AND SURROUNDS

Paneled prominent wood doors. Heavy timber lintels, rough stone surrounds or brick surrounds. Deep set (at least 12") windows and doors are encouraged as accents. Wrought iron grills on accent windows.

GUTTERS

Copper half round gutters and round downspouts.

BALCONIES, TOWERS AND PORCHES

Balcony details to be heavy timber and balustrades to be wrought iron, or a stucco half wall.

SOFFITS, CHIMNEYS & MISC. DETAILS

Soffits to be a minimum overhang of 18", to have exposed wood rafter tails or brackets, with tongue and groove finish grade wood eaves. At gable rake, minimal overhang with barrel tile edge. Operable paneled or slatted wood shutters. Stucco or tile decorative gable vents. Chimneys may be canted or squared. Chimney tops with stucco or tile roofs.

HARDSCAPING

Patio surfaces to be terra cotta, brick or rough stone.

French

WALL SURFACE

Stucco, brick, cut stone or rough stone, sometimes with decorative half-timbering.

ROOF

Hipped with slate or flat tile, minimum 12:12 and maximum 16:12 roof pitch in public view, accent roofing material to be copper. Eaves flared upward at roof/wall junctions.

WINDOWS, DOORS AND SURROUNDS

Wood plank, wood paneled or decorative metal prominent door. Asymmetrical or informal styles will have heavy timber lintels, cut stone or rough stone lintels and/or sills. Symmetrical or formal styles will have cut stone or cast stone surrounds.

GUTTERS

Copper or painted steel half round gutters and round downspouts.

BALCONIES, TOWERS AND PORCHES

Balcony details may be iron, cut stone or cast stone. Front porches are proportionately small. One round tower (turret) shall be allowed on asymmetrical styles, and shall be placed on an inside corner of the front elevation with a conical copper roof.

SOFFITS, CHIMNEYS & MISC. DETAILS

Soffits to have a maximum overhang of 12". Stucco, cut stone or cast stone soffits (for formal styles only) or finish grade wood eaves for informal styles. Cut stone or cast stone quoins or classical columns. Massive chimneys on a prominent elevation, with clay chimney pots. Acceptable dormers include: arched, shed, hipped and eyebrow. Operable paneled wood or slatted wood shutters.

HARDSCAPING

Patio surfaces to be brick or stone.

Texas Regional Vernacular

WALL SURFACE

Predominately cut and/or rough limestone with stucco accents. Corten will not be an accepted material.

ROOF

Gabled standing seam metal roof. Minimum 4:12, maximum 7:12 pitch. Dark colors to be submitted for review board approval. Reflective or galvanized colors will not be accepted.

WINDOWS, DOORS AND SURROUNDS

Steel, glass and/or wood prominent doors. Large groupings of rectangular windows. Heavy timber lintels, rough stone surrounds or stucco surrounds within a stucco wall. Deep set (at least 12") windows and doors are encouraged as accents. Clerestory windows encouraged.

GUTTERS

Painted steel half round gutters (to match roof color) and round downspouts. Painted steel box gutters will only be allowed with a standing seam metal roof.

BALCONIES, TOWERS AND PORCHES

Porches to be a prominent feature. Columns to be wood, metal or stone.

SOFFITS, CHIMNEYS & MISC. DETAILS

Soffits to have exposed wood rafter tails or brackets, with tongue and groove finish grade wood eaves. Soffits shall be a minimum overhang of 12". Operable slatted wood shutters. Heavy timber wood trusses or beams. Wide, simple stone chimney.

HARDSCAPING

Patio surfaces to be brick or stone.

Contemporary

WALL SURFACE

Stucco, cut stone, solid wood siding, thermally modified solid wood siding and corten steel panels. Siding and corten not to exceed 20%of the overall wall surface. Siding and corten materials shall be cumulative with other non-masonry materials.

ROOF

Standing seam metal roof. Roof pitch to be 4:12 to 6:12, however a flat or shed roof shall be allowed up to 20% of the surface of the overall roof. One shed roof shall be allowed per home. Non-earth tone may be approved on a case-by-caes basis. No black or reflective finishes shall be accepted. Maximum height of 23’ to top of parapet wall or flat roof.

WINDOWS, DOORS AND SURROUNDS

Steel, glass and/or wood prominent doors. No surrounds shall be accepted for Contemporary.

GUTTERS

Painted steel box gutters and downspouts (to match roof color).

BALCONIES, TOWERS AND PORCHES

Balconies to have unadorned wrought iron metal or half wall materials to match the main house. Towers are not appropriate for this style.

SOFFITS, CHIMNEYS & MISC. DETAILS

Soffit overhangs will vary - deeper overhangs are encouraged with tongue and groove finish grade wood eaves. Chimneys shall be rectangular in shape and shall be stone or stucco exteriors to match the main house.

HARDSCAPING

Patio surfaces to be stone or finished concrete.

All Architectural Styles

WALL SURFACE

All stucco to be applied over CMU block (unless on the upper floor). Manufactured stone prohibited.

WINDOWS, DOORS AND SURROUNDS

Secondary doors to match windows, windows shall be wood clad. Steel or bronze windows to be submitted for review board approval. Window mullions required, appropriate for the architectural style. Butt joint glass is acceptable on the ground floor on the rear elevation, to be approved on a case-by-case basis. Garage doors to be recessed 12".

DRIVEWAYS

Driveway material to be salt, sandblasted or broom finished concrete, precast concrete pavers, brick or stone. Asphalt material is prohibited. Motor courts within the front 1/3 of the property to have a minimum 20' setback from the street curb, and maximum of 40' wide paved area. Driveways to be a minimum of 12' wide, and a maximum of 16' wide.

HARDSCAPING

Attached retaining walls to match predominant house material. Unattached retaining walls to match the Villaggio perimeter fence. Gates to be decorative metal in matte black or bronze finishes, and/or heavy wood members, stained or painted to match house color palette.

Landscape Architecture

Stewardship of both the land and the community of the Town of Westlake is a strength and focus of the Villaggio development and its residents. As such, landscaping materials are intended to highlight the rustic surroundings and natural topography.

The Villaggio Committee envisions outdoor spaces that are natural extensions of adjoining indoor spaces for each home. Landscaping is meant to be complementary of the architecture, never competing with the structures it surrounds within a graceful context. Green spaces with each home will respond to the scale and architectural style, in order to establish cohesiveness, which ultimately conveys true stewardship. Materials shall be of lasting quality, to reflect the heritage of the land and the nature of our town, Westlake.

Introduction

The natural landscape of majestic oak trees and rolling hills in Westlake is unique in Tarrant county when compared to other cities. One of those special traits is the native buffalo population. Westlake has a commitment to preserve these majestic animals. One of the largest herds in the United States lives here.

The use of plants, landscape structures and details shall represent Villaggio’s heritage and preserve its natural setting. These elements will produce a refined and elegant landscape that is complementary to the architecture and not competing with it. A responsibly designed garden will respond to the scale, character and style of the architecture and maximize the natural attributes distinctive to Villaggio.

ON THE MEND - THE BISON, OR THE AMERICAN BUFFALO

Bison were critical to the life of the West, both for Native Americans and settlers. Before their decline, herds were composed of masses of individual animals. A U.S. Cavalry lieutenant rode through a herd in Kansas on his way home, writing to his wife, “I am safe in calling this a single herd, but it is impossible to approximate the millions that composed it. It took me six days on horseback to ride through it.” - George Anderson, as quoted by David Bundell.

By 1894, fewer than 1,000 bison remained in the wild. Today, Westlake has a commitment to preserve these majestic animals. One of the largest herds in the United States lives here.

Brown, David. “Buffaloes, Braves, Bulldoggers, and Bandits.” The Pathfinder, winter 2002, pp. 6-7.
Bunnell, David. “Buffalo Holocaust.” Medium.Com, 2014, <https://medium.com/@davbunnell/>
Accessed 7/14/2023.



Planting Zones and Locations

A landscape plan shall be required for approval by the Committee. One new 4” caliper or 100 gallon container canopy tree shall be planted for every 5,000 square feet of lot area. A minimum of two new trees shall be planted in the front yard and any additional trees may be placed within the front or rear yards. A minimum of two new 30 gallon container ornamental trees shall be planted in the front yard. When considering a corner lot, the same requirement shall be applied to the side, street-facing yard. Ball and burlap trees shall not be approved by the Committee; container trees shall be specified in the landscape plan.

Using a combination of ground cover, ornamental grasses, perennials and shrubs shall be designated as landscape area, with a minimum of 30% coverage of the front yard. Turf grass shall cover the remainder of the front yard, using either Bermuda or Zoysia. Foundation plantings are required at the base of the residence and shall be distributed as follows:

- 5 gallon to 35 gallon shrubs to cover 50% of the landscape area
- 1 gallon shrubs or ornamental grasses to cover 15% of the landscape area
- Ground cover and perennials to cover 35% of the landscape area
- 15 gallon vines and espaliers planted on low garden walls, connected to the home or on the façade of the home.

Bamboo and Palm trees shall not be allowed in Villaggio.



Additional Standards:

1. In the case of corner lots, the side yard facing the street shall have the same requirements as the front yard in both landscape area requirements and architectural requirements.
2. Plants located in front of windows may not exceed the lower 1/4 of the height of windowsill at maturity.
3. Open mulch areas without plantings are prohibited.
4. Completion of the landscape plan shall be accomplished within 30 days after the date on which the Town of Westlake awards a certificate of occupancy to the address, with the exception of new tree plantings, which shall be completed within 90 days.
5. Artificial plants of any kind are prohibited in public view.

If trees are to be removed for construction, a Tree Preservation Plan shall be submitted to show all existing trees of 6” diameter or greater, to clearly demonstrate the trees that are to be removed, along with the species and size of tree. Protection by fencing the remaining trees shall be constructed prior to any preparation to the construction site, and shall be located at the drip line of each tree canopy, or outermost canopy of a group of trees.

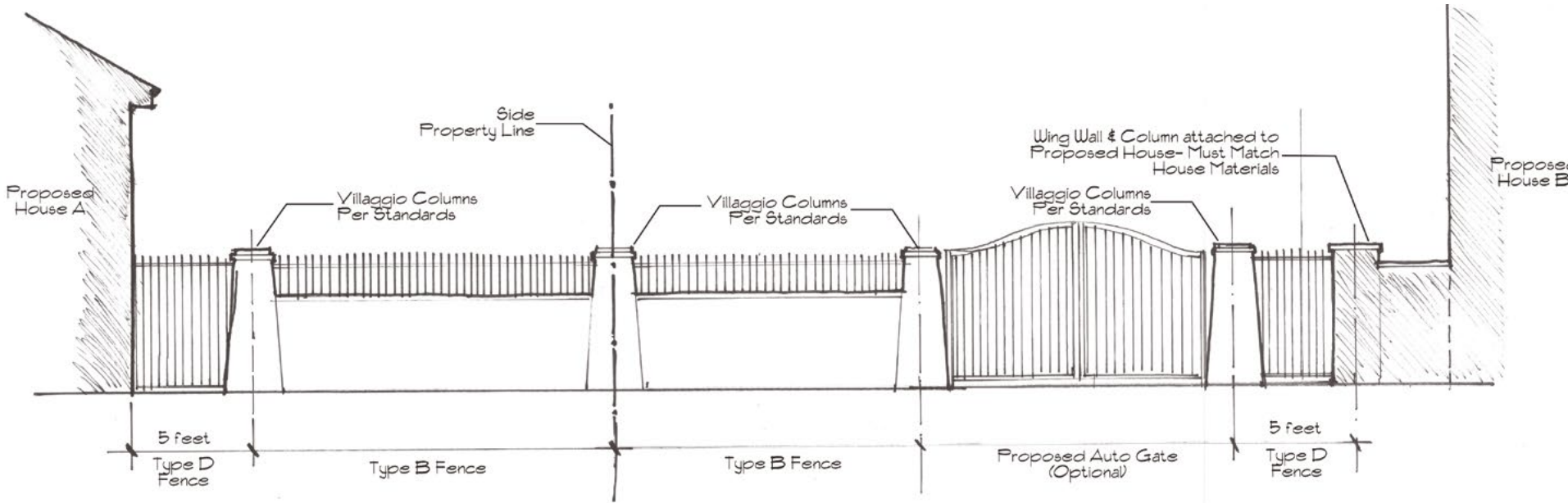
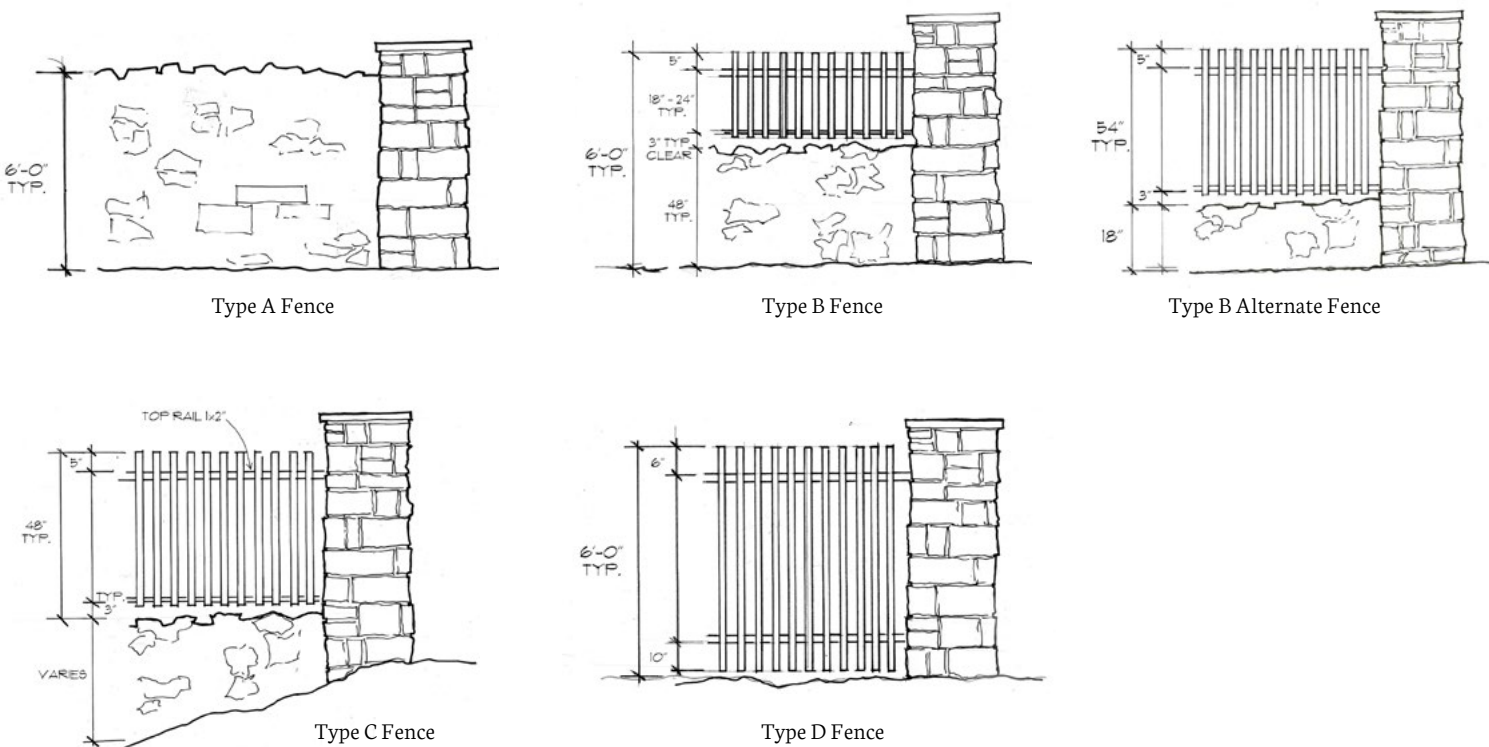
Please see further detail and mitigation instructions to comply with the Town of Westlake Tree Preservation Requirements. Only trees from the Villaggio approved tree species list are to be considered for replacement trees.

Landscape Standards

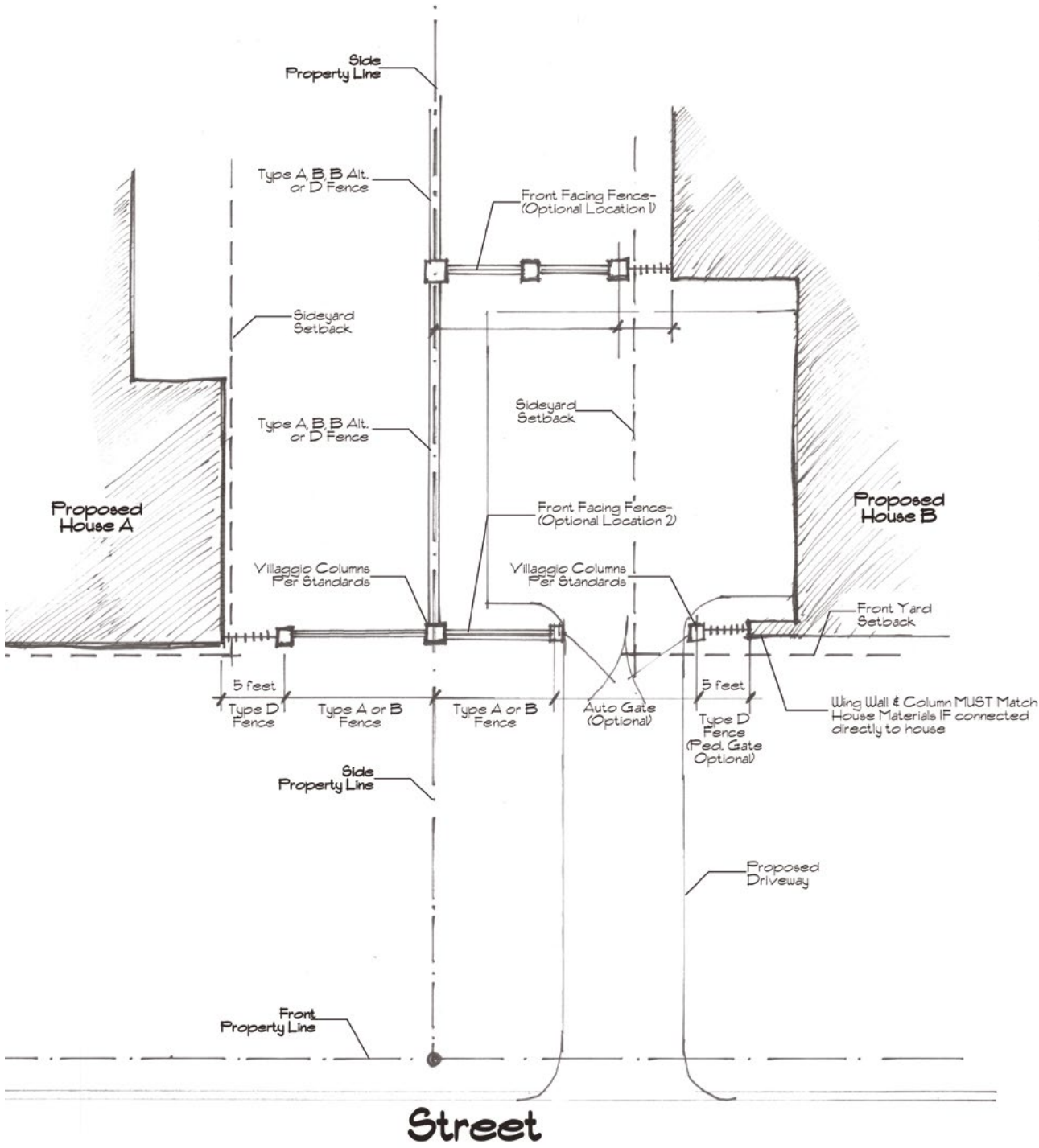
Fences, Walls, Gates, Screening

- 1. A landscape plan must accompany each building plan set for each lot, and comply with the Town of Westlake Code of Ordinances.
- 2. The public space (front yard) and private space (side and rear yards) shall be totally integrated into the landscape design of the gardens for the residence.
- 3. Fencing between Owner Lots will have the option to use Type A, Type B, Type B Alternate or Type D fence design, and shall be fully connected to the existing development wall. Fencing between the column or wing wall that is attached to the house will use Type D fence, of 5'-0" in length. Significant topography will require the fence to follow the terrain, using the Type C fence, with a minimum of 6" and maximum of 1' step height. Type D wrought iron fencing is required to have a landscape planting layer along 50% or more of the linear feet of the wrought iron installation.
- 4. Wood or chain-link fencing is prohibited. Any other fencing elements shall first be approved by the Committee.
- 5. Side yard gates and arches are to be made of decorative iron (OMF) and shall be between 5'-6" and 8'-0" in height, and may be attached at the column or wing wall that is attached to the house will use Type D fence, of 5 feet in length.. Wood gates appropriate to the architectural style may be approved by the Committee on a case by case basis, but ultimately shall meet safety code.

- 6. Drive gates shall be built behind the building setbacks and shall be placed between stone columns matching the Villaggio perimeter wall, of sufficient width to screen motorized gate equipment. Motorized gates integrated in a porte cochere design shall provide screening for gate equipment.
- 7. Retaining walls are to be no higher than 4'-0" and shall be constructed of masonry materials complementary to the home, if connected directly to the home. If retaining walls are independent of the main home, materials will match the Villaggio perimeter wall.
- 8. Fences are to be installed on the property line.
- 9. Screening, by using a combination of landscaping and walls, is required for the following: air conditioning equipment, pool equipment, utility meters, etc.



Fence Elevation Diagram



Fence Plan Diagram



- Required Fence Column Locations
- Type A Fence only
- Type A, B, B Alt, or Type D Fence
- See Diagram for Street-Facing Fence Regulations

Villaggio Lot Map

Driveways and Auto Courts

In order to highlight the home and landscape, effort shall be taken to minimize the visual impact of the automobile circulation and storage area. All driveways shall complement the materials of the home, walkways and patios. Auto Courts shall be screened from view by evergreen landscaping or by wing walls (no higher than 3'-6"), when a porte cochere is not part of the home design. Driveways and Auto Courts shall not exceed 8% grade.

SPECIFICATIONS

1. Driveways shall be located to minimize the amount of paving.
2. Driveways shall be a minimum of 12' and maximum of 16' in width except where required for garage access or motor courts or as approved by the Committee.
3. Driveways shall allow a minimum of two feet from the side property line and permanent structure, such as a home wall, to allow for landscape and/or fencing.
4. Auto Courts shall be screened from public view using evergreen landscaping or wall.
5. Auto Courts within the front 1/3 of the property shall have a minimum 20' setback from the street curb, and a maximum of 40' wide paved area.
6. The leadwalk and driveway shall be one cohesive material as to not give a physical or visual split between the two.
7. The use of center groundcover plantings and/or similar materials to visually break up the driveway is encouraged.
8. For guest parking visible from the street, placed in addition to the driveway lane, a maximum of two spaces are allowed. Parking space material and location to be approved by the Committee on a case by case basis.

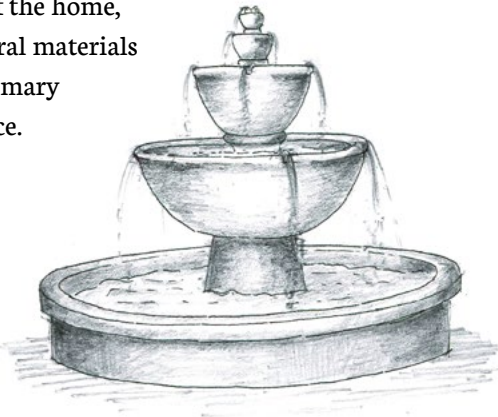
MATERIALS

1. Driveways shall be hard paved with natural color salt finish, broom finish or sandblasted. Other materials include precast concrete pavers, brick or stone.
2. Concrete from the curb of the street into the garage entry shall be without change of color or texture.
3. Decorative stone or brick-edged concrete bands are encouraged and may not occur in front of the public sidewalk.
4. Materials of Drive shall complement the home, walkways and patio materials and be among the approved materials listed. Any other materials, finishes, or colors shall first be approved by the Committee.
5. Asphalt material shall not be approved.

Please see page 60-61 for more detail on approved materials.

Fountains

Water features are encouraged for Villaggio, especially with a front-facing courtyard or terrace. Fountains that are installed upon the front elevation of the home, or within the front yard area shall be designed to match the architectural style of the home, and constructed of natural materials that compliment the primary materials of the residence.



Terraces, Courtyards, Patios

1. Paving materials shall complement the home, whether attached or detached. Courtyards and Auto Courts shall be completely integrated into the landscape design.
2. Terraces, courts and patios attached to the home, or detached within the garden, shall be complementary to the architecture.
3. Courtyard walls in front or side yard are to be no higher than 3'-6" and shall be constructed of masonry materials complementary to the home. If an integrated column or ornamental wrought iron is used in addition to the masonry wall, the total height shall be limited to 5'-0" with the masonry portion limited to 3'-6" in height.

Please see page 60-61 for more detail on approved materials.

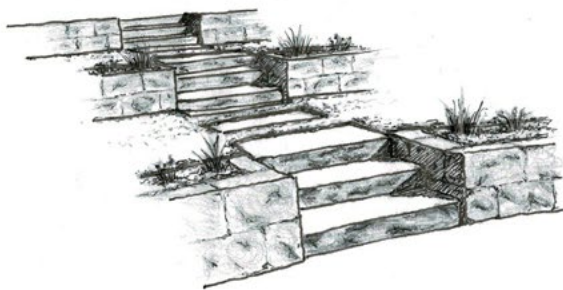


Walkways and Steps

Hardscaping and steps are to blend into the existing natural topography of the site, as a harmonious addition to the landscape.

1. Lead walkway materials, including steps, shall be complementary to the house and driveway, not visually competing.
2. Ground cover plants from the approved plant list shall be planted between individual pavers.
3. Lead walkways shall be made up of broom, salt or sandblasted finished concrete, or rectangular masonry units such as brick or stone and shall be natural in color with decorative bands of stone or brick.
4. All lead and private walks shall be represented and show size, width, configuration and material on the landscape plans submitted for approval.
5. Lead walks from the public sidewalk to the front door shall be five feet wide.
6. Front steps and porch material shall be a Committee-approved brick or stone veneer. Only veneers of brick, stone or tile consistent with the masonry of the house and finish of walkways and driveway are approved for front entry surfaces.

Please see page 60-61 for more detail on approved materials.



Address plaques

Address plaques shall be consistent throughout Villaggio, manufactured from corten steel and using the Villaggio design. Each home shall have the plaque mounted upon a column or front facing exterior wall at the left side of the entry at 2/3 of the height from the bottom of the entry door and centered from the exterior edge of the column (or the street-facing plane at the entry door). Address plaques may be mounted to a plinth, retaining wall or courtyard wall at the left side of the entry. Address plaques permanently fixed to a home are to be ordered through the Villaggio Committee.



Accessory Buildings

Accessory Buildings shall be consistent with the style and materiality of the main residence and comply with Town of Westlake lot coverage and height restrictions. Privacy screening shall be used to minimize visibility from street views and neighbors.

Rainwater Recovery

- 1. Placement shall minimize visibility from street views and neighbors.
- 2. Open top containers shall be prohibited.
- 3. Rainwater Recovery systems shall be approved by the Committee.

Play Equipment

- 1. All play equipment shall be approved by the Committee.
- 2. Play equipment and playhouses shall be limited to either the side or rear yard and set back at least 10 feet from all property lines.
- 3. Play equipment shall be constructed of timber and height may not exceed (12) feet from finish grade.
- 4. Awning shall be fabric in solid earth toned colors (i.e., dark green, brown, etc.).
- 5. Playhouse shall be consistent with the style and materiality of the main home.
- 6. Playhouses shall not exceed 8 feet in height, and 80 square feet in area.
- 7. Tree houses shall not be allowed.

Basketball Goals

- 1. Basketball goals shall be approved by the Committee.
- 2. Permanent basketball goals shall be mounted on freestanding black metal poles and have standard white, gray or clear backboards.
- 3. Placement of basketball goal shall be located to minimize visual impact to neighboring properties.
- 4. Basketball goals are not allowed to be mounted on a house, garage, shed, etc.
- 5. Portable goals are recommended and shall be stored out of sight when not in use.
- 6. Only one basketball goal per lot is allowed.

Signs, Flags, Decorations and Banners

Allowed signs, flags and banners, include “spirit” signs or banners regarding children’s schools and political support signs or banners. Up to two flagpoles may be mounted to the home that is visible from the street, with a maximum length of 6’, for displaying one allowed flag of up to 15 square feet in size. Ground installed signs shall be no larger than 5 square feet in size. Limitations for timing of displaying political support insignia and other restrictions can be found in the Villaggio Covenants, Condition and Restrictions. Flagpole location shall be approved by the Committee.

All holiday decorations shall be installed a maximum of 45 days before the holiday and shall be removed within 30 days after the holiday.

Credits

Developer:



MAYKUS HOMES & NEIGHBORHOODS

Maykus.com

Special thanks to the Town of Westlake



Land Planning and Landscape Architecture by:



SAGE GROUP, INC.

Sage-Group-Inc.business.site

1130 North Carroll Avenue # 200

Southlake, TX 76092

Phone: (817) 424-2626

Architecture Consultant and Pattern Book by:



HERITAGE DESIGN STUDIO, LLC

HeritageDesignStudio.com

596 N. Kimball Avenue, Ste 110

Southlake, TX 76092

Phone: (817) 988-9680



Town of Westlake

1500 Solana Blvd
Building 7, Suite 7100
Westlake, TX 76262

Staff Report

File #: RES 25-04

Agenda Date: 1/21/2025

Agenda #: G.2.

TOWN STAFF REPORT RECOMMENDATIONS

Discuss, consider and act to approve Resolution 25-04 approving a Development Agreement between the Town of Westlake, Texas and Otter Partners, LP, for subdivision improvements for Westlake Ventanas, a residential development to be designed and built in adjacency to Solana Boulevard. (Jason Alexander, AICP, CEcD, Deputy Town Manager)

STAFF: Jason Alexander, AICP, CEcD, Deputy Town Manager

BACKGROUND:

Pursuant to the provisions contained in Sec. 102-316 of the Town of Westlake Code of Ordinances entitled, “Development agreements”, a development agreement is required for “all land which is platted for development purposes and all planned development zoning.”

In accordance with the provisions in Sec. 102-316 of the Town of Westlake Code of Ordinances, a development agreement has been prepared for Westlake Ventanas (the “Development”). Part of the Entrada Planned Development --- Westlake Ventanas will result in the design and the construction of 51 detached single-family homes.

As proposed, the terms and conditions in this development agreement are intended to address the minimum requirements of Sec. 102-316 of the Town of Westlake Code of Ordinances --- for the creation and retention of public and private benefits --- with an emphasis on the following:

- That Otter Partners, LP, shall, at their sole expense, be responsible for installing a left turning lane along the eastbound portion of Solana Boulevard;
- That all grading shall comply with the applicable provisions found in Chapter 36 of the Town of Westlake Code of Ordinances;
- That all garage doors facing a front lot line be setback a minimum of 10 feet such that all “view corridors to ensure the safety of residents backing out driveways” are provided on each lot as required by Ordinance No. 1001 approved by the Town Council on August 19, 2024;
- That the required payment of \$10,000.00 to be made to the Westlake Academy for each residential lot to be developed within Westlake Ventanas has been paid (payment has been made); and
- That building materials and other architectural standards will be enforced pursuant to the homeowners’ association documents and the standards developed for The Knolls Subdivision.

DISCUSSION:

This development agreement is intended to satisfy the provisions in Sec. 102-316 of the Town of Westlake Code of Ordinances and to establish the specific obligations and responsibilities for the Town of Westlake and Otter Partners, LP.

The purpose of this Agreement is to ensure that: (i) all proposed improvements and infrastructure appropriately serve the individual lots within the Development; (ii) identify whether the Town of Westlake or the Developer is responsible for the installation and maintenance of the proposed improvements and infrastructure; (iii) provide additional standards for the aesthetic quality and the visual quality of new construction; and (iv) otherwise ensure that the Development achieves the requirements of zoning.

FISCAL IMPACT:

N/A.

DEPARTMENT OF PLANNING AND DEVELOPMENT RECOMMENDATION:

The terms and conditions of the development agreement are subject to review and approval by the Town Council. If the development agreement --- as presented --- is approved by the Town Council, the Department of Planning and Development would recommend one condition of approval:

1. That the Developer (as defined in the development agreement) shall plant an evergreen hedge row a minimum of 36 inches in height at the time of planting between the private driveway connecting the Town Hall with Solana Boulevard and the wrought iron fencing at the rear of all lots bordering said private driveway for privacy. Such evergreen hedge row shall reach a minimum height of six feet at the time of maturity and shall be shown on all detailed site plan applications submitted for review and approval for lots bordering the private driveway. The evergreen hedge row shall be permanently protected, preserved, and maintained by the Homeowners' Association.

ATTACHMENT(S):

1. Resolution 25-04
2. Exhibit "A" - Development Agreement
3. Exhibit "B" - Property Description
4. Exhibit "C" - Architectural Standards for The Knolls

TOWN COUNCIL ACTION / OPTIONS:

- 1) Motion to approve;
- 2) Motion to approve with amendments;
- 3) Motion to deny; or
- 4) Motion to table to a specific date.

TOWN OF WESTLAKE

RESOLUTION NO. 25-04

A RESOLUTION BY THE TOWN COUNCIL OF THE TOWN OF WESTLAKE, TEXAS, APPROVING A DEVELOPMENT AGREEMENT FOR SUBDIVISION IMPROVEMENTS BETWEEN THE TOWN OF WESTLAKE, TEXAS AND OTTER PARTNERS, LP FOR WESTLAKE VENTANAS RESIDENTIAL DEVELOPMENT (PD 1-2, PLANNED DEVELOPMENT DISTRICT 1-2), AND AUTHORIZING THE TOWN MANAGER OR DESIGNEE TO EXECUTE THE AGREEMENT.

WHEREAS, the Property is located within PD 1-2, Planned Development District 1-2, that is commonly known as “**WESTLAKE ENTRADA**”, as approved by Ordinance No. 703 by the Town Council on the 22ND day of **APRIL 2013**; and

WHEREAS, pursuant to the provisions approved by Ordinance No. 703 by the Town Council on the 22ND day of **APRIL 2013**, a development plan subject to review and approval by the Town Council is required, and such development plan was approved by Ordinance No. 720 by the Town Council on the 28TH day of **OCTOBER 2013** (the “Development Plan”); and

WHEREAS, the Development Plan was subsequently amended by Ordinance No. 830, as adopted by the Town on the 19TH day of **JUNE 2017**; and

WHEREAS, the Development Plan was subsequently amended by Ordinance No. 918, as adopted by the Town on the 26TH day of **OCTOBER 2020**; and

WHEREAS, the Development Plan was subsequently amended by Ordinance No. 934, as adopted by the Town on the **23RD** day of **AUGUST 2021**; and

WHEREAS, the Development Plan was subsequently amended by Ordinance No. 959, as adopted by the Town on the **5TH** day of **DECEMBER 2022**; and

WHEREAS, the Development Plan was subsequently amended by Ordinance No. 994, as adopted by the Town on the **1ST** day of **APRIL 2024**; and

WHEREAS, the Development Plan was subsequently amended by Ordinance No. 997, as adopted by the Town on the **3RD** day of **JUNE 2024**; and

WHEREAS, the Development Plan was subsequently amended by Ordinance No. 1001, as adopted by the Town on the **19TH** day of **AUGUST 2024**, including a revised Development Plan attached thereto as EXHIBIT “A” and included therein for all references and purposes; and

WHEREAS, the Development Plan amended by Ordinance No. 1001, as adopted by the Town on the **19TH** day of **AUGUST 2024**, included specific provisions relating to the Property, including Architectural Standards “according to the development guidelines and standards for The Knolls Development” and that the amendment to the Development Plan for the development of this portion of Westlake Entrada shall further reflect approval provided by Ordinance No. 959, as adopted by the Town on the **5TH** day of **DECEMBER 2022**; and

WHEREAS, the Development Plan amended by Ordinance No. 1001, included conditions that apply to “all further applications for development that are submitted pursuant to the Entrada Development Plan”; and

WHEREAS, the Town of Westlake, Texas (the “Town”) is a duly created and validly existing Type A General Law Municipality, created under the laws of the State of Texas, including

particularly, but not by way of limitation, Chapter 51, Texas Local Government Code, as amended (the “Code”); and

WHEREAS, the Town and Otter Partners, LP (the “Developer”) desire to enter into an agreement through a Development Agreement, which sets out certain responsibilities for the Town and the Developer as it relates to the development in Westlake; and,

WHEREAS, the Developer, as the owner of land located within the Town, intends to develop the approximately 22.164 acres of land fronting Solana Boulevard (the “Property”), and the development and construction on the Property is expected to significantly enhance the tax base of the Town; and

WHEREAS, the Town and the Developer desire to enter into a partnership to continue this planned growth through a Development Agreement for Subdivision Improvements, which sets out responsibilities for the Town and the Developer as it relates to the development in Westlake; and,

WHEREAS, the Town Council finds that the passage of this Resolution is in the best interest of the citizens of Westlake.

NOW, THEREFORE, BE IT RESOLVED BY THE TOWN COUNCIL OF THE TOWN OF WESTLAKE, TEXAS:

SECTION 1: That, all matters stated in the Recitals hereinabove are found to be true and correct and are incorporated herein by reference as if copied in their entirety.

SECTION 2: That, the Town Council of the Town of Westlake, Texas, hereby approves the Development Agreement for Subdivision Improvements attached hereto as **EXHIBIT “A”**,

with the Developer; and further authorizes the Town Manager to execute said agreements and pursue any necessary procedures on behalf of the Town of Westlake.

SECTION 3: If any portion of this Resolution shall, for any reason, be declared invalid by any court of competent jurisdiction, such invalidity shall not affect the remaining provisions hereof and the Council hereby determines that it would have adopted this Resolution without the invalid provision.

SECTION 4: That this resolution shall become effective from and after its date of passage.

PASSED AND APPROVED ON THIS 21ST DAY OF JANUARY 2025.

Kim Greaves, Mayor

ATTEST:

Dianna Buchanan, Town Secretary

APPROVED AS TO FORM:

L. Stanton Lowry, Town Attorney

EXHIBITS

EXHIBIT “A” — DEVELOPMENT AGREEMENT FOR SUBDIVISION IMPROVEMENTS

EXHIBIT “B” — PROPERTY DESCRIPTION

EXHIBIT “C” — ARCHITECTURAL STANDARDS FOR THE KNOLLS

EXHIBIT "B"

PROPERTY DESCRIPTION

BEING, all of that 22.164 acre (965,481 square foot) tract of land situated in the C.M. Throop Survey, Abstract 1510, in the Town of Westlake, Tarrant County, Texas; being all of Lot 2R1, Block 1, Westlake/Southlake Addition No. 1, an addition to the Town of Westlake according to the plat recorded in Instrument No. D209080990 of the Plat Records of Tarrant County, Texas; being all of Lot 1X, Block S, Westlake Entrada, an addition to the Town of Westlake according to the plat recorded in Instrument No. D217079323 of said Plat Records; being all of Lot 2X, Block S, Westlake Entrada, an addition to the Town of Westlake according to the plat recorded in Instrument No. D217217572 of said Plat Records; said tract also being all of that tract of land described in General Warranty Deed to Entrada Villa Partners, LLC as recorded in Instrument No. D222294082 of the Official Public Records of Tarrant County, Texas; said tract also being part of that tract of land described in Correction Special Warranty Deed to MRW Investors, LLC as recorded in Instrument Number D219182131 of the Official Public Records of Tarrant County, Texas; said 22.164 acre tract of land being more particularly described by metes and bounds as follows:

BEGINNING, at a 1/2-inch iron rod with "HUITT ZOLLARS" cap found for the southeast corner of said Lot 2R1; said point being in the northeast right-of-way line of Solana Boulevard (a variable width right-of-way); said also point also being the beginning of a curve to the right;

THENCE, with the southwest line of said Lot 2R1 and the northeast line of said Solana Boulevard, the following three (3) calls:

In a northwesterly direction, with said curve to the right, an arc length of 586.43 feet, having a radius of 772.00 feet, a central angle of 43 degrees 31 minutes 23 seconds, and a chord which bears North 60 degrees 08 minutes 05 seconds West, 572.43 feet to a 1/2-inch iron rod with "HUITT ZOLLARS" cap found at the end of said curve;

North 38 degrees 22 minutes 22 seconds West, a distance of 233.71 feet to a 1/2-inch iron rod found for the beginning of a curve to the left;

In a northwesterly direction, with said curve to the left, an arc length of 136.18 feet, having a radius of 1,428.00 feet, a central angle of 05 degrees 27 minutes 51 seconds, and a chord which bears North 41 degrees 06 minutes 16 seconds West, 136.13 feet to a 5/8-inch rod with "BGE" cap set for the southwest corner of said Lot 2R1;

THENCE, North 00 degrees 32 minutes 55 seconds West, departing the said northeast right-of-way line of Solana Boulevard and with the west line of said Lot 2R1, a distance of 168.55 feet to a 5/8-inch rod with "BGE" cap set for the most westerly northwest corner of said Lot 2R1;

THENCE, North 51 degrees 27 minutes 05 seconds East, with the northwest line of said Lot 2R1, a distance of 153.95 feet to the south corner of said Lot 1X;

THENCE, North 38 degrees 32 minutes 55 seconds West, with the southwest line of said Lot 1X, a distance of 1.00 feet to the west corner of said Lot 1X; said point being in the southeast line of Cortes (variable width right-of-way);

THENCE, North 51 degrees 27 minutes 05 seconds East, with the southeast line of said Cortes, a distance of 846.39 feet to the northwest corner of said Lot 2X;

THENCE, North 89 degrees 27 minutes 05 seconds East, with the south line of said Cortes and the north line of said Lot 2X, a distance of 227.66 feet to the northeast corner of said Lot 2X;

THENCE, South 00 degrees 32 minutes 55 seconds East, with the east line of said Lot 2X, a distance of 1.00 feet to the southeast corner of said Lot 2X; said point being in the north line of said Lot 2R1;

THENCE, North 89 degrees 27 minutes 05 seconds East, with the north line of said Lot 2R1, a distance of 232.11 feet to a 5/8-inch iron rod with "BOUNDARY BOYS RPLS 6559" cap found for the northeast corner of said Lot 2R1;

THENCE, with the southeast line of said Lot 2R1, the following nine (9) calls:

South 29 degrees 41 minutes 02 seconds West, a distance of 151.21 feet to an "X" cut in concrete found for corner;

North 60 degrees 24 minutes 43 seconds West, a distance of 230.34 feet to a 5/8-inch iron rod with illegible cap found for corner;

South 29 degrees 37 minutes 30 seconds West, a distance of 88.70 feet to a 5/8-inch iron rod found for corner;

South 60 degrees 24 minutes 43 seconds East, a distance of 201.47 feet to a 5/8-inch iron rod with illegible cap found for corner;

South 29 degrees 35 minutes 17 seconds West, a distance of 13.96 feet to an "X" cut in concrete found for corner;

South 60 degrees 15 minutes 23 seconds East, a distance of 28.76 feet to a "P-K" nail found for corner;

South 29 degrees 41 minutes 02 seconds West, a distance of 312.27 feet to an "X" cut in concrete found for corner;

South 60 degrees 18 minutes 58 seconds East, a distance of 234.85 feet to a 5/8-inch iron rod with "BGE" cap set for corner;

South 29 degrees 41 minutes 02 seconds West, a distance of 873.37 feet to the POINT OF BEGINNING and containing an area of 22.164 acres or 965,481 square feet of land, more or less.

TOWN OF WESTLAKE

RESOLUTION 19-23

A RESOLUTION BY THE TOWN COUNCIL OF THE TOWN OF WESTLAKE, TEXAS, APPROVING THE DECLARATION OF COVENANTS, CONDITIONS, AND RESTRICIONS AND DESIGN GUIDELINES FOR THE KNOLLS AT SOLANA, LOCATED IN THE PLANNED DEVELOPMENT NUMBER 6 (PD6) ZONING DISTRICT.

WHEREAS, the Town is a duly created and validly existing Type A General Law Municipality, created under the laws of the State of Texas, including particularly, but not by way of limitation, Chapter 51, Texas Local Government Code ("LGC"); and

WHEREAS, the Town of Westlake is experiencing planned growth through the attraction of economic development projects such as Fidelity Investments, Deloitte University, and Charles Schwab, residential developments such as Vaquero, Glenwyck Farms, Terra Bella, Granada, Entrada and the Knolls at Solana which are consistent with the Town's Comprehensive Plan; and,

WHEREAS, the Town of Westlake (Town) and Wilbow-Solana LLC, (the Developer) desire to foster a cooperative partnership to continue this planned growth through standards that ensure high quality development within the Town in the development known as The Knolls at Solana; and

WHEREAS, The Knolls at Solana Development Agreement for Subdivision Improvements, approved by Resolution 18-49 on December 10, 2018, requires Town Council approval of the Declaration of Covenants, Conditions and Restrictions and Design Guidelines; and

WHEREAS, the Town Council finds that the passage of this Resolution is in the best interest of the citizens of Westlake.

NOW, THEREFORE, BE IT RESOLVED BY THE TOWN COUNCIL OF THE TOWN OF WESTLAKE, TEXAS:

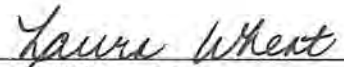
SECTION 1: That, all matters stated in the Recitals hereinabove are found to be true and correct and are incorporated herein by reference as if copied in their entirety.

SECTION 2: That, the Town Council of the Town of Westlake, Texas, hereby approves the Knolls at Solana Declaration of Covenants, Conditions and Restrictions attached hereto as **Exhibit "A"**. and the Knolls at Solana Design Guidelines attached hereto as **Exhibit "B"**.

SECTION 3: If any portion of this Resolution shall, for any reason, be declared invalid by any court of competent jurisdiction, such invalidity shall not affect the remaining provisions hereof and the Council hereby determines that it would have adopted this Resolution without the invalid provision.

SECTION 4: That this resolution shall become effective from and after its date of passage.

PASSED AND APPROVED ON THIS 26th DAY OF AUGUST, 2019.



Laura Wheat, Mayor

ATTEST:



Kelly Edwards, Town Secretary

APPROVED AS TO FORM:



Stan Lowry, Town Attorney





After Recording Return to:
Robert D. Burton
Winstead PC
401 Congress Ave., Suite 2100
Austin, Texas 78701
email: rburton@winstead.com



THE KNOLLS
AT SOLANA

DECLARATION OF COVENANTS, CONDITIONS AND RESTRICTIONS

THE KNOLLS AT SOLANA [TARRANT COUNTY, TEXAS]

Declarant: Wilbow-Solana LLC, a Texas limited liability company

This Declaration of Covenants, Conditions and Restrictions may be used only in connection with the residential community known as The Knolls at Solana in Tarrant County, Texas and the operation of The Knolls at Solana Residential Community, Inc.

DECLARATION OF COVENANTS, CONDITIONS AND RESTRICTIONS

THE KNOLLS AT SOLANA

TABLE OF CONTENTS

ARTICLE 1 DEFINITIONS.....	1
ARTICLE 2 USE RESTRICTIONS.....	6
2.1 General.....	7
2.2 Conceptual Plans.....	8
2.3 Single-Family Residential Use.....	8
2.4 Rentals	9
2.5 Subdividing.....	10
2.6 Hazardous Activities	10
2.7 Insurance Rates.....	10
2.8 Mining and Drilling.....	11
2.9 Water Bodies.....	11
2.10 Noise	11
2.11 Animals - Household Pets	11
2.12 Rubbish and Debris.....	12
2.13 Trash Containers	12
2.14 Maintenance.....	12
2.15 Street Landscape Area-Owner's Obligation to Maintain Landscaping.....	13
2.16 Antennas.....	13
2.17 Location of Permitted Antennas	14
2.18 Signs	14
2.19 Flags – Approval Requirements.....	15
2.20 Flags – Installation and Display	16
2.21 Tanks.....	17
2.22 Temporary Structures.....	17
2.23 Unsightly Articles; Vehicles.....	17
2.24 Basketball Goals; Permanent and Portable.....	18
2.25 Compliance with Restrictions	18
2.26 Liability of Owners for Damage to Common Area.....	19
2.27 No Warranty of Enforceability.....	19
2.28 Party Wall Fences.....	19
2.29 No Tennis or Recreational Courts; Playscapes	20
2.30 Decorations and Lighting.....	20
2.31 Clotheslines; Window Air Conditioners.....	20
2.32 Dumping	20
2.33 Restriction on Use of Common Area.....	21
2.34 Water Quality Facilities, Drainage Facilities and Drainage Ponds	21

**Table of Contents
(Continued)**

	<u>Page</u>
2.35 Homebuilder Exemption	21
ARTICLE 3 CONSTRUCTION RESTRICTIONS	21
3.1 Approval for Construction	21
3.2 Masonry Requirements	21
3.3 Minimum Square Footage	21
3.4 Garages	21
3.5 Fences; Sidewalks.....	22
3.6 Building Restrictions.....	22
3.7 Alteration or Removal of Improvements.....	22
3.8 Drainage	22
3.9 Construction Activities.....	22
3.10 Roofing	22
3.11 Swimming Pools.....	23
3.12 Solar Energy Device.....	23
3.13 Rainwater Harvesting Systems	23
3.14 Xeriscaping.....	24
3.15 Permitted Grasses and Plants.....	25
ARTICLE 4 THE KNOLLS AT SOLANA RESIDENTIAL COMMUNITY, INC.....	26
4.1 Organization	26
4.2 Membership	26
4.3 Governance	27
4.4 Voting Rights	27
4.5 Powers	28
4.6 Conveyance of Common Area to the Association.....	31
4.7 Indemnification	31
4.8 Insurance	32
4.9 Bulk Rate Contracts.....	32
4.10 Community Systems.....	33
4.11 Declarant's Right to Contribute to Revenues of the Association	33
4.12 Protection of Declarant's Interests.....	33
4.13 Administration of Common Area.....	33
4.14 Private Streets	34
4.15 Notices and Disclaimers as to Security Systems.....	34
4.16 Merger.....	35
4.17 Right of Action by Association.....	35
ARTICLE 5 INSURANCE.....	35
5.1 Insurance	35
5.2 Restoration	36
5.3 Mechanic's and Materialmen's Lien.....	37
ARTICLE 6 COVENANT FOR ASSESSMENTS	37

**Table of Contents
(Continued)**

	<u>Page</u>
6.1 Assessments.....	37
6.2 Maintenance Fund	37
6.3 Regular Annual Assessments.....	37
6.4 Working Capital Assessment	38
6.5 Special Assessments.....	39
6.6 Individual Assessments	39
6.7 Amount of Assessment	39
6.8 Late Charges	40
6.9 Owner's Personal Obligation; Interest	40
6.10 Assessment Lien and Foreclosure.....	40
6.11 Exempt Property	42
6.12 Fines and Damages Assessment	42
ARTICLE 7 ARCHITECTURAL CONTROL COMMITTEE	43
7.1 Construction of Improvements	43
7.2 Architectural Control Committee	43
ARTICLE 8 MORTGAGE PROVISIONS	46
8.1 Notice of Action.....	46
8.2 Examination of Books.....	47
8.3 Taxes, Assessments and Charges.....	47
ARTICLE 9 GENERAL PROVISIONS	47
9.1 Term	47
9.2 Eminent Domain	47
9.3 Amendment	48
9.4 Roadway and Utility Easements.....	48
9.5 Enforcement.....	48
9.6 Higher Authority	49
9.7 Severability.....	49
9.8 Conflicts.....	49
9.9 Gender	49
9.10 Acceptance by Grantees	49
9.11 Damage and Destruction	50
9.12 No Partition.....	50
9.13 Notices	51
9.14 View Impairment	51
9.15 Safety and Security.....	51
ARTICLE 10 EASEMENTS	51
10.1 Right of Ingress and Egress	51
10.2 Reserved Easements	52
10.3 Utility Easements	52
10.4 Subdivision Entry and Fencing Easement.....	53

**Table of Contents
(Continued)**

	<u>Page</u>
10.5 Monument Sign Easement.....	53
10.6 Landscape Maintenance Easement.....	53
ARTICLE 11 DEVELOPMENT RIGHTS.....	53
11.1 Development by Declarant.....	53
11.2 Special Declarant Rights.....	54
11.3 Addition of Land.....	54
11.4 Withdrawal of Land.....	55
11.5 Assignment of Declarant's Rights.....	55
ARTICLE 12 DISPUTE RESOLUTION	55
12.1 Introduction and Definitions.....	55
12.2 Mandatory Procedures.....	56
12.3 Claim Affecting Common Areas.....	56
12.4 Notice.....	57
12.5 Negotiation	58
12.6 Mediation	58
12.7 Termination Of Mediation.....	58
12.8 Binding Arbitration-Claims.....	59
12.9 Allocation Of Costs.....	60
12.10 General Provisions.....	61
12.11 Period of Limitation.....	61
12.12 Funding Arbitration and Litigation.....	61

DECLARATION OF COVENANTS, CONDITIONS AND RESTRICTIONS
THE KNOLLS AT SOLANA

This Declaration of Covenants, Conditions and Restrictions (the “**Declaration**”) is made by **WILBOW-SOLANA LLC**, a Texas limited liability company (the “**Declarant**”), and is as follows:

R E C I T A L S:

A. This Declaration is filed with respect to Lots 2 through 20, Block A; Lots 2 through 4, 6 through 11, 13 through 15, 18 through 20, 22 through 25, and 27 through 30, Block B; and Lots 2 through 15, Block C; Knolls at Solana, a subdivision in Tarrant County Texas, according to the plat Recorded under Instrument No. _____, Official Public Records of Tarrant County, Texas (the “**Property**”). Declarant is the owner of the Property.

B. Declarant desires to create and carry out a uniform plan for the development, improvement, and sale of the Property.

C. By the Recording of this Declaration, Declarant serves notice that the Property is subject to the terms and provisions of this Declaration.

NOW, THEREFORE, it is hereby declared: (i) that the Property (or any portion thereof) will be held sold, conveyed, and occupied subject to the following covenants, conditions and restrictions which will run with such portions of the Property and will be binding upon all parties having right, title, or interest in or to such portions of the Property or any part thereof, their heirs, successors, and assigns and will inure to the benefit of each owner thereof; and (ii) that each contract or deed conveying the Property (or any portion thereof) will conclusively be held to have been executed, delivered, and accepted subject to the following covenants, conditions and restrictions, regardless of whether or not the same are set out in full or by reference in said contract or deed.

This Declaration uses notes (text set apart in boxes) to illustrate concepts and assist the reader. If there is a conflict between any note and the text of the Declaration, the text will control.

ARTICLE 1
DEFINITIONS

Unless the context otherwise specifies or requires, the following words and phrases when used in this Declaration will have the meanings hereinafter specified:

“**Access Gates**” mean any subdivision entry facilities serving the Property, including, but not limited to, gates, call boxes, controllers and all other facilities associated with operation

of gates restricting access to the Private Streets. The Access Gates are designated hereby as Common Area.

"Applicable Law" means all statutes, public laws, ordinances, policies, rules, regulations and orders of all federal, state, county and municipal governments or their agencies having jurisdiction and control over the Property in effect at the time a provision of the Restrictions is applied, and pertaining to the subject matter of the Restriction provision, and all other ordinances and any other applicable building codes, zoning restrictions and permits or other applicable regulations. Statutes and ordinances specifically referenced in the Restrictions are "Applicable Law" on the date of the Restrictions, and are not intended to apply to the Property if they cease to be applicable by operation of law, or if they are replaced or superseded by one or more other statutes or ordinances.

"Architectural Control Committee" or **"ACC"** means the committee created pursuant to this Declaration to review and approve or deny plans for the construction, placement, modification, alteration or remodeling of any Improvements on a Lot. As provided in *Article 7* below, the Declarant acts as the ACC and the ACC is not a committee of the Association until the Declarant has assigned its right to appoint and remove all ACC members to the Association in a Recorded and written instrument.

"Assessment" or **"Assessments"** means all assessments imposed by the Association under this Declaration.

"Assessment Unit" has the meaning set forth in *Section 6.7.2*.

"Association" means The Knolls at Solana Residential Community, Inc., a Texas non-profit corporation, which will be created by Declarant to exercise the authority and assume the powers specified in *Article 4* and elsewhere in this Declaration. The failure of the Association to maintain its corporate charter from time to time does not affect the existence or legitimacy of the Association, which derives its authority from this Declaration, the Certificate, the Bylaws, and Applicable Law.

"Board" means the Board of Directors of the Association.

"Bulk Rate Contract" or "Bulk Rate Contracts" means one or more contracts which are entered into by the Association for the provision of utility services or other services of any kind or nature to the Lots. The services provided under Bulk Rate Contracts may include, without limitation, cable television services, telecommunications services, internet access services, "broadband" services, security services, trash pickup services, propane service, natural gas service, lawn maintenance services, wastewater services, and any other services of any kind or nature which are considered by the Board to be beneficial to all or a portion of the Property. Each Bulk Rate Contract must be approved in advance and in writing by the Declarant until expiration or termination of the Development Period.

"Bylaws" means the bylaws of the Association, which may be initially adopted and Recorded by Declarant or the Board of the Association and Recorded as part of the initial project documentation for the benefit of the Association. The Bylaws may be amended, from time to time, by the Declarant until expiration or termination of the Development Period. Any amendment to the Bylaws proposed by the Board must be approved in advance and in writing by the Declarant until expiration or termination of the Development Period. Upon expiration of the Development Period, the Bylaws may be amended by a Majority of the Board.

"Certificate" means the Certificate of Formation of the Association, filed in the Office of the Secretary of State of Texas, as the same may be amended from time to time.

"Common Area" means any property and facilities that the Association owns or in which it otherwise holds rights or obligations, including, without limitation, the Conservation Area (defined below) and any property or facilities held by the Declarant for the benefit of the Association or its Members. Common Area includes any property that the Association holds under a lease, license, or any easement in favor of the Association. Some Common Area will be solely for the common use and enjoyment of the Owners, while other portions of the Common Area may be for the use and enjoyment of the Owners and members of the public.

"Community Manual" means the community manual of the Association, which may be initially adopted and Recorded by the Declarant or the Board of the Association and Recorded as part of the initial project documentation for the benefit of the Association and the Property. The Community Manual may include the Bylaws, Rules and Regulations and other policies governing the Association. The Bylaws, Rules and Regulations and other policies set forth in the Community Manual may be amended, from time to time, by the Declarant until expiration or termination of the Development Period. Any amendment to the Bylaws, Rules and Regulations and other policies governing the Association prosecuted by the Board must be approved in advance and in writing by the Declarant until expiration or termination of the Development Period. Upon expiration or termination of the Development Period, the Community Manual may be amended by a Majority of the Board.

"Community Systems" means the Access Gates and any and all cable television, telecommunications, alarm/monitoring, internet, telephone or other lines, conduits, wires, amplifiers, towers, antennae, satellite dishes, equipment, materials and installations and fixtures (including those based on, containing and serving future technological advances not now known), if installed by Declarant pursuant to any grant of easement or authority by Declarant within the Property.

"Conservation Area" means that certain 22.892-acre tract of land adjacent to the Property, as more particularly described on Exhibit A of the Conservation Area Deed (defined below). The Conservation Area is subject to certain use restrictions as set forth in the Conservation Area Deed.

"Conservation Area Deed" means that certain Special Warranty Deed conveying the Conservation Area from the Declarant to the Town of Westlake, recorded under Document No. D219086822, Official Public Records of Tarrant County, Texas.

"Declarant" means **WILBOW-SOLANA LLC**, a Texas limited liability company, its successors or assigns; provided that any assignment(s) of the rights of **WILBOW-SOLANA LLC**, a Texas limited liability company, as Declarant, must be expressly set forth in writing and Recorded.

Declarant enjoys special rights and privileges to help protect its investment in the Property which are described in this Declaration. Many of these rights do not terminate until either Declarant: (i) has conveyed all Lots which may be created out of the Property; or (ii) voluntarily terminates these rights by a Recorded written instrument.

"Design Guidelines" means the standards for design, construction, landscaping, and exterior items proposed to be placed on any Lot adopted pursuant to *Section 7.2.3*, as the same may be amended from time to time. The Design Guidelines may consist of multiple written design guidelines applying to specific portions of the Property. At Declarant's option, Declarant may adopt or amend from time to time the Design Guidelines for the Property or any portion thereof. Notwithstanding anything in this Declaration to the contrary, Declarant will have no obligation to establish Design Guidelines for the Property or any portion thereof.

"Development Agreement" means that certain Development Agreement by and between the Declarant and the Town dated effective _____, 20____.

"Development Period" means the period of time beginning on the date when this Declaration has been Recorded, and ending twenty-four (24) months after the date that Declarant no longer owns any portion of the Property, unless earlier terminated by a Recorded written instrument executed by the Declarant. The Development Period is the period in which Declarant reserves the right to facilitate the development, construction, and marketing of the Property, and the right to direct the size, shape and composition of the Property

"Homebuilder" means an Owner (other than the Declarant) who acquires a Lot for the construction of a single family residence for resale to a third party.

"Improvement" means all physical enhancements and alterations to the Property, including but not limited to grading, clearing, removal of trees, alteration of drainage flow, and site work, and every structure and all appurtenances of every type and kind, whether temporary or permanent in nature, including, but not limited to, buildings, outbuildings, storage sheds, patios, tennis courts, sport courts, recreational facilities, swimming pools, putting greens, garages, driveways, parking areas and/or facilities, storage buildings, sidewalks, fences, gates, screening walls, retaining walls, stairs, patios, decks, walkways, landscaping, mailboxes,

poles, signs, antennas, exterior air conditioning equipment or fixtures, exterior lighting fixtures, water softener fixtures or equipment, and poles, pumps, wells, tanks, reservoirs, pipes, lines, meters, antennas, towers and other facilities used in connection with water, sewer, gas, electric, telephone, regular or cable television, or other utilities.

"Lot" means any portion of the Property designated by Declarant or as shown as a subdivided Lot on a Plat other than Common Area.

"Majority" means more than half.

"Manager" has the meaning set forth in *Section 4.5.8*.

"Members" means every person or entity that holds membership privileges in the Association.

"Mortgage" or **"Mortgages"** means any mortgage(s) or deed(s) of trust securing indebtedness and covering any Lot.

"Mortgagee" or **"Mortgagees"** means the holder(s) of any Mortgage(s).

"Owner" means the person(s), entity or entities, including Declarant, holding all or a portion of the fee simple interest in any Lot, but does not include the Mortgagee under a Mortgage prior to its acquisition of fee simple interest in such Lot pursuant to foreclosure of the lien of its Mortgage.

"Plat" means a Recorded subdivision plat of any portion of the Property and any amendments thereto.

"Private Streets" means Lot 31X, Block B, Knolls at Solana, a subdivision in Tarrant County Texas, according to the plat Recorded under Instrument No. _____, Official Public Records of Tarrant County, Texas, consisting of private roadways known as Hidden Oak Trail, Highpoint Trail, Deer Run Drive, Forest Knoll Drive, Blackjack Oak Trail, Highcrest Drive, Spanish Oak Trail and Knollwood Drive. The Private Streets shall be used for vehicular and pedestrian ingress and egress to and from the Lots and are designated hereby as Common Area.

"Property" means Lots 2 through 20, Block A; Lots 2 through 4, 6 through 11, 13 through 15, 18 through 20, 22 through 25, and 27 through 30, Block B; and Lots 2 through 15, Block C; Knolls at Solana, a subdivision in Tarrant County Texas, according to the plat Recorded under Instrument No. _____, Official Public Records of Tarrant County, Texas, subject to such additions thereto and deletions therefrom as may be made pursuant to *Section 11.3* and *Section 11.4* of this Declaration.

"Record, Recording, Recordation and Recorded" means recorded or to be recorded in the Official Public Records of Tarrant County, Texas.

“Resident” means an occupant or tenant of a Lot, regardless of whether the person owns the Lot.

“Restrictions” means the restrictions, covenants, and conditions contained in this Declaration, the Design Guidelines, Bylaws, Community Manual, Rules or policies promulgated by the Board and amended from time to time. *See Table 1* for a summary of the Restrictions.

“Rules and Regulations” means any instrument, however denominated, which is adopted by the Board for the regulation and management of the Property, including any amendments to those instruments.

“Solar Energy Device” means a system or series of mechanisms designed primarily to provide heating or cooling or to produce electrical or mechanical power by collecting and transferring solar-generated energy. The term includes a mechanical or chemical device that has the ability to store solar-generated energy for use in heating or cooling or in the production of power.

“Town” means the Town of Westlake, Texas.

TABLE 1: RESTRICTIONS	
Declaration (Recorded)	Creates obligations that are binding upon the Association and all present and future owners of Property.
Certificate of Formation (Recorded)	Establishes the Association as a Texas nonprofit corporation.
Bylaws (Recorded)	Governs the Association’s internal affairs, such as elections, meetings, etc.
Community Manual (Recorded)	Establishes rules and policies governing the Association.
Design Guidelines (if adopted, Recorded)	Governs the design and architectural standards for the construction of Improvements and modifications thereto. The Declarant shall have no obligation to adopt the Design Guidelines.
Rules and Regulations (if adopted, Recorded)	Regulates the use of property, activities, and conduct within the Property.
Board Resolutions (adopted by the Board of the Association)	Establishes rules, policies, and procedures for the Property, Owners and the Association.

ARTICLE 2 USE RESTRICTIONS

All of the Property shall be owned, held, encumbered, leased, used, occupied, and enjoyed subject to the following limitations and restrictions:

2.1 General.

2.1.1 Conditions and Restrictions. All Lots within the Property will be owned, held, encumbered, leased, used, occupied and enjoyed subject to the Restrictions.

NOTICE

The Restrictions are subject to change from time to time. By owning or occupying a Lot, you agree to remain in compliance with the Restrictions, as they may change from time to time.

2.1.2 Ordinances. Ordinances and requirements imposed by local governmental authorities are applicable to all Lots within the Property. Compliance with the Restrictions is not a substitute for compliance with such ordinances and regulations. Please be advised that the Restrictions do not purport to list or describe each ordinance or regulation which may be applicable to a Lot located within the Property. Each Owner is advised to review all ordinances, requirements, regulations and encumbrances affecting the use and improvement of their Lot prior to submitting plans to the ACC for approval. Furthermore, approval by the ACC should not be construed by the Owner that any Improvement complies with the terms and provisions of any ordinances, requirements, regulations or encumbrances which may affect the Owner's Lot. Certain encumbrances may benefit parties whose interests are not addressed by the ACC.

2.1.3 Compliance with Development Agreement and Conservation Area Deed. The Association, each Owner, Homebuilder, Resident or other user of any portion of the Property must comply with the Restrictions and Applicable Law, as well as those certain obligations and requirements set forth in the Development Agreement and the Conservation Area Deed.

- (i) The Development Agreement contains certain development and maintenance standards for Lots and residential homes constructed on the Lots. Each Owner and Homebuilder is advised to review the Development Agreement prior to acquisition of a Lot and prior to commencement of construction of any Improvements on the Property. In the event of any conflict between the Restrictions and the Development Agreement, the Development Agreement shall control.
- (ii) The Conservation Area Deed contains certain rights, obligations and restrictions (the "**Conservation Area Restrictions**") regarding the use of and access to the Conservation Area. Each Owner and Homebuilder is advised to review the Conservation Area Restrictions prior to acquisition of a Lot and prior to commencement of construction of any

-7-

THE KNOLLS AT SOLANA
DECLARATION OF COVENANTS, CONDITIONS AND RESTRICTIONS

Improvements on the Property. In the event of any conflict between the Restrictions and the Conservation Area Restrictions, the Conservation Area Restrictions shall control.

2.2 Conceptual Plans. All master plans, site plans, brochures, illustrations, information and marketing materials relating to the Property (collectively, the “**Conceptual Plans**”) are conceptual in nature and are intended to be used for illustrative purposes only. The land uses and Improvements reflected on the Conceptual Plans are subject to change at any time and from time to time, and it is expressly agreed and understood that land uses within the Property may include uses which are not shown on the Conceptual Plans. Neither Declarant nor any Homebuilder or other developer of any portion of the Property makes any representation or warranty concerning such land uses and Improvements shown on the Conceptual Plans or otherwise planned for the Property and it is expressly agreed and understood that no Owner will be entitled to rely upon the Conceptual Plans in making the decision to purchase any land or Improvements within the Property. Each Owner who acquires a Lot within the Property acknowledges that development of the Property will likely extend over many years, and agrees that the Association will not engage in, or use Association funds to support, protest, challenge, or make any other form of objection to development of the Property or changes in the Conceptual Plans as they may be amended or modified from time to time.

2.3 Single-Family Residential Use. The Lots shall be used solely for single-family residential purposes. The Lots may not be used for any other purposes without the prior written consent of the Declarant, which consent may be withheld by the Declarant in its sole and absolute discretion. No professional, business, or commercial activity to which the general public is invited shall be conducted on any portion of a Lot, except an Owner or Resident may conduct business activities within a residence so long as: (i) such activity complies with all the applicable zoning ordinances (if any); (ii) participation in the business activity is limited to the Owner(s) or Resident(s) of a residence; (iii) the existence or operation of the business activity is not apparent or detectable by sight, i.e., no sign may be erected advertising the business within the Property, sound, or smell from outside the residence; (iv) the business activity does not involve door-to-door solicitation of residents within the Property; (v) the business does not, in the Board’s judgment, generate a level of vehicular or pedestrian traffic or a number of vehicles parked within the Property which is noticeably greater than that which is typical of residences in which no business activity is being conducted; (vi) the business activity is consistent with the residential character of the Property and does not constitute a nuisance, or a hazardous or offensive use, or threaten the security or safety of other Residents within the Property as may be determined in the sole discretion of the Board; and (vii) the business does not require the installation of any machinery other than that customary to normal household operations. In addition, for the purpose of obtaining any business or commercial license, neither the residence nor Lot will be considered open to the public. The terms “business” and “trade”, as used in this provision, shall be construed to have their ordinary, generally accepted meanings and shall include, without limitation, any occupation, work, or activity undertaken on an ongoing basis which involves the provision of goods or services to persons other than the provider’s family

and for which the provider receives a fee, compensation, or other form of consideration, regardless of whether: (x) such activity is engaged in full or part-time; (y) such activity is intended to or does generate a profit; or (z) a license is required.

Leasing of a residence shall not be considered a business or trade within the meaning of this subsection. This subsection shall not apply to any activity conducted by the Declarant or a Homebuilder.

Notwithstanding any provision in this Declaration to the contrary, until the earlier to occur of expiration or termination of the Development Period, or forty (40) years from the date this Declaration is Recorded:

- (i) Declarant and/or its designees may construct and maintain upon portions of the Common Area and any Lot owned by the Declarant such facilities and may conduct such activities which, in Declarant's sole opinion, may be reasonably required, convenient, or incidental to the construction or sale of single family residences constructed upon the Lots, including, but not limited to, business offices, signs, model homes, and sales offices. Declarant and/or its designees shall have an easement over and across the Common Area for access and use of such facilities at no charge; and
- (ii) Declarant and/or its designees will have an access easement over and across the Common Area for the purpose of making, constructing and installing Improvements upon the Common Area.

2.4 Rentals. Nothing in this Declaration will prevent the rental of any Lot and the Improvements thereon by the Owner thereof for residential purposes; provided that: (i) all rentals must be for terms of at least six (6) months; and (ii) no portion of a Lot (other than the entire Lot) may be rented. All leases shall be in writing, and the Board will have the authority to approve all leases in advance. Each lease must provide, or be deemed to provide, that the Board shall have the right to terminate the lease upon default by the tenant in observing any provisions of the Restrictions. The Board may deny permission to lease any Lot on any reasonable grounds the Board may find. The Board shall have the right to require the Owner to deposit in escrow with the Association (in addition to any other deposits which may be required by the Owner so long as such additional deposit is not prohibited by law) an amount not to exceed one month's rental fee paid. Said deposit may be used by the Association to repair any damage to the Property resulting from acts or omission by the tenants (as determined in the sole discretion of the Board). Regardless of whether or not expressed in the applicable lease, all Owners shall be jointly and severally liable with the tenants of such Lot to the Association for any amount which is required by the Association to effect such repairs or to pay any claim for any injury or damage to property caused by the negligence of the tenant of such Lot or for the acts or omissions of the tenant(s) of such Lot which constitute a violation of, or non-compliance with, the provisions of the Documents. All leases shall comply with and be subject to the provisions of the Restrictions and the provisions of same shall be deemed

-9-

THE KNOLLS AT SOLANA
DECLARATION OF COVENANTS, CONDITIONS AND RESTRICTIONS

expressly incorporated into any lease of a Lot. This Section shall also apply to assignments and renewals of leases. No lease approved by the Board shall be amended or modified without the Board's approval. In making its determination as to whether to approve a lease of a Lot, the Board shall not discriminate on the grounds of race, gender, religion, national origin, familial status or physical or mental handicap; *provided, however*, nothing herein shall be construed to require the Association to furnish an alternate tenant to the Owner in the event the Board disapproves a lease or tenant. Upon entering into an agreement for the lease of a Lot, an Owner, other than Declarant, shall provide written notice to the Board, or its designee, of the lease agreement and furnish the names of the prospective tenant. The Board may require that the Owner deliver to the tenant, a copy of the Restrictions and obtain a written instrument executed by the tenant acknowledging receipt of the Restrictions which receipt will be provided to the Board. The Board shall have the right to charge an Owner a reasonable fee (not to exceed \$500.00) as determined by the Board for the processing of leases of Lots.

2.5 Subdividing. No Lot shall be further divided or subdivided, nor may any easements or other interests therein less than the whole be conveyed by the Owner thereof without the prior written approval of the ACC; *provided, however*, that when Declarant is the Owner thereof, Declarant may further divide and subdivide any Lot and convey any easements or other interests less than the whole, all without the approval of the ACC. In the event of the re-subdivision of any Lot into two (2) or more Lots, each Lot resulting from the re-subdivision shall be allocated one (1) Assessment Unit. In the event of the consolidation of two (2) or more Lots for the purposes of constructing a single residence thereon, the Assessment Units will continue to be determined according to the number of original Lots contained in such consolidated Lot. Nothing in this Declaration shall be construed as authorization for any re-subdivision or consolidation of Lots, such actions being subject to the written approval of the ACC.

2.6 Hazardous Activities. No activities may be conducted on or within the Property and no Improvements constructed on any portion of the Property which, in the opinion of the Board, are or might be unsafe or hazardous to any person or property. Without limiting the generality of the foregoing, no firearms or fireworks may be discharged upon any portion of the Property unless discharged in conjunction with an event approved in advance by the Board and no open fires may be lighted or permitted except within safe and well-designed fireplaces or in contained barbecue units while attended and in use for cooking purposes. No portion of the Property may be used for the takeoff, storage, or landing of aircraft (including, without limitation, helicopters) except for medical emergencies.

2.7 Insurance Rates. Nothing shall be done or kept on the Property which would increase the rate of casualty or liability insurance or cause the cancellation of any such insurance on the Common Area, or the Improvements located thereon, without the prior written approval of the Board.

2.8 Mining and Drilling. No portion of the Property may be used for the purpose of mining, quarrying, drilling, boring, or exploring for or removing oil, gas, or other hydrocarbons, minerals of any kind, rocks, stones, sand, gravel, aggregate, or earth. This provision will not be construed to prevent the excavation of rocks, stones, sand, gravel, aggregate, or earth or the storage of such material for use as fill provided that such activities are conducted in conjunction with the construction of Improvements and/or the development of the Property by the Declarant. Furthermore, this provision will not be interpreted to prevent the drilling of water wells approved in advance by the ACC which are required to provide water to all or any portion of the Property. All water wells must also be approved in advance by the ACC and any applicable regulatory authority.

2.9 Water Bodies. By acceptance of a deed to a home or a lot, each owner acknowledges that the water levels of all water bodies, if any, may vary. There is no guarantee by the Declarant or the Association that water levels will be constant or aesthetically pleasing at any particular time. In fact, water levels may be non-existent from time to time.

2.10 Noise. No exterior speakers, horns, whistles, bells, or other sound devices (other than security devices used exclusively for security purposes) shall be located, used, or placed on any of the Property. No noise or other nuisance shall be permitted to exist or operate upon any portion of the Property so as to be offensive or detrimental to any other portion of the Property or to its Residents. Without limiting the generality of the foregoing, if any noise or nuisance emanates from any Improvement on any Lot, the Association may (but shall not be obligated to) enter any such Improvement and take such reasonable actions necessary to terminate such noise (including silencing any burglar or break-in alarm).

2.11 Animals - Household Pets. No animals, including pigs, hogs, swine, poultry, fowl, wild animals, horses, cattle, sheep, goats, or any other type of animal not considered to be a domestic household pet within the ordinary meaning and interpretation of such words may be kept, maintained, or cared for on or within the Property (as used in this paragraph, the term "domestic household pet" shall not mean or include non-traditional pets such pot-bellied pigs, miniature horses, goats, exotic snakes or lizards, ferrets, monkeys, chickens or other exotic animals). The Board may conclusively determine, in its sole discretion, whether a particular pet is a domestic household pet within the ordinary meaning and interpretation of such words. No Owner may keep more than four (4) cats and dogs, in the aggregate, of which no more than two (2) may be dogs, unless otherwise approved by the Board. No animal may be allowed to make an unreasonable amount of noise, or to become a nuisance, and no domestic pets will be allowed on the Property other than within the Owner's residence, or the fenced yard space associated therewith, unless confined to a leash. The Association may restrict pets to certain areas on the Property. No animal may be stabled, maintained, kept, cared for, or boarded for hire or remuneration on the Property, and no kennels or breeding operation will be allowed. No animal may be allowed to run at large, and all animals must be kept within enclosed areas which must be clean, sanitary, and reasonably free of refuse, insects, and waste at all times. No pet may be left unattended in yards, porches or other outside area. All pet waste will be

removed and appropriately disposed of by the owner of the pet. All pets must be registered, licensed and inoculated as required by Applicable Law. If, in the opinion of the Board, any pet becomes a source of unreasonable annoyance to others, or the owner of the pet fails or refuses to comply with these restrictions, the Owner, upon written notice, may be required to remove the pet from the Property.

2.12 Rubbish and Debris. As determined by the Board, no rubbish or debris of any kind may be placed or permitted to accumulate on or within the Property, and no odors will be permitted to arise therefrom so as to render all or any portion of the Property unsanitary, unsightly, offensive, or detrimental to any other property or Residents. Refuse, garbage, and trash must be kept at all times in covered containers, and such containers must be kept within enclosed structures or appropriately screened from view. Each Owner will contract with an independent disposal service to collect all garbage or other wastes, if such service is not provided by a governmental entity or the Association.

2.13 Trash Containers. Trash containers and recycling bins must be stored in one of the following locations:

- (i) inside the garage of the single-family residence constructed on the Lot; or
- (ii) behind the single-family residence or fence constructed on the Lot in such a manner that the trash container and recycling bin is not visible from any street, alley, or adjacent Lot.

The Board shall have the right to specify additional locations on each Owner's Lot in which trash containers or recycling bins must be stored.

2.14 Maintenance. The Owners of each Lot shall jointly and severally have the duty and responsibility, at their sole cost and expense, to keep their Lot and all Improvements thereon in good condition and repair and in a well-maintained, safe, clean and attractive condition at all times. The Board, in its sole discretion, shall determine whether a violation of the maintenance obligations set forth in this *Section 2.14* has occurred. Such maintenance includes, but is not limited to the following, which shall be performed in a timely manner, as determined by the Board, in its sole discretion:

- (i) Prompt removal of all litter, trash, refuse, and wastes.
- (ii) Lawn mowing.
- (iii) Tree and shrub pruning.
- (iv) Watering.
- (v) Keeping exterior lighting and mechanical facilities in working order.

- (vi) Keeping lawn and garden areas alive, free of weeds, and attractive.
- (vii) Keeping planting beds free of turf grass.
- (viii) Keeping sidewalks and driveways in good repair.
- (ix) Complying with Applicable Law.
- (x) Repainting of Improvements.
- (xi) Repair of exterior damage, and wear and tear to Improvements.

Notwithstanding the foregoing, in the Board, in its sole discretion, may require the Association to perform the landscape maintenance obligations set forth in this Section 2.14 on behalf of the Owners. In such event, the costs incurred by the Association to perform the landscape maintenance obligations shall be discharged through regular annual Assessments levied in accordance with *Section 6.3* herein.

2.15 Street Landscape Area-Owner's Obligation to Maintain Landscaping. Each Owner will be responsible, at such Owner's sole cost and expense, for maintaining mowing, replacing, pruning, and irrigating the landscaping between the boundary of such Owner's Lot and the curb of any adjacent right-of-way, street or alley (the "**ST Landscape Area**") unless the responsibility for maintaining the ST Landscape Area is performed by the Association.

2.16 Antennas. Except as expressly provided below, no exterior radio or television antennae or aerial or satellite dish or disc, shall be erected, maintained or placed on a Lot without the prior written approval of the ACC; provided, however, that:

- (i) an antenna designed to receive direct broadcast services, including direct-to-home satellite services, that is one meter or less in diameter; or
- (ii) an antenna designed to receive video programming services via multipoint distribution services, including multi-channel multipoint distribution services, instructional television fixed services, and local multipoint distribution services, that is one meter or less in diameter or diagonal measurement; or
- (iii) an antenna that is designed to receive television or radio broadcast signals;

(collectively, (i) through (iii) are referred to herein as the "**Permitted Antennas**") will be permitted subject to reasonable requirements as to location and screening as may be set forth in rules adopted by the ACC, consistent with Applicable Law, in order to minimize obtrusiveness as viewed from streets and adjacent property. Declarant and/or the Association will have the right, but not the obligation, to erect an aerial, satellite dish, or other apparatus for a master

antenna, cable, or other communication system for the benefit of all or any portion of the Property.

2.17 Location of Permitted Antennas. A Permitted Antenna may be installed solely on the Owner's Lot and shall not encroach upon any street, Common Area, or any other portion of the Property. A Permitted Antenna shall be installed in a location on the Lot from which an acceptable quality signal can be obtained and where least visible from the street and the Property, other than the Lot. In order of preference, the locations of a Permitted Antenna which will be considered least visible by the ACC are as follows:

- (i) Attached to the back of the principal single-family residence constructed on the Lot, with no part of the Permitted Antenna any higher than the lowest point of the roofline and screened from view of adjacent Lots and the street; then
- (ii) Attached to the side of the principal single-family residence constructed on the Lot, with no part of the Permitted Antenna any higher than the lowest point of the roofline and screened from view of adjacent Lots and the street.

The ACC may, from time to time, modify, amend, or supplement the rules regarding installation and placement of Permitted Antennas.

Satellite dishes one meter or less in diameter, e.g., DirectTV or Dish satellite dishes, are permitted, HOWEVER, you are required to comply with the rules regarding installation and placement. These Rules and Regulations may be modified by the ACC from time to time. Please contact the ACC for the current rules regarding installation and placement.

2.18 Signs. Unless otherwise prohibited by Applicable Law, no sign of any kind may be displayed to the public view on any Lot without the prior written approval of the ACC, except for:

- (i) signs which are expressly permitted pursuant to the Design Guidelines or Rules and Regulations;
- (ii) signs which are part of Declarant's or Homebuilder's overall marketing, sale, or construction plans or activities for the Property;
- (iii) one (1) temporary school "spirit" sign placed on the Lot. The sign must be professionally made and shall be limited to maximum face area of five (5) square feet on each visible side and, if free standing, is mounted on a single or frame post. The overall height of the sign from finished grade at the spot where the sign is located may not exceed four (4) feet. The sign

must be removed within five (5) business days following the athletic season for which the sign relates;

- (iv) one (1) temporary "For Sale" sign placed on the Lot. The sign must be professionally made and shall be limited to a maximum face area of five (5) square feet on each visible side and, if free standing, is mounted on a single or frame post. The overall height of the sign from the finished grade of the Lot at the spot where the sign is located may not exceed four (4) feet. The sign must be removed within two (2) business days following the sale or lease of the Lot;
- (v) political signs may be erected provided the sign: (a) is erected no earlier than the 90th day before the date of the election to which the sign relates; (b) is removed no later than the 10th day after the date of the election to which the sign relates; and (c) is ground-mounted. Only one sign may be erected for each candidate or ballot item. In addition, signs which include any of the components or characteristics described in Section 202.009(c) of the Texas Property Code are prohibited;
- (vi) a religious item on the entry door or door frame of a residence (which may not extend beyond the outer edge of the door frame), provided that the size of the item(s), individually or in combination with other religious items on the entry door or door frame of the residence, does not exceed twenty-five (25) square inches;
- (vii) permits as may be required by legal proceedings; and
- (viii) permits as may be required by any governmental entity.

An Owner or Resident will be permitted to post a "no soliciting" and "security warning" sign near or on the front door to their residence, provided, that the sign may not exceed twenty-five (25) square inches.

For Lease and For Rent signs are expressly prohibited.

2.19 Flags – Approval Requirements. An Owner is permitted to display the flag of the United States of America, the flag of the State of Texas, or an official or replica flag of any branch of the United States Military ("**Permitted Flag**") and permitted to install a flagpole no more than five feet (5') in length affixed to the front of a residence near the principal entry or affixed to the rear of a residence ("**Permitted Flagpole**"). Only two (2) permitted Flagpoles are allowed per residence. A Permitted Flag or Permitted Flagpole need not be approved in advance by the ACC. Approval by the ACC is required prior to installing vertical freestanding flagpoles installed in the front or back yard area of any Lot ("**Freestanding Flagpole**"). To obtain ACC approval of any Freestanding Flagpole, the Owner shall provide the ACC with the

following information: (a) the location of the Freestanding Flagpole to be installed on the Lot; (b) the type of Freestanding Flagpole to be installed; (c) the dimensions of the Freestanding Flagpole; and (d) the proposed materials of the Freestanding Flagpole (the “**Flagpole Application**”). A Flagpole Application may only be submitted by an Owner. The Flagpole Application shall be submitted in accordance with the provisions of *Article 7* of this Declaration.

2.20 Flags – Installation and Display. Unless otherwise approved in advance and in writing by the ACC, Permitted Flags, Permitted Flagpoles and Freestanding Flagpoles, installed in accordance with the Flagpole Application, must comply with the following:

- (i) No more than one (1) Freestanding Flagpole OR no more than two (2) Permitted Flagpoles are permitted per Lot, on which only Permitted Flags may be displayed;
- (ii) Any Permitted Flagpole must be no longer than five feet (5') in length and any Freestanding Flagpole must be no more than twenty feet (20') in height
- (iii) Any Permitted Flag displayed on any flagpole may not be more than three feet in height by five feet in width (3'x5');
- (iv) With the exception of flags displayed on Common Area or any Lot which is being used for marketing purposes by the Declarant or a Homebuilder, the flag of the United States of America must be displayed in accordance with 4 U.S.C. Sections 5-10 and the flag of the State of Texas must be displayed in accordance with Chapter 3100 of the Texas Government Code;
- (v) The display of a Permitted Flag, or the location and construction of a Permitted Flagpole or Freestanding Flagpole must comply with all Applicable Law;
- (vi) Each Permitted Flagpole and Freestanding Flagpole must be constructed of permanent, long-lasting materials, with a finish appropriate to the materials used in the construction thereof and harmonious with the residence;
- (vii) Each Permitted Flag, Permitted Flagpole or Freestanding Flagpole must be maintained in good condition and any deteriorated Permitted Flag or deteriorated or structurally unsafe Permitted Flagpole or Freestanding Flagpole must be repaired, replaced or removed;

- (viii) A Permitted Flag may be illuminated by no more than one (1) halogen landscaping light of low beam intensity which shall not be aimed towards or directly affect any neighboring Lot; and
- (ix) Any external halyard of a Permitted Flagpole or Freestanding Flagpole must be secured so as to reduce or eliminate noise from flapping against the metal of the Permitted Flagpole or Freestanding Flagpole.

2.21 Tanks. The ACC must approve any tank used or proposed in connection with a residence, including tanks for storage of fuel, water, oil, or LPG, and including swimming pool filter tanks. No elevated tanks of any kind may be erected, placed or permitted on any Lot without the advance written approval of the ACC. All permitted tanks must be screened from view in accordance with a screening plan approved in advance by the ACC. This provision will not apply to a tank used to operate a standard residential gas grill.

2.22 Temporary Structures. No tent, shack, or other temporary building, Improvement, or structure shall be placed upon the Property without the prior written approval of the ACC; provided, however, that temporary structures necessary for storage of tools and equipment, and for office space for Homebuilders, architects, and foremen during actual construction may be maintained with the prior approval of Declarant, approval to include the nature, size, duration, and location of such structure.

2.23 Unsightly Articles; Vehicles. No article deemed to be unsightly by the Board will be permitted to remain on any Lot so as to be visible from adjoining property or from public or private thoroughfares. Without limiting the generality of the foregoing, trailers, graders, trucks other than pickups, boats, tractors, campers, wagons, buses, motorcycles, motor scooters, all-terrain vehicles and garden and lawn maintenance equipment must be kept at all times except when in actual use, in enclosed structures or screened from view and no repair or maintenance work may be done on any of the foregoing, or on any automobile (other than minor emergency repairs), except in enclosed garages or other structures. Service areas, storage areas, compost piles and facilities for hanging, drying or airing clothing or household fabrics must be appropriately screened from view, and no lumber, grass, plant waste, shrub or tree clippings, metals, bulk materials, scrap, refuse or trash must be kept, stored, or allowed to accumulate on any portion of the Property except within enclosed structures or appropriately screened from view. No: (i) racing vehicles; or (ii) other vehicles (including, without limitation, motorcycles or motor scooters) which are inoperable or do not have a current license tag will be permitted to remain visible on any Lot or to be parked on any roadway within the Property. Motorcycles shall be operated in a quiet manner.

Parking of commercial vehicles or equipment, recreational vehicles, boats and other watercraft, trailers, stored vehicles or inoperable vehicles in places other than: (a) in enclosed garages; and (b) behind a fence so as to not be visible from any other portion of the Property is prohibited; provided, construction, service and delivery vehicles may be exempt from this

provision for such period of time as is reasonably necessary to provide service or to make a delivery to a residence, but in no event exceeding twenty-four (24) hours.

Mobile homes are prohibited. Notwithstanding the foregoing, sales trailers or other temporary structures expressly approved by the ACC shall be permitted.

2.24 Basketball Goals; Permanent and Portable. Permanent basketball goals are permitted between the street right-of-way and the front of the residence on a Lot provided the basketball goal is located approximately twenty-five feet (25') from the street curb. The basketball goal backboard must be perpendicular to the street and mounted on a black metal pole permanently installed in the ground. Portable basketball goals are permitted but must be stored in the rear of the Lot or inside garage from sundown to sunrise. Basketball goals must be properly maintained and painted, with the net in good repair. All basketball goals, whether permanent or portable, must be approved by the ACC prior to being placed on any Lot.

2.25 Compliance with Restrictions. Each Owner, his or her family, Residents of a Lot, tenants, and the guests, invitees, and licensees of the preceding shall comply strictly with the provisions of the Restrictions as the same may be amended from time to time. Failure to comply with any of the Restrictions shall constitute a violation of the Restrictions and may result in a fine against the Owner in accordance with *Section 6.12* of this Declaration, and shall give rise to a cause of action to recover sums due for damages or injunctive relief, or both, maintainable by the Declarant, the Board on behalf of the Association, the ACC, or by an aggrieved Owner. Without limiting any rights or powers of the Association, the Board may (but shall not be obligated to) remedy or attempt to remedy any violation of any of the provisions of Restrictions, and the Owner whose violation has been so remedied shall be personally liable to the Association for all costs and expenses of effecting (or attempting to effect) such remedy. If such Owner fails to pay such costs and expenses upon demand by the Association, such costs and expenses (plus interest from the date of demand until paid at the maximum lawful rate, or if there is no such maximum lawful rate, at the rate of one and one-half percent (1-1/2%) per month) shall be assessed against and chargeable to the Owner's Lot(s). Any such amounts assessed and chargeable against a Lot shall be secured by the liens reserved in this Declaration for Assessments and may be collected by any means provided in this Declaration for the collection of Assessments, including, but not limited to, foreclosure of such liens against the Owner's Lot(s). **Each such Owner shall indemnify and hold harmless the Association and its officers, directors, employees and agents from any cost, loss, damage, expense, liability, claim or cause of action incurred or that may arise by reason of the Association's acts or activities under this Section 2.25 (including any cost, loss, damage, expense, liability, claim or cause of action arising out of the Association's negligence in connection therewith), except for such cost, loss, damage, expense, liability, claim or cause of action arising by reason of the Association's gross negligence or willful misconduct. "Gross negligence" as used herein does not include simple negligence, contributory negligence or similar negligence short of actual gross negligence.**

2.26 Liability of Owners for Damage to Common Area. No Owner shall in any way alter, modify, add to or otherwise perform any work upon the Common Area without the prior written approval of the Board. Each Owner shall be liable to the Association for any and all damages to: (i) the Common Area and any Improvements constructed thereon; or (ii) any Improvements constructed on any Lot, the maintenance of which has been assumed by the Association, which damages were caused by the neglect, misuse or negligence of such Owner or Owner's family, or by Resident of such Owner's Lot, or any guest or invitee of such Owner or Resident. The full cost of all repairs of such damage shall be an Individual Assessment against such Owner's Lot, secured by a lien against such Owner's Lot and collectable in the same manner as provided in *Section 6.10* of this Declaration.

2.27 No Warranty of Enforceability. Declarant makes no warranty or representation as to the present or future validity or enforceability of the Restrictions. Any Owner acquiring a Lot in reliance on one or more of the Restrictions shall assume all risks of the validity and enforceability thereof and, by acquiring the Lot, agrees to hold Declarant harmless therefrom.

2.28 Party Wall Fences. A fence or wall located on or near the dividing line between two (2) Lots and intended to benefit both Lots constitutes a "Party Wall" and, to the extent not inconsistent with the provisions of this *Section 2.28*, is subject to the general rules of law regarding party walls and liability for property damage due to negligence, willful acts, or omissions.

2.28.1 Encroachments & Easement. If the Party Wall is on one Lot due to an error in construction, the Party Wall is nevertheless deemed to be on the dividing line for purposes of this *Section 2.28*. Each Lot sharing a Party Wall is subject to an easement for the existence and continuance of any encroachment by the Party Wall as a result of construction, repair, shifting, settlement, or movement in any portion of the Party Wall, so that the encroachment may remain undisturbed as long as the Party Wall stands. Each Lot is subject to a reciprocal easement for the maintenance, repair, replacement, or reconstruction of the Party Wall.

2.28.2 Right to Repair. If the Party Wall is damaged or destroyed from any cause, the Owner of either Lot may repair or rebuild the Party Wall to its previous condition, and the Owners of both Lots, their successors and assigns, have the right to the full use of the repaired or rebuilt Party Wall.

2.28.3 Maintenance Costs. The Owners of the adjoining Lots share equally the costs of repair, reconstruction, or replacement of the Party Wall, subject to the right of one Owner to call for larger contribution from the other under any rule of law regarding liability for negligence or willful acts or omissions. If an Owner is responsible for damage to or destruction of the Party Wall, that Owner will bear the entire cost of repair, reconstruction, or replacement. If an Owner fails or refuses to pay his share of costs of repair or replacement of the Party Wall, the Owner advancing monies has a right to file a claim of lien for the monies advanced in the Official Public Records of Tarrant County, Texas, and has the right

to foreclose the lien as if it were a mechanic's lien. The right of an Owner to require contribution from another Owner under this *Section 2.28* is appurtenant to the Lot and passes to the Owner's successors in title.

2.28.4 Alterations. The Owner of a Lot sharing a Party Wall may not cut openings in the Party Wall or alter or change the Party Wall in any manner that affects the use, condition, or appearance of the Party Wall to the adjoining Lot. The Party Wall will always remain in the same location as when erected unless otherwise approved by the Owner of each Lot sharing the Party Wall and the ACC.

2.29 No Tennis or Recreational Courts; Playscapes. No tennis, recreational or sport courts shall be constructed on any Lot unless expressly approved by the ACC. The ACC may prohibit the installation of a tennis, recreational or sport court on any Lot. Playscapes or any similar recreational facilities may not be constructed on any Lot without the advance written approval of the ACC. The ACC may prohibit the installation of playscapes or similar recreational facilities on any Lot.

2.30 Decorations and Lighting. Unless otherwise permitted by *Section 2.18(vi)*, no decorative appurtenances such as sculptures, birdbaths and birdhouses, fountains, or other decorative embellishments shall be placed on the residence or on the front yard or on any other portion of a Lot which is visible from any street, unless such specific items have been approved in writing by the ACC. Customary seasonal decorations for holidays are permitted without approval by the ACC but shall be removed within thirty (30) days of the applicable holiday. Outside lighting fixtures shall be placed so as to illuminate only the yard of the applicable Lot and so as not to affect or reflect into surrounding residences or yards. No mercury vapor, sodium or halogen light shall be installed on any Lot which is visible from any street unless otherwise approved by the ACC.

2.31 Clotheslines; Window Air Conditioners. No clotheslines and no outdoor clothes drying or hanging shall be permitted within the Property, nor shall anything be hung, painted or displayed on the outside of the windows (or inside, if visible from the outside) or placed on the outside walls or outside surfaces of doors of any of the residence, and no awnings, canopies or shutters (except for those heretofore or hereinafter installed by Declarant or a Homebuilder) shall be affixed or placed upon the exterior walls or roofs of residences, or any part thereof, nor relocated or extended, without the prior written consent of the ACC. Window air conditioners are prohibited.

2.32 Dumping. No portion of the Property shall be used or maintained as a dumping ground for rubbish, trash, new or used lumber or wood, metal scrap, garbage or other waste, except that such material may be kept in areas of the Property designated for this purpose by Declarant (in connection with its construction) or by the Board, provided that these materials are kept in sanitary containers in a clean and sanitary condition. Owners shall place these containers for collection only in the designated areas and only on the day these refuse materials are to be collected. Empty containers shall be removed promptly after collection.

-20-

THE KNOLLS AT SOLANA
DECLARATION OF COVENANTS, CONDITIONS AND RESTRICTIONS

2.33 Restriction on Use of Common Area. The Board may prohibit or restrict the use of the Common Area from time to time, on a non-discriminatory basis, if and to the extent required for safety or other valid reasons.

2.34 Water Quality Facilities, Drainage Facilities and Drainage Ponds. The Property may include, now or in the future, one or more water quality facilities, sedimentation, drainage and detention facilities, or ponds which serve all or a portion of the Property and are inspected, maintained and administered by the Association in accordance with Applicable Law. Access to these facilities and ponds is limited to persons engaged by the Association to periodically maintain such facilities. Each Owner is advised that the water quality facilities, sedimentation, drainage and detention facilities and ponds are an active utility feature integral to the proper operation of the Property and may periodically hold standing water. Each Owner is advised that entry into the water quality facilities, sedimentation, drainage and detention facilities or ponds may result in injury and is a violation of the Rules and Regulations.

2.35 Homebuilder Exemption. The provisions of this Article are intended to restrict certain uses that may be harmful or affect the ambience or aesthetic appeal of the Property; the restrictions are not intended to prohibit the Declarant or Homebuilders from performing such work as may be necessary in the completion of the Property, or any portion thereof. The restrictions in this Article shall not be binding on Declarant or Homebuilders in the performance of any work required in order to complete construction of the Property, or any portion thereof.

ARTICLE 3 CONSTRUCTION RESTRICTIONS

3.1 Approval for Construction. Unless prosecuted by the Declarant, no Improvements shall be constructed upon any Lot without the prior written approval of the ACC in accordance with Article 7 of this Declaration.

3.2 Masonry Requirements. The masonry requirements for each residence constructed on a Lot are set forth in the Design Guidelines.

3.3 Minimum Square Footage. The minimum square footage requirements for each residence constructed on a Lot are set forth in the Design Guidelines.

3.4 Garages. Each residence constructed upon a Lot shall have a private garage for not less than two (2) automobiles; provided, however, that pursuant to applicable zoning requirements, certain residences constructed upon a Lot shall be required to have a private garage for not less than three (3) automobiles. The location, orientation and opening of each garage to be located on a Lot shall be approved in advance of construction by the ACC. All garages shall be maintained for the parking of automobiles, may not be used for storage or other purposes which preclude its use for the parking of automobiles, and no garage may be permanently enclosed or otherwise used for habitation.

3.5 Fences; Sidewalks. All fences, courtyard fencing, parking screening and walls shall comply with all Applicable Law. Fences constructed on corner lots may be installed one (1) foot from the sidewalk and/or the property line of the Lot, provided that such fencing complies with Applicable Law. The fencing requirements for each residence constructed on a Lot are set forth in the Design Guidelines. If required by the Plat, the Owner of each Lot shall construct, at such Owner's sole cost and expense and prior to occupying any Improvement, a sidewalk on such Owner's Lot, located and designed in conformance with the Plat.

3.6 Building Restrictions. All building materials must be approved in advance by the ACC, and only new building materials shall be used for constructing any Improvements. Detailed building restrictions for each residence constructed on a Lot are set forth in the Design Guidelines. No highly reflective finishes (other than glass, which may not be mirrored) shall be used on exterior surfaces (other than surfaces of hardware fixtures), including, without limitation, the exterior surfaces of any Improvements.

3.7 Alteration or Removal of Improvements. Any construction, other than normal maintenance, which in any way alters the exterior appearance of any Improvement, or the removal of any Improvement shall be performed only with the prior written approval of the ACC.

3.8 Drainage. There shall be no interference with the established drainage patterns over any of the Property, including the Lots, except by Declarant, unless adequate provision is made for proper drainage and such provision is approved in advance by the ACC. Specifically, and not by way of limitation, no Improvement, including landscaping, may be installed which alters the natural drainage patterns, unless such drainage is redirected to a street or Common Area upon the written approval of the ACC.

3.9 Construction Activities. The Restrictions will not be construed or applied so as to unreasonably interfere with or prevent normal construction activities during the construction of Improvements by an Owner (including Declarant or a Homebuilder) upon or within the Property. Specifically, no such construction activities will be deemed to constitute a nuisance or a violation of the Restrictions by reason of noise, dust, presence of vehicles or construction machinery, posting of signs or similar activities, provided that such construction is pursued to completion with reasonable diligence and conforms to usual construction practices in the area. In the event that construction upon any Lot does not conform to usual practices in the area as determined by the ACC in its sole and reasonable judgment, the ACC will have the authority to seek an injunction to stop such construction. In addition, if during the course of construction upon any Lot there is excessive accumulation of debris of any kind which would render the Lot or any portion thereof unsanitary, unsightly, offensive, or detrimental to it or any other portion of the Property, then the ACC may contract for or cause such debris to be removed, and the Owner of the Lot will be liable for all reasonable expenses incurred in connection therewith.

3.10 Roofing. The roofing requirements for each residence constructed on a Lot are set forth in the Design Guidelines.

-22-

THE KNOLLS AT SOLANA
DECLARATION OF COVENANTS, CONDITIONS AND RESTRICTIONS

4825-0959-4994v.10 59948-2

3.11 Swimming Pools. Any swimming pool constructed on a Lot must be enclosed with a fence or other enclosure device completely surrounding the swimming pool which, at a minimum, satisfies all Applicable Law. Nothing in this *Section 3.11* is intended or shall be construed to limit or affect an Owner's obligation to comply with any Applicable Law concerning swimming pool enclosure requirements. Above-ground or temporary swimming pools are prohibited.

3.12 Solar Energy Device. Solar Energy Devices may be installed with the advance written approval of the ACC in accordance with the procedures set forth in the Design Guidelines.

3.13 Rainwater Harvesting Systems. Rain barrels or rainwater harvesting systems (a "Rainwater Harvesting System") may be installed with the advance written approval of the ACC.

3.13.1 Application. To obtain ACC approval of a Rainwater Harvesting System, the Owner shall provide the ACC with the following information: (a) the proposed installation location of the Rainwater Harvesting System; and (b) a description of the Rainwater Harvesting System, including the color, dimensions, manufacturer, and photograph or other accurate depiction (the "**Rain System Application**"). A Rain System Application may only be submitted by an Owner unless the Owner's tenant provides written confirmation at the time of submission that the Owner consents to the Rain System Application.

3.13.2 Approval Process. The decision of the ACC will be made in accordance with *Article 7* of this Declaration. Any proposal to install a Rainwater Harvesting System on property owned by the Association or property owned in common by Members of the Association must be approved in advance and in writing by the Board, and the Board need not adhere to this *Section 3.13* when considering any such request.

3.13.3 Approval Conditions. Unless otherwise approved in advance and in writing by the ACC, each Rain System Application and each Rainwater Harvesting System to be installed in accordance therewith must comply with the following:

- (i) The Rainwater Harvesting System must be consistent with the color scheme of the residence constructed on the Owner's Lot, as reasonably determined by the ACC.
- (ii) The Rainwater Harvesting System does not include any language or other content that is not typically displayed on such a device.
- (iii) The Rainwater Harvesting System is in no event located between the front of the residence constructed on the Owner's Lot and any adjoining or adjacent street.

- (iv) There is sufficient area on the Owner's Lot to install the Rainwater Harvesting System, as reasonably determined by the ACC.

See Section 3.13.4 for additional guidance.

3.13.4 Guidelines. If the Rainwater Harvesting System will be installed on or within the side yard of a Lot, or would otherwise be visible from a street, the Common Area, or another Owner's Lot, the ACC may regulate the size, type, shielding of, and materials used in the construction of the Rainwater Harvesting System. Accordingly, when submitting a Rain System Application, the application should describe methods proposed by the Owner to shield the Rainwater Harvesting System from the view of any street, Common Area, or another Owner's Lot. When reviewing a Rain System Application for a Rainwater Harvesting System that will be installed on or within the side yard of a Lot, or would otherwise be visible from a street, the Common Area, or another Owner's Lot, any additional requirements imposed by the ACC to regulate the size, type, shielding of, and materials used in the construction of the Rainwater Harvesting System, may not prohibit the economic installation of the Rainwater Harvesting System, as reasonably determined by the ACC.

3.14 Xeriscaping. As part of the installation and maintenance of landscaping on an Owner's Lot, an Owner may submit plans for and install drought tolerant landscaping ("Xeriscaping") upon written approval by the ACC. All Owners implementing Xeriscaping shall comply with the following:

3.14.1 Application. Approval by the ACC is required prior to installing Xeriscaping. To obtain the approval of the ACC for Xeriscaping, the Owner shall provide the ACC with the following information: (i) the proposed site location of the Xeriscaping on the Owner's Lot; (ii) a description of the Xeriscaping, including the types of plants, border materials, hardscape materials and photograph or other accurate depiction and (iii) the percentage of yard to be covered with gravel, rocks and cacti (the "**Xeriscaping Application**"). A Xeriscaping Application may only be submitted by an Owner unless the Owner's tenant provides written confirmation at the time of submission that the Owner consents to the Xeriscaping Application. The ACC is not responsible for: (i) errors or omissions in the Xeriscaping Application submitted to the ACC for approval; (ii) supervising installation or construction to confirm compliance with an approved Xeriscaping Application or (iii) the compliance of an approved application with Applicable Law.

3.14.2 Approval Conditions. Unless otherwise approved in advance and in writing by the ACC, each Xeriscaping Application and all Xeriscaping to be installed in accordance therewith must comply with the following:

- (i) The Xeriscaping must be aesthetically compatible with other landscaping in the community as reasonably determined by the ACC. For purposes of this Section 3.14, "aesthetically compatible" shall mean overall and long-term aesthetic compatibility within the community. For example, an

Owner's Lot plan may be denied if the ACC determines that: a) the proposed Xeriscaping would not be harmonious with already established turf and landscaping in the overall community; and/or b) the use of specific turf or plant materials would result in damage to or cause deterioration of the turf or landscaping of an adjacent property owner, resulting in a reduction of aesthetic appeal of the adjacent property Owner's Lot.

- (ii) No Owners shall install gravel, rocks or cacti that in the aggregate encompass over ten percent (10%) of such Owner's front yard or ten percent (10%) of such Owner's back yard.
- (iii) The Xeriscaping must not attract diseases and insects that are harmful to the existing landscaping on neighboring Lots, as reasonably determined by the ACC.

3.14.3 Process. The decision of the ACC will be made within a reasonable time, or within the time period otherwise required by the principal deed restrictions which govern the review and approval of improvements. A Xeriscaping Application submitted to install Xeriscaping on property owned by the Association or property owned in common by members of the Association will not be approved. Any proposal to install Xeriscaping on property owned by the Association or property owned in common by members of the Association must be approved in advance and in writing by the Board, and the Board need not adhere to the requirements set forth in this *Section 3.14* when considering any such request.

3.14.4 Approval. Each Owner is advised that if the Xeriscaping Application is approved by the ACC, installation of the Xeriscaping must: (i) strictly comply with the Xeriscaping Application; (ii) commence within thirty (30) days of approval; and (iii) be diligently prosecuted to completion. If the Owner fails to cause the Xeriscaping to be installed in accordance with the approved Xeriscaping Application, the ACC may require the Owner to: (i) modify the Xeriscaping Application to accurately reflect the Xeriscaping installed on the Property; or (ii) remove the Xeriscaping and reinstall the Xeriscaping in accordance with the approved Xeriscaping Application. Failure to install Xeriscaping in accordance with the approved Xeriscaping Application or an Owner's failure to comply with the post-approval requirements constitutes a violation of this Declaration and may subject the Owner to fines and penalties. Any requirement imposed by the ACC to resubmit a Xeriscaping Application or remove and relocate Xeriscaping in accordance with the approved Xeriscaping Application shall be at the Owner's sole cost and expense

3.15 Permitted Grasses and Plants. Notwithstanding anything contained herein to the contrary, the native grasses and plants permitted to be placed within the Property are set forth in the Design Guidelines.

ARTICLE 4
THE KNOLLS AT SOLANA RESIDENTIAL COMMUNITY, INC.

4.1 Organization. The Association will be a nonprofit corporation created for the purposes, charged with the duties, and vested with the powers of a Texas non-profit corporation. Neither the Certificate nor Bylaws will for any reason be amended or otherwise changed or interpreted so as to be inconsistent with this Declaration.

4.2 Membership.

4.2.1 Mandatory Membership. Any person or entity, upon becoming an Owner, will automatically become a Member of the Association. Membership will be appurtenant to and will run with the ownership of the Lot that qualifies the Owner thereof for membership, and membership may not be severed from the ownership of the Lot, or in any way transferred, pledged, mortgaged or alienated, except together with the title to such Lot.

If you acquire a Lot you automatically become a member of the Association. <u>Membership is Mandatory!</u>

4.2.2 Easement of Enjoyment – Common Area. Every Member will have a right and easement of enjoyment in and to all of the Common Area and an access easement by and through any Common Area, which easements will be appurtenant to and will pass with the title to such Member's Lot, subject to the following restrictions and reservations:

- (i) The right of the Declarant, or the Declarant's designee, to cause such Improvements and features to be constructed upon the Common Area, as determined from time to time by the Declarant, in the Declarant's sole and absolute discretion;
- (ii) The right of the Association to suspend the Member's right to use the Common Area for any period during which any Assessment against such Member's Lot remains past due and for any period during which such member is in violation of any provision of this Declaration;
- (iii) The right of the Declarant, during the Development Period, and the Board thereafter, to dedicate or transfer all or any part of the Common Area to any public agency, authority or utility for any purpose;
- (iv) With the advance written approval of the Declarant during the Development Period, the right of the Board to grant easements or licenses over and across the Common Area;
- (v) With the advance written approval of the Declarant during the Development Period, the right of the Board to borrow money for the

purpose of improving the Common Area and, in furtherance thereof, mortgage the Common Area;

- (vi) The right of the Declarant, during the Development Period, and the Board, with the advance written approval of the Declarant during the Development Period, to promulgate Rules and Regulations regarding the use of the Common Area and any Improvements thereon; and
- (vii) The right of the Association to contract for services with any third parties on such terms as the Board may determine, except that during the Development Period, all such contracts must be approved in advance and in writing by the Declarant.

4.3 Governance. As more specifically described in the Bylaws, the Board will consist of at least three (3) persons elected at the annual meeting of the Association, or at a special meeting called for such purpose. **Notwithstanding the foregoing provision or any provision in this Declaration to the contrary, Declarant will have the sole right to appoint and remove all members of the Board until the 10th anniversary of the date this Declaration is Recorded. Not later than the 10th anniversary of the date this Declaration is Recorded, or sooner as determined by Declarant, the Board shall hold a meeting of Members of the Association for the purpose of electing one-third of the Board (the "Initial Member Election Meeting"), which Board member(s) must be elected by Owners other than the Declarant. Declarant shall continue to have the sole right to appoint and remove two-thirds of the Board from and after the Initial Member Election Meeting until expiration or termination of the Development Period.**

4.4 Voting Rights. The right to cast votes and the number of votes which may be cast for election of members to the Board (except as provided by *Section 4.3*) and on all other matters to be voted on by the Members will be calculated as set forth below.

4.4.1 Owner Votes. The Owner of each Lot will have one (1) vote for each Lot so owned.

4.4.2 Declarant Votes. In addition to the votes to which Declarant is entitled by reason of *Section 4.4.1*, for every one (1) vote outstanding in favor of any other person or entity, Declarant will have four (4) additional votes until the expiration or termination of the Development Period.

4.4.3 Co-Owner Votes. When more than one person or entity owns a portion of the fee simple interest in any Lot, all such persons or entities will be Members. The vote or votes (or fraction thereof) for such Lot will be exercised by the person so designated in writing to the Secretary of the Association by the Owner of such Lot, and in no event will the vote for such Lot exceed the total votes to which such Lot is otherwise entitled under this *Section 4.4*.

4.5 Powers. The Association will have the powers of a Texas nonprofit corporation. It will further have the power to do and perform any and all acts that may be necessary or proper, for or incidental to, the exercise of any of the express powers granted to it by Applicable Law or this Declaration. Without in any way limiting the generality of the two preceding sentences, the Board, acting on behalf of the Association, will have the following powers at all times:

4.5.1 Rules and Regulations, Bylaws and Community Manual. To make, establish and promulgate, and in its discretion to amend from time to time, or repeal and re-enact, such rules, regulations, policies, Bylaws and Community Manual, as applicable, which are not in conflict with this Declaration, as it deems proper, covering any and all aspects of the Property, the Common Area (including the operation, maintenance and preservation thereof) or the Association. Any Rules and Regulations, policies, the Bylaws and the Community Manual and any modifications thereto proposed by the Board must be approved in advance and in writing by the Declarant until expiration or termination of the Development Period.

4.5.2 Insurance. To obtain and maintain in effect, policies of insurance that, in the opinion of the Board, are reasonably necessary or appropriate to carry out the Association's functions.

4.5.3 Records. To keep books and records of the Association's affairs, and to make such books and records, together with current copies of the Restrictions available for inspection by the Owners, Mortgagees, and insurers or guarantors of any Mortgage upon request during normal business hours.

4.5.4 Assessments. To levy and collect assessments, as provided in *Article 6* below.

4.5.5 Right of Entry and Enforcement. To enter at any time without notice in an emergency (or in the case of a non-emergency, after twenty-four (24) hours written notice), without being liable to any Owner or Resident, upon any Lot and into any Improvement thereon for the purpose of enforcing the Restrictions or for the purpose of maintaining or repairing any area, Improvement or other facility to conform to the Restrictions. The expense incurred by the Association in connection with the entry upon any Lot and the maintenance and repair work conducted thereon or therein will be a personal obligation of the Owner of the Lot so entered, will be deemed an Individual Assessment against such Lot, will be secured by a lien upon such Lot, and will be enforced in the same manner and to the same extent as provided in *Article 6* hereof for Assessments. The Association will have the power and authority from time to time, in its own name and on its own behalf, or in the name of and on behalf of any Owner who consents thereto, to commence and maintain actions and suits to enforce, by mandatory injunction or otherwise, or to restrain and enjoin, any breach or threatened breach of the Restrictions. The Association is also authorized to settle claims, enforce liens and take all such action as it may deem necessary or expedient to enforce the Restrictions; provided, however, that the Board will never be authorized to expend any Association funds for the purpose of

bringing suit against Declarant, or its successors or assigns. The Association may not alter or demolish any Improvements on any Lot other than Common Area in enforcing these Restrictions before a judicial order authorizing such action has been obtained by the Association, or before the written consent of the Owner(s) of the affected Lot(s) has been obtained. **EACH SUCH OWNER AND RESIDENT WILL INDEMNIFY AND HOLD HARMLESS THE ASSOCIATION, ITS OFFICERS, DIRECTORS, EMPLOYEES AND AGENTS FROM ANY COST, LOSS, DAMAGE, EXPENSE, LIABILITY, CLAIM OR CAUSE OF ACTION INCURRED OR THAT MAY ARISE BY REASON OF THE ASSOCIATION'S ACTS OR ACTIVITIES UNDER THIS SECTION 4.5.5 (INCLUDING ANY COST, EXPENSE, LIABILITY, CLAIM OR CAUSE OF ACTION ARISING OUT OF THE ASSOCIATION'S NEGLIGENCE IN CONNECTION THEREWITH), EXCEPT FOR SUCH COST, LOSS, DAMAGE, EXPENSE, LIABILITY, CLAIM OR CAUSE OF ACTION ARISING BY REASON OF THE ASSOCIATION'S GROSS NEGLIGENCE OR WILLFUL MISCONDUCT. "GROSS NEGLIGENCE" DOES NOT INCLUDE SIMPLE NEGLIGENCE, CONTRIBUTORY NEGLIGENCE OR SIMILAR NEGLIGENCE SHORT OF ACTUAL GROSS NEGLIGENCE.**

4.5.6 Legal and Accounting Services. To retain and pay for legal and accounting services necessary or proper in the operation of the Association.

4.5.7 Conveyances. To grant and convey to any person or entity the real property and/or other interest, including fee title, leasehold estates, easements, rights-of-way or mortgages, out of, in, on, over, or under any Common Area for the purpose of constructing, erecting, operating or maintaining the following:

- (i) Parks, parkways or other recreational facilities or structures;
- (ii) Roads, streets, sidewalks, signs, street lights, walks, driveways, trails and paths;
- (iii) Lines, cables, wires, conduits, pipelines or other devices for utility purposes;
- (iv) Sewers, water systems, storm water drainage systems, sprinkler systems and pipelines; and/or
- (v) Any similar Improvements or facilities.

Nothing set forth above, however, will be construed to permit use or occupancy of any Improvement or other facility in a way that would violate applicable use and occupancy restrictions imposed by the Restrictions or by Applicable Law. In addition, until expiration or termination of the Development Period, any grant or conveyance under this *Section 4.5.7* must be approved in advance and in writing by the Declarant. In addition, the Association is (with the advance written approval of the Declarant during the Development Period) and the Declarant are expressly authorized and permitted to convey easements over and across

Common Area for the benefit of property not otherwise subject to the terms and provisions of this Declaration.

4.5.8 Manager. To retain and pay for the services of a person or firm (the “**Manager**”), which may include Declarant or any affiliate of Declarant, to manage and operate the Association, including its property, to the extent deemed advisable by the Board. Personnel may be employed directly by the Association or may be furnished by the Manager. To the extent permitted by Applicable Law, the Board may delegate any other duties, powers and functions to the Manager. In addition, the Board may adopt transfer fees, resale certificate fees or any other fees associated with the provision of management services to the Association or its Members. **THE MEMBERS HEREBY RELEASE THE ASSOCIATION AND THE MEMBERS OF THE BOARD AND COMMITTEE MEMBERS FROM LIABILITY FOR ANY OMISSION OR IMPROPER EXERCISE BY THE MANAGER OF ANY SUCH DUTY, POWER OR FUNCTION SO DELEGATED.**

4.5.9 Property Services. To pay for water, sewer, garbage removal, street lights, landscaping, gardening and all other utilities, services, repair and maintenance for any portion of the Property, Common Area, private or public recreational facilities, easements, roads, roadways, rights-of-ways, signs, parks, parkways, median strips, sidewalks, paths, trails, ponds, and lakes.

4.5.10 Other Services and Properties. To obtain and pay for any other property and services, and to pay any other taxes or assessments that the Association or the Board is required or permitted to secure or to pay for pursuant to Applicable Law or under the terms of the Restrictions or as determined by the Board.

4.5.11 Construction on Common Area. To construct new Improvements or additions to any property owned, leased, or licensed by the Association, subject to the approval of the Board and the Declarant until expiration or termination of the Development Period.

4.5.12 Contracts. To enter into Bulk Rate Contracts or other contracts or licenses with Declarant or any third party on such terms and provisions as the Board will determine, to operate and maintain any Common Area or other property, or to provide any service, including but not limited to cable, utility, or telecommunication services, or perform any function on behalf of Declarant, the Board, the Association, or the Members. During the Development Period, all Bulk Rate Contracts must be approved in advance and in writing by the Declarant.

4.5.13 Property Ownership. To acquire, own and dispose of all manner of real and personal property, including habitat, whether by grant, lease, easement, gift or otherwise. During the Development Period, all acquisitions and dispositions of the Association hereunder must be approved in advance and in writing by the Declarant.

4.5.14 Allocation of Votes. To determine votes when permitted pursuant to *Section 4.4* above.

4.5.15 Authority with Respect to the Restrictions. To do any act, thing or deed that is necessary or desirable, in the judgment of the Board, to implement, administer or enforce any of the Restrictions. Any decision by the Board to delay or defer the exercise of the power and authority granted by this *Section 4.5.15* will not subsequently in any way limit, impair or affect ability of the Board to exercise such power and authority.

4.5.16 Membership Privileges. To establish Rules and Regulations governing and limiting the use of the Common Area and any Improvements thereon.

4.6 Conveyance of Common Area to the Association. The Association may acquire, hold, and dispose of any interest in tangible and intangible personal property and real property. Declarant, and its assignees, reserves the right, from time to time and at any time, to designate, convey, assign or transfer by written and Recorded instrument property being held by the Declarant for the benefit of the Association. Upon the Recording of a designation, the portion of the property identified therein will be considered Common Area for the purpose of this Declaration and the Association shall have an easement over and across the Common Area necessary or required to discharge the Association's obligations under this Declaration, subject to any terms and limitations to such easement set forth in the designation. Declarant and its assignees may also assign, transfer or convey to the Association interests in real or personal property within or for the benefit of the Property, for the Property and the general public, or otherwise, as determined in the sole and absolute discretion of the Declarant. All or any real or personal property assigned, transferred and/or conveyed by the Declarant to the Association shall be deemed accepted by the Association upon Recordation, and without further action by the Association, and shall be considered Common Area without regard to whether such real or personal property is designated by the Declarant as Common Area. If requested by the Declarant, the Association will execute a written instrument, in a form requested by the Declarant, evidencing acceptance of such real or personal property; provided, however, execution of a written consent by the Association shall in no event be a precondition to acceptance by the Association. The assignment, transfer, and/or conveyance of real or personal property to the Association may be by deed without warranty, may reserve easements in favor of the Declarant or a third party designated by Declarant over and across such property, and may include such other provisions, including restrictions on use, determined by the Declarant, in the Declarant's sole and absolute discretion. Property assigned, transferred, and/or conveyed to the Association may be improved or unimproved and may consist of fee simple title, easements, leases, licenses, or other real or personal property interests. Upon Declarant's written request, the Association will re-convey to Declarant any unimproved real property that Declarant originally conveyed to the Association for no payment.

4.7 Indemnification. To the fullest extent permitted by Applicable Law but without duplication (and subject to) any rights or benefits arising under the Certificate or Bylaws of the

Association, the Association will indemnify any person who was, or is, a party, or is threatened to be made a party to any threatened pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative by reason of the fact that he is, or was, a director, officer, committee member, employee, servant or agent of the Association against expenses, including attorneys' fees, reasonably incurred by him in connection with such action, suit or proceeding if it is found and determined by the Board or a court of competent jurisdiction that he or she: (i) acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, the best interests of the Association; or (ii) with respect to any criminal action or proceeding, had no reasonable cause to believe his or her conduct was unlawful. The termination of any action, suit or proceeding by settlement, or upon a plea of *nolo contendere* or its equivalent, will not of itself create a presumption that the person did not act in good faith or in a manner which was reasonably believed to be in, or not opposed to, the best interests of the Association or, with respect to any criminal action or proceeding, had reasonable cause to believe that his or her conduct was unlawful.

4.8 Insurance. The Board may purchase and cause to be maintained, at the expense of the Association, insurance on behalf of any person who is acting as a director, officer, committee member, employee, servant or agent of the Association against any liability asserted against or incurred by such person in any such capacity, or arising out of such person's status as such, whether or not the Association would have the power to indemnify such person against such liability or otherwise.

4.9 Bulk Rate Contracts. Without limitation on the generality of the Association powers set out in *Section 4.5* hereinabove (except that during the Development Period, all Bulk Rate Contracts must be approved in advance and in writing by the Declarant), the Association will have the power to enter into Bulk Rate Contracts at any time and from time to time. The Association may enter into Bulk Rate Contracts with any service providers chosen by the Board (including Declarant, and/or any entities in which Declarant, or the owners or partners of Declarant are owners or participants, directly or indirectly). The Bulk Rate Contracts may be entered into on such terms and provisions as the Board may determine in its sole and absolute discretion. The Association may, at its option and election, add the charges payable by such Owner under such Bulk Rate Contract to the Assessments against such Owner's Lot. In this regard, it is agreed and understood that, if any Owner fails to pay any charges due by such Owner under the terms of any Bulk Rate Contract, then the Association will be entitled to collect such charges by exercising the same rights and remedies it would be entitled to exercise under this Declaration with respect to the failure by such Owner to pay Assessments, including without limitation the right to foreclose the lien against such Owner's Lot which is reserved under the terms and provisions of this Declaration. In addition, in the event of nonpayment by any Owner of any charges due under any Bulk Rate Contract and after the lapse of at least twelve (12) days since such charges were due, the Association may, upon five (5) days' prior written notice to such Owner (which may run concurrently with such 12 day period), in addition to all other rights and remedies available pursuant to Applicable Law, terminate, in such manner as the Board deems appropriate, any utility service or other service provided at

the cost of the Association and not paid for by such Owner (or the Resident of such Owner's Lot) directly to the applicable service or utility provider. Such notice will consist of a separate mailing or hand delivery at least five (5) days prior to a stated date of termination, with the title "termination notice" or similar language prominently displayed on the notice. The notice will include the office or street address where the Owner (or the Resident of such Owner's Lot) can make arrangements for payment of the bill and for re-connection or re-institution of service. No utility or cable television service will be disconnected on a day, or immediately preceding a day, when personnel are not available for the purpose of collection and reconnecting such services.

4.10 Community Systems. The Association is specifically authorized to provide, or to enter into contracts to provide Community Systems. Any such contracts may provide for installation, operation, management, maintenance, and upgrades or modifications to the Community Systems as the Board determines appropriate. Each Owner acknowledges that interruptions in Community Systems and services will occur from time to time. Declarant and the Association, or any of their respective successors or assigns shall not be liable for, and no Community System or service user shall be entitled to refund, rebate, discount, or offset in applicable fees for, any interruption in Community Systems and services, regardless of whether or not such interruption is caused by reasons within the service provider's control.

4.11 Declarant's Right to Contribute to Revenues of the Association. Declarant shall have the right, but not the obligation, in its sole discretion and from time to time, to contribute to the revenues of the Association. At the option of Declarant, such contribution may be reflected on the books and records of the Association as a loan, in which event it shall be repaid by the Association to Declarant, at the discretion of Declarant. If treated as a loan, the contribution shall accrue interest, compounded monthly, from the date it is made until the date of its repayment, at the short term Applicable Federal Rate ("AFR"), as published by the Internal Revenue Service, and adjusted each month to reflect the AFR for such month.

4.12 Protection of Declarant's Interests. Despite any assumption of control of the Board by Owners other than Declarant, until the expiration or termination of the Development Period, the Board is prohibited from taking any action which would discriminate against Declarant, or which would be detrimental to the sale of Lots owned by Declarant. Declarant shall be entitled to determine, in its sole and absolute discretion, whether any such action discriminates or is detrimental to Declarant. The Board will be required to continue the same level and quality of maintenance, operations and services as that provided immediately prior to assumption of control of the Board by Owners other than Declarant until the expiration or termination of the Development Period.

4.13 Administration of Common Area. The administration of the Common Area by the Association shall be in accordance with the provisions of Applicable Law and the Restrictions, and of any other agreements, documents, amendments or supplements to the foregoing which may be duly adopted or subsequently required by any institutional or governmental lender, purchaser, insurer or guarantor of mortgage loans (including, for

example, the Federal Home Loan Mortgage Corporation) designated by Declarant or by any governmental or quasi-governmental agency having regulatory jurisdiction over the Common Area or by any title insurance company selected by Declarant to insure title to any portion of the Common Area.

4.14 Private Streets. The Association shall be obligated to maintain the Private Streets in a good and functioning condition and in compliance with Applicable Law. The Private Streets shall provide perpetual access to all Lots for police and other emergency vehicles, public and private utility maintenance and service personnel, solid waste collection services, the U.S. Postal Service, and government employees in pursuit of their official duties. Access to the Private Streets for the persons and entities referenced in the preceding sentence shall be reasonably provided by the Association.

4.15 Notices and Disclaimers as to Security Systems. NEITHER THE DECLARANT, A HOMEBUILDER, NOR THE ASSOCIATION, OR THEIR SUCCESSORS OR ASSIGNS GUARANTEE OR WARRANT, EXPRESSLY OR IMPLIEDLY, THE MERCHANTABILITY OR FITNESS FOR USE OF ANY SUCH SECURITY SYSTEM OR SERVICES, OR THAT ANY SYSTEM OR SERVICES WILL PREVENT INTRUSIONS NOTIFY AUTHORITIES OF FIRES OR OTHER OCCURRENCES, OR THE CONSEQUENCES OF SUCH OCCURRENCES, REGARDLESS OF WHETHER OR NOT THE SYSTEM OR SERVICES ARE DESIGNED TO MONITOR SAME; AND EVERY OWNER OR OCCUPANT OF PROPERTY RECEIVING SECURITY SERVICES THROUGH THE COMMUNITY SYSTEMS ACKNOWLEDGES THAT NEITHER THE DECLARANT, A HOMEBUILDER, NOR THE ASSOCIATION, OR ANY OR THEIR SUCCESSORS OR ASSIGNS ARE INSURERS OF THE OWNER OR OCCUPANT'S PROPERTY OR OF THE PROPERTY OF OTHERS LOCATED ON THE LOT AND WILL NOT BE RESPONSIBLE OR LIABLE FOR LOSSES, INJURIES OR DEATHS RESULTING FROM SUCH OCCURRENCES. It is extremely difficult and impractical to determine the actual damages, if any, which may proximately result from a failure on the part of a security service provider to perform any of its obligations with respect to security services and, therefore, every Owner or occupant of property receiving security services through the Community Systems agrees that neither the Declarant, a Homebuilder, nor the Association, or their successors or assigns assumes liability for loss or damage to property or for personal injury or death to persons due to any reason, including, without limitation, failure in transmission of an alarm, interruption of security service or failure to respond to an alarm because of: (a) any failure of the Owner's security system; (b) any defective or damaged equipment, device, line or circuit; (c) negligence, active or otherwise, of the security service provider or its officers, agents or employees; or (d) fire, flood, riot, war, act of God or other similar causes which are beyond the control of the security service provider. Every Owner and Resident obtaining security services through the Community Systems further agrees for himself, his grantees, tenants, guests, invitees, licensees and family members that if any loss or damage should result from a failure of performance or operation, or from defective performance or operation, or from improper installation, monitoring or servicing of the system, or from negligence, active or otherwise, of the security service provider or its officers, agents, or employees, the liability, if any, of the

Declarant, a Homebuilder, the Association, or their successors or assigns for loss, damage, injury or death shall be limited to a sum not exceeding Two Hundred Fifty U.S. Dollars (\$250.00), which limitation apply irrespective of the cause or origin of the loss or damage and notwithstanding that the loss or damage results directly or indirectly from negligent performance, active or otherwise, or non-performance by an officer, agent or employee of Declarant, a Homebuilder, or the Association, or their successors or assigns. Further, in no event will Declarant, a Homebuilder, the Association, or their successors or assigns be liable for consequential damages, wrongful death, personal injury or commercial loss.

4.16 Merger. Merger or consolidation of the Association with another association must be evidenced by an amendment to this Declaration. The amendment must be approved by at least two-thirds of the votes of Members present in person or by proxy at the meeting at which the action to merge or consolidate with another association is submitted for a vote. On merger or consolidation of the Association with another association, the property, rights, and obligations of another association may, by operation of law, be added to the properties, rights, and obligations of the Association as a surviving corporation pursuant to the merger. The surviving or consolidated association may administer the provisions of the Restrictions within the Property, together with the covenants and restrictions established on any other property under its jurisdiction. No merger or consolidation, however, will effect a revocation, change, or addition to the covenants established by this Declaration within the Property.

4.17 Right of Action by Association. The Association shall not have the power to institute, defend, intervene in, settle or compromise litigation or administrative proceedings: (i) in the name of or on behalf of any Lot Owner (whether one or more); or (ii) pertaining to a Claim, as defined in *Section 12.1* below, relating to the design or construction of Improvements on a Lot. This *Section 4.17* may not be amended or modified without Declarant's written and acknowledged consent and Members entitled to cast at least one hundred percent (100%) of the total number of votes of the Association, which must be part of the Recorded amendment instrument.

ARTICLE 5 INSURANCE

5.1 Insurance. Each Owner will be required to purchase and maintain commercially standard insurance on the Improvements located upon such Owner's Lot. The Association will not be required to maintain insurance on the Improvements constructed upon any Lot. The Association may, however, obtain such insurance as it may deem necessary, including but not limited to such policies of liability and property damage insurance as the Board, in its discretion, may deem necessary. Insurance premiums for such policies will be a common expense to be included in the Assessments levied by the Association. The acquisition of insurance by the Association will be without prejudice to the right and obligation of any Owner to obtain additional individual insurance. During the Development Period, Declarant reserves

the right to satisfy the insurance obligations of the Association with a master insurance program controlled by Declarant.

ARE YOU COVERED?

The Association will not provide insurance which covers an Owner's Lot or any Improvements or personal property located on a Lot.

5.2 Restoration. In the event of any fire or other casualty, unless otherwise approved by the ACC, the Owner (i) promptly repair, restore and replace any damaged or destroyed structures to their same exterior condition existing prior to the damage or destruction thereof, or (ii) in the case of substantial or total damage or destruction of any Improvement, remove all such damaged Improvements and debris from the Property within thirty (30) days after the occurrence of such damage. Such repair, restoration or replacement will be commenced and completed in a good and workmanlike manner and diligently pursued to completion using exterior materials identical to those originally used in the structures damaged or destroyed. To the extent that the Owner fails to commence such repair, restoration or replacement of substantial or total damage or destruction within one hundred and twenty (120) days after the occurrence of such damage or destruction, and thereafter prosecute same to completion, or if the Owner does not clean up any debris resulting from any damage within thirty (30) days after the occurrence of such damage, the Association may commence, complete or effect such repair, restoration, replacement or clean-up, and such Owner will be personally liable to the Association for the cost of such work; provided, however, that if the Owner is prohibited or delayed by Applicable Law from commencing such repair, restoration, replacement or clean-up, the rights of the Association under this provision will not arise until the expiration of thirty (30) days after such prohibition or delay is removed. If the Owner fails to pay such cost upon demand by the Association, the cost thereof (plus interest from the date of demand until paid at the maximum lawful rate, or if there is no such maximum lawful rate, than at the rate of one and one-half percent (1½%) per month) will be added to the Assessment chargeable to the Owner's Lot. Any such amounts added to the Assessments chargeable against a Lot will be secured by the liens reserved in this Declaration for Assessments and may be collected by any means provided in this Declaration for the collection of Assessments, including, but not limited to, foreclosure of such liens against the Owner's Lot. **EACH SUCH OWNER WILL INDEMNIFY AND HOLD HARMLESS THE ASSOCIATION AND ITS OFFICERS, DIRECTORS, COMMITTEE MEMBERS, EMPLOYEES AND AGENTS FROM ANY COST, LOSS, DAMAGE, EXPENSE, LIABILITY, CLAIM OR CAUSE OF ACTION INCURRED OR THAT MAY ARISE BY REASON OF THE ASSOCIATION'S ACTS OR ACTIVITIES UNDER THIS SECTION 5.2, EXCEPT FOR SUCH COST, LOSS, DAMAGE, EXPENSE, LIABILITY, CLAIM OR COST OF ACTION ARISING BY REASON OF THE ASSOCIATION'S GROSS NEGLIGENCE OR WILLFUL MISCONDUCT. "GROSS NEGLIGENCE" AS USED HEREIN DOES NOT INCLUDE SIMPLE NEGLIGENCE, CONTRIBUTORY NEGLIGENCE OR SIMILAR NEGLIGENCE SHORT OF ACTUAL GROSS NEGLIGENCE.**

5.3 Mechanic's and Materialmen's Lien. Each Owner whose structure is repaired, restored, replaced or cleaned up by the Association pursuant to the rights granted under this *Article 5*, hereby grants to the Association an express mechanic's and materialmen's lien for the reasonable cost of such repair, restoration, or replacement of the damaged or destroyed Improvement to the extent that the cost of such repair, restoration or replacement exceeds any insurance proceeds allocable to such repair, restoration or replacement and delivered to the Association. Upon request by the Board, and before the commencement of any reconstruction, repair, restoration or replacement, such Owner will execute all documents sufficient to effectuate such mechanic's and materialmen's lien in favor of the Association.

ARTICLE 6 COVENANT FOR ASSESSMENTS

6.1 Assessments.

6.1.1 Established by Board. Assessments established by the Board pursuant to the provisions of this *Article 6* will be levied against each Lot in amounts determined pursuant to *Section 6.7* below. The total amount of Assessments will be determined by the Board pursuant to *Sections 6.3, 6.4, 6.5 and/or 6.6.*

6.1.2 Personal Obligation; Lien. Each Assessment, together with such interest thereon and costs of collection as hereinafter provided, will be the personal obligation of the Owner of the Lot against which the Assessment is levied and will be secured by a lien hereby granted and conveyed by Declarant to the Association against each such Lot and all Improvements thereon (such lien, with respect to any Lot not in existence on the date hereof, will be deemed granted and conveyed at the time that such Lot is created). The Association may enforce payment of such Assessments in accordance with the provisions of this Article.

6.1.3 Declarant Subsidy. Declarant may, but is not obligated to, reduce Assessments which would otherwise be levied against Lots for any fiscal year by the payment of a subsidy to the Association. Any subsidy paid to the Association by Declarant may be treated as a contribution or a loan, in Declarant's sole and absolute discretion. The payment of a subsidy in any given year will not obligate Declarant to continue payment of a subsidy to the Association in future years.

6.2 Maintenance Fund. The Board will establish a maintenance fund into which will be deposited all monies paid to the Association and from which disbursements will be made in performing the functions of the Association under this Declaration. The funds of the Association may be used for any purpose authorized by the Restrictions and the Applicable Law.

6.3 Regular Annual Assessments. Prior to the beginning of each fiscal year, the Board will estimate the expenses to be incurred by the Association during such year in performing its functions and exercising its powers under the Restrictions, including, but not

limited to, the cost of all management, repair and maintenance, the cost of providing street and other lighting, the cost of administering and enforcing the Restrictions, and will estimate the amount needed to maintain a reasonable provision for contingencies and an appropriate replacement reserve, and will give due consideration to any expected income and any surplus from the prior year's fund. Assessments sufficient to pay such estimated net expenses will then be levied at the level of Assessments set by the Board in its sole and absolute discretion, and the Board's determination will be final and binding so long as it is made in good faith. If the sums collected prove inadequate for any reason, including nonpayment of any Assessment, the Association may at any time, and from time to time, levy further Assessments in the same manner. All such regular annual Assessments will be due and payable to the Association annually on or before the first day of the month at the beginning of the fiscal year, or in such other manner as the Board may designate in its sole and absolute discretion.

6.4 Working Capital Assessment. Each Owner (other than Declarant) of a Lot will pay a one-time working capital assessment (the "**Working Capital Assessment**") to the Association in such amount as may be determined by the Declarant or the Board, until expiration or termination of the Development Period, and the Board thereafter. The Working Capital Assessment hereunder will be due and payable to the Association upon the transfer of a Lot (including both transfers from Declarant to the initial Owner, and transfers from one Owner of a Lot to a subsequent Owner of a Lot). Each Working Capital Assessment will be collected from the transferee of a Lot upon the conveyance of the Lot from one Owner (including Declarant) to another (expressly including any reconveyance of the Lot upon resale or transfer thereof). Such Working Capital Assessment need not be uniform among all Lots, and the Board is expressly authorized to levy Working Capital Assessments of varying amounts depending on the size, use and general character of the Lots then being made subject to such levy. The Association may use the working capital to discharge operating expenses. The levy of any Working Capital Assessment will be effective only upon the Recordation of a written notice, signed by the Declarant or a duly authorized officer of the Association, setting forth the amount of the Working Capital Assessment and the Lots to which it applies.

Notwithstanding the foregoing provision, the following transfers will not be subject to the Working Capital Assessment: (i) foreclosure of a deed of trust lien, tax lien, or the Association's assessment lien; (ii) transfer to, from, or by the Association; (iii) voluntary transfer by an Owner to one or more co-owners, or to the Owner's spouse, child, or parent. Additionally, an Owner who (i) is a Homebuilder; or (ii) acquires a Lot for the purpose of resale to a Homebuilder (a "**Development Owner**") will not be subject to the Working Capital Assessment; however, the Working Capital Assessment will be payable by any Owner who acquires a Lot from a Homebuilder or Development Owner for residential living purposes or by any Owner who: (i) acquires a Lot and is not in the business of constructing single-family residences for resale to a third party; or (ii) who acquires the Lot for any purpose other than constructing a single-family residence thereon for resale to a third party. In the event of any dispute regarding the application of the Working Capital Assessment to a particular Owner, the Declarant's during the Development Period, and thereafter the Board's, determination

regarding the application of the exemption will be binding and conclusive without regard to any contrary interpretation of this *Section 6.4*. The Working Capital Assessment will be in addition to, not in lieu of, any other Assessments levied in accordance with this Article 6 and will not be considered an advance payment of such Assessments. The Declarant during the Development Period, and thereafter the Board, will have the power to waive the payment of any Working Capital Assessment attributable to a Lot (or all Lots) by the Recordation of a waiver notice, which waiver may be temporary or permanent.

6.5 Special Assessments. In addition to the regular annual Assessments provided for above, the Board may levy special Assessments whenever in the Board's opinion such special Assessments are necessary to enable the Board to carry out the functions of the Association under the Restrictions. The amount of any special Assessments will be at the reasonable discretion of the Board. In addition to the special Assessments authorized above, the Association may, in any fiscal year, levy a special Assessment applicable to that fiscal year only for the purpose of defraying, in whole or in part, the cost of any construction, reconstruction, repair or replacement of a capital improvement upon the Common Area.

6.6 Individual Assessments. In addition to any other Assessments, the Board may levy an Individual Assessment against an Owner and the Owner's Lot. Individual Assessments may include, but are not limited to: interest, late charges, and collection costs on delinquent Assessments; reimbursement for costs incurred in bringing an Owner or the Owner's Lot into compliance with the Declaration; fines for violations of the Restrictions; transfer-related fees and resale certificate fees; fees for estoppel letters and project documents; insurance deductibles; reimbursement for damage or waste caused by willful or negligent acts of the Owner, the Owner's guests, invitees or Residents of the Owner's Lot; common expenses that benefit fewer than all of the Lots, which may be assessed according to benefit received; fees or charges levied against the Association on a per-Lot basis; and "pass through" expenses for services to Lots provided through the Association and which are equitably paid by each Lot according to the benefit received.

6.7 Amount of Assessment.

6.7.1 Assessments to be Levied. The Board shall levy Assessments against each "Assessment Unit" (as defined in *Section 6.7.2* below). Unless otherwise provided in this Declaration, Assessments levied pursuant to *Section 6.3* and *Section 6.6* shall be levied uniformly against each Assessment Unit allocated to a Lot.

6.7.2 Assessment Unit. Each Lot shall constitute one "Assessment Unit" unless otherwise provided in *Section 6.7.3* and *6.7.4*.

6.7.3 Assessment Exemption. Notwithstanding anything in this Declaration to the contrary, no Assessments shall be levied upon Lots owned by Declarant.

6.7.4 Other Exemptions. Declarant may, in its sole discretion, elect to: (i) exempt any un-platted or unimproved portion of the Property or any Lot from any Assessments levied or charged pursuant to this *Article 6*; or (ii) delay the levy of Assessments against any un-platted, unimproved or improved portion of the Property. Declarant or the Board may also exempt any portion of the Property which is dedicated and accepted by public authority from Assessments.

6.8 Late Charges. If any Assessment is not paid by the due date applicable thereto, the Owner responsible for the payment may be required by the Board, at the Board's election at any time and from time to time, to pay a late charge in such amount as the Board may designate, and the late charge (and any reasonable handling costs) will be levied as an Individual Assessment against the Lot owned by such Owner, collectible in the manner as provided for collection of Assessments, including foreclosure of the lien against such Lot; provided, however, such charge will never exceed the maximum charge permitted under Applicable Law.

6.9 Owner's Personal Obligation; Interest. Assessments levied as provided for herein will be the personal and individual debt of the Owner of the Lot against which are levied such Assessments. No Owner may exempt himself from liability for such Assessments. In the event of default in the payment of any such Assessment, the Owner of the Lot will be obligated to pay interest on the amount of the Assessment at the highest rate allowed by applicable usury laws then in effect on the amount of the Assessment from the due date therefor (or if there is no such highest rate, then at the rate of one and one half percent (1 1/2%) per month), together with all late charges, if any, costs and expenses of collection, including reasonable attorney's fees. Such amounts will be levied as an Individual Assessment against the Lot owned by such Owner.

6.10 Assessment Lien and Foreclosure. The payment of all sums assessed in the manner provided in this Article is, together with late charges as provided in *Section 6.8* and interest as provided in *Section 6.9* hereof and all costs of collection, including attorney's fees as herein provided, secured by the continuing Assessment lien granted to the Association pursuant to *Section 6.1.2* above, and will bind each Lot in the hands of the Owner thereof, and such Owner's heirs, devisees, personal representatives, successors or assigns. The aforesaid lien will be superior to all other liens and charges against such Lot, except only for: (i) tax liens and governmental assessment liens; (ii) all sums secured by a Recorded first mortgage lien or Recorded first deed of trust lien of record, to the extent such lien secures sums borrowed for the acquisition or improvement of the Lot in question; (iii) home equity loans or home equity lines of credit which are secured by a Recorded second mortgage lien or Recorded second deed of trust lien of record; or (iv) as otherwise provided by Applicable Law; provided that, in the case of subparagraphs (ii), (iii) and (iv) above, such Mortgage was Recorded before the delinquent Assessment was due. The Association will have the power to subordinate the aforesaid Assessment lien to any other lien. Such power will be entirely discretionary with the Board, and such subordination may be signed by an authorized officer, agent, or attorney of the

Association. The Association may, at its option and without prejudice to the priority or enforceability of the Assessment lien granted hereunder, prepare a written notice of Assessment lien setting forth the amount of the unpaid indebtedness, the name of the Owner of the Lot covered by such lien and a description of the Lot. Such notice may be signed by one of the authorized officers, agents, or attorneys of the Association and will be Recorded. Each Owner, by accepting a deed or ownership interest to a Lot subject to this Declaration, will be deemed conclusively to have granted a power of sale to the Association to secure and enforce the Assessment lien granted hereunder. The Assessment liens and rights to foreclosure thereof will be in addition to and not in substitution of any other rights and remedies the Association may have by law and under this Declaration, including the rights of the Association to institute suit against such Owner personally obligated to pay the Assessment and/or for foreclosure of the aforesaid lien. In any foreclosure proceeding, such Owner will be required to pay the costs, expenses and reasonable attorney's fees incurred. The Association will have the power to bid (in cash or by credit against the amount secured by the lien) on the property at foreclosure or other legal sale and to acquire, hold, lease, mortgage, convey or otherwise deal with the same. Upon the written request of any Mortgagee, the Association will report to said Mortgagee any unpaid Assessments remaining unpaid for longer than sixty (60) days after the same are due. The lien hereunder will not be affected by the sale or transfer of any Lot; except, however, that in the event of foreclosure of any lien superior to the Assessment lien, the lien for any Assessments that were due and payable before the foreclosure sale will be extinguished, provided that past-due Assessments will be paid out of the proceeds of such foreclosure sale only to the extent that funds are available after the satisfaction of the indebtedness secured by the Mortgage. The provisions of the preceding sentence will not, however, relieve any subsequent Owner (including any Mortgagee or other purchaser at a foreclosure sale) from paying Assessments becoming due and payable after the foreclosure sale. Upon payment of all sums secured by a lien of the type described in this *Section 6.10*, the Association will upon the request of the Owner, and at such Owner's cost, execute a release of lien relating to any lien for which written notice has been Recorded as provided above, except in circumstances in which the Association has already foreclosed such lien. Such release will be signed by an authorized officer, agent, or attorney of the Association. In addition to the lien hereby retained, in the event of nonpayment by any Owner of any Assessment and after the lapse of at least twelve (12) days since such payment was due, the Association may, upon five (5) days' prior written notice (which may run concurrently with such twelve (12) day period) to such Owner, in addition to all other rights and remedies available pursuant to Applicable Law, equity or otherwise, terminate, in such manner as the Board deems appropriate, any utility or cable service provided through the Association and not paid for directly by an Owner or Resident to the utility or service provider. Such notice will consist of a separate mailing or hand delivery at least five (5) days prior to a stated date of disconnection, with the title "termination notice" or similar language prominently displayed on the notice. The notice will include the office or street address where the Owner or the Resident of the Owner's Lot can make arrangements for payment of the bill and for reconnection of service. Utility or cable service will not be disconnected on a day, or immediately preceding a day, when personnel are not available for the purpose of collection and reconnecting such services. Except as otherwise provided by

-41-

THE KNOLLS AT SOLANA
DECLARATION OF COVENANTS, CONDITIONS AND RESTRICTIONS

4825-0959-4994v.10 59948-2

Applicable Law, the sale or transfer of a Lot will not relieve the Owner of such Lot or such Owner's transferee from liability for any Assessments thereafter becoming due or from the lien associated therewith. If an Owner conveys its Lot and on the date of such conveyance Assessments against the Lot remain unpaid, or said Owner owes other sums or fees under this Declaration to the Association, the Owner will pay such amounts to the Association out of the sales price of the Lot, and such sums will be paid in preference to any other charges against the Lot other than liens superior to the Assessment lien and charges in favor of the State of Texas or a political subdivision thereof for taxes on the Lot which are due and unpaid. The Owner conveying such Lot will remain personally liable for all such sums until the same are fully paid, regardless of whether the transferee of the Lot also assumes the obligation to pay such amounts. The Board may adopt an administrative transfer fee to cover the expenses associated with updating the Association's records upon the transfer of a Lot to a third party; provided, however, that no transfer fee will be due upon the transfer of a Lot from Declarant to a third party.

Yes, the Association *can* foreclose on your Lot!

If you fail to pay assessments to the Association, you may lose title to your Lot if the Association forecloses its assessment lien.

6.11 Exempt Property. The following areas will be exempt from the Assessments provided for in this Article:

- (i) All area dedicated and accepted by a public authority;
- (ii) The Common Area; and
- (iii) Any portion of the Property owned by Declarant.

6.12 Fines and Damages Assessment.

6.12.1 Board Assessment. The Board may assess fines against an Owner for violations of the Restrictions which have been committed by an Owner, a Resident, or the Owner or Residents guests, agents or invitees pursuant to the Fine and Collection Policy adopted by the Board. Any fine and/or charge levied in accordance with this *Section 6.12* will be considered an Individual Assessment pursuant to this Declaration. Each day of violation may be considered a separate violation if the violation continues after written notice to the Owner. The Board may assess damage charges against an Owner for pecuniary loss to the Association from property damage or destruction of Common Area or any facilities caused by the Owner, Resident, or their guests, agents, or invitees. The Manager will have authority to send notices to alleged violators, informing them of their violations and asking them to comply with the Rules and/or informing them of potential or probable fines or damage assessments. The Board may from time to time adopt a schedule of fines.

6.12.2 Lien Created. The payment of each fine and/or damage charge levied by the Board against the Owner of a Lot is, together with interest as provided in *Section 6.9* hereof and all costs of collection, including attorney's fees as herein provided, secured by the lien granted to the Association pursuant to *Section 6.1.2* of this Declaration. The fine and/or damage charge will be considered an Assessment for the purpose of this Article, and will be enforced in accordance with the terms and provisions governing the enforcement of assessments pursuant to this *Article 6*.

ARTICLE 7 ARCHITECTURAL CONTROL COMMITTEE

ORDINANCES AND REQUIREMENTS IMPOSED BY THE TOWN ARE APPLICABLE TO ALL LOTS. APPROVAL BY THE ARCHITECTURAL CONTROL COMMITTEE IS NOT A SUBSTITUTE FOR COMPLIANCE WITH SUCH ORDINANCES AND REGULATIONS. THIS DECLARATION DOES DO NOT PURPORT TO LIST OR DESCRIBE EACH ORDINANCE OR RESTRICTION WHICH MAY BE APPLICABLE TO A LOT.

Until Declarant has delegated its right to appoint and remove all members of the ACC to the Board as provided in *Section 7.2.1* below, the ACC will be acting solely in Declarant's interest and will owe no duty to any other Owner or the Association. Notwithstanding any provision in this Declaration to the contrary, Declarant may appoint a single person to exercise the rights of the ACC.

7.1 Construction of Improvements. No Improvement may be erected, placed, constructed, painted, altered, modified or remodeled on any Lot, and no Lot may be re-subdivided or consolidated with other Lots or Property, by anyone other than Declarant without the prior written approval of the ACC.

7.2 Architectural Control Committee.

7.2.1 Composition. The ACC will be composed of not more than three (3) persons (who need not be Members or Owners) appointed as provided below. The ACC will review Improvements proposed to be made by any Owner other than Declarant. Declarant will have the right to appoint and remove (with or without cause) all members of the ACC. Declarant may assign its right to appoint all members of the ACC to the Association by Recorded written instrument, and thereafter, the Board will have the right to appoint and remove (with or without cause) all members of the ACC. Any assignment by Declarant of the right to appoint and remove all members of the ACC may be withdrawn until expiration of twelve (12) months after the expiration of the Development Period. If Declarant withdraws its assignment of the right to appoint and remove all members of the ACC, then on the date of such withdrawal, Declarant will have the right to appoint and remove (with or without cause) all members of the ACC. Declarant's right to appoint all members of the ACC will automatically be assigned to the Association upon the expiration of twelve (12) months after the expiration of the Development Period. Declarant, at its option, may create and assign specific duties and

responsibilities to one or more sub-committees consisting of members and/or nonmembers of the ACC. In the event responsibilities and duties are assigned to a sub-committee, those responsibilities and duties will no longer be discharged by the ACC unless the sub-committee exercising such duties and responsibilities is dissolved by Declarant. The right to create, dissolve, and appoint members of such sub-committees will reside exclusively with Declarant until such time as Declarant has assigned its right to appoint members of the ACC to the Association. The ACC will have the right to employ consultants and advisors as it deems necessary or appropriate. The Declarant or the Board, as applicable, shall appoint at least one (1) member of the ACC or sub-committee, as applicable, who is a licensed architect, for the purpose of reviewing, and providing recommendations related to, plans and specifications submitted to the ACC in accordance with *Section 7.2.2* below.

7.2.2 Submission and Approval of Plans and Specifications. Construction plans and specifications or, when an Owner desires solely to re-subdivide or consolidate Lots, a proposal for such re-subdivision or consolidation, will be submitted in accordance with the Design Guidelines or any additional rules adopted by the ACC together with any review fee which is imposed by the ACC in accordance with *Section 7.2.3* to the ACC at the offices of Declarant, at such address as may hereafter be designated in writing from time to time. No re-subdivision or consolidation will be made, nor any Improvement placed or allowed on any Lot, until the plans and specifications thereof have been approved in writing by a Majority of the members of the ACC. The ACC may, in reviewing such plans and specifications consider any information that it deems proper; including, without limitation, any permits, environmental impact statements or percolation tests that may be required by the ACC or any other entity; and harmony of external design and location in relation to surrounding structures, topography, vegetation, and finished grade elevation. The ACC may postpone its review of any plans and specifications submitted for approval pending receipt of any information or material which the ACC, in its sole discretion, may require. Site plans must be approved by the ACC prior to the clearing of any Lot, or the construction of any Improvements. The ACC may refuse to approve plans and specifications for proposed Improvements, or for the re-subdivision or consolidation of any Lot on any grounds that, in the sole and absolute discretion of the ACC, are deemed sufficient, including, but not limited to, purely aesthetic grounds.

Notwithstanding any provision to the contrary in the Declaration, the ACC may issue an approval to Homebuilders for the construction of Improvements based on the review and approval of plan types and adopt a procedure which differs from the procedures for review and approval of Improvements set forth in this Declaration.

7.2.3 Design Guidelines. Declarant may adopt the initial Design Guidelines and, during the Development Period, will have the power from time to time, to adopt (unless previously adopted by Declarant), amend, modify, or supplement the Design Guidelines. Upon expiration or termination of the Development Period, the ACC, or any sub-committee thereof created pursuant to *Section 7.2.1*, will have the power from time to time, to amend, modify, or supplement the Design Guidelines; provided, however, that any amendment

to the Design Guidelines made by a sub-committee will only apply to the Improvements under the jurisdiction of such sub-committee, and during the Development Period, any such amendment, modification or supplement must be approved in advance and in writing by the Declarant. In the event of any conflict between the terms and provisions of the Design Guidelines and the terms and provisions of this Declaration, the terms and provisions of this Declaration will control. In addition, the ACC will have the power and authority to impose a fee for the review of plans, specifications and other documents and information submitted to it pursuant to the terms of this Declaration. Such charges will be held by the ACC and used to defray the administrative expenses incurred by the ACC in performing its duties hereunder; provided, however, that any excess funds held by the ACC will be distributed to the Association at the end of each calendar year. The ACC will not be required to review any plans until a complete submittal package, as required by this Declaration and the Design Guidelines, is assembled and submitted to the ACC. The ACC will have the authority to adopt such additional procedural and substantive rules and guidelines (including, without limitation, the imposition of any requirements for certificates of compliance or completion relating to any Improvement and the right to approve in advance any contractor selected for the construction of Improvements), not in conflict with this Declaration, as it may deem necessary or appropriate in connection with the performance of its duties hereunder.

7.2.4 Actions of the ACC. The ACC may, by resolution unanimously adopted in writing, designate one or more of its members, or an agent acting on its behalf, to take any action or perform any duties for and on behalf of the ACC, except the granting of variances. In the absence of such designation, the vote of a Majority of all of the members of the ACC taken at a duly constituted meeting will constitute an act of the ACC.

7.2.5 Failure to Act. In the event that any plans and specifications are submitted to the ACC as provided herein, and the ACC fails either to approve or reject such plans and specifications for a period of sixty (60) days following such submission, rejection of such plans and specifications by the ACC will be presumed. In furtherance, and not in limitation, of the foregoing, any failure of the ACC to act upon a request for a variance will not be deemed a consent to such variance, and the ACC's written approval of all requests for variances will be expressly required.

7.2.6 Variances. The ACC may grant variances from compliance with any of the provisions of the Design Guidelines or this Declaration, when, in the opinion of the ACC, in its sole and absolute discretion, such variance is justified. All variances must be evidenced in writing and must be signed by at least a Majority of the members of the ACC. Each variance must also be Recorded; provided however, that failure to record a variance will not affect the validity thereof or give rise to any claim or cause of action against the ACC, including the Declarant or its designee, the Association, or the Board. If a variance is granted, no violation of the covenants, conditions, or restrictions contained in this Declaration or the Design Guidelines will be deemed to have occurred with respect to the matter for which the variance was granted. The granting of such variance will not operate to waive or amend any of the terms and

provisions of this Declaration or the Design Guidelines for any purpose except as to the particular property and in the particular instance covered by the variance, and such variance will not be considered to establish a precedent for any future waiver, modification, or amendment of the terms and provisions of this Declaration or the Design Guidelines.

7.2.7 Duration of Approval. Unless otherwise directed by the ACC, the approval of the ACC of any plans and specifications, and any variances granted by the ACC, will be valid for a period of one hundred and eighty (180) days only. If construction in accordance with such plans and specifications or variance is not commenced within such one hundred and eighty (180) day period and diligently prosecuted to completion, the Owner will be required to resubmit such plans and specifications or request for a variance to the ACC, and the ACC will have the authority to re-evaluate such plans and specifications in accordance with this Section 7.2.7 and may, in addition, consider any change in circumstances which may have occurred since the time of the original approval.

7.2.8 No Waiver of Future Approvals. The approval of the ACC to any plans or specifications for any work done or proposed in connection with any matter requiring the approval or consent of the ACC will not be deemed to constitute a waiver of any right to withhold approval or consent as to any plans and specifications on any other matter, subsequently or additionally submitted for approval by the same or a different person, nor will such approval or consent be deemed to establish a precedent for future approvals by the ACC.

7.2.9 Non-Liability of Committee Members. NEITHER DECLARANT, THE ACC, NOR ANY PARTNER, EMPLOYEE, DIRECTOR, OFFICER, COMMITTEE MEMBER, OR AGENT WILL BE LIABLE TO ANY OWNER OR TO ANY OTHER PERSON FOR ANY LOSS, DAMAGE OR INJURY ARISING OUT OF THE PERFORMANCE OF THE ACC'S DUTIES UNDER THIS DECLARATION.

ARTICLE 8 MORTGAGE PROVISIONS

The following provisions are for the benefit of holders, insurers and guarantors of first Mortgages on Lots within the Property. The provisions of this Article apply to the Declaration and the Bylaws of the Association.

8.1 **Notice of Action.** An institutional holder, insurer, or guarantor of a first Mortgage which provides a written request to the Association (such request to state the name and address of such holder, insurer, or guarantor and the street address of the Lot to which its Mortgage relates (thereby becoming an "**Eligible Mortgage Holder**")), will be entitled to timely written notice of:

- (i) Any condemnation loss or any casualty loss which affects a material portion of the Property or which affects any Lot on which there is an

Eligible Mortgage held, insured, or guaranteed by such Eligible Mortgage Holder; or

- (ii) Any delinquency in the payment of assessments or charges owed for a Lot subject to the Mortgage of such Eligible Mortgage Holder, where such delinquency has continued for a period of sixty (60) days, or any other violation of the Restrictions relating to such Lot or the Owner or Resident which is not cured within sixty (60) days; or
- (iii) Any lapse, cancellation, or material modification of any insurance policy maintained by the Association.

8.2 Examination of Books. The Association will permit Mortgagees to examine the books and records of the Association during normal business hours.

8.3 Taxes, Assessments and Charges. All taxes, assessments and charges that may become liens prior to first lien mortgages under Applicable Law will relate only to the individual Lots and not to any other portion of the Property.

ARTICLE 9 GENERAL PROVISIONS

9.1 Term. The terms, covenants, conditions, restrictions, easements, charges, and liens set out in this Declaration will run with and bind the Property, and will inure to the benefit of and be enforceable by the Association, and every Owner, including Declarant, and their respective legal representatives, heirs, successors, and assigns, for a term beginning on the date this Declaration is Recorded, and continuing through and including January 1, 2065, after which time this Declaration will be automatically extended for successive periods of ten (10) years unless a change (the word "change" meaning a termination, or change of term or renewal term) is approved in a resolution adopted by Members entitled to cast at least sixty-seven percent (67%) of the total number of votes of the Association, voting in person or by proxy at a meeting duly called for such purpose, written notice of which will be given to all Members at least thirty (30) days in advance and will set forth the purpose of such meeting; provided, however, that such change will be effective only upon the Recording of a certified copy of such resolution. The foregoing sentence shall in no way be interpreted to mean sixty-seven percent (67%) of a quorum as established pursuant to the Bylaws. Notwithstanding any provision in this *Section 9.1* to the contrary, if any provision of this Declaration would be unlawful, void, or voidable by reason of any Applicable Law restricting the period of time that covenants on land may be enforced, such provision will expire twenty-one (21) years after the death of the last survivor of the now living, as of the date that this document is first Recorded, descendants of Elizabeth II, Queen of England.

9.2 Eminent Domain. In the event it becomes necessary for any public authority to acquire all or any part of the Common Area for any public purpose during the period this

Declaration is in effect, the Board is hereby authorized to negotiate with such public authority for such acquisition and to execute instruments necessary for that purpose. Should acquisitions by eminent domain become necessary, only the Board need be made a party, and in any event the proceeds received will be held by the Association for the benefit of the Owners. In the event any proceeds attributable to acquisition of Common Area are paid to Owners, such payments will be allocated on the basis of Assessment Units and paid jointly to the Owners and the holders of Mortgages or deeds of trust on the respective Lot.

9.3 Amendment. This Declaration may be amended or terminated by the Recording of an instrument executed and acknowledged by: (i) Declarant acting alone; or (ii) by the president and secretary of the Association setting forth the amendment and certifying that such amendment has been approved by Declarant (until expiration or termination of the Development Period) and Members entitled to cast at least sixty-seven percent (67%) of the number of votes entitled to be cast by members of the Association. No amendment will be effective without the written consent of Declarant, its successors or assigns, during the Development Period. Specifically, and not by way of limitation, Declarant may unilaterally amend this Declaration: (i) to bring any provision into compliance with Applicable Law; (ii) to enable any reputable title insurance company to issue title insurance coverage on any Lot; (iii) to enable any institutional or governmental lender, purchaser, insurer or guarantor of mortgage loans, including, for example, the Federal Home Loan Mortgage Corporation, to make, purchase, insure or guarantee mortgage loans on Lots; or (iv) to comply with any requirements promulgated by a local, state or governmental agency, including, for example, the Department of Housing and Urban Development.

9.4 Roadway and Utility Easements. Declarant reserves the right to create, locate, relocate, construct, erect, and maintain or cause to be created, located, relocated, constructed, erected, and maintained in and on any portion of the Property then owned by Declarant or any streets maintained by the Association, or areas conveyed to the Association, or areas reserved or held as Common Area, roadways, sewer lines, water lines, electrical lines and conduits, and other pipelines, conduits, wires, and any public utility function beneath or above the surface of the ground with the right of access to the same at any time for the purposes of repair and maintenance.

9.5 Enforcement. Except as otherwise provided herein, any Owner of a Lot, at such Owner's own expense, Declarant and the Association will have the right to enforce, by a proceeding at law or in equity, the Restrictions. The Association and/or the Declarant may initiate, defend or intervene in any action brought to enforce any provision of the Restrictions. Such right of enforcement will include both damages for and injunctive relief against the breach of any provision hereof. Every act or omission whereby any provision of the Restrictions is violated, in whole or in part, is hereby declared to be a nuisance and may be enjoined or abated by any Owner of a Lot (at such Owner's own expense), Declarant or the Association. Any violation of any Applicable Law pertaining to the ownership, occupancy, or use of any portion of the Property is hereby declared to be a violation of this Declaration and subject to all of the

enforcement procedures set forth herein. Failure to enforce any right, provision, covenant, or condition set forth in the Restrictions will not constitute a waiver of the right to enforce such right, provision, covenants or condition in the future. Failure of the Declarant or the Association to enforce the terms and provisions of the Restrictions shall in no event give rise to any claim or liability against the Declarant, the Association, or any of their partners, directors, officers, or agents. EACH OWNER, BY ACCEPTING TITLE TO ALL OR ANY PORTION OF THE PROPERTY, HEREBY RELEASES AND SHALL HOLD HARMLESS EACH OF THE DECLARANT, THE ASSOCIATION, AND THEIR PARTNERS, DIRECTORS, OFFICERS, OR AGENTS FROM AND AGAINST ANY DAMAGES, CLAIMS, OR LIABILITY ASSOCIATED WITH THE FAILURE OF THE DECLARANT OR THE ASSOCIATION TO ENFORCE THE TERMS AND PROVISIONS OF THE RESTRICTIONS.

9.6 Higher Authority. The terms and provisions of this Declaration are subordinate to Applicable Law. Generally, the terms and provisions of this Declaration are enforceable to the extent they do not violate or conflict with Applicable Law.

9.7 Severability. If any provision of this Declaration is held to be invalid by any court of competent jurisdiction, such invalidity will not affect the validity of any other provision of this Declaration, or, to the extent permitted by Applicable Law, the validity of such provision as applied to any other person or entity.

9.8 Conflicts. If there is any conflict between the provisions of this Declaration, the Certificate, the Bylaws, or any Rules and Regulations adopted pursuant to the terms of such documents, the provisions of this Declaration, the Certificate, the Bylaws, and the Rules and Regulations, in such order, will govern.

9.9 Gender. Whenever the context so requires, all words herein in the male gender will be deemed to include the female or neuter gender, all singular words will include the plural, and all plural words will include the singular.

9.10 Acceptance by Grantees. Each grantee of Declarant of a Lot or other real property interest in the Property, by the acceptance of a deed of conveyance, or each subsequent purchaser, accepts the same subject to all terms, restrictions, conditions, covenants, reservations, easements, liens and charges, and the jurisdiction rights and powers created or reserved by this Declaration or to whom this Declaration is subject, and all rights, benefits and privileges of every character hereby granted, created, reserved or declared. Furthermore, each grantee agrees that no assignee or successor to Declarant hereunder will have any liability for any act or omission of Declarant which occurred prior to the effective date of any such succession or assignment. All impositions and obligations hereby imposed will constitute covenants running with the land within the Property, and will bind any person having at any time any interest or estate in the Property, and will inure to the benefit of each Owner in like manner as though the provisions of this Declaration were recited and stipulated at length in each and every deed of conveyance.

9.11 Damage and Destruction. The Association shall undertake the following actions subsequent to damage or destruction of all or any part of the Common Area covered by insurance.

9.11.1 Claims. Promptly after damage or destruction by fire or other casualty to all or any part of the Common Area covered by insurance, the Board, or its duly authorized agent, will proceed with the filing and adjustment of all claims arising under such insurance and obtain reliable and detailed estimates of the cost of repair of the damage. Repair, as used in this *Section 9.11.1*, means repairing or restoring the Common Area to substantially the same condition as existed prior to the fire or other casualty.

9.11.2 Repair Obligations. Any damage to or destruction of the Common Area will be repaired unless a Majority of the Board decides within sixty (60) days after the casualty not to repair. If for any reason either the amount of the insurance proceeds to be paid as a result of such damage or destruction, or reliable and detailed estimates of the cost of repair, or both, are not made available to the Association within said period, then the period will be extended until such information will be made available.

9.11.3 Restoration. In the event that it should be determined by the Board that the damage or destruction of the Common Area will not be repaired and no alternative Improvements are authorized, then the affected portion of the Common Area will be restored to its natural state and maintained as an undeveloped portion of the Common Area by the Association in a neat and attractive condition.

9.11.4 Special Assessment. If insurance proceeds are paid to restore or repair any damaged or destroyed Common Area, and such proceeds are not sufficient to defray the cost of such repair or restoration, the Board will levy a special Assessment, as provided in *Article 6*, against all Owners. Additional Assessments may be made in like manner at any time during or following the completion of any repair.

9.11.5 Proceeds Payable to Owners. In the event that any proceeds of insurance policies are paid to Owners as a result of any damage or destruction to any Common Area, such payments will be allocated based on Assessment Units and paid jointly to the Owners and the holders of Mortgages or deeds of trust on their Lots.

9.12 No Partition. Except as may be permitted in this Declaration or amendments thereto, no physical partition of the Common Area or any part will be permitted, nor will any person acquiring any interest in the Property or any part seek any such judicial partition unless the Property in question has been removed from the provisions of this Declaration pursuant to *Section 11.4* below. This *Section 9.12* will not be construed to prohibit the Board from acquiring and disposing of tangible personal property or from acquiring title to real property that may or may not be subject to this Declaration, nor will this provision be constructed to prohibit or affect the creation of a condominium regime in accordance with the Texas Uniform Condominium Act.

9.13 Notices. Any notice permitted or required to be given to any person by this Declaration will be in writing and may be delivered either personally or by mail, or as otherwise required by Applicable Law. If delivery is made by mail, it will be deemed to have been delivered on the third (3rd) day (other than a Sunday or legal holiday) after a copy of the same has been deposited in the United States mail, postage prepaid, addressed to the person at the address given by such person to the Association for the purpose of service of notices. Such address may be changed from time to time by notice in writing given by such person to the Association.

9.14 View Impairment. Neither Declarant nor the Association guarantee or represent that any view over and across the Lots, or any open space or Common Area within the Property will be preserved without impairment. Neither the Declarant, the ACC, nor the Association shall have any obligation to relocate, prune, or thin trees or perform other landscaping. The Association (with respect to any Common Area) will have the right to add trees and other landscaping from time to time, subject to Applicable Law. There shall be no express or implied easements for view purposes or for the passage of light and air.

9.15 Safety and Security. Each Owner and Resident of a Lot, and their respective guests and invitees, shall be responsible for their own personal safety and the security of their property within the Property. The Association may, but shall not be obligated to, maintain or support certain activities within the Property designed to promote or enhance the level of safety or security which each person provides for himself or herself and his or her property. However, neither the Association nor Declarant shall in any way be considered insurers or guarantors of safety or security within the Property, nor shall either be held liable for any loss or damage by reason of failure to provide adequate security or ineffectiveness of security measures undertaken. No representation or warranty is made that any systems or measures, including security monitoring systems or any gate, mechanism or system for limiting access to the Property or the Common Area, cannot be compromised or circumvented; or that any such system or security measures undertaken will in all cases prevent loss or provide the detection or protection for which the system is designed or intended. Each Owner acknowledges, understands, and shall be responsible for informing any Residents of such Owner's Lot that the Association, its Board, its employees, agents, and committees, and the Declarant are not insurers or guarantors of security or safety and that each person within the Property assumes all risks of personal injury and loss or damage to property, including any residences or Improvements constructed upon any Lot and the contents thereof, resulting from acts of third parties.

ARTICLE 10 EASEMENTS

10.1 Right of Ingress and Egress. Declarant, its agents, employees, designees, successors or assigns will have a right of ingress and egress over and the right of access to the Common Area to the extent necessary to use the Common Area and the right to such other

temporary uses of the Common Area as may be required or reasonably desirable (as determined by Declarant in its sole discretion) in connection with the construction and development of the Property. The Property shall be subject to a perpetual non-exclusive easement for the installation and maintenance, including the right to read meters, service or repair lines and equipment, and to do everything and anything necessary to properly maintain and furnish the Community Systems and the facilities pertinent and necessary to the same, which easement shall run in favor of Declarant. Declarant shall have the right, but not the obligation, to install and provide the Community Systems and to provide the services available through the Community Systems to any and all Lots within the Property. Neither the Association nor any Owner shall have any interest therein. Any or all of such services may be provided either directly through the Association and paid for as part of the Assessments or paid directly to Declarant, any affiliate of Declarant, or a third party, by the Owner who receives the services. The Community Systems shall be the property of Declarant unless transferred by Declarant, whereupon any proceeds of such transfer shall belong to Declarant. Declarant shall have the right but not the obligation to convey, transfer, sell or assign all or any portion of the Community Systems or all or any portion of the rights, duties or obligations with respect thereto, to the Association or to any person or entity. The rights of Declarant with respect to the Community Systems installed by Declarant and the services provided through such Community Systems are exclusive, and no other person or entity may provide such services through the Community Systems installed by Declarant without the prior written consent of Declarant. In recognition of the fact that interruptions in cable television and other Community Systems services will occur from time to time, no person or entity described above shall in any manner be liable, and no user of any Community System shall be entitled to any refund, rebate, discount or offset in applicable fees, for any interruption in Community Systems services, regardless of whether or not same is caused by reasons within the control of the then-provider of such services.

10.2 Reserved Easements. All dedications, limitations, restrictions, easements, rights-of-way, licenses, leases, encumbrances and reservations shown on any Plat or otherwise Recorded against the Property and all grants and dedications of easements, rights-of-way, restrictions and related rights made by Declarant or any third party prior to the Property becoming subject to this Declaration are incorporated herein by reference and made a part of this Declaration for all purposes as if fully set forth herein, and will be construed as being adopted in each and every contract, deed or conveyance executed or to be executed by or on behalf of Declarant. Declarant reserves the right to relocate, make changes in, and additions to said dedications, limitations, restrictions, easements, rights-of-way, licenses, leases, encumbrances, reservations and other grants for the purpose of developing the Property.

10.3 Utility Easements. Declarant hereby reserves unto itself and Declarant's successors and assigns a perpetual non-exclusive easement over and across the Property for: (i) the installation, operation and maintenance of utilities and associated infrastructure to serve the Property and any other property owned by Declarant; (ii) the installation, operation and maintenance of cable lines and associated infrastructure for sending and receiving data and/or

other electronic signals, security and similar services to serve the Property and any other property owned by Declarant; and (iii) the installation, operation and maintenance of, roadways, gates, walkways, pathways and trails, drainage systems, street lights and signage to serve the Property and any other property owned by Declarant. Declarant will be entitled to unilaterally assign the easements reserved hereunder to any third party who owns, operates or maintains the facilities and Improvements described in (i) through (iii) of this *Section 10.3*. The exercise of the easement reserved herein will not extend to permitting entry into any residence, nor will it unreasonably interfere with the use of any Lot or residence or Improvement constructed thereon.

10.4 Subdivision Entry and Fencing Easement. Declarant reserves for itself and the Association, an easement over and across the Property for the installation, maintenance, repair or replacement of certain subdivision entry facilities and fencing which serves the Property. Declarant will have the right, from time to time, to Record a written notice which identifies the subdivision entry facilities fencing to which the easement reserved hereunder applies. Declarant may designate all or any portion of the subdivision entry facilities and/or fencing as Common Area by Recorded written notice. The exercise of the easements reserved hereunder will not extend to permitting entry into any residence, nor will it unreasonably interfere with the use of any Lot or residence or Improvement constructed thereon.

10.5 Monument Sign Easement. Declarant hereby reserves for itself and the Association, an easement over and across the Property for the installation, maintenance, repair or replacement of one or more monument signs and/or appurtenant landscaping which serve the Property. Declarant will have the right, from time to time, to Record a written notice, which identifies those portions of the Property to which the easement reserved hereunder applies. Declarant designates the easement areas reserved hereunder as Common Area. The exercise of the easements reserved hereunder will not extend to permitting entry into any residence, nor will it unreasonably interfere with the use of any Lot or residence or Improvement constructed thereon.

10.6 Landscape Maintenance Easement. Each Owner, by accepting an interest in or title to a Lot, whether or not it is so expressed in the instrument of conveyance, grants to the Association an easement of access and entry over, across, under, and through the Property, including without limitation, each Lot (but excluding the residence or Improvements constructed thereon) to maintain landscaping in accordance with *Section 2.15* hereof.

ARTICLE 11 DEVELOPMENT RIGHTS

11.1 Development by Declarant. It is contemplated that the Property will be developed pursuant to a plan, which may, from time to time, be amended or modified. Declarant reserves the right, but will not be obligated, to pursue the development, construction and marketing of the Property, the right to direct the size, shape, and composition of the Property, the right to create and/or designate Lots or Common Area, and to subdivide all or any

-53-

THE KNOLLS AT SOLANA
DECLARATION OF COVENANTS, CONDITIONS AND RESTRICTIONS

portion of the Property, subject to any limitations imposed on portions of the Property by any applicable Plat. Collectively, the rights reserved to the Declarant as set forth in this Declaration shall be known as the "Development Rights", and Declarant hereby reserves the right and privilege for itself, and/or its assigns, to exercise the Development Rights, and any other rights reserved on behalf of the Declarant as set forth in this Declaration until twenty-four (24) months after the expiration or termination of the Development Period, except the right to appoint and remove Board members and officers of the Association which shall be governed by the provisions set out in *Section 4.3*. These rights may be exercised with respect to any portions of the Property or the Common Area. As each portion of the Property is developed or dedicated, Declarant may designate the use, classification and such additional covenants, conditions and restrictions as Declarant may deem appropriate for such Property.

11.2 Special Declarant Rights. Notwithstanding any provision of this Declaration to the contrary, at all times, Declarant will have the right and privilege: (i) to erect and maintain advertising signs (illuminated or non-illuminated), sales flags, other sales devices and banners for the purpose of aiding the sale of Lots in the Property; (ii) to maintain Improvements upon Lots as sales, model, management, business and construction offices; and (iii) to maintain and locate construction trailers and construction tools and equipment within the Property. The construction, placement or maintenance of Improvements by Declarant will not be considered a nuisance, and Declarant hereby reserves the right and privilege for itself to conduct the activities enumerated in this *Section 11.2* until twenty-four months (24) months after expiration or termination of the Development Period.

11.3 Addition of Land. Declarant may, at any time and from time to time, add additional lands to the Property. Upon the filing of a notice of addition of land, such land will be considered part of the Property for purposes of this Declaration, and such added lands will be considered part of the Property subject to this Declaration and the terms, covenants, conditions, restrictions and obligations set forth in this Declaration, and the rights, privileges, duties and liabilities of the persons subject to this Declaration will be the same with respect to such added land as with respect to the lands originally covered by this Declaration. To add lands to the Property, Declarant will be required only to Record a notice of addition of land containing the following provisions:

- (i) A reference to this Declaration, which reference will state the document number or volume and initial page number of the Official Public Records of Tarrant County wherein this Declaration is Recorded;
- (ii) A statement that such land will be considered Property for purposes of this Declaration, and that all of the terms, covenants, conditions, restrictions and obligations of this Declaration will apply to the added land; and
- (iii) A legal description of the added land.

11.4 Withdrawal of Land. Declarant may, at any time and from time to time, reduce or withdraw land from the Property, and remove and exclude from the burden of this Declaration and the jurisdiction of the Association any portion of the Property. Upon any such withdrawal and removal this Declaration and the covenants conditions, restrictions and obligations set forth herein will no longer apply to the portion of the Property withdrawn. To withdraw lands from the Property hereunder, Declarant will be required only to Record a notice of withdrawal of land containing the following provisions:

- (i) A reference to this Declaration, which reference will state the document number or volume and initial page number of the Official Public Records of Tarrant County wherein this Declaration is recorded;
- (ii) A statement that the provisions of this Declaration will no longer apply to the withdrawn land; and
- (iii) A legal description of the withdrawn land.

11.5 Assignment of Declarant's Rights. Notwithstanding any provision in this Declaration to the contrary, Declarant may, by written instrument, assign, in whole or in part, any of its privileges, exemptions, rights and duties under this Declaration to any person or entity and may permit the participation, in whole, in part, exclusively, or non-exclusively, by any other person or entity in any of its privileges, exemptions, rights and duties hereunder.

ARTICLE 12 DISPUTE RESOLUTION

12.1 Introduction and Definitions. The Association, the Owners, Declarant, all persons subject to this Declaration, and any person not otherwise subject to this Declaration who agrees to submit to this Article (collectively, the "**Parties**") agree to encourage the amicable resolution of disputes involving the Property and to avoid the emotional and financial costs of litigation and arbitration if at all possible. Accordingly, each Party hereby covenants and agrees that this Article applies to all Claims as hereafter defined. This *Article 12* may only be amended with the prior written approval of the Declarant, the Association (acting through a Majority of the Board), and Owners holding 100% of the votes in the Association. As used in this Article only, the following words, when capitalized, have the following specified meanings:

- (i) "**Claim**" means:
 - A. Claims relating to the rights and/or duties of Declarant, the Association, or an Owner, under the Restrictions.
 - B. Claims relating to the acts or omissions of the Declarant or the Association during control and administration of the Association, any claim asserted against the ACC, and any claims asserted

against a Board or a person serving as a Board member or officer of the Association, or the ACC.

C. Claims relating to the design or construction of Improvements on the Common Areas or Lots located within the Property.

(ii) **“Claimant”** means any Party having a Claim against any other Party.

(iii) **“Respondent”** means any Party against which a Claim has been asserted by a Claimant.

12.2 Mandatory Procedures. Claimant may not initiate any proceeding before any administrative tribunal seeking redress of resolution of its Claim until Claimant has complied with the procedures of this Article. As provided in *Section 12.8* below, a Claim will be resolved by binding arbitration.

12.3 Claim Affecting Common Areas. In accordance with *Section 4.17* of this Declaration, the Association does not have the power or right to institute, defend, intervene in, settle, or compromise litigation or administrative proceedings: (i) in the name of or on behalf of any Lot Owner (whether one or more); or (ii) pertaining to a Claim, as defined in *Section 12.1* above, relating to the design or construction of Improvements on a Lot (whether one or more). In the event the Association or a Lot Owner asserts a Claim related to the Common Areas, as a precondition to providing the Notice defined in *Section 12.4*, initiating the mandatory dispute resolution procedures set forth in this *Article 12*, or taking any other action to prosecute a Claim related to the Common Areas, the Association or a Lot Owner, as applicable, must:

12.3.1 Independent Report on the Condition of the Common Areas. Obtain an independent third-party report (the **“Common Area Report”**) from a licensed professional engineer which: (i) identifies the Common Areas subject to the Claim including the present physical condition of the Common Areas; (ii) describes any modification, maintenance, or repairs to the Common Areas performed by the Lot Owner(s) and/or the Association; and (iii) provides specific and detailed recommendations regarding remediation and/or repair of the Common Areas subject to the Claim. For the purposes of this Section, an independent third-party report is a report obtained directly by the Association or a Lot Owner and paid for by the Association or a Lot Owner, as applicable, and not prepared by a person employed by or otherwise affiliated with the attorney or law firm that represents or will represent the Association or a Lot Owner in the Claim. As a precondition to providing the Notice described in *Section 12.4*, the Association or Lot Owner must provide at least ten (10) days prior written notice of the inspection to each party subject to a Claim which notice shall identify the independent third-party engaged to prepare the Common Area Report, the specific Common Areas to be inspected, and the date and time the inspection will occur. Each party subject to a Claim may attend the inspection, personally or through an agent. Upon completion, the Common Area Report shall be provided to each party subject to a Claim. In addition, before providing the Notice described in *Section 12.4*, the Association or the Lot Owner, as applicable,

shall have permitted each party subject to a Claim the right, for a period of ninety (90) days, to inspect and correct, any condition identified in the Common Area Report.

12.3.2 Claim by the Association - Owner Meeting and Approval. If the Claim is prosecuted by the Association, obtain approval from Members holding sixty-seven percent (67%) of the votes in the Association to provide the Notice described in *Section 12.4*, initiate the mandatory dispute resolution procedures set forth in this *Article 12*, or take any other action to prosecute a Claim, which approval from Members must be obtained at a special meeting of Members called in accordance with the Bylaws. The notice of meeting required hereunder will be provided pursuant to the Bylaws but the notice must also include: (i) the nature of the Claim, the relief sought, the anticipated duration of prosecuting the Claim, and the likelihood of success; (ii) a copy of the Common Area Report; (iii) a copy of any proposed engagement letter, with the terms of such engagement between the Association and an attorney to be engaged by the Association to assert or provide assistance with the claim (the “**Engagement Letter**”); (iv) a description of the attorney fees, consultant fees, expert witness fees, and court costs, whether incurred by the Association directly or for which it may be liable if it is not the prevailing party or that the Association will be required, pursuant to the Engagement Letter or otherwise, to pay if the Association elects to not proceed with the Claim; (v) a summary of the steps previously taken, and proposed to be taken, to resolve the Claim; (vi) an estimate of the impact on the value of each Lot if the Claim is prosecuted and an estimate of the impact on the value of each Lot after resolution of the Claim; (vii) an estimate of the impact on the marketability of each Lot if the Claim is prosecuted and during prosecution of the Claim, and an estimate of the impact on the value of each Lot during and after resolution of the Claim; (viii) the manner in which the Association proposes to fund the cost of prosecuting the Claim; and (ix) the impact on the finances of the Association, including the impact on present and projected reserves, in the event the Association is not the prevailing party. The notice required by this paragraph must be prepared and signed by a person other than, and not employed by or otherwise affiliated with, the attorney or law firm that represents or will represent the Association or Lot Owner, as applicable, in the Claim. In the event Members approve providing the Notice described in *Section 12.4*, or taking any other action to prosecute a Claim, the Members holding a Majority of the votes in the Association, at a special meeting called in accordance with the Bylaws, may elect to discontinue prosecution or pursuit of the Claim.

12.4 Notice. Claimant must notify Respondent in writing of the Claim (the “**Notice**”), stating plainly and concisely: (i) the nature of the Claim, including date, time, location, persons involved, and Respondent’s role in the Claim; (ii) the basis of the Claim (i.e., the provision of the Restrictions or other authority out of which the Claim arises); (iii) what Claimant wants Respondent to do or not do to resolve the Claim; and (iv) that the Notice is given pursuant to this Section. For Claims governed by Chapter 27 of the Texas Property Code, the time period for negotiation in *Section 12.5* below, is equivalent to the sixty (60) day period under Section 27.004 of the Texas Property Code. If a Claim is subject to Chapter 27 of the Texas Property Code, the Claimant and Respondent are advised, in addition to compliance with

Section 12.5, to comply with the terms and provisions of *Section 27.004* during such sixty (60) day period. *Section 12.5* does not modify or extend the time period set forth in *Section 27.004* of the Texas Property Code. Failure to comply with the time periods or actions specified in *Section 27.004* could affect a Claim if the Claim is subject to Chapter 27 of the Texas Property Code. The one hundred and twenty (120) day period for mediation set forth in *Section 12.6* below, is intended to provide the Claimant and Respondent with sufficient time to resolve the Claim in the event resolution is not accomplished during negotiation. If the Claim is not resolved during negotiation, mediation pursuant to *Section 12.6* is required without regard to the monetary amount of the Claim.

If the Claimant is the Association, the Notice will also include: (a) a true and correct copy of the Common Area Report; (b) a copy of the Engagement Letter; (c) copies of all reports, studies, analyses, and recommendations obtained by the Association related to the Common Area which forms the basis of the Claim; (d) a true and correct copy of the special meeting notice provided to Members in accordance with *Section 12.4* above; and (e) reasonable and credible evidence confirming that Members holding sixty-seven percent (67%) of the votes in the Association approved providing the Notice. If the Claimant is not the Association and pertains to the Common Areas, the Notice will also include a true and correct copy of the Common Area Report.

12.5 Negotiation. Claimant and Respondent will make every reasonable effort to meet in person to resolve the Claim by good faith negotiation. Within sixty (60) days after Respondent's receipt of the Notice, Respondent and Claimant will meet at a mutually acceptable place and time to discuss the Claim. If the Claim involves all or any portion of the Property, then at such meeting or at some other mutually-agreeable time, Respondent and Respondent's representatives will have full access to the Property that is subject to the Claim for the purposes of inspecting the Property. If Respondent elects to take corrective action, Claimant will provide Respondent and Respondent's representatives and agents with full access to the Property to take and complete corrective action.

12.6 Mediation. If the parties negotiate, but do not resolve the Claim through negotiation within one-hundred twenty (120) days from the date of the Notice (or within such other period as may be agreed on by the parties), Claimant will have thirty (30) additional days within which to submit the Claim to mediation under the auspices of a mediation center or individual mediator on which the parties mutually agree. The mediator must have at least five (5) years of experience serving as a mediator and must have technical knowledge or expertise appropriate to the subject matter of the Claim. If Claimant does not submit the Claim to mediation within the 30-day period, Respondent will submit the Claim to mediation in accordance with this *Section 12.6*.

12.7 Termination Of Mediation. If the Parties do not settle the Claim within thirty (30) days after submission to mediation, or within a time deemed reasonable by the mediator, the mediator will issue a notice of termination of the mediation proceedings indicating that the

Parties are at an impasse and the date that mediation was terminated. Thereafter, Claimant may file suit or initiate arbitration proceedings on the Claim, as appropriate and permitted by this Article.

12.8 Binding Arbitration-Claims. All Claims must be settled by binding arbitration. Claimant or Respondent may, by summary proceedings (e.g., a plea in abatement or motion to stay further proceedings), bring an action in court to compel arbitration of any Claim not referred to arbitration as required by this *Section 12.8*.

12.8.1 Governing Rules. If a Claim has not been resolved after mediation as required by *Section 12.6*, the Claim will be resolved by binding arbitration in accordance with the terms of this *Section 12.8* and the rules and procedures of the American Arbitration Association (“AAA”) or, if the AAA is unable or unwilling to act as the arbitrator, then the arbitration shall be conducted by another neutral reputable arbitration service selected by Respondent in Tarrant County, Texas. Regardless of what entity or person is acting as the arbitrator, the arbitration shall be conducted in accordance with the AAA’s “Construction Industry Dispute Resolution Procedures” and, if they apply to the disagreement, the rules contained in the Supplementary Procedures for Consumer-Related Disputes. If such Rules have changed or been renamed by the time a disagreement arises, then the successor rules will apply. Also, despite the choice of rules governing the arbitration of any Claim, if the AAA has, by the time of Claim, identified different rules that would specifically apply to the Claim, then those rules will apply instead of the rules identified above. In the event of any inconsistency between any such applicable rules and this *Section 12.8*, this *Section 12.8* will control. Judgment upon the award rendered by the arbitrator shall be binding and not subject to appeal, but may be reduced to judgment in any court having jurisdiction. Notwithstanding any provision to the contrary or any applicable rules for arbitration, any arbitration with respect to Claims arising hereunder shall be conducted by a panel of three (3) arbitrators, to be chosen as follows:

- (i) One arbitrator shall be selected by Respondent, in its sole and absolute discretion;
- (ii) One arbitrator shall be selected by the Claimant, in its sole and absolute discretion; and
- (iii) One arbitrator shall be selected by mutual agreement of the arbitrators having been selected by Respondent and the Claimant, in their sole and absolute discretion.

12.8.2 Exceptions to Arbitration; Preservation of Remedies. No provision of, nor the exercise of any rights under, this *Section 12.8* will limit the right of Claimant or Respondent, and Claimant and the Respondent will have the right during any Claim, to seek, use, and employ ancillary or preliminary remedies, judicial or otherwise, for the purposes of realizing upon, preserving, or protecting upon any property, real or personal, that is involved in a Claim, including, without limitation, rights and remedies relating to: (i) exercising self-help

remedies (including set-off rights); or (ii) obtaining provisions or ancillary remedies such as injunctive relief, sequestration, attachment, garnishment, or the appointment of a receiver from a court having jurisdiction before, during, or after the pendency of any arbitration. The institution and maintenance of an action for judicial relief or pursuit of provisional or ancillary remedies or exercise of self-help remedies shall not constitute a waiver of the right of any party to submit the Claim to arbitration nor render inapplicable the compulsory arbitration provisions hereof.

12.8.3 Statute of Limitations. All statutes of limitation that would otherwise be applicable shall apply to any arbitration proceeding under this *Section 12.8*.

12.8.4 Scope of Award; Modification or Vacation of Award. The arbitrator shall resolve all Claims in accordance with the applicable substantive law. The arbitrator may grant any remedy or relief that the arbitrator deems just and equitable and within the scope of this *Section 12.8* and subject to *Section 12.9* below (attorney's fees and costs may not be awarded by the arbitrator); provided, however, that for a Claim, or any portion of a Claim governed by Chapter 27 of the Texas Property Code, or any successor statute, in no event shall the arbitrator award damages which exceed the damages a Claimant would be entitled to under Chapter 27 of the Texas Property Code. In all arbitration proceedings the arbitrator shall make specific, written findings of fact and conclusions of law. In all arbitration proceedings the parties shall have the right to seek vacation or modification of any award that is based in whole, or in part, on (i) factual findings that have no legally or factually sufficient evidence, as those terms are defined in Texas law; (ii) conclusions of law that are erroneous; (iii) an error of federal or state law; or (iv) a cause of action or remedy not expressly provided under existing state or federal law. In no event may an arbitrator award speculative, consequential, or punitive damages for any Claim.

12.8.5 Other Matters. To the maximum extent practicable, an arbitration proceeding hereunder shall be concluded within one hundred and eighty (180) days of the filing of the Claim for arbitration by notice from either party to the other. Arbitration proceedings hereunder shall be conducted in Tarrant County, Texas. The arbitrator shall be empowered to impose sanctions and to take such other actions as the arbitrator deems necessary to the same extent a judge could pursuant to the Federal Rules of Civil Procedure, the Texas Rules of Civil Procedure and Applicable Law. Each party agrees to keep all Claims and arbitration proceedings strictly confidential, except for disclosures of information required in the ordinary course of business of the parties or by Applicable Law or regulation. In no event shall any party discuss with the news media or grant any interviews with the news media regarding a Claim or issue any press release regarding any Claim without the written consent of the other parties to the Claim.

12.9 Allocation Of Costs. Notwithstanding any provision in this Declaration to the contrary, each party bears all of its own costs incurred prior to and during the proceedings described in the Notice, Negotiation, Mediation, and Arbitration sections above, including its

attorney's fees. Respondent and Claimant will equally divide all expenses and fees charged by the mediator and arbitrator.

12.10 General Provisions. A release or discharge of Respondent from liability to Claimant on account of the Claim does not release Respondent from liability to persons who are not party to Claimant's Claim.

12.11 Period of Limitation.

12.11.1 For Actions by an Owner. The exclusive period of limitation for any of the Parties to bring any Claim, including, but not limited to, a Claim of construction defect or defective design of Improvements on the Common Areas or Lots, shall be the earliest of: (i) for Claims alleging construction defect or defective design, two (2) years and one (1) day from the date that the Owner discovered or reasonably should have discovered evidence of the Claim; (ii) for Claims other than those alleging construction defect or defective design, four (4) years and one (1) day from the date that the Owner discovered or reasonably should have discovered evidence of the Claim.

12.11.2 For Actions by the Association. The exclusive period of limitation for the Association to bring any Claim, including, but not limited to, a Claim of construction defect or defective design of the Common Areas, shall be the earliest of: (i) for Claims alleging construction defect or defective design, two (2) years and one (1) day from the date that the Association or its agents discovered or reasonably should have discovered evidence of the Claim; (ii) for Claims other than those alleging construction defect or defective design of the Common Areas, four (4) years and one (1) day from the date that the Association discovered or reasonably should have discovered evidence of the Claim.

12.12 Funding Arbitration and Litigation. The Association must levy a Special Assessment to fund the estimated costs of arbitration, including estimated attorney's fees, conducted pursuant to this *Article 12* or any judicial action initiated by the Association. The Association may not use its annual operating income or reserve funds or savings to fund arbitration or litigation, unless the Association's annual budget or a savings account was established and funded from its inception as an arbitration and litigation reserve fund.

[SIGNATURE PAGE FOLLOWS]

EXECUTED to be effective on the date this instrument is Recorded.

DECLARANT:

WILBOW-SOLANA LLC,
a Texas limited liability company

By: _____

Printed Name: _____

Title: _____

THE STATE OF TEXAS §
COUNTY OF _____ §

 This instrument was acknowledged before me on this _____ day of
_____, 20____, by _____,
of Wilbow-Solana LLC, a Texas limited liability company, on behalf of said company.

(seal)

Notary Public, State of Texas

AFTER RECORDING RETURN TO:

Enrique Montenegro, AIA, NCARB

Stocker Hoesterey Montenegro

4514 Travis Street, Suite 302

Dallas, Texas 75205

Email: emontenegro@shmarchitects.com



The Knolls at Solana

DESIGN GUIDELINES

Adopted:

WILBOW-SOLANA LLC, a Texas Limited Liability Corporation

By: _____

Printed Name: _____

Title: _____

Adopted by WILBOW-SOLANA LLC, a Texas Limited Liability Corporation, in accordance with that certain Declaration of Covenants, Conditions and Restrictions for The Knolls at Solana, recorded in under Document No. _____, Official Public Records of Tarrant County, Texas (the "Declaration"). In accordance with Section 7.02(c) of the Declaration, these Design Guidelines may be amended from time to time by the ACC (as defined in the Declaration).

TABLE OF CONTENTS

Introduction	3
 CHAPTER ONE	
Architectural Design	5
<i>Overall Intent of the Architectural Guidelines</i>	5
<i>Maximum Height Limitations</i>	7
<i>General Massing Requirements</i>	9
<i>Roofs</i>	11
<i>Garages</i>	12
<i>Chimneys and Other Vertical Elements</i>	13
<i>Detached / Ancillary Structures</i>	14
<i>Fenestration: Doors and Windows</i>	14
<i>Garage Doors</i>	17
<i>Exterior Finish Materials and Details</i>	17
<i>Foundations</i>	18
<i>Exterior Siding Materials</i>	20
<i>Roof Materials</i>	25
<i>Gutters and Downspouts</i>	26
<i>Trim, Details, Texture and Ornamentation</i>	27
<i>Porches / Balconies / Outdoor Spaces</i>	29
<i>Exterior Light Fixtures</i>	30
<i>Miscellaneous Requirements</i>	32
<i>Solar Applications</i>	32
 CHAPTER TWO	
Site and Landscape Design	34
<i>Overall Intent of the Site and Landscape Guidelines</i>	34
<i>Location of the Home on the Homesite</i>	34
<i>Homesite Diagram and Building Envelopes</i>	35
<i>Combining Homesites</i>	38
<i>Tree and Shrub Thinning and Removal</i>	38
<i>Tree Removal in the Building Envelope</i>	38
<i>Pre-Construction Site Thinning and Clean Up</i>	39
<i>Driveways and Address Markers</i>	41
<i>Grading</i>	44
<i>Retaining Walls</i>	44

<i>Drainage</i>	46
<i>Parking</i>	47
<i>Exterior Hardscape Design: Outdoor Stairs, Paths, Courtyards, Terraces</i>	47
<i>Screen Walls, Fences and Gates</i>	49
<i>Landscape Structures, Site Furnishings and Outdoor Art</i>	52
<i>Basketball Goals and Sporting Equipment</i>	53
<i>Playscapes and Sport Courts</i>	54
<i>Water Features, Spas and Pools</i>	54
<i>Planting Design</i>	56
<i>Irrigation</i>	59
<i>Exterior Lighting</i>	59
<i>Exterior Holiday Decoration</i>	60
<i>Air-Conditioning and Other Mechanical Equipment</i>	60
<i>Barbecue Grills</i>	61
 CHAPTER THREE	
<i>Construction Guidelines</i>	62
 CHAPTER FOUR	
<i>Design Review Process</i>	65
<i>Project Types for Review</i>	65
<i>Design Review Process Overview</i>	65
<i>Actions and Approvals</i>	66
<i>Approved Design Professionals</i>	67
<i>Protocol for Approval of Architects</i>	67
<i>Pre-Design Conference</i>	68
<i>Preliminary Design Review</i>	68
<i>Final Design Review</i>	70
<i>Changes to Approved Plans</i>	73
<i>Work in Progress Observations</i>	73
<i>Right of Waiver</i>	74
<i>Non-Waiver, No Inadvertent Precedents</i>	74
<i>Design Review Schedule</i>	74
<i>Plan Submittals and Review Fees</i>	76
 Attachments	
<i>ACC Application</i>	78
<i>Supplement to the Design Guidelines –Shared Retaining Wall Rules</i>	80
<i>North Texas Plant List</i>	83

INTRODUCTION

Any notice or information required to be submitted to the ACC under these Design Guidelines hereunder will be submitted to the ACC at 5307 E. Mockingbird Lane, Suite 900, Dallas TX 75206 Phone: 972-479-0697

Background

The Knolls at Solana is a master planned community located in Tarrant County, Texas. Lots 2-20, Block A and Lots 2-4, 6-11, 13-15, 18-20, 22-25, 27-30, Block B, Lots 2-15, Block C (hereinafter “The Knolls”) a subdivision in Tarrant County Texas, according to the plat Recorded under Document No. _____, (the “**Property**”), are subject to the terms and provisions of that certain Declaration of Covenants, Conditions and Restrictions for Knolls at Solana, recorded in the Official Public Records of Tarrant County, Texas (the “**Declaration**”). Capitalized terms used but not defined in these Design Guidelines shall have the meaning subscribed to such terms in the Declaration.

Architectural Control Committee (ACC)

Article 7 of the Declaration includes procedures and criteria for the construction of improvements within the The Knolls community. Section 7.01 of the Declaration provides that no Improvements may be erected, placed, constructed, painted, altered, modified or remodeled on any Lot, and no Lot may be re-subdivided or consolidated with other Lots or Property, by anyone other than Declarant, without prior written approval of the ACC.

The ACC consists of three (3) members who have been appointed by **WILBOW-SOLANA LLC**, a Texas Limited Liability Corporation (the “**Declarant**”). At least one member of the ACC shall be a licensed architect registered in the state of Texas. As provided in Article 7 of the Declaration, the Declarant has a substantial interest in ensuring that Improvements within The Knolls maintain and enhance Declarant’s reputation as a community developer and do not impair Declarant’s ability to market and sell all or any portion of the community. The members of the ACC appointed by Declarant act solely in Declarant’s interest and shall owe no duty to any other Owner or The Knolls at Solana Residential Community, Inc. (the “**Association**”).

Governmental Requirements

Governmental ordinances and regulations and the Planned Development zoning for The Knolls are applicable to all Lots. It is the responsibility of each Owner to obtain all necessary permits and inspections. Compliance with these Design Guidelines is not a substitute for compliance with the applicable ordinances and regulations. Please be advised that these Design Guidelines do not list or describe each requirement which may be applicable to a Lot within The Knolls. Each Owner is advised to review all encumbrances affecting the use and improvement of their Lot prior to submitting plans to the ACC for approval. Furthermore, approval by the ACC should not be construed by the

Owner that any Improvement complies with the terms and provisions of all encumbrances which may affect the Owner's Lot. Certain encumbrances may benefit parties whose interests are not addressed by the ACC. All construction must meet applicable regulations of Federal, State, and local requirements, including but not limited to, applicable zoning, building construction codes, fire sub-code necessary for the intended use of any Lot.

The ACC shall bear no responsibility for ensuring plans submitted to the ACC comply with Applicable Law. It is the responsibility of the Owner to secure any required governmental approvals prior to construction on such Owner's Lot.

Interpretation

In the event of any conflict between these Design Guidelines and the Declaration, the Declaration shall control. Capitalized terms used in these Design Guidelines and not otherwise defined in this document shall have the same meaning as set forth in the Declaration.

Amendments

The ACC may amend these Design Guidelines from time to time. All amendments shall become effective upon publication to the community website. Amendments shall not apply retroactively so as to require modification or removal of work already approved and completed or approved and in progress. It is the responsibility of each Owner to ensure that they have the most current edition of the Design Guidelines and every amendment thereto.

CHAPTER ONE

ARCHITECTURAL DESIGN

Overall Intent of the Architectural Guidelines

The developer encourages the design of homes that are appropriate for the community's setting and location and to complement the surrounding natural environment. While there are no stylistic restrictions in the Knolls at Solana, homes should be visually connected through the use of similar materials and colors. These guidelines should be read in tandem with the Town of Westlake's Building Quality Manual. In the event where there is a conflict, the Building Quality Manual will rule.

Guideline Basics

The essential mission of these Guidelines is to protect and enhance the value of the entire community. They have been created with the best of intent and draw from the experience of its authors and numerous successful communities of similar quality. The ACC has broad capacity to interpret the Guidelines to either stiffen or relax requirements based on its mission to realize the intent of these Guidelines over and above the enforcement of the quantitative requirements PROVIDED THE INTENT OF THE ZONING AND BUILDING QUALITY MANUAL ARE ENFORCED. Interpretations of the ACC shall always comply with the Town of Westlake's Building Quality Manual, Zoning and Ordinances.

With the exception of any guideline provision addressing a particular architectural style, said guidelines shall be enforced by Town staff in reviewing building permit applications for compliance with the provisions contained in the Building Quality Manual referenced in Chapter 62, Article III of the Town of Westlake's Code of Ordinances. PD 6 states: "Prior to the approval of the preliminary site evaluation, the developer shall submit final design guidelines for approval by the Town Council that shall be recorded with the private deed covenants, conditions, and restrictions. Said guidelines shall incorporate the recommendations contained in the Building Quality Manual referenced in Chapter 62, Article III of the Code of Ordinances. Guideline provisions to be enforced by staff include, but may not be limited to, general building articulation, massing, fenestration, roof slope and building materials.

Each topic in this chapter is generally divided into three categories:

- Intent
- Quantitative/ Specific Requirements
- Subjective Requirements

In all cases, the expressed intent serves as the primary guide to the ACC in its decision making. To ensure a minimum level of competence, a Licensed Architect is required for all homes at The Knolls at Solana.



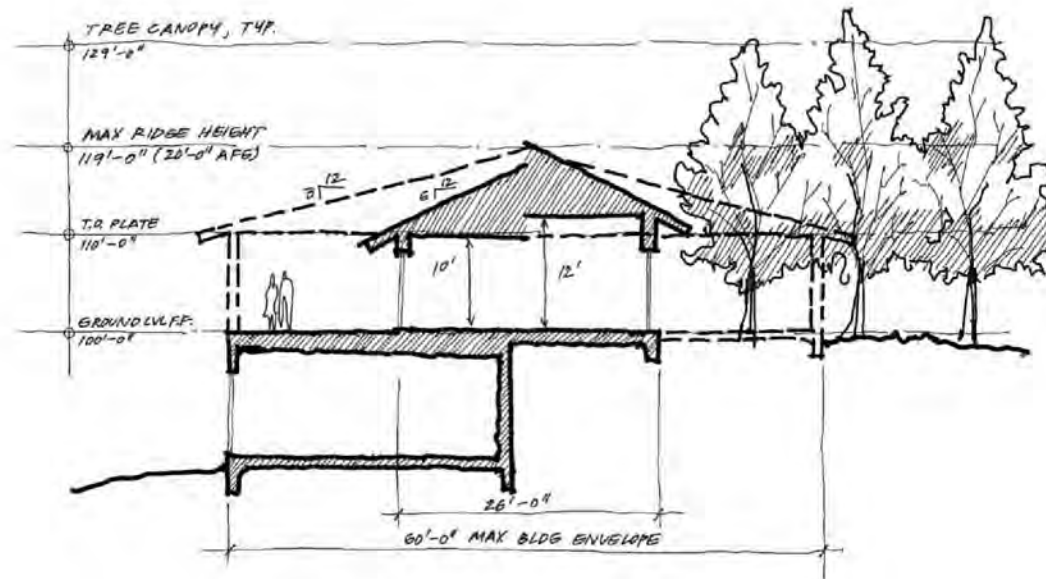
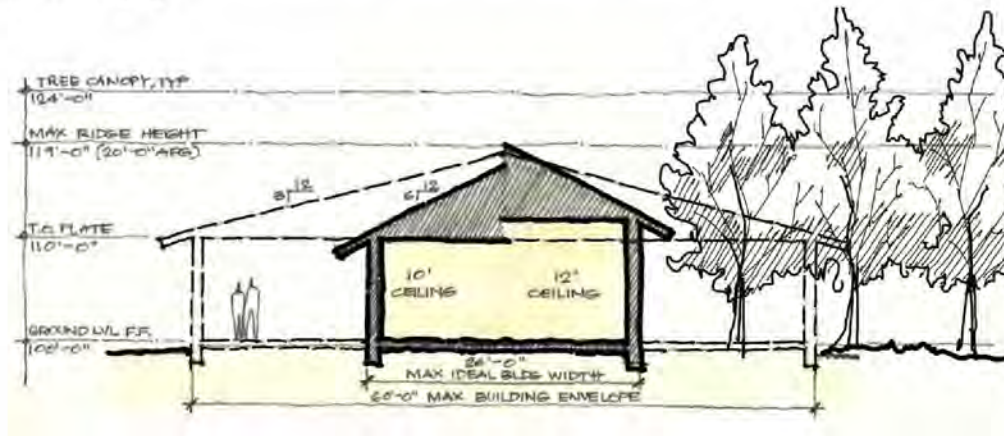
This drawing is for illustrative purposes only. To maintain the highest quality standards, all plans for land or facilities are subject to change without notice. Nothing presented shall obligate the developer, or any other entity, public or private, to construct facilities or develop land as shown. All dimensions provided in written material are subject to change. Please refer to filed plat for exact lot dimensions and for drainage, utility or landscape easements.

Maximum Height Limitation

Intent

Homes at The Knolls are generally to be limited to two stories in height (above grade) with the exception of homes with walk-out basements that may be three stories in height with two stories above the exposed area of the basement. Single story homes are also welcomed.

Lots 13, 14, 15 and 30, Block B are limited to a single story above grade. Lots 7, 9, 10, 11 and 15, Block C are limited to a single story above grade. See Preliminary Concept Plan on previous page.

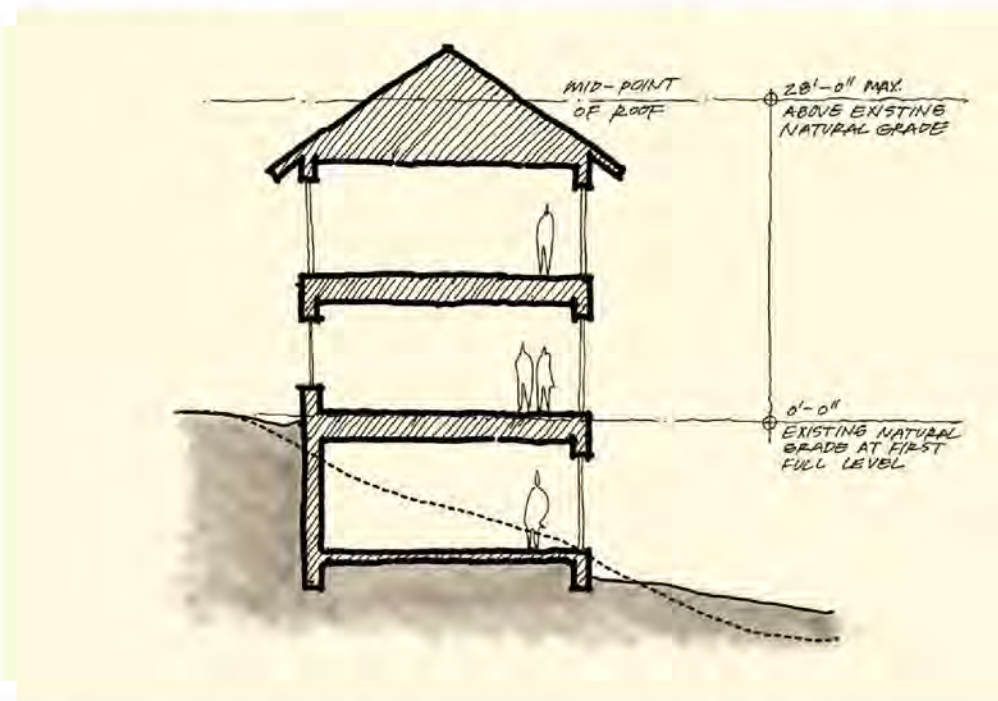


1 FOR THE LOTS ABOVE, THE ROOFLINE SHOULD BE A MINIMUM OF 10' BELOW THE SURROUNDING TREE CANOPY

Quantitative / Specific Requirements

Homes at The Knolls are required to be composed of attached simple volumes that move up and down with the topography. Therefore, the Maximum Building Height is determined at multiple points on each home on a volume by volume basis. The ACC will have final say in the determination of what constitutes the delineation between volumes.

Unless otherwise approved in advance by the ACC, no building or residential structure may exceed two and one-half stories or twenty-eight feet (28') in height as measured from existing grade to the midpoint of the highest pitched or hipped roof above. The measurement locations will be chosen by the ACC based upon which points are most restrictive, however the measurement shall exclude grades where walk out basements exist.



2 BUILDING HEIGHT AS MEASURED FROM HIGHEST EXISTING NATURAL GRADE AT THE FIRST FULL LEVEL

The Maximum Height for individual volumes is limited as follows:

- Single Story Volumes: 20 feet to ridge and 10' below tree canopy
- Two Story Volumes: 28 feet for all other lots not restricted
- Two Story Volumes plus walk-out basements: 28 feet above existing grade exclusive of walk-out basement

The height limitations imposed above shall not apply to chimneys and vent stacks, cupolas, or other architectural features that are not intended for occupancy or storage.

Views are neither guaranteed, preserved, nor protected within The Knolls.

General Massing Requirements

Intent

The general form and massing of homes in The Knolls are to reflect a residential scale that achieves the following:

- Responds to natural conditions such as topography and existing specimen trees.
- Works within the structural limits of stone, wood and other natural materials.
- Is composed of multiple, simple volumes with discrete roofs.

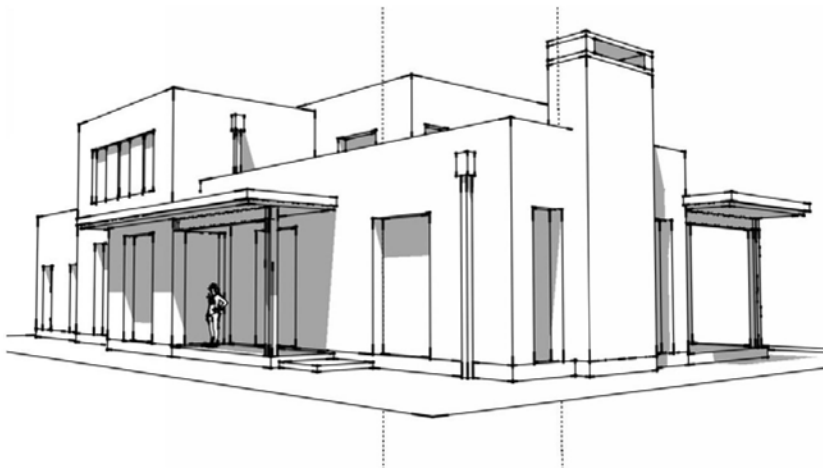
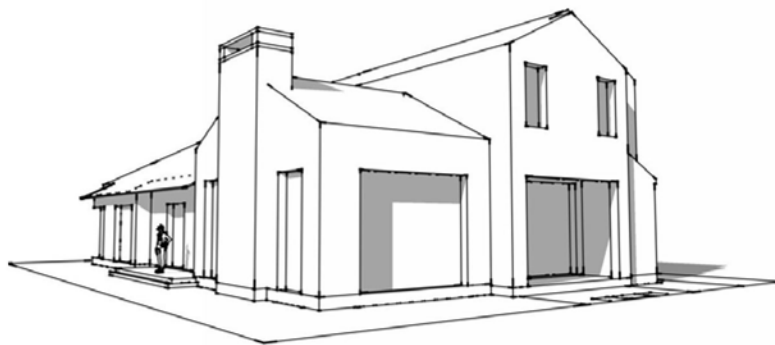
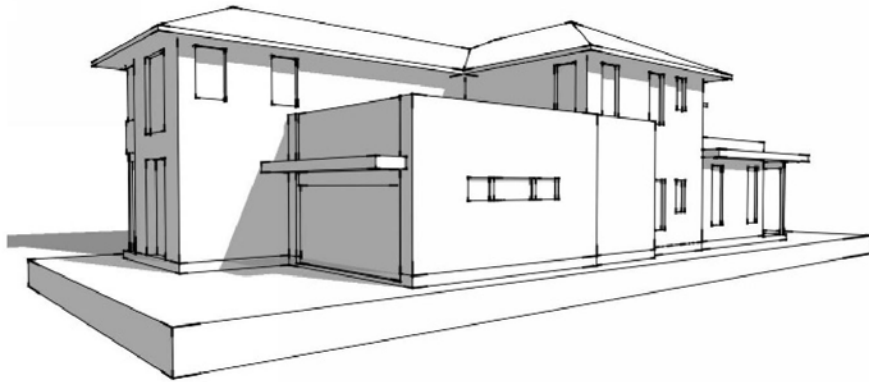
The design for a home in The Knolls must therefore accomplish the following:

- Appear residential in scale.
- Include single story elements.
- Be composed of multiple, simple volumes as appropriate for the scale of a home.
- Arrange those volumes with balance and rhythm.
- Incorporate roof forms that step down from a dominant, usually central volume.
- Express the nature and organization of the home's interior spaces through articulation of volumes and fenestration patterns.
- Step up or down with grade using variation in the heights of foundations, walls and roof forms such that the structure appears integrated into its natural setting.
- Include covered and/or uncovered spaces such as balconies, courtyards and porches that enhance the composition of the larger volumes of the home.
- Include the garage in the composition such that it appears subordinate to the rest of the home.

Site Coverage

Refer to the lot coverage standards which are addressed in the Planned Development document in Section 2 B. However, for lots which exceed 11,000 square feet of area, the provision is hereby granted that the maximum building footprint for a home, including one story and two story residences, may be increased up to ten percent (10%) of the 5,000 square foot maximum footprint. Footprint is defined as all areas that are contained within the ground floor air-conditioned space, garages and covered patios of the main residence (excludes open porches, patios, porte-cocheres, or other unenclosed areas and accessory buildings).

SEE MASSING DIAGRAMS OPPOSITE PAGE





3 AN EXAMPLE OF A HOME WITH ONE AND TWO STORY MASSES.

Quantitative / Specific Requirements

A minimum of two distinct “masses” or volumes is required for each home, at least one of which must be a single story element. For larger homes, the ACC may require more than two masses as it deems required to maintain a consistency in the composition and residential scale of the volumes that make up the homes within the community.

The Enclosed Area of the upper floor massing may not exceed 50% of the Enclosed Area for the main floor. For this calculation, double height spaces are included in the measurement of the Enclosed Area of the upper floor.

Exterior elements including exterior walls and roof planes and ridgelines may not have an unbroken horizontal length in excess of 35 feet. For this calculation, roof overhangs are not included in the measurement of the horizontal length. In the assessment of roof planes and exterior walls, the ACC will determine what constitutes a “break” in the plane; for example, a small dormer may not be deemed a sufficient “break” while a larger dormer may suffice.

Homes built on sloping sites must step down with the topography, breaking the apparent floor and roof lines at locations as determined by the extremity of the slope. The volumetric expression must, however, be maintained at a residential scale and not appear to be either palatial or institutional.

Roofs

Intent

Roofs are generally required to be simple in form and appear logical to construct. Their design should not appear to be an afterthought to the design of the floor plan.

Quantitative / Specific Requirements

Roof forms are limited to gable, shed and hip forms with dormers as secondary forms. Flat and curved roofs are also acceptable.

Mansard roofs are not permitted.

No more than 50% of the total roof may be designed as a single plane. No more than 75% of the roof may be designed as a single gable; the ACC may reduce this maximum requirement for particularly large homes as it deems necessary. A shed dormer may not exceed 2/3 of the area of the roof plane to which it is attached.

Dormers must be functional to allow actual window openings and head heights for upper level spaces as well as bring light into first floor spaces; “false” dormers are prohibited.



THE ABOVE DIAGRAM ILLUSTRATES ROOF BREAKS

Garages

Front facing garage doors are allowed if located further back on the lot than any other portion of the residence, and are in a motor court setting. Car ports are permissible provided that they are architecturally consistent with the rest of the home and landscaping is used to screen the paved area. Car ports should not be used to reduce or eliminate the garage requirement.

Provide architectural elements such as recessed doors, awnings and single-stall doors to articulate garage elevations.



4 AN EXAMPLE OF STEEL AND GLASS GARAGE DOORS

Chimneys and Other Vertical Elements

Intent

Chimneys are important elements in the overall formal composition of homes at The Knolls. They are required to be expressed as if they are serving a wood burning fire place in scale and height. Multi-story tower or turret elements are generally not permitted.

Quantitative / Specific Requirements

When adjacent to an exterior wall, the chimney must start at grade, be offset from the exterior wall a minimum of 1 foot and be of sufficient height to serve a wood burning fire place, even in situations when there is a gas appliance in lieu of a traditional firebox. Spark arrestors must be shielded from view with an architectural chimney cap. Vents for direct vent fireplaces should not face the street.

Plumbing vents should be minimally visible from the street as determined by the ACC. If there must be a vent visible to the street then it should blend in color with the roof.





4 Examples of architectural chimney caps

Subjective Requirement

Chimneys must appear to be of sufficient scale to be self-supporting.

Detached / Ancillary Structures

Intent

Detached garages, guest houses, home offices, art studios, play houses, garden sheds and other ancillary structures are encouraged. They must, however, be designed as part of a composition with the primary structure, subordinate in scale and consistent with its architectural vocabulary.

Quantitative / Specific Requirements

In most circumstances, the Enclosed Area of detached structures other than garages shall be limited to 150 sf. In no event will the total square footage of any approved accessory structure be interpreted to reduce the minimum square footage requirements of the principal residential structure as set forth in these Design Guidelines.

Subjective Requirements

Detached structures must be consistent in massing, materials and style with the primary structure and are, in general, also subject to these Guidelines.

Fenestration

Intent

Windows and doors must be designed in scales and patterns that are both complimentary to the form of the home and also expressive of the internal organization of the home. In combination with the form of the various components of the building, an observer of the exterior of the home should largely be able to identify the functions of the rooms behind the windows.

Window and door patterns are to be characterized by simple forms and a high level of detail.

Front doors, in particular, are to be of high quality and craft and consistent with the requirements for simple forms and patterns for the rest of the architecture of homes in The Knolls.

Quantitative / Specific Requirements

Windows

Rectangular or square windows are encouraged. Special exceptions may be granted by the ACC for horizontal or banded windows when deemed appropriate to the style of the proposed architecture provided that the style meets ACC approval. Arched windows are permissible only in areas such as stone walls where they are consistent with a structural or load-bearing expression. Glass block is prohibited for all exterior applications.

Double hung, single hung, casement, awning and fixed windows are appropriate. Divided lite patterns are encouraged. The ACC may also approve – as an alternative – gangs of fixed or single hung windows that create a similar effect. “Snap-in” or removable mullions are not permitted.

Approved window materials include wood, metal-clad, steel, aluminum or fiberglass clad. At a minimum, windows must be double-pane. Glass may be coated or tinted to control heat gain but reflective and etched glass surfaces are prohibited. Commercial storefront window systems are allowed provided they are used in floor to ceiling glazing conditions.

Metallic finishes such as clear-anodized aluminum are not permitted. Vinyl windows are prohibited. Owners will be required to submit proposed manufacturers at final design review.

Windows that are set in stone, brick, or stucco walls must be recessed a minimum of 3 inches. The expression of structural headers over windows is encouraged.

Doors

Approved door materials include wood, metal-clad, steel, aluminum or fiberglass clad. Materials that appear artificial are prohibited. Owners will be required to submit proposed manufacturers at final design review.

Doors that are set in stone, brick, or stucco walls must be recessed a minimum of 3 inches. The expression of structural headers over doors is encouraged. Doors shall have a minimum 8'-0" height.



5 THIS HOUSE IS AN EXAMPLE OF LARGE EXPANSES OF GLASS USED TO CONNECT MASONRY MASSES

Subjective Requirements

General

All elevations must have sufficient fenestration to create visual interest and to prevent the appearance of blank wall areas. Windows and doors must be balanced such that the majority of openings are not concentrated on single elevations. Large door and window openings are encouraged to connect interior spaces with outdoor living areas such as porches and courtyards. In some cases, glazing from floor to ceiling may be appropriate. Trim is to be consistent in material, color and proportion with the details of the rest of the structure.

Windows and Skylights

The solar orientation of windows must be considered in their design. On south and west facing exposures, appropriate overhangs in the form of shed roofs or extended overhangs are recommended.

In general, dormers are preferred over skylights. Skylights are, however, permitted provided that they are (1) located in areas that cannot be seen from the street, (2) utilize flat glass in lieu of the older plastic "bubble" designs and (3) are colored to match the roof.

Window colors are to be complimentary to the color palette of the rest of the home and are to be drawn from the following: bronze, copper, brown or other earth tones, black.

Doors

Hardware for exterior doors including hinges, latches, handles and pulls must be chosen for their high quality and artistic expression. Wrought iron, bronze, copper, satin nickel or similar materials are required.

In particular, the main entry door is subject to special review to ensure that it is in keeping with the community's high standards of quality and consistent with the overall design of the home. Art glass may be included but is also subject to similar special review.

Doors are to be stained or painted (with the exception of glass and some types of metal doors). Color used to emphasize a home's front door is allowed.

Garage Doors

Intent

Single-wide garage doors are preferred over double-wide. Garage doors must be made of materials and include details that are commensurate with the high standards of these Guidelines. Garage doors shall be made of sectional wood, or be wood clad, or glass and steel. Garage doors shall be recessed a minimum of six inches from the plane of the adjacent wall.

Quantitative/ Specific Requirements

Garage doors must be clad with wood or metal that coordinate with the exterior materials and windows and doors on the house. Metal-framed doors with frosted glass panels are also allowed. Owners will be required to submit proposed manufacturers at final design review.

Double-wide doors are permitted provided that the garage doors are set back from the street a minimum of 10'-0" from the front yard setback or face the side yard and that the door is designed with cladding that visually minimizes the width of the door.

Subjective Requirements

The ACC is required to scrutinize the proposed cladding design to ensure that:

- It is consistent with the rest of the home in style
- Architectural details are included to visually minimize the impact of the doors from the street or common areas.

Doors are to be stained or painted or may be clad to match windows and are to be either the same color as the exterior siding or a slightly darker color that is still within the generally approved earth tones and hues.

Exterior Finish Materials and Details

Intent

The exterior finish materials and details of homes in The Knolls must appear to be natural. The application of exterior materials and details must be coherently applied across the entire home in a manner consistent with the overall stylistic intent of the design.

All materials are to be used in such a manner as to appear structurally correct. Stone walls and columns, timber post, beams and trusses and other structural elements must appear to be self-supporting and/or appropriately massive for their task. Refer to the Town of Westlake's Building Quality Manual.

Subjective Requirements

Material changes must occur at logical transition points. Vertical transitions must occur at inside corners and horizontal transitions must occur at appropriate heights with dividing ledge stone or trim materials. Some appropriate locations for horizontal transitions include second floor finish floor elevations and window sills and foundations.

Connection details must be appropriately authentic. Materials shall express appropriate weight and dimension.



6 THOUGHTFUL VERTICAL AND HORIZONTAL TRANSITIONS OF MATERIALS

Foundations

Intent

Foundations and finish grading in The Knolls must be designed such that the home appears to be integrated into the earth.

Quantitative / Specific Requirements

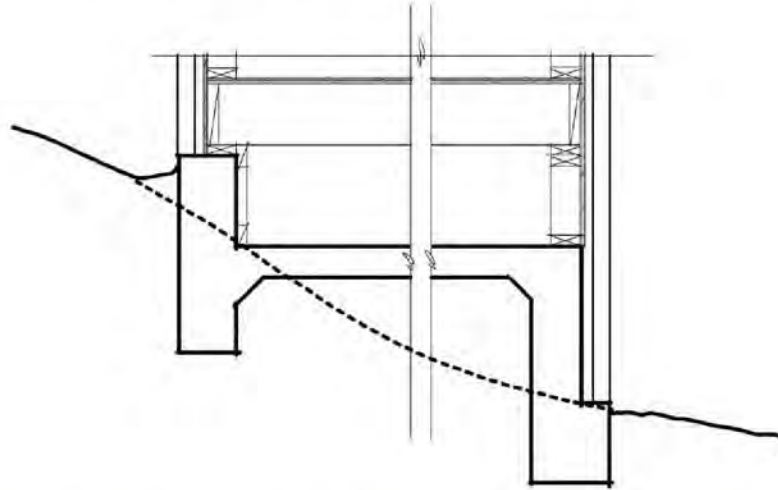
All property owners are required to provide a geotechnical report from a licensed provider on which their foundation design is to be based.

Foundation walls that are above grade by more than 6 inches must be clad with stone or other suitable finish material. Faux stone is prohibited.

Foundation vents must either be concealed in some fashion or be made to be decorative. Plastic or galvanized metal vents are prohibited.

Subjective Requirements

On sloping sites, foundations must be stepped with the contours to avoid high retaining walls. Where raised slabs are employed, a dropped brick ledge is required. See sketch.



7 RETAINING WALLS INTEGRAL TO THE HOUSE MUST BE CLAD IN THE HOUSE MATERIAL



8 AN EXAMPLE OF A STEPPED FOUNDATION

Exterior Siding Materials

Intent

The predominant materials to be used for exterior walls at The Knolls are to be stucco, brick and stone. Wood may be used as an accent material but should be limited. Wood is to be finished to take advantage of its natural grain. Wood and stone colors and patterns must complement the surrounding natural environment.



9 WOOD SIDING CLADDING THE SECOND FLOOR OF THIS HOME COMPLEMENTS THE LIMESTONE

General Quantitative / Specific Requirements

Homes at The Knolls may not use more than three major exterior wall materials.

Wood Siding Materials

Wood must be stained, not painted, such that the natural grain shows through. Synthetic wood products are permitted provided that they are of sufficient quality and design to appear real. Some approved manufactures include James Hardie, Geolam, and Cali Bamboo. Builders are required to provide samples for alternative materials. Owners will be required to submit proposed materials including required trim and accessory components at final design review.

Log homes are not permitted in The Knolls. Plastic and PVC trim is prohibited.



10 AN EXAMPLE OF A STONE HOUSE COMPLEMENTED WITH BRICK

Stone

In general, cladding whole masses is preferred over wainscoting. When used, stone wainscoting must be either discontinuous or varied in height. Stone wainscoting must have a ledge stone cap or coping.

Openings for windows must include sufficiently massive lintels to appear structural. As an alternative, arched openings are permissible provided that the stone work is applied to appear structurally correct. Owners will be required to submit proposed materials including required trim and accessory components at final design review.

Stone is subject to the following requirements:

- No faux stone
- Stone must appear to be indigenous and work within the overall color palette. River rock is prohibited.
- Stone must appear to start below grade and be designed to appear structural and not a thin veneer.
- Stone must also appear to be load-bearing. The longest dimension should predominately run horizontally.
- Although thin veneer stone applications are not prohibited, they are required to be detailed such as to appear at least full bed depth.



11 STONE SHOULD BE LAID TO APPEAR LOAD BEARING

Stucco

Portland cement stucco is allowed in the Knolls. EFIS or other comparable imitation products are not allowed. Owners will be required to submit proposed materials including required trim and accessory components at final design review.



12 AN EXAMPLE OF PORTLAND CEMENT STUCCO

Metal Siding

Non-reflective metal materials are permissible as an exterior siding material but is limited to coverage of no more than 20% of the total area of the exterior walls. Some approved materials include paint grip, copper, and zinc.



13 AN EXAMPLE OF WEATHERED COPPER SIDING

Prohibited Materials

The following materials are prohibited for use as siding:

- Plastics or Vinyls
- Plywood, T-111, OSB or other engineered wood sheet goods
- Composite shingles
- Masonite

Roof Materials

Intent

Roofing materials are to be non-reflective, textured and a variegated dark color that is compatible with the surrounding natural environment. Their use should also be consistent with the practical requirements of the local environment. For example, shading large wall openings.

Quantitative / Specific Requirements

Approved roofing materials include:

- All wood shingles and shakes (provided they are fire resistant)
- Slate and high quality faux slate tiles (DaVinci Roofscapes tile or equal)
- Flat and barrel clay tile
- Concrete tile (Monier Life tile or equal)
- Non-reflective standing seam metal (paint grip, copper, and zinc)
- Prefinished metal such as “Galvalume”
- Materials suitable for flat roofs such as TPO so long as they are not visible to a street.

Prohibited roofing materials:

- All reflective metals including galvanized products
- Plastic shingles or tiles
- Metal panels designed to appear as other materials
- Composition shingles

The ACC is, however, instructed to keep an open mind to advances in technology that may make some simulated materials sufficiently genuine in appearance. Owners will be required to submit proposed materials including required trim and accessory components at final design review.

Flues, vents and other penetrations through the roof plane must be painted to match the roof if not enclosed in a concealing structure.

Roof Colors

Approved colors include:

- Earth and other muted forest tones
- Dark greens
- Variegated blacks
- Grey, blue and green slate colors
- Copper (oxidized)
- Bronze
- Oxidized metals
- Prefinished metal such as “Galvalume”



14 THIS HOME COMBINES PAINT GRIP AND SLATE ON ITS ROOF

Gutters and Downspouts

Intent

Gutters and downspouts are to be integrated into the overall design of the home in form, location and color. All downspouts shall occur at building corners unless the locations are part of a unique design intent.

Quantitative / Specific Requirements

Plastic or other non-metal gutters and downspouts are prohibited.

In locations where gutters are not used, the landscaping below the drip line must be reinforced with some form of decorative gravel or other means of preventing erosion. If a downspout drains to open ground, the receiving area must be similarly reinforced. Water should not be discharged onto adjacent lots.

Subjective Requirements

Paint grip, copper, and zinc are encouraged as materials. Prefinished metal such as “Galvalume” is also allowed. Painted gutters and downspouts are discouraged.

Trim, Details, Texture and Ornamentation

Intent

A richness of architectural detailing is required in The Knolls. The selection of details has a major impact on the apparent style of the design. Details must be applied consistently on all elevations and in concert with the stylistic intent of the design. Refer Town of Westlake Building Quality Manual.

Details must be substantial in scale relative to the structure and to their inherent structural properties. In all cases, elements that are structural or clad structural components must be scaled and detailed such that they appear functional and structurally appropriate.

Quantitative / Specific Requirements

Some preferred details include:

- Exposed timber or steel, beams and trusses
- Corbels, brackets and kickers
- Exposed rafter tails
- Lintels or headers over opening in masonry walls (limestone, board-formed concrete)
- Architectural attic vents
- Flat roofs should be hidden behind parapets or provided with integral box gutters to provide seamless transitions with fasciae
- Highly crafted closure details



Subjective Requirements

The ACC has wide latitude to ensure that an appropriate level of detail and ornamentation is included in proposed designs. The ACC must be the arbiter that determines the right balance between the poles of austerity and excess.

The ACC will also determine whether or not an element appears to be structurally appropriate in scale and detailing for its apparent loads.

Porches / Balconies / Outdoor Spaces

Intent

Porches, balconies and other forms of outdoor spaces that are an extension of the architecture of the home are encouraged. They must be designed to appear complementary and in appropriate proportion to the form to which they are attached or otherwise relate.



15 EXAMPLE OF APPROPRIATELY SCALED TIMBER STRUCTURE



16 THIS PORCH EXTENDS THE LIVING SPACE TO THE OUTDOORS

Quantitative / Specific Requirements

The underside of balconies where visible must be finished comparably to eaves and overhangs of roofs. Minimum depth for porches shall be 6'-0".

Porches, when low to the ground, must be designed to screen the view below the porch.

Wood, plastic or metal lattice is not permitted; similar skirting deemed not to be sufficiently substantial by the ACC is prohibited.

Subjective Requirements

Structural elements such as columns, braces and kickers must be designed to appear appropriately massive to carry their apparent load, even when non-structural.

If constructed of wood, the stain colors must be equal to or complementary to the trim colors on the home. Similarly, stone used on porches must be consistent with the stone on the home.

Exterior Light Fixtures

Intent

Exterior Light fixtures, both attached to the home and installed elsewhere on the site must be limited in their impact in order to preserve the night time dark sky by minimizing the

visibility of the lamp or light source. They are to use low intensity, indirect light sources to the extent required for safety and subtle accenting of the architecture and landscape.

The quality and style of the fixtures must be in keeping with the architecture of the home.

Exterior lighting shall comply with the Town of Westlake's Dark Sky Ordinance.

Quantitative / Specific Requirements

All exterior light fixtures must be shielded such that no direct light is allowed to exit the light fixture horizontally. Light from one property should not be allowed to spill onto an adjacent property. This includes security lighting operated by a motion sensor.

Pole-mounted lights shall not be more than 8 feet tall. Lights mounted on masonry plinths and bollards are encouraged.

Up-lighting of houses and trees is prohibited.

Polished brass fixtures are prohibited. Wrought iron, bronze, copper, tarnished brass and other non-reflective metals are encouraged.



17 TREE LIGHTS AND PATH LIGHTS POINT DOWN SO AS NOT TO BLEED ONTO ADJACENT PROPERTIES

Subjective Requirements

The ACC will review exterior light fixtures with a high amount of scrutiny to ensure that their quality and design is commiserate with the overall requirements of these Guidelines and the home to which they are to be installed. Their scale must be appropriate to their use; oversized fixtures as determined by the ACC will be prohibited. Fixtures that are or appear to be hand crafted are encouraged.

Miscellaneous Requirements

Intent

Trash storage, satellite dishes, meters and utility hook-ups and other such equipment are to be hidden from street view. Further, trash storage, and utilities as mentioned above, should be screened from adjacent properties if located in a side yard.

Quantitative / Specific Requirements

Meters and utility hook-ups can be screened from view either by their location on the home or with landscape walls or similar structures. They must be shown on the elevations of proposed designs.

Trash storage enclosures with doors easily accessible to the trash removal providers are required for each home at The Knolls. Each enclosure must be sized to contain at least one of the 20-gallon trash bins as required by the outside provider. Trash enclosures can either be attached to the home or free-standing. For security reasons, the trash storage enclosure must not be accessible from inside the home.

Satellite dishes may not exceed 2 feet in diameter and must be approved specifically by the ACC prior to their installation. The ACC will work with the Owner to find a practical location that creates the least impact on neighbors and passersby. Potential satellite dish locations must be identified in all design submissions and then pre-wired during construction regardless of the owner's intent to have or not have satellite service.

Solar Applications

Intent

Equipment used to capture the energy of the sun – such as photovoltaic panels or shingles and hot water collectors must be both integrated into the architecture and largely hidden from primary view sheds. Windmills are prohibited.

Subjective Requirements

The ACC is instructed to support Owners and Architects who wish to integrate such panels and other equipment into their homes with as much flexibility as possible while maintaining its main requirement of mitigating any potential negative aesthetic impacts.

THIS



...NOT THIS



CHAPTER TWO

SITE & LANDSCAPE DESIGN

Overall Intent of the Site and Landscape Guidelines

Design for the Site and Landscape at The Knolls at Solana must achieve the following:

- Preserve, protect and enhance the existing forest and natural environment of The Knolls.
- Situate homes such that they preserve the integrity of the surrounding forested landscape by maintaining or replicating and restoring a natural buffer between the house and street, neighboring Homesites and Common Areas.
- Limit tree removal to what is necessary to accommodate the home and critical views, improve forest health across the entire Homesite and selectively open up views while ensuring that off-site views are protected. Employ an arborist to assess tree health for trees exposed to construction prior to construction and protect trees as recommended during construction.
- Incorporate unique design solutions that are responsive and subordinate to the specific Homesite's topography.
- Site buildings to maintain a low, subordinate profile against the back drop of the surrounding forests and generally below the tree canopy.
- Design landscape that blends new landscaping with the natural environment by using native materials and providing a transition from manicured areas to areas that appear to be natural.
- Use natural and indigenous building materials for landscape structures, site walls and outdoor areas including wood and stone building materials. The project stone should be used for walls visible to the street. See attachment 3 for Approved Plant List.

Location of the Home on the Homesite

Homes in The Knolls must be situated on their Homesites such they achieve the following objectives:

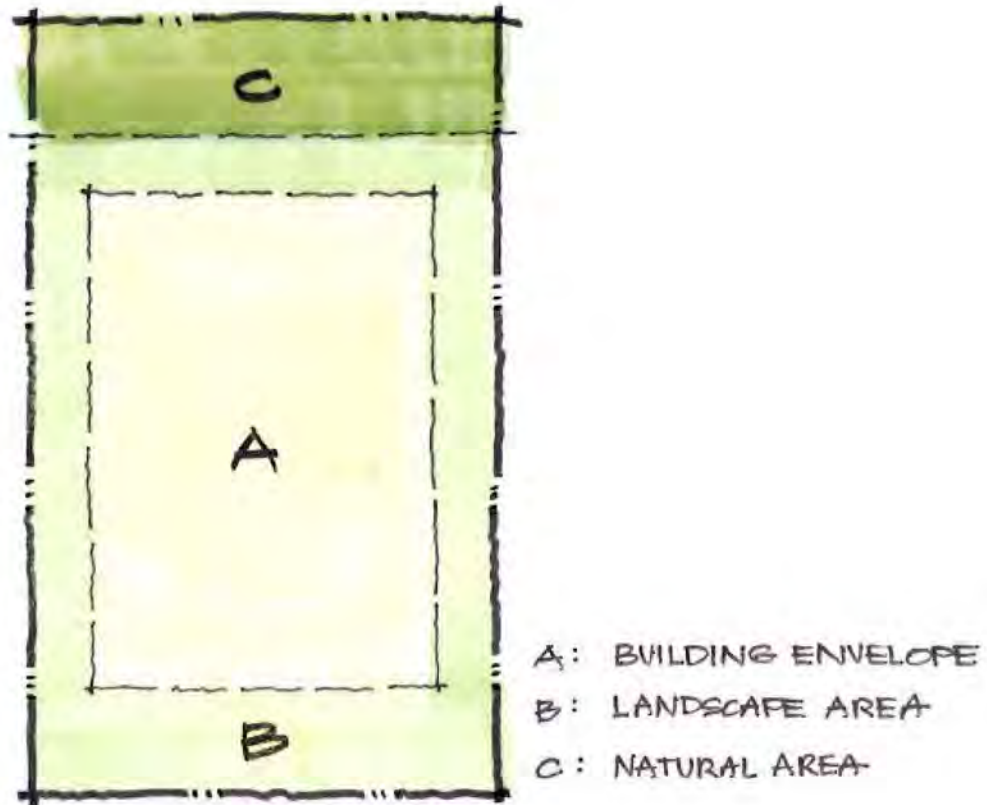
- Minimize grading to non-built areas of the lot.
- Maximize privacy.
- Protect, enhance and maintain the natural forest throughout the community.

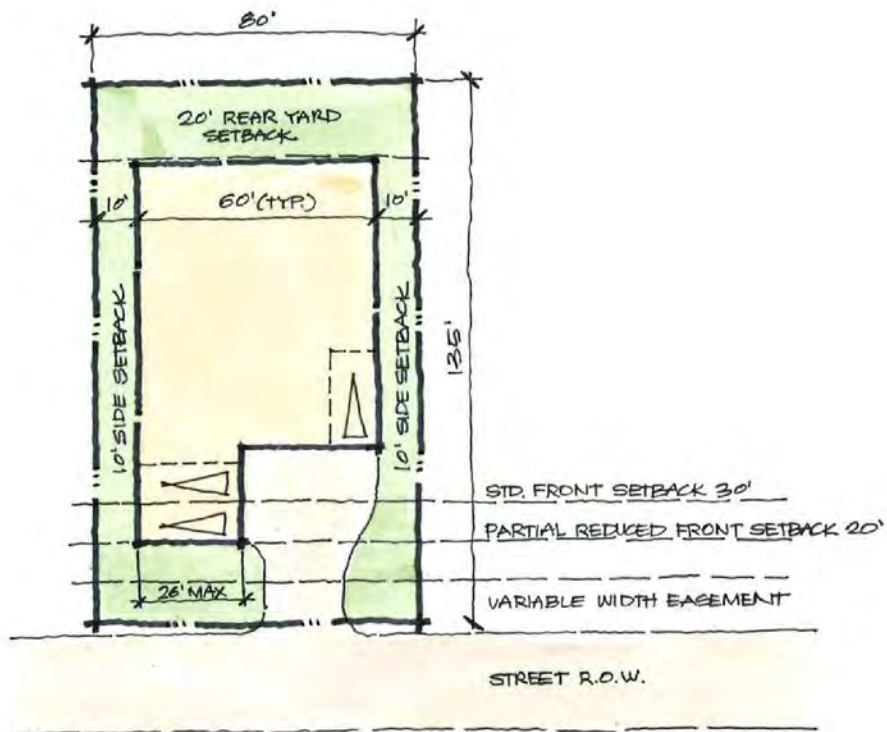
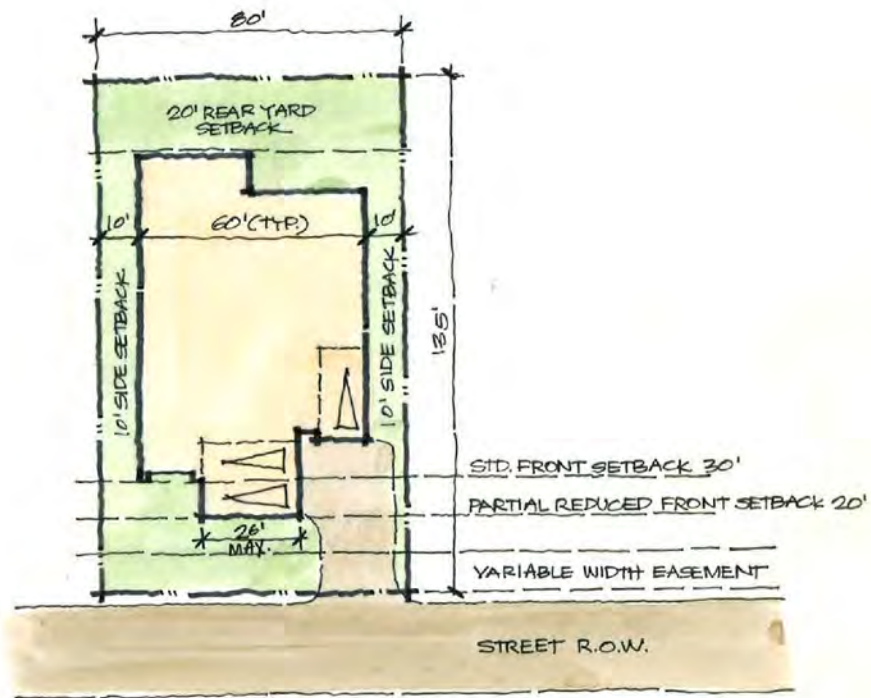
Preserve the dominance of the natural setting by situating buildings such that they blend into their surroundings. Foundations should be integrated into the contours of the site.

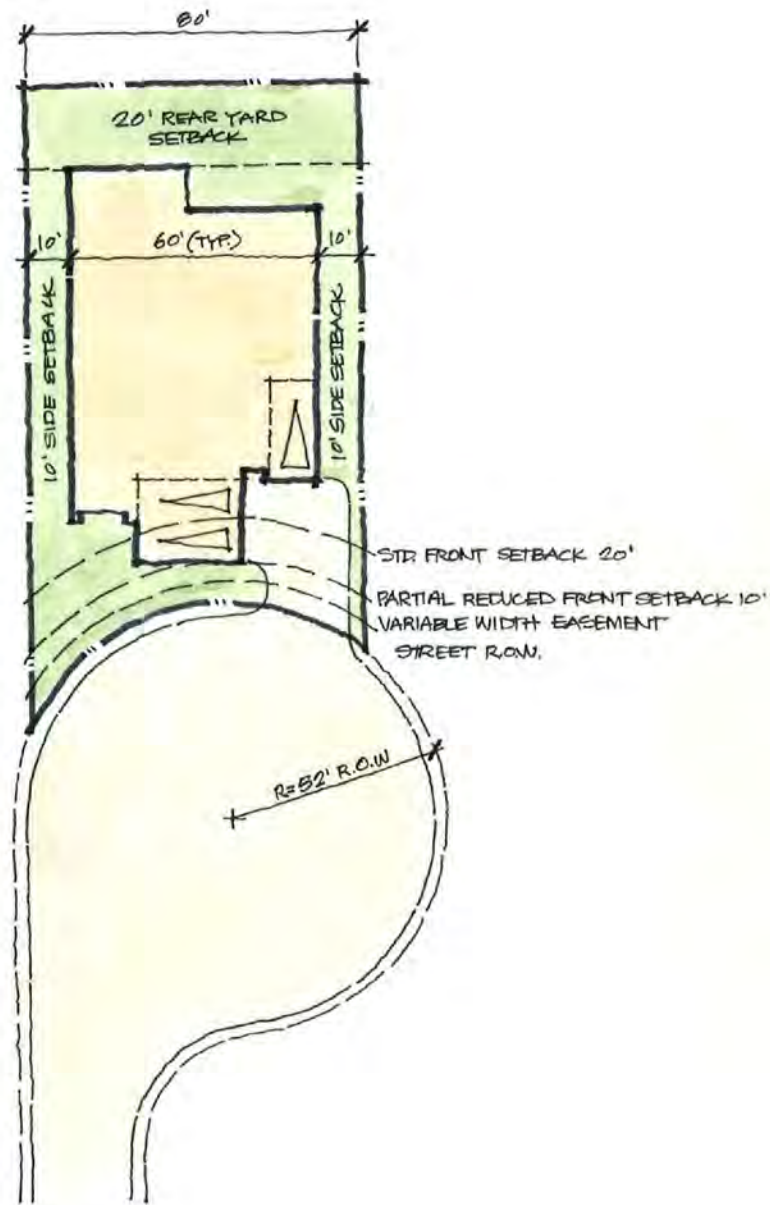
Homesite Diagram and Building Envelopes

A Homesite Diagram has been prepared for each Homesite. This diagram establishes the boundaries of the Building Envelope and Natural Area within each Homesite.

Homesite Diagrams are available from the ACC administrator and are provided on or before the time of closing on the property.







Intent

The Building Envelope

The Building Envelope is the area in which the home and potential ancillary structures can be constructed as well as other vertical improvements as well as terraces, landscape walls, ornamental streams and pools, swimming pools or spas and auto-courts. It is also the area in which landscaping such as gardens and lawns may be created and offers the least restrictions on what types of vegetation can be installed.

The Landscape Area

The Landscape Area of the Homesite is the area typically adjacent to the perimeter of the Building Envelope that is designed to allow more cultivated landscaping such as lawns and planting beds also horizontal improvements, patio and motor courts areas; terraces and retaining walls.

The Natural Area

The Natural Area of the Homesite is the area at the rear of each homesite and outside of the Building Envelope. The Natural Area is to remain wooded. Any canopy tree removal shall be only by a tree removal permit issued by the town of Westlake. Previously disturbed natural areas are encouraged to be restored and/or recreated post-construction. No construction of any kind may take place within the Natural Area. Understory vines, shrubs, undergrowth, ground cover may be removed. Existing grades should not be altered where native trees are preserved. The natural wooded landscape may be enhanced through either the addition of approved, indigenous species that are compatible with the existing vegetation or tree thinning for the sake of forest health and fire safety. A rear yard fence of steel picket or pipe rail and wire mesh may be erected along rear property line in the natural area. Refer to fences.

Combining Homesites

Prior to combining two or more Homesites, approval is to be obtained from the Declarant during the Development Period or from the ACC thereafter. When combining two or more Homesites, the ACC will designate new Building and Landscape Envelopes and a new Maximum Enclosed Area. The ACC shall respect the Town of Westlake's zoning regulations.

Tree and Shrub Thinning and Removal in Natural Areas

Intent

Existing native tree species in the Natural Area of Homesites in The Knolls must be maintained and enhanced in order to create visual privacy between the home and neighboring properties and open spaces. Owners are required to maintain the wooded areas on their Homesites in a manner that will maximize tree health and enhance the appearance of the natural environment. Within the Landscape Area, restoration or replication of native shrubs and trees is encouraged to provide privacy between adjacent homesites.

Tree Removal in the Building Envelope and Landscape Area

Intent

The restrictions limiting predevelopment clearing are consistent within both the Building Envelope and the Landscape Area. Within these envelopes, trees and shrubs can be removed to accommodate the foundation of the new home, utilities, required excavations, and its ancillary structures and improvements. Outside of the Building Envelope, existing

high-quality trees are to be incorporated into the landscape plan as best possible. Understory vines and shrubs may be removed in the Building Envelope and side yards and front yard prior to preparing a limited tree survey and prior to tree removal for purposes of access, surveying and marketing of the homesite.

Owners may clear the entirety of the envelopes but are encouraged to leave a significant minority in place to accomplish two goals. First, the envelopes are composed with straight lines but trees may not be removed such that a wall or corridor is created; the edge must be softened with undulations in the clearing limits. Second, the forest landscape should be integrated into the landscape design around the home.

Quantitative / Specific Requirements

The removal of any tree that has a diameter greater than 9 inches, as measured 4 feet above grade, or any shrub measuring greater than 5 feet in height, must be approved by the ACC and Town of Westlake. Trees must be individually permitted for removal with the town if it cannot be preserved. Lot owners are encouraged to design the home and garden around trees 9" or greater in diameter if possible and practical.

Failure to obtain ACC approval for tree/shrub removal may result in a fine up to \$2,500 per tree/shrub and/or additional tree/shrub mitigation as specified by the ACC. The ACC reserves the right to periodically adjust fines for unapproved tree/shrub removal.

100% of side yards and 50% of the front yard may be cleared.

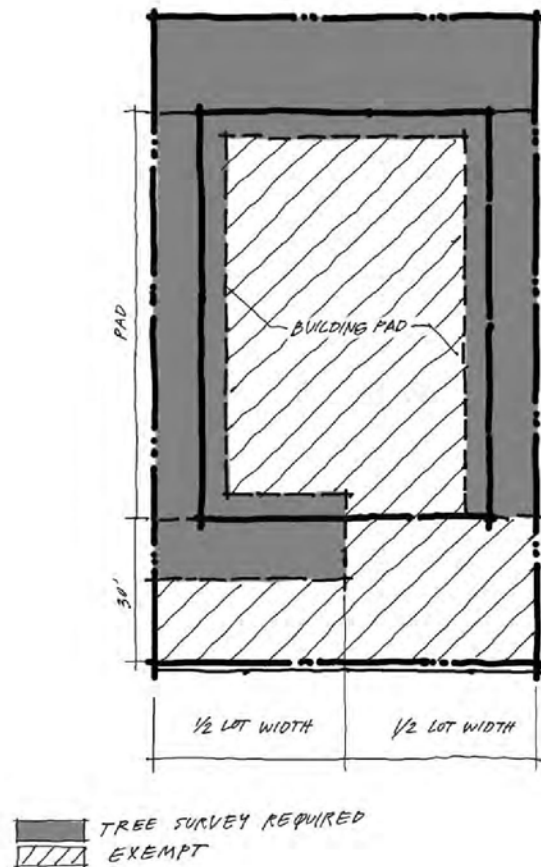
Subjective Requirements

The ACC is asked to work with Owners to encourage the preservation of particularly large and high-quality trees and may require an adjustment in the location of an improvement to achieve this goal, provided the requirement does not prevent the reasonable use and enjoyment of the Homesite. Owners and architects are required to make a reasonable attempt to preserve such trees and to work with the ACC towards this important goal. The consultation of an arborist is highly recommended.

Pre-Construction Site Thinning and Clean-up

Intent

In order to allow owners to perform tree and shrub thinning and maintenance on their Homesites in advance of ACC approval of architectural and landscape plans for the Homesite, the ACC has created the following policy.



Quantitative / Specific Requirements

Owners and/or their contractors must present a plan to the ACC that includes the following:

- A limited tree survey. (Preliminary clearing of understory plants may be done if deemed necessary for access to surveyors. This will be determined on a case by case basis)
- A plan showing the area in which the proposed thinning and maintenance work is to be performed including the access route from the street.
- At least one photograph of both the front and back of the Homesite sufficient to show existing conditions for comparison purposes when the work is complete.

Subsequent to receiving written approval from the ACC, work may proceed within the approved work areas with the following restrictions:

- Removal of trees less than 4" in diameter as measured at 4' above grade.
- Removal of shrubs less than 5' in height.

- Removed trees and shrubs must be cut at ground level or lower and be removed from the site or chipped on site and spread evenly within the work area.
- Trees may have lower level limbs removed up to 1/3 the total height of the tree from the base of the trunk.

Such work is limited to the Building Envelope and the Landscape Area and expressly excludes the Natural Area portion of the Homesite. When complete, the work area must be returned to a state that resembles the pre-existing and natural condition. Any ruts or other damage to the forest floor must be repaired. The ACC reserves the right to require that the Owner re-vegetate the work area.

The Owner and their contractor are subject to all other Construction Guidelines including the section on Damage Repair and Restoration. Unless otherwise specified by the ACC, such thinning and clean-up work shall not exceed 30 days.

If the Owner is interested in removing trees or shrubs in excess of the previously described maximum sizes, Owner may seek approval on a case by case basis from the ACC. For such approvals, Owner must submit a site plan indicating the location of the item(s) to be removed and a photograph(s) of the proposed item(s). If helpful, a description of why the item should be removed is also welcomed.

Driveways and Address Markers

Intent

- Minimize visibility of paved areas from off-site through vegetative screening or low wall.
- Blend driveways into the terrain by following the natural grade.
- Utilize distinctive paving materials at motor-courts and parking areas.
- Minimize width of driveway at connection with street.
- Prevent cars from overhanging onto adjacent lots.

Quantitative / Specific Requirements

Appropriate paving materials for driveways and auto courts include:

- Colored, stamped, exposed aggregate, broom finished and/or patterned concrete
- Pre-cast concrete pavers that are chosen to blend into the natural environment or to complement adjacent paving types in both color and pattern.
- Native stone
- Decomposed granite or decorative gravel with a concrete apron of at least 20 feet in length starting at the curb. Only use if grades allow.
- Turf block or similar structured turf in low volume areas.
- Colored gravels that complement the natural environment such as iron ore or pea gravel. Only use if grades allow.

- Driveway gradients are not to exceed 12%.
- Provide wheel stops or curbs 18" from side lot line.

Inappropriate paving materials include:

- Untextured, uncolored concrete
- Asphalt (unless banded or bordered with concrete)
- White, angular gravel
- Faux stone

Driveways are encouraged to narrow at the driveway apron. Parking and turn-around areas must be screened from off-site views by supplementary plantings as approved by the ACC as part of the Landscape Plan.

A maximum of one driveway entry/cut will be permitted for each Homesite. Owners of neighboring Homesites are encouraged to consider a shared driveway solution.

Neutra Modern House Numbers (6" tall) in any finish shall be used for address markers.



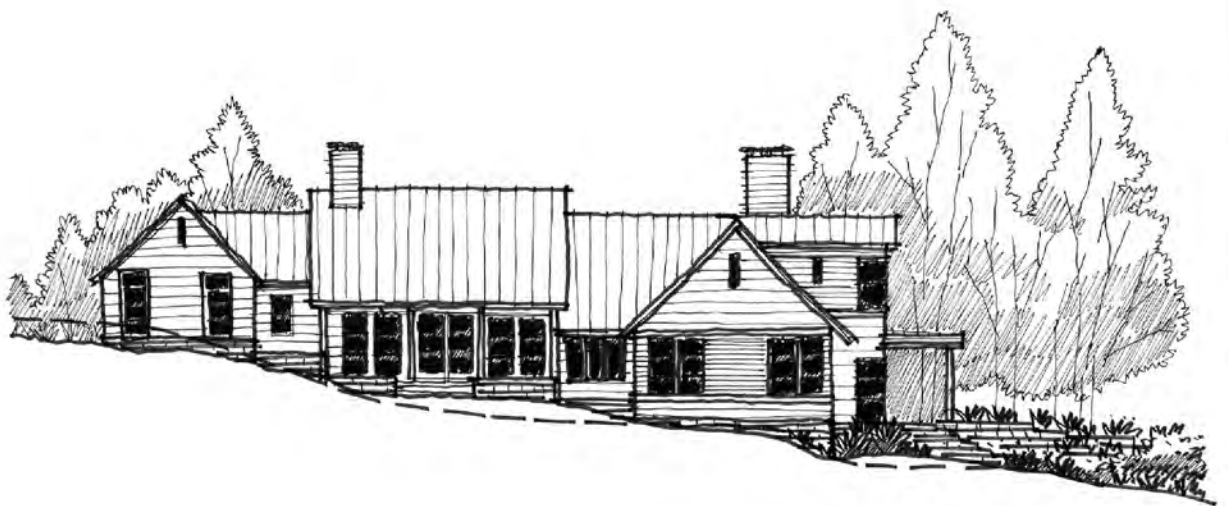


18 THIS MOTOR COURT IS SCREENED BY A LOW WALL

Subjective Requirements

Driveway alignments, parking and garage layouts are to minimize visibility of garage doors, driveways and parking from the street and adjoining Homesites.

Plantings of trees, shrubs and other vegetation are to be incorporated to screen driveways, garages and motor-courts.



Grading

Intent

- Blend new Improvements into the site.
- Preserve natural drainage patterns or replicate while redirecting runoff to streets and common areas.
- Retain the character of the site's natural topography and existing vegetation.

Grading and drainage improvements are to focus on minimizing impacts to the site and landscape, reducing water quality impacts, minimizing removal of the existing forest, and promoting the use of natural drainage systems within the Homesite.

Drawings submitted to the ACC must include grading, drainage, utility locations, re-vegetation and sedimentation and erosion control plans for all new construction. Grading shall respect public and private drainage systems as shown in the community's grading plans.

Quantitative / Specific Requirements

The following standards are to be integrated into all grading plans for The Knolls:

- Where feasible, building foundations and main floors are to step with the existing topography as it rises and falls to create split floor levels rather than one flat building pad. While it is required that building masses follow natural site contours, nothing in these guidelines shall prohibit a single floor level provided that the building height, massing and grading guidelines are met.
- All cuts, fills and retaining walls are to create smooth transitions at the top and bottom of slopes that appear as extensions of the natural landform. Grading designs are to protect and retain as many existing trees as possible.
- Slopes are not to exceed 2:1 unless it can be demonstrated that a steeper slope will not erode. Natural appearing slopes are to be used instead of structures wherever feasible.
- Cut and fill slopes are to be re-vegetated with plantings from the approved list in Attachment 3 and appropriate to the site to blend them into the surrounding environment. Revegetation is to be completed as soon as possible and erosion control measures implemented upon completion of grading.
- Fill may not be used to significantly raise the first floor elevation.
- Elevation changes are preferred to be accomplished with the home's foundation in lieu of retaining walls but both may be used in combination.

Retaining Walls

Intent

Minimize the use and height of retaining walls. Blend retaining walls with the natural topography. A series of shorter stacked walls is preferable over one tall wall.

Construct retaining walls out of stone that is either locally sourced or appears to be indigenous. Board-formed concrete and cor-ten steel are also permitted where not visible to a street or common area.



19 AN EXAMPLE OF COR-TEN RETAINING WALLS WITHIN A COURTYARD

The tops of walls are to follow the natural contours as closely as possible. Ends of walls are not to end abruptly, but are to create natural-looking transitions with existing landforms and vegetation and die into existing contours.

Quantitative / Specific Requirements

Where grade changes equal or exceed 4 feet, stepped-back or terraced wall structures with ample planting terraces (4-foot minimum width) are to be used. Higher walls may be considered only if they are not visible from off-site, and if doing so significantly reduces overall impacts to the site and/or adjacent land and must be signed by an engineer. Retaining walls that are four feet in height or greater shall be designed by a licensed engineer. Retaining walls that are integral to the house or in private outdoor areas such as the back yard and not visible to the street may be constructed of alternate stone or masonry that complements the house materials. Retaining walls should step down unless providing for a programmatic function such as pools, patios, dog runs or dog areas. In these applications, retaining walls should be expressed as extensions of the house.

- Retaining walls visible from any street or common area shall be constructed of the designated project stone.
- Walls as extensions of the house must be of the same material as the house.
- Walls in patio areas, front yards or along side yards shall be constructed or clad with stone to appear natural and indigenous.

- Walls may incorporate stairs or ramps.
- Shrubs and vines are to be planted at the base and top of walls to blend them with the site.

Specific Requirements in Landscape Areas

Retaining walls may only be constructed in the Landscape Area to accommodate a driveway, motor court or footpath.

Specific Requirements in Natural Areas

Retaining walls may only be constructed at the perimeter of the Natural area to preserve it from altered grades in the Landscape Area or Building Envelope.

See Attachment Two for rules regarding shared retaining walls and fences.

Drainage

Intent

- Maintain natural drainage patterns.
- Encourage on-site percolation.
- Minimize any potential for erosion.
- Direct runoff and respect public and private drainage easements, street, conveyance systems, as shown in the community grading plans.

Quantitative / Specific Requirements

Drainage is to be designed by a qualified Engineer or Landscape Architect. Natural drainage courses and patterns are to be protected and maintained, wherever feasible.

Impervious surfaces are to be minimized to the extent feasible to encourage water percolation into the ground. The use of more pervious (water permeable) materials, such as approved gravels or open-celled pavers is encouraged.

Concentrated flows from impervious surfaces, roofs, and regrading must be collected and discharged to a street or common area. It may also be collected in an on-site rainwater collection system.

Materials and sizes for all culverts, headwalls, visible drainage structures and driveways are to be approved by the Architectural Control Committee to ensure structures appear natural and "disappear" into the landscape. Stone-reinforced dry creek beds designed to carry water without causing erosion are encouraged in lieu or in combination with underground drainage structures.

Drainage across or under driveways is to be incorporated into driveway and apron design and any culverts are to be concealed with stone headwalls or similar treatments.

Drainage design is to minimize any potential for erosion and consequent downstream water quality impacts.

Parking

Intent

- Minimize visibility of parking areas.
- Use decorative paving or aggregates with colors that blend with local soils to make parking areas aesthetically desirable.

Quantitative / Specific Requirements

All 70' wide Homesites are to provide a minimum of two enclosed parking spaces. All 80' wide Homesites are to provide a minimum of three enclosed parking spaces.

- Guest parking spaces, if provided, are to be screened by a combination of plantings and/or low walls (4-foot maximum).
- Large capacity trucks, recreational vehicles, motor homes, commercial vehicles, large trailers and similar vehicles that cannot fit through a standard single bay garage door (maximum size 9 feet wide by 9 feet tall) may not be kept at any Homesite except for loading and unloading as may be allowed by Association policies.

Garages are to incorporate planting designs that screen garage doors from the street or common areas.

Exterior Hardscape Design: Outdoor Stairs, Paths, Courtyards, Terraces

Intent

- Create outdoor "rooms" as extensions of indoor rooms.
- Design outdoor improvements to respond to the Homesite's topography and landscape characteristics.



20 THIS ENTRY COURTYARD NOT ONLY PROVIDES PRIVACY BUT EXTENDS THE LIVING SPACE

Quantitative / Specific Requirements

Appropriate paving materials for exterior hardscape areas include:

- Native stone
- Colored, stamped, exposed aggregate and/or patterned concrete
- Brick or pre-cast concrete pavers that are chosen to blend into the natural environment or to complement adjacent paving types in both color and pattern.
- Decomposed granite or gravel

Inappropriate paving materials for exterior hardscape areas include:

- Clay tile
- Non-colored, non-patterned concrete
- Asphalt
- Asphaltic concrete

All paths, outdoor stairs and terraces are to be located within the Building or Landscape Envelopes with the exception of foot paths that may be located in the Natural Area.

Specific Requirement in the Natural Area

Foot paths may enter the Natural Area of the lot provided they follow natural contours and utilize pervious materials that blend in color with the forest floor as appropriate. Footpaths through the Natural Area are restricted to a maximum width of 5 feet.



Subjective Requirements

Designs are to minimize the use of several different types of paving materials in order to produce an understated, unified design. Materials are to augment and complement architectural materials.

The spatial organization of the Residence and that of outdoor rooms and terraces is to be designed as a series of spaces that relate to each other and to existing site and topographic conditions.

Outdoor spaces are to transition gradually from the more formal, geometric lines associated with buildings to the more organic forms of nature. Terraces are to respond to existing trees and land forms, which may be used to create a gradual transition from the built to the natural environment.

Plant materials, walls, architectural devices and/or landscape structures are to be incorporated into the design of outdoor spaces.

Design of a terrace or outdoor room around a focal point such as a specimen tree, shrub, or natural looking water feature is encouraged.

Impervious surface areas are to be minimized to the extent possible and kept close to the house. Moving away from the house, there is to be a gradual transition to pervious or "softer" surfaces such as gravel mulch, decomposed granite and/or hardwood mulch.

Screen Walls, Fences and Gates

Intent

Construct high quality walls and fences out of stone, metal, or concrete in a design that is complementary to the architecture of the home.

Fences, walls and gates are to relate to the residence and site topography. Fencing materials are restricted to steel picket or metal pipe rail and wire mesh in flat black color. Wood fences are prohibited.

Quantitative / Specific Requirements

All fencing is limited to decorative steel picket or wire mesh. Each post shall have a decorative "cap." Living plant materials for screening is encouraged.



21 AN EXAMPLE OF WIRE MESH FENCE

Transitions in fence and/or wall heights required by topography are to be gradually stepped.

Solid screen walls are only allowed as extensions of the house and accessory structures. These extensions shall be restricted to the building envelope and not be located on any lot line.



22 THIS SCREEN WALL EXTENDS FROM THE BUILDING

Appropriate wall types include:

- Cast in place concrete
- Low stone walls not to exceed 4 feet in height
- Wing wall extensions that match building materials
- Stucco on CMU

Appropriate fence types include:

- Metal (maximum 6' height to horizontal top rail with $\frac{3}{4}$ " minimum picket painted black or near-black. Picket spacing to be less than 6" on center.)
- Hedges used to disguise lower cost fences, particularly fences required for pets or around pools.

Inappropriate fencing materials/types include:

- Exposed Concrete block
- Chain link
- Wood fences of any type
- Opaque fences of any type

Dog runs are permitted within The Knolls, provided they are constructed of materials that are complementary to the principal building walls, site walls and/or landscape structures.

Dog Runs shall be attached to residences and not free standing and are limited to an area of 200 square feet. Dog runs shall be screened from the street and adjacent lots and must be contained within the Building Envelope.

Any side yard fence may be installed by the first homeowner and the subsequent homeowner shall share in cost by reimbursing the first homeowner by 50% of the portion on the common lot line.

Retaining walls on the front of a Lot shall be constructed of the same stone used as the project stone which is Leuders Charcoal chopped typically as 6" height laid in horizontal coursing of generally 18" lengths. The retaining wall material shall blend with the improvements constructed by the Declarant. Stone for interior Lot line walls shall be Milsap charcoal stone, randomly coursed ashlar pattern with natural grey grout.



23 AN EXAMPLE OF GRANBURY CHOPPED STONE

Landscape Structures, Site Furnishings, Fire Pits and Outdoor Art

Intent

In general, the same Guidelines that apply to architecture apply to the design of landscape structures.

- Design landscape structures that appear as extensions and/or additional building components of the main Residence.
- Incorporate landscape structures such as trellises to help mitigate the climate and create shade, shadow and texture.
- Screen fire pits, outdoor art and other ornamentation from off-site views.

Requirements in the Building Envelope

Site furnishings, fire pits, outdoor art and landscape structures, such as arbors, gazebos, pavilions, porte cocheres, greenhouses and/or decks, are permitted within the Building Envelope.

The height, color, materials and style of outdoor structures are to be the same or similar to that of the Residence.

Fire pits must be permanent and be designed to be complementary to the architecture and landscape architecture of the overall property. Any masonry used is subject to the same requirements for the use of stone as described in the preceding chapter.

Landscape Area Requirements

Pathways, fire pits, freestanding site furnishings, outdoor art approved by the ACC, terraces and patios that are less than 4 feet (including perimeter walls) in height from existing or final grade whichever is lower - are permitted in the Landscape Area. Wood decks supported by columns are not permitted in the Landscape Area.

Basketball Goals and Sporting Equipment

Intent

Basketball goals, or backboards, or any other similar sporting equipment of either a permanent or temporary nature shall not be placed on any Lot or street or where same would be visible from an adjoining street or Lot without the prior written consent of the ACC.

The ACC shall have the authority to establish additional guidelines for the placement and design of basketball goals, backboards, or any other similar sporting equipment and the same shall be kept and maintained out of view from any street, except in accordance with any such established guidelines.

Quantitative / Specific Requirements

Permanent goals must meet the following criteria:

- Poles must be permanently mounted into the ground to the side of the driveway in a full upright position 25' back from the curb.
- Poles, backboard and net must be maintained in good condition at all times.
- Backboard must be transparent.
- Poles must be painted flat black or near black.
- Poles may not be installed in front of the garage or facing into the street.

Portable goals must meet the following criteria:

- The goal must be placed to the side of the driveway and maintained at all times in a full upright position 25' back from the curb.
- The pole, backboard and net must be maintained in good condition at all times.
- Poles may not be installed in front of the garage or facing the street.
- Landscape barrier, such as small shrubs must screen the base of the goal.
- Goals may not be rolled into the street or any other public right-of-way.

Playscapes and Sport Courts

Intent

Sports courts, tennis courts, and playscapes or any similar recreational facilities may not be constructed on any Lot without the advance written approval of the ACC. The ACC may prohibit the installation of sports courts, tennis courts, playscapes or similar recreational facilities on any Lot.

Quantitative / Specific Requirements

Playscapes or any similar recreational facilities must comply with all the following requirements:

- Must be located where the equipment will have minimum impact on adjacent Lots and be screened from public view.
- All playscapes or any similar recreational facilities equipment must be of earth tones colors, i.e., medium to dark greens, browns, and tans. Bright primary colors will not be permitted.
- Views of playscapes or any similar recreational facilities must be reduced from public streets and adjoining units whenever possible.
- Playscapes or any similar recreational facilities must be placed no closer than five feet (5') to any property line.
- Trampolines, whether portable or non-portable must be placed no closer than five feet (5') to any property line.
- Playscapes, playground equipment and trampolines are prohibited in the front yard.

If approved, portable playscapes, including but not limited to, non-permanent and/or inflatable slides, moon bounces, water parks and above ground inflatable pools or kiddy pools (collectively "**Portable Playscapes**") must be stored in a screened area, the rear of the Lot, or inside the garage when not in use. In no event, shall any Portable Playscapes be visible from or in the front of any Owner's Lot for any period of time exceeding twenty-four (24) consecutive hours.

Water Features, Spas and Pools

Intent

- Locate pools, spas (hot tubs) and plunge pools so that their visibility is minimized from areas outside the Homesite.
- Design pools and water features that augment outdoor spaces and extend the architectural style of the Residence.



24 A WATER FEATURE IN A POCKET COURTYARD

Quantitative / Specific Requirements

Requirements in the Building Envelope and Landscape Area

Pools, spas and other water features are to be located within the Building Envelope or Landscape Area, visually connected to the Residence and designed as an integral part of the house's exterior design.

Water features such as small ponds, waterfalls and streams are to appear natural and not contrived. They must be made out of materials that appear indigenous to the site and be landscaped such that they appear to have occurred naturally.

Swimming pools may only be located within the building envelope. Pool safety measures are to be taken in accordance with local governmental regulations. No swimming pool, spa and hot tub shall be located in the front or side yard on any Lot unless enclosed in a courtyard.

Pool and spa covers are to be dark and muted in color to recede from view. Pools and spas are to be set down into the ground, terraces and/or decks. Above grade pools or spas are not permitted.

Spa and water feature equipment enclosures may be in the side yard and are to appear as extensions of the home and/or located in underground vaults to contain noise. Solid noise absorbing covers for equipment may be required after installation if it is discovered that the equipment is audible from adjacent properties.

The drains serving a swimming pool, spa and hot tub must be connected to street or private drainage systems.

Requirement in Natural Areas

Spas and Pools are not permitted in Natural Areas.

Planting Design

Intent

- Utilize new plantings to frame outdoor spaces, lessen the impact of new structures, screen use areas and preserve and extend the forest landscape.
- Use plants that are adapted to the climate, are less invasive and require less water and maintenance.
- Minimize the visibility of non-native plant materials, as viewed from off-site.
- Preserve and enhance the existing forest areas in the Natural Areas and existing high quality and larger trees in the Building Envelope and Landscape Area.



25 NATIVE PLANTING COMPLEMENTS THE ENTRY OF THIS HOME

Quantitative / Specific Requirements

Requirements for the Building and Landscape Envelopes

Each Lot shall be landscaped, at a minimum, with the following number of hardwood shade trees in the yard of each Lot - two (2) per Lot on all Lots other than corner Lots and four (4) per corner Lot (with two (2) in the front portion of the Lot, and two (2) in the side of the Lot adjacent to the street), and ten (10) shrubs sized five gallons or more. The hardwood shade trees required in the front yard of each Lot shall be no smaller in size than 3.5" caliper. After installation, landscaping (including temporary landscaping) shall be properly maintained at all times. Any Owner who wishes to plant one or more gardens upon their Lot must obtain the approval of the ACC of any such garden and must follow

applicable requirements as to size of the Lot, visibility of the Lot from other Lots, streets or common areas, and such other matters as the ACC may specify in any written approval.

Notwithstanding the foregoing, a minimum of one, three and one half inch (3.5") caliper trees from the Approved Plant List must be planted on each Lot in addition to the Front Yard Requirement. If existing protected trees are preserved in the front yard of a Lot, they can be used to satisfy this requirement.

Manicured or groomed yards and non-native plantings are to be restricted to spaces confined by buildings, walls and plantings or other well-defined edges so as to not be visible from the street. Moving away from the house, towards the Natural Area, non-native planting areas are to gradually transition to a native landscape so that a buffer of native vegetation surrounds the Residence. Non-native plant species may not extend outside of the Building or Landscape Envelopes.

Plant materials are to use a mix of sizes and be spaced in natural, informal patterns. Plant species should be drifted (grouped to replicate natural occurring masses of same-kind plant communities).

Shrubs, ground covers and vines are to be used to soften and reduce the perceived height of foundation walls.

Tree and shrub plantings are to be of a sufficient quantity and size to effectively continue the native forest canopy and under-story.

Trees and other vegetation are to be planted so that they define outdoor spaces, buffer views of buildings and frame views.

Cut and fill slopes are to be re-vegetated with plantings appropriate to the site (see Attachment 3) to blend them into the surrounding environment.

Trees and shrubs should be pruned to avoid blocking clear view of signs, address marker, illumination by light fixtures, the flow of air vents and air conditioner compressors as well as pedestrian and vehicular traffic.

Plant materials are to be grouped according to water consumption needs.

Areas of irrigated landscape are not to exceed 40% of the combined area of the Building and Landscape Envelopes. Xeriscaping is encouraged.

Requirements in the Natural Areas

With the exception of trees and shrubs that can be cleared per the previous "Tree and Shrub Thinning and Removal" section, existing trees and major shrubs are to be preserved.

Additional plant materials may be added in the Natural Areas provided that they are chosen from the approved plant materials for Natural Areas and that they enhance the appearance and future health of the existing landscaping.

Disturbed native areas are to be restored to their previous condition or planted such that they appear to be natural as approved by the ACC.

Native grasses and wild flowers may be planted in the Natural Area. Shrubs and ground cover are also encouraged.

Areas under native trees to be covered in hardwood mulch or scattered native boulders to appear to be undisturbed.

Irrigation

Intent

- Minimize the amount of landscape irrigation required through water sensitive landscape design.
- Utilize automated irrigation systems that provide efficient water coverage and minimize water usage and runoff. Drip type systems are encouraged.

Quantitative / Specific Requirements

Incorporate bubbler/drip irrigation systems that provide deep root-zone irrigation of trees and shrubs. Trees are to be irrigated on a bubbler/drip system except where planted in irrigated lawns.

Consult an arborist before introducing irrigation into the Natural Area of the Homesite.

Note that introduction of irrigation lines may jeopardize existing trees. Trenching for irrigation lines is not to encroach within the drip line of existing trees unless required to maintain appropriate moisture content of soils around foundations. All permanent irrigation systems are to be below ground and fully automatic. Temporary irrigation systems are required at all revegetation areas. These systems are to be removed once plantings have been clearly established and after a minimum of one growing season. Black poly pipe is to be used for all temporary, above-ground irrigation systems.

Group plant materials according to their water consumption needs. Mulch all new planting areas, including trees in lawn areas with a minimum of 3 inches to retain soil moisture, reduce erosion and provide for weed control.

Exterior Lighting

Intent

- Preserve the nighttime dark sky by minimizing the amount of exterior lighting.
- Utilize low intensity, indirect light sources to the extent required for safety and subtle visual effect.
- Avoid unnecessary illumination of structures.

Quantitative / Specific Requirements

Exterior lighting will be kept to a minimum and shall be subdued and indirect but consistent with good security practices. Such illumination shall be designed and installed so as to light only landscaping, driveway areas and walkways upon a Lot. Indirect sources and horizontal cut-off fixtures are recommended to reduce glare and provide general ambient light. Soffit or tree lights must be shielded or directed towards vegetation so as to

eliminate glare and source visibility. Exterior lighting shall comply with Town of Westlake's Dark Sky Ordinance.

No exterior light whose direct source is visible from a street or neighboring property or which produces excessive glare to pedestrian or vehicular traffic will be allowed. Nuisance lighting and or glare must be avoided.

Up-lighting shall be limited to lighting landscaping elements and shall be limited to 25 watt incandescent or equivalent lumens.

Building walls shall not be illuminated and light from landscape lighting may not illuminate building walls higher than four feet (4') above grade.

Floodlights are prohibited. Exterior lighting in motor courts and over garage doors may/shall be motion detector activated and not installed higher than ten feet (10') above the grade of the driveway.

All light sources must be fully shielded from view from adjacent property or right-of-ways.

Decorative Light sources such as entry sconces must be shielded with frosted or translucent glass.

Path lighting fixtures are to be a maximum height of 24 inches.

With the exception of low-level driveway lights, all lighting must occur within the Building or Landscape Areas.

Exterior lighting is to fall within the following wattage ranges:

- Architectural lights mounted to buildings and that are fully recessed and downward facing are not to exceed 75 watts.
- All other architectural lights are not to exceed 40 watts.
- All landscape lights are not to exceed 20 watts.

Exterior Holiday Decorations

Lights or decorations may be erected on the exterior of the principal residential structure in commemoration or celebration of publicly observed holidays provided that such lights or decorations do not unreasonably disturb the peaceful enjoyment of adjacent Owners. All lights and decorations must not be permanent fixtures of the principal residential structure without prior written approval of the ACC and shall be removed within thirty (30) days after the holiday has ended. Christmas decorations or lights may not be displayed prior to November 15.

Air-Conditioning and Other Mechanical Equipment

No air-conditioning apparatus may be installed on the ground in front of the principal residential structure or on the roof of the principal residential structure unless screened in a manner approved by the ACC. Ground level air conditioning units shall be installed at street level only. All mechanical equipment, including air-conditioning equipment, shall be located in a side or rear yard only and shall not be visible from streets or Common Areas.

No window air-conditioning apparatus or evaporative cooler may be attached to any front wall or front window of the principal residential structure or at any other location where it would be visible from any street, any other Lot or any Common Area.

Pool/spa equipment must be located behind walls or screened from view with landscape to contain noise.

Barbecue Grills

Freestanding barbecue grills are permitted only if they are stored and used in the rear yard space of the Lot that is not visible from the street. BBQ grills may also be built into outdoor kitchens and the masonry and other materials shall match the materials used on the residence.

CHAPTER THREE

CONSTRUCTION GUIDELINES

Overall Intent

The following restrictions shall apply to all construction activities at The Knolls. Periodic inspections by a representative of the ACC or the Town of Westlake may take place in order to identify non-complying construction activities. If items identified as not complying with the regulations are not remedied in a timely manner, fines will be levied.

Erosion Control Installation and Maintenance

It is the responsibility of each Owner to install erosion control measures prior to the start of construction and to maintain them throughout the entire construction process.

Silt fencing installed to all applicable standards is required to be properly installed and maintained to protect the low sides of all disturbed areas, where storm-water will flow during construction. The purpose of the silt fence is to capture the sediment from the runoff and to permit filtered, clean water to exit the site. The Owner should anticipate that built-up sediment will need to be removed from the silt fence after heavy or successive rains, and that any breach in the fencing will need to be repaired or replaced immediately.

If for any reason the silt fence is to be temporarily removed, please contact a representative of the ACC prior to the removal.

Security

Neither the ACC, the Association, nor the Declarant shall be responsible for the security of job sites during construction. Temporary security fencing around construction sites are optional for builders and owners but must be approved by the ACC.

Construction Hours

Unless a written waiver is obtained from the ACC, construction may only take place during the following hours: Monday through Friday from 7:00 a.m. until 7:00 p.m., and on Saturdays and Sundays from 9:00 a.m. until 6:00 p.m. or as regulated by the Town of Westlake if more restrictive.

Noise, Animals, Children

The use of radios, tape and CD players must be restrained so as not to be heard on an adjoining Lot or street.

Contractors and subcontractors may not bring dogs to construction sites. Contractors and subcontractors may not bring children under 16 years of age to construction sites.

Material and Equipment Storage

All construction materials and equipment shall be neatly stacked, properly covered and secured. Any storage of materials or equipment shall be the Owner's responsibility and at their risk. Owners may not disturb, damage or trespass on other Lots or adjacent property.

Insurance

The ACC requires an Owner to procure adequate commercial liability insurance during construction naming the Association, the Declarant and the ACC as additional insureds, in an amount to be determined, from time to time by the ACC.

Site Cleanliness

During the construction period, each construction site shall be kept neat and shall be properly policed to prevent it from becoming an eyesore.

Owners and Builders shall be responsible for removing refuse and shall provide a container for debris and shall clean up all trash and debris on the construction site on a daily basis. Trash and debris shall be removed from each construction site on a timely basis. Lightweight material, packaging and other items shall be covered or weighted down to prevent wind from blowing such materials off the construction site.

The dumping, burying or burning of trash is not permitted anywhere in The Knolls.

It is imperative that, when moving heavy equipment around, precautions be taken to prevent damage to pavement, curbs, and vegetation. Crawler tractors are not to be operated on paved or concrete surfaces. Mud, dirt and other construction debris that is tracked off site shall be cleaned on a daily basis.

Sanitary Facilities

A temporary sanitary facility (chemical toilet) shall be provided and maintained for the use of construction workers and shall be screened from view in a manner approved in advance by the ACC. It should be installed on level ground, at the back of the lot unless it cannot be serviced and screened from view. A mock up construction wall shall be used to screen it if located in the front part of the lot.

Construction Parking

Construction crews shall not park on, or otherwise use, other Lots. No construction vehicle will be permitted to leak oil or otherwise damage or deface any street located within the community.

Schedule of Fines

Periodic inspections by a representative of the ACC may take place in order to identify non-complying construction activities. Listed below is the schedule of fines which may be assessed.

Schedule of Fines

Premature Clearing	\$5000
Construction Without ACC Approval	\$5000
Encroachment on Adjacent Properties	\$5000 plus cost of repair
Violation of Rules, Restriction or Guidelines	\$500/day
Failure to Install and/or Maintain Erosion Control Measures	\$1000/day
*Greenbelt/Open Space Lot violation	\$5000
Sign Violation	\$500 per sign/incident

*In the event, the Association or Declarant is required to repair, clean up or provide necessary service to bring the improvement into compliance, the Owner will be assessed the cost of repair, clean up, or service plus an additional 10% for time and service expended.

Duration of Construction

The principal residential structure residence shall be complete and available for occupancy on or before eighteen (18) months after the commencement of construction and construction activity must be continuous. Additional extensions shall be determined by the ACC.

CHAPTER FOUR

DESIGN REVIEW PROCESS

Overall Intent

The design review process has been developed to insure that all new construction, alterations and renovations to existing buildings and major site Improvements conform to the guiding principles of The Knolls as outlined in the Design Guidelines. The design review process has been structured to eliminate excessive delays. The ACC suggests that property Owners begin the review process early to allow ample time to obtain required permits. When reviewing design and construction projects, the ACC will be looking for compliance with the principles outlined in this document.

Project Types for Review

New Construction

Construction of any new, freestanding structure, whether as a Residence, Accessory Structure or landscape structure.

Alterations, Additions or Rehabilitation of an Existing Structure

Any new construction or rehabilitation to an existing building or landscape structure that alters the original massing, exterior finishes, window placement, roof design, exterior lighting, interior lighting visible from off-site and/or other significant design elements.

Major site and/or landscape Improvements

Any major Improvements or changes to Improvements, including, but not limited to, grading (for any excavation and/or fill involving more than 50 cubic yards of dirt), planting of non-native plants, tree removal, irrigation, swimming pools, driveways, fencing, paving and/or drainage, that alter an existing landscape.

The ACC evaluates all development proposals on the basis of these Guidelines. Some of the Guidelines are written as broad standards and the interpretation of these standards is left up to the discretion of the ACC.

Design Review Process Overview

The Knoll's design review process, unless otherwise noted takes place in five steps.

1. Pre-Design Conference
2. Preliminary Design Review
3. Final Design Review
4. Construction Monitoring
5. Final Observations

Any Improvement as described above will require and be preceded by the submission of plans and specifications describing the proposed Improvements and accompanied by an application fee. The Owner is to retain competent assistance from a licensed Architect, Arborist, Landscape Architect, Civil Engineer, Soils Engineer and a licensed and bonded Contractor (Consultants) as appropriate. The Owner and Consultant(s) are to carefully review the CC&R's and the Guidelines prior to commencing with the design review process.

Having secured final design approval from the ACC, the Owner is to also meet all submittal and approval requirements of the water utility company and the Town of Westlake Planning and Building Departments to obtain any necessary building permits.

In accordance with the CC&Rs, the Owner is to commence construction within one year of final design approval and is to diligently pursue completion of construction within a year of start. Final landscape installation is to be completed within 3 months of occupancy. Written approval from the ACC is required in order for any construction and/or landscaping to extend beyond the time limits noted above.

Design Review Process - Minor Improvements

Minor Improvements (including, but not limited to, construction of, or addition to, fences, walls, and/or enclosure structures), which are being completed independent of any major Improvements, do not need to proceed through all four steps of the general design review process. Minor Improvements may generally be submitted as part of a two-step review process:

1. Final Design Review
2. Final Observation

Specific submission requirements and fees will be determined on a case-by-case basis as required by the nature of the Improvement. Owners and/or Consultants should contact the ACC to verify whether an Improvement qualifies for the abbreviated design review process. Upon receipt of permission to proceed with an abbreviated process, the Owner and/or Consultant will obtain a list of specific submission requirements from the ACC.

Exclusions to ACC review would be rehabilitation or maintenance of an existing structure or landscaping elements. For example; replacement of dead plant material with same or similar pre-approved plants; mulching or routine tree trimming; repainting same colors or routine maintenance of structure.

Actions and Approvals

The ACC's actions on matters is to be by a majority vote of the ACC. Any action required to be taken by the ACC may be taken regardless of its ability to meet as a quorum, if a majority of the ACC is able to review the matter individually and come to a majority opinion. In such cases, the ACC shall make every effort to facilitate a discussion of the matter between all members through teleconferencing and/or other means of communication. The ACC will keep and maintain a record of all actions taken by it.

If an Owner and/or Consultant disagrees with the ACC's written conclusions from a meeting, the Owner and/or Consultant should list specifically, in writing, which portions of the written record require clarification or correction. The ACC will then review the requested clarifications or corrections and either amend the record accordingly or let it stand, while noting the issues raised by the Owners and/or consultant(s). In the latter case, a subsequent meeting shall be held between the Owner and the ACC to resolve the difference in interpretation. However, the decision of the ACC will be final.

After the Declarant has delegated to the Board the appointment of ACC members, any Owner may appeal ACC actions as described in the CC&Rs. The powers of the ACC relating to design review will be in addition to all design review requirements imposed by any other governing body with legal action.

Approved Design Professionals

In addition to the Declarant, The design team is to be comprised of the following Consultants:

- Architect
- Landscape Architect
- Arborist
- Additional professional services such as Civil Engineer, as required.

Protocol for Approval of Architects

Architects and Landscape Architects may work on a particular Homesite at The Knolls provided the conditions listed below are met.

1. Samples of previous residential work:

- The Architect is to provide the ACC with three recent examples of residential designs that would generally meet the Design Guidelines.
- The Architect is to provide the ACC with a list of residential clients, general contractors, structural and Civil Engineers (preferably three each) whom the ACC may contact as references.

2. Affidavit on compliance with regulations:

- The Architect is to review The Knolls Design Guidelines.
- The Architect is to review the zoning and building regulations for the town of Westlake.
- The Architect is to provide the ACC with a signed copy of the Affidavit, available from the ACC office, certifying that he/she has reviewed and understood the documents referred to above and will comply with their provisions.

3. Approval by ACC:

- The ACC shall have sole discretion to approve or disapprove any Architect submitted by an Owner. The ACC may disapprove an Architect if in the ACC's

reasonable opinion, the Architect does not have the qualifications, training, license, experience or understanding of the design requirements to execute the design and construction of a residence at The Knolls.

- The ACC shall have the sole and absolute discretion to include an Architect on its list of Invited Architects. The approval of an Architect to design a particular residence for a particular client does not require the ACC to approve him/her for any other Owner.

Pre-Design Conference

Prior to preparing any drawings for a proposed project, the Owner, Architect, Landscape Architect and any other key project team members are to meet with at least one member of the ACC or ACC Administrator to discuss the proposed project. During this meeting, the ACC will explain to the project team their responsibilities in implementing the Guidelines. This meeting will initiate the review and approval process and allow any questions regarding building requirements, interpretation of the Guidelines or the design review process to be resolved. The Owner may request that the meeting take place on the Homesite. Prior to the Pre-Design Conference, the Owner is to have engaged the services of an Architect and Landscape Architect and reviewed the Guidelines together with these Consultants. The Owner and Architect, at a minimum, are to attend this initial meeting.

Additional information may be requested by the ACC as necessary to describe the project. The Pre-Design Conference may be scheduled by submitting the Pre-Design Conference Request Form at least ten (10) working days prior to the desired meeting date.

Preliminary Design Review

Within six months of the Pre-Design Conference, the Owner is to submit a written application and preliminary design documents for Preliminary Design Review. A checklist of the required preliminary design documents follows.

The Preliminary Design Review will insure that:

- All structures are sited to step with the topography, blend into the landscape and minimize grading and site impact.
- The transition between the building and the surrounding environment accomplishes the intent and specifics of the Guidelines.
- The roofs, massing, building materials, landscape materials and other site and architectural Improvements are consistent with any adjoining buildings and/or outdoor amenities and the Guidelines.

Conceptual Submissions (optional)

Owners and/or design representatives may choose to submit sketches and/or conceptual designs for ACC feedback prior to submitting for Preliminary Design Review.

Preliminary Design Review Submission Materials

The Applicant is to prepare and submit to the ACC for review and approval a Preliminary Design Review package, which adequately conveys (as appropriate): existing site conditions, building orientation and design, vehicular and pedestrian access, the proposed use of exterior materials and colors, and conceptual landscape design. The package shall include one full-size sets and two sets of 11" x 17" reductions of the drawings and/or materials listed below.

The following list describes the information that will be required for new construction projects and for alteration, rehabilitation or additions to an existing structure. New construction projects are to submit all items listed below. Submissions for additions to existing buildings need only submit items 2 through 6. Submissions for the alteration and/or rehabilitation of an existing structure and/or major landscape Improvements need only submit items 5 and 6.

1. Preliminary Design Review Application Form - A completed application form. (ATTACHMENT ONE)
2. Property Survey - (1" = 20'-0" minimum scale), a property survey prepared by a licensed surveyor indicating property boundaries; front, rear and side setbacks; the area of the property and Improvement Envelope; all easements of record; all existing 4" caliper and greater trees (as measured four (4) feet from the ground); and any significant drainages, as applicable.
3. Site Plan - (1" = 20'-0" minimum scale), showing existing topography and proposed grading and drainage (1' contour interval), building footprint with finished floor grades, driveway, parking area, drainage, fences, walls, patios, decks, pools and any other site amenities. Existing vegetation patterns, proposed clearance areas and trees to be removed and/or preserved are to be indicated.
4. Floor and Roof Plans - (1/8" = 1'-0" minimum scale, unless otherwise specified), including all proposed uses, proposed walls, door and window locations, overall dimensions, finished floor elevations, and total square footage for all floors of all structures.
5. Schematic Elevations - (1/8" = 1'-0" minimum scale), including Building Heights, roof pitch, existing and finished grades and notation of exterior materials. In addition to black and white elevations, one unbound set is to be rendered in color and illustrate shadows.
6. Conceptual Landscape Plan - (1" = 20'-0" minimum scale), a conceptual plan showing irrigated areas, areas of planting, a preliminary plant list, extent of lawns, areas to be revegetated, water features, patios, decks, courtyards, schematic utility layout, service areas and any other significant design elements.
7. Study Model - (1/8" = 1' - 0" minimum scale), illustrating the relationship between proposed and existing building forms and topography, tree heights and prevailing site conditions. This need not be an expensively detailed model, but simply adequate to communicate basic three-dimensional concepts. A three-dimensional computer rendering(s) may be substituted to fulfill this requirement.

The ACC reserves the right to amend the Preliminary Design Review submission requirements on a case-by-case basis as required by conditions and considerations particular to each Homesite and/or building(s).

Staking and Tree Taping

Upon submittal of the Preliminary Design Review Application for all Improvements, the Owner is to stake the corners of the proposed building, any proposed building additions, all other major Improvements and driveway centerlines. The Preliminary Design Review submission will not be considered complete until the building footprint and driveway are staked.

Trees proposed for removal are to be marked in the field with red tape. Trees to be pruned and/or limbed are to have blue tape tied to the limb and/or area of trimming. Trees proposed for transplanting are to be taped with yellow ribbon and a stake placed in the proposed location of transplant.

Preliminary Design Review Meeting

The Owner and/or Consultant(s) may attend the meeting but are not required to be present. The ACC will review and comment on the application at the meeting, allow time for discussion with the Owner and/or Consultant(s), and subsequently provide the Owner with the conclusions of the meeting in writing.

The comments of the ACC on the preliminary approval shall not be binding upon either the Owner or the ACC if approval is not initially granted. If there are significant changes required, the ACC may determine that a second review meeting may be necessary to review corrected and/or new materials prior to submitting for final plat. Corrected materials must be provided to the ACC a minimum of five (5) working days prior to the next regularly scheduled meeting.

Final Design Review

Within one year of Preliminary Design Review approval, the Owner is to initiate Final Design Review by submitting the written application and final design documents. All items are to be in compliance with the Guidelines prior to submitting for Final Design Review.

Final Design Review Submission Materials

The Applicant is to prepare and submit to the ACC for review and approval a Final Design Review package that adequately conveys compliance with the Guidelines. Final design documents are to generally conform to the approved Preliminary Design Review documents. All architectural plans are to be prepared by an Architect or approved Designer.

The package is to include one full-size sets and two sets of 11" x 17" reductions of the following drawings and/or materials. Submissions for new construction and additions to existing buildings should submit all items listed below. Submissions for the alteration

and/or rehabilitation of an existing structure and/or major landscape Improvements need only submit items 3 through 10 as applicable.

1. Final Design Review Application Form - A current application form, available from the ACC office, is to be completed and submitted.
2. Site Plan - (1" = 20'-0" minimum scale) showing existing topography and proposed grading and drainage (1' contour interval), building footprint (including accessory structures) with finished floor grades, building setbacks, easements, driveway, address marker, parking area, drainage, utilities, fences/walls, patios, decks, pools and any other site amenities. Existing vegetation patterns (including extent of tree canopies), proposed clearance areas and trees to be removed and/or preserved are to be indicated.
3. Grading, Drainage and Erosion Control Plans - (1" = 20'-0" minimum scale), showing existing and proposed grades, all drainage structures and/or other drainage design solutions, and cut and fill calculations. Plans are to also indicate the size of stockpiles, where they are to be located on the Construction Site and the length of time they will remain. The extent and location of sediment fencing and measures taken to control erosion during grading and construction are also to be indicated.
4. Foundation, Floor and Roof Plans - (1/8" = 1'-0" minimum scale, unless otherwise specified), for all buildings, including all proposed uses, room dimensions, total square footage for conditioned and unconditioned spaces, door and window locations and sizes, location and type of all exterior lighting fixtures. Roof plans are to indicate ridge elevations, roof pitches and locations of drainage systems, chimneys, vents, flues, satellites, antennas, and solar panels. Visual screening of satellites, antennas and solar panels is to likewise be addressed.
5. Elevations - (1/8" = 1'-0" minimum scale), illustrating the exterior appearance of all views labeled in accordance with the site plan. Indicate the height of chimney(s) as compared with the ridge of the roof, the highest ridge of the roof, finished floor elevations, and existing and finished grades for each elevation. Describe all exterior materials, colors, and finishes (walls, roofs, trim, chimneys, windows, doors, light fixtures, etc.).
6. Landscape Plans - (1" = 20'-0" minimum scale), including irrigation plans with locations of main irrigation lines, areas of automatic irrigation, type of controls and type of heads; proposed plant materials, sizes, and locations; trees to be removed; tree protection plan; areas of planting, water features, patios, decks, courtyards, utility layout, service areas and any other significant design elements.
7. Lighting Plan - (1/8" = 1'-0" minimum scale), including locations of all exterior architectural and landscape light fixtures. Cut sheets are to be submitted for all proposed fixtures and bulb types, including wattage and lumen specifications for each fixture and the total lumen output calculation for the Homesite.

8. Sample Board (as applicable) - including:

- Roof materials and colors
- Wall materials and colors
- Exterior trim material and color
- Window material and color
- Exterior door material and color
- Stone/rock materials
- Exterior rails, fencing, and paving materials
- Lighting fixture cut sheets

10. Construction Schedule - include start and completion dates for both building and landscape construction.

The ACC reserves the right to amend the Final Design Review submission requirements on a case-by-case basis as required by conditions and considerations particular to each specific project and/or property.

Staking and Tree Taping

Upon submittal of Final Design Review documents, Applicants are to re-stake the buildings, if the building footprint has been altered from that staked at Preliminary Design Review or if requested by the ACC. The Applicant is to contact the ACC prior to submitting final design documents to confirm staking requirements.

Trees proposed for removal are to be marked in the field with red tape. Trees to be pruned and/or limbed are to have blue tape tied to the limb and/or area of trimming.

Trees proposed for transplanting are to be taped with yellow ribbon and a stake placed in the proposed location of transplant.

Final Design Review Meeting

The Owner and/or Consultant(s) may attend the meeting but are not required to be present. The ACC will review and comment on the application at the meeting, allow time for discussion with the Owner and/or Consultant(s), and subsequently provide the Owner with an approval or conclusive recommendations in writing for refinements to the design. A second review meeting may be necessary to review corrected and/or new materials. Corrected materials are to be provided to the ACC a minimum of five (5) working days prior to the next regularly scheduled meeting.

Final Design Approval

The ACC will issue final design approval in writing. Construction must commence within twelve (12) months of final design approval. Past the twelve months, the owner is required to provide an affidavit that plans are intact and unchanged.

Changes to Approved Plans

The Knolls Residential CC&R's contain provisions that any improvements by property Owner must conform with approved plans. Therefore, the final approval of a proposed design constitutes an agreement with the Association that the proposed home or modification to a home be consistent with the approved plans and specifications. The ACC, however, understands that the construction process may ultimately result in either a need or desire to make a change in the approved drawings and will welcome the opportunity to review proposed changes. In the event a change is desired, the Owner, Contractor or Architect must submit the proposed changes in a graphic form to the ACC for review. The ACC will work in a reasonable manner to respond to a request for change as quickly as possible, but the review process will remain consistent with the aforementioned policies and guidelines. Applications for changes to approved plans shall include the following:

- A clear statement of the scope of the requested change
- A statement supporting the reasons for the change.
- Appropriate graphic materials illustrating the change.

Note: If changes are made to approved drawings without ACC review and approval, a stop work notice may be posted on the project until such time as the required approval is obtained. To avert delays in construction, submit changes as early as possible for ACC approval.

Re-submittal of Plans

In the event that final submittals are not approved by the ACC, the Owner will follow the same procedures for a resubmission as for original submittals. An additional design review fee is to accompany each resubmission as required by the ACC.

Subsequent Changes

Subsequent construction, landscaping or other changes in the intended Improvements that differ from approved final design documents, sample boards or the mock-up are to be submitted to the ACC for review and approval prior to making changes.

Work in Progress Observations

During construction, the ACC will check construction to ensure compliance with approved final design documents. If changes or alterations have been found that have not been approved, the ACC will issue a Notice to Comply.

Notice to Comply

In the event that the ACC finds changes and/or alterations during the Construction Monitoring process that have not been approved, the DRC will issue a Notice to Comply.

Notice of Completion

Upon completion of construction of the Residence and the landscaping, the Owner and/or Contractor will submit to the ACC a Final Observation Request form for any Improvement(s) given final design approval by the ACC. The ACC will make a final inspection of the property within ten (10) working days of notification, weather permitting. Construction deposit will be returned at this time.

Right of Waiver

The ACC recognizes that each Homesite and/or Building has its own characteristics and that each Owner has their own individual needs and desires. For this reason, the ACC has the authority to approve deviations from portions of the Guidelines. It should be understood, however, that any request to deviate from these Guidelines will be evaluated at the sole discretion of the ACC. Prior to the ACC approving any deviation from the Design Guidelines, it must be demonstrated that the proposal is consistent with the overall objectives of these Design Guidelines and that the deviation will not adversely affect adjoining properties or The Knolls as a whole. The ACC also reserves the right to waive any of the procedural steps outlined in the Guidelines provided that the Owner demonstrates there is good cause.

Non-Waiver, No Inadvertent Precedents

An approval by the ACC of drawings, specifications or work done or proposed, or in connection with other matters requiring approval under the Guidelines, including a waiver by the ACC, shall not be deemed to constitute a waiver of the right to withhold subsequent approval. For example, the ACC may disapprove an item shown in the final design submittal even though it may have been evident and could have been, but was not, disapproved at the Preliminary Design Review. An oversight by the ACC of non-compliance at any time during the review process, construction process or during its final inspection does not relieve the Owner/Developer from compliance with these Guidelines and all other applicable codes, ordinances and laws.

Any error, omission or misjudgment by the ACC in any one instance shall not constitute the creation of a precedent governing future approvals and decisions. The ACC reserves the right to learn from any such errors or misjudgments and shall not be required to approve repetitions of them.

Non-Liability

The ACC or any member, employee or agent of the ACC will not be liable to any party for any action, or failure to act with respect to any matter if such action or failure to act was in good faith and without malice.

Design Review Schedule

The ACC will make every reasonable effort to comply with the time schedule for design review. However, the ACC will not be liable for delays that are caused by circumstances beyond their control. The ACC will provide design review according to the following schedule:

1. Pre-Design Conference

- Meeting scheduled within ten (10) working days of receipt of Pre-Design
- Conference request form.

2. Preliminary Design Review

- Application documents to be submitted ten (10) working days prior to the next scheduled ACC meeting.
- The ACC shall meet within twenty (20) working days to consider a complete application.

3. Final Design Review

- Application documents to be submitted ten (10) working days prior to the next scheduled ACC meeting and within one year of preliminary design approval
- The ACC shall meet within fifteen (15) working days to consider a complete application.
- A second review meeting may be necessary to review corrected and/or new materials. Corrected materials will be provided to the ACC a minimum of five (5) working days prior to the next regularly scheduled meeting.

4. Minor Improvement

- Application documents to be submitted a minimum of seven (7) working days prior to the next scheduled ACC meeting.
- Written comments from the ACC meeting provided to Owner within seven (7) working days.
- A second review meeting may be deemed necessary by the ACC to review refinements, revisions and/or new materials. These materials must be provided to the ACC a minimum of five (5) working days prior to the next regularly scheduled meeting.
- Written comments and/or notice of final design approval provided by ACC to Owner within seven (7) working days of the review meeting.

5. Construction Observations

- Site Observation with the Contractor prior to any site disturbance, and within seven (7) working days of receipt of written request.
- Foundation/Mock-Up Observation within seven (7) working days of receipt of written request.

- Final Construction Observation within seven (7) working days of receipt of written request.
- Notice of Completion issued within seven (7) working days of approved Final Landscape Observations.

Plan Submittals and Review Fees

New residential home construction within The Knolls will utilize the process described in this section. No Improvements may be commenced until the Owner has received a written "Approval" from the ACC.

Construction Security Deposit

In order to ensure an owner's compliance with the documents, each owner shall pay to the Association a construction deposit (in an amount established by the Board from time to time) upon the owner's submission of final plans and specifications for the construction or modification of an improvement under these Guidelines. Currently, the construction deposit for new construction is \$25,000 and \$12,500 for remodels, additions or expansions. Said funds shall be held in escrow. Upon final inspection by the ACC and compliance with the approved plans and completion of all landscape and site requirements, the deposit shall be returned net of any Association draws as described below. The Association may draw against the deposit to repair or replace damages to Open Spaces, Association owned improvements including gates, curbs, streetlights, landscape and irrigations systems. The deposit may also be utilized for site clean-up, repairs or replacements to erosion control devices and the like if owner or builder fail to keep the construction site clean or fails to keep mud and silt from the streets and Open Spaces.

New or Revision House-Start ACC Application - \$2,500 per application

Submittal process: Current ACC application completely filled out, plot plan attached (no plans required), and a check per application mailed or delivered to the ACC. Revisions will be charged same as a new submittal.

Master Plans ACC Submittal - \$500 per package

Submittal process: These packages usually occur when a builder enters a community, or changes product. All plans are to be submitted on ledger paper 11x16 or half size sets. Plans must include all elevations, roof pitch, brick/stone/stucco/siding percentages, and dimensional page for house width. Please include a submittal letter explaining the section(s) and specifics of the review. Mail or deliver the plan sets along with a check to the ACC.

Plans are reviewed in advance by the ACC.

Additional/New ACC Plan Review - \$500 per plan

Submittal process: Mail or deliver half size or 11x16 set of plans that include all elevations, roof pitch, brick/stone/stucco/siding percentages, and a dimensional page. Include a submittal letter describing the request along with a check per each plan to be reviewed to the ACC.

Variance ACC Review - \$250 per variance

Submittal process: Variance request letters must include the legal address, street address, and a description of the variance, i.e. measurements, etc. Mail or deliver the letter and any supportive materials (plot plan) along with a check to the ACC.

ATTACHMENT ONE

ACC APPLICATION

Deliver to:

ACC c/o _____

Address

Date: _____

Lot: _____ Block: _____ Phase: _____ Section: _____

Plan #: _____ Bedrooms: _____ Baths: _____

Address: _____

Lot Plan Attached: (Please Circle) Yes/No

1st Floor Masonry % _____ 2nd Floor Masonry % _____

Chimney:

(Please Circle) Yes/No Masonry

Fencing Type: _____

Stone Manufacturer and Color: _____

Brick Manufacturer and Color: _____

Roof Pitch: _____ Roof Color: _____ Roof Material: _____

Paint Color: _____

Fill in the information if different from color above

Trim Color: _____

Door Color: _____

Shutters Color: _____

Garage Color: _____

Square Footage of House: _____

House Width: _____

Front Retaining Wall:

(Please Circle) Yes/No Deck: **Yes/No**

Patio: _____ square feet

Comments: _____

Builder Name/Contact Information: _____

By: _____

Approval Date: _____

ATTACHMENT TWO

THE KNOLLS AT SOLANA SUPPLEMENT TO THE DESIGN GUIDELINES

Shared side yard retaining wall rule

These rules shall set forth the responsibilities of adjacent lot owners and are applicable for lots with cross slopes such that the natural grade falls across the street face or width of the lot.

Project Consistent Stone

All retaining walls constructed on a property line shall be constructed or faced with the stone designated as the community stone. This stone specification shall also apply to any wall visible to a street. The project stone is hereby designated to be _____ available from _____ quarry or as sourced by lot owner to be consistent in type.

Wall Location

Where retaining walls are constructed alongside lot lines to either facilitate fill on the uphill lot or cut on the downhill lot, the wall shall be located wholly within the lot where the construction activity first occurs. In other words, if the uphill lot is developed first, then builder shall construct the retaining wall within the uphill lot. If the downhill lot is developed first and desires to cut into the slope, thus requiring a retaining wall to withhold the natural grade, the wall shall be wholly located within the downhill lot unless mutually agreed to in writing by the adjacent lot owners. The cost of the retaining wall shall be borne by the owner of the lot where the wall is constructed subject to the following criteria:

Cost Sharing

If a lot owner constructs a residence on any lot whereby the natural grade is unaltered a side lot line, that lot owner is exempt from participating in any retaining wall cost that the adjacent lot owner may construct. Refer to diagram "A". In diagram "A" the owner of lot 1 did not alter grades at either side yard lot line, and therefore would not participate in any side yard retaining wall costs. They would pay for 50% of each side yard fence.

If two adjacent lots are both altered from natural grade whereby the uphill lot and the downhill lot both require the shared side yard retaining wall as illustrated in diagram "B", then the cost of the wall shall be shared 50/50 by both lot owners. In diagram "B", both lot owner 1 and 2 have altered the grade at their common side property line and therefore both contribute equally to the cost of the shared wall.

The owner of the lot to be developed first shall fund the full cost of the wall. The lot owner shall provide the ARC, or their designate, an invoice showing the full cost of the side yard wall. At such time as the adjacent lot is developed, the owner of that lot shall remit a reimbursement of 50% of that wall to the ARC at the time

the construction deposit is paid to the ARC. The ARC shall remit the reimbursement to the lot owner who constructed the wall. Any agreement to the contrary must be made in writing prior to the wall construction, signed by both lot owners and provided to the ARC. The obligation to reimburse shall attach to the lot and the ARC shall be able to lien the lot owing the reimbursement.

Shared Fences

All side yard retaining walls shall be constructed with corings at 8 ft on center to receive fence posts for a steel picket fence as described in the Design Guidelines.

Regardless of whether a retaining wall is constructed along a side yard lot line, any fence that is installed along a side yard lot line shall be shared 50/50 by both lot owners.

The fence shall be installed as part of the retaining wall construction regardless of whether the wall was constructed by the uphill or downhill lot owner.

The Knolls at Solana

Retaining Wall retaining wall rule

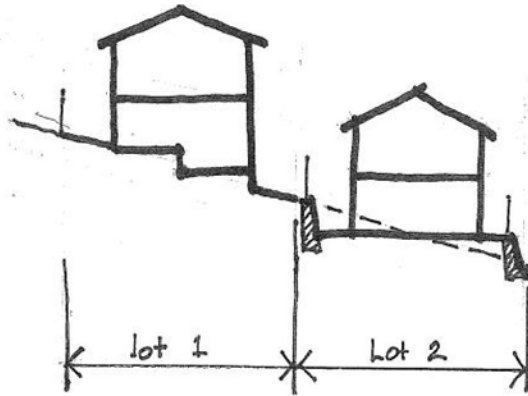


Diagram "A"

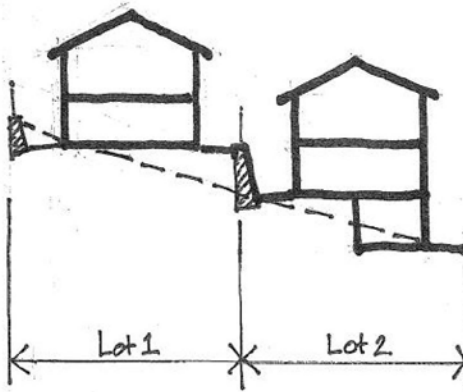


Diagram "B"

ATTACHMENT THREE

NORTH TEXAS PLANT LIST

The following list should be used as a starting point for selecting plants in The Knolls. Requirements for specific Lots may be more or less restrictive depending on landscape indigenous to the immediate site and the location of the site within the Property.

Canopy Trees at Street / Lot:

Shumard Red Oak (*Quercus shumardii*)
Live Oak (*Quercus virginiana*)
Chinquapin Oak (*Quercus muehlenbergii*)
Lacebark Elm (*Ulmus parvifolia*)
Cedar Elm (*Ulmus crassifolia*)
Allee Elm (*Ulmus parvifolia* 'Emer II')
Texas Ash (*Fraxinus texensis*)
White Ash (*Fraxinus americana*)

Canopy Trees at Open Spaces:

Bald Cypress (*Taxodium distichum*)
Bur Oak (*Quercus macrocarpa*)
Lacey Oak (*Quercus laceyi*)

Ornamental Trees:

Desert Willow (*Chilopsis linearis*)
Thornless Mesquite (
Mexican Plum (*Prunus mexicana*)
Redbud (*Redbud spp.*)
Yaupon Holly (*Ilex vomitoria*)
Possomhaw Holly (*Ilex decidua*)
Eastern Red Cedar (*Juniperus virginiana*)
Vitex (*Vitex agnus*)
Crape Myrtle (*Lagerstroemia indica*)

Shrubs:

Abelia spp. (*Abelia*)
Cast Iron Plan (*Aspidistra elatior*)
Coral Beauty Cotoneaster (*Cotoneaster dammeri*)
Agarito (*Mahonia trifoliolata*)
American Beautyberry (*Callicarpa Americana*)
Apache Plume (*Fallugia paradoxa*)
Autumn Sage (*Salvia greggii*)
Dwarf Wax Myrtle (*Myrica pussila*)
Flame Acanthus (*Anisacanthus wrightii*)
Fragrant Sumac (*Rhus aromatic*)
Pale Leaf Yucca (*Yucca pallida*)
Red Yucca (*Hesperaloe parviflora*)
Smooth Sumac (*Rhus glabra*)
Texas Barberry (*Mahonia swaseyi*)
Texas Sage (*Leucophyllum frutescens*)
Turk's Cap (*Malvaviscus drummondii*)

Grasses:

Switchgrass (*Panicum virgatum*)
Big Bluestem (*Andropogon gerardii*)
Bushy Bluestem (*Androphgon glomeratus*)
Eastern Gamagrass (*Tripsacum dactyloides*)
Gulf Muhly (*Muhlenbergia capillaris*)
Indiangrass (*Sorghastrum nutans*)
Inland Seaoats (*Chasmanthium latifolium*)
Lindheimer Muhly (*Muhlenbergia lindheimeri*)
Little Bluestem (*Schizachyrium scoparium*)

Perennials:

Black Eyed Susan (*Rudbeckia hirta*)
Blackfoot Daisy (*Melampodium leucanthum*)
Blue Mist Flower (*Eupatorium greggii*)
Butterfly Weed (*Asclepias tuberosa*)
Cardinal Flower (*Lobelia cardinalis*)
Coreopsis (*Coreopsis lanceolata*)
Fall Obedient Plant (*Physostegia virginiana*)
Four-nerve Daisy (*Hymenoxys scaposa*)
Fragrant Phlox (*Phlox pilosa*)
Cedar Sage (*Salvia roemeriana*)
Mealy Blue Sage (*Salvia farinacea*)
Prairie Verbena (*Verbena bipinnatifida*)
Purple Coneflower (*Echinacea spp.*)
Rockrose (*Pavonia lasiopetala*)
Ruellia (*Ruellia spp.*)
Scarlet Sage (*Salvia coccinea*)
Texas Lantana (*Lantana horrida*)
Winecup (*Callirhoe involunrata*)
Yellow Columbine (*Aquilegia spp.*)

Canopy Trees at Street / Lot:

Shumard Red Oak (*Quercus shumardii*) –



Lacebark Elm (*Ulmus parvifolia*)



Live Oak (*Quercus virginiana*)–



Cedar Elm (*Ulmus crassifolia*)–



Chinquapin Oak (*Quercus muehlenbergii*)



Allee Elm (*Ulmus parvifolia* 'Emer II')



Texas Ash (*Fraxinus texensis*)



Bur Oak (*Quercus macrocarpa*)



White Ash (*Fraxinus americana*)



Lacey Oak (*Quercus laceyi*)



Canopy Trees at Open Spaces:

Bald Cypress (*Taxodium distichum*)



Ornamental Trees:

Desert Willow (*Chilopsis linearis*)



Thornless Mesquite



Yaupon Holly (*Ilex vomitoria*)



Mexican Plum (*Prunus mexicana*)



Possomhaw Holly (*Ilex decidua*)



Redbud (*Redbud spp.*)



Eastern Red Cedar (*Juniperus virginiana*)



Vitex (*Vitex agnus*)



Cast Iron Plant (*Aspidistra elatior*)



Crape Myrtle (*Lagerstroemia indica*)



Coral Beauty Cotoneaster (*Cotoneaster dammeri*)



Shrubs:

Abelia spp. (*Abelia*)



Agarito (*Mahonia trifoliolata*)



American Beautyberry (*Callicarpa Americana*)



Dwarf Wax Myrtle (*Myrica pumila*)



Apache Plume (*Fallugia paradoxa*)



Flame Acanthus (*Anisacanthus wrightii*)



Autumn Sage (*Salvia greggii*)



Fragrant Sumac (*Rhus aromatic*)



Pale Leaf Yucca (*Yucca pallida*)



Texas Barberry (*Mahonia swaseyi*)



Red Yucca (*Hesperaloe parviflora*)



Texas Sage (*Leucophyllum frutescens*)



Smooth Sumac (*Rhus glabra*)



Turk's Cap (*Malvaviscus drummondii*)



Grasses:

Switchgrass (*Panicum virgatum*)



Eastern Gamagrass (*Tripsacum dactyloides*)



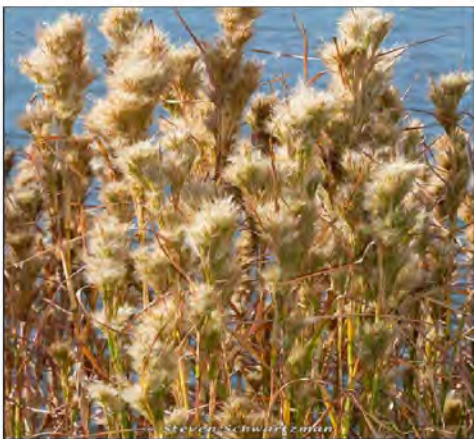
Big Bluestem (*Andropogon gerardii*)



Gulf Muhly (*Muhlenbergia capillaris*)



Bushy Bluestem (*Andropogon glomeratus*)



Indiangrass (*Sorghastrum nutans*)



Perennials

Inland Sea oats (*Chasmanthium latifolium*)



Black Eyed Susan (*Rudbeckia hirta*)



Lindheimer Muhly (*Muhlenbergia lindheimeri*)



Blackfoot Daisy (*Melampodium leucanthum*)



Little Bluestem (*Schizachyrium scoparium*)



Blue Mist Flower (*Eupatorium greggii*)



Butterfly Weed (*Asclepias tuberosa*)



Fall Obedient Plant (*Physostegia virginiana*)



Cardinal Flower (*Lobelia cardinalis*)



Four-nerve Daisy (*Hymenoxys scaposa*)



Coreopsis (*Coreopsis lanceolata*)



Fragrant Phlox (*Phlox pilosa*)



Cedar Sage (*Salvia roemeriana*)



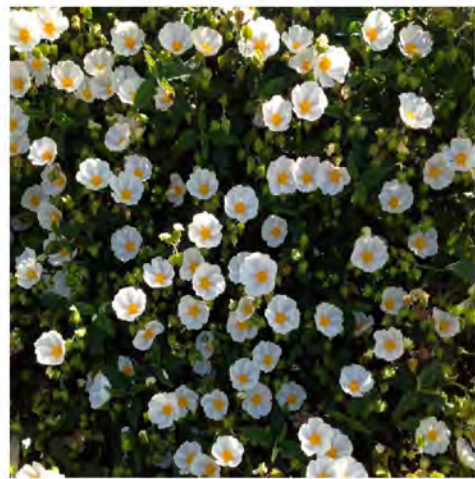
Purple Coneflower (*Echinacea spp.*)



Mealy Blue Sage (*Salvia farinacea*)



Rockrose (*Pavonia lasiopetala*)



Prairie Verbena (*Verbena bipinnatifida*)



Ruellia (*Ruellia spp.*)



Scarlet Sage (*Salvia coccinea*)



Yellow Columbine (*Aquilegia spp.*)



Texas Lantana (*Lantana horrida*)



Winecup (*Callirhoe involunrata*)



DEVELOPMENT AGREEMENT FOR SUBDIVISION IMPROVEMENTS
FOR
WESTLAKE VENTANAS

This Development Agreement (this “**AGREEMENT**”) is made and entered into on this **21ST** day of **JANUARY, 2025** (the “**EFFECTIVE DATE**”) by and between the Town of Westlake, Texas, a Type A General Municipality located in the State of Texas (the “**TOWN**”), and **OTTER PARTNERS, LP**, a Texas Limited Partnership duly incorporated in the State of **Texas** (the “**DEVELOPER**”) to establish the terms and conditions for designing and installing infrastructure and other related improvements for **WESTLAKE VENTANAS**, a residential development approved by Ordinance No. 994 by the Town Council on the **1ST** day of **APRIL, 2024** and subject to certain conditions as set forth in Ordinance No. 1001 approved by the Town Council on the **19TH** day of **AUGUST, 2024** (the “**DEVELOPMENT**” as further defined below). The Town and the Developer may also be referred to collectively as the “**PARTIES**”, or individually as a “**PARTY**”.

WHEREAS, the Developer either owns or will own certain real property more particularly described on **EXHIBIT “B”** attached hereto and incorporated herein by reference for all purposes (the “**PROPERTY**” as further defined below); and

WHEREAS, the Property is located within PD 1-2, Planned Development District 1-2, that is commonly known as “**WESTLAKE ENTRADA**”, as approved by Ordinance No. 703 by the Town Council on the **22ND** day of **APRIL 2013**; and

WHEREAS, pursuant to the provisions approved by Ordinance No. 703 by the Town Council on the **22ND** day of **APRIL 2013**, a development plan subject to review and approval by the Town Council is required, and such development plan was approved by Ordinance No. 720 by the Town Council on the **28TH** day of **OCTOBER 2013 (“DEVELOPMENT PLAN”)**; and

WHEREAS, the Development Plan was subsequently amended by Ordinance No. 830, as adopted by the Town on the **19TH** day of **JUNE 2017**; and

WHEREAS, the Development Plan was subsequently amended by Ordinance No. 918, as adopted by the Town on the **26TH** day of **OCTOBER 2020**; and

WHEREAS, the Development Plan was subsequently amended by Ordinance No. 934, as adopted by the Town on the **23RD** day of **AUGUST 2021**; and

WHEREAS, the Development Plan was subsequently amended by Ordinance No. 959, as adopted by the Town on the **5TH** day of **DECEMBER 2022**; and

WHEREAS, the Development Plan was subsequently amended by Ordinance No. 994, as adopted by the Town on the **1ST** day of **APRIL 2024**; and

WHEREAS, the Development Plan was subsequently amended by Ordinance No. 997, as adopted by the Town on the **3RD** day of **JUNE 2024**; and

WHEREAS, the Development Plan was subsequently amended by Ordinance No. 1001, as adopted by the Town on the **19TH** day of **AUGUST 2024**, including a revised Development Plan attached thereto as EXHIBIT “A” and included therein for all references and purposes; and

WHEREAS, the Development Plan amended by Ordinance No. 1001, as adopted by the Town on the **19TH** day of **AUGUST 2024**, included specific provisions relating to the Property including that the Architectural Standards (further defined below) shall be “according to the development guidelines and standards for The Knolls Development” and that the amendment to

the Development Plan for the development of this portion of Westlake Entrada shall further reflect approval provided 959, as adopted by the Town on the 5TH day of **DECEMBER 2022**; and

WHEREAS, the Development Plan amended by Ordinance No. 1001, included conditions that apply to “all further applications for development that are submitted pursuant to the Entrada Development Plan be submitted to address and provide for the following in future site plan / applications: (a) [t]he need to provide off-street parking for delivery trucks to ensure fire lanes are open; and (b) [t]he provision of view corridors (visibility easements) to ensure the safety of residents backing out of driveways”; and

WHEREAS, the Developer intends to develop (or cause to be developed) the Property as the Development in strict accordance with the rules, regulations, and provisions as set forth in Ordinance No. **994**, approved by the Town on the 1ST day of **APRIL, 2024** and those certain terms and conditions for development as set forth in Ordinance No. 1001, approved by the Town Council on the 19TH day of **AUGUST, 2024**; and

WHEREAS, the Parties desire to clarify certain rules and regulations of the Ordinance No. 994, approved by the Town on the 1ST day of **APRIL, 2024**, for there to be certain assurance in the development requirements for the Property, including incorporating agreed upon standards for the installation of infrastructure and other public improvements as well as building materials and aesthetic methods for the design and construction of buildings and other structures within the Development, while recognizing the Developer’s reasonable expectations in the development of the Property, as more fully described herein.

NOW, THEREFORE, in consideration of the foregoing premises and for other good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, the Parties covenant and agree as follows:

ARTICLE I.

DEFINITIONS

PARAGRAPH 1.01. “DEVELOPMENT” shall mean the construction of **51** single-family residential dwelling units and other accessory structures as approved in Ordinance No. 994, approved by the Town Council on the **1ST** day of **APRIL, 2024**, and subject to those certain terms and conditions for development as set forth in Ordinance No. 1001, approved by the Town Council on the **19TH** day of **AUGUST, 2024**.

PARAGRAPH 1.02. “PROPERTY” shall mean the **15.2 +/-** acres of real property, more or less, located wholly within Tarrant County and on which the Development shall be located.

PARAGRAPH 1.03. “TOWN ENGINEER” shall mean the person appointed by the Town and that is responsible for reviewing and approving engineering plans and related technical documents for the Town.

PARAGRAPH 1.04. “TOWN MANAGER” shall mean the Town Manager of the Town, or their designee.

ARTICLE II.

IMPROVEMENTS

PARAGRAPH 2.01. The Developer shall provide, at its own expense, all the engineering services required for the Development and Improvements (as defined in this Article II of this Agreement). Engineering services shall be performed by a professional engineer that is registered in the State of Texas. Such engineering services shall conform in all respects to the Town's engineering and design standards. Engineering services shall include, but shall not be limited to: surveys; designs; plans and profiles; estimates; construction supervision; and furnishing necessary documents in connection therewith as requested by the Town Manager and / or the Town Engineer. All engineering plans submitted shall be prepared by the Developer's Engineer, and such engineer plans shall be subject to the review, the approval, and the stamped acceptance of the Town Engineer. The Town Engineer's review and acceptance does not relieve the Developer or the Developer's engineer of the responsibility for design and construction. Further, the Developer's Engineer shall be a licensed engineer in the State of Texas.

PARAGRAPH 2.02. Construction of all the Improvements shall be in strict conformance with the plans to be prepared by the Developer (or on behalf of the Developer) and reviewed and accepted by the Town Engineer, in accordance with all policies, standards, and specifications that are adopted by the Town relating thereto. The Town Engineer's review and acceptance of the plans shall not be construed to limit or affect the Developer's responsibility for design and construction of the Improvements in whole or in part.

PARAGRAPH 2.03. The Developer shall employ, at its own expense, a qualified testing company, previously approved by the Town, to perform all testing of materials or construction that may be required by the Town and shall furnish copies of test results to the Town Engineer.

PARAGRAPH 2.04. At all times during the construction of the Improvements, the Town Manager shall have the right, but not the obligation or responsibility, to inspect the materials and

their workmanship; and the Developer shall ensure (or shall cause to be ensured) that all materials and work conform to the approved plans and specifications. Any material or work not conforming to the approved plans and the Town's engineering standards shall promptly be removed or replaced to the satisfaction of the Town Manager and / or the Town Engineer and at the sole expense of the Developer.

PARAGRAPH 2.05. The Developer shall be responsible for mowing all grass and weeds and otherwise reasonably maintaining all land within the Development which has not been sold to third parties. After 15 days' written notice from the Town Manager, and should the Developer fail in this responsibility to mow all grass and weeds, then at the sole discretion and option of the Town Manager, the Town Manager shall be authorized to: (i) issue (or cause to be issued) a citation to the Developer in the amount of \$2,000.00 ("TWO THOUSAND AND 00/100 UNITED STATES DOLLARS"), with each day that the grass and weeds are not mowed constituting a separate and distinct infraction; or (ii) the Town Manager may contract (or cause to be contracted) a landscaping company to mow all grass and weeds and, for this service, shall bill the Developer for costs. In the event the costs remain unpaid, the Town Manager shall issue a construction stop work order or withhold the issuance of any building permits until all costs are paid by the Developer.

PARAGRAPH 2.06. The obligations and responsibilities of the Developer as established by the terms and conditions of this Agreement for the construction of Improvements shall be performed and completed by the Developer no later than two (2) years from the issuance of the notice to proceed by the Town Manager for construction of Improvements, and proper application for acceptance of the Improvements shall be made by such date.

PARAGRAPH 2.07. The Improvements shall not be considered complete until the Town Engineer has certified to the Town, in writing, that the Improvements have been completed in strict conformance with the plans as accepted by the Town.

PARAGRAPH 2.08. Prior to the Town's acceptance of the Improvements, the Developer shall prepare and furnish a sworn affidavit, signed by an authorized representative of the Developer that the Improvements completed have been paid for, in full, by the Developer. The Developer shall be solely responsible for the information so provided on the affidavit. Said written certification shall be reviewed by the Town, but the Town, including its employees, shall assume no responsibility or liability to any party regarding the veracity of the information so provided.

PARAGRAPH 2.09. Prior to the Town accepting the Improvements, either in whole or in part, the Developer shall provide the Town with reproducible "as constructed" drawings, certified as accurate by the Town Engineer. All such drawings shall be provided in a digital format that is acceptable to the Town Engineer for review and approval.

PARAGRAPH 2.10. The Developer shall be solely responsible for all permit fees related to construction or installation of the Improvements. The permit fees shall include all fees contained in the Code of Ordinances of the Town and the most recent fee schedule adopted by the Town.

PARAGRAPH 2.11. Prior to commencing the construction of any Improvements agreed upon herein, the Developer shall acquire at its own expense clear and sufficient title to streets and easements, free and clear of any liens or encumbrances on all lands and facilities other than the Developer's development loan, if any, traversed by the proposed Improvements. All such streets and easements shall be private; and be permanently dedicated or conveyed to the Homeowners' Association ("HOA").

PARAGRAPH 2.12. Prior to the final acceptance of those portion of the Improvements that will be public by the Town, the Developer shall provide a maintenance bond for a period of two (2) years as set forth in the Code of Ordinances of the Town. The Developer shall submit the following for review, consideration, and possible action by the Town Council: Development covenants, conditions and restrictions to be enforced by the HOA, which should include HOA dues, duties and powers, transitional details providing for an orderly transition from the declarant to the HOA, and Town review of HOA dues to provide for adequacy of funding of maintenance of private infrastructure to Town standards by the HOA; homebuilder requirements and obligations; architectural design guidelines as described in Ordinance No. 994 , approved by the Town Council on the 1ST day of **APRIL, 2024**; and cluster mailbox designs and locations if applicable. Said items shall be approved by the Town Council prior the release of any building permits for the Development.

PARAGRAPH 2.13. In accordance with the Code of Ordinances of the Town, all existing overhead electric utility lines within and immediately adjacent to the Development shall be buried underground at the Developer's sole expense to the extent permitted by the adjacent landowners. All overhead electric utility lines shall be buried prior to final acceptance of public improvements.

PARAGRAPH 2.14. There shall be no construction, grading, or other clearing activities permitted to commence until a notice to proceed is issued by the Town Manager.

PARAGRAPH 2.15. Prior to the issuance of the notice to proceed, the Developer shall submit (or shall cause to be submitted) an erosion control plan to the Town Manager and the Town Engineer for review and approval. The erosion control plan shall meet all requirements of the Code of Ordinances of the Town and additional conditions required by the Town Manager and / or the Town Engineer. Further, it is expressly acknowledged that there shall be no inspections scheduled,

and none shall be conducted unless and until the requisite Storm Water Pollution Prevention Plan (“SWPPP”) has been submitted and approved and the applicable inspections in relation to the SWPPP have been passed by the appropriate governmental agency or authority.

PARAGRAPH 2.16. In addition to the Town Manager, employees and agents of the Town shall have unrestricted access to the Development for official business, in perpetuity, including but not limited to construction inspections and general inspections of the condition of the Development and utilities maintenance.

PARAGRAPH 2.17. A left turning lane, constructed at the sole expense of the Developer, shall be provided along the eastbound portion of Solana Boulevard adjacent to this Development. Prior to the construction of such left turning lane, all the engineering schematics and designs shall be submitted to the Town Manager and the Town Engineer for review and approval. Engineering schematics and designs related to the left turning lane shall meet all requirements of the Town of Westlake and shall be accepted as part of the Improvements as set forth in this Agreement prior to the Developer (or any builders or any other third-party agents and representatives of the Developer) making any application for a building permit within this Development.

PARAGRAPH 2.18. Prior to the issuance of a building permit, the Developer is expressly prohibited from grading (or causing to be graded) any individual lots for residential use. However, the Developer is authorized to reasonably grade for roads and infrastructure and for staging areas. All the graded areas shall comply with the applicable provisions in Chapter 36 of the Code of Ordinances of the Town and all such plans shall be submitted to the Town Manager and the Town Engineer for review and approval prior to the disturbance of any land. The Town Manager may issue a stop work order for any grading activities that are in violation of any federal or state law, any ordinances adopted by the Town, and any terms and conditions of this Agreement. Nothing

contained in this Agreement shall be construed to prevent the Town Manager from issuing an early grading permit for residential lots, provided, however, that all erosion plans, drainage plans, tree surveys, tree protection plans, and other related plans, documents, and drawings for residential lots as required by the Town Engineer in accordance with the applicable provisions of the Code of Ordinances of the Town have been reviewed and approved.

PARAGRAPH 2.19. Prior to the issuance of any building permit, the Developer shall pay to the Town (or cause to be paid to the Town) the parkland dedication fees. The parkland dedication fees shall be calculated by the Town Manager and furnished to the Developer prior to making any application for a building permit.

PARAGRAPH 2.20. Prior to the issuance of any building permit for this Development, the Developer is expressly prohibited from grading (or causing to be graded) any individual lots for residential use. However, the Developer is authorized to reasonably grade for staging areas to be depicted on grading plans to be submitted to the Town Manager for review and approval as set forth in Chapter 36 of the Code of Ordinances of the Town and any other applicable code, ordinance, or standard adopted by the Town. The Town Manager may issue a construction stop work order for any grading activities that are in violation of any federal or state law, any ordinances adopted by the Town, and any violations of the terms and conditions of this Agreement. The Town Manager shall be further authorized to issue (or cause to be issued) citations for any violation of any ordinances adopted by the Town regulating erosion and grading activities.

PARAGRAPH 2.21. The HOA (and its successor) shall be responsible for maintaining all public and private open space within the Development. The HOA (and its successor) shall also be responsible for maintaining all property adjacent to the Development fronting Solana Boulevard, including the right-of-way, the easements between the lot line and the street curb, and all retaining

walls, signs, and landscaping. All such public and private space as described in Paragraph 2.21 of this Agreement shall be submitted to the Town Manager for review and approval prior to submittal of a final plat by the Developer.

PARAGRAPH 2.22. Notwithstanding any of the paragraphs above in Article II of this Agreement, or any other paragraph, sentence, or clause of this Agreement:

A. Consistent with the conditions specified in Ordinance No. 1001, as approved by the Town Council on the **19TH** day of **AUGUST, 2024**, no detailed site plan shall be approved unless and until the Developer provides (or shall cause to be provided) such site plan to sufficiently depict to the satisfaction of the Town Manager and the Town Engineer that all “view corridors to ensure the safety of residents backing out of driveways” are provided on each lot.

i. All garage doors facing a street shall be setback a minimum of 10 feet from the front lot line (for purposes of this Agreement, the term “**FRONT LOT LINE**” shall mean the lot line that borders a street and, for a corner lot bordering a street on two sides, where the measure of the minimum lot width is calculated).

ii. No portion of any building façade containing garage doors facing a Front Lot Line for the purposes of this Agreement shall project forward of the garage, except in configurations where the garage doors are “side-entry” and project forward from the main volume of the principal residential building on the lot.

B. All trees planted and located along both sides of the access easement for the private drive leading to the Town Hall shall be permanently protected and preserved by the HOA and its successor; such permanent protection and preservation shall be recorded by easement on the final plat and include a note expressing the same to the satisfaction of the Town Manager.

C. All visual screening walls to be located along Solana Boulevard shall be designed and constructed in accordance with the Entrada Design Guidelines as provided for in Ordinance No. 760, approved by the Town Council on the **14TH** day of **DECEMBER 2015** and subsequently amended by Ordinance No. 933, approved by the Town Council on the **23RD** day of **AUGUST 2021**.

D. All fencing along streets and the private driveway leading to the Town Hall shall be wrought iron and black.

E. Chain-link and barbed-wire fencing is not allowed within any lot or portion of this Development.

F. The Parties acknowledge and agree that Developer has paid (or caused to be paid) an amount of \$10,000.00 (“TEN THOUSAND AND 00/100 UNITED STATES DOLLARS”) for each detached single-family residence to be constructed within the Development. The Parties also acknowledge and agree that such payment for each detached single-family residence to be constructed within the Development shall be exclusively and solely used for the impact to and the benefit of Westlake Academy. No further payment shall be required for the impact to and the benefit of Westlake Academy.

G. All private streets serving this development shall be paved in concrete; all concrete paving materials shall meet applicable standards for engineering, public works, and public safety to the satisfaction of the Town Manager and Town Engineer.

ARTICLE III.

UTILITIES

PARAGRAPH 3.01. The Developer shall furnish proof that proper arrangements have been made for the installation of water, sanitary sewer, gas, electric, and duct bank utilities.

PARAGRAPH 3.02. The Developer shall install water facilities to serve all platted lots within the Development in accordance with plans and specifications prepared by the Developer's engineer and released by the Town for construction and in accordance with Chapter 82, Article IX, Water Facilities, of the Town Code of Ordinances, as amended, and any other local, state and federal regulations. The Developer shall be solely responsible for all construction costs, materials, and engineering.

PARAGRAPH 3.03. The Developer shall connect all water utilities to the Town utility system.

PARAGRAPH 3.04. The Developer shall install sanitary sewer collection facilities to service all platted lots within the Development. Sanitary sewer facilities shall be installed in accordance with the plans and specifications to be prepared by the Developer's engineer and released by the Town. Further, the Developer agrees to complete this installation in accordance with Chapter 82, Article X, Wastewater Facilities, of the Town Code of Ordinances, as amended, and any other local, state and federal regulations. The Developer shall be responsible for all construction costs, materials, engineering, and permits.

PARAGRAPH 3.05. The Developer shall install drainage facilities to service all platted lots within the Development in accordance with the plans and specifications to be prepared by the Developer's engineer and released by the Town for construction. The Developer shall adhere to all applicable provisions contained in Chapter 82, Article X, Drainage Facilities, of the Town Code of Ordinances, as amended. The Developer shall fully comply with all Environmental Protection Agency ("EPA"), Federal Emergency Management Authority ("FEMA") and Texas Commission

on Environmental Quality (“TCEQ”) requirements relating to the planning, permitting and management of storm water which may be in force at the time that development proposals are being presented for approval to the Town. The Developer shall comply with all provisions of the Texas Water Code, as amended.

PARAGRAPH 3.06. In accordance with the Town’s Code of Ordinances, the Developer shall bury all utilities serving the development. Furthermore, all existing overhead utilities within, and adjacent to, the development shall be buried per the provisions contained within the Town’s Code of Ordinances prior to the final acceptance of public improvements.

ARTICLE IV.

BUILDING MATERIALS AND AESTHETICS

PARAGRAPH 4.01. All buildings and structures designed and constructed as part of this Development shall be in accordance with the architectural standards set forth in the HOA Design Guidelines (“**ARCHITECTURAL STANDARDS**”). The Architectural Standards shall be the complete set of specific building material and aesthetics found in Ordinance No. 994 as approved by the Town Council on the 1ST day of **APRIL, 2024**, for The Knolls Development, a copy of which is attached thereto and is included therein as EXHIBIT “C” for all purposes and references. All future development or modifications to buildings and structures within the Development shall be in conformance with and shall adhere to the Architectural Standards. The Parties acknowledge and agree that the Development is an area of architectural significance as contemplated by the provisions found in Chapter 3000 of the Texas Government Code, as amended. Also, the covenant to develop and modify buildings and structures within the Development in accordance with the

Architectural Standards is with the irrevocable and voluntary consent of the Developer in accordance with the provisions as found in Section 3000.002 (d) of the Texas Government Code, as amended. The Developer acknowledges and agrees that the consideration described herein shall constitute adequate consideration for such voluntary consent.

PARAGRAPH 4.02. Any request by the Developer, or their successors and assigns, or any property owner to modify or deviate from the Architectural Standards shall require a public hearing (e.g., a recommendation provided by the Planning and Zoning Commission and a decision made by the Town Council to approve, to approve with modifications, or to deny) pursuant to the Code of Ordinances for the Town. **FURTHER, IT IS ACKNOWLEDGED BY THE PARTIES THAT, WHERE THE PROVISIONS IN THE ARCHITECTURAL STANDARDS ARE SILENT, THE PROVISIONS IN THE PD 1-2, PLANNED DEVELOPMENT DISTRICT 1-2, AS AMENDED, SHALL GOVERN. WHERE THE PROVISIONS IN THE AFORESAID PD 1-2, PLANNED DEVELOPMENT DISTRICT 1-2, AS AMENDED, FOR WESTLAKE ENTRADA ARE SILENT, THEN THE APPLICABLE PROVISIONS OF THE CODE OF ORDINANCES FOR THE TOWN SHALL PREVAIL. UNLESS SPECIFICALLY STATED OTHERWISE IN ORDINANCE NO. 994 AS APPROVED BY THE TOWN COUNCIL ON THE 1ST DAY OF APRIL 2024, OR THE AFORESAID PD 1-2, PLANNED DEVELOPMENT DISTRICT 1-2 FOR WESTLAKE ENTRADA, IN THE EVENT OF ANY CONFLICT BETWEEN THOSE TWO (2) DOCUMENTS AND THE PROVISIONS OF THE CODE OF ORDINANCES FOR THE TOWN, THE PROVISIONS IN THE CODE OF ORDINANCES FOR THE TOWN SHALL GOVERN.**

PARAGRAPH 4.03. With respect to any buildings and structures designed or constructed on the Property and as part of the Development pursuant to this Agreement, the Developer hereby

waives any right, requirement or enforcement of the provisions of Section 3000.001-3000.005 of the Texas Government Code, as amended.

ARTICLE V.

COMPLETION OF AGREEMENT

This Agreement shall not be considered complete unless and until:

PARAGRAPH 5.01. All public improvements and infrastructure are finished, completed, and accepted by the Town.

PARAGRAPH 5.02. The lighting plan is reviewed, approved, and installed in accordance with said plan and accepted by the Town.

PARAGRAPH 5.03. All terms and conditions of this Agreement shall be satisfied.

PARAGRAPH 5.04. All Improvements shall be finished, completed, and accepted by the Town.

PARAGRAPH 5.05. The lighting plan as required and defined by applicable regulations in the Code of Ordinances of the Town is reviewed, approved, installed, and accepted by the Town.

PARAGRAPH 5.06. Record drawings for all streets, utilities, and other infrastructure in the Development, including street lighting, shall be (i) certified by the Developer's engineer and (ii) accepted by and filed with the Town Engineer and provided in the following format:

- a. Three (3) sets of record drawings;
- b. Digital record drawings with GIS spatial data and coordinates compatible with the latest version of ArcGIS Pro;

c. Digital record drawings compatible with the current version of AutoCAD;
and;

d. Digital record drawings in PDF format.

PARAGRAPH 5.07. All fees required by the Town and all other entities with review and permitting jurisdiction for the Improvements or the Development shall have been paid.

PARAGRAPH 5.08. Original Maintenance Bonds shall have been provided and any other bonds required for the completion of the Improvements.

PARAGRAPH 5.09. Lien release(s), affidavits of all bills paid, and claims have been provided.

PARAGRAPH 5.10. All obligations and responsibilities of the Developer under the terms and conditions of this Agreement, Ordinance No. 994 as approved by the Town Council on the 1ST day of **APRIL, 2024**, those certain terms and conditions for development as set forth in Ordinance No. 1001, approved by the Town Council on the 19TH day of **AUGUST, 2024**, and any other codes, ordinances, regulations or standards adopted by the Town have been met.

ARTICLE VI.

USE OF PUBLIC RIGHT-OF-WAY

PARAGRAPH 6.01. The Parties agree that the Developer may provide unique amenities within public right-of-way, including but not limited to landscape, irrigation, lighting, patterned concrete, and other similar features for enhancement of the Development, subject to the review and approval of the Town Manager. The Town Manager may defer review and approval of the provision of unique amenities within the public right-of-way to the Town Council for their decision

(e.g., approve, approve with modifications, or deny). The Developer agrees to maintain these amenities until such responsibility is turned over to the HOA. The Developer, and their successors and assigns, acknowledge and understand that the Town is not responsible for the maintenance or replacement of these amenities under any circumstances, and further agrees to indemnify and hold harmless the Town and its employees and authorized agents from any and all damage, loss, or liability of any kind whatsoever by reason of injury to property or third person occasioned by the Developer's use of the public right-of-way with regard to these improvements and the Developer shall also, at their own cost and expense, defend and protect the Town and its employees and authorized agents against all such claims and demands.

ARTICLE VII.

DEFAULT, TERMINATION AND FAILURE BY THE DEVELOPER TO MEET VARIOUS DEADLINES AND COMMITMENTS

PARAGRAPH 7.01. FAILURE TO PAY TOWN TAXES OR FEES. An event of default shall occur under this Agreement if during the term hereof and after the expiration of any applicable notice and cure period any legally-imposed Town taxes or fees owed on, or generated by, the Developer or one of its Affiliates with regard to the Development become delinquent and Developer or the Affiliate does not either: (i) pay such taxes and any associated penalties within 30 days of receipt of notification of such delinquency; or (ii) has not commenced the legal procedures for protest and / or contest of any such taxes within 30 days of receipt of notification of such delinquency. If the default has not been cured by such time, the Town shall have the right

to terminate this Agreement by providing ten (10) days' written notice to the Developer and shall have all other rights and remedies that may be available to it under the law or in equity.

PARAGRAPH 7.02. VIOLATIONS OF TOWN CODE, STATE OR FEDERAL LAW.

An event of default shall occur under the terms and conditions of this Agreement if, during the term hereof and after the expiration of any applicable notice and cure period, that any written citation is issued to the Developer or their Affiliates due to the occurrence of a violation of a material provision of the Town Code of Ordinances with respect to the Development (including, without limitation, any violation of the Building Code, Fire Code, and any other violations related to the environmental condition of the Development or to matters concerning the public health, safety, or welfare) and such citation is not: (i) paid before it is delinquent; or (ii) the recipient of such citation does not properly follow the legal procedures for protest and/or contest of any such citation within the deadlines set forth in said citation. An event of default shall further occur under this Agreement if the Developer is in violation of any material state or federal law, rule or regulation on account of the Development, improvements in the Development or any operations thereon (including, without limitation, any violations related to: (i) the environmental condition of the Development; (ii) the environmental condition on other land or waters which is attributable to operations of the Development; or (iii) to other matters concerning the public health, safety or welfare related to the Development). Upon the occurrence of such default, the Town shall notify the Developer in writing and Developer shall have (i) thirty (30) calendar days to cure such default or (ii) if Developer has diligently pursued cure of the default but such default is not reasonably curable within thirty (30) calendar days, then such amount of time as determined by both Parties mutually and in good faith necessary to cure such default. If the default has not been fully cured by such time, the Town shall have the right to terminate this Agreement with ten (10) days notice

by providing written notice to the Developer and shall have all other rights and remedies that may be available to under the law or in equity.

PARAGRAPH 7.03. GENERAL BREACH. Unless stated elsewhere in this Agreement, the Developer shall be in default under this Agreement if the Developer breaches any material term or condition of this Agreement. In the event that such breach remains uncured after thirty (30) calendar days following receipt of written notice from the Town referencing this Agreement (or, if the Developer has diligently and continuously attempted to cure following receipt of such written notice but reasonably requires more than thirty (30) calendar days to cure, then such additional amount of time as is reasonably necessary to effect cure, as determined by both parties mutually and in good faith), the Town shall have the right to terminate this Agreement with ten (10) days' notice by providing written notice to Developer.

ARTICLE VIII.

NO INDEPENDENT CONTRACTOR OR AGENCY RELATIONSHIP

PARAGRAPH 8.01. It is expressly understood and agreed by the Parties hereto that the Developer shall not operate as a servant, contractor agent, representative or employee of the Town. The Developer shall have the exclusive right to control all details and day-to-day operations related to its operations and obligations that it is required to perform under the terms and conditions of this Agreement, and shall be solely responsible for the acts and omissions of its officers, agents, employees, contractors, subcontractors, licensees and invitees. The Developer acknowledges that the doctrine of respondeat superior will not apply as between the Town and the Developer, or the Town's officers, agents, employees, contractors, subcontractors, licensees, and invitees. Further,

the Developer agrees that nothing contained in this Agreement shall be construed as the creation of a partnership or joint enterprise between the Town and the Developer of any kind.

ARTICLE IX.

INDEMNIFICATION AND INDEMNITY AGAINST NEGLIGENT DESIGN

PARAGRAPH 9.01. THE DEVELOPER, AT NO COST OR LIABILITY TO THE TOWN, AGREES TO DEFEND, INDEMNIFY AND HOLD THE TOWN, ITS OFFICERS, ELECTED AND APPOINTED OFFICIALS, AGENTS, ATTORNEYS, SERVANTS AND EMPLOYEES (TOGETHER WITH THE TOWN, EACH A “TOWN INDEMNIFIED PERSON”) HARMLESS AGAINST ANY AND ALL THIRD PARTY CLAIMS, LAWSUITS, ACTIONS, COSTS AND EXPENSES RELATED THERETO, INCLUDING, BUT NOT LIMITED TO, THOSE FOR PROPERTY DAMAGE OR LOSS (INCLUDING ALLEGED DAMAGE OR LOSS TO THE DEVELOPER’S BUSINESS AND ANY RESULTING LOST PROFITS) AND/OR PERSONAL INJURY, INCLUDING DEATH, THAT RELATE TO, ARISE OUT OF OR ARE OCCASIONED BY (i) THE DEVELOPER’S BREACH OF ANY OF THE TERMS OR PROVISIONS OF THIS AGREEMENT; OR (ii) ANY ACT OR OMISSION OR INTENTIONAL MISCONDUCT OF THE DEVELOPER, ITS OFFICERS, AGENTS, ASSOCIATES, EMPLOYEES, CONTRACTORS (OTHER THAN THE TOWN, OR ITS EMPLOYEES, OFFICERS, AGENTS, ASSOCIATES, CONTRACTORS OR SUBCONTRACTORS), OR SUBCONTRACTORS DUE OR RELATED TO, FROM, OR ARISING FROM THE OPERATION AND CONDUCT OF ITS OPERATIONS AND OBLIGATIONS OR

OTHERWISE TO THE PERFORMANCE OF THIS AGREEMENT. NOTWITHSTANDING THE FOREGOING, NOTHING IN THIS SECTION SHALL REQUIRE DEVELOPER TO INDEMNIFY OR DEFEND FOR ANY CLAIMS ARISING OUT OF THE NEGLIGENCE OR WILLFUL MISCONDUCT OF THE TOWN ENGINEER OR ANY TOWN INDEMNIFIED PERSON.

PARAGRAPH 9.02. APPROVAL OF THE TOWN ENGINEER OR OTHER TOWN EMPLOYEE, OFFICIAL, CONSULTANT, EMPLOYEE, OR OFFICER OF ANY PLANS, DESIGNS OR SPECIFICATIONS SUBMITTED BY THE DEVELOPER UNDER THIS AGREEMENT SHALL NOT CONSTITUTE OR BE DEEMED TO BE A RELEASE OF THE RESPONSIBILITY AND LIABILITY OF THE DEVELOPER, ITS ENGINEER, CONTRACTORS, EMPLOYEES, OFFICERS, OR AGENTS FOR THE ACCURACY AND COMPETENCY OF THEIR DESIGN AND SPECIFICATIONS. SUCH APPROVAL SHALL NOT BE DEEMED TO BE AN ASSUMPTION OF SUCH RESPONSIBILITY OR LIABILITY BY THE TOWN FOR ANY DEFECT IN THE DESIGN AND SPECIFICATIONS PREPARED BY THE CONSULTING ENGINEER, ITS OFFICERS, AGENTS, SERVANTS, OR EMPLOYEES, IT BEING THE INTENT OF THE PARTIES THAT APPROVAL BY THE TOWN ENGINEER OR OTHER TOWN EMPLOYEE, OFFICIAL, CONSULTANT, OR OFFICER SIGNIFIES THE TOWN APPROVAL OF ONLY THE GENERAL DESIGN CONCEPT OF THE IMPROVEMENTS TO BE CONSTRUCTED. IN THIS CONNECTION, THE DEVELOPER SHALL INDEMNIFY AND HOLD HARMLESS EACH TOWN INDEMNIFIED PERSON, FROM ANY LOSS, DAMAGE, LIABILITY OR EXPENSE ON ACCOUNT OF DAMAGE TO PROPERTY AND INJURIES, INCLUDING DEATH, TO ANY AND ALL PERSONS WHICH MAY

ARISE OUT OF ANY NEGLIGENT DESIGN OF THE ENGINEER INCLUDED IN DESIGNS AND SPECIFICATIONS INCORPORATED INTO ANY IMPROVEMENTS CONSTRUCTED IN ACCORDANCE THEREWITH, AND THE DEVELOPER SHALL DEFEND AT ITS OWN EXPENSE ANY SUITS OR OTHER PROCEEDINGS BROUGHT AGAINST ANY TOWN INDEMNIFIED PERSON, ON ACCOUNT THEREOF, TO PAY ALL EXPENSES AND SATISFY ALL JUDGMENTS WHICH MAY BE INCURRED BY OR RENDERED AGAINST THEM, COLLECTIVELY OR INDIVIDUALLY, PERSONALLY OR IN THEIR OFFICIAL CAPACITY, IN CONNECTION HERewith; PROVIDED THAT DEVELOPER SHALL HAVE THE RIGHT TO SELECT COUNSEL OF ITS OWN CHOOSING AND SHALL HAVE ALL REQUISITE AUTHORITY TO ENTER INTO ANY SETTLEMENT AGREEMENT AT ANY TIME IN CONNECTION WITH ANY SUCH CLAIMS OR LIABILITIES FOR WHICH DEVELOPER OWES INDEMNITY UNDER THIS SECTION.

PARAGRAPH 9.03. NOTWITHSTANDING THE FOREGOING, NOTHING IN THIS ARTICLE SHALL REQUIRE THE DEVELOPER TO INDEMNIFY OR DEFEND ANY CLAIMS ARISING OUT OF THE NEGLIGENCE OR WILLFUL MISCONDUCT OF THE TOWN ENGINEER OR ANY TOWN INDEMNIFIED PERSON.

ARTICLE X.

MISCELLANEOUS PROVISIONS

PARAGRAPH 10.01. NOTICES. All written notices called for or required by this Agreement shall be addressed to the following, or such other party or address as either party

designates in writing, by certified mail, postage prepaid, reputable overnight delivery service, or by hand delivery:

If to Developer:	Otter Partners, LP Attn: Frank Bonilla 18 Comillas Westlake Texas 76262
With a copy to:	Entrada Villa Partners, LLC 4110 Riverwalk Drive Flower Mound, TX 75028
If to Town:	Town of Westlake Attn: Town Manager 1500 Solana Boulevard Building 7, Suite 7200 Westlake, Texas 76262
With a copy to:	Town of Westlake Attn: Deputy Town Manager 1500 Solana Blvd. Building 7, Suite 7200 Westlake, Texas 76262
With a copy to:	Boyle & Lowry, L.L.P.

Attn: L. Stanton Lowry
4201 Wingren Drive, Suite 108
Irving, Texas 75062

PARAGRAPH 10.02. ASSIGNMENT AND SUCCESSORS. The Developer may not assign, transfer or otherwise convey any of its rights or obligations under this Agreement to any other person or entity without the prior consent of the Town Council. Any lawful assignee or successor in interest of the Developer of all rights and obligations under this Agreement shall be deemed the “Developer” for all purposes under this Agreement.

PARAGRAPH 10.03. COMPLIANCE WITH LAWS, ORDINANCES, RULES AND REGULATIONS. This Agreement shall be subject to all applicable Federal, State and local laws, ordinances, rules and regulations, including, but not limited to, all provisions of the Town’s codes and ordinances, as amended.

PARAGRAPH 10.04. GOVERNMENTAL POWERS. It is acknowledged that, by execution of this Agreement, the Town does not waive or surrender any of its governmental powers or immunities that are outside of the terms, obligations, and conditions of this Agreement.

PARAGRAPH 10.05. NO WAIVER. The failure of either Party to insist upon the performance of any term or provision of this Agreement or to exercise any right granted hereunder shall not constitute a waiver of that Party’s right to insist upon appropriate performance or to assert any such right on any future occasion.

PARAGRAPH 10.06. VENUE AND JURISDICTION. If any action, whether real or asserted, at law or in equity, arises on the basis of any provision of this Agreement, venue for such action shall lie in state courts located in Tarrant County, Texas or the United States District Court for the Northern District of Texas – Fort Worth Division. This Agreement shall be construed

in accordance with the laws of the State of Texas.

PARAGRAPH 10.07. NO THIRD-PARTY RIGHTS. The provisions and conditions of this Agreement are solely for the benefit of the Town and the Developer, and any lawful assign or successor of the Developer, and are not intended to create any rights, contractual or otherwise, to any other person or entity.

PARAGRAPH 10.08. FORCE MAJEURE. It is expressly understood and agreed by the parties to this Agreement that if the performance of any obligation hereunder is delayed by reason of war, civil commotion, acts of God, inclement weather that prohibits compliance with any portion of this Agreement, or other circumstances which are reasonably beyond the control or knowledge of the party obligated or permitted under the terms of this Agreement to do or perform the same, regardless of whether any such circumstance is similar to any of those enumerated or not, the party so obligated or permitted shall be excused from doing or performing the same during such period of delay, so that the time period applicable to such requirement shall be extended for a period of time equal to the period such party was delayed.

PARAGRAPH 10.09. INTERPRETATION. In the event of any dispute over the meaning or application of any provision of this Agreement, this Agreement shall be interpreted fairly and reasonably, and neither more strongly for or against any party, regardless of the actual drafter of this Agreement.

PARAGRAPH 10.10. SEVERABILITY CLAUSE. It is hereby declared to be the intention of the Parties that any sections, paragraphs, clauses and phrases of this Agreement are severable, and if any phrase, clause, sentence, paragraph or section of this Agreement shall be declared unconstitutional or illegal by the valid judgment or decree of any court of competent jurisdiction, such unconstitutionality or illegality shall not affect any of the remaining phrases, clauses, sentences, paragraphs or sections of this Agreement since the same would have been

executed by the Parties without the incorporation in this Agreement of any such unconstitutional phrase, clause, sentence, paragraph or section. It is the intent of the parties to provide the economic incentives contained in this Agreement by all lawful means.

PARAGRAPH 10.11. CAPTIONS. Captions and headings used in this Agreement are for reference purposes only and shall not be deemed a part of this Agreement.

PARAGRAPH 10.12. ENTIRETY OF AGREEMENT. This Agreement, including any attachments attached hereto, including the Requirements for Contractor's Insurance and any documents incorporated herein by reference, and the Economic Development Program Agreement, contain the entire understanding and Agreement between the Town and the Developer, and any lawful assign and successor of the Developer, as to the matters contained herein. Any prior or contemporaneous oral or written Agreement is hereby declared null and void to the extent in conflict with any provision of this Agreement. Notwithstanding anything to the contrary herein, this Agreement shall not be amended unless executed in writing by both parties and approved by the Town Council of the Town in an open meeting held in accordance with Chapter 551 of the Texas Government Code.

PARAGRAPH 10.13. COUNTERPARTS. This Agreement may be executed in multiple counterparts, each of which shall be considered an original, but all of which shall constitute one instrument.

SIGNATURES ON FOLLOWING PAGE

DEVELOPER:

By:

Frank Bonilla, Manager Otter Partners, LP

TOWN OF WESTLAKE, TEXAS

By:

Wade Carroll, Town Manager

ATTEST:

Dianna Buchanan, Town Secretary

Stan Lowry, Town Attorney



Town of Westlake

1500 Solana Blvd
Building 7, Suite 7100
Westlake, TX 76262

Staff Report

File #: 25-25

Agenda Date: 1/21/2025

Agenda #: G.3.

TOWN STAFF REPORT RECOMMENDATIONS

Discuss, consider and act to approve the purchase of a new fire engine not to exceed \$1.3 million dollars (Fire Chief John Ard)

STAFF: John Ard, Fire Chief

BACKGROUND:

The department currently operates two fire engines: a 2003 model (22 years old) as a reserve engine and a 2015 model (10 years old) in frontline service. Last summer, the council approved \$1.3 million in the FY24/25 budget for the replacement of the 2003 fire engine with a new, fully equipped apparatus. Since the approval, the fire department has been focused on selecting, designing, and outfitting the new engine to ensure it meets the community's needs and risks, while aligning with our deployment strategies. The build time of the new fire engine will take approximately 36 months. This time frame places the official replacement of our reserve engine at 25 years.

Please see the attached power point presented to the council in June of 2024, engine replacement justification presented to the Town Manager, and other supporting documents.

DISCUSSION:

The standard practice for fire apparatus replacement in the fire service industry follows a 10/10 model, where the apparatus serves in frontline status for 10 years and then transitions to reserve status for another 10 years with a lifecycle of 20 years. The Town's vehicle replacement policy aligns with this, stating that a fire apparatus has a total life span of 20 years. According to the 2020 Community Risk Assessment: Standard of Cover for the Westlake Fire-EMS Department, the expected life span for an engine is also 20 years. It's important to note that while age is a key factor in assessing the need for replacement, other considerations such as vehicle mileage and engine hours are also critical in determining serviceability. A common tool utilized in the industry to evaluate vehicle replacement is illustrated in the attached report "Apparatus Replacement Justification 2024". Additionally, the fire department has created a "Vehicle Replacement Schedule" that illustrates the replacement of the reserve engine.

FISCAL IMPACT:

\$1,286,031.53

STAFF RECOMMENDATION:

Purchase new fire engine (Pierce-Custom Enforcer Pumper, PUC)

ATTACHMENT(S):

1. Engine Proposal
2. Proposal Detail
3. Proposal Option List
4. Loose Equipment Detail
5. Engine Design Drawing (Not exact)
6. June 2024 Council Presentation
7. Apparatus Replacement Justification 2024
8. FD Vehicle Replacement Schedule

TOWN COUNCIL ACTION/OPTIONS:

- 1) Motion to approve
- 2) Motion to amend with the following stipulations (please state stipulations in motion)
- 3) Motion to table
- 4) Motion to deny

Siddons Martin Emergency Group, LLC
3500 Shelby Lane
Denton, TX 76207
GDN P115891
TXDOT MVD No. A115890

December 17, 2024

John Ard, Fire Chief
WESTLAKE FIRE-EMS DEPARTMENT
2000 W. Dove Rd.
WESTLAKE, TX 76262



Proposal For: 2024 Westlake Pumper

Siddons-Martin Emergency Group, LLC is pleased to provide the following proposal to WESTLAKE FIRE-EMS DEPARTMENT. Unit will comply with all specifications attached and made a part of this proposal. Total price includes delivery FOB WESTLAKE FIRE-EMS DEPARTMENT and training on operation and use of the apparatus.

Description	Amount
Qty. 1 - 1165 - Pierce-Custom Enforcer Pumper, PUC	
(Unit Price - \$1,409,343.00)	
Delivery within 34-35 months of order date	
QUOTE # - SMEG-0008607-2	
	Vehicle Price \$1,270,626.00
	Chassis Prepay Discount (\$17,283.86)
	Full Prepay Discount (\$107,613.30)
	1165 - UNIT TOTAL \$1,145,728.84
	Loose Equipment \$138,302.69
	SUB TOTAL \$1,284,031.53
	HGAC FS12-23 (FIRE) \$2,000.00
	TOTAL \$1,286,031.53

Price guaranteed until 1/31/2025

Additional: Due to global supply chain constraints, any delivery date contained herein is a good faith estimate as of the date of this order/contract, and merely an approximation based on current information. Delivery updates will be made available, and a final firm delivery date will be provided as soon as possible.

Persistent Inflationary Environment Notification: If the Producer Price Index of Components for Manufacturing [www.bls.gov Series ID: WPUID6112] (the "PPI") has increased at a compounded annual growth rate greater than 5.0% from the date of acceptance of this proposal letter (the "Order Month") and 14 months prior to the anticipated Ready for Pickup Date (the "Evaluation Month"), then the proposal price may be increased by an amount equal to any increase exceeding 5.0% for the time period between the Order Month and the Evaluation Month. Siddons Martin and Pierce will provide documentation of

such increase and the updated price for the customer's approval before proceeding with completion of the order along with an option to cancel the order.

Taxes: Tax is not included in this proposal. In the event that the purchasing organization is not exempt from sales tax or any other applicable taxes and/or the proposed apparatus does not qualify for exempt status, it is the duty of the purchasing organization to pay any and all taxes due. Balance of sale price is due upon acceptance of the apparatus at the factory.

Late Fee: A late fee of .033% of the sale price will be charged per day for overdue payments beginning ten (10) days after the payment is due for the first 30 days. The late fee increases to .044% per day until the payment is received. In the event a prepayment is received after the due date, the discount will be reduced by the same percentages above increasing the cost of the apparatus.

Cancellation: In the event this proposal is accepted and a purchase order is issued then cancelled or terminated by Customer before completion, Siddons-Martin Emergency Group may charge a cancellation fee. The following charge schedule based on costs incurred may be applied:

- (A) 10% of the Purchase Price after order is accepted and entered by Manufacturer;
- (B) 20% of the Purchase Price after completion of the approval drawings;
- (C) 30% of the Purchase Price upon any material requisition.

The cancellation fee will increase accordingly as costs are incurred as the order progresses through engineering and into manufacturing. Siddons-Martin Emergency Group endeavors to mitigate any such costs through the sale of such product to another purchaser; however, the customer shall remain liable for the difference between the purchase price and, if applicable, the sale price obtained by Siddons-Martin Emergency Group upon sale of the product to another purchaser, plus any costs incurred by Siddons-Martin to conduct such sale.

Acceptance: In an effort to ensure the above stated terms and conditions are understood and adhered to, Siddons-Martin Emergency Group, LLC requires an authorized individual from the purchasing organization sign and date this proposal and include it with any purchase order. Upon signing of this proposal, the terms and conditions stated herein will be considered binding and accepted by the Customer. The terms and acceptance of this proposal will be governed by the laws of the state of Texas. No additional terms or conditions will be binding upon Siddons-Martin Emergency Group, LLC unless agreed to in writing and signed by a duly authorized officer of Siddons-Martin Emergency Group, LLC.

Sincerely,



Brian Peters

I, _____, the authorized representative of WESTLAKE FIRE-EMS DEPARTMENT, agree to purchase the proposed and agree to the terms of this proposal and the specifications attached hereto.

Signature & Date



Proposal Details Report

12/17/2024

Customer: Westlake, TX Fire Department - Bid Number: 1165

Denton County

Representative Peters, Brian

Job Number:

Requirements Manager: Organization: Siddons-Martin Emergency Group

Description: Westlake Enforcer PUC Pumper

Chassis: Enforcer Chassis, PUC-NG

Body: Pumper, PUC, Aluminum

OptionCode	Type	Option	ProposalText
0766589		Boiler Plates, PUC Pumper	Siddons-Martin is pleased to submit a proposal to Westlake Fire Department for a Pierce® multi purpose response vehicle per your request for quotation. The following paragraphs will describe in detail the apparatus, construction methods, and equipment proposed. This proposal will indicate size, type, model and make of components parts and equipment, providing proof of compliance with each and every item (except where noted) in the departments advertised specifications. PIERCE MANUFACTURING was founded in 1913. Since then, we have been building bodies with one philosophy, "BUILD THE FINEST". Our skilled craftsmen take pride in their work, which is reflected, in the final product. We have been building fire apparatus since the early "forties" giving Pierce Manufacturing over 75 years of experience in the fire apparatus market. Pierce Manufacturing has built and put into service more than 62,500 apparatus, including more than 33,900 on Pierce custom chassis designed and built specifically for fire and emergency applications. Our Appleton, Wisconsin facility has over 870,000 total square feet of floor space situated on approximately 105 acres of land. Our Bradenton, Florida facility has 300,000 square feet of floor space situated on approximately 38 acres of land. Our beliefs in high ethical standards are carried through in all of our commitments and to everyone with whom we do business. Honesty, Integrity, Accountability and Citizenship are global tenets by which we all live and work. Consequently, we neither engage in, nor have we ever been convicted of price fixing, bid rigging, or collusion in any domestic or international fire apparatus market. Pierce has only one brand of fire apparatus "Pierce", ensuring you are receiving top of the line product that meets your specification. In accordance with the current edition of applicable NFPA standards, this proposal will specify whether the fire department, manufacturer, or apparatus dealership will provide required loose equipment. Images and illustrative material in this proposal are as accurate as known at the time of publication, but are subject to change without notice. Images and illustrative material is for reference only, and may include optional equipment and accessories and may not include all standard equipment. GENERAL DESIGN AND CONSTRUCTION To control quality, ensure compatibility, and provide a single source for service and warranty, the custom cab, chassis, pump module and body will be entirely designed, assembled/welded and painted in Pierce owned manufacturing facilities. This includes, but not limited to the cab weldment, the pumphouse module assembly, the chassis assembly, the body and the electrical system. QUALITY AND WORKMANSHIP Pierce has set the pace for quality and workmanship in the fire apparatus field. Our tradition of building the highest quality units with craftsmen second to none has been the rule right from the beginning and we demonstrate that ongoing commitment by: Ensuring all steel welding follows American Welding Society D1.1-2004 recommendations for structural steel welding. All aluminum welding follows American Welding society and ANSI D1.2-2003 requirements for structural welding of aluminum. All sheet metal welding follows American welding Society B2.1-2000 requirements for structural welding of sheet metal. Our flux core arc welding uses alloy rods, type 7000 and is performed to American Welding Society standards A5.20-E70T1. Furthermore, all employees classified as welders are tested and certified to meet the American welding Society codes upon hire and every three (3) years thereafter. Pierce also employs and American Welding Society certified welding inspector in plant during working hours to monitor weld quality. Pierce Manufacturing operates a Quality Management System under the requirements of ISO 9001. These standards sponsored by the International Organization for Standardization (ISO) specify the quality systems that are established by the manufacturer for design, manufacture, installation and service. A copy of the certificate of compliance is included with this proposal. In addition to the Quality Management system, we also employ a Quality Achievement Supplier program to ensure the vendors and suppliers that we utilize meet the high standards we demand. That is just part of our overall "Quality at the Source" program at Pierce. To demonstrate the quality of our products and services, a list of at least two (2) fire departments/municipalities that have purchased vehicles for a second time is provided. DELIVERY The apparatus will be delivered under its own power to ensure proper break-in of all components while the apparatus is still under warranty. A qualified delivery representative shall deliver the apparatus and remain for a sufficient length of time to instruct personnel in proper operation, care and maintenance of the equipment delivered. MANUAL AND SERVICE INFORMATION At time of delivery, complete operation and maintenance manuals covering the apparatus will be provided. A permanent plate will be mounted in the driver's compartment specifying the quantity and type of fluids required including engine oil, engine coolant, transmission, pump transmission lubrication, pump primer and drive axle. SAFETY VIDEO At the time of delivery Pierce will also provide one (1) 39-minute, professionally produced apparatus safety video, in DVD format. A link to the video is also available on the Pierce Training website. This video will address key safety considerations for personnel to follow when they are driving, operating, and maintaining the apparatus, including the following: vehicle pre-trip inspection, chassis operation, pump operation, aerial operation, and safety during maintenance. PERFORMANCE TESTS

A road test will be conducted with the apparatus fully loaded and a continuous run of no less than ten (10) miles. During that time the apparatus will show no loss of power nor will it overheat. The transmission drive shaft or shafts and the axles will run quietly and be free of abnormal vibration or noise. The apparatus when fully loaded will not have less than 25 percent nor more than 50 percent on the front axle, and not less than 50 percent nor more than 75 percent on the rear axle. The apparatus will meet the current edition of applicable NFPA standards acceleration and braking requirements.

SERVICE AND WARRANTY SUPPORT

Pierce dealership support will be provided by Siddons-Martin by operating in conjunction with a Pierce authorized service center. The service center will have factory-trained mechanics on staff versed in Pierce fire apparatus. The service facility will be located within twenty five (25) miles of the fire department.

In addition to the dealership, Pierce has service facilities located in both, Weyauwega, Wisconsin and Bradenton, Florida. Pierce also maintains a dedicated parts facility of over 100,000 square feet in Appleton, Wisconsin. The parts facility stocks in excess of \$5,000,000 in parts dedicated to service and replacement parts. The parts facility employs a staff dedicated solely for the distribution and shipment of service and replacement parts.

Service parts for the apparatus being proposed can be found via Pierceparts.com which, is an interactive online tool that delivers information regarding your specific apparatus as well as the opportunity to register for training classes.

As a Pierce customer you have the ability to view the complete bill of materials for your specific apparatus, including assembly drawings, piece part drawings, and beneficial parts notations. You will also have the ability to search the complete Pierce item master through a parts search function which offers all Pierce SKU's and descriptions offered on all Pierce apparatus. Published component catalogs, which include proprietary systems along with an extensive operator's manual library is available for easy reference.

Pierce Manufacturing maintains a dedicated service and warranty staff of over 35 personnel, dedicated to customer support, which also maintains a 24 hour 7 day a week toll free hot line, four (4) on staff EVTs, and offers hands-on repair and maintenance training classes multiple times a year.

LIABILITY

The successful bidder will defend any and all suits and assume all liability for the use of any patented process including any device or article forming a part of the apparatus or any appliance furnished under the contract.

INSURANCE PROVIDED BY BIDDER

Commercial General Liability Insurance

The successful bidder will, during the performance of the contract and for three (3) years following acceptance of the product, keep in force at least the following minimum limits of commercial general liability insurance:

Each Occurrence:

\$1,000,000

Products/Completed Operations Aggregate:

\$1,000,000

Personal and Advertising Injury:

\$1,000,000

General Aggregate:

\$2,000,000

Coverage will be written on a Commercial General Liability form. The policy will be written on an occurrence form and will include Contractual Liability coverage for bodily injury and property damage subject to the terms and conditions of the policy. The policy will include Owner as an additional insured when required by written contract.

Commercial Automobile Liability Insurance

The successful bidder will, during the performance of the contract, keep in force at least the following minimum limits of commercial automobile liability insurance and coverage will be written on a Commercial Automobile liability form:

Each Accident Combined Single Limit:

\$1,000,000

Umbrella/Excess Liability Insurance

The successful bidder will, during the performance of the contract and for three (3) years following acceptance of the product, keep in force at least the following minimum limits of umbrella liability insurance:

Aggregate:

\$3,000,000

Each Occurrence:

\$3,000,000

The umbrella policy will be written on an occurrence basis and at a minimum provide excess to the bidder's General Liability and Automobile Liability policies.

The required limits can be provided by one (1) or more policies provided all other insurance requirements are met.

Coverage will be provided by a carrier(s) rated A- or better by A.M. Best.

All policies will provide a 30-day notice of cancellation to the named insured. The Certificate of Insurance will provide the following cancellation clause: Should any of the above described policies be cancelled before the expiration date thereof, notice will be delivered in accordance with the policy provisions.

Bidder agrees to furnish owner with a current Certificate of Insurance with the coverages listed above along with the bid. The certificate will show the purchaser as certificate holder.

INSURANCE PROVIDED BY MANUFACTURER

Product Liability Insurance

The manufacturer will, during the performance of the contract and for three (3) years following acceptance of the product, keep in force at least the following minimum limits of Product Liability insurance:

Each Occurrence:

\$1,000,000

Products/Completed Operations Aggregate:

\$1,000,000

Coverage will be written on a Commercial General Liability form. The policy will be written on an occurrence form. The manufacturer's policy will include the owner as additional insured when

		required by written contract between the Owner and a Pierce authorized dealer. Umbrella/Excess Liability Insurance The manufacturer will, during the performance of the contract and for three (3) years following acceptance of the product, keep in force at least the following minimum limits of umbrella liability insurance: Each Occurrence: \$25,000,000 Aggregate: \$25,000,000 The umbrella policy will be written on an occurrence basis and provide excess to the manufacturer's General Liability/Products policies. The required limits can be provided by one (1) or more policies provided all other insurance requirements are met. Coverage will be provided by a carrier(s) rated A- or better by A.M. Best. All policies will provide a 30-day notice of cancellation to the named insured. The Certificate of Insurance will provide the following cancellation clause: Should any of the above described policies be cancelled before the expiration date thereof, notice will be delivered in accordance with the policy provisions. Manufacturer agrees to furnish owner with a current Certificate of Insurance with the coverages listed above along with the bid. The certificate will show the purchaser as the certificate holder.
0661794	Single Source Compliance	SINGLE SOURCE MANUFACTURER Pierce Manufacturing, Inc. provides an integrated approach to the design and manufacture of our products that delivers superior apparatus and a dedicated support team. From our facilities, the chassis, cab weldment, cab, pumphouse (including the sheet metal enclosure, valve controls, piping and operators panel) and body will be entirely designed, tested, and hand assembled to the customer's exact specifications. The electrical system either hardwired or multiplexed, will be both designed and integrated by Pierce Manufacturing. The warranties relative to these major components (excluding component warranties such as engine, transmission, axles, pump, etc.) will be provided by Pierce as a single source manufacturer. Pierce's single source solution adds value by providing a fully engineered product that offers durability, reliability, maintainability, performance, and a high level of quality.
0584456	Manufacture Location, Appleton, Wisconsin	Your apparatus will be manufactured in Appleton, Wisconsin.
0584452	RFP Location: Appleton, Wisconsin	
0588609	Vehicle Destination, US	
0764706	SP BMP Truck - Pre-Approval at Bid - Approved Option Will Be Required at Booking	
0816491	Comply NFPA 1900 Changes Effective Jan 1, 2024, With Exceptions	NFPA 2024 STANDARDS This unit will comply with the NFPA standards effective January 1, 2024, except for fire department directed exceptions. These exceptions will be set forth in the Statement of Exceptions. Certification of slip resistance of all stepping, standing and walking surfaces will be supplied with delivery of the apparatus. All horizontal surfaces designated as a standing or walking surface that are greater than 48.00" above the ground must be defined by a 1.00" wide line along its outside perimeter. Perimeter markings and designated access paths to destination points will be identified on the customer approval print and are shown as approximate. Actual location(s) will be determined based on materials used and actual conditions at final build. Access paths may pass through hose storage areas and opening or removal of covers or restraints may be required. Access paths may require the operation of devices and equipment such as the aerial device or ladder rack. A plate that is highly visible to the driver while seated will be provided. This plate will show the overall height, length, and gross vehicle weight rating. The manufacturer will have programs in place for training, proficiency testing and performance for any staff involved with certifications. An official of the company will designate, in writing, who is qualified to witness and certify test results.
0533347	Pumper/Pumper with Aerial Device Fire Apparatus	
0588611	Vehicle Certification, Pumper	

0661778	Agency, Apparatus Certification, Pumper/Tanker, U.L.	NFPA COMPLIANCY Apparatus proposed by the bidder will meet the applicable requirements of the National Fire Protection Association (NFPA) as stated in current edition at time of contract execution. Fire department's specifications that differ from NFPA specifications will be indicated in the proposal as "non-NFPA". PUMP TEST Underwriters Laboratory (UL) will test, approved, and certify the pump. The test results and the pump manufacturer's certification of hydrostatic test; the engine manufacturer's certified brake horsepower curve; and the pump manufacturer's record of pump construction details will be forwarded to the Fire Department. GENERATOR TEST If the unit has a generator, Underwriters Laboratory (UL) will test, approved, and certify the generator. The test results will be provided to the Fire Department at the time of delivery. BREATHING AIR TEST If the unit has breathing air, Pierce Manufacturing will draw an air sample from the air system and have the sample certified that the air quality meets the requirements of NFPA 1989, <i>Standard on Breathing Air Quality for Fire and Emergency Services Respiratory Protection</i>.
0816495	Certification, Vehicle Inspection Program, NFPA 1900	VEHICLE INSPECTION PROGRAM CERTIFICATION To assure the vehicle is built to current NFPA1900 standards, the apparatus, in its entirety, will be third-party, independent, audit-certified through Underwriters Laboratory (UL) that it is built and complies to all applicable standards in the current edition. The certification includes: all design, production, operational, and performance testing of not only the apparatus, but those components that are installed on the apparatus. A placard will be affixed in the driver's side area stating the third party agency, the date, the standard and the certificate number of the whole vehicle audit.
0000114	Inspection Trip(s)	INSPECTION TRIP(S) The bidder will provide two (2) factory inspection trip(s) for 3 Westlake personnel customer representative(s). The inspection trip(s) will be scheduled at times mutually agreed upon between the manufacturer's representative and the customer. All costs such as travel, lodging and meals will be the responsibility of the bidder.
0620362	Consortium, HGAC	
0537375	Unit of Measure, US Gallons	
0529326	Bid Bond, 10%, Pierce Built Chassis	BID BOND A bid bond as security for the bid in the form of a 10 percent bid bond will be provided with the proposal. This bid bond will be issued by a Surety Company who is listed on the U.S. Treasury Departments list of acceptable sureties as published in Department Circular 570. The bid bond will be issued by an authorized representative of the Surety Company and will be accompanied by a certified power of attorney dated on or before the date of bid. The bid bond will include language which assures that the bidder/principal will give a bond or bonds, as may be specified in the bidding or contract documents, with good and sufficient surety for the faithful performance of the contract, including the Basic One (1) Year Limited Warranty, and for the prompt payment of labor and material furnished in the prosecution of the contract. Notwithstanding any document or assertion to the contrary, any surety bond related to the sale of a vehicle will apply only to the Basic One (1) Year Limited Warranty for such vehicle. Any surety bond related to the sale of a vehicle will not apply to any other warranties that are included within this bid (OEM or otherwise) or to the warranties (if any) of any third party of any part, component, attachment or accessory that is incorporated into or attached to the vehicle. In the event of any contradiction or inconsistency between this provision and any other document or assertion, this provision will prevail.

0816569	Performance Bond, Not Requested, PPI Terms	PERFORMANCE BOND NOT REQUESTED A performance bond will not be included. If requested at a later date, one will be provided to you for an additional cost and the following will apply: The successful bidder will furnish a Performance and Payment bond (Bond) equal to 100 percent of the total contract amount within 30 days of the notice of award. Such Bond will be in a form acceptable to the Owner and issued by a surety company included within the Department of Treasury's Listing of Approved Sureties (Department Circular 570) with a minimum A.M. Best Financial Strength Rating of A and Size Category of XV. In the event of a bond issued by a surety of a lesser Size Category, a minimum Financial Strength rating of A+ is required. Bidder and Bidder's surety agree that the Bond issued hereunder, whether expressly stated or not, also includes the surety's guarantee of the vehicle manufacturer's Bumper to Bumper warranty period included within this proposal. Owner agrees that the penal amount of this bond will be simultaneously amended to 25 percent of the total contract amount upon satisfactory acceptance and delivery of the vehicle(s) included herein. Notwithstanding anything contained within this contract to the contrary, the surety's liability for any warranties of any type will not exceed three (3) years from the date of such satisfactory acceptance and delivery, or the actual Bumper to Bumper warranty period, whichever is shorter. Due to global supply chain constraints, any delivery date contained herein is a good faith estimate as of the date of this order/contract, and merely an approximation based on current information. Delivery updates will be made available, and a final firm delivery date will be provided as soon as possible. If the Producer Price Index of Components for Manufacturing [www.bls.gov Series ID: WPUID6112] ("PPI") has increased at a compounded annual growth rate of 5.0% or more between the month Pierce accepts the order ("Order Month") and a month 14 months prior to the then predicted Ready For Pickup date ("Evaluation Month"), then pricing may be updated in an amount equal to the increase in PPI over 5.0% for each year or fractional year between the Order Month and the Evaluation Month. The seller will document any such updated price for the customer's approval before proceeding and provide an option to cancel the order.
0000007	Approval Drawing	APPROVAL DRAWING A drawing of the proposed apparatus will be prepared and provided to the purchaser for approval before construction begins. The Pierce sales representative will also be provided with a copy of the same drawing. The finalized and approved drawing will become part of the contract documents. This drawing will indicate the chassis make and model, location of the lights, siren, horns, compartments, major components, etc. A "revised" approval drawing of the apparatus will be prepared and submitted by Pierce to the purchaser showing any changes made to the approval drawing.
0002928	Electrical Diagrams	ELECTRICAL WIRING DIAGRAMS Two (2) electrical wiring diagrams, prepared for the model of chassis and body, will be provided.
0889378	Enforcer Chassis, PUC-NG	ENFORCER CHASSIS The Pierce Enforcer™ is the custom chassis developed exclusively for the fire service. Chassis provided will be a new, tilt-type custom fire apparatus. The chassis will be manufactured in the apparatus body builder's facility eliminating any split responsibility. The chassis will be designed and manufactured for heavy-duty service, with adequate strength, capacity for the intended load to be sustained, and the type of service required. The chassis will be the manufacturer's first line tilt cab.
0000110	Wheelbase	WHEELBASE The wheelbase of the vehicle will be 194.00".
0000070	GVW Rating	GVW RATING The gross vehicle weight rating will be 46,500.
0729280	Frame Rails, 13.38 x 3.50 x .375, Enforcer	FRAME The chassis frame will be built with two (2) steel channels bolted to five (5) cross members or more, depending on other options of the apparatus. The side rails will have a 13.38" tall web over the front and mid sections of the chassis, with a continuous smooth taper to 10.75" over the rear axle. Each rail will have a section modulus of 25.992 cubic inches and a resisting bending moment (rbm) of 3,119,040 in-lb over the critical regions of the frame assembly, with a section modulus of 18.96 cubic inches with an rbm of 2,275,200 in-lb over the rear axle. The frame rails will be constructed of 120,000 psi yield strength heat-treated 0.38" thick steel with 3.50" wide flanges.
0889469	Frame Liner, "C/Inv L" 12.50" x 3.00" x .25", AXT/Vel/Imp/Enf, 56" QVal	FRAME REINFORCEMENT In addition, a mainframe internal liner will be provided. The liner will be an internal "C" design that steps to an internal "L" design over the rear axle. It will be heat-treated steel measuring 12.50" x 3.00" x 0.25" through the front portion of the liner, stepping to 9.38" x 3.00" x 0.25" through the rear portion of the liner. Each liner will have a section modulus of 13.58 cubic inches, yield strength of 110,000 psi, and rbm of 1,494,042 in-lb. Total rbm at wheelbase center will be 4,391,869 in-lb. The frame liner will be mounted inside of the chassis frame rail and extend the full length of the frame.

0630705	Axle, Front, Oshkosh TAK-4, Non Drive, 19,500 lb, Enforcer	FRONT NON DRIVE AXLE The Oshkosh TAK-4® front axle will be of the independent suspension design with a ground rating of 19,500 lb. Upper and lower control arms will be used on each side of the axle. Upper control arm castings will be made of 100,000-psi yield strength 8630 steel and the lower control arm casting will be made of 55,000-psi yield ductile iron. The center cross members and side plates will be constructed out of 80,000-psi yield strength steel. Each control arm will be mounted to the center section using elastomer bushings. These rubber bushings will rotate on low friction plain bearings and be lubricated for life. Each bushing will also have a flange end to absorb longitudinal impact loads, reducing noise and vibrations. There will be nine (9) grease fittings supplied, one (1) on each control arm pivot and one (1) on the steering gear extension. The upper control arm will be shorter than the lower arm so that wheel end geometry provides positive camber when deflected below rated load and negative camber above rated load. Camber at load will be zero degrees for optimum tire life. The ball joint bearing will be of low friction design and be maintenance free. Toe links that are adjustable for alignment of the wheel to the center of the chassis will be provided. The wheel ends must have little to no bump steer when the chassis encounters a hole or obstacle. The steering linkage will provide proper steering angles for the inside and outside wheel, based on the vehicle wheelbase. The axle will have a turning angle of up to 45 degrees.
0030264	Suspension, Front TAK-4, 19,500 lb, Qtm/AXT/Imp/Vel/Enf/SFR	FRONT SUSPENSION Front Oshkosh TAK-4™ independent suspension will be provided with a minimum ground rating of 19,500 lb. The independent suspension system will be designed to provide maximum ride comfort. The design will allow the vehicle to travel at highway speeds over improved road surfaces and at moderate speeds over rough terrain with minimal transfer of road shock and vibration to the vehicle's crew compartment. Each wheel will have torsion bar type spring. In addition, each front wheel end will also have energy absorbing jounce bumpers to prevent bottoming of the suspension. The suspension design will be such that there is at least 10.00" of total wheel travel and a minimum of 3.75" before suspension bottoms. The torsion bar anchor lock system allows for simple lean adjustments, without the use of shims. One can adjust for a lean within 15 minutes per side. Anchor adjustment design is such that it allows for ride height adjustment on each side. The independent suspension was put through a durability test that simulated 140,000 miles of inner city driving.
0087572	Shock Absorbers, KONI, TAK-4, Qtm/AXT/Imp/Vel/DCF/Enf	FRONT SHOCK ABSORBERS KONI heavy-duty telescoping shock absorbers will be provided on the front suspension.
0000322	Oil Seals, Front Axle	FRONT OIL SEALS Oil seals with viewing window will be provided on the front axle.
0899438	Tires, Front, Goodyear, Armor MAX MSA, 425/65R22.50, 20 ply	FRONT TIRES Front tires will be Goodyear 425/65R22.50 radials, 20 ply Armor Max MSA, rated for 22,800 lb maximum axle load and 68 mph maximum speed.
0725046	Wheels, Front, 22.50" x 12.25", Steel, Hub Pilot, 24k	The tires will be mounted on 22.50" x 12.25" steel disc type wheels with a ten (10)-stud, 11.25" bolt circle.
0640711	Axle, Rear, Dana S26-190, 27,000 lb Saber/Enforcer	REAR AXLE The rear axle will be a Dana, Model S26-190, with a capacity of 27,000 lb.
0544253	Top Speed of Vehicle, 68 MPH /109 KPH	TOP SPEED OF VEHICLE A rear axle ratio will be furnished to allow the vehicle to reach a top speed of 68 mph / 109 kph.
0565380	Suspen, Rear, Single Slipper Spring, 27,000 lb, Saber/Enforcer	REAR SUSPENSION The rear suspension will be Standens, semi-elliptical, 3.00" wide x 52.50" long, 12-leaf pack with a ground rating of 27,000 lb. The spring hangers will be castings. The two (2) top leaves will wrap the forward spring hanger pin, and the rear of the spring will be a slipper style end that will ride in a rear slipper hanger. A steel encased rubber bushing will be used in the spring eye. The steel encased rubber bushing will be maintenance free and require no lubrication.
0000485	Oil Seals, Rear Axle	REAR OIL SEALS Oil seals will be provided on the rear axle(s).

0782552	Tires, Rear, Goodyear, Endurance RSA, 12R22.50, LRH, Single	REAR TIRES Rear tires will be four (4) Goodyear 12R22.50 radials, load range H, Endurance RSA highway tread, rated for 27,120 lb maximum axle load and 75 mph maximum speed.
0654806	Wheels, Rear, Accuride, 22.50" x 8.25", Steel, Hub Pilot, Single	The tires will be mounted on Accuride® 22.50" x 8.25" steel disc type wheels with a ten (10) stud, 11.25" bolt circle.
0568081	Tire Balancing, Counteract Beads	TIRE BALANCE All tires will be balanced with Counteract balancing beads. The beads will be inserted into the tire and eliminate the need for wheel weights.
0620570	Tire Pressure Monitoring, RealWheels, AirSecure, Valve Cap, Single Axle	TIRE PRESSURE MANAGEMENT There will be a RealWheels LED AirSecure™ tire alert pressure management system provided, that will monitor each tire's pressure. A sensor will be provided on the valve stem of each tire for a total of six (6) tires. The sensor will calibrate to the tire pressure when installed on the valve stem for pressures between 10 and 200 psi. The sensor will activate an integral battery operated LED when the pressure of that tire drops 5 to 8 psi. Removing the cap from the sensor will indicate the functionality of the sensor and battery. If the sensor and battery are in working condition, the LED will immediately start to flash.
0801926	Lug Nut, Covers, Black	BLACK LUG NUT COVERS Black lug nut covers will be supplied on front and rear wheels.
0002045	Mud Flap, Front and Rear, Pierce Logo	MUD FLAPS Mud flaps with a Pierce logo will be installed behind the front and rear wheels.
0544802	Chocks, Wheel, SAC-44-E, Folding, (Up to 44" Diameter Tires)	WHEEL CHOCKS There will be one (1) pair of folding Ziamatic, Model SAC-44-E, aluminum alloy, Quick-Choc wheel blocks, with easy-grip handle provided.
0544806	Mounting Brackets, Chocks, SAC-44-E, Folding, Horizontal	Wheel Chock Brackets There will be one (1) pair of Zico, Model SQCH-44-H, horizontal mounting wheel chock brackets provided for the Ziamatic, Model SAC-44-E, folding wheel chocks. The brackets will be made of aluminum and consist of a quick release spring loaded rod to hold the wheel chocks in place. The brackets will be mounted forward of the left side rear tire.
0820509	ESC/ABS/ATC Wabco Brake System, Single Rear Axle, NFPA 1900/ULC	ELECTRONIC STABILITY CONTROL A vehicle control system will be provided as an integral part of the ABS brake system from Meritor Wabco. The system will monitor and update the lateral acceleration of the vehicle and compare it to a critical threshold where a side roll event may occur. If the critical threshold is met, the vehicle control system will automatically reduce engine RPM, engage the engine retarder (if equipped), and selectively apply brakes to the individual wheel ends of the front and rear axles to reduce the possibility of a side roll event. The system will monitor directional stability through a lateral accelerometer, steer angle sensor and yaw rate sensor. If spinout or drift out is detected, the vehicle control system will selectively apply brakes to the individual wheel ends of the front and rear axles to bring the vehicle back to its intended direction. ANTI-LOCK BRAKE SYSTEM The vehicle will be equipped with a Wabco 4S4M, anti-lock braking system. The ABS will provide a four (4) channel anti-lock braking control on both the front and rear wheels. A digitally controlled system that utilizes microprocessor technology will control the anti-lock braking system. Each wheel will be monitored by the system. When any wheel begins to lockup, a signal will be sent to the control unit. This control unit will then reduce the braking of that wheel for a fraction of a second and then reapply the brake. This anti-lock brake system will eliminate the lockup of any wheel thus helping to prevent the apparatus from skidding out of control. AUTOMATIC TRACTION CONTROL An anti-slip feature will be included with the ABS. The Automatic Traction Control will be used for traction in poor road and weather conditions. The Automatic Traction Control will act as an electronic differential lock that will not allow a driving wheel to spin, thereby supplying traction at all times. The ABS electronic control unit (ECU) will work with the engine ECU, sharing information concerning wheel slip. Engine ECU will use information to control engine speed, allowing only as much throttle application as required for the available traction, regardless of how much the driver is asking for. An "off road traction" switch will be provided on the instrument panel. Activation of the switch will allow additional tire slip to let the truck climb out and get on top of deep snow or mud.

0030185	Brakes, Knorr/Bendix 17", Disc, Front, TAK-4	BRAKES The service brake system will be full air type. The front brakes will be Knorr/Bendix disc type with a 17.00" ventilated rotor for improved stopping distance. The brake system will be certified, third party inspected, for improved stopping distance.
0627930	Brakes, Bendix, Cam, Rear, 16.50 x 8.63"	The rear brakes will be Bendix™ 16.50" x 8.63" cam operated with automatic slack adjusters.
0735527	Air Compressor, Brake, Wabco 26.8 CI, Paccar	AIR COMPRESSOR, BRAKE SYSTEM The air compressor will be a Wabco single piston compressor with a 26.8 CI displacement.
0644232	Brake Reservoirs, 4,272 Cubic Inch Minimum Capacity, Saber FR/Enforcer	BRAKE SYSTEM The brake system will include: Brake treadle valve Heated automatic moisture ejector on air dryer Total air system minimum capacity of 4,272 cubic inches Two (2) air pressure gauges with a red warning light and an audible alarm, that activates when air pressure falls below 60 psi Spring set parking brake system Parking brake operated by a push-pull style control valve A parking "brake on" indicator light on instrument panel Park brake relay/inversion and anti-compounding valve, in conjunction with a double check valve system, with an automatic spring brake application at 40 psi A pressure protection valve to prevent all air operated accessories from drawing air from the air system when the system pressure drops below 80 psi (550 kPa) 1/4 turn drain valves on each air tank The air tank will be primed and painted to meet a minimum 750 hour salt spray test. The air tanks will be painted black #98. To reduce the effects of corrosion, the air tank will be mounted with stainless steel brackets.
0568012	Air Dryer, Wabco System Saver 1200, Heater, 2010	BRAKE SYSTEM AIR DRYER The air dryer will be WABCO System Saver 1200 with spin-on coalescing filter cartridge and 100 watt heater.
0000790	Brake Lines, Nylon	BRAKE LINES Color-coded nylon brake lines will be provided. The lines will be wrapped in a heat protective loom in the chassis areas that are subject to excessive heat.
0544415	Inlet/Outlet, Air, w/Disconnect Fitting, Location	AIR INLET/OUTLET One (1) air inlet/outlet will be installed with the female coupling located DS Step Well. This system will tie into the "wet" tank of the brake system and include a check valve in the inlet line and an 85 psi pressure protection valve in the outlet line. The air outlet will be controlled by a needle valve. A mating male fitting will be provided with the loose equipment. The air inlet will allow a shoreline air hose to be connected to the vehicle. This will allow station air to be supplied to the brake system of the vehicle to insure constant air pressure.
0014130	Air Tank, Additional for Extra Air Horn Capacity	ADDITIONAL AIR TANK FOR AIR HORN An additional air tank with 1,454 cubic inch displacement will be provided to increase the capacity of the air system. This tank will be dedicated for air horn use. The air tank will be primed and painted to meet a minimum 750 hour salt spray test. To reduce the effects of corrosion, the air tank will be mounted with stainless steel brackets. The air tank(s) will be painted same as frame color. The output flow of the engine air compressor varies with engine rpm. Full compressor output is only achieved at governed engine speed. Engine speed may be limited by generators, pumps and other PTO driven options.

0808515	Engine, Paccar MX, 510HP, 1850 lb-ftW/OBD, EPA 2027, Saber FR/Enforcer	ENGINE The chassis will be powered by an electronically controlled engine as described below: Make: Paccar Model: MX Power: 510 hp at 1600rpm Torque: 1850 lb-ft at 1000rpm Governed Speed: 1900 rpm Emissions Certification: EPA 2027 Fuel: Diesel Cylinders: Six (6) Displacement: 13.7L Starter: DP60 Fuel Filters: Dual cartridge style with check valve, water separator, and water in fuel sensor The engine will include On-board diagnostics (OBD), which provides self diagnostic and reporting. The system will give the owner or repair technician access to state of health information for various vehicle sub systems. The system will monitor vehicle systems, engine and after treatment. The system will illuminate a malfunction indicator light on the dash console if a problem is detected.
0811409	Not Required, Engine Contingency Adjustment	
0001244	High Idle w/Electronic Engine, Custom	HIGH IDLE A high idle switch will be provided, inside the cab, on the instrument panel, that will automatically maintain a preset engine rpm. A switch will be installed, at the cab instrument panel, for activation/deactivation. The high idle will be operational only when the parking brake is on and the truck transmission is in neutral. A green indicator light will be provided, adjacent to the switch. The light will illuminate when the above conditions are met. The light will be labeled "OK to Engage High Idle."
0735687	Engine Brake, Fully Integrated, Paccar MX13 Engine	ENGINE BRAKE The compression release brake option is a fully integrated MX engine braking system. It utilizes the turbocharger and back pressure valve, but adds in a hydraulically operated compression brake to increase overall retarding power. To maximize the effectiveness of the compression brake the MX engine brake system works in conjunction with the turbocharger and back pressure valve. The driver will be able to turn the engine brake system on/off and have a high, medium and low setting.
0644227	Clutch, Fan, Air Actuated, Saber FR/Enforcer	CLUTCH FAN A fan clutch will be provided. The fan clutch will be automatic when the pump transmission is in "Road" position, and constantly engaged when in "Pump" position.
0644573	Air Intake, Water & Ember Screen, Saber FR/Enforcer	ENGINE AIR INTAKE The engine air intake will be located above the engine cooling package. It will draw fresh air from the front of the apparatus through the radiator grille. The ember separator is designed to prevent road dirt and recirculating hot air from entering the engine. The ember separator will be easily accessible by tilting the cab.
0814375	Exhaust System, Horizontal, Right Side	EXHAUST SYSTEM The exhaust system will be stainless steel from the turbo to the engine's aftertreatment device. The exhaust system will include an aftertreatment device to meet current EPA standards. An insulation wrap will be provided on all exhaust pipe between the turbo and the aftertreatment device to minimize the transfer of heat to the cab. The exhaust will terminate horizontally ahead of the right side rear wheels and will extend 2.00" past the body rub rail. The exhaust pipes will be aluminized steel. There will be an aluminized steel exhaust diffuser increased to 7.00" in the center to accommodate the fire department's air recovery system with a standard straight tip on the end provided to reduce the temperature of the exhaust as it exits. Heat deflector shields will be provided to isolate chassis and body components from the heat of the tailpipe diffuser.
0816167	SP Adapter, Exhaust, Plymovent Magnetic Grabber, for 6" or 7" Diffuser Outlet	EXHAUST MODIFICATION A Plymovent Magnetic Grabber conical adapter will be provided on the end of the tail pipe.

0788765	Radiator, Saber FR/Enforcer	RADIATOR The radiator and the complete cooling system will meet or exceed the current edition of applicable NFPA and engine manufacturer cooling system standards. For maximum corrosion resistance and cooling performance, the entire radiator core will be constructed using long life aluminum alloy. The radiator core will consist of aluminum fins, having a serpentine design, brazed to aluminum tubes. The radiator core will have a minimum front area of 1060 square inches. Supply tank will be made of heavy duty glass-reinforced nylon and the return tank will be made of aluminum. Both tanks will be crimped onto the core assembly using header tabs and a compression gasket to complete the radiator core assembly. There will be a full steel frame around the inserts to enhance cooling system durability and reliability. The radiator will be compatible with commercial antifreeze solutions. The radiator assembly will be isolated from the chassis frame rails with rubber isolators to prevent the development of leaks caused by twisting or straining when the apparatus operates over uneven terrain. The radiator will include a de-aeration/expansion tank. For visual coolant level inspection, the radiator will have a built-in sight glass. The radiator will be equipped with a 15 psi pressure relief cap. A drain port will be located at the lowest point of the cooling system and/or the bottom of the radiator to permit complete flushing of the coolant from the system. Shields or baffles will be provided to prevent recirculation of hot air to the inlet side of the radiator.
0001090	Cooling Hoses, Rubber	COOLANT LINES Gates, or Goodyear, rubber hose will be used for all engine coolant lines installed by Pierce Manufacturing. Hose clamps will be stainless steel constant torque type to prevent coolant leakage. They will expand and contract according to coolant system temperature thereby keeping a constant clamping pressure on the hose.
0794888	Fuel Tank, 65 Gallon, Left Side Fill, Door Finish Feature	FUEL TANK A 65 gallon fuel tank will be provided and mounted at the rear of the chassis. The tank will be constructed of 12-gauge, hot rolled steel. It will be equipped with swash partitions and a vent. To eliminate the effects of corrosion, the fuel tank will be mounted with stainless steel straps. A 0.75" drain plug will be located in a low point of the tank for drainage. A fill inlet will be located on the left hand side of the body and is covered with a hinged, spring loaded, painted job color door that is marked "Ultra Low Sulfur - Diesel Fuel Only." A 0.50" diameter vent will be installed from tank top to just below fuel fill inlet. The fuel tank will meet all FHWA 393.67 requirements including a fill capacity of 95 percent of tank volume.
0001129	Lines, Fuel	All fuel lines will be provided as recommended by the engine manufacturer.
0889521	DEF Tank, 7.3 Gallon, LS Fill, Under Cab, Paccar, Lift Up Fill Dr, Spring, ENF	DIESEL EXHAUST FLUID TANK A 7.3 gallon diesel exhaust fluid (DEF) tank will be provided and mounted under the cab on the driver's side. A fill inlet will be provided on the driver's side of the cab. The lift up door will be spring loaded and be painted.
0552793	Not Required, Fuel Priming Pump	
0552712	Not Required, Shutoff Valve, Fuel Line	
0699437	Cooler, Chassis Fuel, Not Req'd.	
0690880	No Selection Required From This Category	
0801890	Trans, Allison 6th Gen, 4500 EVS P, w/Prognostics, Imp/Vel/Enf	TRANSMISSION An Allison 6th generation, Model EVS 4500P, electronic, torque converting, automatic transmission will be provided. The transmission will be equipped with prognostics to monitor oil life, filter life, and transmission health. A wrench icon on the shift selector's digital display will indicate when service is due. Two (2) PTO openings will be located on left side and top of converter housing (positions 8 o'clock and 1 o'clock). A transmission temperature gauge with amber light and buzzer will be installed on the cab instrument panel.
0512762	Transmission, Shifter, 6-Spd, Push Button, 4500, Imp/Vel/Qtm/DCF/Enf	TRANSMISSION SHIFTER A six (6)-speed push button shift module will be mounted to right of driver on console. Shift position indicator will be indirectly lit for after dark operation. The transmission ratio will be: 1st - 4.70 to 1.00, 2nd - 2.21 to 1.00, 3rd - 1.53 to 1.00, 4th - 1.00 to 1.00, 5th - 0.76 to 1.00, 6th - 0.67 to 1.00, R - 5.55 to 1.00.

0517604	Transmission Programming, Park to Neutral, PUC	TRANSMISSION PROGRAMMING The transmission will be programmed to automatically shift the transmission to neutral when the parking brake is set to simplify operation and increase operational safety.
0684459	Transmission Oil Cooler, Modine, External	TRANSMISSION COOLER A Modine plate and fin transmission oil cooler will be provided using engine coolant to control the transmission oil temperature.
0001375	Driveline, Spicer 1810	DRIVELINE Drivelines will be a heavy-duty metal tube and be equipped with Spicer® 1810 universal joints. The shafts will be dynamically balanced before installation. A splined slip joint will be provided in each driveshaft where the driveline design requires it. The slip joint will be coated with Glidecoat® or equivalent.
0734211	Steering, Sheppard M110 w/Tilt, TAK-4, Paccar Pump, w/Cooler, Paccar	STEERING Dual Sheppard, Model M110, steering gears, with integral heavy-duty power steering, will be provided. For reduced system temperatures, the power steering will incorporate an air to oil cooler and Paccar hydraulic pump with integral pressure and flow control. All power steering lines will have wire braded lines with crimped fittings. A tilt and telescopic steering column will be provided to improve fit for a broader range of driver configurations.
0605356	Steering Wheel, 4 Spoke without Controls, Saber FR/Enforcer	STEERING WHEEL The steering wheel will be 18.00" in diameter, have tilting and telescoping capabilities, and a 4-spoke design.
0690274	Logo/Emblem, on Dash	LOGO AND CUSTOMER DESIGNATION ON DASH The dash panel will have an emblem containing the Pierce logo and customer name. The emblem will have three (3) rows of text for the customer's department name. There will be a maximum of eight (8) characters in the first row, 11 characters in the second row and 11 characters in the third row. The first row of text will be: Westlake The second row of text will be: Fire-EMS The third row of text will be: Department
0606441	Bumper, 19" Extended, Steel Painted, Saber FR/Enforcer	BUMPER A one (1)-piece bumper manufactured from 0.25" formed steel with a 0.38" bend radius will be provided. The bumper will be a minimum of 10.00" high with a 1.50" top and bottom flange, and will extend 19.00" from the face of the cab. The bumper will be 95.28" wide with 45 degree corners and side plates. The bumper will be metal finished and painted job color. To provide adequate support strength, the bumper will be mounted directly to the front of the C channel frame. The frame will be a bolted modular extension frame constructed of 50,000 psi tensile steel. Gravel Pan A gravel pan, constructed of bright aluminum treadplate, will be furnished between the bumper and the cab face. The pan will be properly supported from the underside to prevent flexing and vibration.
0637813	Tray, Hose, Center, 19" Bumper, Outside Air Horns, 15" Deep, 13" Below/2" Above	CENTER HOSE TRAY A hose tray, constructed of aluminum, will be placed in the center of the bumper extension. The tray will have a capacity of 150' of 1.75" double jacket cotton-polyester hose. Black rubber grating will be provided at the bottom of the tray. Drain holes are also provided.
0630813	Cover, Aluminum Treadplate, One (1) D-Ring Latch, Hose Tray	Center Hose Tray Cover A bright aluminum treadplate cover will be provided over the center hose tray. The cover will be attached with a stainless steel hinge. One (1) D-ring latch will secure the cover in the closed position and a pneumatic stay arm will hold the cover in the open position.
0778092	Lift & Tow Package, Enforcer	LIFT AND TOW MOUNTS Mounted to the frame extension will be lift and tow mounts. The lift and tow mounts will be designed and positioned to adapt to certain tow truck lift systems. The lift and tow mounts with eyes will be painted the same color as the frame.

0032932	Tow Eyes, Painted, Extended Out Front of Bumper	TOW EYES Two (2) tow eyes will be mounted through the front face of the bumper. The inner and outer edges of the tow eyes will have a .25" radius. The tow eyes will be mounted directly to the bumper frame. Cutouts will be provided in the front face of the stainless steel bumper to allow the tow eyes to extend out the front. The tow eyes will be designed and positioned to allow up to a 9,000 lb straight horizontal pull in line with the centerline of the vehicle. The tow eyes will not be used for lifting of the apparatus. The tow eyes will be painted job color.
0698960	Coating, Top Flange, Front Bumper, Outside Exterior, UL-LX Coating, Black	FRONT BUMPER UL-LX COATING Protective black UL-LX® coating will be provided on the outside exterior of the top front bumper flange. It will not be sprayed on the underside of the flange. The lining will be properly installed by an authorized UL-LX dealer.
0625646	Cab, Enforcer, 7010, PUC	CAB The Enforcer cab will be designed specifically for the fire service and manufactured by the chassis builder. The cab will be built by the apparatus manufacturer in a facility located on the manufacturer's premises. For reasons of structural integrity and enhanced occupant protection, the cab will be a heavy duty design, constructed to the following minimal standards. The cab will have 12 main vertical structural members located in the A-pillar (front cab corner posts), B-pillar (side center posts), C-pillar (rear corner posts), and rear wall areas. The A-pillar will be constructed of solid A356-T5 aluminum castings. The B-pillar and C-pillar will be constructed from 0.13" wall extrusions. The rear wall will be constructed of two (2) 2.00" x 2.00" outer aluminum extrusions and two (2) 2.00" x 1.00" inner aluminum extrusions. All main vertical structural members will run from the floor to 4.625" x 3.864" x 0.090" thick roof extrusions to provide a cage-like structure with the A-pillar and roof extrusions being welded into a 0.25" thick corner casting at each of the front corners of the roof assembly. The front of the cab will be constructed of a 0.13" firewall plate, covered with a minimum 0.090" front skin thickness, and reinforced with a full width x 0.50" thick cross-cab support located just below the windshield and fully welded to the engine tunnel. The cross-cab support will run the full width of the cab and weld to each A-pillar, the 0.13" firewall plate, and the front skin. The cab floors will be constructed of 0.125" thick aluminum plate and reinforced at the firewall with an additional 0.25" thick cross-floor support providing a total thickness of 0.375" of structural material at the front floor area. The front floor area will also be supported with two (2) triangular 0.30" wall extrusions that also provides the mounting point for the cab lift. This tubing will run from the floor wireway of the cab to the engine tunnel side plates, creating the structure to support the forces created when lifting the cab. The cab will be 96.00" wide (outside door skin to outside door skin) to maintain maximum maneuverability. The centerline of front axle to the rear of the cab will be 70.00" long. The forward cab section will have an overall height (from the cab roof to the ground) of approximately 99.00". The crew cab section will have a 10.00" raised roof, with an overall cab height of approximately 109.00". The overall height listed will be calculated based on a truck configuration with the lowest suspension weight rating, the smallest diameter tires for the suspension, no water weight, no loose equipment weight, and no personnel weight. Larger tires, wheels, and suspension will increase the overall height listed. The floor to ceiling height inside the crew cab will be 63.50" in the forward facing outboard positions and 54.50" in the forward facing center position. The crew cab floor will measure 46.00" from the rear wall to the back side of the rear facing seat risers. The medium block engine tunnel, at the rearward highest point (knee level), will measure 61.50" to the rear wall. The big block engine tunnel will measure 51.50" to the rear wall. The crew cab will be a totally enclosed design with the interior area completely open to improve visibility and verbal communication between the occupants. The cab will be a full tilt cab style. A 3-point cab mount system with rubber isolators will improve ride quality by isolating chassis vibrations from the cab. CAB ROOF DRIP RAIL For enhanced protection from inclement weather, a drip rail will be furnished on the sides of the cab. The drip rail will be painted to match the cab roof, and bonded to the sides of the cab. The drip rail will extend the full length of the cab roof. CAB PUMP ENCLOSURE The rear of the cab will be made to house the fire pump below the forward facing crew cab seats. The cab side panels will be notched to accommodate the pump panel. FENDER LINERS Full circular inner fender liners in the wheel wells will be provided. PANORAMIC WINDSHIELD A one (1)-piece safety glass windshield will be provided with over 2,775 square inches of clear viewing area. The windshield will be full width and will provide the occupants with a panoramic view. The windshield will consist of three (3) layers: outer light, middle safety laminate, and inner light. The outer light layer will provide superior chip resistance. The middle safety laminate layer will prevent the windshield glass pieces from detaching in the event of breakage. The inner light will provide yet another chip resistant layer. The cab windshield will be bonded to the aluminum windshield frame using a urethane adhesive. A custom frit pattern will be applied on the outside perimeter of the windshield for a finished automotive appearance. WINDSHIELD WIPERS Three (3) electric windshield wipers with washer will be provided that meet FMVSS and SAE requirements. The washer reservoir will be able to be filled without raising the cab.

0826074	Engine Tunnel, X12, MX13, Foil Insulation w/Mech Fasteners, Extreme Climate, Enf	ENGINE TUNNEL Engine tunnel side walls will be constructed of 0.375" aluminum. The top will be constructed of 0.125" aluminum and will be tapered at the top to allow for more driver and passenger elbow room. The engine tunnel will be insulated for protection from heat and sound. Perforated foil faced insulation will be over a closed cell foam affixed with pressure sensitive adhesive and further secured with mechanical fasteners. The noise insulation keeps the dBA level within the limits stated in the current edition of applicable NFPA standards. The engine tunnel will be no higher than 17.00" off the crew cab floor (no exception).
0810166	Cab Insulation, Extreme Climate, Foil Insulation, Enforcer/Saber FR	INSULATION PACKAGE All insulation utilized in the cab construction will be provided for extreme climate temperatures. The insulation will be provided in the following areas: Engine tunnel Cab and crew cab floors Cab and crew cab step wells Cab and crew cab doors Cab roof Cab and crew cab walls
0610508	Rear Wall, Interior, Adjustable Seating, Not Available	
0632103	Rear Wall, Exterior, Cab, Saber FR/Enforcer	CAB REAR WALL EXTERIOR COVERING The exterior surface of the rear wall of the cab will be overlaid with bright aluminum treadplate except for areas that are not typically visible when the cab is lowered.
0644201	Cab Lift, Elec/Hyd, Saber FR/Enforcer	CAB LIFT A hydraulic cab lift system will be provided consisting of an electric powered hydraulic pump, dual lift cylinders, and necessary hoses and valves. Lift controls will be located on the right side pump panel or front area of the body in a convenient location. The cab will be capable of tilting 43 degrees to accommodate engine maintenance and removal. The cab will be locked down by a 2-point normally closed spring loaded hook type latch that fully engages after the cab has been lowered. The system will be hydraulically actuated to release the normally closed locks when the cab lift control is in the raised position and cab lift system is under pressure. When the cab is completely lowered and system pressure has been relieved, the spring loaded latch mechanisms will return to the normally closed and locked position. The hydraulic cylinders will be equipped with a velocity fuse that protects the cab from accidentally descending when the control is located in the tilt position. For increased safety, a redundant mechanical stay arm will be provided that must be manually put in place on the left side between the chassis and cab frame when the cab is in the raised position. This device will be manually stowed to its original position before the cab can be lowered. Cab Lift Interlock The cab lift system will be interlocked to the parking brake. The cab tilt mechanism will be active only when the parking brake is set and the ignition switch is in the on position. If the parking brake is released, the cab tilt mechanism will be disabled.
0751129	Grille, Painted, Bright Finished Mesh Screen, Front of Cab, Enforcer	GRILLE A bright finished aluminum mesh grille screen, inserted behind a grille surround, will be provided on the front center of the cab. The grille surround will be painted black #101.
0647932	Not Required, Trim, S/S Band, Across Cab Face, AXT/Saber/Enforcer	
0015440	No Chrome Molding, On side of cab	
0829403	SP Mirrors, Retractable, West Coast Style, Htd/Rmt, w/Htd/Rmt Convex, Painted Blk #101	MIRRORS A Retractable, Model 613422, dual vision, motorized, west coast style mirror will be mounted on each side of the front cab door with spring loaded retractable arms. The mirror arm and head will be painted black #101. The flat glass and convex glass will be heated and adjustable with remote control within reach of the driver.

0648172	Door, Full Height, Saber FR/Enforcer 4-Door Cab, Raised Roof	DOORS To enhance entry and egress to the cab, the forward cab doors will be a minimum of 37.50" wide x 75.50" high. The crew cab doors will be located on the sides of the cab and will be constructed in the same manner as the forward cab doors. The crew cab door openings will be a minimum of 34.30" wide x 85.50" high. The forward cab and crew cab doors will be constructed of extruded aluminum with a nominal material thickness of 0.093". The exterior door skins will be constructed from 0.090" aluminum. A customized, vertical, pull-down type door handle will be provided on the exterior of each cab door. The finish of the door handle will be black/black. The exterior handle will be designed specifically for the fire service to prevent accidental activation and will provide 4.00" wide x 2.00" deep hand clearance for ease of use with heavy gloved hands. Each door will also be provided with an interior flush, open style paddle handle that will be readily operable from fore and aft positions and designed to prevent accidental activation. The interior handles will provide 4.00" wide x 1.25" deep hand clearance for ease of use with heavy gloved hands. The cab doors will be provided with both interior (rotary knob) and exterior (keyed) locks exceeding FMVSS standards. The keys will be Model 751. The locks will be capable of activating when the doors are open or closed. The doors will remain locked if locks are activated when the doors are opened, then closed. A full length, heavy duty, stainless steel, piano-type hinge with a 0.38" pin and 11 gauge leaf will be provided on all cab doors. There will be double automotive-type rubber seals around the perimeter of the door framing and door edges to ensure a weather-tight fit. A chrome grab handle will be provided on the inside of each cab door for ease of entry. A red webbed grab handle will be installed on the crew cab door stop strap. The grab handles will be securely mounted. The cab steps at each cab door location will be located inside the cab doors to protect the steps from weather elements.
0655543	Door Panel, Brushed Stainless Steel, Saber/Enforcer 4-Door Cab	Door Panels The inner cab door panels will be constructed out of brushed stainless steel.
0617333	Controls, Electric Roll-Up Windows, 4dr, 2 Frt Elect, 2 Driver Control, SFR/Enf	ELECTRIC OPERATED CAB DOOR WINDOWS The two (2) front cab doors will be equipped with electric operated windows with one (1) flush mounted automotive style switch on each of the front doors. The driver's door will have two (2) switches, one (1) to control each for the driver and officer door windows. The crew cab door windows will be controlled manually. Each switch will allow intermittent or auto down operation for ease of use. Auto down operation will be actuated by holding the window down switch for approximately 1 second.
0749512	SP Steps, 4-Door Cab, Painted Black Step Wells, Saber FR/Enforcer	CAB STEPS The forward cab and crew cab access steps will be a full size two (2) step design to provide largest possible stepping surfaces for safe ingress and egress. The bottom steps will be designed with a grip pattern punched into bright aluminum treadplate material to provide support, slip resistance, and drainage. The bottom steps will be a bolt-in design to minimize repair costs should they need to be replaced. The forward cab steps will be a minimum 25.00" wide, and the crew cab steps will be 21.65" wide with a 10.00" minimum depth. The inside cab steps will not exceed 16.50" in height. The vertical surfaces of the step well will be painted # 101 black.
0770198	Handrail, Exterior, Hansen, Knurled, Alum, LED Backlit, Black, 4-Dr Cab	CAB EXTERIOR HANDRAILS A Hansen knurled aluminum, black anodized handrail will be provided adjacent to each cab and crew cab door opening to assist during cab ingress and egress. The handrails will be e-coated and have black powder coated stanchions. Each handrail will be provided with red LED lights. The lights will be activated when the parking brake is applied and with a separate switch on the left side in the cab. The LED lights may be load managed.
0892638	Lights, Cab & Crw Cab Acs Stps, P25, LED w/Bezel, 6lts	STEP LIGHTS There will be six (6) white LED step lights with black housing installed for cab and crew cab access steps. One (1) light for the left side cab access steps. Two (2) lights for the left side crew cab access steps. Two (2) lights for the right side crew cab access steps. One (1) light for the right side cab access step. In order to ensure exceptional illumination, each light will provide a minimum of 25 foot-candles (fc) covering an entire 15" x 15" square placed ten (10) inches below the light and a minimum of 1.5 fc covering an entire 30" x 30" square at the same ten (10) inch distance below the light. The lights will be activated when the battery switch is on and the adjacent door is opened.
0057836	Crowns, Front Fender, Rubber, TAK-4	FENDER CROWNS Rubber fender crowns will be provided around the cab wheel openings. Crowns will be black.

0771672	Handrail, 10", Below Cab Windshield, Hansen Knurled, LED Backlit, Black, Pair	LIGHTED HANDRAIL BELOW CAB WINDSHIELD A 10.00" long Hansen LED backlit knurled black anodized aluminum handrail will be mounted below the front cab windshield, one (1) on each side. The handrails will have e-coated and black powder coated stanchions. Each handrail will be provided with red back lighted LED lights. The lights will be activated by the same means as the body handrail light controls.
0042105	No Windows, Side of Crew Cab	
0012090	Not Required, Windows, Front/Side of raised roof	
0779033	Not Required, Windows Rear of Crew Cab, Saber FR/Enforcer	
0722796	Dash, Poly, Saber FR/Enforcer	CAB DASH The driver side dash, switch panel located to the right of the driver, and center console will be an easily removable high impact resistant polymer cover. The instrument gauge cluster will be surrounded with a high impact ABS plastic contoured to the same shape of the instrument gauge cluster. The officer side dash will be a flat top design with an upper beveled edge to provide easy maintenance and will be constructed out of aluminum and painted to match the cab interior.
0773925	SP Partition Below Shelf, Equipment Mounting, Crew Cab	PARTITION SUPPORT FOR SHELF There will be a partition for permanent mounting and support of the full width shelf. A quantity of one (1) will be located Mounted on forward side of the 2 shelves between the rear facing EMS cabinets. Similar to 36426. Each partition will be fabricated from aluminum and will be painted to match the cab interior.
0817141	Hook, Coat, Heavy Duty, Non-NFPA 2024	COAT HOOK(S), HEAVY DUTY There will be two (2) coat hooks supplied and installed Above PAC TRAC on back wall of cab. These hooks will be for coat storage only and will include a warning label mounted in the crew cab. NFPA 1900, 2024 edition, section 11.1.11.2 requires all equipment not required to be used during an emergency response, with the exception of SCBA units, will not be mounted in a driving or crew area unless it is contained in a fully enclosed and latched compartment capable of containing the contents when a 9G force is applied in the longitudinal axis of the vehicle or a 3G force is applied in any other direction, or the equipment is mounted in a bracket(s) that can contain the equipment when the equipment is subjected to those same forces. Coat hooks can not contain the equipment when it is subjected to 9G or 3G force. Per fire department specification and request for this coat hook, this apparatus will be non-compliant to NFPA 1900 standards effective at time of contract execution.
0607217	Mounting Provisions, 3/16" Alum, Full Engine Tunnel, Saber FR/Enforcer	MOUNTING PLATE ON ENGINE TUNNEL Equipment installation provisions will be installed on the engine tunnel. A 0.188" smooth aluminum plate will be bolted to the top surface of the engine tunnel. The plate will follow the contour of the engine tunnel and will run the entire length of the engine tunnel. The plate will be spaced off the engine tunnel 1.00" to allow for wire routing below the plate. The mounting surface will be painted to match the cab interior.
0664351	Pac Trac, Installed in Cab/Crew Cab	MOUNTING SYSTEM There will be two (2) section(s) of Pac Trac equipment mounting systems located (1) each side of forward facing seats on back wall . Pac Trac mounts will be certified by Pac Trac to meet the current edition of applicable NFPA standards for mounting of equipment inside the cab.
0606282	Shelf, Equipment Mounting, Aluminum, Lip, Size	EQUIPMENT MOUNTING SHELF There will be two (2) shelves for permanent mounting of equipment provided. Each shelf will have a 2.00" lip around the edge. The size of the shelves will be to fit between the EMS compartments one as low as possible on engine tunnel and the other 12" above it. Similar to job #36426. Each shelf will be fabricated from aluminum and will be painted to match the cab interior. The shelves will be located Between rear facing EMS cabinets. Similar to 36426.. Not intended for storage of loose equipment. Items stored on tray will be permanently attached to meet current edition of applicable NFPA standards.
0826219	Mounting Provisions, Computer, Tray, S/S, Straps, Slides, No Sides, Locking	COMPUTER MOUNTING There will be one (1) computer installation provision(s) installed Officer side dash. The tray will be constructed of stainless steel. The tray will be supplied with two (2) straps over the top connected to footman loops. These straps will secure the computer in place during travel. The slides will be mounted vertically and lock in the in and out positions.

0750824	Cab Interior, Vinyl Headliner, Saber FR/Enforcer, CARE	CAB INTERIOR The cab interior will be constructed of primarily metal (painted aluminum) to withstand the severe duty cycles of the fire service. The engine tunnel will be padded and covered, on the top and sides, with black 36 ounce leather grain vinyl resistant to oil, grease, and mildew. For durability and ease of maintenance, the cab interior side walls will be painted aluminum. The rear wall will be painted aluminum. The headliner will be installed in both forward and rear cab sections. Headliner material will be vinyl. A sound barrier will be part of its composition. Material will be installed on an aluminum sheet and securely fastened to interior cab ceiling. The forward portion of the cab headliner will permit easy access for service of electrical wiring or other maintenance needs. All wiring will be placed in metal raceways. CAB INTERIOR UPHOLSTERY The cab interior upholstery will be 36 oz black vinyl.
0753903	Cab Interior, Paint Color, Saber FR/Enforcer	CAB INTERIOR PAINT The cab interior metal surfaces, excluding the rear heater panels, will be painted red, vinyl texture paint. The rear heater panels will be painted black, vinyl textured paint.
0888673	Floor, Rubber Padded, Cab & Crew Cab, Blister, Enforcer PUC-NG	CAB FLOOR A small blister will be provided at the rear of the engine tunnel for chassis components. The cab and crew cab floor areas will be covered with Polydamp™ acoustical floor mat consisting of a black pyramid rubber facing and closed cell foam decoupler. The top surface of the material has a series of raised pyramid shapes evenly spaced, which offer a superior grip surface. Additionally, the material has a 0.25" thick closed cell foam (no water absorption) which offers a sound dampening material for reducing sound levels.

0819166	HVAC, Extreme-Duty, Enforcer, Paccar, CARE	DEFROST/AIR CONDITIONING SYSTEM A ceiling mounted combination heater, defroster and air conditioning system will be installed in the cab above the engine tunnel area. Cab Defroster A 54,000 BTU heater-defroster unit with 690 SCFM of air flow will be provided inside the cab. The heater-defrost will be installed in the forward portion of the cab ceiling. Air outlets will be strategically located in the cab header extrusion per the following: One (1) adjustable will be directed towards the left side cab window One (1) adjustable will be directed towards the right side cab window Six (6) fixed outlets will be directed at the windshield The defroster will be capable of clearing 98 percent of the windshield and side glass when tested under conditions where the cab has been cold soaked at 0 degrees Fahrenheit for 10 hours, and a 2 ounce per square inch layer of frost/ice has been able to build up on the exterior windshield. The defroster system will meet or exceed SAE J382 requirements. Cab/Crew Auxiliary Heater There will be one (1) 31,000 BTU auxiliary heater with 560 SCFM of air flow provided in each outboard rear facing seat riser with a dual scroll blower. An aluminum plenum incorporated into the cab structure to be used to transfer heat to the forward positions. Air Conditioning A 13.10 cubic inch compressor will be installed on the engine. A roof-mounted condenser with a 78,000 BTU output at 2,400 SCFM that meets and exceeds the performance specification will be installed on the cab roof. Mounting the condenser below the cab or body would reduce the performance of the system and will not be acceptable. The condenser cover to be painted to match the cab roof. The evaporator unit will be installed in the rear portion of the cab ceiling over the engine tunnel. The evaporator will include one (1) high performance heating core, one (1) high performance cooling core with (1) plenum directed to the front and one (1) plenum directed to the rear of the cab. The evaporator unit will have a 80,000 BTU at 690 SCFM rating that meets and exceeds the performance specifications. Adjustable air outlets will be strategically located on the forward plenum cover per the following: Four (4) will be directed towards the seating position on the left side of the cab Four (4) will be directed towards the seating position on the right side of the cab Adjustable air outlets will be strategically located on the rear plenum cover per the following: 12 will be directed towards crew cab area A high efficiency particulate air (HEPA) filter will be included for the system. Access to the filter cover will be hinged with two (2) thumb latches. The air conditioner refrigerant will be R-134A and will be installed by a certified technician. Climate Control An automotive style controller will be provided to control the heat and air conditioning system within the cab. The controller will have three (3) functional knobs for fan speed, temperature, and air flow distribution (front to rear) control. The system will control the temperature of the cab and crew cab automatically by pushing the center of the fan speed control knob. Rotate the center temperature control knob to set the cab and crew cab temperature. The AC system will be manually activated by pushing the center of the temperature control knob. Pushing the center of the air flow distribution knob will engage the AC for max defrost, setting the fan speeds to 100 percent and directing all air flow to the overhead forward position. The system controller will be located within panel position #13. Gravity Drain Tubes Two (2) condensate drain tubes will be provided for the air conditioning evaporator. The drip pan will have two (2) drain tubes plumbed separately to allow for the condensate to exit the drip pan. No pumps will be provided.
0677382	Guard, Brush, Painted, For Coleman A/C Unit, Cab Roof	BRUSH GUARD A protective enclosure will be provided around the roof mounted air conditioning unit. The enclosure will provide protection from tree limbs and debris. The enclosure will be made of aluminum and painted to match the cab exterior.
0787034	Air Conditioning, Coleman-Mach 8, Roughneck, 120V, 15K, 6K Heat, Cab Roof,Black	HEATING AND AIR CONDITIONING There will be one (1) black, Coleman®-Mach® 8, Roughneck™, 120 volt, low profile air conditioning unit installed on the crew cab roof. The air conditioner will have cooling capacity of 15,000 BTU and heating capacity of 6000 BTU and include a condensate pump and hose to prevent accumulation of condensate on the roof. Ceiling unit controls will control the air conditioning unit. The thermostat will be wired battery direct to operate when the battery switch is off. This unit will be powered from the shoreline inlet. INTERIOR CAB INSULATION The walls and roof will be insulated to aid in cooling.
0639675	Sun Visor, Smoked Lexan, AXT, Imp/Vel, SFR/Enf	SUN VISORS Two (2) smoked Lexan™ sun visors will be provided. The sun visors will be located above the windshield with one (1) mounted on each side of the cab. There will be a black plastic thumb latch provided to help secure each sun visor in the stowed position.
0634328	Grab Handles, Driver and Officer Door Posts, Saber FR/Enforcer	GRAB HANDLES A black rubber covered grab handle will be mounted on the door post of the driver and officer's side cab door to assist in entering the cab. The grab handles will be securely mounted to the post area between the door and windshield.

0668638	Lights, Engine Compt, Custom, Auto & Manual Switch, Wln 3SC0CDCR, 3" LED, Trim	ENGINE COMPARTMENT LIGHTS There will be one (1) Whelen Model 3SC0CDCR, 12 volt DC, 3.00" white LED light(s) with Model 3FLANGEC chrome flange kit(s) installed under the cab to be used as engine compartment illumination. The light(s) will be activated with a switch located by the engine fluid level access door and automatically when the cab is raised.
0631830	Fluid Check Access, Saber FR/Enforcer, Arrow XT	ACCESS TO ENGINE DIPSTICKS For access to the engine oil and transmission fluid dipsticks, there will be a door on the engine tunnel, inside the crew cab. The door will be on the rear wall of the engine tunnel, on the vertical surface. The engine oil dipstick will allow for checking only. The transmission dipstick will allow for both checking and filling. The door will have a rubber seal for thermal and acoustic insulation. One (1) Southco C2 black powder coated flush latch will be provided on the access door.
0583042	Side Roll and Frontal Impact Protection	CAB SAFETY SYSTEM The cab will be provided with a safety system designed to protect occupants in the event of a side roll or frontal impact, and will include the following: A supplemental restraint system (SRS) sensor will be installed on a structural cab member behind the instrument panel. The SRS sensor will perform real time diagnostics of all critical subsystems and will record sensory inputs immediately before and during a side roll or frontal impact event. A slave SRS sensor will be installed in the cab to provide capacity for eight (8) crew cab seating positions. A fault-indicating light will be provided on the vehicle's instrument panel allowing the driver to monitor the operational status of the SRS system. A driver side front air bag will be mounted in the steering wheel and will be designed to protect the head and upper torso of the occupant, when used in combination with the 3-point seat belt. A passenger side knee bolster air bag will be mounted in the modesty panel below the dash panel and will be designed to protect the legs of the occupant, when used in combination with the 3-point seat belt. Air curtains will be provided in the outboard bolster of outboard seat backs to provide a cushion between occupant and the cab wall. Suspension seats will be provided with devices to retract them to the lowest travel position during a side roll or frontal impact event. Seat belts will be provided with pre-tensioners to remove slack from the seat belt during a side roll or frontal impact event. Frontal Impact Protection The SRS system will provide protection during a frontal or oblique impact event. The system will activate when the vehicle decelerates at a predetermined G force known to cause injury to the occupants. The cab and chassis will have been subjected, via third party test facility, to a crash impact during frontal and oblique impact testing. Testing included all major chassis and cab components such as mounting straps for fuel and air tanks, suspension mounts, front suspension components, rear suspensions components, frame rail cross members, engine and transmission and their mounts, pump house and mounts, frame extensions and body mounts. The testing provided configuration specific information used to optimize the timing for firing the safety restraint system. The sensor will activate the pyrotechnic devices when the correct crash algorithm, wave form, is detected. The SRS system will deploy the following components in the event of a frontal or oblique impact event: Driver side front air bag Passenger side knee bolster air bag Air curtains mounted in the outboard bolster of outboard seat backs Suspension seats will be retracted to the lowest travel position Seat belts will be pre-tensioned to firmly hold the occupant in place Side Roll Protection The SRS system will provide protection during a fast or slow 90 degree roll to the side, in which the vehicle comes to rest on its side. The system will analyze the vehicle's angle and rate of roll to determine the optimal activation of the advanced occupant restraints. The SRS system will deploy the following components in the event of a side roll: Air curtains mounted in the outboard bolster of outboard seat backs Suspension seats will be retracted to the lowest travel position Seat belts will be pre-tensioned to firmly hold the occupant in place
0622619	Seating Capacity, 4 Belted Seats	SEATING CAPACITY The seating capacity of the vehicle (including tiller cab and belted seat positions in the rescue body) will be four (4).

0636955	Seat, Driver, Pierce PSV, Air Ride, High Back, Safety, PRIMARY, SFR/Enf	DRIVER SEAT A seat will be provided in the cab for the driver. The seat design will be a cam action type, with air suspension. For increased convenience, the seat will include a manual control to adjust the horizontal position (6.00" travel). The manual horizontal control will be a towel-bar style located below the forward part of the seat cushion. To provide flexibility for multiple driver configurations, the seat will have an adjustable reclining back. The seat back will be a high back style with side bolster pads for maximum support. For optimal comfort, the seat will be provided with 17.00" deep foam cushions designed with EVC (elastomeric vibration control). The seat will include the following features incorporated into the side roll protection system: Side air curtain will be mounted integral to the outboard bolster of the seat back. The air curtain will be covered by a decorative panel when in the stowed position. A suspension seat safety system will be included. When activated in the event of a side roll, this system will pretension the seat belt and retract the seat to its lowest travel position. The seat will be furnished with a 3-point, shoulder type seat belt.
0632926	Seat, Officer, Pierce PSV, Air Ride, SCBA, Safety, PRIMARY, SFR/Enf	OFFICER SEAT A seat will be provided in the cab for the passenger. The seat will be a cam action type, with air suspension. For optimal comfort, the seat will be provided with 17.00" deep foam cushions designed with EVC (elastomeric vibration control). The seat back will be an SCBA back style with 5 degree fixed recline angle. The SCBA cavity will be adjustable from front to rear in 1.00" increments, to accommodate different sized SCBA cylinders. Moving the SCBA cavity will be accomplished by unbolting, relocating, and re-bolting it in the desired location. The seat will include the following features incorporated into the side roll protection system: Side air curtain will be mounted integral to the outboard bolster of the seat back. The air curtain will be covered by a decorative panel when in the stowed position. A suspension seat safety system will be included. When activated, this system will pretension the seat belt and then retract the seat to its lowest travel position. The seat will be furnished with a 3-point, shoulder type seat belt.
0002517	Not Required, Radio Compartment	
0822580	Cabinet, Rear Facing, LS, 23 W x 39 H x 26.75 D, Web, Ext Acc, SFR/Enf	REAR FACING LEFT SIDE CABINET A rear facing cabinet will be provided in the crew cab at the left side outboard position. The cabinet will be 23.00" wide x 39.00" high x 26.75" deep. The interior door will be web netting. The netting is to be made with 1.00" wide nylon material with 2.00" openings permanently fastened on the bottom with 1.00" side release fasteners on the top to secure it. The clear door opening will be 16.00" wide x 36.00" high. The cabinet will also provide access from outside the cab with one (1) double pan door painted to match the cab exterior with a non-locking D-ring latch. A pneumatic stay arm will be provided as a door stop. The door will be located on the side of the cab over the wheelwell. The clear door opening will be 17.00" wide x 34.00" high. The cabinet will include one (1) infinitely adjustable shelf with a 0.75" up-turned lippainted to match the cab interior. The cabinet will include no louvers. The exterior access will be provided with a brushed stainless steel scuffplate on the lower door frame. The cabinet will be constructed of smooth aluminum and painted to match the cab interior. Cabinet Light There will be one (1) white Amdor LED strip light installed on the right side of the interior cabinet door opening. The lights will be controlled by an automatic door switch and a rocker switch on the front of the cabinet.
0102783	Not Required, Seat, Rr Facing C/C, Center	
0822239	Cabinet, Rear Facing, RS, 22 W x 39 H x 26.75 D, Web, Ext Acc, SFR/Enf	REAR FACING RIGHT SIDE CABINET A rear facing cabinet will be provided in the crew cab at the right side outboard position. The cabinet will be 22.00" wide x 39.00" high x 26.75" deep. The interior door will be web netting. The netting is to be made with 1.00" wide nylon material with 2.00" openings permanently fastened on the bottom with 1.00" side release fasteners on the top to secure it. The interior clear door opening will be 15.00" wide x 36.00" high. The cabinet will include one (1) infinitely adjustable shelf with a 0.75" up-turned lippainted to match the cab interior. The cabinet will include no louvers. The cabinet will also provide access from outside the cab with one (1) double pan door painted to match the cab exterior with a non-locking D-ring latch. The door will be located on the side of the cab over the wheelwell. A pneumatic stay arm will be provided as a door stop. The exterior clear door opening will be 17.00" wide x 34.00" high. The exterior access will be provided with a brushed stainless steel scuffplate on the lower door frame. The cabinet will be constructed of smooth aluminum and painted to match the cab interior. Cabinet Light There will be one (1) white Amdor LED strip light installed on the left side of the interior cabinet door opening. The lighting will be controlled by an automatic door switch and a rocker switch on the front of the cabinet.
0108189	Not Required, Seat, Forward Facing C/C, LS Outboard	

0819392	Seat, Fwd Fcng C/C, Ctr, (2) Pierce PSV, SCBA, Safety, 5.5" Sp, PRIMARY, SFR/Enf	FORWARD FACING CENTER SEATS There will be two (2) forward facing seats provided at the center position in the crew cab. The seats will be spaced an additional 5.50" apart to provide more room for each occupant. For optimal comfort, the seats will be provided with 15.00" deep foam cushions designed with EVC (elastomeric vibration control). The seat backs will be an SCBA style with 90 degree back. The SCBA cavity will be adjustable from front to rear in 1.00" increments to accommodate different sized SCBA cylinders. Moving the SCBA cavity will be accomplished by unbolting, relocating, and re-bolting it in the desired location. The seat will include the following features incorporated into the side roll protection system: A seat safety system will be included. When activated, this system will pretension the seat belt. The seats will be furnished with a 3-point, shoulder type seat belt.
0108190	Not Required, Seat, Forward Facing C/C, RS Outboard	
0042923	Netting, Cargo, Ship Loose	CARGO NETTING Net is to be made with 1.00" wide nylon material with 2.00" openings. Net is to be fastened on all sides of a specified opening with quick-release buckles. The nets will be designed for between the 2 shelves between EMS compartments rear facing. There will be one (1) nets provided.
0629833	Compt, Storage, (2) Rear Facing, Overhead, 21 W x 10 H x 20 D, Saber FR/Enforcer	REAR FACING OVERHEAD STORAGE COMPARTMENT There will be two (2) overhead rear facing storage compartments installed at the raised roof within the crew cab, on each side of the air conditioner. The compartments will be approximately 21.00" wide x 10.00" high x 20.00" deep at the bottom. Each compartment will include one (1) lift up compartment door. Locking latch, paddle handle, and gas operated stay arms will be provided. The compartment will be constructed of smooth aluminum and painted to match the cab interior. Compartment Light The storage compartment lighting will consist of one (1) white LED strip light installed horizontally above each compartment door opening.
0761572	SP Compt, Storage, Forward Facing, Overhead, 88 W x 10 H x 9 D, Saber FR/Enf	FORWARD FACING OVERHEAD STORAGE COMPARTMENT There will be an overhead forward facing storage compartment installed at the raised roof within the crew cab. The compartment will be 88.00" wide x 10.00" high x 9.00" deep. The compartment will include three (3) lift up compartment doors. Non-locking latch and gas operated stay arms will be provided. The compartment will be provided with a divider between each door opening. The compartment will be constructed of smooth aluminum and painted to match the cab interior. Compartment Light There will be one (1) white LED strip light installed horizontally above each compartment door opening.
0766467	Upholstery, Seats In Cab, All Vinyl, Seats Inc, CARE	SEAT UPHOLSTERY All seat upholstery will be leather grain 36 oz black vinyl resistant to oil, grease and mildew. The cab will have four (4) seating positions.
0543991	Bracket, Air Bottle, Hands-Free II, Cab Seats	AIR BOTTLE HOLDERS All SCBA type seats in the cab will have a "Hands-Free" auto clamp style bracket in its backrest. For efficiency and convenience, the bracket will include an automatic spring clamp that allows the occupant to store the SCBA bottle by simply pushing it into the seat back. For protection of all occupants in the cab, in the event of an accident, the inertial components within the clamp will constrain the SCBA bottle in the seat and will exceed the NFPA standard of 9G. There will be a quantity of three (3) SCBA brackets.
0690610	Embroidery, Seats, Cab and Crew Cab	SEAT EMBROIDERY The seats in the cab and crew cab will be provided with custom embroidery. The Fire Department will determine what the embroidery will be by providing pictures at the time of order. The custom logo will be provided in place of the standard OEM logo. The embroidery will be provided on four (4) seats.

0603866	Seat Belt, Dual Retractor, ReadyReach, Saber FR/Enforcer	SEAT BELTS All cab and tiller cab (if applicable) seating positions will have red seat belts. To provide quick, easy use for occupants wearing bunker gear, the female buckle and seat belt webbing length will meet or exceed the current edition of applicable NFPA and CAN/ULC - S515 standards. The 3-point shoulder type seat belts will include height adjustment. This adjustment will optimize the belts effectiveness and comfort for the seated firefighter. The 3-point shoulder type seat belts will be furnished with dual automatic retractors that will provide ease of operation in the normal seating position. The 3-point shoulder type belts will also include the ReadyReach® D-loop assembly to the shoulder belt system. The ReadyReach feature adds an extender arm to the D-loop location placing the D-loop in a closer, easier to reach location. Any flip up seats will include a 3-point shoulder type belts only. To ensure safe operation, the seats will be equipped with seat belt sensors in the seat cushion and belt receptacle that will activate an alarm indicating a seat is occupied but not buckled.
0817557	Helmet Storage, Provided by Fire Department, NFPA/ULC 2024	HELMET STORAGE PROVIDED BY FIRE DEPARTMENT NFPA 1900, 2024 edition, section 11.1.8.4.1 and CAN/ULC S515:2024 edition, section 5.2, requires a location for helmet storage be provided. There is no helmet storage on the apparatus as manufactured. The fire department will provide a location for storage of helmets.
0647647	Lights, Dome, FRP Dual LED 4 Lts	CAB DOME LIGHTS There will be four (4) dual LED dome lights with black bezels provided. Two (2) lights will be mounted above the inside shoulder of the driver and officer and two (2) lights will be installed and located, one (1) on each side of the crew cab. The color of the LED's will be red and white. The white LED's will be controlled by the door switches and the lens switch. The color LED's will be controlled by the lens switch. In order to ensure exceptional illumination, each white LED dome light will provide a minimum of 10.1 foot-candles (fc) covering an entire 20.00" x 20.00" square seating position when mounted 40.00" above the seat.
0896451	Enhanced Software for Cab and Crew Cab Dome Lts	ENHANCED SOFTWARE FOR CAB AND CREW CAB DOME LIGHTS The cab and crew cab dome lights will remain on for 10 seconds for improved visibility after the doors are closed. The dome lights will dim after 10 seconds or immediately if the vehicle's transmission is put into gear.
0816997	Portable Hand Light, Provided by Fire Dept, NFPA/ULC 2024	PORTABLE HAND LIGHTS PROVIDED BY FIRE DEPARTMENT The hand lights are not on the apparatus as manufactured. The fire department will provide and mount these hand lights.
0622803	Cab Instruments, Black Gauges, Black Bezels, Enforcer MUX	CAB INSTRUMENTATION The cab instrument panel include gauges, an LCD display, telltale indicator lamps, control switches, alarms, and a diagnostic panel. The function of the instrument panel controls and switches will be identified by a label adjacent to each item. Actuation of the headlight switch will illuminate the labels in low light conditions. Telltale indicator lamps will not be illuminated unless necessary. The cab instruments and controls will be conveniently located within the forward cab section, forward of the driver. The gauge assembly and switch panels are designed to be removable for ease of service and low cost of ownership. Gauges The gauge panel will include the following ten (10) black faced gauges with black bezels to monitor vehicle performance: Voltmeter gauge (volts): Low volts (11.8 VDC) Amber caution indicator on the information center with intermittent alarm Amber caution light on gauge assembly High volts (15.5 VDC) Amber caution indicator on the information center with intermittent alarm Amber caution light on gauge assembly Very low volts (11.3 VDC) Red warning indicator on the information center with a steady alarm Amber caution light on gauge assembly Very high volts (16.0 VDC) Red warning indicator on the information center with a steady alarm Amber caution light on gauge assembly Engine Tachometer (RPM) Speedometer MPH (Major Scale), KM/H (Minor Scale) Fuel level gauge (Empty - Full in fractions): Low fuel (1/8 full) Amber caution indicator on the information center with intermittent alarm Amber caution light on gauge assembly Very low fuel (1/32 full) Red caution indicator on the information center with steady alarm Amber caution light on gauge assembly Engine Oil pressure Gauge (PSI): Low oil pressure to activate engine warning lights and alarms Red caution indicator on the information center with steady alarm Amber caution light on gauge assembly Front Air Pressure Gauges (PSI):

Low air pressure to activate warning lights and alarm
 Red warning indicator on the information center with a steady alarm
 Amber caution light on gauge assembly
 Rear Air Pressure Gauges (PSI):
 Low air pressure to activate warning lights and alarm
 Red warning indicator on the information center with a steady alarm
 Amber caution light on gauge assembly
 Transmission Oil Temperature Gauge (Fahrenheit):
 High transmission oil temperature activates warning lights and alarm
 Amber caution indicator on the information center with intermittent alarm
 Amber caution light on gauge assembly
 Engine Coolant Temperature Gauge (Fahrenheit):
 High engine temperature activates an engine warning light and alarms
 Amber caution indicator on the information center with intermittent alarm
 Amber caution light on gauge assembly
 Diesel Exhaust Fluid Level Gauge (Empty - Full in fractions):
 Low fluid (1/8 full)
 Amber indicator light in gauge dial
 All gauges will perform prove out at initial power-up to ensure proper performance.

Indicator Lamps

To promote safety, the following telltale indicator lamps will be located on the instrument panel in clear view of the driver. The indicator lamps will be "dead-front" design that is only visible when active. The colored indicator lights will have descriptive text or symbols.

The following amber telltale lamps will be present:

Low coolant
 Trac cntl (traction control) (where applicable)
 Check engine
 Check trans (check transmission)
 Aux brake overheat (Auxiliary brake overheat)
 Air rest (air restriction)
 Caution (triangle symbol)
 Water in fuel
 DPF (engine diesel particulate filter regeneration)
 Trailer ABS (where applicable)
 Wait to start (where applicable)
 HET (engine high exhaust temperature) (where applicable)
 ABS (antilock brake system)
 MIL (engine emissions system malfunction indicator lamp) (where applicable)
 Side roll fault (where applicable)
 Front air bag fault (where applicable)

The following red telltale lamps will be present:

Warning (stop sign symbol)

Seat belt

Parking brake

Stop engine

Rack down

The following green telltale lamps will be provided:

Left turn

Right turn

Battery on

The following blue telltale lamp will be provided:

High beam

Alarms

Audible steady tone warning alarm: A steady audible tone alarm will be provided whenever a warning message is present.

Audible pulsing tone caution alarm: A pulsing audible tone alarm (chime/chirp) will be provided whenever a caution message is present without a warning message being present.

Alarm silence: Any active audible alarm will be able to be silenced by holding the ignition switch at the top position for three (3) to five (5) seconds. For improved safety, silenced audible alarms will intermittently chirp every 30 seconds until the alarm condition no longer exists. The intermittent chirp will act as a reminder to the operator that a caution or warning condition still exists. Any new warning or caution condition will enable the steady or pulsing tones respectively.

Indicator Lamp and Alarm Prove-Out

A system will be provided which automatically tests telltale indicator lights and alarms located on the cab instrument panel. Telltale indicators and alarms will perform prove-out at initial power-up to ensure proper performance.

Control Switches

For ease of use, the following controls will be provided immediately adjacent to the cab instrument panel within easy reach of the driver. All switches will have backlit labels for low light applications.

Headlight/Parking light switch: A three (3)-position maintained rocker switch will be provided. The first switch position will deactivate all parking and headlights. The second switch position will activate the parking lights. The third switch will activate the headlights.

Panel back lighting intensity control switch: A three (3)-position momentary rocker switch will be provided. Pressing the top half of the switch, "Panel Up" increases the panel back lighting intensity and pressing the bottom half of the switch, "Panel Down" decreases the panel back lighting intensity. Pressing the half or bottom half of the switch several times will allow back lighting intensity to be gradually varied from minimum to maximum intensity level for ease of use.

Ignition switch: A three (3)-position maintained/momentary rocker switch will be provided. The first switch position will turn off and deactivate vehicle ignition. The second switch position will activate vehicle ignition and will perform prove-out on the telltale indicators and alarms for 3 to 5 seconds after the switch is turned on. A green indicator lamp is activated with vehicle ignition. The third momentary position will temporarily silence all active cab alarms. An alarm "chirp" may continue as long as alarm condition exists. Switching ignition to off position will terminate the alarm silence feature and reset function of cab alarm system.

Engine start switch: A two (2)-position momentary rocker switch will be provided. The first switch position is the default switch position. The second switch position will activate the vehicle's engine. The switch actuator is designed to prevent accidental activation.

Hazard switch will be provided on the instrument panel or on the steering column.

Heater, defroster, and air conditioning control panel.

Turn signal arm: A self-canceling turn signal with high beam headlight controls will be provided.

Windshield wiper control will have high, low and intermittent modes.

Parking brake control: An air actuated push/pull park brake control valve will be provided.

Chassis horn control: Activation of the chassis horn control will be provided through the center of the steering wheel.

High idle engagement switch: A momentary rocker switch with integral indicator lamp will be provided. The switch will activate and deactivate the high idle function. The "OK To Engage High Idle" indicator lamp must be active for the high idle function to engage. A green indicator lamp integral to the high idle engagement switch will indicate when the high idle function is engaged.

"OK To Engage High Idle" indicator lamp: A green indicator light will be provided next to the high idle activation switch to indicate that the interlocks have been met to allow high idle engagement.

Emergency switching will be controlled by multiple individual warning light switches for various groups or areas of emergency warning lights. An Emergency Master switch provided on the instrument panel that enables or disables all individual warning light switches is included.

An additional "Emergency Master" button will be provided on the lower left hand corner of the gauge panel to allow convenient control of the "Emergency Master" system from inside the driver's door when standing on the ground.

Custom Switch Panels

The design of cab instrumentation will allow for emergency lighting and other switches to be placed within easy reach of the operator thus improving safety. There will be positions for up to four (4) switch panels in the lower instrument console and up to six (6) switch panels in the overhead visor console. All switches have backlit labels for low light conditions.

Diagnostic Panel

A diagnostic panel will be accessible while standing on the ground and located inside the driver's side door left of the steering column. The diagnostic panel will allow diagnostic tools such as computers to connect to various vehicle systems for improved troubleshooting providing a lower cost of ownership. Diagnostic switches will allow ABS systems to provide blink codes should a problem exist.

The diagnostic panel will include the following:

- Engine diagnostic port
- Transmission diagnostic port
- ABS diagnostic port
- Roll sensor diagnostic port
- Command Zone USB diagnostic port
- ABS diagnostic switch (blink codes flashed on ABS telltale indicator)
- Diesel particulate filter regeneration switch (where applicable)
- Diesel particulate filter regeneration inhibit switch (where applicable)

Cab LCD Display

A digital four (4)-row by 20-character dot matrix display will be integral to the gauge panel. The display will be capable of showing simple graphical images as well as text. The display will be split into three (3) sections. Each section will have a dedicated function. The upper left section will display the outside ambient temperature. The upper right section will display the following, along with other configuration specific information:

- Odometer
- Trip mileage
- PTO hours
- Fuel consumption
- Engine hours

The bottom section will display INFO, CAUTION, and WARNING messages. Text messages will automatically activate to describe the cause of an audible caution or warning alarm. The LCD will be capable of displaying multiple text messages should more than one caution or warning condition exist.

0509511 Air Restriction Indicator, Imp/Vel, AXT, Dash CF, Enf MUX

AIR RESTRICTION INDICATOR

A high air restriction warning indicator light LCD message with amber warning indicator and audible alarm will be provided.

0543751 Light, Do Not Move Apparatus

"DO NOT MOVE APPARATUS" INDICATOR

A flashing red indicator light, located in the driving compartment, will be illuminated automatically per the current NFPA requirements. The light will be labeled "Do Not Move Apparatus If Light Is On."

The same circuit that activates the Do Not Move Apparatus indicator will activate a pulsing alarm when the parking brake is released.

0509042	Messages, Open Dr/DNMT, Color Dsply,	DO NOT MOVE TRUCK MESSAGES Messages will be displayed on the Command Zone™, color display located within sight of the driver whenever the Do Not Move Truck light is active. The messages will designate the item or items not in the stowed for vehicle travel position (parking brake disengaged). The following messages will be displayed (where applicable): Do Not Move Truck DS Cab Door Open (Driver Side Cab Door Open) PS Cab Door Open (Passenger's Side Cab Door Open) DS Crew Cab Door Open (Driver Side Crew Cab Door Open) PS Crew Cab Door Open (Passenger's Side Crew Cab Door Open) DS Body Door Open (Driver Side Body Door Open) PS Body Door Open (Passenger's Side Body Door Open) Rear Body Door Open DS Ladder Rack Down (Driver Side Ladder Rack Down) PS Ladder Rack Down (Passenger Side Ladder Rack Down) Deck Gun Not Stowed Lt Tower Not Stowed (Light Tower Not Stowed) Fold Tank Not Stowed (Fold-A-Tank Not Stowed) Aerial Not Stowed (Aerial Device Not Stowed) Stabilizer Not Stowed Steps Not Stowed Handrail Not Stowed Any other device that is opened, extended, or deployed that creates a hazard or is likely to cause major damage to the apparatus if the apparatus is moved will be displayed as a caution message after the parking brake is disengaged.
0622798	Switching, Cab Instrument Lower Console & Overhead, Rocker MUX, Enforcer	SWITCH PANELS The built-in switch panels will be located in the lower console or overhead console of the cab. The switches will be rocker-type and include an integral indicator light. For quick, visual indication the switch will be illuminated whenever the switch is active. A 2-ply, scratch resistant laser engraved Gravoply label indicating the use of each switch will be placed below the switches. The label will allow light to pass through the letters for improved visibility in low light conditions. Switches and light source are integral to the switch panel assembly.
0802940	Wiper Control, 2-Speed with Intermittent, Saber FR/Enforcer	WIPER CONTROL Wiper control will consist of a two (2)-speed windshield wiper control with intermittent feature and windshield washer controls. The control will be located on the left side of the center instrument panel.
0820904	Wiring, Spare, 15 A 12V DC 1st NFPA1900/ULC	SPARE CIRCUIT There will be two (2) pair of wires, including a positive and a negative, installed on the apparatus. The above wires will have the following features: The positive wire will be connected directly to the ignition switched power. The negative wire will be connected to ground. Wires will be protected to 15 amps at 12 volts DC. Power and ground will terminate officer side dash area and in the center console. Termination will be with heat shrinkable butt splicing. Wires will be sized to 125 percent of the protection. The circuit(s) may be load managed when the parking brake is set.
0821263	Wiring, Spare, 20 A 12V DC, 12 Ckt FB, Blue Sea 5026 Batt Dir 1st NFPA1900/ULC	SPARE CIRCUIT There will be one (1) pair of wires, including a positive and a negative, installed on the apparatus. The above wires will have the following features: The positive wire will be connected directly to the battery power. The negative wire will be connected to ground. Wires will be protected to 20 amps at 12 volts DC. Power and ground will terminate Exterior forward wall of EMS cabinet behind officer, mounted as low as possible.. Termination will be to a Blue Sea System, Model 5026, 12 circuit with negative bus bar, straight blade fuse block. The terminal block will include a cover with circuit labels. Wires will be sized to 125% of the protection. Battery direct loads cannot be Load Managed
0821266	Wiring, Spare, 20 A 12V DC, 12 Ckt FB, Blue Sea 5026 Batt Dir 2nd NFPA1900/ULC	SPARE CIRCUIT There will be one (1) pair of wires, including a positive and a negative, installed on the apparatus. The above wires will have the following features: The positive wire will be connected directly to the battery power. The negative wire will be connected to ground. Wires will be protected to 20 amps at 12 volts DC. Power and ground will terminate Mounted as low as possible between the forward facing seats.. Termination will be to a Blue Sea System, Model 5026, 12 circuit with negative bus bar, straight blade fuse block. The terminal block will include a cover with circuit labels. Wires will be sized to 125% of the protection. Battery Direct loads cannot be Load Managed

0821298	Wiring, Spare, 12V DC, USB-A, USB-C AlfredDireck Batt Dir 1st NFPA1900/ULC	SPARE CIRCUIT There will be two (2) pair of wires, including a positive and a negative, installed on the apparatus. The above wires will have the following features: The positive wire will be connected directly to the battery power. The negative wire will be connected to ground. Power and ground will terminate in the switch panel LOC #12. Termination will be a AlfredDireck QC4.0 PD & QC3.0 with the 60W PD USB-C port and 36W Quick Charge 3.0 USB-A port. Wires will be sized to 125 percent of the protection. Battery direct loads cannot be Load Managed
0821325	Wiring, Spare, 10 A 12V DC 1st NFPA1900/ULC	SPARE CIRCUIT There will be one (1) pair of wires, including a positive and a negative, installed on the apparatus. The above wires will have the following features: The positive wire will be connected directly to the ignition switched power. The negative wire will be connected to ground. Wires will be protected to 10 amps at 12 volts DC. Power and ground will terminate LOC #4. Termination will be with heat shrinkable butt splicing. Wires will be sized to 125 percent of the protection. This circuit(s) may be load managed when the parking brake is applied.
0814201	Vehicle Information Center, 7" Color Display, Touchscreen, MUX, CL714	INFORMATION CENTER An information center employing a 7.00" diagonal touch screen color LCD display will be encased in an ABS plastic housing. The information center will have the following specifications: Operate in temperatures from -40 to 158 degrees Fahrenheit LCD optically bonded to hardened AR glass lens Five weather resistant user interface switches Grey with black accents Sunlight Readable Linux operating system Minimum of 1000nits rated display Display can be changed to an available foreign language A LCD display integral to the cab gauge panel will be included as outlined in the cab instrumentation area. Programmed to read US Customary General Screen Design Where possible, background colors will be used to provide "At a Glance" vehicle information. If information provided on a screen is within acceptable limits, a green background will be used. If a caution or warning situation arises the following will occur: An amber background/text color will indicate a caution condition A red background/text color will indicate a warning condition The information center will utilize an "Alert Center" to display text messages for audible alarm tones. The text messages will be written to identify the item(s) causing the audible alarm to sound. If more than one (1) text message occurs, the messages will cycle every second until the problem(s) have been resolved. The background color for the "Alert Center" will change to indicate the severity of the "warning" message. If a warning and a caution condition occur simultaneously, the red background color will be shown for all alert center messages. A label for each button will exist. The label will indicate the function for each active button for each screen. Buttons that are not utilized on specific screens will have a button label with no text or symbol. Home/Transit Screen This screen will display the following: Vehicle Mitigation (if equipped) Water Level (if the water level system includes compatible communications to the information center) Foam Level (if the foam level system includes compatible communications to the information center) Seat Belt Monitoring Screen Tire Pressure Monitoring (if equipped) Digital Speedometer Active Alarms On Scene Screen This screen will display the following and will be auto activated with pump engaged (if equipped): Battery Voltage Fuel Oil Pressure Coolant Temperature RPM Water Level (if equipped) Foam Level (if equipped) Foam Concentration (if equipped) Water Flow Rate (if equipped) Water Used (if equipped) Active Alarms Virtual Buttons There will be four (4) virtual switch panel screens that match the overhead and lower lighting and HVAC switch panels. Page Screen The page screen will display the following and allow the user to progress into other screens for further functionality: Diagnostics Faults

Listed by order of occurrence
 Allows to sort by system
 Interlock
 Throttle Interlocks
 Pump Interlocks (if equipped)
 Aerial Interlocks (if equipped)
 PTO Interlocks (if equipped)
 Load Manager
 A list of items to be load managed will be provided. The list will provide a description of the load.
 The lower the priority numbers the earlier the device will be shed should a low voltage condition occur.
 The screen will indicate if a load has been shed (disabled) or not shed.
 "At a glance" color features are utilized on this screen.
 Systems
 Command Zone
 Module type and ID number
 Module Version
 Input or output number
 Circuit number connected to that input or output
 Status of the input or output
 Power and Constant Current module diagnostic information
 Foam (if equipped)
 Pressure Controller (if equipped)
 Generator Frequency (if equipped)
 Live Data
 General Truck Data
 Maintenance
 Engine oil and filter
 Transmission oil and filter
 Pump oil (if equipped)
 Foam (if equipped)
 Aerial (if equipped)
 Setup
 Clock Setup
 Date & Time
 12 or 24 hour format
 Set time and date
 Backlight
 Daytime
 Night time
 Sensitivity
 Unit Selection
 Home Screen
 Virtual Button Setup
 On Scene Screen Setup
 Configure Video Mode
 Set Video Contrast
 Set Video Color
 Set Video Tint
 Do Not Move
 The screen will indicate the approximate location and type of item that is open or is not stowed for travel. The actual status of the following devices will be indicated
 Driver Side Cab Door
 Passenger's Side Cab Door
 Driver Side Crew Cab Door
 Passenger's Side Crew Cab Door
 Driver Side Body Doors
 Passenger's Side Body Doors
 Rear Body Door(s)
 Ladder Rack (if applicable)
 Deck Gun (if applicable)
 Light Tower (if applicable)
 Hatch Door (if applicable)
 Stabilizers (if applicable)
 Steps (if applicable)
 Notifications
 View Active Alarms
 Shows a list of all active alarms including date and time of the occurrence is shown with each alarm
 Silence Alarms - All alarms are silenced
 Timer Screen
 HVAC (if equipped)
 Tire Information (if equipped)
 Ascendant Set Up Confirmation (if equipped)
 Button functions and button labels may change with each screen.

0816633	Collision Mitigation, HAAS Alert (R2V), HA7	COLLISION MITIGATION There will be a HAAS Alert®, Model HA7 Responder-to-Vehicle (R2V) collision avoidance system provided on the apparatus. The HA7 cellular transponder module will be installed behind the cab windshield, as high and near to the center as practical, to allow clear visibility to the sky. The module dimensions are 5.40" long x 2.70" wide x 1.30" high, and operating temperature range is -40 degrees Celsius to 85 degrees Celsius. The transponder will be connected to the vehicle's emergency master circuit and battery direct power and ground. While responding with emergency lights on, the HA7 transponder sends alert messages via cellular network to motorists in the vicinity of the responding truck that are equipped with the WAZE app. While on scene with emergency lights on, the HA7 transponder sends road hazard alerts to motorists in the vicinity of the truck that are equipped with the WAZE app. The HA7 Responder-to-Vehicle (R2V) collision avoidance system will include the transponder and a 5 year cellular plan subscription. Activation of the HAAS Alert system requires a representative of the customer to accept the End User License Agreement (EULA) via an on-line portal.
0820299	Seat Belt Monitor w/CZ Display, NFPA1900/ULC	Seat Belt Monitoring System A seat belt monitoring system (SBMS) will be provided on the Command Zone™ color display. The SBMS will be capable of monitoring up to 10 seating positions indicating the status of each seat position per the following: Seat Occupied & Buckled = Green LED indicator illuminated Seat Occupied & Unbuckled = Red LED indicator with audible alarm No Occupant & Buckled = Red LED indicator with audible alarm No Occupant & Unbuckled = No indicator and no alarm The seat belt monitoring screen will become active on the Command Zone color display when: The home screen is active: and there is any occupant seated but not buckled or any belt buckled with an occupant. and there are no other Do Not Move Apparatus conditions present. As soon as all Do Not Move Apparatus conditions are cleared, the SBMS will be activated. The SBMS will include an audible alarm that will warn that an unbuckled occupant condition exists and the parking brake is released, or the transmission is not in park.
0696439	Antenna Mount, Custom Chassis, Cable Routed to Instrument Panel Area	RADIO ANTENNA MOUNT There will be one (1) standard 1.125", 18 thread antenna-mounting base(s) installed on the right side on the cab roof with high efficiency, low loss, coaxial cable(s) routed to the instrument panel area. A weatherproof cap will be installed on the mount.
0817058	Camera, Pierce, LS Mux, R Camera, SD, CL714	VEHICLE CAMERA SYSTEM There will be a color vehicle camera system provided with the following: One (1) Standard Definition (SD) camera located at the rear of the apparatus, pointing rearward, displayed automatically with the vehicle in reverse. The camera images will be displayed on the left side vehicle information center display. Audio from the microphone on the rear camera will be not provided. The following components will be included: One (1) SV-CW134639CAI Camera All necessary cables
0814831	Not Required, Camera Switcher	Camera Switcher A camera switcher is not required.
0677933	Camera System, CSS, Body to Waterproof Pump Panel 7" LCD Display	OBSERVATION CAMERA SYSTEM There will be a, Model SM07F, color video camera system provided. The IP69, heated, camera will be located on the apparatus body Right side of body above crosslays . Images will be viewed on a waterproof, IP69 rated, 7.00" LCD display monitor located at the pump operators panel.
0523921	Recess, Rear Vision Camera	RECESS REAR CAMERA A rear camera recess will be provided in the center at the rear.
0890416	Pierce Command Zone, Advanced Electronics & Control System, Enforcer, WiFi CZT	ELECTRICAL POWER CONTROL SYSTEM The primary power distribution will be located forward of the officer's seating position and be easily accessible while standing on the ground for simplified maintenance and troubleshooting. Additional electrical distribution centers will be provided throughout the vehicle to house the vehicle's electrical power, circuit protection, and control components. The electrical distribution centers will be located strategically throughout the vehicle to minimize wire length. For ease of maintenance, all electrical distribution centers will be easily accessible. All distribution centers containing fuses, circuit breakers and/or relays will be easily accessible. Distribution centers located throughout the vehicle will contain battery powered studs for supplying customer installed equipment thus providing a lower cost of ownership. Circuit protection devices, which conform to SAE standards, will be utilized to protect electrical circuits. All circuit protection devices will be rated per NFPA requirements to prevent wire and component damage when subjected to extreme current overload. General protection circuit breakers will be Type-I automatic reset (continuously resetting). When required, automotive type fuses will be utilized to protect electronic equipment. Control relays and solenoid will have a direct current rating of 125 percent of the maximum current for which the circuit is protected per NFPA.

Solid-State Control System

A solid-state electronics based control system will be utilized to achieve advanced operation and control of the vehicle components. A fully computerized vehicle network will consist of electronic modules, electronic control modules to include black housings, a power indicator and status indicator located near their point of use to reduce harness lengths and improve reliability. The control system will comply with SAE J1939-11 recommended practices.

The control system will operate as a master-slave system whereas the main control module instructs all other system components. The system will contain patented Mission Critical software that maintains critical vehicle operations in the unlikely event of a main controller error. The system will utilize a Real Time Operating System (RTOS) fully compliant with OSEK/VDX™ specifications providing a lower cost of ownership.

For increased reliability and simplified use the control system modules will include the following attributes:

Green LED indicator light for module power

Red LED indicator light for network communication stability status

Control system self test at activation and continually throughout vehicle operation

No moving parts due to transistor logic

Software logic control for NFPA mandated safety interlocks and indicators

Integrated electrical system load management without additional components

Integrated electrical load sequencing system without additional components

Customized control software to the vehicle's configuration

Factory and field programmable to accommodate changes to the vehicle's operating parameters

To assure long life and operation in a broad range of environmental conditions, the solid-state

control system modules will meet the following specifications:

Module circuit board will meet SAE J771 specifications

Operating temperature from -40 degrees Celsius to +70 degrees Celsius

Storage temperature from -40 degrees Celsius to +70 degrees Celsius

Vibration to 50g

IP67 rated enclosure (Totally protected against dust and also protected against the effect of temporary immersion between 15 centimeters and one (1) meter)

Operating voltage from eight (8) volts to 32 volts DC

The main controller will activate status indicators and audible alarms designed to provide warning of problems before they become critical.

Circuit Protection and Control Diagram

Copies of all job-specific, computer network input and output (I/O) connections will be provided with each chassis. The sheets will indicate the function of each module connection point, circuit protection information (where applicable), wire numbers, wire colors and load management information.

On-Board Electrical System Diagnostics

The on-board information center will include the following diagnostic information:

Text description of active warning or caution alarms

Simplified warning indicators

Amber caution indication with intermittent alarm

Red warning indication with steady tone alarm

Advanced diagnostic feature will be provided in this control system. From the Command Zone display or connected wireless device, these features allow the user to monitor the real-time status of every input or output on the vehicle. It also allows users logged in as an administrator to force on inputs or outputs to assist the troubleshooting process.

TCU Module with WiFi

An in cab module will provide WiFi wireless interface and data logging capability. The WiFi interface will comply with IEEE 802.11 b/g/n capabilities while communicating at 2.4 Gigahertz. The module will communicate through a black WiFi antenna allowing a line of site communication range of up to 300 feet with a roof mounted antenna.

The module will transmit a password protected web page to a WiFi enabled device (i.e. most smart phones, tablets or laptops) allowing two levels of user interaction. The firefighter level will allow vehicle monitoring of the vehicle and firefighting systems on the apparatus. The technician level will allow diagnostic access to inputs and outputs installed on the Command Zone™, control and information system.

The TCU capability will record faults from the engine, transmission, ABS and Command Zone™, control and information systems as they occur. No other data will be recorded at the time the fault occurs. The data TCU will provide up to 2 Gigabytes of data storage.

The TCU will provide a means to download the TCU information and update software in the device.

Indicator Light and Alarm Prove-Out System

A system will be provided which automatically tests basic indicator lights and alarms located on the cab instrument panel.

Voltage Monitor System

A voltage monitoring system will be provided to indicate the status of the battery system connected to the vehicle's electrical load. The system will provide visual and audible warning when the system voltage is below or above optimum levels.

The alarm will activate if the system falls below 11.8 volts DC for more than two (2) minutes.

Dedicated Radio Equipment Connection Points

There will be three (3) studs provided in the primary power distribution center located in front of the officer for two-way radio equipment. The studs will consist of the following:

12-volt 40-amp battery switched power

12-volt 60-amp ignition switched power

12-volt 60-amp direct battery power

There will also be a 12-volt 100-amp ground stud located in or adjacent to the power distribution center.

EMI/RFI Protection

To prevent erroneous signals from crosstalk contamination and interference, the electrical system will meet, at a minimum, SAE J551/2, thus reducing undesired electromagnetic and radio frequency emissions. An advanced electrical system will be used to ensure radiated and conducted electromagnetic interference (EMI) or radio frequency interference (RFI) emissions are suppressed at their source.

The apparatus will have the ability to operate in the electromagnetic environment typically found in fire ground operations to ensure clean operations. The electrical system will meet, without exceptions, electromagnetic susceptibility conforming to SAE J1113/25 Region 1, Class C EMR

		for 10KHz-1GHz to 100 Volts/Meter. The vehicle OEM, upon request, will provide EMC testing reports from testing conducted on an entire apparatus and will certify that the vehicle meets SAE J551/2 and SAE J1113/25 Region 1, Class C EMR for 10KHz-1GHz to 100 Volts/Meter requirements. Component and partial (incomplete) vehicle testing is not adequate as overall vehicle design can impact test results and thus is not acceptable by itself. EMI/RFI susceptibility will be controlled by applying appropriate circuit designs and shielding. The electrical system will be designed for full compatibility with low-level control signals and high-powered two-way radio communication systems. Harness and cable routing will be given careful attention to minimize the potential for conducting and radiated EMI/RFI susceptibility.
0896456	Prognostics, Electrical System	ELECTRICAL SYSTEM PROGNOSTICS There will be a software based vehicle tool provided to predict remaining life of the vehicles critical fluid and events. The system will send automatic indications to the Command Zone™ information center and/or wireless enabled devices to proactively alert of upcoming service intervals. Prognostics will include the following: - Engine oil and filter - Transmission oil and filter
0624253	Electrical System, Enforcer MUX	ELECTRICAL All 12-volt electrical equipment installed by the apparatus manufacturer will conform to modern automotive practices. All wiring will be high temperature crosslink type. Wiring will be run, in loom or conduit, where exposed and have grommets where wire passes through sheet metal. Automatic reset circuit breakers will be provided which conform to SAE Standards. Wiring will be color, function and number coded. Function and number codes will be continuously imprinted on all wiring harness conductors at 2.00" intervals. Exterior exposed wire connectors will be positive locking, and environmentally sealed to withstand elements such as temperature extremes, moisture and automotive fluids. Electrical wiring and equipment will be installed utilizing the following guidelines: - All holes made in the roof will be caulked with silicon. Large fender washers, liberally caulked, will be used when fastening equipment to the underside of the cab roof. - Any electrical component that is installed in an exposed area will be mounted in a manner that will not allow moisture to accumulate in it. Exposed area will be defined as any location outside of the cab or body. - Electrical components designed to be removed for maintenance will not be fastened with nuts and bolts. Metal screws will be used in mounting these devices. Also a coil of wire will be provided behind the appliance to allow them to be pulled away from mounting area for inspection and service work. - Corrosion preventative compound will be applied to all terminal plugs located outside of the cab or body. All non-waterproof connections will require this compound in the plug to prevent corrosion and for easy separation (of the plug). - All lights that have their sockets in a weather exposed area will have corrosion preventative compound added to the socket terminal area. - All electrical terminals in exposed areas will have silicon applied completely over the metal portion of the terminal. - All lights and reflectors, required to comply with Federal Motor Vehicle Safety Standard #108, will be furnished. Rear identification lights will be recessed mounted for protection. Lights and wiring mounted in the rear bulkheads will be protected from damage by installing a false bulkhead inside the rear compartments. - An operational test will be conducted to ensure that any equipment that is permanently attached to the electrical system is properly connected and in working order. - The results of the tests will be recorded and provided to the purchaser at time of delivery.
0079211	Batteries, (6) Stryten/Exide Grp 31, 950 CCA each, Threaded Stud	BATTERY SYSTEM There will be six (6) 12 volt Stryten/Exide®, Model 31S950X3W, batteries that include the following features will be provided: 950 CCA, cold cranking amps 190 amp reserve capacity - High cycle - Group 31 - Rating of 5700 CCA at 0 degrees Fahrenheit 1140 minutes of reserve capacity - Threaded stainless steel studs Each battery case will be a black polypropylene material with a vertically ribbed container for increased vibration resistance. The cover will be manifold vented with a central venting location to allow a 45 degree tilt capacity. The inside of each battery will consist of a "maintenance free" grid construction with poly wrapped separators and a flooded epoxy bottom anchoring for maximum vibration resistance.
0008621	Battery System, Single Start, All Custom Chassis	BATTERY SYSTEM There will be a single starting system with an ignition switch and starter button provided and located on the cab instrument panel. MASTER BATTERY SWITCH There will be a master battery switch provided within the cab within easy reach of the driver to activate the battery system. An indicator light will be provided on the instrument panel to notify the driver of the status of the battery system.

0002698	Battery Compartment, Saber/Enforcer	BATTERY COMPARTMENTS Batteries will be placed on non-corrosive mats and be stored in well ventilated compartments located under the cab and bolted directly to the chassis frame. The battery boxes will have reinforced sides. The battery compartments will be constructed of 0.188" steel plate and be designed to accommodate a maximum of three (3) group 31 batteries in each compartment. The battery hold-downs will be of a non-corrosive material. All bolts and nuts will be stainless steel. Heavy-duty, 2/0 gauge, color coded battery cables will be provided. Battery terminal connections will be coated with anti-corrosion compound. Battery solenoid terminal connections will be encapsulated with semi-permanent rubberized compound. JUMPER STUDS One (1) set of battery jumper studs with plastic color-coded covers will be included on the battery compartments.
0813848	Charger, Sngl Sys, IOTA, DLS-75, 75 amp, IQ4 Controller	BATTERY CHARGER There will be an IOTA, Model DLS 75, 75 amp battery charger with IQ4 controller provided. The battery charger will be wired to the AC shoreline inlet through an AC receptacle adjacent to this battery charger.
0814869	Location, Cab, Charger, Behind Driver Seat	The battery charger will be located in the cab behind the driver seat.
0813791	Panel, Charger Display, Kussmaul, 091-94-12, Batt Dir	REMOTE CONTROL PANEL - BATTERY CHARGER There will be a Kussmaul™, Model 091-94-12 universal display panel included. It will be wired directly to the chassis batteries.
0814939	Location, Cab, Ind/Remote, Driver's Seat Riser	The battery charger indicator will be located on the driver's seat riser.
0816871	Inverter, Xantrex Freedom X, 817-1000, Non-NFPA 2024 Batt Sw	INVERTER There will be a Xantrex Model 817-1000, 1000W, 12 volt DC to 120 volt AC inverter with a built in LCD display, on/off switch and internal 30A transfer relay provided. The inverter will be connected battery direct through proper fusing. A load management solenoid will be installed between the battery and the inverter. The inverter will be connected to power when the battery switch is on and system voltage is above the low voltage threshold. When the shoreline is connected to the truck, the internal auto transfer switch will allow AC shoreline power to pass through the inverter to the AC loads connected to the inverter. Per NFPA 1900, 2024 Edition, Section 21.5.5.2, the alternator and/or battery system will be adequate to provide power for continuous operation for a minimum of 2 hours at full output. Per the fire department specifications, if all DC loads on the NFPA required electrical analysis report are active, the alternator cannot provide adequate power for continuous operation for 2 hours. The apparatus will be non-compliant to NFPA 1900 standards at time of contract execution. The load management system will activate in low voltage situations, and the inverter will be de-energized until chassis electrical system voltage recovers.
0814953	Location, Body, Inverter, LS Forward Compartment	INVERTER LOCATION The Inverter will be located in the left side forward body compartment located on the back wall as high as practical.
0016857	Shoreline, 20A 120V, Kussmaul Auto Eject, 091-55-20-120, Super	AUTO EJECT FOR SHORELINE There will be one (1) Kussmaul™, Model 091-55-20-120, 20 amp 120 volt AC shoreline inlet(s) provided to operate the dedicated 120 volt AC circuits on the apparatus. The shoreline inlet(s) will include red weatherproof flip up cover(s). There will be a release solenoid wired to the vehicle's starter to eject the AC connector when the engine is starting. The shoreline(s) will be connected to the battery charger. There will be a mating connector body supplied with the loose equipment. There will be a label installed near the inlet(s) that state the following: Line Voltage Current Rating (amps) Phase Frequency
0026800	Shoreline Location	The shoreline receptacle will be located on the driver side of cab, to the front of cab door.

0097486	Shoreline Inlet, 20A 120V Kussmaul Auto Eject, "Super"	KUSSMAUL AUTO EJECT FOR SHORELINE Quantity of one (1) additional shorelines will be provided to operate the dedicated 120-volt circuits on the truck without the use of the generator. The shoreline receptacle (s) will be provided with a NEMA 5-20, 120 volt, 20 amp, straight blade Kussmaul Super auto eject plug with a red weatherproof cover. The cover is spring loaded to close, preventing water from entering when the shoreline is not connected. The unit is completely sealed to prevent road dirt contamination. A solenoid wired to the vehicle's starter is energized when the engine is started. This instantaneously drives the plug from the receptacle. An internal switch arrangement will be provided to disconnect the load prior to ejection to eliminate arcing of the connector contacts. The shoreline(s) will be connected to Coleman AC . The shoreline(s) will be located DS front cab corner. Mating connector bodies will also be supplied with the loose equipment.
0647728	Alternator, 430 amp, Delco Remy 55SI	ALTERNATOR A Delco Remy®, Model 55SI, alternator will be provided. It will have a rated output current of 430 amps, as measured by SAE method J56. The alternator will feature an integral regulator and rectifier system that has been tested and qualified to an ambient temperature of 257 degrees Fahrenheit (125 degrees Celsius). The alternator will be connected to the power and ground distribution system with heavy-duty cables sized to carry the full rated alternator output.
0092582	Load Manager/Sequencer, MUX	ELECTRONIC LOAD MANAGER An electronic load management (ELM) system will be provided that monitors the vehicles 12-volt electrical system, automatically reducing the electrical load in the event of a low voltage condition, and automatically restoring the shed electrical loads when a low voltage condition expires. This ensures the integrity of the electrical system. For improved reliability and ease of use, the load manager system will be an integral part of the vehicle's solid state control system requiring no additional components to perform load management tasks. Load management systems which require additional components will not be allowed. The system will include the following features: System voltage monitoring. A shed load will remain inactive for a minimum of five minutes to prevent the load from cycling on and off. Sixteen available electronic load shedding levels. Priority levels can be set for individual outputs. High Idle to activate before any electric loads are shed and deactivate with the service brake. If enabled: "Load Man Hi-Idle On" will display on the information center. Hi-Idle will not activate until 30 seconds after engine start up. Individual switch "on" indicator to flash when the particular load has been shed. The information center indicates system voltage. The information center, where applicable, includes a "Load Manager" screen indicating the following: Load managed items list, with priority levels and item condition. Individual load managed item condition: ON = not shed SHED = shed SEQUENCER A sequencer will be provided that automatically activates and deactivates vehicle loads in a preset sequence thereby protecting the alternator from power surges. This sequencer operation will allow a gradual increase or decrease in alternator output, rather than loading or dumping the entire 12 volt load to prolong the life of the alternator. For improved reliability and ease of use, the load sequencing system will be an integral part of the vehicle's solid state control system requiring no additional components to perform load sequencing tasks. Load sequencing systems which require additional components will not be allowed. Emergency light sequencing will operate in conjunction with the emergency master light switch. When the emergency master switch is activated, the emergency lights will be activated one by one at half-second intervals. Sequenced emergency light switch indicators will flash while waiting for activation. When the emergency master switch is deactivated, the sequencer will deactivate the warning light loads in the reverse order. Sequencing of the following items will also occur, in conjunction with the ignition switch, at half-second intervals: Cab Heater and Air Conditioning Crew Cab Heater (if applicable) Crew Cab Air Conditioning (if applicable) Exhaust Fans (if applicable) Third Evaporator (if applicable)
0724853	Headlights, Rect LED, HiViz FT-4X6-4KIT, AXT/DCF/Enf/Imp/Sab/Vel, Trim	HEADLIGHTS There will be a HiViz part number FT-4X6-4KIT, that includes four (4) 4.00" high x 6.00" long rectangular LED lights with parking lamp illumination around the outside of the lamps mounted in the front quad style housings on each side of the cab grille: the outside lamp on each side will contain a part number FT-4X6-HL with low beam LEDs the inside lamp on each side will contain a part number FT-4X6-H with high beam LEDs the lights will be controlled through the headlight switch The headlight housing and headlight trim to be painted black.

0625953	Light, Directional, WIn 600 Cmb, Cab Crn, Wrp Bzl Out HD Lts, Enf/Sab	DIRECTIONAL LIGHTS There will be two (2) Whelen 600 series, LED combination directional/marker lights provided. The lights will be located on the outside cab corners, next to the headlights. The color of the lenses will be clear.
0620054	Light, Directional/Marker, Intermediate, Weldon 9186-8580-29 LED 2lts	INTERMEDIATE LIGHT There will be two (2) Weldon, Model 9186-8580-29, amber LED turn signal marker lights furnished, one (1) each side, in the rear fender panel. The light will double as a turn signal and marker light.
0735474	Lights, Clearance/Marker/ID, Front, P25 LED 7 Lts, Saber FR/Enforcer	CAB CLEARANCE/MARKER/ID LIGHTS There will be seven (7) amber LED lights provided per the following: Three (3) amber LED identification lights will be installed in the center of the cab above the windshield. Two (2) amber LED clearance lights will be installed, one (1) on each outboard side of the cab above the windshield as close to the outside of the apparatus as practical. Two (2) amber LED clearance lights will be installed, one (1) on each side of the cab as high and far forward as practical. The lights will be installed without guards.
0625210	Lights, Directional, Cab Front Side, Truck-Lite 19036Y LED, AXT/Enf	FRONT CAB SIDE CLEARANCE/MARKER LIGHTS There will be two (2) Truck-Lite®, Model 19036Y, amber LED lights installed to the outside of the chrome wrap around bezel, one (1) on each side of the cab. The lights will activate as additional directional lights with the corresponding directional circuit.
0088869	Lights, Clearance/Marker/ID, Rear, Truck-Lite 26250R LED 7Lts	REAR CLEARANCE/MARKER/ID LIGHTING There will be three (3) Truck-Lite®, Model 26250R, LED lights used as identification lights located at the rear of the apparatus per the following: As close as practical to the vertical centerline Centers spaced not less than 6.00" or more than 12.00" apart Red in color All at the same height There will be two (2) Truck-Lite, Model 26250R, LED lights installed at the rear of the apparatus used as clearance lights located at the rear of the apparatus per the following: To indicate the overall width of the vehicle One (1) each side of the vertical centerline As near the top as practical Red in color To be visible from the rear All at the same height There will be two (2) Truck-Lite, Model 26250R, LED lights installed on the side of the apparatus as marker lights as close to the rear as practical per the following: To indicate the overall length of the vehicle One (1) each side of the vertical centerline As near the top as practical Red in color To be visible from the side All at the same height There will be two (2) red reflectors located on the rear of the truck facing to the rear. One (1) each side, as far to the outside as practical, at a minimum of 15.00", but no more than 60.00", above the ground. There will be two (2) red reflectors located on the side of the truck facing to the side. One (1) each side, as far to the rear as practical, at a minimum of 15.00", but no more than 60.00", above the ground. Per FMVSS 108 and CMVSS 108 requirements.
0804519	Lights, Tail, WIn M62BTT* Red Stop/Tail & M62T* Amber Dir Arw w/Flange	REAR FMVSS LIGHTING The rear stop/tail and directional lighting will include the following: Two (2) Whelen®, Model M62BTT, 4.30" high x 6.70" wide x 1.40" deep brake/tail lights with red LEDs Two (2) Whelen, Model M62T, 4.30" high x 6.70" wide x 1.40" deep directional lights with amber LEDs. The directional lights will be set to Steady On (Arrow) flash pattern. The lens color(s) to be clear. The lights to include black trim.
0806466	Lights, Backup, WIn M62BU, LED, For Tail Lt Housing	There will be two (2) Whelen Model M62BU, LED backup lights provided in the tail light housing.
0889577	Bracket, License Plate & Light, P25 LED, Stainless Brkt	LICENSE PLATE BRACKET One (1) license plate bracket constructed of stainless steel will be provided at the rear of the apparatus. One (1) white LED light with black housing will be provided to illuminate the license plate. A stainless steel light shield will be provided over the light that will direct illumination downward, preventing white light to the rear.

0589905		Alarm, Back-up Warning, PRECO 1040	BACK-UP ALARM A PRECO, Model 1040, solid-state electronic audible back-up alarm that actuates when the truck is shifted into reverse will be provided. The device will sound at 60 pulses per minute and automatically adjust its volume to maintain a minimum ten (10) dBA above surrounding environmental noise levels.
0626588		Lights, Perimeter Cab, TecNiq T10-LC00-1 15" LED 4Dr	CAB PERIMETER SCENE LIGHTS There will be four (4) TecNiq, Model T10-LC00-1, 15.00" lights with white LEDs and 45 degree stainless steel brackets provided per the following: one (1) under the driver's side cab access step one (1) under the passenger's side cab access step one (1) under the passenger's side crew cab access step one (1) under the driver's side crew cab access step The lights will be activated when the battery switch is on, when the respective door is open and by the same control selected for the body perimeter lights.
0617901		Lights, Perimeter Pump House, TecNiq T10-LC00-1 15" LED 2lts	PUMP HOUSE PERIMETER LIGHTS There will be two (2) TecNiq, Model T10-LC00-1, 15.00" white 12 volt DC LED weatherproof strip lights provided under the pump panel running boards, one (1) each side. The lights will be controlled by the same means as the body perimeter lights.
0626579		Lights, Perimeter Body, TecNiq T10-LC00-1 15" LED 2lts, Rear Step	BODY PERIMETER SCENE LIGHTS There will be two (2) TecNiq, Model T10-LC00-1, 15.00" 12 volt DC LED strip lights provided at the rear step area of the body, one (1) each side shining to the rear. The perimeter scene lights will be activated when the parking brake is applied, the reverse signal activated, activating all the side facing perimeter lights, the driver's side directional is activated, activating only the driver side facing perimeter lights and the passenger's side directional is activated, activating only the passenger side facing perimeter lights.
0896454		Enhanced Software for Perimeter Lts	ENHANCED SOFTWARE FOR PERIMETER LIGHTS All perimeter lights will be deactivated when the parking brake is released unless alternate control is selected. The cab and crew cab perimeter lights will remain on for ten (10) seconds for improved visibility after the doors closed.
0729151	SP	Lights, Step, P25 at Rear Tailboard, PUC, 4lts Perm Lts, Blk Trim	STEP LIGHTS There will be four (4) white LED step lights provided at the rear to illuminate the tailboard/step area. The housing for these lights will be painted black. In order to ensure exceptional illumination, each light will provide a minimum of 25 foot-candles (fc) covering an entire 15" x 15" square placed ten (10) inches below the light and a minimum of 1.5 fc covering an entire 30" x 30" square at the same ten (10) inch distance below the light. These step lights will be actuated with the perimeter scene lights. All other steps on the apparatus will be illuminated per the current edition of applicable NFPA standards.
0760447		Light, Roof Mt, HiViz, FT-B-72-*, Cnt Feature, Mux	12 VOLT LIGHTING There will be a HiViz Model FT-B-72-*, 2.56" high x 72.69" long x 3.31" deep 21,067 effective lumens 12 volt DC light with white LEDs configured with a combination of flood and spot optics mounted, as far forward on the cab roof as practical. The painted parts of the light housing and brackets to be black. The light will be activated by a switch at the driver's side switch panel and by a switch at the passenger's side switch panel. The light may be load managed when the parking brake is applied.
0736729		Lights, HiViz FT-GESM LED 2nd	12 VOLT LIGHTING There will be one (1) HiViz®, Model FT-GESM, 20,500 equivalent lumens 8.65" high x 10.61" wide x 2.78" deep light(s) with white LEDs installed on the cab Above PS EMS cabinet door. The light(s) to include black optic holders, black bezels and black fixture body. The light(s) will be activated by a switch at the driver's side switch panel, by a switch at the left side pump panel and by a switch at the passenger's side switch panel. The light(s) may be load managed when the parking brake is applied.
0736731		Lights, HiViz FT-GESM LED 1st	12 VOLT LIGHTING There will be one (1) HiViz®, Model FT-GESM, 20,500 equivalent lumens 8.65" high x 10.61" wide x 2.78" deep light(s) with white LEDs installed on the cab Above DS EMS cabinet door. The light(s) to include black optic holders, black bezels and black fixture body. The light(s) will be activated by a switch at the driver's side switch panel, by a switch at the left side pump panel and by a switch at the passenger's side switch panel. The light(s) may be load managed when the parking brake is applied.

0733336	Lights, HiViz FT-GESM* LED 2nd	12 VOLT LIGHTING - BODY There will be two (2) HiViz®, Model FT-GESM, surface mount, 20,500 equivalent lumens, 8.65" high x 10.61" wide x 2.78" deep with white LED's installed on the body PS front upper body corner and rear upper body corner. The light(s) to include black optic holders, black bezels and black fixture body. The light(s) will be activated by the same control that has been selected for the right side scene light(s). The light(s) may be load managed when the parking brake is applied.
0733343	Lights, HiViz FT-GESM* LED 1st	12 VOLT LIGHTING - BODY There will be two (2) HiViz®, Model FT-GESM, surface mount, 20,500 equivalent lumens, 8.65" high x 10.61" wide x 2.78" deep with white LED's installed on the body DS front upper body corner and rear upper body corner. The light(s) to include black optic holders, black bezels and black fixture body. The light(s) will be activated by the same control that has been selected for the left side scene light(s). The light(s) may be load managed when the parking brake is applied.
0532358	Not Required, Deck Lights, Other Hose Bed & Rear Lighting	
0893593	Lights, Hose Bed, Below Alum Cvr, Dual LED Light Strips	HOSE BED LIGHTS There will be white 12 volt DC LED light strips provided to light the hose bed area. Hose bed lights will meet the photometric levels listed in the current edition of applicable NFPA standards for Hose Bed lighting requirements. Light strip(s) will be installed below lower support tube on the left side of the hose bed cover. Light strip(s) will be installed below lower support tube on the right side of the hose bed cover. The lights will be activated by a stainless steel cup switch located at the rear no more than 72.00" from the ground.
0645677	Lights, Not Required, Rear Work, Alt. 12 Volt Lights At Rear Body	
0743346	Lights, Rear Scene, HiViz FT- GSMJR-*, Surface Mt	REAR SCENE LIGHT(S) There will be two (2) HiViz, Model FT-GSMJR-*, 5.04" high x 7.40" wide x 1.54" deep 5,000 raw lumens light(s) with white LEDs black trim and black optic holder(s) surface mounted at the rear of the apparatus, DS and PS rear bulkheads as high as possible. The light(s) will be controlled by a switch at the driver's side switch panel and by a stainless steel cup switch at the driver's side rear bulkhead. The light(s) may be load managed when the parking brake is applied.
0892704	Lights, Walk Surf, 8-P25 LED, Hose Bed Cover, Overall Height Restrictions	WALKING SURFACE LIGHT There will be eight (8) P25 12 volt DC LED lights with chrome housing provided on the hose bed cover to illuminate the walking surface. The lights will be located near the hose bed cover hinges evenly spaced four (4) on each side. The lights will be activated when the body step lights are on.
0518282	Pumper, PUC, Aluminum	
0554271	Body Skirt Height, 20"	

0682617	Tank, Water, 750 Gallon, Poly, 67 LHB, PUC	WATER TANK Booster tank will have a capacity of 750 gallons and be constructed of UV stabilized ultra high impact polypropylene plastic by a manufacturer with a minimum of 20 years experience building tanks, is ISO 9001:2000 certified in all its manufacturing facilities, and has over 50,000 tanks in service. Tank joints and seams will be nitrogen welded inside and out. Tank will be baffled in accordance with the current edition of applicable NFPA standards. Baffles will have vent openings at both the top and bottom to permit movement of air and water between compartments. Longitudinal partitions will be constructed of .38" polypropylene plastic and will extend from the bottom of the tank through the top cover to allow for positive welding. Transverse partitions will extend from 4.00" off the bottom of the tank to the underside of the top cover. All partitions will interlock and will be welded to the tank bottom and sides. Tank top will be constructed of .50" polypropylene. It will be recessed .38" and will be welded to the tank sides and the longitudinal partitions. Tank top will be sufficiently supported to keep it rigid during fast filling conditions. Construction will include 2.00" polypropylene dowels spaced no more than 30.00" apart and welded to the transverse partitions. Two (2) of the dowels will be drilled and tapped (.50" diameter, 13.00" deep) to accommodate lifting eyes. A sump that will be sized dependent on the tank to pump plumbing will be provided at the bottom of the water tank. Sump will include a drain plug and the tank outlet. Tank will be installed in a fabricated cradle assembly constructed of structural steel. Sufficient crossmembers will be provided to properly support bottom of tank. Crossmembers will be constructed of steel bar channel or rectangular tubing. Tank will "float" in cradle to avoid torsional stress caused by chassis frame flexing. Rubber cushions, .50" thick x 3.00" wide, will be placed on all horizontal surfaces that the tank rests on. Stops or other provision will be provided to prevent an empty tank from bouncing excessively while moving vehicle. Mounting system will be approved by the tank manufacturer.
0003405	Overflow, 4.00" Water Tank, Poly	Fill tower will be constructed of 0.50" polypropylene and will be a minimum of 8.00" wide x 14.00" long. Fill tower will be furnished with a 0.25" thick polypropylene screen and a hinged cover. An overflow pipe, constructed of 4.00" schedule 40 polypropylene, will be installed approximately halfway down the fill tower and extend through the water tank and exit to the rear of the rear axle.
0028107	Not Required, Foam Cell Modification	
0633066	Sleeve, Through Tank	SLEEVE PLUMBING THROUGH TANK Three (3) sleeves will be provided in the water tank for a 2.50" pipe to the rear.
0553725	Restraint, Water Tank, Heavy Duty, Special Type Tank, 4x4, or Export	WATER TANK RESTRAINT A heavy-duty water tank restraint will be provided.
0003429	Not Required, Direct Tank Fill	
0003424	Not Required, Dump Valve	
0048710	Not Required, Jet Assist	
0030007	Not Required, Dump Valve Chute	
0514778	Not Required, Switch, Tank Dump Master	
0597043	Body Height, PUC/HDRP	BODY HEIGHT The height of the body will be 92.00" from the bottom of the body to the top of the body.

0683290	Hose Bed, Aluminum, Pumper, PUC, 67 LHB	HOSE BED The hose bed will be fabricated of .125"-5052 aluminum with a nominal 38,000 psi tensile strength. Flooring of the hose bed will be removable aluminum grating with the top surface corrugated to aid in hose aeration. The grating slats will be a minimum of 0.50" x 4.50" with spacing between slats for hose ventilation. A cross divider will be provided at the point the tank transitions from the lower section to the upper section. The divider will run from the top of the side sheet down below the hose bed grating. The hose bed will be directly above the rear compartment door. The dimension from the ground will be approximately 67.00" depending on the suspension and equipment load. The hose bed will be at a minimum 85.00" long.
0723340	Unpainted/Brush Finished, Hose Bed, 3G PUC/HDRP	The hose bed walls will be unpainted and with a brushed finish.
0003481	Hose Bed Capacity, Special	Hose bed will accommodate Bay 1: 400' of 3" Bay 2: 800' of 5" Bay 3: 300' of 1.75" Bay 4: 300' of 2" Bay 5: 400' of 2" .
0003488	Divider, Hose Bed, Unpainted	HOSE BED DIVIDER Two (2) hosebed dividers will be furnished for separating hose. Each divider will be constructed of a .125" brushed aluminum sheet fitted and fastened into a slotted, 1.50" diameter radiused extrusion along the top, bottom, and rear edge. Divider will be fully adjustable by sliding in tracks, located at the front and rear of the hose bed. Divider will be held in place by tightening bolts, at each end. Acorn nuts will be installed on all bolts in the hose bed which have exposed threads.
0805760	Cover, Hose Bed, Alum Treadplate	HOSE BED COVER A two (2) section hose bed cover, constructed of .125" bright aluminum treadplate will be furnished. The cover will be hinged with full length stainless steel piano hinge. The sides will be slanted down. A stationary bridgework support assembly will be provided at the rear to support the cover. The cover will be reinforced so that it can support the weight of a man walking on the cover. The cover is designed with the left cover opening first. If access to the water tank fill tower is blocked by the hose bed cover, then a hinged door will be provided in it so that the tank may be filled without raising cover doors. Chrome grab handles and four (4) gas filled cylinders will be provided to assist in opening and closing the cover. A handrail is to be provided at the rear, in the center of the support, to assist in opening the cover. The hose bed cover will be connected to the Do Not Move Truck indicator. The light will be activated if the cover is not in the stowed position and the parking brake is released.
0807414	Hose Restraint, Hose Bed, Vinyl, Rear, Separate From Top, Split 2-Sec, Seat Belt	HOSE RESTRAINT REAR At the rear of the hose bed, a black vinyl flap will be provided. The vinyl flap will be split into two sections between bay 1 and bay 2. The vinyl flap will be provided with permanent strap footman loop at the bottom of the hose bed. The top of the vinyl flap will be attached to the top of the hosebed with seat belt buckles. The seat belt buckles will be provided with a metal bar, to connect each set of two buckles, and attached to a web strap, to allow a single pull release per set of two buckles. The vinyl flap will be provided with no fasteners between each section. The bottom of the flap will be not weighted. If a strap is provided, the color of the strap will be red.
0518191	Hose Tray, Poly, Removable, Hose Bed, Basic	REMOVABLE HOSE TRAY(S) IN HOSE BED There will be two (2) removable U-shaped poly hose tray(s) provided inside the hose bed. Tray will be sized Full length of hose bed and 7" wide inside tray. Bay 3 - Build for 350' of 1.75" hose double stacked Bay 4 - Build for 350'of 2.0" hose double stacked. Tray will be located far right side of hose bed, bay 3 and bay 4. See job #37591.
0097958	Shelf, Permanent, Hose Bed	SHELF, IN HOSE BED A permanent shelf will be provided for hose storage inside the hose bed 2" above poly trays at right side of hose bed.. The shelf will be constructed out of aluminum hose bed grating. The shelf will be mounted between two (2) hose bed dividers.
0611509	Running Boards, Flip Out, PUC	RUNNING BOARDS A running board will be provided on each side of the front body to allow access to the backboard/crosslay storage area. The running boards will be designed with a grip pattern punched into .125" bright aluminum treadplate material providing support, slip resistance, and drainage. The runningboard will have a flip out section design that allows easier access to the full width equipment area above. The flip out section will be tied to the "do not move truck indicator" with a sensor when it is flipped out. There will be a latch provided that secures the flip out section when not in use.

0683043	Tailboard, 12" Deep, Full Width, Angled Corners, PUC/HDRP	TAILBOARD The tailboard will be constructed of .125" bright aluminum treadplate and spaced .50" from the body, as well as supported by a structural steel assembly. The tailboard area will be 12.00" deep and full width of the body. The outboard sides of the tailboard will be angled at 45 degrees beginning at the point where the body meets the tailboard at the outboard edge angling rearward to the rear edge of the tailboard. The exterior side will be flanged down and in for increased rigidity of tailboard structure.
0690029	Wall, Rear, Body Material, PUC/HDRP	REAR WALL, BODY MATERIAL, PUC The rear wall will be smooth and the same material as the body. The rear wall body material will be painted. Unpainted aluminum overlays will be provided to allow for chevron application and to provide continuously smooth rear wall panels. The outboard edges of the rear wall will be trimmed in polished stainless steel.
0003531	Tow Bar, Under Tailboard	TOW BAR A tow bar will be installed under the tailboard at center of truck. Tow bar will be fabricated of 1.00" CRS bar rolled into a 3.00" radius. Tow bar assembly will be constructed of .38" structural angle. When force is applied to the bar, it will be transmitted to the frame rail. Tow bar assembly will be designed and positioned to allow up to a 30-degree upward angled pull of 17,000 lb, or a 20,000 lb straight horizontal pull in line with the centerline of the vehicle. Tow bar design will have been fully tested and evaluated using strain gauge testing and finite element analysis techniques.

COMPARTMENTATION

The apparatus body will be built of aluminum construction using a minimum of 0.125" thick, 5052-H32 aluminum.

The body panel assembly will be constructed in a fixture and consist of formed sheet metal for the front and rear bulkheads, door frames, floors, ceilings, and back walls. These parts will be welded together to ensure greatest longevity with no visible welds in compartment interior. Welded construction will consist of 1.00" x 0.38" engineered plug weld holes that control the size, location, and the amount of weld required. The bodies will be assembled and welded from engineered prints that call out the size, location, and type of weld required.

In structural areas the sheet metal components will have flanges for welding. No butt joints will be allowed. Gussets and support posts will be provided for additional strength where needed.

The fender panel will be an integral part of the complete welded body assembly. All light and compartment holes are pre punched prior to construction to provide accuracy and rounded corners to prevent stress risers in the material.

Circular fender liners will be provided. For prevention of paint chips and ease of suspension maintenance the fender liners will be formed from brush finished 304L stainless steel, be unpainted, and removable for suspension maintenance.

Side compartment flooring will be of the sweep out design with the floor minimum of 1.00" higher than the compartment door lip.

Drip protection will be provided above the doors by means of aluminum extrusion, or formed bright aluminum treadplate.

The top of the compartment will be sheet metal and covered with bright aluminum treadplate rolled over the edges on the front, and rear. These covers will have the corners welded.

The aluminum treadplate covers will not make up the ceiling of the compartment.

All screws and bolts, which are not Grade 8, will be stainless steel and where they protrude into a compartment will have acorn nuts on the ends to prevent injury.

UNDERBODY SUPPORT SYSTEM

Due to the severe loading requirements of this pumper a method of body and compartment support suitable for the intended load will be provided.

The backbone of the body support system will begin with the chassis frame rails which is the strongest component of the chassis and is designed for sustaining maximum loads. The support system will include lateral frame rail extensions that are formed from 0.375" 80k high strength steel and bolted to the chassis frame rails with 0.625" diameter Grade 8 bolts.

The vertical and horizontal members of the frame rail extensions are to be reinforced with welded gussets and extend to the outside edge of the body. The lateral frame extensions will be electro-coated for superior corrosion resistance.

The floating substructure will be separated from the lateral frame extensions with neoprene elastomer isolators. These isolators will reduce the natural flex stress of the chassis from being transmitted to the body, and absorb road shock and vibration.

The isolators will have a broad load range, proven viability in vehicular applications, be of a fail safe design and allow for all necessary movement in three (3) transitional and rotational modes.

The neoprene isolators will be installed in a modified V three (3)-point mounting pattern to reduce the natural flex of the chassis being transmitted to the body. Two (2) 3.50" diameter isolators are provided at the front of the body near the centerline of the vehicle above the chassis frame. A minimum of eight (8) - 2.55" diameter isolators will be provided, two (2) under each front compartment and two (2) under each rear side compartment. A minimum of four (4) 3.50" diameter isolators will be provided under the rear compartment.

AGGRESSIVE WALKING SURFACE

All exterior surfaces designated as stepping, standing, and walking areas will comply with the required average slip resistance of the current NFPA standards. Documentation of the material meeting the standard will be provided at time of delivery.

LOUVERS

All body compartments will have a minimum of one (1) set of automotive style, dust resistant louvers pressed into a wall. The louvers will incorporate a one (1)-way rubber valve that provides airflow out of the compartment and prevents water and dirt from gaining access to the compartment. Compartments over the wheel will not have louvers.

TESTING OF BODY DESIGN

Body structural analysis will be fully tested. Proven engineering and test techniques such as finite element analysis and strain gauging have been performed with special attention given to fatigue life and structural integrity of the body and substructure.

The body will be tested while loaded to its greatest in-service weight.

The criteria used during the testing procedure will include:

Raising opposite corners of the vehicle tires 9.00" to simulate the twisting a truck may experience when driving over a curb.

Making a 90 degree turn, while driving at 20 mph to simulate aggressive driving conditions.

Driving the vehicle on at 35 mph on a washboard road.

Driving the vehicle at 55 mph on a smooth road.

Accelerating the vehicle fully, until reaching the approximate speed of 45 mph on rough pavement.

Evidence of the actual testing techniques will be made available upon request.

FEA will have been performed on all substructure components.

0503804	LS 189" Rollup, (1) 62" Fwd, (1) 52" Rr, Full Height & Depth Front & Rear, PUC	LEFT SIDE COMPARTMENTATION The left side compartmentation will consist of three rollup door compartments. A full height, rollup door compartment ahead of the rear wheels will be provided. The pump operator's panel will be located in this compartment. The partition to the right of the pump operator's panel will be 2.50" in width. The interior dimensions of the remaining space in this compartment will be 25.25" wide x 53.63" high x 26.00" deep. The clear door opening will be a minimum of 59.25" wide x 53.63" high. A rollup door compartment over the rear wheels will be provided. The interior dimensions of this compartment will be 60.00" wide x 22.88" high x 26.00" deep. The clear door opening will be a minimum of 57.25" wide x 22.88" high. A full height, rollup door compartment behind the rear wheels will be provided. The interior dimensions of this compartment will be 51.75" wide x 54.63" high x 26.00" deep. The clear door opening will be a minimum of 49.25" wide x 54.63" high. The roll up door spool will be installed in a recess above the compartment ceiling. All compartments will include a drip pan below the roll of the door. The drip pan will be installed level with the compartment ceiling. The interior height of the compartments will be measured from the compartment floor to the ceiling. The depth of the compartments will be measured from the back wall to the inside of the door frame. Closing of the doors will not require releasing, unlocking, or unlatching any mechanism and will easily be accomplished with one hand.
0503803	RS 189" Rollup, (1) 62" Fwd, (1) 52" Rr, Full Height & Depth Front & Rear, PUC	RIGHT SIDE COMPARTMENTATION A full height, jump off compartment with a roll-up door ahead of the rear wheels will be provided, as convenient large storage compartment for often used items for the crew. The interior dimensions of this compartment will be 62.00" wide x 54.50" high x 25.88" deep. The area behind the roll up door spool will be notched for exterior storage or larger capacity water tank tee. The depth of the compartment will be calculated with the compartment door closed. The compartment interior will be fully open from the compartment ceiling to the compartment floor and designed so that no permanent dividers are required between the upper and lower sections. The clear door opening of this compartment will be 59.00" wide x 54.50" high. Closing of the door will not require releasing, unlocking, or unlatching any mechanism and will easily be accomplished with one hand. A roll-up door compartment over the rear wheels will be provided. The interior dimensions of this compartment will be 60.00" wide x 23.00" high x 25.88" deep. The area behind the roll up door spool will be notched for exterior storage or larger capacity water tank tee. The depth of the compartment will be calculated with the compartment door closed. The clear door opening of this compartment will be 57.00" wide x 23.00" high. Closing of the door will not require releasing, unlocking, or unlatching any mechanism and will easily be accomplished with one hand. A full height, roll-up door compartment behind the rear wheels will be provided. The interior dimensions of this compartment will be 52.00" wide x 54.50" high x 25.88" deep. The area behind the roll up door spool will be notched for exterior storage or larger capacity water tank tee. The depth of the compartment will be calculated with the compartment door closed. The compartment interior will be fully open from the compartment ceiling to the compartment floor and designed so that no permanent dividers are required between the upper and lower sections. The clear door opening of this compartment will be 49.00" wide x 54.50" high. Closing of the door will not require releasing, unlocking, or unlatching any mechanism and will easily be accomplished with one hand. All compartments will include a drip pan below the roll of the door.
0594005	Doors, Rollup, Amdor, Side Compartments	SIDE COMPARTMENT ROLLUP DOOR(S) There will be six (6) compartment doors installed on the side compartments, double faced, aluminum construction, painted one (1) color to match the lower portion of the body and manufactured by AMDOR™ brand rollup doors. Door(s) will be constructed using 1.00" extruded double wall aluminum slats which will feature a flat smooth interior surface to provide maximum protection against equipment hang-up. The slats will be connected with a structural driven ball and socket hinge designed to provide maximum curtain diaphragm strength. Mounting and adjusting the curtain will be done with a clip system that connects the curtain to the balancer drum allowing for easy tension adjustment without tools. The slats will be mounted in reusable slat shoes with positive snap-lock securement. Each slat will incorporate weather tight recessed dual durometer seals. One (1) fin will be designed to locate the seal within the extrusion. The second will serve as a wiping seal which will also allow for compression to prevent water ingress. The doors will be mounted in a one (1)-piece aluminum side frame with recessed side seals to minimize seal damage during equipment deployment. All seals including side frames, top gutters and bottom panel are to be manufactured utilizing non-marring materials. Bottom panel flange of rollup door will be equipped with two (2) cut-outs to allow for easier access with gloved hands. A polished stainless steel lift bar to be provided for each roll-up door. The lift bar will be located at the bottom of door with striker latches installed at the base of the side frames. Side frame mounted door strikers will include support beneath the stainless steel lift bar to prevent door curtain bounce, improve bottom seal life expectancy and to avoid false door ajar signals. All injection molded rollup door wear components will be constructed of Type 6 nylon. Each rollup door will have a 3.00 inch diameter balancer/tensioner drum to assist in lifting the door. The header for the rollup door assembly will not exceed 4.00". A heavy-duty magnetic switch will be used for control of open compartment door warning lights.

0599445	Compt, Rear, Rollup, 33.50" FF, w/Tailboard, PUC/HDRP	REAR COMPARTMENTATION A roll-up door compartment above the rear tailboard will be provided. the interior dimensions of this compartment will be 37.00" wide x 36.50" high x 25.88" deep in the lower 27.00" of the compartment and 15.00" deep in the remaining upper portion. The clear door opening will be a minimum of 33.88" wide x 26.63" high. A removable access panel will be furnished on the back wall of the compartment. The rear compartment will be open into the rear side compartments. The transverse opening will be a minimum of 22.00" wide x 27.50" high. A drip pan will be installed below the roll of the door. A guard will be installed behind the roll of the door. The interior height of the compartment will be measured from the floor to the ceiling. The depth of the compartment will be measured from the back wall to the inside of the door frame. Closing of the door will not require releasing, unlocking, or unlatching any mechanism and will easily be accomplished with one hand.
0593958	Door, Amdor, Rollup, Rear Compartment, PUC	ROLL-UP REAR COMPARTMENT DOOR The rear compartment will have a roll-up door. The door will be double faced, aluminum construction, painted one (1) color to match the lower portion of the body and manufactured by AMDOR™ brand roll-up doors. The door will be constructed using 1.00" extruded double wall aluminum slats which will feature a flat smooth interior surface to provide maximum protection against equipment hang-up. The slats will be connected with a structural driven ball and socket hinge designed to provide maximum curtain diaphragm strength. Mounting and adjusting the curtain will be done with a clip system that connects the curtain to the balancer drum allowing for easy tension adjustment without tools. The slats will be mounted in reusable slat shoes with positive snap-lock securement. Each slat will incorporate weather tight recessed dual durometer seals. One (1) fin will be designed to locate the seal within the extrusion. The second will serve as a wiping seal which will also allow for compression to prevent water ingress. The door will be mounted in a one (1)-piece aluminum side frame with recessed side seals to minimize seal damage during equipment deployment. All seals including side frames, top gutters and bottom panel are to be manufactured utilizing non-marring materials. Bottom panel flange of roll-up door will be equipped with two (2) cut-outs to allow for easier access with gloved hands. A stainless steel lift bar to be provided for opening the door and located at the bottom of each door with latches on the outer extrusion of the door frame. A ledge to be supplied over lift bar for additional area to aid in closing the door. The lift bar will be located at the bottom of door with striker latches installed at the base of the side frames. Side frame mounted door strikers will include support beneath the stainless steel lift bar to prevent door curtain bounce, improve bottom seal life expectancy and to avoid false door ajar signals. All injection molded roll-up door wear components will be constructed of Type 6 nylon. The door will have a 3.00 inch diameter balancer/tensioner drum to assist in lifting the door. The header for the roll-up door assembly will not exceed 4.00". A heavy-duty magnetic switch will be used for control of open compartment door warning lights.
0611794	Trim, Rollup Door, Painted Door Color, Amdor	ROLL-UP DOOR TRIM The exterior of the aluminum trim around the door opening will be painted to match the color of the applicable door. There will be eight (8) compartments located All body compartments and crosslay doors with the trim painted.
0768509	Lights, Compt, Amdor AY-LB-12HW0** LED, Dual Lt Strip	COMPARTMENT LIGHTING There will be seven (7) compartments that include Amdor, Model AY-LB12HW0**, white 12 volt DC LED compartment light strips with 45 degree brackets. The light manufacturers electrical connectors will be included in the circuit. The lights will be mounted with mechanical fasteners. There will be two (2) strip lights installed vertically in each compartment opening per the latest NFPA requirements. The lights will be activated when the battery switch is on and the respective compartment door is opened.
0594766	189" Hatch, (2) Lift-up, 21" Wide, RS Only, PUC/HDRP	HATCH COMPARTMENTS A hatch compartment 189.00" long x 21.00" wide x 22.00" maximum depth will be provided above the right side body compartments, with two (2) lift-up top opening hatch doors. The compartment will extend the full length of the side body compartmentation except for a 20.00" recessed step area at the rear of the compartment on the access side. Sides of the compartment will be constructed of the same material as the body and painted job color on the outside panels. A 2.00" tall formed painted aluminum trim will be provided to cover the seam between the top of the body panel and the bottom of the hatch compartment. The vertical outboard seam at the center of the compartment will have a 1.00" wide painted aluminum extrusion. Top of the compartment will be constructed of bright aluminum treadplate. Two (2) lift-up, bright aluminum treadplate doors will be provided on the top of the compartment, each door with a slam style latch with lever handle to hold the doors in the closed position. Double pan doors will have lipped edges with a rubber seal for weather resistance. Doors will be hinged on the outboard side and will be held open with pneumatic stay arms. Compartment will have a 3/4" drain that extends to below the body. Black rubber matting shall be provided to help prevent stored equipment in pooled water.

0732644	Handrails, (3), Hatch Step Area, Straight, Hansen Knurled Alum LED Backlit, Black	There will be three (3) separate straight handrails provided for the step landing at the rear of the hatch compartment. The handrails will be 1.25" diameter black anodized aluminum extrusion. The handrails will be Hansen LED backlit. The handrails will be lit with a red LED light. The handrails will be activated by the same means as the cab handrail light controls. E-coated and black powder coated stanchions will support the handrail. Plastic gaskets will be used between end stanchions and any painted surfaces. Drain holes will be provided in the bottom of all vertically mounted handrails.
0893291	Lights, Pump Cargo/Dunnage Forward Over Tank, Dual LED Light Strips, Each Side	PUMP CARGO/DUNNAGE AREA FORWARD OVER TANK LIGHTING There will be four (4), 12 volt DC strips lights, with white LEDs and stainless steel protective covers, provided to illuminate both the cargo area over the pump and forward over the water tank. One (1) light strip will be installed the entire length of the left side of the pump cargo area. One (1) light strip will be installed the entire length of the right side of the pump cargo area. One (1) light strip will be installed the entire length of the left side of the cargo area forward over the water tank. One (1) light strip will be installed the entire length of the right side of the cargo area forward over the water tank. The light(s) will be activated by the same switch control that has been selected for the hose bed light(s).
0687145	Shelf Tracks, Recessed, PUC/3rd Generation	MOUNTING TRACKS There will be recessed tracks installed vertically to support the adjustable shelf(s). Tracks will not protrude into any compartment in order to provide the greatest compartment space and widest shelves possible. The tracks will be provided in each compartment except for the one that contains the pump operator's panel.
0600350	Shelves, Adj, 500 lb Capacity, Full Width/Depth, Predefined Locations	ADJUSTABLE SHELVES There will be four (4) shelves with a capacity of 500 lb provided. The shelf construction will consist of .188" aluminum painted spatter gray with 2.00" sides. Each shelf will be infinitely adjustable by means of a threaded fastener, which slides in a track. The shelves will be held in place by .12" thick stamped plated brackets and bolts. The location(s) will be in RS1 centered between the floor and the ceiling to the right of the partition, in RS1 in the upper third to the right of the partition, in LS1 centered between the floor and ceiling and in LS3 in the upper third.
0601834	Tray, 215 lb, Tilt/Slide-Out, 30 Deg, Adj, Max Width/Depth, 3G	SLIDE-OUT/TILT-DOWN TRAY There will be three (3) slide-out trays provided. The bottom of each tray will constructed of 0.188" thick aluminum while special aluminum extrusions will be utilized for the tray sides, ends, and tracks. The corners will be welded to form a rigid unit. Each tray will be as wide and as deep as the compartment space will allow. The shelf will be aluminum painted spatter gray to match compartment interior . A spring loaded lock will be provided on each side at the front of the tray. Releasing the locks will allow the tray to slide out approximately two-thirds (2/3) of its length from the stowed position and tip 30 degrees down from horizontal. The tray will be equipped with ball bearing rollers for smooth operation. Rubber padded stops will be provided for the tray in the extended positions. The capacity rating of the tray will be a minimum of 215 lb in the extended position. The vertical position of the tray within the compartment will be adjustable. The tray(s) will be located RS2 - Centered LS2 - Upper Third LS2 - as close to the floor as possible .
0667235	Cable, Single Hand Operation, Tilt/Slide Out, Utility Trays	SINGLE HANDED CABLE LATCH A cable will be provided to tie together the two (2) spring loaded locks that are provided as standard at the front of a slide-out/tilt tray in order to provide single hand operation of the tray. The single hand operation cable will be provided on a total of three (3) slide-out trays located Tilt-out trays in LS2 and RS2.
0647091	Tray, Floor Mounted, Slide-Out, 500lb, 2.00" Sides	SLIDE-OUT FLOOR MOUNTED TRAY There will be two (2) floor mounted slide-out tray(s) provided. Each tray will have 2.00" high sides and a minimum capacity rating of 500 lb in the extended position. Each tray will be constructed of aluminum painted spatter gray. There will be two undermount-roller bearing type slides rated at 250 lb each provided. The pair of slides will have a safety factor rating of 2. To ensure years of dependable service, the slides will be coated with a finish that is tested to withstand a minimum of 1,000 hours of salt spray per ASTM B117. To ensure years of easy operation, the slides will require no more than a 50lb force for push-in or pull-out movement when fully loaded after having been subjected to a 40 hour vibration (shaker) test under full load. The vibration drive file will have been generated from accelerometer data collected from a heavy truck chassis driven over rough gravel roads in an unloaded condition. Proof of compliance will be provided upon request. Automatic locks will be provided for both the "in" and "out" positions. The trip mechanism for the locks will be located at the front of the tray for ease of use with a gloved hand. The location(s) will be RS1 and LS1.

0725644	Cabinet, Drawer Assembly, CTECH, Three Drawers, Up To 24" Wide, 24" Deep	DRAWER ASSEMBLY A slide-out drawer assembly will be installed Floor of LS3. The clear dimensions of the first drawer starting at the top will be 3.00" with a face plate that is 4.00" high x 21.00" deep. The clear dimensions of the second drawer will be 6.75" with a face plate that is 7.00" high x 21.00" deep. The clear dimensions of the third drawer will be 8.75" with a face plate that is 9.00" high x 21.00" deep. Each drawer will be the same width and not exceed 24.00". The drawers will have a capacity of 250 pounds. The drawers will be mounted in a cabinet housing constructed of light gray powder coated aluminum with anodized aluminum frames. The housing will be 24.00" deep, and completely enclose the drawer. A full-length aluminum extruded rail will be provided at the top edge of each drawer. This rail will act as the latching mechanism as well as the handle for each drawer. There will be a total of one (1) provided.
0617454	Toolboard, Slide-out, Alum, .188", Peg Board, Painted, 3G, Slides Top and Bottom	SLIDE-OUT TOOLBOARD A slide-out aluminum toolboard will be provided. It will have a painted finish to match the compartment interior. It will be a minimum of 0.188" thick with 0.203" diameter holes in a pegboard pattern with 1.00" centers between holes. A 1.00" x 1.00" aluminum tube frame will be welded to the edge of the pegboard. A handhold cutout will be provided on the outboard edge of the toolboard. The board will be mounted on an undermount-roller bearing type slide rated at 250 lb with a factor of safety of 2 at the bottom. To ensure years of dependable service the slides will be coated with a finish that is tested to withstand a minimum of 1,000 hours of salt spray per ASTM B117. To ensure years of easy operation, the slides will require no more than a 50 pound force for push-in or pull-out movement when fully loaded after having been subjected to a 40 hour vibration (shaker) test under full load. The vibration drive file will have been generated from accelerometer data collected from a heavy truck chassis driven over rough gravel roads in an unloaded condition. Proof of compliance will be provided upon request. The toolboard will have positive lock in the stowed and extended position. The board will also have a non locking roller bearing slide at the top. The toolboard will be mounted on adjustable tracks side to side within the compartment. There will be Two (2) provided. The toolboard(s) will be located RS3.
0654369	Recess, Partition, Right of Pump Operator's Panel, PUC	RECESS FOR MOUNTING There will be a recess in the partition of the pump operator's panel compartment just rearward of the pump panel. The recess will be full height starting 3.00" off the floor of the compartment and ending where the pump panel angles toward the outside of the body.
0797957	Pac Trac, Installed on Compartment Wall, Back Wall Only	EQUIPMENT MOUNTING SYSTEM Pac Trac equipment mounting system will be installed on the back wall of one (1) compartment (s), Upper wall of LS3.
0695412	Rack, Air Bags Inside Compartment, 2-Slot	AIR BAG STORAGE There will be a rack installed for storing two (2) air bags in the RS1 Compartment to serve as a divider between Little Giant and remaining compartment. compartment. The rack will be fabricated from painted spatter gray .125" aluminum. The fire department will provide exact sizes of air bags prior to construction. The size of the air bags will be Full height of compartment from floor to ceiling and 12" from left wall. Rack will be 3" wide (outside width). Each slot will be evenly in size vertically (27.25" tall)..
0775959	Strap, Nylon w/Velcro Hook & Loop, 2" wide	STRAP There will be two (2) black 2.00" wide nylon strap(s) that will provide positive restraint by hooking through a footman loop, similar to what is used with a hose bed flap. The strap(s) will be located (1) for each air bag slot . The strap(s) will have a Velcro® fastener.
0899067	Rub Rail, Black Plastic w/.50" Spacer, Body Sides, Light Cut Outs	RUB RAILS The bottom edge of the side body compartments will be trimmed with a black 1.00" thick x 2.63" high UHMW plastic rub rail. There will be 0.50" rubber spacers included between the rub rail and the body. The rub rails will not be an integral part of the body construction, which allows replacement in the event of damage. Cut outs will be provided in the rub rail for lighting.
0653982	Fender Crowns, Rear, Rubber, w/Removable Fender Liner, Pumper, 3G	BODY FENDER CROWNS Rubber fender crowns will be provided around the rear wheel openings. A fender liner constructed of aluminum painted to match the lower body color will be provided to avoid paint chipping. The liners will be removable to aid in the maintenance of rear suspension components.

0519849	Not Required, Hose, Hard Suction	HARD SUCTION HOSE Hard suction hose will not be required.
0759459	Handrails Located @ Front Body, Hansen Knurled Alum LED Backlit, Black	HANDRAILS Hansen handrails will be located on the front of the body in positions needed to meet NFPA requirements. The handrails will be Hansen LED black anodized backlit knurled aluminum. The handrails will be lit with a red LED light. The handrail lighting will be activated by the same means as the cab handrail light controls. E-coated and black powder coated end stanchions will support the handrail. Plastic gaskets will be used between end stanchions and any painted surfaces. Drain holes will be provided in the bottom of all vertically mounted handrails.
0759458	Handrails, Rear, Hansen Tubing, Knurled Aluminum, LED Backlit, Black, PUC	Two (2) vertical Hansen handrails will be located at the rear, one on each side of the rear compartment. The handrail will be black anodized knurled aluminum and backlit with a red LED light. E-coated and black powder coated end stanchions will support the handrail. Plastic gaskets will be used between end stanchions and any painted surfaces. The hand rail will be activated by the same means as the cab handrail light controls.
0764331	Handrail, Rear, Below Hose Bed, Full Width, Hansen, Knurled Alum LED Backlit, Black	One (1) full width horizontal handrail will be provided below the hose bed at the rear of the apparatus. The handrail will be Hansen LED backlit black anodized knurled aluminum. E-coated and black powder coated end stanchions will support the handrail. The handrail will be lit with a red LED light. The handrail will be activated with the application of the parking brake.
0753717	Handrail, Extra - 15-20" Long, Hansen Tubing, Knurled Alum LED Backlit, Black	- One (1) handrail, will be provided mounted DS upper rear bulkhead, left of the hose bed. The handrail will be 1.25" diameter black anodized aluminum extrusion, with a ribbed design, to provide a positive gripping surface. E-coated and black powder coated stanchions will support the handrail. Plastic gaskets will be used between end stanchions and any painted surfaces. The handrails will be Hansen LED backlit. The handrails will be lit with a red LED light. The handrails will be activated by the same means as the cab handrail light controls. Drain holes will be provided in the bottom of all vertically mounted handrails.
0816729	Compt, Extinguisher (2) Fender Panel, Triangular Door, 8"/8.5"Dia	EXTINGUISHER/AIR BOTTLE/ STORAGE (Triangular) A total of one (1) extinguisher/air bottle/storage compartments will be provided RS rear of wheels. The triangular shaped compartment will be sized to fit a 8.00" diameter extinguisher in the lower area and a 8.50" diameter extinguisher in the upper area. The compartment will be approximately 25.50" deep. A partition will be provided to separate the compartment. Also inside the compartment, black Dura-Surf friction reducing material will be provided. The compartment will be furnished with a drain hole. A painted stainless steel, triangular shaped door with a Southco raised trigger C2 black lever latch will be provided to contain the air bottles. A dielectric barrier will be provided between the door hinge, hinge fasteners and the body sheet metal. AIR BOTTLE COMPARTMENT STRAP A strap will be provided in the air bottle compartment(s) to help contain the bottles when the vehicle is parked on an incline. The strap will wrap around the neck and attach to the wall of the compartment.
0657522	Compt, Air Bottle, Triple, Fender Panel	AIR BOTTLE STORAGE (Triple) A quantity of two (2) air bottle compartments designed to hold (3) air bottles up to 7.25" in diameter x 26.00" deep will be provided on the left side forward of the rear wheels and on the right side forward of the rear wheels. A painted stainless steel door with a Southco raised trigger C2 black lever latch will be provided to contain the air bottle. A dielectric barrier will be provided between the door hinge, hinge fasteners and the body sheet metal. Inside the compartment, black Dura-Surf friction reducing material will be provided. AIR BOTTLE COMPARTMENT STRAP A strap will be provided in the air bottle compartment(s) to help contain the air bottles when the vehicle is parked on an incline. The strap will wrap around the neck and attach to the wall of the compartment.
0004225	Ladder, 24' Duo-Safety 900A 2-Section	EXTENSION LADDER There will be a 24' two-section aluminum Duo-Safety Series 900-A extension ladder provided.
0004230	Ladder, 14' Duo-Safety 775A Roof	ROOF LADDER There will be a 14' aluminum Duo-Safety Series 775-A roof ladder provided.

0638382	Rack, Ladders, LS Full Depth Body, PUC/HDRP	LADDER STORAGE The ladders will be stored inside the upper section of the left side compartments. This ladder rack will reduce the depth of the upper section in the side compartments. A partition will be installed inside the compartment on the side of the rack to allow for equipment storage and to conceal the ladders. The ladders will be banked in separate storage troughs. The ladder storage assembly will be fabricated of stainless steel track channels to aid in loading and removal of ladders. Rear of the ladder storage area will have a vertically hinged smooth aluminum door with a D-handle latch to contain the ladders. The door will be vertically hinged.
0733387	Ladder, 10' Duo-Safety Folding 585A	FOLDING LADDER One (1) 10.00' aluminum, Series 585-A, Duo-Safety folding ladder will be installed.
0733005	Compt w/Trough, Folding Ladder, In Upper Body, LS	FOLDING LADDER/LONG TOOL COMPARTMENT A compartment will be provided, recessed in the upper, inside part of body compartment on the left side. The compartment will be equipped with a stainless steel trough for the folding ladder and storage for long handle tools. A door constructed of smooth aluminum and hinged along the outboard edge will be provided at the rear with a Southco C2 black powder coated raised trigger latch.
0802284	Little Giant/Werner Ladder Storage, Vertical In Compartment	LITTLE GIANT LADDER STORAGE Storage will be provided in RS1 compartment for a Little Giant ladder. The ladder will be stored vertically in the compartment left of the air bag rack partition. A Velcro® strap will be provided to aid in restraint and removal of the Little Giant ladder. The ladder will be a Little Giant Revolution 2.0 Model 17 - 13117.
0816920	Pike Pole, Provided by Fire Department, NFPA/ULC 2024	PIKE POLE PROVIDED BY FIRE DEPARTMENT The pike poles are not on the apparatus as manufactured. The fire department will provide and mount the pike poles. There will be two (2) pike pole(s) provided. The pike pole(s) will be a Fire Hooks Unlimited 8' roof hook RH-8.
0816918	Pike Pole, 6', Provided by Fire Department, NFPA/ULC 2024	6' PIKE POLE PROVIDED BY FIRE DEPARTMENT The pike pole is not on the apparatus as manufactured. The fire department will provide and mount the pike poles. There will be two (2) 6' pike pole(s) provided. The pike pole(s) will be a Fire Hooks Unlimited 6 foot roof hook.
0732992	Tube, Pike Pole 6', In Upper Body Long Tool Storage Compt	PIKE POLE STORAGE A aluminum tube for a 6' pike pole with 1.38" notch, to accommodate a New York style pike pole will be provided in the upper body compartment on the left side. Two (2) pike poles will require a tube provided in this location.
0768409	Compt, Long Tools, Thru Body Compts, Right Side	LONG TOOL STORAGE One (1) compartment will be provided recessed in the upper section of the right side compartments. The compartment will be roughly 14" wide in size. A door will be provided at the rear of the compartment for access. The door will be made of smooth aluminum with a Southco C2 black powder coated raised trigger latch. The door will be hinged along the outboard edge.
0521734	No Steps Required, Front Of Body, PUC	
0724124	Steps, Folding, Rear of Body, w/LED, Trident, Black Powder Coat, PUC/HDRP	REAR FOLDING STEPS Black powder coat finished, non-skid folding steps with a a black tread coating on the stepping surface will be provided at the rear. Each step will incorporate an LED light to illuminate the stepping surface. The steps can be used as a hand hold with two openings wide enough for a gloved hand.
0724149	Step, Folding - Extra, Body Only, w/LED, Trident, Black Powder Coat	Two (2) additional folding steps will be located DS rear bulkhead to access upper long tool storage . The step(s) will be black powder coat finished, non-skid with a a black tread coating on the stepping surface. Each step will incorporate an LED light to illuminate the stepping surface. The step(s) can be used as a hand hold with two openings wide enough for a gloved hand.

0515692	Pump Operators Panel, 31", Control Zone, PUC	PUMP CONTROL PANELS (Left Side Control) Pump controls and gauges will be located midship at the left side of the apparatus and properly identified. The main pump operator's control panel will be completely enclosed and located in the forward section of the body compartment, to protect against road debris and weather elements. The pump operator's panels will be no more than 31.00" wide, and made in four (4) sections with the center section easily removable with simple hand tools. For the safety of the pump operator, there will be no discharge outlets or pump inlets located on the main pump operators panel. Layout of the pump control panel will be ergonomically efficient and systematically organized. The upper section will contain the master gauges. This section will be angled down for easy visibility. The center section will contain the pump controls aligned in two horizontal rows. The pressure control device, engine monitoring gauges, electrical switches, and foam controls (if applicable) will be located on or adjacent to the center panel, on the side walls for easy operation and visibility. The lower section will contain the outlet drains. Manual controls will be easy moving 8" long lever style controls that operate in a vertical, up and down swing motion. These handles will have a 2.25" diameter knob and be able to lock in place to prevent valve creep under any pressure. Bright finish bezels will encompass the opening, be securely mounted to the pump operator's panel, and will incorporate the discharge gauge bezel. Bezel will be bolted to the panel for easy removal and gauge service. The left side discharges will be controlled directly at the valve. There will be no push-pull style control handles. Identification tags for the discharge controls will be recessed within the same bezel. The discharge identification tags will be color coded, with each discharge having its own unique color. All remaining identification tags will be mounted on the pump panel in chrome-plated bezels. All discharge outlets will be color coded and labeled to correspond with the discharge identification tag. The pump panels for the midship discharge and intake ports will be located ahead of the body compartments with no side discharge or intake higher than the frame rail. The pump panels will be easily removable with simple hand tools. A recessed cargo area will be provided at the front of the body, ahead of the water tank above the plumbing.
0520016	Not Required, Pumphouse Structure, PUC	
0889383	Pump, Pierce, 2000 GPM, Single Stage, PUC-NG	PUMP Pump will be a Pierce, low profile, 2000 gpm single stage midship mounted centrifugal type, mounted below the cab. The pump will have a 15 percent reserve capacity to allow for extended time between pump rebuild. To ensure efficient pump/vehicle design the capacity to weight ratio will not be less than 1.5:1. The pump casing will consist of three (3) discharge outlets, one (1) to each side in line with the impeller and one (1) to the rear. The pump casing will incorporate two (2) water strippers to maintain radial balance. Pump will be the Class A type. Pump will be certified to deliver the percentage of rated discharge from draft at pressure indicated below: 100 percent of rated capacity at 150 psi net pump pressure 70 percent of rated capacity at 200 psi net pump pressure 50 percent of rated capacity at 250 psi net pump pressure The pump will have the capacity to deliver the percentage of rated discharge from a pressurized source as indicated below: 135 percent of rated capacity at 100 psi net pump pressure from a 5 psi source Pump body will be fine-grained gray iron. Pump will incorporate a heater/cooling jacket integral to the pump housing. The impeller will be high strength vacuum cast bronze alloy accurately machine balanced and splined to a ten (10) spline stainless steel pump shaft for precision fit, exceptional durability, and efficiency. Double replaceable reverse flow labyrinth type bronze wear ring design will help to minimize end thrust. The impeller will be a twisted vane design to create higher lift. No keyed shafts will be acceptable. The pump will include o-ring gaskets throughout the pump. Deep groove radial type oversize ball bearings will be provided. The bearings will be protected at the openings from road dirt and water with an oil seal and water slinger. The pump will have a flat, patterned area on the top of the pump intake wye to allow standing for plumbing maintenance. The main inlet manifold will be 6.00" in diameter and will have a low profile design to facilitate low crosslays and high flows. For ease of service, the pump housing, intake wye, impeller, mechanical seal, and gear case will be accessible from above the chassis frame by tilting the cab. Removal of the main inlet wyess will provide access to the impeller, mechanical seal, and wear ring. The tank to pump line and the primary discharge line will be the only piping required to be removed for overhaul. For ease of service and overhaul there will be no piping or manifolding located directly over the pump. PUMP MOUNTING Pump will be mounted to the chassis frame rails directly below the crew cab, to minimize wheelbase and facilitate service, using rubber isolators in a modified V pattern that include one (1) central mounted isolator located between the frame rails and one (1) on each side outside the frame rails. The mounting will allow chassis frame rails to flex independently without damage to the fire pump. Each isolator will be 2.55" in total outside diameter and will be rated at 490 lb. The pump will be completely accessible by tilting the cab with no piping located directly above the pump.

0515822	Seal, Mechanical, Silicon Carbide, PUC Pump	MECHANICAL SEALS Silicon carbide mechanical seals will be provided. The seals will be spring loaded and self-adjusting. The seals will have a minimum thermal conductivity of 126 W/m*K to run cooler. Seals will have a minimum hardness of 2800 kg/mm2 to be more resistant to wear, and have thermal expansion characteristics of no more than 4.0 X106mm/mm*K to be more resistant to thermal shock.
0889382	Gear Case, Integrated Pump Transmission, PUC-NG, Paccar	PUMP GEAR CASE The integrated pump transmission gear case will use a pressure-lubricated system to cool, lubricate, and filter the oil. The gear case will be constructed of lightweight aluminum, and impregnated with resin in accordance to MIL Spec MIL-I-17563. A sight glass, accessible by tilting the cab, will be provided for easy fluid level checks. The gear case will consist of three (3) gears to drive the pump. CLUTCH There will be a heavy-duty hydraulic clutch mounted directly to the integrated pump transmission to engage and disengage the pump without gear clash. The clutch will be a multiple disc design for maximum torque. The clutch will be fully self-adjusting to provide automatic wear compensation, and consistent torque throughout the life of the clutch. Positive engagement and disengagement will be provided through a high efficient and dependable hydraulic system to assure superior performance. LOW PRESSURE/HIGH TEMPERATURE LIGHTS Lights will be provided to indicate when a high temperature or low pressure situation occurs. Lights will be provided next to the master gauges at the pump panel as well as on the control panel in the cab. A pair of lights will be provided in each location. One light will be provided to indicate high temperature. The second light will be provided to indicate a low pressure. All lights will be labelled accordingly.
0721196	Pumping Mode, Pump and Roll/Stationary, Basic, MUX, PUC	PUMPING MODE Pump will provide for both pump and roll mode and stationary pumping mode. Stationary pumping mode will be accomplished by stopping the vehicle, setting the parking brake and engaging the water pump switch on the cab switch panel. The transmission will shift to "Neutral" range automatically when the parking brake is set. The "OK to Stationary Pump" indicator will also illuminate when the parking brake is set. If the vehicle is equipped with a suitable Husky foam system or Hercules CAFS system, these systems will be engaged from the cab switch panel as well. pump and roll mode will be accomplished by the use of the main pump and will not require the use of a secondary pump. pump and roll mode will use the same operation sequence as stationary pumping mode with a few additional steps. After the vehicle is setup for stationary pumping, the operator will leave the cab and setup the pump panel to discharge at the desired outlet(s). Upon returning to the cab, the operator will disengage the parking brake. An "OK to pump and roll" indicator will illuminate on the cab switch panel. First gear on the transmission gear selector will be selected by the operator for pump and roll operations. The operator as needed will apply the foot throttle. pump and roll mode will be maintained unless the transmission shifts out of first gear. Stopping either stationary pumping mode or pump and roll mode will be accomplished by pressing the "Water Pump" switch down to disengage the pump. A pump pressure reading will be displayed in view of the driver.
0515829	Pump Shift, Sure-Shift	PUMP SHIFT Pump will be engaged in not more than two steps, by simply setting the parking brake, which will automatically put the transmission into neutral, and activating a rocker switch in the cab. Switches in the cab will also allow for water, foam, or CAFS if equipped, and activate the appropriate system to preset parameters. The engagement will provide simple two-step operation, enhance reliability, and completely eliminate gear clash. The shift will include the indicator lights as mandated by NFPA. A direct override switch will be located behind a door in the lower pump operator's panel. The switch will automatically disengage when the door is closed. As the parking brake is applied, the pump panel throttle will be activated and deactivate the chassis foot throttle for stationary operation.
0515833	Transmission Lock-up, Not Req'd, Park to Neutral, Pump, PUC	TRANSMISSION LOCK UP Transmission lock up is not required as transmission will automatically shift to neutral as soon as the parking brake is set.
0515835	Auxiliary Cooling System, PUC	AUXILIARY COOLING SYSTEM A supplementary heat exchange cooling system will be provided to allow the use of water from the discharge side of the pump for cooling the engine water. A water-to-coolant heat exchanger will be used.
0014486	Not Required, Transfer Valve, Single Stage Pump	

0746508	Valve(s), Relief Intake, Trident Air Max, Control Location	INTAKE RELIEF VALVE One (1) Trident Air Max intake relief valve(s) will be installed on the suction side of the pump preset at 125 psig. The relief valve will have a working range of 50 psi to 350 psi. The outlet will terminate below the frame rails with a 2.50" National Standard hose thread adapter and will have a "do not cap" warning tag. One (1) adjustable air regulator and pressure indicating gauge will be located on a common bezel on the left side pump panel to control the intake valve(s).
0724463	Controller, Pressure, Pierce LCD , PUC	PIERCE PRESSURE CONTROLLER A Pierce electronic pressure controller will be provided. A pressure transducer will be installed in the discharge side of the water pump. The transducer continuously monitors pump pressure sending a signal to the electronic pressure controller. The pressure controller can be used in two (2) modes of operation, RPM mode and pressure modes. The controller will be programmed to turn on/default to No Mode/Default Press Setting mode. In the RPM mode, the controller can be activated after vehicle parking brake has been set. When in this mode, the controller will maintain the set engine speed, regardless of engine load (within engine operation capabilities). In the pressure mode, the controller can be activated after vehicle parking brake has been set. When in this mode, the controller will automatically maintain the discharge pressure set by the operator (within the discharge capabilities of the pump and water supply) regardless of flow. A 2.00" diameter throttle control knob with no mechanical stops, a serrated grip, and a red idle push button in the center will be a integrated/part of the pressure controller. The throttle control knob will be programmed for Clockwise rotation to increase engine speed. Individual LED indicators for ok to pump, throttle ready, pressure mode and rpm mode will be located on the pressure controller for easy viewing. A pump cavitation protection feature will also be provided which will return the engine to idle should the pump cavitate. Cavitation is sensed by the combination of pump pressure below 30 psi and engine speed above 2000 rpm for more than five (5) seconds. Other safety features include recognition of low water and no water conditions with an automatic programmed response and a push button to return the engine to idle. The pressure controller LCD screen will be 4.20" in size with a minimum brightness of 750 nits. The LCD screen and LED intensity will automatically adjust for day and nighttime operation. The LCD screen intensity can also be manually adjusted if needed. The following information will be provided/displayed on the LCD screen: Engine RPM Check engine and stop engine warning indicators Engine oil pressure Engine coolant temperature Water pump transmission temperature Fuel Level Water tank level Battery voltage Operating mode (RPM or pressure) Pressure or RPM setting On screen messaging show diagnostic and warning messages as they occur. It will show apparatus information, stored data, and program options when selected by the operator. It will monitor inputs outputs and support audible and visual warning alarms for the following conditions: High battery voltage Low battery voltage/engine off Low battery voltage/engine running High water pump temperature Low fuel Low engine oil pressure High engine coolant temperature Water tank out of water (visual alarm only) No engine response (visual alarm only) The pressure controller will store the accumulated operating hours for the pump and engine. These items are to be displayed within the pressure controller menu. The pressure controller will include a USB port on the back of the controller for easy software upgrades if needed.
0072153	Primer, Trident, Air Prime, Air Operated	PRIMING PUMP The priming pump will be a Trident Emergency Products compressed air powered, high efficiency, multistage venturi based AirPrime System, conforming to standards outlined in the current edition of applicable NFPA standards. All wetted metallic parts of the priming system are to be of brass and stainless steel construction. One (1) priming control will open the priming valve and start the pump primer.
0780359	Manuals, Pump, (2) Total, Electronic Copies, Pierce PUC Pump	PUMP MANUALS There will be a total of two (2) pump manuals provided by the pump manufacturer and furnished with the apparatus. The manuals will be provided by the pump manufacturer in the form of two (2) electronic copies. Each manual will cover pump operation, maintenance, and parts.

0602496	Plumbing, Stainless Steel and Hose, Single Stage Pump, PUC	PLUMBING, STAINLESS STEEL AND HOSE All inlet and outlet lines will be plumbed with either stainless steel pipe, flexible polypropylene tubing or synthetic rubber hose reinforced with hi-tensile polyester braid. All hose's will be equipped with brass or stainless steel couplings. All stainless steel hard plumbing will be a minimum of a schedule 10 wall thickness. Where vibration or chassis flexing may damage or loosen piping or where a coupling is required for servicing, the piping will be equipped with victaulic or rubber couplings. Plumbing manifold bodies will be ductile cast iron or stainless steel. All piping lines are to be drained through a master drain valve or will be equipped with individual drain valves. All drain lines will be extended with a hose to drain below the chassis frame. All water carrying gauge lines will be of flexible polypropylene tubing. All piping, hose and fittings will have a minimum of a 500 PSI hydrodynamic pressure rating.
0089437	Plumbing Without Foam System	
0517852	Inlets, 6.00" - 1250-2000 GPM, Pierce PUC Pump	MAIN PUMP INLETS A 6.00" pump manifold inlet will be provided on each side of the vehicle. The suction inlets will include removable die cast zinc screens that are designed to provide cathodic protection for the pump, thus reducing corrosion in the pump. Main pump inlets will not be located on the main operator's panel and will maintain a low connection height by terminating below the top of the chassis frame rail.
0014650	Pump Suction Tube(s), Short, All	SHORT SUCTION TUBE(S) The suction tube(s) on the water pump will have short suction tube(s) installed to allow for installation of adapters, elbows or intake valves without excessive overhang.
0004646	Cap, Main Pump Inlet, Long Handle, NST, VLH	MAIN PUMP INLET CAP The main pump inlets will have National Standard Threads with a long handle chrome cap. The cap will be the Pierce VLH, which incorporates an exclusive thread design to automatically relieve stored pressure in the line when disconnected.
0084610	Valves, Akron 8000 series- All	VALVES All ball valves will be Akron® Brass. The Akron valves will be the 8000 series heavy-duty style with a stainless steel ball and a simple two-seat design. No lubrication or regular maintenance is required on the valve. Valves will have a ten (10) year warranty.
0520002	Valve, Inlet(s) Recessed, Side Cntrl, PUC	The location of the valve for the one (1) inlet will be recessed behind the pump panel.
0004700	Control, Inlet, at Valve	INLET CONTROL The side auxiliary inlet(s) will incorporate a quarter-turn ball valve with the control located at the inlet valve. The valve operating mechanism will indicate the position of the valve.
0004660	Inlet (1), Left Side, 2.50"	LEFT SIDE INLET There will be one (1) auxiliary inlet with a 2.50" valve at the left side pump panel, terminating with a 2.50" (F) National Standard hose thread adapter. The auxiliary inlet will be provided with a strainer, chrome swivel and plug.
0029147	Not Required, Inlet, Right Side	
0521137	Anode, Zinc, Pair, Pump Inlets, PUC	ANODE, INLET A pair of sacrificial zinc anodes will be provided in the water pump inlets to protect the pump from corrosion.
0092569	No Rear Inlet (Large Dia) Requested	
0064116	No Rear Inlet Actuation Required	
0092696	Not Required, Cap, Rear Inlet	
0009648	No Rear Intake Relief Valve Required on Rear Inlet	

0092568	No Rear Auxiliary Inlet Requested	
0723049	Valve, .75" Bleeder, Aux. Side Inlet, "T" Swing Handle	INLET BLEEDER VALVE A 0.75" bleeder valve will be provided for each side gated inlet. The valves will be located behind the panel with a "T" swing style handle control extended to the outside of the panel. The handles will be chrome plated and provide a visual indication of valve position. The swing handle will provide an ergonomic position for operating the valve without twisting the wrist and provides excellent leverage. The water discharged by the bleeders will be routed below the chassis frame rails.
0520277	Tank to Pump, (1) 3.00" Valve, 4.00" Plumbing, PUC	TANK TO PUMP The booster tank will be connected to the intake side of the pump with heavy duty 4.00" piping and a quarter turn 3.00" full flow line valve with the control located at the operator's panel. A rubber coupling will be included in this line to prevent damage from vibration or chassis flexing. A check valve will be provided in the tank to pump supply line to prevent the possibility of "back filling" the water tank.
0595508	Outlet, Tank Fill, 1.50", PUC	TANK REFILL A 1.50" combination tank refill and pump re-circulation line will be provided, using a quarter-turn full flow ball valve controlled from the pump operator's panel.
0766941	Control, Outlets, Swing Handle, Elec Right Outlets Akron 9335 w/Press Disp, PUC	DISCHARGE OUTLET CONTROLS The right side discharges will incorporate a quarter-turn ball valve and be controlled by Akron 9335 electric valve controllers provided on the pump operators panel. The electric controls must be of a true position feedback design, requiring no clutches in the motor or current limiting. The units must be completely sealed with momentary open, close as well and an optional one touch full open feature to operate their corresponding valve actuator. The controllers will provide position indication on a full color, backlit LCD display. They will have manual adjustment of the brightness as well as an auto dimming option. In addition to the valve controls, the electric valve controllers will include a pressure display. All other outlets will have manual swing handles that operate in a vertical up and down motion. These handles will be able to lock in place to prevent valve creep under pressure.
0516755	Outlet, Left Side, 2.50" (2), PUC	LEFT SIDE DISCHARGE OUTLETS There will be two (2) discharges with a 2.50" valves on the left side of the apparatus, terminating with a 2.50" (M) National Standard hose thread adapter. Discharges will be located below the cab, and will be no higher than the top of the chassis frame rail. Discharges will not be located on the pump operator's panel. Lever controls will be provided at the valve.
0055095	Not Required, Elbow, Left Side Outlets, 2.50"	
0092570	Not Required, Outlets, Left Side Additional	
0035094	Not Required, Elbow, Left Side Outlets, Additional	
0766761	Outlet, Right Side, 2.50", (1), Electric Akron 9335 Controller, PUC	RIGHT SIDE DISCHARGE OUTLETS There will be One (1) discharge outlet with a 2.50" valve on the right side of the apparatus, terminating with a 2.50" MNST adapter. The discharge(s) will be located below the crew cab and will be no higher than the top of the chassis frame rail. There will be Akron 9335 electric valve controller(s) provided on the pump operators panel. The electric control(s) must be of a true position feedback design, requiring no clutches in the motor or current limiting. The unit(s) must be completely sealed with momentary open, close as well and an optional one touch full open feature to operate the valve actuator. The controller(s) will provide position indication on a full color, backlit LCD display. They will have manual adjustment of the brightness as well as an auto dimming option. In addition to valve position, each controller will include a pressure display.
0021134	Not Required, Elbow, Right Side Outlets, 2.50"	
0092571	Not Required, Outlets, Right Side Additional	
0089584	Not Required, Elbow, Right Side Outlets, Additional	

0818640	Outlet, Large Diameter, Right Side, Akron Valve, PUC	LARGE DIAMETER DISCHARGE OUTLET There will be an Akron 8800 4.00" flat ball valve with 4.00" plumbing terminating with a 4.00" MNST chrome adapter on the right side pump panel. The valve will be controlled with a(n) Akron 9335 with pressure located at the pump operator's panel.
0699320	Adapter, 4.00" FNST x 5.00" Storz, w/Cap and Chain, PUC	LARGE DIAMETER OUTLET ADAPTER one (1) 4.00" outlet will be furnished with a 4.00" (F) National Standard hose thread x 5.00" Storz adapter. A 5.00" Storz cap and chain will be provided with the adapter.
0649939	Outlet, Front, 1.50" w/2" Plumbing	FRONT DISCHARGE OUTLET There will be one (1) 1.50" discharge outlet piped to the front of the apparatus and located in the center bumper tray. Plumbing will consist of 2.00" piping and flexible hose with a 2.00" ball valve with control at the pump operator's panel. A fabricated weldment made of stainless steel pipe will be used in the plumbing where appropriate. The piping will terminate with a 1.50" NST with 90 degree stainless steel swivel. There will be automatic drains provided at all low points of the piping.
0516777	Outlet, Rear, 2.50", (1), Thru Tank, PUC	REAR DISCHARGE OUTLET There will be One (1) discharge outlet piped to the rear of the hose bed on left side, installed so proper clearance is provided for spanner wrenches or adapters. Plumbing will consist of 2.50" piping along with a 2.50" full flow ball valve with the control from the pump operator's panel. Discharge will terminate with 2.50" NST thread. Discharge piping will be schedule 10 304L welded or formed stainless steel and routed through the water tank.
0045091	Elbow, Rear Outlets, 45 Degree, 2.50" FNST x 2.50" MNST, VLH	REAR OUTLET ELBOWS The 2.50" discharge outlets located at the rear of the apparatus will be furnished with a 2.50" (F) National Standard hose thread x 2.50" (M) National Standard hose thread, chrome plated, 45 degree elbow. The elbow will be Pierce VLH, which incorporates an exclusive thread design to automatically relieve stored pressure in the line when disconnected.
0516782	Outlet, Rear, 2.50" w/2.50" Plumbing, Thru Tank, PUC, Additional	REAR DISCHARGE OUTLET There will be Two (2) discharge outlets piped to the rear of the hose bed, on two (2) on the right side, installed so proper clearance is provided for spanner wrenches or adapters. Plumbing will consist of 2.50" piping along with a 2.50" full flow ball valve with the control from the pump operator's panel. Discharge will terminate with 2.50" NST thread. Discharge piping will be schedule 10 304L welded or formed stainless steel and routed through the water tank.
0536635	Elbow, Rear Outlets, 45 Degree, 2.50" FNST x 2.50" MNST, VLH, PUC, Additional	ADDITIONAL REAR OUTLET ELBOWS Two (2) discharge outlets 2.50" discharge outlets, located at the rear of the apparatus, will be furnished with a 2.50" (F) National Standard hose thread x 2.50" (M) National Standard hose thread, chrome plated, 45 degree elbow. The elbow will be the Pierce VLH, which incorporates an exclusive thread design to automatically relieve stored pressure in the line when disconnected.
0752097	Caps/Plugs for 1.00" to 3.00" Discharges/Inlets, Chain	DISCHARGE CAPS/ INLET PLUGS Chrome plated, rocker lug, caps with chain will be furnished for all discharge outlets 1.00" thru 3.00" in size, besides the pre-connected hose outlets. Chrome plated, rocker lug, plugs with chain will be furnished for all auxiliary inlets 1.00" thru 3.00" in size. The caps and plugs will incorporate a thread design to automatically relieve stored pressure in the line when disconnected.
0723042	Valve, 0.75" Bleeder, Discharges, "T" Swing Handle	OUTLET BLEEDER VALVE A 0.75" bleeder valve will be provided for each outlet 1.50" or larger. Automatic drain valves are acceptable with some outlets if deemed appropriate with the application. The valves will be located behind the panel with a T swing style handle control extended to the outside of the side pump panel. The handles will be chrome plated and provide a visual indication of valve position. The T swing handle will provide an ergonomic position for operating the valve without twisting the wrist and provides excellent leverage. Bleeders will be located at the bottom of the pump panel. They will be properly labeled identifying the discharge they are plumbed in to. The water discharged by the bleeders will be routed below the chassis frame rails.

0753335	Outlet, 3.00" Deluge w/2.50" Valve, Dual Control, LG HW's, PUC	DELUGE RISER A 3.00" deluge riser will be installed above the pump in such a manner that a monitor can be mounted and used effectively. 3.00" piping will be installed securely so no movement develops when the line is charged. The riser will be gated and controlled at the pump operator's panel by a large handwheel control. A 2.50" valve will be provided. The deluge riser will allow flow for 1000 GPM. DUAL CONTROL There will be a second large handwheel control, within reach of the deluge appliance operator.
0770359	No Monitor Requested, Customer/Dealer Furnished and Installed	MONITOR A customer/dealer supplied and installed make and model TFT Crossfire monitor will be properly installed on the deluge riser.
0029304	No Nozzle Req'd	
0005070	Deluge Mount, NPT	The deluge riser will have male National Pipe Threads for mounting the monitor.
0750982	Crosslay Module, Full Width, Roll Up Doors, PUC	CROSSLAY MODULE The crosslay module will be full width of the rear body. The forward, upper corners of the module will have full body corners. The crosslay module will be manufactured for installation of roll up doors on each side.
0750897	Doors, Crosslay, Roll-up Amdor, Each End, Full Height, PUC	ROLL-UP DOOR, CROSSLAY ENDS, PUC All compartment doors will be roll-up style double faced, aluminum construction, painted two (2) colors to match the rear body paint break and manufactured by AMDOR™. The crosslay enclosure will be full width of the body. The track will be the flanged track with the screws installed to the rear of the track guide. The slats will be double wall box frame extrusion. The exterior surface will be flat and the interior surface will be concave to help loose equipment fall to the ground and prevent it from jamming the door. Between each slat will be a PVC inner seal to prevent metal to metal contact and prevent dirt or moisture from entering the compartments. Each door will have a 4.00" counter balance to assist in lifting. A polished stainless steel lift bar to be provided for each roll-up door. The lift bar will be located at the bottom of door with striker latches installed at the base of the side frames. Side frame mounted door strikers will include support beneath the stainless steel lift bar to prevent door curtain bounce, improve bottom seal life expectancy and to avoid false door ajar signals. The crosslays will have a drip pan below the roll of the door.
0747660	Lights, Crosslay Compt, Forward LED, 2Lts	CROSSLAY COMPARTMENT LIGHTING There will be two (2) 12 volt DC light strips with white LEDs and mechanical fasteners, provide behind the front door frame on the crosslay compartments per the following: One (1) strip light for the left side crosslay compartment door One (1) strip light for the right side crosslay compartment door The lights will be activated when the battery switch is on and the respective door is opened.
0737370	Crosslays, (1) 2.50", W/Poly Trays, PUC	CROSSLAY(S), LOWER There will be one (1) lower crosslays provided. 2.50" Crosslays There will be one (1) 2.50" crosslays plumbed with 2.50" welded or formed schedule 10 304L stainless steel pipe. The crosslays will be low mounted with the bottom of both crosslay trays no more than 11.00" above the frame rails for simple, safe reloading and deployment (no exception). There will be a 2.50" National Standard hose thread 90-degree swivel provided in each hose bed, so that the hose may be removed from either side of apparatus. The swivel will be as far outbound as possible for ease of changing hose. Each crosslay will be gated with a 2.50" quarter turn ball valve with the controls located at the pump operator's panel. Each hose bed will be capable of carrying 200' of 3" DJ Hose . Crosslay Hose Trays A removable tray will be provided for each crosslay hose bed. The crosslay tray will be constructed of black poly to provide a lightweight sturdy tray. Two (2) hand holes will be in the floor and additional hand holes will be provided in the sides for easy removal and installation from the compartment. The floor of the trays will be perforated to allow for drainage and hose drying. Trays will be held in place by a mechanical spring-loaded stainless-steel latch that automatically deploys upon loading the trays to hold the trays in place during transit.

0749435	Crosslays, (2) 1.50", W/Poly Trays, PUC	CROSSLAY(S), UPPER There will be two (2) upper crosslays provided. 1.50" Crosslays There will be two (2) 1.50" crosslays plumbed with 2.00" welded or formed schedule 10 304L stainless steel pipe. There will be a 1.50" National Standard hose thread 90-degree swivel provided in each hose bed, so that the hose may be removed from either side of apparatus. The swivel will be as far outbound as possible for ease of changing hose. Each crosslay will be gated with a 2.00" quarter turn ball valve with the controls located at the pump operator's panel. Each hose bed will be capable of carrying 200' of 1.75" double jacket hose . Crosslay Hose Trays A removable tray will be provided for each crosslay hose bed. The crosslay tray will be constructed of black poly to provide a lightweight sturdy tray. Two (2) hand holes will be in the floor and additional hand holes will be provided in the sides for easy removal and installation from the compartment. The floor of the trays will be perforated to allow for drainage and hose drying. Trays will be held in place by a mechanical spring-loaded stainless-steel latch that automatically deploys upon loading the trays to hold the trays in place during transit.
0729571	Tube, Aluminum, Pike Pole, Special Ny Style Notch, Upper Crosslay Module, PUC	PIKE POLE STORAGE A quantity of two (2) pike poles aluminum tubes will be provided and located (1) deployed out DS and (1) deployed out PS in the upper crosslay module. The pike pole tube(s) will be notched to allow a New York style pike pole to fit in the tube. If the head of a pike pole can come in contact with a painted surface, a stainless steel scuffplate will be provided.
0653355	Reel, Booster, Steel, Rear Tailboard Compartment, PUC/HDRP	BOOSTER HOSE REEL A Hannay electric rewind steel booster hose will be installed in the rear tailboard compartment. The exterior finish of the reel will be painted #269 gray from the reel manufacturer. Roll-up door for this compartment will not interfere with the hose reel. A polished stainless steel roller and guide assembly will be provided so the booster hose does not rub against a painted surface. Discharge control will be provided at the pump operator's panel. Plumbing to the reel will consist of 1.50" or larger Aeroquip hose, stainless steel pipe and a 2.00" valve. HOSE REEL BLOWOUT A hose reel blowout will be furnished to blow out any remaining water from the hose reel. The blowout will be piped from the wet tank of the brake system to the hose reel and will be controlled at the pump operator's panel.
0005279	Switch, Reel Rewind - One at Reel	Reel motor will be protected from overload with a circuit breaker rated to match the motor. An electric rewind control switch will be installed adjacent to the reel.
0005300	Hose, Booster - 150' of 1.00"/800 PSI	Booster hose, 1.00" diameter and 150 feet, with chrome plated Barway, or equal couplings will be provided. Working pressure of the booster hose will be a minimum of 800 psi.
0005244	Capacity, Hose Reel 200' of 1"	Capacity of the hose reel will be 200 feet of 1.00" booster hose.
0007428	Nozzle for Booster Reel Not Req'd	
0044333	Not Required, Foam System	FOAM SYSTEM A foam system will not be required on this apparatus.
0012126	Not Required, CAF Compressor	
0552517	Not Required, Refill, Foam Tank	
0042573	Not Required, Foam System Demonstration	
0045465	Not Required, Foam Tanks	
0091110	Not Required, Foam Tank Drain	
0091079	Not Required, Foam Tank #2	

0091112	Not Required, Foam Tank #2 Drain	
0738072	Approval Dwg, Pump Panel(s), Not Required	
0032479	Pump Panel Configuration, Control Zone	PUMP PANEL CONFIGURATION The pump panel configuration will be arranged and installed in an organized manner that will provide user-friendly operation.
0686774	Material, Pump Panels, Operators Black UL-LX, Sides Black UL-LX, PUC	PUMP AND GAUGE PANEL The pump operators panel and gauge panels will be constructed of stainless steel. The pump panels on the left and right side will be constructed of stainless steel. All of the panels will be covered with black UL-LX® spray-on polyurethane/polyurea material finish.
0516978	Pump and Plumbing Access, Simple Tilt Service, PUC	PUMP AND PLUMBING ACCESS Simple access to the plumbing will be provided through the front of the body area by raising the cab for complete plumbing service and valve maintenance. Access to valves will not require removal of operator panels or pump panels. Access for rebuilding of the pump will not require removal of more than the tank to pump line and a single discharge line. This access will allow for fast, easy valve or pump rebuilding, making for reduced out of service times. Steps will be provided for access to the top of the pump. Access to the pump will be provided by raising the cab. The pump will be positioned such that all maintenance and overhaul work can be performed above the frame and under the tilted cab. The service and overhaul work on the pump will not require the removal of operator panels or pump panels. Complete pump casing and gear case removal will require no more than removal of the intake and discharge manifolds, driveline, coolers and a single discharge line. The pump case and gear case will be able to be removed by lifting upward without interference from piping and be removable in less than 3 hours.
0618458	Light, Pump Compt, Wln 3SC0CDCR LED White, PUC	PUMP COMPARTMENT LIGHT There will be one (1) Whelen®, Model 3SC0CDCR, 3.00" white 12 volt DC LED light(s) with Whelen, Model 3FLANGEC, flange(s) installed in the plumbing area. The light(s) will be activated by a toggle switch located in the pump compartment area.
0516983	Gauges, Engine, Included With Pressure Controller, PUC	Engine monitoring graduated LED indicators will be incorporated with the pressure controller.
0005601	Throttle, Engine, Incl'd w/Press Controller	
0739224	Indicator Light @ Pump Panel, Throttle Ready, Incl w/Pressure Gov/Throttle,Green	THROTTLE READY GREEN INDICATOR LIGHT There will be a green indicator light integrated with the pressure governor and/or engine throttle installed on the pump operators panel that is activated when the pump is in throttle ready mode.
0549333	Indicators, Engine, Included with Pressure Controller	
0511078	Gauges, 4.00" Master, Class 1, 30"-0-600psi	VACUUM AND PRESSURE GAUGES The pump vacuum and pressure gauges will be liquid filled and manufactured by Class 1 Incorporated. The gauges will be a minimum of 4.00" in diameter and will have white faces with black lettering, with a pressure range of 30.00"-0-600#. Gauge construction will include a Zytel nylon case with adhesive mounting gasket and threaded retaining nut. The pump pressure and vacuum gauges will be installed adjacent to each other at the pump operator's control panel. Test port connections will be provided at the pump operator's panel. One (1) will be connected to the intake side of the pump, and the other to the discharge manifold of the pump. They will have 0.25 in. standard pipe thread connections and non-corrosive polished stainless steel or brass plugs. They will be marked with a label. This gauge will include a 10 year warranty against leakage, pointer defect, and defective bourdon tube.
0511100	Gauge, 2.00" Pressure, Class 1, 30"-0-400psi	PRESSURE GAUGES The individual "line" pressure gauges for the discharges will be Class 1 interlube filled. They will be a minimum of 2.00" in diameter and have white faces with black lettering. Gauge construction will include a Zytel nylon case with adhesive mounting gasket and threaded retaining nut. Gauges will have a pressure range of 30"-0-400#. The individual pressure gauge will be installed as close to the outlet control as practical. This gauge will include a 10 year warranty against leakage, pointer defect, and defective bourdon tube.

0750526		Gauge, Water Level, Pierce, In pressure Controller, Lt Driver	WATER LEVEL GAUGE An electric water level gauge will be incorporated in the pressure controller that registers water level by means of nine (9) LEDs. They will be at 1/8 level increments with a tank empty LED. The LEDs will be a bright type that is readable in sunlight and have a full 180-degree of clear viewing. To further alert the pump operator, the gauge will have a warning flash when the tank volume is less than 25 percent. The gauge will have down chasing LEDs when the tank is almost empty. The level measurement will be ascertained by sensing the head pressure of the fluid in the tank or cell. There will be a light driver module with this installation to power additional water level gauge(s) included on the apparatus.
0604028		Water Level Gauge, FRC, MaxVision WLA280-A00 Programmable Remote Display	ADDITIONAL WATER LEVEL GAUGE There will be two (2) additional Fire Research MaxVision, model WLA280-A00, water tank remote indicator(s) provided and installed Each side of cab behind crew doors up high. The indicators will show the volume of water in the tank on 96 easy to see super bright Tri-color LEDs. The indicator case will be waterproof and manufactured of Polycarbonate material with an integrated lens. The remote indicator will indicate the level as a single color: - Red for 25 percent or less - Amber for up to 50 percent volume - Blue for up to 75 percent volume - Green for up to 100 percent volume When the level reaches 25 percent, the red LEDs will begin flashing. When the level is empty, the red LEDs will scroll in a down-chasing motion and then flash three (3) times. The flash rate will be determined by the main water tank sensor. It will have the program capability to adjust the brightness level for day time and night time viewing. The LEDs can also be programmed for different colors. This module will be activated when the battery switch is on.
0006774		Not Required, Foam Level Gauge	
0653081		Light, Pump Operator & Panel, Side Ctrl, PUC, 60354C LED Cab & LED OH Chr Cvr	SIDE CONTROL PUMP OPERATOR'S/PUMP PANEL LIGHTING Illumination will be provided for controls, switches, essential instructions, gauges, and instruments necessary for the operation of the apparatus and the equipment provided on it. External illumination will be a minimum of five (5) foot-candles on the face of the device. Internal illumination will be a minimum of four (4) footlamberts. The pump panels will be illuminated by two (2) Truck-Lite, Model 60354C, 6.00" x 2.00" oval white LED lights with Model 60700, grommets and chrome covers installed on the back of the cab, one (1) on the driver's side and one (1) on the passenger's side. The pump operator's panel will utilize the same LED strip lighting at the forward doorframe as all other compartment lighting. There will be a small white LED pump engaged indicator light installed overhead.
0828301	SP	Air Horn, (2) Hadley, 6" Round, 21.00", eTone, Black, In Bumper	AIR HORN SYSTEM Two (2) Hadley®, eTone, 21.00" long black air horns will be recessed in the front bumper. The air horn system will be piped to the air brake system wet tank utilizing 0.38" tubing. A pressure protection valve will be installed to prevent the loss of air, in the brake system.
0606834		Location, Air Horns, Bumper, Each Side, Outside Frame, Inboard (Pos #2 & #6)	Air Horn Location The air horns will be located on each side of the bumper, just outside of the frame rails.
0757092		Control, Air Horn, Multi Select	Air Horn Control The air horn(s) will be activated by the following:
0757076		Control, Air Horn, Lanyard, RS	Right side lanyard. The lanyard to be a link chain inside vinyl tubing.
0757077		Control, Air Horn, Lanyard, LS	Left side lanyard. The lanyard to be a link chain inside vinyl tubing.
0525667		Siren, Wln 295SLSA1, 100 or 200 Watt	ELECTRONIC SIREN A Whelen®, Model 295SLSA1, electronic siren with noise canceling microphone will be provided. This siren to be active when the battery switch is on and that emergency master switch is on.
0510206		Location, Elect Siren, Recessed Overhead In Console	Electronic siren head will be recessed in the driver side center switch panel.
0748306		Control, Elec Siren, Multi Select	ELECTRONIC SIREN CONTROL The electronic siren will be activated by the following:

0748287	Control, Elec Siren, Rocker/Membrane Sw, RS	The right side momentary switch.
0805709	Control, Elec Siren, Horn Ring, Interlock	The steering wheel horn ring with siren/horn selector switch. The control to be available when the parking brake is released.
0783670	Speaker, (2) Wln, SA315P, w/Pierce Black Painted Grille, 100 watt	SPEAKERS There will be two (2) Whelen®, Model SA315P, black nylon composite, 100-watt, speakers with through bumper mounting brackets and black steel grilles provided. Each speaker will be connected to the siren amplifier.
0601559	Location, Speaker, Frt Bumper, Recessed, Each Side, Inside Frame (Pos 3 & 5)	The speakers will be recessed in each side of the front bumper, inside of the frame rails.
0895310	Siren, Federal Q2B	AUXILIARY MECHANICAL SIREN There will be a Federal Signal Model Q2B mechanical siren furnished and installed in the front of the apparatus. The Q2B will be black chrome finish. The siren will have a 2-gauge cable connected to a power solenoid that is connected by a 2-gauge cable ran battery direct to the primary chassis batteries and will be labeled Q2B+ at the battery. The power solenoid will only be enabled when the emergency master switch is on. The siren will have a 2-gauge ground wire connected to the chassis battery stud. The cable will be labeled Q2B- at the battery.
0006095	Siren, Mechanical, Mounted Above Deckplate	The mechanical siren will be mounted on the bumper deck plate. It will be mounted on the left side. A reinforcement plate will be furnished to support the siren.
0748305	Control, Mech Siren, Multi Select	MECHANICAL SIREN CONTROL The mechanical siren will be activated by the following:
0748282	Control, Mech Siren, Ft Sw LS	Left side foot switch.
0729537	Control Mech Siren, Rocker Momentary On, Brake RS	The siren will be controlled by a 3-position rocker switch located in the cab on the right side switch panel. The switch will control the siren per the following: The momentary top position will activate the mechanical siren. The home middle position will be neutral. The momentary bottom position will apply the mechanical siren brake.
0737437	Sw, Siren Brake, Momentary Red, Pnl 9, Saber FR/Enf	A momentary red switch will be included in switch panel #9 to activate the siren brake.
0734674	Sw, Siren Brake, Mom Rocker, Red Outline, RS Overhead Sw Pnl, Mux	A momentary rocker switch will be included in the right side overhead switch panel to activate the siren brake. There will be a red outline decal around the black rocker switch.
0746353	Not Required, Warning Lights Intensity	

0807805	Lightbar, Wln, Freedom IV-D, 72", RRRRWRRROptRRRWRRRR	FRONT ZONE UPPER WARNING LIGHTS There will be one (1) 72.00" Whelen® Freedom™ IV LED lightbar mounted on the cab roof. The lightbar will include the following: One (1) photocell to dim the lightbar LED modules when the parking brake is applied and in low light conditions. One (1) red flashing LED module in the left side rear corner position. One (1) red flashing LED module in the left side end position. One (1) red flashing LED module in the left side front corner position. One (1) red flashing LED module in the left side first front position. One (1) white flashing LED module in the left side second front position. One (1) red flashing LED module in the left side third front position. One (1) red flashing LED module in the left side fourth front position. One (1) red flashing LED module in the left side fifth front position. One (1) 795 LED traffic light controller set to national standard high priority in the center positions. One (1) red flashing LED module in the right side fifth front position. One (1) red flashing LED module in the right side fourth front position. One (1) red flashing LED module in the right side third front position. One (1) white flashing LED module in the right side second front position. One (1) red flashing LED module in the right side first front position. One (1) red flashing LED module in the right side front corner position. One (1) red flashing LED module in the right side end position. One (1) red flashing LED module in the right side rear corner position. There will be clear lenses included on the lightbar. The following switches may be installed in the cab on the switch panel to control the lightbar: a switch to control the flashing LED modules. the traffic light controller will be activated by a cab switch with emergency master control, and there will be a driver's side momentary cab switch with no emergency master control to activate the traffic light controller. The two (2) white flashing LED modules and the traffic light controller will be disabled when the parking brake is applied. The eight (8) red flashing LED modules in the front positions, and the two red (2) flashing LED modules in the end positions may be load managed when the parking brake is applied.
0016380	No Additional Lights Req'd, Side Zone Upper	
0734071	Lights, Front Zone, Wln M6** M6** M6** M6** LED, Q Bzl, 4lts	LIGHTS, FRONT ZONE LOWER There will be four (4), Whelen® Model M6** 4.32" high x 6.75" wide x 1.37" deep flashing LED warning lights installed on the cab face above the headlights in twin bezels. The left side outside warning light to include red LEDs The left side inside warning light to include red LEDs The right side inside warning light to include red LEDs The right side outside warning light to include red LEDs The warning light lens color(s) to be clear The housing and trim shall be painted black The lights may be controlled per the following: A switch on the cab instrument panel will control the lights White LEDs will be deactivated when the parking brake is applied Amber LEDs will be activated when the parking brake is applied Amber, blue green or red LEDs in the inside positions may be load managed when the parking brake is applied
0826917	Light, Front, Roto Ray 4000W, PAR46 LED, 2-R, 1-W,Hdn Mt Tp Sct Grl Blk,VoidWrnt	ROTO RAY LIGHT There will be one (1) Roto Ray, Model 4000W rotating warning light provided on the front of the cab mounted through the top section of the front grille. This warning light will include the following: Two (2) PAR46 lights with red LEDs and clear lenses One (1) PAR46 light with white LEDs and a clear lens There will be a switch in the cab on the switch panel to control this light. The rotation motor and the warning lights will be deactivated when the parking brake is applied. The exterior parts of this assembly will be painted black. Portions painted in house will void the warranty.
0653937	Flasher, Headlight Alternating	HEADLIGHT FLASHER The high beam headlights will flash alternately between the left and right side. There will be a switch installed in the cab on the switch panel to control the high beam flash. This switch will be live when the battery switch and the emergency master switches are on. The flashing will automatically cancel when the hi-beam headlight switch is activated or when the parking brake is set.

0747228	Lights, Side Zone Lower, Wln M6**, M6**, M6**, 6Lts	SIDE ZONE LOWER LIGHTING There will be six (6) Whelen®, Model M6**, 4.31" high x 6.75" long x 1.37" deep flashing LED warning lights with black trim installed per the following: Two (2) lights located, one (1) each side on the bumper extension. The driver's side, side front light to include red warning LEDs and the passenger's side, side front light to include red warning LEDs. Two (2) lights located, one (1) each side of cab rearward of crew cab doors. The driver's side, side middle light to include red warning LEDs and the passenger's side, side middle light to include red warning LEDs. Two (2) lights located, one (1) each side above rear wheels. The driver's side, side rear light to include red warning LEDs and the passenger's side, side rear light to include red warning LEDs. The warning light lens color(s) to be clear. There will be a switch in the cab on the switch panel to control the lights.
0896616	Lights, Door Interior Flash, 4 Dr Cab, Weldon 8401-0000-20 Strip Light	INTERIOR CAB DOOR WARNING LIGHTS There will be four (4) Weldon, Model 8401-0000-20, 16" long x 3/4" High x 5/8" deep amber 12 volt DC LED flashing strip lights provided. One (1) light on the left side cab door. One (1) light on the right side cab door. One (1) light on the right side crew cab door. One (1) light on the left side crew cab door. Each light will be located over the door window.. Each light will be activated when the battery switch is on, respective door is opened and the ignition switch is on. Each light will be installed so the flash pattern directs traffic away from the doors.
0815847	Connectors, Door Interior Flash, All Cabs, Weatherproof	ELECTRICAL CONNECTORS FOR WARNING LIGHTS The lights will be installed with a weatherproof insulated crimped connectors in order to provide ease of connection/disconnection of the circuit applied to.
0745867	Lights, Side, Wln M9** LED, Trm Fet 1st	SIDE WARNING LIGHTS There will be two (2) Whelen®, Model M9**, 6.50" high x 10.37" wide x 1.37" deep flashing LED warning light(s) with black trim provided, DS and PS front upper body corners. The light(s) to include green LEDs. The warning light lens color(s) to be clear. These lights will be activated with the side warning switch. White LEDs will be deactivated when the parking brake is applied. Amber, blue, green or red LEDs may be load managed when the parking brake is applied.
0827630	Lights, Side, Wln WION* LED, Recessed in Cab Steps, 4lts	SIDE WARNING LIGHTS There will be four (4) Whelen®, Model WION* wide angle flashing LED warning lights with universal mounting brackets provided and mounted as follows: One (1) recessed in the driver's side cab step on the front, vertical surface, below bottom of door. The left side, side front light to include red LEDs. One (1) recessed in the driver's side crew cab step on the front, vertical surface, below bottom of door. The left side, side rear light to include red LEDs. One (1) recessed in the passenger's side crew cab on the front, vertical surface, below bottom of door. The right side, side rear light to include red LEDs. One (1) recessed in the passenger's side cab step on the front, vertical surface, below bottom of door. The right side, side front light to include red LEDs. The lenses for these lights will be clear. These lights will be activated with the side warning switch. These lights may be load managed when the parking brake is applied. White LEDs will be deactivated when the parking brake is applied.
0804023	Lights, Side, Wln WIONSM** LED, Mounted Behind Poly Rub Rail, 1st	SIDE WARNING LIGHTS There will be four (4) Whelen®, Model WIONSM** LED light(s) provided and located behind the body poly rub rails Centered below LS1, LS3, RS1, RS3. The poly rub rails will be cut out to allow the light(s) to shine through the poly rub rails. The color of each light will be red LED with a clear lens. Each light will be provided with black trim and mounting gasket. Any white light(s) will be disabled when the park brake is set.
0894842	Lights, Rear Zn Lwr, Wln M6*, For Tail Lt Housings	REAR ZONE LOWER WARNING LIGHTS There will be two (2) Whelen®, Model M6**, 4.31" high x 6.75" wide x 1.37" deep flashing LED warning lights located in the rear tail light housings of the apparatus per the following: The driver's side rear light to be red. The passenger's side rear light to be red. The lens color(s) to be clear. There will be a switch located in the cab on the switch panel to control the lights.
0747386	Lights, Rear, Wln 6RB** LED, Features 1st	REAR WARNING LIGHTS There will be two (2) Whelen®, Model 6RB**, LED flashing warning light(s) with Whelen, black trim provided DS and PS rear bulkheads below M9 warning lights. The color of the lights will be red. The color of the lens of the light(s) will be clear. These lights will be activated with the rear upper warning switch.

0725515	Lights, Rear/Side Up Zone, Wln M9*C LED, Clear Lens, Flange Kit, 4lts	WARNING LIGHTS (Rear and Side upper zones) Four (4) Whelen, model M9*C LED flashing warning lights will be provided at the rear of the apparatus. The side rear upper light(s) on the driver's side to be red. The rear upper light(s) on the driver's side to be red. The rear upper light(s) on the passenger's side to be red. The side rear upper light(s) on the passenger's side to be red. These lights will include a lens that is clear. These lights will include a black trim . There will be a switch located in the cab on the switch panel to control the lights.
0006551	Not Required, Lights, Rear Upper Zone Blocking	
0590000	No Hose Bed Warn Lts Brkts Required, Lts On Hatch/Body Compts,PUC	
0751112	Lights, Traffic Directing, Wln TLIA Amber LED, 8 Lts, TACTL5	TRAFFIC DIRECTING LIGHT There will be eight (8) Whelen® Model TLIA, 1.50" high x 5.14" long x 0.50" deep lights with amber LEDs, clear lenses and black trim installed at the rear of the apparatus as a traffic directing light. There will be one (1) Whelen, Model TACTL5 control head energized when the battery switch is on, included with this installation. The auxiliary flash to be activated when the emergency master switch is on.
0791018	Location, TDL, Surface Mounted, Hose Bed Cover Rear Flange	The lights used as traffic directing will be surface mounted on the rear vertical flange of the hose bed cover as close to the center as practical.
0530288	Location, Traf Dir Lt Controller, Overhead Recessed Console, above Eng Tnl DS	The traffic directing light controller will be located within the overhead recessed console above the engine tunnel on the driver's side.
0772909	Light Twr, W-B Chf NS2.3-600 WHL, 4-P*H2, 12VDC Lts Cld 7.5'	LIGHT TOWER There will be one (1) Will-Burt, Model NS2.3-600 WHL, light tower provided. There will be four (4) Whelen, Model P*H2, 150 watt 12 volt LED DC light heads included on this tower. The light tower will have with a combination of flood and spot optics lights. The painted parts of the light tower and the light heads to be white. This tower will be connected to the Do Not Move Truck Indicator in the cab. The lights included on this tower may be load managed when the parking brake is applied.
0664471	Location, Light Tower, Cargo Area	Light Tower Location The light tower will be installed in the cargo area.
0617750	Controller, Lt Twr, W-B, Wired Hndhld, E-STOP Chf, Chf Pr, Pow Pr	Light Tower Controller There will be one (1) handheld wired controller included.
0782222	Location, Light Tower Controller, PUC Pump Panel Area, Recess Rear Wall	Light Tower Controller Location The light tower controller will be recessed in the partition wall just rearward of the pump panel. An open top bin at the base of the recess will be provided in this recessed location to help retain the controller cord.
0779707	Receptacle Strip, 20A 120V 6-Place, Interior Body	POWER OUTLET STRIP There will be one (1) receptacle strip(s) with six (6) 20 amp 120 volt AC straight blade receptacles provided RS1 on right wall centered from floor to ceiling. The strip(s) selected will be powered from the shoreline to 120 volt AC power inverter internal transfer sw through a receptacle located adjacent to the strip(s). There will be a label installed near the strip(s) that state the following: Line Voltage Current Rating (amps) Phase Frequency

0783678	Receptacle, 15/20A 120V 3-Pr 3-Wr, NEMA 5-20R SB Dup, 1st	120 VOLT RECEPTACLE There will be two (2), 15/20 amp 120 volt AC three (3) wire straight blade duplex receptacle(s) with interior stainless steel wall plate(s), installed Interior on inboard wall, up high of LS/RS rear facing EMS cabinets. The NEMA configuration for the receptacle(s) will be 5-20R. The receptacle(s) will be powered from the shoreline to 120 volt AC power inverter internal transfer sw. There will be a label installed near the receptacle(s) that state the following: Line Voltage Current Rating (amps) Phase Frequency
0519934	Not Required, Brand, Hydraulic Tool System	
0649753	Not Required, PTO Driven Hydraulic Tool System	
0816508	NFPA Required Loose Equipment, Pumper, NFPA/ULC 2024, Provided by Fire Dept	NFPA LOOSE EQUIPMENT NFPA Required Loose Equipment Provided by Fire Department The following loose equipment as outlined in NFPA 1900, 2024 edition, table 8.1 and CAN/ULC S515:2024 edition, section 5.2 will be provided by the fire department: One (1) traffic vest for each seating position, each vest to comply with ANSI/ISEA 207, <i>Standard for High Visibility Public Safety Vests</i> , and have a five-point breakaway feature that includes two (2) at the shoulders, two (2) at the sides, and one (1) at the front. Five (5) fluorescent orange traffic cones not less than 28.00" (711 mm) in height, each equipped with a 6.00" (152 mm) retro-reflective white band no more than 4.00" (152 mm) from the top of the cone, and an additional 4.00" (102 mm) retro-reflective white band 2.00" (51 mm) below the 6.00" (152 mm) band. Five (5) illuminated warning devices such as highway flares, unless the five (5) fluorescent orange traffic cones have illuminating capabilities. NFPA Loose Equipment That Should be Considered The following loose equipment as outlined in NFPA 1900, 2024 edition, appendix table A.8.4 (a) and CAN/ULC S515:2024 edition, section 5.2 should be considered: 800 ft (60 m) of 2.50" (65 mm) or larger fire hose. 400 ft (120 m) of 1.50" (38 mm), 1.75" (45 mm), or 2.00" (52 mm) fire hose. One (1) handline nozzle, 200 gpm (750 L/min) minimum. Two (2) handline nozzles, 95 gpm (360 L/min) minimum. One (1) smooth bore or combination nozzle with shutoff and with 2.50" (65 mm) inlet that flows a minimum of 250 gpm (950 L/min). Four (4) SCBA apparatus Four (4) SCBA spare cylinders One (1) first aid kit. Four (4) combination spanner wrenches. Two (2) hydrant wrenches. One (1) double female 2.50" (65 mm) adapter with national hose (NH) threads. One (1) double male 2.50" (65 mm) adapter with national hose (NH) threads. One (1) rubber mallet, for use on suction hose connections. Two (2) salvage covers each a minimum size of 12 ft × 18 ft (3.7 m × 5.5 m). One (1) automatic external defibrillator (AED).
0816941	Soft Suction Hose, Provided by Fire Department, NFPA/ULC 2024	SOFT SUCTION HOSE PROVIDED BY FIRE DEPARTMENT Hose is not on the apparatus as manufactured. The fire department will provide suction or supply hose.
0027023	No Strainer Required	
0816939	Extinguisher, Dry Chemical, NFPA 2024, Provided by Fire Department	DRY CHEMICAL EXTINGUISHER PROVIDED BY FIRE DEPARTMENT The extinguisher is not on the apparatus as manufactured. The fire department will provide and mount the extinguisher.
0816937	Extinguisher, 2.5 Gal. Pressurized Water, NFPA/ULC 2024, Provided by Fire Dept	WATER EXTINGUISHER PROVIDED BY FIRE DEPARTMENT The extinguisher is not on the apparatus as manufactured. The fire department will provide and mount the extinguisher.
0816998	Axe, Flathead, Provided by Fire Department	FLATHEAD AXE PROVIDED BY FIRE DEPARTMENT The axe is not on the apparatus as manufactured. The fire department will provide and mount the axe.
0817000	Axe, Pickhead, Provided by Fire Department	PICKHEAD AXE PROVIDED BY FIRE DEPARTMENT The axe is not on the apparatus as manufactured. The fire department will provide and mount the axe.

0741569	Paint Process / Environmental Requirements, Appleton	PAINT PROCESS The exterior custom cab and body painting procedure will consist of a seven (7) step finishing process as follows: <u>Manual Surface Preparation</u> - All exposed metal surfaces on the custom cab and body will be thoroughly cleaned and prepared for painting. Imperfections on the exterior surfaces will be removed and sanded to a smooth finish. Exterior seams will be sealed before painting. Exterior surfaces that will not be painted include; chrome plating, polished stainless steel, anodized aluminum and bright aluminum treadplate. <u>Chemical Cleaning and Pretreatment</u> - All surfaces will be chemically cleaned to remove dirt, oil, grease, and metal oxides to ensure the subsequent coatings bond well. The aluminum surfaces will be properly cleaned and treated using a high pressure, high temperature 4 step Acid Etch process. The steel and stainless surfaces will be properly cleaned and treated using a high temperature 3 step process specifically designed for steel or stainless. The chemical treatment converts the metal surface to a passive condition to help prevent corrosion. <u>Surfacer Primer</u> - The Surfacer Primer will be applied to a chemically treated metal surface to provide a strong corrosion protective basecoat. A minimum thickness of 2 mils of Surfacer Primer is applied to surfaces that require a Critical aesthetic finish. The Surfacer Primer is a two-component high solids urethane that has excellent sanding properties and an extra smooth finish when sanded. <u>Finish Sanding</u> - The Surfacer Primer will be sanded with a fine grit abrasive to achieve an ultra-smooth finish. This sanding process is critical to produce the smooth mirror like finish in the topcoat. <u>Sealer Primer</u> - The Sealer Primer is applied prior to the Basecoat in all areas that have not been previously primed with the Surfacer Primer. The Sealer Primer is a two-component high solids urethane that goes on smooth and provides excellent gloss hold out when topcoated. <u>Basecoat Paint</u> - Two coats of a high performance, two component high solids polyurethane basecoat will be applied. The Basecoat will be applied to a thickness that will achieve the proper color match. The Basecoat will be used in conjunction with a urethane clear coat to provide protection from the environment. <u>Clear Coat</u> - Two (2) coats of Clear Coat will be applied over the Basecoat color. The Clear Coat is a two-component high solids urethane that provides superior gloss and durability to the exterior surfaces. Lap style and roll-up doors will be Clear Coated to match the body. Paint warranty for the roll-up doors will be provided by the roll-up door manufacturer. After the cab and body are painted, the color will be verified to make sure that it matches the color standard. Electronic color measuring equipment will be used to compare the color sample to the color standard entered into the computer. Color specifications will be used to determine the color match. A Delta E reading will be used to determine a good color match within each family color. All removable items such as brackets, compartment doors, door hinges, and trim will be removed and painted separately if required, to ensure paint behind all mounted items. Body assemblies that cannot be finish painted after assembly will be finish painted before assembly. The paint finish quality levels for critical areas of the apparatus (cab front and sides, body sides and doors, and boom lettering panels) are to meet or exceed Cadillac/General Motors GMW15777 global paint requirements. Orange peel levels are to meet or exceed the #6 A.C.T. standard in critical areas. The manufacture's written paint standards will be available upon request. Environmental Impact Contractor will meet or exceed all current state regulations concerning paint operations. Pollution control will include measures to protect the atmosphere, water and soil. Controls will include the following conditions: Topcoats and primers will be chrome and lead free. Metal treatment chemicals will be chrome free. The wastewater generated in the metal treatment process will be treated on-site to remove any other heavy metals. Particulate emission collection from sanding operations will have a 99.99 percent efficiency factor. Particulate emissions from painting operations will be collected by a dry filter or water wash process. If the dry filter is used, it will have an efficiency rating of 98 percent. Water wash systems will be 99.97 percent efficient. Water from water wash booths will be reused. Solids will be removed on a continual basis to keep the water clean. Paint wastes are disposed of in an environmentally safe manner. Empty metal paint containers will be recycled to recover the metal. Solvents used in clean-up operations will be recycled on-site or sent off-site for distillation and returned for reuse. Additionally, the finished apparatus will not be manufactured with or contain products that have ozone depleting substances. Contractor will, upon demand, present evidence that the manufacturing facility meets the above conditions and that it is in compliance with his state EPA rules and regulations.
0709566	Paint, Two-Tone Color, Enforcer	TWO-TONE CAB PAINT The cab will be painted two-tone with the upper section painted #101 black and the lower section painted #90 red. There will be a standard two-tone cab paint break provided. There will be a standard cab shield provided.
0709833	Paint, Two-Tone Color, Body	TWO-TONE BODY PAINT The body will be painted two-tone with the upper section painted to match the upper section of the cab and the lower section painted to match the lower section of the cab. The body paint break will be above the body compartment door openings.

0646901	Paint Chassis Frame Assy, With Liner, E-Coat, Standard	PAINT CHASSIS FRAME ASSEMBLY The chassis frame assembly will be finished with a single system black top coat before the installation of the cab and body, and before installation of the engine and transmission assembly, air brake lines, electrical wire harnesses, etc. Components that are included with the chassis frame assembly that will be painted (unless otherwise stated in a secondary option) are: Frame rails Frame liners Cross members Axles Suspensions Steering gear Battery boxes Bumper extension weldment Frame extensions Body mounting angles Rear Body support substructure (front and rear) Pump house substructure Steel fuel tank Castings Individual piece parts used in chassis and body assembly Components treated with epoxy E-coat protection prior to paint: Two (2) C-channel frame rails Two (2) frame liners The E-coat process will meet the technical properties shown.
0693798	Paint, Front Wheels	FRONT WHEELS PAINT All wheel surfaces, inside and outside, will be provided with paint black #101.
0693793	Paint, Rear Wheels, Single Axle	REAR WHEELS PAINT All wheel surfaces, inside and outside, will be provided with paint black #101.
0733739	Paint, Axle Hubs	AXLE HUB PAINT All axle hubs will be painted to match lower job color.
0007230	Compartment, Painted, Spatter Gray	COMPARTMENT INTERIOR PAINT The interior of all compartments will be painted with a gray spatter finish for ease of cleaning and to make it easier to touch up scratches and nicks.
0544129	Reflective Band, 1"-6"-1"	REFLECTIVE STRIPES Three (3) reflective stripes will be provided across the front of the vehicle and along the sides of the body. The reflective band will consist of a 1.00" black stripe at the top with a 1.00" gap then a 6.00" black stripe with a 1.00" gap and a 1.00" black stripe on the bottom.
0007356	Reflective across Cab Face	The reflective band provided on the cab face will be at the headlight level.
0820076	Stripe, Chevron, Rear, Reflective, NFPA/ULC 2024, Pumper, PUC	REAR CHEVRON STRIPING There will be alternating chevron striping located on the rear-facing vertical surface of the apparatus. The rear surface, excluding the rear roll up door will be covered. The colors will be black and ruby red reflective. Each stripe will be 6.00" in width.
0073811	Folded "Z" Ribbon in Reflective Stripe, Pair	FOLDED RIBBON IN REFLECTIVE STRIPE There will be one (1) folded type ribbon/s added to the reflective stripe LS3 and RS3.
0609444	SP Stripe, Sign Gold Outline Above Reflective Band	SIGN GOLD STRIPE There will be a Sign Gold stripe applied above the reflective band. The sign gold stripes will be 1.00" wide with an outline.
0512024	Stripe, Reflective, Chevron/Inverted "V", On Front Bumper	CHEVRON/INVERTED "V" STRIPING ON THE FRONT BUMPER There will be alternating chevron striping located on the front bumper. The striping will consist of the following colors: The first color will be black The second color will be ruby red The size of the striping will be 6.00".

0509398	Stripe, Reflective, Chevron, Cab and Crew Cab Doors Interior	INVERTED "V" CHEVRON STRIPING ON CAB AND CREW CAB DOORS There will be alternating chevron striping located on the inside of each cab and crew cab door. The striping will consist of the following colors: The first color will be black The second color will be ruby red The size of the striping will be 6.00".
0679822	Stripe, Sign Gold, Two-Tone Paint Break with Shield, IPO Chrome Molding	CAB STRIPE There will be a Sign Gold stripe provided on both sides of the cab in place of the chrome molding and on the cab face with shield.
0594559	Lettering Specifications, (Sign Gold Process)	LETTERING The lettering will be 22 karat gold vinyl.
0685931	Lettering, Sign Gold, 3.00", (61-80)	LETTERING Sixty-one (61) to eighty (80) Sign Gold lettering, 3.00" high, with outline will be provided.
0685744	Lettering, Sign Gold, 10.00", (1-20)	LETTERING One (1) to twenty (20) Sign Gold lettering, 10.00" high, with outline will be provided.
0685798	Lettering, Sign Gold, 6.00", (1-20)	LETTERING One (1) to twenty (20) Sign Gold lettering, 6.00" high, with outline will be provided.
0685817	Lettering, Sign Gold, 4.00", Each	LETTERING There will be sign gold lettering, 4.00" high, with outline provided. There will be eight (8) letters provided.
0695610	Emblem, Reflective, Per Dept. Submittal, Each	EMBLEM There will be five (5) reflective emblem(s), approximately 14.00" - 16.00" in size, installed Crew doors, EMS compt. doors, and rear roll up door. the emblem will be modeled after the department submitted information (art, patch, etc).
0769755	Emblem, Texas Flag Painted on Cab Grille, All Custom Chassis	CAB GRILLE DESIGN A Texas flag design will be painted on the cab grille.
0772003	Manual, Fire Apparatus Parts, USB Flash Drive, Custom	FIRE APPARATUS PARTS MANUAL There will be one (1) custom parts manual(s) in USB flash drive format for the complete fire apparatus provided. The manual(s) will contain the following: Job number Part numbers with full descriptions Table of contents Parts section sorted in functional groups reflecting a major system, component, or assembly Parts section sorted in alphabetical order Instructions on how to locate parts Each manual will be specifically written for the chassis and body model being purchased. It will not be a generic manual for a multitude of different chassis and bodies. Service Parts Internet Site The service parts information included in these manuals are also available on the Pierce website. The website offers additional functions and features not contained in this manual, such as digital photographs and line drawings of select items. The website also features electronic search tools to assist in locating parts quickly.

0772037	Manual, Chassis Service, USB Flash Drive, Custom	CHASSIS SERVICE MANUALS There will be one (1) chassis service manuals on USB flash drives containing parts and service information on major components provided with the completed unit. The manual will contain the following sections: Job number Table of contents Troubleshooting Front Axle/Suspension Brakes Engine Tires Wheels Cab Electrical, DC Air Systems Plumbing Appendix The manual will be specifically written for the chassis model being purchased. It will not be a generic manual for a multitude of different chassis and bodies.
0773381	Manual, Chassis Operation, (1) USB Flash Drive, Custom	CHASSIS OPERATION MANUAL The chassis operation manual will be provided on one (1) USB flash drive.
0030008	Warranty, Basic, 1 Year, Apparatus, WA0008	ONE (1) YEAR MATERIAL AND WORKMANSHIP A Pierce basic apparatus limited warranty certificate, WA0008, is included with this proposal.
0735523	Warranty, Engine, Paccar MX13, 5 Year, WA0386	ENGINE WARRANTY A Paccar five (5) year limited engine warranty will be provided. A limited warranty certificate is included with this proposal.
0684953	Warranty, Steering Gear, Sheppard M110, 3 Year WA0201	STEERING GEAR WARRANTY A Sheppard three (3) year limited steering gear warranty will be provided. A copy of the warranty certificate will be submitted with this proposal.
0596017	Warranty, Frame, 50 Year, Custom Chassis, WA0013	FIFTY (50) YEAR STRUCTURAL INTEGRITY The Pierce custom chassis frame only (does not include crossmembers) limited warranty certificate, WA0013, is included with this proposal.
0595698	Warranty, Axle, 3 Year, TAK-4, WA0050	FRONT AXLE THREE (3) YEAR MATERIAL AND WORKMANSHIP WARRANTY The Pierce TAK-4 suspension limited warranty certificate, WA0050, is included with this proposal.
0610485	Warranty, Axle, Eaton/Dana, 5 Year/100,000 Mile, Parts and Labor	REAR AXLE WARRANTY A Eaton five (5)-year/100,000 mile parts and labor warranty will be provided.
0652758	Warranty, ABS Brake System, 3 Year, Meritor Wabco, WA0232	ABS BRAKE SYSTEM THREE (3) YEAR MATERIAL AND WORKMANSHIP WARRANTY A Meritor Wabco™ ABS brake system limited warranty certificate, WA0232, is included with this proposal.
0019914	Warranty, Structure, 10 Year, Custom Cab, WA0012	TEN (10) YEAR STRUCTURAL INTEGRITY The Pierce custom cab limited warranty certificate, WA0012, is included with this proposal.
0744240	Warranty, Paint, 10 Year, Cab, Pro-Rate, WA0055	TEN (10) YEAR PRO-RATED PAINT AND CORROSION A Pierce cab limited pro-rated paint warranty certificate, WA0055, is included with this proposal.
0524627	Warranty, Electronics, 5 Year, MUX, WA0014	FIVE (5) YEAR MATERIAL AND WORKMANSHIP The Pierce Command Zone electronics limited warranty certificate, WA0014, is included with this proposal.
0695416	Warranty, Pierce Camera System, WA0188	CAMERA SYSTEM WARRANTY A Pierce fifty four (54) month warranty will be provided for the camera system.
0708760	Warranty, Not Applicable, LED Strip Lights	COMPARTMENT LIGHT WARRANTY The compartment lights will not offer an extended warranty.

0046369	Warranty, 5-year EVS Transmission, Standard Custom, WA0187	TRANSMISSION WARRANTY The transmission will have a five (5) year/unlimited mileage warranty covering 100 percent parts and labor. The warranty will be provided by Allison Transmission. Note: The transmission cooler is not covered under any extended warranty you may be getting on your Allison Transmission. Please review your Allison Transmission warranty for coverage limitations.
0685945	Warranty, Transmission Cooler, WA0216	TRANSMISSION COOLER WARRANTY The transmission cooler will carry a five (5) year parts and labor warranty (exclusive to the transmission cooler). In addition, a collateral damage warranty will also be in effect for the first three (3) years of the warranty coverage and will not exceed \$10,000 per occurrence. A copy of the warranty certificate will be included with this proposal.
0688798	Warranty, Water Tank, Lifetime, UPF, Poly Tank, WA0195	WATER TANK WARRANTY A UPF poly water tank limited warranty certificate, WA0195, is included with this proposal.
0596025	Warranty, Structure, 10 Year, Body, WA0009	TEN (10) YEAR STRUCTURAL INTEGRITY The Pierce apparatus body limited warranty certificate, WA0009, is included with this proposal.
0693126	Warranty, AMDOR, Roll-up Door, 10 Year/5 Year Painted, WA0185	ROLL UP DOOR MATERIAL AND WORKMANSHIP WARRANTY An AMDOR roll-up door limited warranty will be provided. The roll-up door will be warranted against manufacturing defects for a period of ten (10) years . A five (5) year limited warranty will be provided on painted roll up doors. The limited warranty certificate, WA0185, is included with this proposal.
0889364	Warranty, Pump, Pierce, PUC-NG, 7 Year Parts, 1 Year Labor, WA0390	SEVEN (7) YEAR PARTS, ONE (1) YEAR LABOR The pump and its components will be provided with a seven (7) year parts and one (1) year labor limited warranty. The manufacturer's warranty will provide that the pump and its components will be free from failures caused by defects in material and workmanship that would arise under normal use and service. A copy of the warranty certificate will be submitted with the bid package.
0648675	Warranty, 10 Year S/S Pumping, WA0035	TEN (10) YEAR PUMP PLUMBING WARRANTY The Pierce apparatus plumbing limited warranty certificate, WA0035, is included with this proposal.
0641372	Warranty, Foam System, Not Available	
0595820	Warranty, Paint, 10 Year, Body, Pro-Rate, WA0057	TEN (10) YEAR PRO-RATED PAINT AND CORROSION A Pierce body limited pro-rated paint warranty certificate, WA0057, is included with this proposal.
0595412	Warranty, Graphics Lamination, 1 Year, Apparatus, WA0168	ONE (1) YEAR MATERIAL AND WORKMANSHIP The Pierce graphics fading and deterioration limited warranty limited warranty certificate, WA0168, is included with this proposal.
0819254	Certification, Vehicle Stability, CD0196	VEHICLE STABILITY CERTIFICATION The fire apparatus manufacturer will provide a certification stating the apparatus complies with NFPA 1900, current edition, section 7.14, Vehicle Stability. The certification is included with this proposal.
0808565	Certification, Engine Installation, Enf, Paccar MX, 2027	ENGINE INSTALLATION CERTIFICATION The fire apparatus manufacturer will provide a certification, along with a letter from the engine manufacturer stating they approve of the engine installation in the bidder's chassis. The certification will be provided at the time of delivery.
0686786	Certification, Power Steering, CD0098	POWER STEERING CERTIFICATION The fire apparatus manufacturer will provide a certification stating the power steering system as installed meets the requirements of the component supplier. The certification is included with this proposal.

0892691	Certification, Cab Integrity, Saber FR/Enforcer, CD0189	CAB INTEGRITY CERTIFICATION The fire apparatus manufacturer will provide a cab crash test certification with this proposal. The certification will state that a specimen representing the substantial structural configuration of the cab has been tested and certified by an independent third party test facility. Testing events will be documented with photographs, real-time and high-speed video, vehicle accelerometers, cart accelerometers, and a laser speed trap. The fire apparatus manufacturer will provide a state licensed professional engineer to witness and certify all testing events. Testing will meet or exceed the requirements below: SAE J2422 Cab Roof Strength Evaluation - Quasi-Static Loading Heavy Trucks. European Occupant Protection Standard ECE Regulation No.29. SAE J2420 COE Frontal Strength Evaluation - Dynamic Loading Heavy Trucks. Side Impact The cab will be subjected to dynamic preload where a 14,320-lb moving barrier is slammed into the side of the cab at 5.50 mph, striking with an impact of 13,000 ft-lb of force. This test is part of the SAE J2422 test procedure and more closely represents the forces a cab will see in a rollover incident. Frontal Impact The same cab will withstand a frontal impact of 32,600 ft-lb of force using a moving barrier in accordance with SAE J2420. Additional Frontal Impact The same cab will withstand a frontal impact of 65,098 ft-lb of force using a moving barrier. (Twice the force required by SAE J2420) Roof Crush The cab will be subjected to a roof crush force of 22,500 lb. This value meets the ECE 29 criteria, and is equivalent to the front axle rating up to a maximum of ten (10) metric tons. Additional Roof Crush The same cab will be subjected to a roof crush force of 110,000 lbs. (Four and a half times the load criteria of ECE 29) The same cab will withstand all tests without any measurable intrusion into the survival space of the occupant area. There will be no exception to any portion of the cab integrity certification. Nonconformance will lead to immediate rejection of bid.
0631973	Certification, Cab Door Durability, Saber FR/Enforcer, CD0137	CAB DOOR DURABILITY CERTIFICATION Robust cab doors help protect occupants. Cab doors will survive a 200,000 cycle door slam test where the slamming force exceeds 20 G's of deceleration. The bidder will certify that the sample doors similar to those provided on the apparatus have been tested and have met these criteria without structural damage, latch malfunction, or significant component wear.
0631978	Certification, Windshield Wiper Durability, Saber FR/Enforcer, CD0132	WINDSHIELD WIPER DURABILITY CERTIFICATION Visibility during inclement weather is essential to safe apparatus performance. Windshield wipers will survive a 3 million cycle durability test in accordance with section 6.2 of SAE J198 <i>Windshield Wiper Systems - Trucks, Buses and Multipurpose Vehicles</i>. The bidder will certify that the wiper system design has been tested and that the wiper system has met these criteria.
0631974	Certification, Electric Window Durability, Saber FR/Enforcer, CD0133	ELECTRIC WINDOW DURABILITY CERTIFICATION Cab window roll-up systems can cause maintenance problems if not designed for long service life. The window regulator design will complete 30,000 complete up-down cycles and still function normally when finished. The bidder will certify that sample doors and windows similar to those provided on the apparatus have been tested and have met these criteria without malfunction or significant component wear.
0631977	Certification, Seat Belt Anchors and Mounting, Saber FR/Enforcer, CD0134	SEAT BELT ANCHOR STRENGTH Seat belt attachment strength is regulated by Federal Motor Vehicle Safety Standards and should be validated through testing. Each seat belt anchor design will withstand 3000 lb of pull on both the lap and shoulder belt in accordance with FMVSS 571.210 Seat Belt Assembly Anchorages. The bidder will certify that each anchor design was pull tested to the required force and met the appropriate criteria. SEAT MOUNTING STRENGTH Seat attachment strength is regulated by Federal Motor Vehicle Safety Standards and should be validated through testing. Each seat mounting design will be tested to withstand 20 G's of force in accordance with FMVSS 571.207 Seating Systems. The bidder will certify, at time of delivery, that each seat mount and cab structure design was pull tested to the required force and met the appropriate criteria.

0735949	Certification, Cab HVAC System Performance, SFR/Enf, CD0165/CD0167/CD0174/CD0175	PERFORMANCE CERTIFICATIONS Cab Air Conditioning Good cab air conditioning temperature and air flow performance keeps occupants comfortable, reduces humidity, and provides a climate for recuperation while at the scene. The cab air conditioning system will cool the cab from a heat-soaked condition at 100 degrees Fahrenheit to an average of 78 degrees Fahrenheit in 30 minutes. The bidder will certify that a substantially similar cab has been tested and has met these criteria. Cab Defroster Visibility during inclement weather is essential to safe apparatus performance. The defroster system will clear the required windshield zones in accordance with SAE J381 Windshield Defrosting Systems Test Procedure And Performance Requirements - Trucks, Buses, And Multipurpose Vehicles. <i>The bidder will certify that the defrost system design has been tested in a cold chamber and passes the SAE J381 criteria.</i> Cab Auxiliary Heater <i>Good cab heat performance and regulation provides a more effective working environment for personnel, whether in-transit, or at a scene. An auxiliary cab heater will warm the cab 77 degrees Fahrenheit from a cold-soak, within 30 minutes when tested using the coolant supply methods found in SAE J381. The bidder will certify, at time of delivery, that a substantially similar cab has been tested and has met these criteria.</i>
0545073	Amp Draw Report, NFPA Current Edition	AMP DRAW REPORT The bidder will provide, at the time of bid and delivery, an itemized print out of the expected amp draw of the entire vehicle's electrical system. The manufacturer of the apparatus will provide the following: Documentation of the electrical system performance tests. A written load analysis, which will include the following: The nameplate rating of the alternator. The alternator rating under the conditions specified per: Current edition of applicable NFPA standards. The minimum continuous load of each component that is specified per: Current edition of applicable NFPA standards. Additional loads that, when added to the minimum continuous load, determine the total connected load. Each individual intermittent load. All of the above listed items will be provided by the bidder per the current edition of applicable NFPA standards.
0002758	Amp Draw, NFPA/ULC Radio Allowance	
0799248	Appleton/Florida BTO	
0000048	PUMPER/TANKER, 3rd Gen	
0000012	PIERCE CHASSIS	
0735525	PACCAR MX13 ENGINE	
0046396	EVS 4000 Series TRANSMISSION	
0520324	PIERCE PUMP, PUC	
0020009	POLY TANK	
0028047	NO FOAM SYSTEM	
0020006	SIDE CONTROL	
0020007	AKRON VALVES	
0020015	ABS SYSTEM	
0658751	PUMPER BASE	



Option List

12/17/2024

Customer: Westlake, TX Fire Department - Denton County
Representative Peters, Brian
Organization: Siddons-Martin Emergency Group
Requirements Manager:
Description: Westlake Enforcer PUC Pumper
Body: Pumper, PUC, Aluminum
Chassis: Enforcer Chassis, PUC-NG

Bid Number: 1165
Job Number:
Number of Units: 1
Bid Date: 10/31/2024
Stock Number:
Price Level: 51 (Current: 51)
Lane: Lane 1

Line	Option	Type	Option Description	Qty
1	0766589		Boiler Plates, PUC Pumper	1
			Fire Department/Customer - Westlake Fire Department	
			Operating/In conjunction W-Service Center - In Conjunction	
			Miles - 25 Miles	
			Number of Fire Dept/Municipalities - 2	
			Bidder/Sales Organization - Siddons-Martin	
			Delivery - Delivery representative	
			Dealership/Sales Organization, Service - Siddons-Martin	
2	0661794		Single Source Compliance	1
3	0584456		Manufacture Location, Appleton, Wisconsin	1
4	0584452		RFP Location: Appleton, Wisconsin	1
5	0588609		Vehicle Destination, US	1
6	0764706	SP	BMP Truck - Pre-Approval at Bid - Approved Option Will Be Required at Booking	1
7	0816491		Comply NFPA 1900 Changes Effective Jan 1, 2024, With Exceptions	1
8	0533347		Pumper/Pumper with Aerial Device Fire Apparatus	1
9	0588611		Vehicle Certification, Pumper	1
10	0661778		Agency, Apparatus Certification, Pumper/Tanker, U.L.	1
11	0816495		Certification, Vehicle Inspection Program, NFPA 1900	1
12	0000114		Inspection Trip(s)	2
			Qty, - 02	
			Fill in Blank - 3 Westlake personnel	
13	0620362		Consortium, HGAC	1
14	0537375		Unit of Measure, US Gallons	1
15	0529326		Bid Bond, 10%, Pierce Built Chassis	1
16	0816569		Performance Bond, Not Requested, PPI Terms	1
17	0000007		Approval Drawing	1
18	0002928		Electrical Diagrams	1
19	0889378		Enforcer Chassis, PUC-NG	1
20	0000110		Wheelbase	1
			Wheelbase - 194.00"	
21	0000070		GVW Rating	1
			GVW rating - 46,500	
22	0729280		Frame Rails, 13.38 x 3.50 x .375, Enforcer	1
23	0889469		Frame Liner, "C/Inv L" 12.50" x 3.00" x .25", AXT/Vel/Imp/Enf, 56" QVal	1
24	0630705		Axle, Front, Oshkosh TAK-4, Non Drive, 19,500 lb, Enforcer	1
25	0030264		Suspension, Front TAK-4, 19,500 lb, Qtm/AXT/Imp/Vel/Enf/SFR	1
26	0087572		Shock Absorbers, KONI, TAK-4, Qtm/AXT/Imp/Vel/DCF/Enf	1
27	0000322		Oil Seals, Front Axle	1
28	0899438		Tires, Front, Goodyear, Armor MAX MSA, 425/65R22.50, 20 ply	1
29	0725046		Wheels, Front, 22.50" x 12.25", Steel, Hub Pilot, 24k	1
30	0640711		Axle, Rear, Dana S26-190, 27,000 lb Saber/Enforcer	1
31	0544253		Top Speed of Vehicle, 68 MPH /109 KPH	1
32	0565380		Suspen, Rear, Single Slipper Spring, 27,000 lb, Saber/Enforcer	1
33	0000485		Oil Seals, Rear Axle	1
34	0782552		Tires, Rear, Goodyear, Endurance RSA, 12R22.50, LRH, Single	1
35	0654806		Wheels, Rear, Accuride, 22.50" x 8.25", Steel, Hub Pilot, Single	1
36	0568081		Tire Balancing, Counteract Beads	1
37	0620570		Tire Pressure Monitoring, RealWheels, AirSecure, Valve Cap, Single Axle	1
			Qty, Tire Pressure Ind - 6	
38	0801926		Lug Nut, Covers, Black	1
39	0002045		Mud Flap, Front and Rear, Pierce Logo	1

Line	Option	Type	Option Description	Qty
40	0544802		Chocks, Wheel, SAC-44-E, Folding, (Up to 44" Diameter Tires)	1
			Qty, Pair - 01	
41	0544806		Mounting Brackets, Chocks, SAC-44-E, Folding, Horizontal	1
			Qty, Pair - 01	
			Location, Wheel Chocks - Left Side Rear Tire, Forward	
42	0820509		ESC/ABS/ATC Wabco Brake System, Single Rear Axle, NFPA 1900/ULC	1
43	0030185		Brakes, Knorr/Bendix 17", Disc, Front, TAK-4	1
44	0627930		Brakes, Bendix, Cam, Rear, 16.50 x 8.63"	1
45	0735527		Air Compressor, Brake, Wabco 26.8 CI, Paccar	1
46	0644232		Brake Reservoirs, 4,272 Cubic Inch Minimum Capacity, Saber FR/Enforcer	1
			Paint Color, Air Tanks - Black #98	
47	0568012		Air Dryer, Wabco System Saver 1200, Heater, 2010	1
48	0000790		Brake Lines, Nylon	1
49	0544415		Inlet/Outlet, Air, w/Disconnect Fitting, Location	1
			Location - DS Step Well	
			Qty, Air Coupling (s) - 1	
50	0014130		Air Tank, Additional for Extra Air Horn Capacity	1
			Paint Color, Air Tanks - Frame color	
51	0808515		Engine, Paccar MX, 510HP, 1850 lb-ftW/OBD, EPA 2027, Saber FR/Enforcer	1
52	0811409		Not Required, Engine Contingency Adjustment	1
53	0001244		High Idle w/Electronic Engine, Custom	1
54	0735687		Engine Brake, Fully Integrated, Paccar MX13 Engine	1
			Switch, Engine Brake - MX13	
55	0644227		Clutch, Fan, Air Actuated, Saber FR/Enforcer	1
56	0644573		Air Intake, Water & Ember Screen, Saber FR/Enforcer	1
57	0814375		Exhaust System, Horizontal, Right Side	1
			Exhaust, Diffuser - 4" x 5" x 7" (Premium)	
			Exhaust, Material/Finish - Aluminized Steel (Standard)	
			Location, Diffuser Termination - 2.00" Past Rub Rail (Standard)	
			Tip, Exhaust - Straight Tip (Standard)	
58	0816167	SP	Adapter, Exhaust, Plymovent Magnetic Grabber, for 6" or 7" Diffuser Outlet	1
59	0788765		Radiator, Saber FR/Enforcer	1
60	0001090		Cooling Hoses, Rubber	1
61	0794888		Fuel Tank, 65 Gallon, Left Side Fill, Door Finish Feature	1
			Finish - Painted, Job Color	
62	0001129		Lines, Fuel	1
63	0889521		DEF Tank, 7.3 Gallon, LS Fill, Under Cab, Paccar, Lift Up Fill Dr, Spring, ENF	1
			Door, Material & Finish, DEF Tank - Painted	
64	0552793		Not Required, Fuel Priming Pump	1
65	0552712		Not Required, Shutoff Valve, Fuel Line	1
66	0699437		Cooler, Chassis Fuel, Not Req'd.	1
67	0690880		No Selection Required From This Category	1
68	0801890		Trans, Allison 6th Gen, 4500 EVS P, w/Prognostics, Imp/Vel/Enf	1
69	0512762		Transmission, Shifter, 6-Spd, Push Button, 4500, Imp/Vel/Qtm/DCF/Enf	1
			Trans, ratio - 4500 EVS, 6Spd	
70	0517604		Transmission Programming, Park to Neutral, PUC	1
71	0684459		Transmission Oil Cooler, Modine, External	1
72	0001375		Driveline, Spicer 1810	1
73	0734211		Steering, Sheppard M110 w/Tilt, TAK-4, Paccar Pump, w/Cooler, Paccar	1
74	0605356		Steering Wheel, 4 Spoke without Controls, Saber FR/Enforcer	1
75	0690274		Logo/Emblem, on Dash	1
			Text, Row (1) One - Westlake	
			Text, Row (2) Two - Fire-EMS	
			Text, Row (3) Three - Department	
76	0606441		Bumper, 19" Extended, Steel Painted, Saber FR/Enforcer	1
77	0637813		Tray, Hose, Center, 19" Bumper, Outside Air Horns, 15" Deep, 13" Below/2" Above	1
			Grating, Bumper extension - Grating, Rubber	
			Capacity, Bumper Tray - 21) 150' of 1.75"	
78	0630813		Cover, Aluminum Treadplate, One (1) D-Ring Latch, Hose Tray	1
			Stay arm, Tray Cover - b) Pneumatic Stay Arm	
79	0778092		Lift & Tow Package, Enforcer	1
80	0032932		Tow Eyes, Painted, Extended Out Front of Bumper	1

Line	Option	Type	Option Description	Qty
81	0698960		Coating, Top Flange, Front Bumper, Outside Exterior, UL-LX Coating, Black	1
82	0625646		Cab, Enforcer, 7010, PUC	1
83	0826074		Engine Tunnel, X12, MX13, Foil Insulation w/Mech Fasteners, Extreme Climate, Enf	1
84	0810166		Cab Insulation, Extreme Climate, Foil Insulation, Enforcer/Saber FR	1
85	0610508		Rear Wall, Interior, Adjustable Seating, Not Available	1
86	0632103		Rear Wall, Exterior, Cab, Saber FR/Enforcer	1
			Material, Exterior Rear Wall - Aluminum Treadplate	
87	0644201		Cab Lift, Elec/Hyd, Saber FR/Enforcer	1
88	0751129		Grille, Painted, Bright Finished Mesh Screen, Front of Cab, Enforcer	1
			Paint Color, Grille Surround - Black #101	
89	0647932		Not Required, Trim, S/S Band, Across Cab Face, AXT/Saber/Enforcer	1
90	0015440		No Chrome Molding, On side of cab	1
91	0829403	SP	Mirrors, Retractable, West Coast Style, Htd/Rmt, w/Htd/Rmt Convex, Painted Blk #101	1
92	0648172		Door, Full Height, Saber FR/Enforcer 4-Door Cab, Raised Roof	1
			Key Model, Cab Doors - 751	
			Cab, Exterior Door Handle, Finish - 4-Door, Black	
93	0655543		Door Panel, Brushed Stainless Steel, Saber/Enforcer 4-Door Cab	1
94	0617333		Controls, Electric Roll-Up Windows, 4dr, 2 Frt Elect, 2 Driver Control, SFR/Enf	1
95	0749512	SP	Steps, 4-Door Cab, Painted Black Step Wells, Saber FR/Enforcer	1
96	0770198		Handrail, Exterior, Hansen, Knurled, Alum, LED Backlit, Black, 4-Dr Cab	1
			Color, Handrail Light - Red	
			Control, Handrail Light - Parking Brake and Cab Switch LS	
97	0892638		Lights, Cab & Crw Cab Acs Stps, P25, LED w/Bezel, 6lts	1
			Color, Trim - Black Housing	
98	0057836		Crowns, Front Fender, Rubber, TAK-4	1
99	0771672		Handrail, 10", Below Cab Windshield, Hansen Knurled, LED Backlit, Black, Pair	1
			Color, Handrail Light - Red	
			Control, Handrail Light - Body Handrail Controls	
100	0042105		No Windows, Side of Crew Cab	1
101	0012090		Not Required, Windows, Front/Side of raised roof	1
102	0779033		Not Required, Windows Rear of Crew Cab, Saber FR/Enforcer	1
103	0722796		Dash, Poly, Saber FR/Enforcer	1
104	0773925	SP	Partition Below Shelf, Equipment Mounting, Crew Cab	1
			Location - Mounted on forward side of the 2 shelves between the rear facing EMS cabinets. Similar to 36426	
			Qty, - 01	
			Material Finish, Cab Interior - Painted	
105	0607217		Mounting Provisions, 3/16" Alum, Full Engine Tunnel, Saber FR/Enforcer	1
			Mounting Provision Spacing - 1.00"	
			Material Finish, Cab Interior - Painted	
106	0817141		Hook, Coat, Heavy Duty, Non-NFPA 2024	2
			Location - Above PAC TRAC on back wall of cab	
			Qty, - 02	
107	0664351		Pac Trac, Installed in Cab/Crew Cab	2
			Location - (1) each side of forward facing seats on back wall	
			Qty, - 02	
108	0606282		Shelf, Equipment Mounting, Aluminum, Lip, Size	2
			Location - Between rear facing EMS cabinets. Similar to 36426.	
			Qty, - 02	
			Size - to fit between the EMS compartments one as low as possible on engine tunnel and the other 12" above it. Similar to job #36426	
			Material Finish, Cab Interior - Painted	
			Lip - 2.00"	
109	0826219		Mounting Provisions, Computer, Tray, S/S, Straps, Slides, No Sides, Locking	1
			Location - Officer side dash	
			Qty, - 01	
110	0750824		Cab Interior, Vinyl Headliner, Saber FR/Enforcer, CARE	1
			Color, Cab Interior Vinyl/Fabric - Endure Vinyl - Black	
			Engine Tunnel Cover - Black Endure Vinyl	
			Cab Interior Rear Wall Material - Painted Aluminum	
111	0753903		Cab Interior, Paint Color, Saber FR/Enforcer	1
			Color, Cab Interior Paint - d) red	
112	0888673		Floor, Rubber Padded, Cab & Crew Cab, Blister, Enforcer PUC-NG	1

Line	Option	Type	Option Description	Qty
113	0819166		HVAC, Extreme-Duty, Enforcer, Paccar, CARE Paint Color, A/C Condenser - Painted to Match Cab Roof HVAC System, Filter Access - Tool Free Panel Auxiliary Cab Heater - Both HVAC System, Control Loc. - Panel Position #13	1
114	0677382		Guard, Brush, Painted, For Coleman A/C Unit, Cab Roof	1
115	0787034		Air Conditioning, Coleman-Mach 8, Roughneck, 120V, 15K, 6K Heat, Cab Roof,Black Thermostat - Coleman ceiling unit AC Power Source - Shoreline	1
116	0639675		Sun Visor, Smoked Lexan, AXT, Imp/Vel, SFR/Enf Sun Visor Retention - Thumb Latch	1
117	0634328		Grab Handles, Driver and Officer Door Posts, Saber FR/Enforcer	1
118	0668638		Lights, Engine Compt, Custom, Auto & Manual Switch, Wln 3SC0CDCR, 3" LED,Trim Qty, - 01	1
119	0631830		Fluid Check Access, Saber FR/Enforcer, Arrow XT Latch, Door, Storage - Southco C2 Black Flush	1
120	0583042		Side Roll and Frontal Impact Protection	1
121	0622619		Seating Capacity, 4 Belted Seats	1
122	0636955		Seat, Driver, Pierce PSV, Air Ride, High Back, Safety, PRIMARY, SFR/Enf	1
123	0632926		Seat, Officer, Pierce PSV, Air Ride, SCBA, Safety, PRIMARY, SFR/Enf	1
124	0002517		Not Required, Radio Compartment	1
125	0822580		Cabinet, Rear Facing, LS, 23 W x 39 H x 26.75 D, Web, Ext Acc, SFR/Enf Light, Short Cabinet - Amdor, Interior, White, Right Side Scuffplate, Material/Finish - S/S, Brushed Material Finish, Shelf - Painted - Cab Interior Shelf/Tray, Cabinet - (1) Shelf, Adjustable, 0.75" Up-Turned Lip Door, Cab Exterior Cabinet - Double Pan, Non-Locking Door, Exterior Stop - Stay Arm Louvers, Cabinet - 0-No Louvers Fastener, Web, Cab Cabinet - 1" Side Release, Top	1
126	0102783		Not Required, Seat, Rr Facing C/C, Center	1
127	0822239		Cabinet, Rear Facing, RS, 22 W x 39 H x 26.75 D, Web, Ext Acc, SFR/Enf Light, Short Cabinet - Amdor, Interior, White, Left Side Scuffplate, Material/Finish - S/S, Brushed Material Finish, Shelf - Painted - Cab Interior Shelf/Tray, Cabinet - (1) Shelf, Adjustable, 0.75" Up-Turned Lip Door, Cab Exterior Cabinet - Double Pan, Non-Locking Door, Exterior Stop - Stay Arm Louvers, Cabinet - 0-No Louvers Fastener, Web, Cab Cabinet - 1" Side Release, Top	1
128	0108189		Not Required, Seat, Forward Facing C/C, LS Outboard	1
129	0819392		Seat, Fwd Fcng C/C, Ctr, (2) Pierce PSV, SCBA, Safety, 5.5" Sp, PRIMARY, SFR/Enf	1
130	0108190		Not Required, Seat, Forward Facing C/C, RS Outboard	1
131	0042923		Netting, Cargo, Ship Loose Location - between the 2 shelves between EMS compartments rear facing Qty, - 1	1
132	0761572	SP	Compt, Storage, Forward Facing, Overhead, 88 W x 10 H x 9 D, Saber FR/Enf Latch, Storage Compt - a) Non Locking Qty, Compt Door - (3) Light, Overhead Compt - Pierce, Horizontal Mounted	1
133	0629833		Compt, Storage, (2) Rear Facing, Overhead, 21 W x 10 H x 20 D, Saber FR/Enforcer Latch, Storage Compt - b) Locking Light, Overhead Compt - Pierce, Horizontal Mounted	1
134	0766467		Upholstery, Seats In Cab, All Vinyl, Seats Inc, CARE Color, Cab Interior Vinyl/Fabric - Endure Vinyl - Black Qty, - 04	4
135	0543991		Bracket, Air Bottle, Hands-Free II, Cab Seats Qty, - 03	3
136	0690610		Embroidery, Seats, Cab and Crew Cab Qty, Seats Embroidery - 4 Seats	1

Line	Option	Type	Option Description	Qty
137	0603866		Seat Belt, Dual Retractor, ReadyReach, Saber FR/Enforcer	1
			Seat Belt Color - Red	
138	0817557		Helmet Storage, Provided by Fire Department, NFPA/ULC 2024	1
139	0647647		Lights, Dome, FRP Dual LED 4 Lts	1
			Color, Dome Lt - Red & White	
			Color, Dome Lt Bzl - Black	
			Control, Dome Lt White - Door Switches and Lens Switch	
			Control, Dome Lt Color - Lens Switch	
140	0896451		Enhanced Software for Cab and Crew Cab Dome Lts	1
141	0816997		Portable Hand Light, Provided by Fire Dept, NFPA/ULC 2024	1
142	0622803		Cab Instruments, Black Gauges, Black Bezels, Enforcer MUX	1
			Emergency Switching - Individual Switches	
143	0509511		Air Restriction Indicator, Imp/Vel, AXT, Dash CF, Enf MUX	1
144	0543751		Light, Do Not Move Apparatus	1
			Alarm, Do Not Move Truck - Pulsing Alarm	
145	0509042		Messages, Open Dr/DNMT, Color Dsply,	1
146	0622798		Switching, Cab Instrument Lower Console & Overhead, Rocker MUX, Enforcer	1
147	0802940		Wiper Control, 2-Speed with Intermittent, Saber FR/Enforcer	1
			Location, Wiper Control - Standard Location	
148	0821266		Wiring, Spare, 20 A 12V DC, 12 Ckt FB, Blue Sea 5026 Batt Dir 2nd NFPA1900/ULC	1
			12vdc power from - Battery direct	
			Location - Mounted as low as possible between the forward facing seats.	
149	0821298		Wiring, Spare, 12V DC, USB-A, USB-C AlfredDireck Batt Dir 1st NFPA1900/ULC	2
			Qty, - 02	
			12vdc power from - Battery direct	
			Location - LOC #12	
150	0820904		Wiring, Spare, 15 A 12V DC 1st NFPA1900/ULC	2
			Qty, - 02	
			12vdc power from - Ignition power	
			Wire termination - Butt Splice	
			Location, Spare Wiring - Officer Dash and Center Console	
151	0821263		Wiring, Spare, 20 A 12V DC, 12 Ckt FB, Blue Sea 5026 Batt Dir 1st NFPA1900/ULC	1
			12vdc power from - Battery direct	
			Location - Exterior forward wall of EMS cabinet behind officer, mounted as low as possible.	
152	0821325		Wiring, Spare, 10 A 12V DC 1st NFPA1900/ULC	1
			Qty, - 01	
			12vdc power from - Ignition power	
			Wire termination - Butt Splice	
			Location - LOC #4	
153	0814201		Vehicle Information Center, 7" Color Display, Touchscreen, MUX, CL714	1
			System Of Measurement - US Customary	
154	0816633		Collision Mitigation, HAAS Alert (R2V), HA7	1
			Subscription, HAAS R2V - R2V - 5 Year Data Plan Subscription	
155	0820299		Seat Belt Monitor w/CZ Display, NFPA1900/ULC	1
156	0696439		Antenna Mount, Custom Chassis, Cable Routed to Instrument Panel Area	1
			Qty, - 01	
			Location, Antenna Mount - Right Side	
157	0817058		Camera, Pierce, LS Mux, R Camera, SD, CL714	1
			Camera System Audio - Not Provided	
158	0814831		Not Required, Camera Switcher	1
159	0523921		Recess, Rear Vision Camera	1
			Location, Camera, Recessed - Center Rear	
160	0677933		Camera System, CSS, Body to Waterproof Pump Panel 7" LCD Display	1
			Location - Right side of body above crosslays	
161	0890416		Pierce Command Zone, Advanced Electronics & Control System, Enforcer, WiFi CZT	1
			Color, Antenna - Black Antenna	
			Module Housings - Black Housing with Power and Status Ind	
162	0896456		Prognostics, Electrical System	1
163	0624253		Electrical System, Enforcer MUX	1
164	0079211		Batteries, (6) Stryten/Exide Grp 31, 950 CCA each, Threaded Stud	1
165	0008621		Battery System, Single Start, All Custom Chassis	1

Line	Option	Type	Option Description	Qty
166	0002698		Battery Compartment, Saber/Enforcer	1
167	0813848		Charger, Sngl Sys, IOTA, DLS-75, 75 amp, IQ4 Controller	1
168	0814869		Location, Cab, Charger, Behind Driver Seat	1
169	0813791		Panel, Charger Display, Kussmaul, 091-94-12, Batt Dir	1
170	0814939		Location, Cab, Ind/Remote, Driver's Seat Riser	1
171	0816871		Inverter, Xantrex Freedom X, 817-1000, Non-NFPA 2024 Batt Sw	1
172	0814953		Location, Body, Inverter, LS Forward Compartment	1
			Location, Comp Body - High On Back Wall	
173	0016857		Shoreline, 20A 120V, Kussmaul Auto Eject, 091-55-20-120, Super	1
			Qty, - 01	
			Color, Kussmaul Cover - b) red	
			Shoreline Connection - Battery Charger	
174	0026800		Shoreline Location	1
			Location, Shoreline(s) - DS Cab, Frt Corner	
175	0097486		Shoreline Inlet, 20A 120V Kussmaul Auto Eject, "Super"	1
			Location - DS front cab corner	
			Qty, - 01	
			Color, Kussmaul Cover - b) red	
			Connection, Shoreline - Coleman AC	
176	0647728		Alternator, 430 amp, Delco Remy 55SI	1
177	0092582		Load Manager/Sequencer, MUX	1
			Enable/Disable Hi-Idle - e)High Idle enable	
178	0724853		Headlights, Rect LED, HiViz FT-4X6-4KIT, AXT/DCF/Enf/Imp/Sab/Vel, Trim	1
			Color, Headlight Housing and Trim - Black Painted Housing and Trim	
179	0625953		Light, Directional, Wln 600 Cmb, Cab Crn, Wrp Bzl Out HD Lts, Enf/Sab	1
			Color, Lens, LED's - c)clear	
180	0620054		Light, Directional/Marker, Intermediate, Weldon 9186-8580-29 LED 2lts	1
181	0735474		Lights, Clearance/Marker/ID, Front, P25 LED 7 Lts, Saber FR/Enforcer	1
			Light Guard - No Guards	
182	0625210		Lights, Directional, Cab Front Side, Truck-Lite 19036Y LED, AXT/Enf	1
183	0088869		Lights, Clearance/Marker/ID, Rear, Truck-Lite 26250R LED 7Lts	1
184	0804519		Lights, Tail, Wln M62BTT* Red Stop/Tail & M62T* Amber Dir Arw w/Flange	1
			Color, Lens, LED's - Clear	
			Color, Trim - Black Trim	
			Flash Pattern, Directional Lts - Steady On (Arrow)	
185	0806466		Lights, Backup, Wln M62BU, LED, For Tail Lt Housing	1
186	0889577		Bracket, License Plate & Light, P25 LED, Stainless Brkt	1
			Color, Trim - Black Housing	
187	0589905		Alarm, Back-up Warning, PRECO 1040	1
188	0626588		Lights, Perimeter Cab, TecNiq T10-LC00-1 15" LED 4Dr	1
189	0617901		Lights, Perimeter Pump House, TecNiq T10-LC00-1 15" LED 2lts	1
190	0626579		Lights, Perimeter Body, TecNiq T10-LC00-1 15" LED 2lts, Rear Step	1
			Control, Perimeter Lts - Parking Brake Applied, Reverse Signal	
			Activation, DS Directional Light to DS Side Lts and PS Directional Light to PS Side Lts	
191	0896454		Enhanced Software for Perimeter Lts	1
192	0729151	SP	Lights, Step, P25 at Rear Tailboard, PUC, 4lts Perm Lts, Blk Trim	1
193	0760447		Light, Roof Mt, HiViz, FT-B-72-*-* , Cnt Feature, Mux	1
			Control, Scene Lts - Cab Sw Panel DS and Cab Sw Panel PS	
			Color, Lt Housing HiViz - Black	
			Scene Light Optics - Flood/Spot	
194	0736731		Lights, HiViz FT-GESM LED 1st	1
			Location - Above DS EMS cabinet door	
			Qty, - 01	
			Control, Scene Lts - Cab Sw Panel DS, Pump Panel Sw LS and Cab Sw Panel PS	
			Color, Lt Housing HiViz - Blk Opt Hold, Blk Bez, Blk Fix	
195	0736729		Lights, HiViz FT-GESM LED 2nd	1
			Location - Above PS EMS cabinet door	
			Qty, - 01	
			Control, Scene Lts - Cab Sw Panel DS, Pump Panel Sw LS and Cab Sw Panel PS	
			Color, Lt Housing HiViz - Blk Opt Hold, Blk Bez, Blk Fix	

Line	Option	Type	Option Description	Qty
196	0733336		Lights, HiViz FT-GESM* LED 2nd Location - PS front upper body corner and rear upper body corner Qty, - 02 Control, Scene Lts - RS Scene Lts Color, Lt Housing HiViz - Blk Opt Hold, Blk Bez, Blk Fix	2
197	0733343		Lights, HiViz FT-GESM* LED 1st Location - DS front upper body corner and rear upper body corner Qty, - 02 Control, Scene Lts - LS Scene Lts Color, Lt Housing HiViz - Blk Opt Hold, Blk Bez, Blk Fix	2
198	0532358		Not Required, Deck Lights, Other Hose Bed & Rear Lighting	1
199	0893593		Lights, Hose Bed, Below Alum Cvr, Dual LED Light Strips Control, Hose Bed Lts - Cup Switch At Rear SS	1
200	0645677		Lights, Not Required, Rear Work, Alt. 12 Volt Lights At Rear Body	1
201	0743346		Lights, Rear Scene, HiViz FT-GSMJR-*, Surface Mt Location, Lights - DS and PS rear bulkheads as high as possible Qty, - 02 Control, Rear Scene Lts - Cab Switch Panel DS and Body Switch, DS Rear Bulkhead SS Color, Trim - Black Trim & Optic Holder	2
202	0892704		Lights, Walk Surf, 8-P25 LED, Hose Bed Cover, Overall Height Restrictions Color, Trim - Chrome Housing	1
203	0518282		Pumper, PUC, Aluminum	1
204	0554271		Body Skirt Height, 20"	1
205	0682617		Tank, Water, 750 Gallon, Poly, 67 LHB, PUC	1
206	0003405		Overflow, 4.00" Water Tank, Poly	1
207	0028107		Not Required, Foam Cell Modification	1
208	0633066		Sleeve, Through Tank Qty, Sleeve - 3 Water Tank Sleeve - Plumbing/Hydraulic Diameter - 2.50" Plumbing	3
209	0553725		Restraint, Water Tank, Heavy Duty, Special Type Tank, 4x4, or Export	1
210	0003429		Not Required, Direct Tank Fill	1
211	0003424		Not Required, Dump Valve	1
212	0048710		Not Required, Jet Assist	1
213	0030007		Not Required, Dump Valve Chute	1
214	0514778		Not Required, Switch, Tank Dump Master	1
215	0597043		Body Height, PUC/HDRP Body Height - 92.00"	1
216	0683290		Hose Bed, Aluminum, Pumper, PUC, 67 LHB	1
217	0723340		Unpainted/Brush Finished, Hose Bed, 3G PUC/HDRP	1
218	0003481		Hose Bed Capacity, Special Capacity, Hosebed - Bay 1: 400' of 3" Bay 2: 800' of 5" Bay 3: 300' of 1.75" Bay 4: 300' of 2" Bay 5: 400' of 2"	1
219	0003488		Divider, Hose Bed, Unpainted Qty, Hosebed Dividers - 2	2
220	0805760		Cover, Hose Bed, Alum Treadplate	1
221	0807414		Hose Restraint, Hose Bed, Vinyl, Rear, Separate From Top, Split 2-Sec, Seat Belt Color, Vinyl Cover - c) black location - between bay 1 and bay 2 Vinyl Flap Weight - Not Weighted Color, Strap - Red Release, Seat Belt Buckle - Two Bars Fastener, Rear Restraint, At Split - No Fasteners Fastener, Rear Restraint, Bottom - Permanent Strap Footman Loop	1
222	0518191		Hose Tray, Poly, Removable, Hose Bed, Basic Location - far right side of hose bed, bay 3 and bay 4. See job #37591 Qty, - 02 Size - Full length of hose bed and 7" wide inside tray. Bay 3 - Build for 350' of 1.75" hose double stacked Bay 4 - Build for 350' of 2.0" hose double stacked	2

Line	Option	Type	Option Description	Qty
223	0097958		Shelf, Permanent, Hose Bed	1
			Location - 2" above poly trays at right side of hose bed.	
224	0611509		Running Boards, Flip Out, PUC	1
225	0683043		Tailboard, 12" Deep, Full Width, Angled Corners, PUC/HDRP	1
226	0690029		Wall, Rear, Body Material, PUC/HDRP	1
227	0003531		Tow Bar, Under Tailboard	1
228	0656764		Construction, Compt, Alum, Pumper, PUC	1
229	0503804		LS 189" Rollup, (1) 62" Fwd, (1) 52" Rr, Full Height & Depth Front & Rear, PUC	1
			Width, PUC Pump Operators Panel Partition - 2.5"	
230	0503803		RS 189" Rollup, (1) 62" Fwd, (1) 52" Rr, Full Height & Depth Front & Rear, PUC	1
231	0594005		Doors, Rollup, Amdor, Side Compartments	6
			Qty, Door Accessory - 06	
			Color, Roll-up Door - AMDOR Painted to Match Lower Body	
			Latch, Roll-up Door - Non-Locking Liftbar	
232	0599445		Compt, Rear, Rollup, 33.50" FF, w/Tailboard, PUC/HDRP	1
233	0593958		Door, Amdor, Rollup, Rear Compartment, PUC	1
			Color, Roll-up Door - AMDOR Painted to Match Lower Body	
			Latch, Roll-up Door - Non-Locking Liftbar	
234	0611794		Trim, Rollup Door, Painted Door Color, Amdor	8
			Location, Door Accessory - All body compartments and crosslay doors	
			Qty, - 08	
235	0768509		Lights, Compt, Amdor AY-LB-12HW0** LED, Dual Lt Strip	7
			Qty, - 07	
236	0594766		189" Hatch, (2) Lift-up, 21" Wide, RS Only, PUC/HDRP	1
			Size, Hatch Compt, Height - 22.00"	
			Trim, Body/Hatch Compt Seam, Horizontal - Painted Formed Aluminum	
			Trim, Body/Hatch Compt Seam, Vertical, PUC - Painted Extrusion	
			Matting, Floor, Hatch Compt - Rubber Matting	
237	0732644		Handrails, (3), Hatch Step Area, Straight, Hansen Knurled Alum LED Backlit,Black	1
			Switch, Handrail Light Control - With Cab Hand Rail Controls	
			Color, Light, Hansen Handrail - Red	
238	0893291		Lights, Pump Cargo/Dunnage Forward Over Tank, Dual LED Light Strips, Each Side	1
			Control, Scene Lts - Hose Bed Light Sw	
239	0687145		Shelf Tracks, Recessed, PUC/3rd Generation	1
240	0600350		Shelves, Adj, 500 lb Capacity, Full Width/Depth, Predefined Locations	4
			Qty, Shelf - 04	
			Material Finish, Shelf - Painted - Spatter Gray	
			Location, Shelves/Trays, Predefined - RS1-Centered Right of Partition,	
			RS1-Upper Third Right of Partition, LS1-Centered and LS3-Upper Third	
241	0667235		Cable, Single Hand Operation, Tilt/Slide Out, Utility Trays	3
			Location - Tilt-out trays in LS2 and RS2	
			Qty, Tray (slide-out) - 03	
242	0601834		Tray, 215 lb, Tilt/Slide-Out, 30 Deg, Adj, Max Width/Depth, 3G	3
			Location - RS2 - Centered	
			LS2 - Upper Third	
			LS2 - as close to the floor as possible	
			Qty, Tray (slide-out) - 03	
			Finish - Painted, Compt Interior, Spatter Gray	
243	0647091		Tray, Floor Mounted, Slide-Out, 500lb, 2.00" Sides	2
			Qty, - 02	
			Location, Tray Slide-Out, Floor Mounted - RS1 and LS1	
			Material Finish, Tray - Painted - Spatter Gray	
244	0725644		Cabinet, Drawer Assembly, CTECH, Three Drawers, Up To 24" Wide, 24" Deep	1
			Qty, - 01	
			Location - Floor of LS3	
			Size, Drawer Height 1 (Top) - 3.00"	
			Size, Drawer Height 2 - 6.75"	
			Size, Drawer Height 3 - 8.75"	
245	0617454		Toolboard, Slide-out, Alum, .188", Peg Board, Painted, 3G, Slides Top and Bottom	2
			location - RS3	
			Qty - 2	
			Mounting, Toolboard - Adjustable side-side	
246	0654369		Recess, Partition, Right of Pump Operator's Panel, PUC	1

Line	Option	Type	Option Description	Qty
247	0797957		Pac Trac, Installed on Compartment Wall, Back Wall Only Location - Upper wall of LS3 Qty, Comp. Accessory - 01	1
248	0695412		Rack, Air Bags Inside Compartment, 2-Slot Location - RS1 Compartment to serve as a divider between Little Giant and remaining compartment. Size - Full height of compartment from floor to ceiling and 12" from left wall. Rack will be 3" wide (outside width). Each slot will be evenly in size vertically (27.25" tall). Finish - Painted, Spatter Gray	1
249	0775959		Strap, Nylon w/Velcro Hook & Loop, 2" wide Location - (1) for each air bag slot Qty, - 02	2
250	0899067		Rub Rail, Black Plastic w/.50" Spacer, Body Sides, Light Cut Outs	1
251	0653982		Fender Crowns, Rear, Rubber, w/Removable Fender Liner, Pumper, 3G Material Finish, Fender Liner - Painted Aluminum Lower Body	1
252	0519849		Not Required, Hose, Hard Suction	1
253	0759459		Handrails Located @ Front Body, Hansen Knurled Alum LED Backlit, Black Switch, Handrail Light Control - With Cab Hand Rail Controls Color, Light, Hansen Handrail - Red	1
254	0759458		Handrails, Rear, Hansen Tubing, Knurled Aluminum, LED Backlit, Black, PUC Switch, Handrail Light Control - With Cab Hand Rail Controls Color, Light, Hansen Handrail - Red	1
255	0764331		Handrail, Rear, Below Hose Bed, Full Width, Hansen, Knurled Alum LED Backlit, Black Switch, Handrail Light Control - Park Brake Color, Light, Hansen Handrail - Red	1
256	0753717		Handrail, Extra - 15-20" Long, Hansen Tubing, Knurled Alum LED Backlit, Black Location, Handrails - DS upper rear bulkhead, left of the hose bed Qty, Handrails - 01 Switch, Handrail Light Control - With Cab Hand Rail Controls Color, Light, Hansen Handrail - Red	1
257	0816729		Compt, Extinguisher (2) Fender Panel, Triangular Door, 8"/8.5"Dia Location, Bracket/comp. - RS rear of wheels Qty, - 1 Door Finish, Fender Compt - Painted Latch, Air Bottle Compt - Southco C2 Black Raised Insert, Air Bottle Compt - Dura-Surf Lining	1
258	0657522		Compt, Air Bottle, Triple, Fender Panel Qty, Air Bottle Comp - 2 Door Finish, Fender Compt - Painted Location, Fender Compt - Triple - LS Fwd and Triple - RS Fwd Latch, Air Bottle Compt - Southco C2 Black Raised Insert, Air Bottle Compt - Dura-Surf Lining	2
259	0004225		Ladder, 24' Duo-Safety 900A 2-Section	1
260	0004230		Ladder, 14' Duo-Safety 775A Roof	1
261	0638382		Rack, Ladders, LS Full Depth Body, PUC/HDRP Door, Material & Finish, Ladder Storage - smooth aluminum Latch, Door Ladder Storage - D-Handle latch	1
262	0733387		Ladder, 10' Duo-Safety Folding 585A	1
263	0733005		Compt w/Trough, Folding Ladder, In Upper Body, LS Door, Material & Finish, Storage - Smooth Aluminum Latch, Door, Storage - Southco C2 Black Raised Hinge Location - Outboard	1
264	0802284		Little Giant/Werner Ladder Storage, Vertical In Compartment Ladder, Make/Model - Little Giant Revolution 2.0 Model 17 Location Within Compartment - left of the air bag rack partition Location, Compartment, Predefined - RS1	1
265	0816920		Pike Pole, Provided by Fire Department, NFPA/ULC 2024 Qty, - 02 Pike Pole Make/Model - Fire Hooks Unlimited 8' Roof Hook	2
266	0816918		Pike Pole, 6', Provided by Fire Department, NFPA/ULC 2024 Qty, - 02 Pike Pole Make/Model - Fire Hooks Unlimited New York Roof Hook, RH-6	2

Line	Option	Type	Option Description	Qty
267	0732992		Tube, Pike Pole 6', In Upper Body Long Tool Storage Compt	2
			Qty, Pike Poles - 2	
			Location, Left Side, Right Side - Left Side	
			Material/Finish, Tube, Pike Pole - Aluminum	
			Width, Notch, Pike Pole Tube - 1.38", NY Notch	
268	0768409		Compt, Long Tools, Thru Body Compts, Right Side	1
			Dimensions - 14" wide	
			Door, Material & Finish, Storage - Smooth Aluminum	
			Latch, Door, Storage - Southco C2 Black Raised	
			Hinge Location - Outboard	
269	0521734		No Steps Required, Front Of Body, PUC	1
270	0724124		Steps, Folding, Rear of Body, w/LED, Trident, Black Powder Coat, PUC/HDRP	1
			Coating, Step - black	
271	0724149		Step, Folding - Extra, Body Only, w/LED, Trident, Black Powder Coat	2
			Qty, Folding Step - 02	
			Location, Additional Step - DS rear bulkhead to access upper long tool storage	
			Coating, Step - black	
272	0515692		Pump Operators Panel, 31", Control Zone, PUC	1
273	0520016		Not Required, Pumphouse Structure, PUC	1
274	0889383		Pump, Pierce, 2000 GPM, Single Stage, PUC-NG	1
275	0515822		Seal, Mechanical, Silicon Carbide, PUC Pump	1
276	0889382		Gear Case, Integrated Pump Transmission, PUC-NG, Paccar	1
277	0721196		Pumping Mode, Pump and Roll/Stationary, Basic, MUX, PUC	1
278	0515829		Pump Shift, Sure-Shift	1
279	0515833		Transmission Lock-up, Not Req'd, Park to Neutral, Pump, PUC	1
280	0515835		Auxiliary Cooling System, PUC	1
281	0014486		Not Required, Transfer Valve, Single Stage Pump	1
282	0746508		Valve(s), Relief Intake, Trident Air Max, Control Location	1
			Qty - 1	
			Pressure Setting - 125 psig	
			Intake Relief Valve Control - Left Side Pump Panel	
283	0724463		Controller, Pressure, Pierce LCD, PUC	1
			Pressure Governor Throttle Control - Clockwise	
			Pressure Governor Default Mode - No Mode/Default Press Setting	
284	0072153		Primer, Trident, Air Prime, Air Operated	1
285	0780359		Manuals, Pump, (2) Total, Electronic Copies, Pierce PUC Pump	1
286	0602496		Plumbing, Stainless Steel and Hose, Single Stage Pump, PUC	1
287	0089437		Plumbing Without Foam System	1
288	0517852		Inlets, 6.00" - 1250-2000 GPM, Pierce PUC Pump	1
289	0014650		Pump Suction Tube(s), Short, All	1
290	0004646		Cap, Main Pump Inlet, Long Handle, NST, VLH	1
291	0084610		Valves, Akron 8000 series- All	1
292	0520002		Valve, Inlet(s) Recessed, Side Cntrl, PUC	1
			Qty, Inlets - 1	
293	0004700		Control, Inlet, at Valve	1
294	0004660		Inlet (1), Left Side, 2.50"	1
295	0029147		Not Required, Inlet, Right Side	1
296	0521137		Anode, Zinc, Pair, Pump Inlets, PUC	1
297	0092569		No Rear Inlet (Large Dia) Requested	1
298	0064116		No Rear Inlet Actuation Required	1
299	0092696		Not Required, Cap, Rear Inlet	1
300	0009648		No Rear Intake Relief Valve Required on Rear Inlet	1
301	0092568		No Rear Auxiliary Inlet Requested	1
302	0723049		Valve, .75" Bleeder, Aux. Side Inlet, "T" Swing Handle	1
303	0520277		Tank to Pump, (1) 3.00" Valve, 4.00" Plumbing, PUC	1
304	0595508		Outlet, Tank Fill, 1.50", PUC	1
305	0766941		Control, Outlets, Swing Handle, Elec Right Outlets Akron 9335 w/Press Disp, PUC	1
306	0516755		Outlet, Left Side, 2.50" (2), PUC	1
307	0055095		Not Required, Elbow, Left Side Outlets, 2.50"	1
308	0092570		Not Required, Outlets, Left Side Additional	1
309	0035094		Not Required, Elbow, Left Side Outlets, Additional	1

Line	Option	Type	Option Description	Qty
310	0766761		Outlet, Right Side, 2.50", (1), Electric Akron 9335 Controller, PUC	1
			Qty, Discharges - 01	
311	0021134		Not Required, Elbow, Right Side Outlets, 2.50"	1
312	0092571		Not Required, Outlets, Right Side Additional	1
313	0089584		Not Required, Elbow, Right Side Outlets, Additional	1
314	0818640		Outlet, Large Diameter, Right Side, Akron Valve, PUC	1
			Outlet, Large Diameter, Plumbing - 4.00"	
			Outlet, Large Diameter, NST Adapter - 4.00" MNST	
			Outlet, Large Diameter, Valve Actuation - PUC Akron 9335 w/PSI	
315	0699320		Adapter, 4.00" FNST x 5.00" Storz, w/Cap and Chain, PUC	1
			Qty, - 1	
316	0649939		Outlet, Front, 1.50" w/2" Plumbing	1
			Fitting, Outlet - 1.50" NST with 90 degree swivel	
			Drain, Front Outlet - Automatic	
			Location, Front, Single - in center bumper tray	
317	0516777		Outlet, Rear, 2.50", (1), Thru Tank, PUC	1
			Qty, Discharges - 01	
			Location, Outlet - b) left side	
318	0045091		Elbow, Rear Outlets, 45 Degree, 2.50" FNST x 2.50" MNST, VLH	1
319	0516782		Outlet, Rear, 2.50" w/2.50" Plumbing, Thru Tank, PUC, Additional	2
			Qty, Discharges - 02	
			Location, Outlet - g) two (2) right side	
320	0536635		Elbow, Rear Outlets, 45 Degree, 2.50" FNST x 2.50" MNST, VLH, PUC, Additional	2
			Qty, Discharges - 02	
321	0752097		Caps/Plugs for 1.00" to 3.00" Discharges/Inlets, Chain	1
322	0723042		Valve, 0.75" Bleeder, Discharges, "T" Swing Handle	1
323	0753335		Outlet, 3.00" Deluge w/2.50" Valve, Dual Control, LG HW's, PUC	1
324	0770359		No Monitor Requested, Customer/Dealer Furnished and Installed	1
			Fill in Blank - TFT Crossfire	
325	0029304		No Nozzle Req'd	1
326	0005070		Deluge Mount, NPT	1
327	0750982		Crosslay Module, Full Width, Roll Up Doors, PUC	1
328	0750897		Doors, Crosslay, Roll-up Amdor, Each End, Full Height, PUC	1
			Color, Roll-up Door - Paint to Match Rear Body Paint Break	
			Latch, Roll-up Door - Non-Locking Liftbar	
			Drip Pan - Drip Pan Required	
329	0747660		Lights, Crosslay Compt, Forward LED, 2Lts	1
330	0737370		Crosslays, (1) 2.50", W/Poly Trays, PUC	1
			Crosslay/Deadlay/Speedlay Capacity 1 - 200' of 3" DJ Hose	
331	0749435		Crosslays, (2) 1.50", W/Poly Trays, PUC	1
			Crosslay/Deadlay/Speedlay Capacity 1 - 200' of 1.75" double jacket hose	
332	0729571		Tube, Aluminum, Pike Pole, Special Ny Style Notch, Upper Crosslay Module, PUC	2
			Qty, Pike Pole Tubes - 02	
			Location, Tube - (1) deployed out DS and (1) deployed out PS	
333	0653355		Reel, Booster, Steel, Rear Tailboard Compartment, PUC/HDRP	1
			Finish, Reel - Painted Gray	
334	0005279		Switch, Reel Rewind - One at Reel	1
335	0005300		Hose, Booster - 150' of 1.00"/800 PSI	1
336	0005244		Capacity, Hose Reel 200' of 1"	1
337	0007428		Nozzle for Booster Reel Not Req'd	1
338	0044333		Not Required, Foam System	1
339	0012126		Not Required, CAF Compressor	1
340	0552517		Not Required, Refill, Foam Tank	1
341	0042573		Not Required, Foam System Demonstration	1
342	0045465		Not Required, Foam Tanks	1
343	0091110		Not Required, Foam Tank Drain	1
344	0091079		Not Required, Foam Tank #2	1
345	0091112		Not Required, Foam Tank #2 Drain	1
346	0738072		Approval Dwg, Pump Panel(s), Not Required	1
347	0032479		Pump Panel Configuration, Control Zone	1
348	0686774		Material, Pump Panels, Operators Black UL-LX, Sides Black UL-LX, PUC	1
349	0516978		Pump and Plumbing Access, Simple Tilt Service, PUC	1

Line	Option	Type	Option Description	Qty
350	0618458		Light, Pump Compt, Wln 3SC0CDCR LED White, PUC	1
			Qty, - 01	
351	0516983		Gauges, Engine, Included With Pressure Controller, PUC	1
352	0005601		Throttle, Engine, Incl'd w/Press Controller	1
353	0739224		Indicator Light @ Pump Panel, Throttle Ready, Incl w/Pressure Gov/Throttle,Green	1
354	0549333		Indicators, Engine, Included with Pressure Controller	1
355	0511078		Gauges, 4.00" Master, Class 1, 30"-0-600psi	1
356	0511100		Gauge, 2.00" Pressure, Class 1, 30"-0-400psi	1
357	0750526		Gauge, Water Level, Pierce, In pressure Controller, Lt Driver	1
358	0604028		Water Level Gauge, FRC, MaxVision WLA280-A00 Programmable Remote Display	2
			Location - Each side of cab behind crew doors up high	
			Qty, - 02	
			Activation, Water Level G - b) battery switched	
359	0006774		Not Required, Foam Level Gauge	1
360	0653081		Light, Pump Operator & Panel, Side Ctrl, PUC, 60354C LED Cab & LED OH Chr Cvr	1
361	0828301	SP	Air Horn, (2) Hadley, 6" Round, 21.00", eTone, Black, In Bumper	1
362	0606834		Location, Air Horns, Bumper, Each Side, Outside Frame, Inboard (Pos #2 & #6)	1
363	0757092		Control, Air Horn, Multi Select	1
364	0757077		Control, Air Horn, Lanyard, LS	1
			Lanyard - Link Chain, Vinyl Tubing	
365	0757076		Control, Air Horn, Lanyard, RS	1
			Lanyard - Link Chain, Vinyl Tubing	
366	0525667		Siren, Wln 295SLSA1, 100 or 200 Watt	1
367	0510206		Location, Elec Siren, Recessed Overhead In Console	1
			Location, Elec Siren - Overhead, DS Center Sw Pnl	
368	0748306		Control, Elec Siren, Multi Select	1
369	0748287		Control, Elec Siren, Rocker/Membrane Sw, RS	1
370	0805709		Control, Elec Siren, Horn Ring, Interlock	1
			Control, Interlocks - Prk Brk Released	
371	0783670		Speaker, (2) Wln, SA315P, w/Pierce Black Painted Grille, 100 watt	1
			Connection, Speaker - siren head	
372	0601559		Location, Speaker, Frt Bumper, Recessed, Each Side, Inside Frame (Pos 3 & 5)	1
373	0895310		Siren, Federal Q2B	1
			Finish, Q2B Siren - Black Chrome	
374	0006095		Siren, Mechanical, Mounted Above Deckplate	1
			Location, Siren, Mech - a) Left	
375	0748305		Control, Mech Siren, Multi Select	1
376	0748282		Control, Mech Siren, Ft Sw LS	1
377	0729537		Control Mech Siren, Rocker Momentary On, Brake RS	1
378	0737437		Sw, Siren Brake, Momentary Red, Pnl 9, Saber FR/Enf	1
379	0734674		Sw, Siren Brake, Mom Rocker, Red Outline, RS Overhead Sw Pnl, Mux	1
380	0746353		Not Required, Warning Lights Intensity	1
381	0807805		Lightbar, Wln, Freedom IV-D, 72", RRRRWRRROptRRRWRRRR	1
			Opticom Priority - b) High	
			Opticom Activation - Cab Switch & E-Master	
			Momentary Opticom Activation - DS Switch	
			Filter, Whl Freedom Ltbrs - No Filters	
382	0016380		No Additional Lights Req'd, Side Zone Upper	1
383	0734071		Lights, Front Zone, Wln M6** M6** M6** M6** LED, Q Bzl, 4lts	1
			Color, Lens, LED's - Clear	
			Color, Lt DS Frnt Outside - Left Red	
			Color, Lt PS Frnt Outside - Right Red	
			Color, Lt DS Front Inside - Left Red	
			Color, Lt PS Front Inside - Right Red	
			Color, Q Bezel and Trim - Black	
384	0826917		Light, Front, Roto Ray 4000W, PAR46 LED, 2-R, 1-W,Hdn Mt Tp Sct Grl Blk,VoidWrnt	1
385	0653937		Flasher, Headlight Alternating	1
			Headlt flash deactivation - a)w/high beam	
386	0747228		Lights, Side Zone Lower, Wln M6**, M6**, M6**, 6Lts	1
			Location, Lights Front Side - b)each side bumper	
			Color, Lens, LED's - Clear	

Line	Option	Type	Option Description	Qty
386			Location, Lights Mid Side - Rearward of Crew Cab Doors Location, Lights Rear Side - Over Rear Wheels Color, Trim - Black Trim Color, Lt Side Front, DS - Red Color, Lt Side Front, PS - Red Color, Lt Side Mid DS - Red Color, Lt Side Mid PS - Red Color, Lt Side Rear PS - Red Color, Lt Side Rear DS - Red	
387	0896616		Lights, Door Interior Flash, 4 Dr Cab, Weldon 8401-0000-20 Strip Light Control, Door Int Flash - Ignition Switch Location, Light, Door Int Flash - Over Window	1
388	0815847		Connectors, Door Interior Flash, All Cabs, Weatherproof	1
389	0827630		Lights, Side, Wln WION* LED, Recessed in Cab Steps, 4lts Control, Light - b) side warning Color, Lt Side Front, DS - Left Red SB Color, Lt Side Front, PS - Right Red SB Color, Lt Side Rear PS - Right Red SB Color, Lt Side Rear DS - Left Red SB	1
390	0745867		Lights, Side, Wln M9** LED, Trm Fet 1st Location, Lights - DS and PS front upper body corners Qty, - 02 Color, Lights, Warning - Green Control, Light - b) side warning Color, Lens, LED's - Clear Color, Trim - Black Trim	2
391	0804023		Lights, Side, Wln WIONSM** LED, Mounted Behind Poly Rub Rail, 1st Location, Lights - Centered below LS1, LS3, RS1, RS3 Qty, - 04 Color, Lights, Warning - gla) red Control, Light - b) side warning Color, Trim - Black Trim	4
392	0894842		Lights, Rear Zn Lwr, Wln M6*, For Tail Lt Housings Color, Lens, LED's - Clear Color, Lt DS Rear - r) DS Rear Lt Red Color, Lt PS Rear - r) PS Rear Lt Red	1
393	0747386		Lights, Rear, Wln 6RB** LED, Features 1st Location - DS and PS rear bulkheads below M9 warning lights Color, Light - ae) red Qty, - 02 Control, Light - a) rear upper warning Color, Lens, LED's - c)clear Color, Trim - Black Trim	2
394	0725515		Lights, Rear/Side Up Zone, Wln M9*C LED, Clear Lens, Flange Kit, 4lts Flange Kit - Black Color, Lt, Side Rear Upper DS - Side Rear Upper Red Color, Lt, Side Rear Upper PS - Side Rear Upper Red Color, Lt, Rear Upper DS - r) DS Rear Upper Red Color, Lt, Rear Upper PS - r) PS Upper Rear Red	1
395	0006551		Not Required, Lights, Rear Upper Zone Blocking	1
396	0590000		No Hose Bed Warn Lts Brkts Required, Lts On Hatch/Body Compts,PUC	1
397	0751112		Lights, Traffic Directing, Wln TLIA Amber LED, 8 Lts, TACTL5 Activation, Traffic Dir L - Aux Flash with Emergency Master Color, Trim - Black Trim	1
398	0791018		Location, TDL, Surface Mounted, Hose Bed Cover Rear Flange	1
399	0530288		Location, Traf Dir Lt Controller, Overhead Recessed Console, above Eng Tnl DS	1
400	0772909		Light Twr, W-B Chf NS2.3-600 WHL, 4-P*H2, 12VDC Lts Cld 7.5' Color, Tower, Wlb - White Paint Scene Light Optics - Flood/Spot	1
401	0664471		Location, Light Tower, Cargo Area	1
402	0617750		Controller, Lt Twr, W-B, Wired Hndhld, E-STOP Chf, Chf Pr, Pow Pr	1
403	0782222		Location, Light Tower Controller, PUC Pump Panel Area, Recess Rear Wall	1
404	0779707		Receptacle Strip, 20A 120V 6-Place, Interior Body Qty, - 01	1

Line	Option	Type	Option Description	Qty
404			Location 1 - RS1 on right wall centered from floor to ceiling	
405	0783678		AC Power Source - Shoreline to Inverter Internal Transfer Sw Receptacle, 15/20A 120V 3-Pr 3-Wr, NEMA 5-20R SB Dup, 1st	2
			Location, Receptacles - Interior on inboard wall, up high of LS/RS rear facing EMS cabinets	
			Qty, - 02	
			AC Power Source - Shoreline to Inverter Internal Transfer Sw	
			Cover, Receptacle - Interior SS Wall Plate(s)	
406	0519934		Not Required, Brand, Hydraulic Tool System	1
407	0649753		Not Required, PTO Driven Hydraulic Tool System	1
408	0816508		NFPA Required Loose Equipment, Pumper, NFPA/ULC 2024, Provided by Fire Dept	1
409	0816941		Soft Suction Hose, Provided by Fire Department, NFPA/ULC 2024	1
410	0027023		No Strainer Required	1
411	0816939		Extinguisher, Dry Chemical, NFPA 2024, Provided by Fire Department	1
412	0816937		Extinguisher, 2.5 Gal. Pressurized Water, NFPA/ULC 2024, Provided by Fire Dept	1
413	0816998		Axe, Flathead, Provided by Fire Department	1
414	0817000		Axe, Pickhead, Provided by Fire Department	1
415	0741569		Paint Process / Environmental Requirements, Appleton	1
416	0709566		Paint, Two-Tone Color, Enforcer	1
			Paint Color, Upper Area, Predefined - #101 Black	
			Shield, Cab - Standard Shield	
			Paint Color, Lower Area, Predefined - #90 Red	
			Paint Break, Cab - Standard Two-Tone Cab Break	
417	0709833		Paint, Two-Tone Color, Body	1
			Paint Break, Body - Above Body Compt Doors	
			Paint, Lower Body - Match Cab Lower	
			Paint, Upper Body - Match Cab Upper	
418	0646901		Paint Chassis Frame Assy, With Liner, E-Coat, Standard	1
			Paint Color, Frame Assembly, Predefined - Standard Black	
419	0693798		Paint, Front Wheels	1
			Paint, Wheels - Black #101	
420	0693793		Paint, Rear Wheels, Single Axle	1
			Paint, Wheels - Black #101	
421	0733739		Paint, Axle Hubs	1
			Paint, Axle Hub - Lower Job Color	
422	0007230		Compartment, Painted, Spatter Gray	1
423	0544129		Reflective Band, 1"-6"-1"	1
			Color, Reflect Band - A - e) black	
			Color, Reflect Band - B - p) black	
			Color, Reflect Band - C - za) black	
424	0007356		Reflective across Cab Face	1
425	0820076		Stripe, Chevron, Rear, Reflective, NFPA/ULC 2024, Pumper, PUC	1
			Color, Reflect Band - A - e) black	
			Color, Reflect Band - B - n) ruby red	
426	0073811		Folded "Z" Ribbon in Reflective Stripe, Pair	1
			Location - LS3 and RS3	
			Qty, - 1	
427	0609444	SP	Stripe, Sign Gold Outline Above Reflective Band	1
428	0512024		Stripe, Reflective, Chevron/Inverted "V", On Front Bumper	1
			Color, Reflect Band - A - c) ruby red	
			Size, Chevron Striping - 06	
			Color, Reflect Chev - A - e) black	
429	0509398		Stripe, Reflective, Chevron, Cab and Crew Cab Doors Interior	1
			Color, Reflect Band - B - n) ruby red	
			Size, Chevron Striping - 06	
			Color, Reflect Chev - A - e) black	
430	0679822		Stripe, Sign Gold, Two-Tone Paint Break with Shield, IPO Chrome Molding	1
431	0594559		Lettering Specifications, (Sign Gold Process)	1
432	0685931		Lettering, Sign Gold, 3.00", (61-80)	1
			Outline, Lettering - Outline	
433	0685744		Lettering, Sign Gold, 10.00", (1-20)	1
			Outline, Lettering - Outline	

Line	Option	Type	Option Description	Qty
434	0685798		Lettering, Sign Gold, 6.00", (1-20)	1
			Outline, Lettering - Outline	
435	0685817		Lettering, Sign Gold, 4.00", Each	8
			Qty, Lettering - 08	
			Outline, Lettering - Outline	
436	0695610		Emblem, Reflective, Per Dept. Submittal, Each	5
			Qty, - 05	
			Location, Emblem - Crew doors, EMS compt. doors, and rear roll up door	
			Size, Dept Seal, Reflect - 14" - 16"	
437	0769755		Emblem, Texas Flag Painted on Cab Grille, All Custom Chassis	1
438	0772003		Manual, Fire Apparatus Parts, USB Flash Drive, Custom	1
			Qty, - 01	
439	0772037		Manual, Chassis Service, USB Flash Drive, Custom	1
			Qty, - 01	
440	0773381		Manual, Chassis Operation, (1) USB Flash Drive, Custom	1
441	0030008		Warranty, Basic, 1 Year, Apparatus, WA0008	1
442	0735523		Warranty, Engine, Paccar MX13, 5 Year, WA0386	1
443	0684953		Warranty, Steering Gear, Sheppard M110, 3 Year WA0201	1
444	0596017		Warranty, Frame, 50 Year, Custom Chassis, WA0013	1
445	0595698		Warranty, Axle, 3 Year, TAK-4, WA0050	1
446	0610485		Warranty, Axle, Eaton/Dana, 5 Year/100,000 Mile, Parts and Labor	1
447	0652758		Warranty, ABS Brake System, 3 Year, Meritor Wabco, WA0232	1
448	0019914		Warranty, Structure, 10 Year, Custom Cab, WA0012	1
449	0744240		Warranty, Paint, 10 Year, Cab, Pro-Rate, WA0055	1
450	0524627		Warranty, Electronics, 5 Year, MUX, WA0014	1
451	0695416		Warranty, Pierce Camera System, WA0188	1
452	0708760		Warranty, Not Applicable, LED Strip Lights	1
453	0046369		Warranty, 5-year EVS Transmission, Standard Custom, WA0187	1
454	0685945		Warranty, Transmission Cooler, WA0216	1
455	0688798		Warranty, Water Tank, Lifetime, UPF, Poly Tank, WA0195	1
456	0596025		Warranty, Structure, 10 Year, Body, WA0009	1
457	0693126		Warranty, AMDOR, Roll-up Door, 10 Year/5 Year Painted, WA0185	1
458	0889364		Warranty, Pump, Pierce, PUC-NG, 7 Year Parts, 1 Year Labor, WA0390	1
459	0648675		Warranty, 10 Year S/S Pumping, WA0035	1
460	0641372		Warranty, Foam System, Not Available	1
461	0595820		Warranty, Paint, 10 Year, Body, Pro-Rate, WA0057	1
462	0595412		Warranty, Graphics Lamination, 1 Year, Apparatus, WA0168	1
463	0819254		Certification, Vehicle Stability, CD0196	1
464	0808565		Certification, Engine Installation, Enf, Paccar MX, 2027	1
465	0686786		Certification, Power Steering, CD0098	1
466	0892691		Certification, Cab Integrity, Saber FR/Enforcer, CD0189	1
467	0631973		Certification, Cab Door Durability, Saber FR/Enforcer, CD0137	1
468	0631978		Certification, Windshield Wiper Durability, Saber FR/Enforcer, CD0132	1
469	0631974		Certification, Electric Window Durability, Saber FR/Enforcer, CD0133	1
470	0631977		Certification, Seat Belt Anchors and Mounting, Saber FR/Enforcer, CD0134	1
471	0735949		Certification, Cab HVAC System Performance, SFR/Enf, CD0165/CD0167/CD0174/CD0175	1
472	0545073		Amp Draw Report, NFPA Current Edition	1
473	0002758		Amp Draw, NFPA/ULC Radio Allowance	1
474	0799248		Appleton/Florida BTO	1
475	0000048		PUMPER/TANKER, 3rd Gen	1
476	0000012		PIERCE CHASSIS	1
477	0735525		PACCAR MX13 ENGINE	1
478	0046396		EVS 4000 Series TRANSMISSION	1
479	0520324		PIERCE PUMP, PUC	1
480	0020009		POLY TANK	1
481	0028047		NO FOAM SYSTEM	1
482	0020006		SIDE CONTROL	1
483	0020007		AKRON VALVES	1
484	0020015		ABS SYSTEM	1
485	0658751		PUMPER BASE	1



Siddons-Martin Emergency Group
3500 Shelby Lane
Denton, TX, 76207
USA
Phone: (940) 315-4948

ESTIMATE

DO NOT PAY

Customer Info:

Westlake Fire Dept., Town of
1500 Solana Blvd.
Suite 7200
Roanoke, TX, 76262
USA

Document Info:

Quote #: 700-0021515
Taken By: Tyler Ramsey
Expiration Date: 01/09/2025

Item #	Description	Quantity / Unit	Unit Price	Amount
254735	SENSIT COMBUSITBLE GAS INDICATOR 50,000 PPM SENSIT	1.00 / EA	1,005.00	1,005.00
254735	HONEYWELL Multi-Gas Detector: IP65, HONEYWELL RAE Systems MinRAE Lite, Lithium Ion, CO/H2S/O2, LCD MULTIRAE	1.00 / EA	2,790.00	2,790.00
254735	ROTHCO BINOCULARS 10X55MM RTH-10266	1.00 / EA	75.00	75.00
182615	SURVIVOR 120V/100V AC/12V DC ORANGE SLI-90503	4.00 / EA	143.00	572.00
002943	E-FLOOD LITEBOX VEHICLE MOUNT SYSTEM 12V DC w/SHOULDER STRAP & DIRECT WIRE RACK ORANGE SLI-45805	2.00 / EA	230.00	460.00
252826	FIREPRO 300 THERMAL IMAGING CAMERA MES-FQ-AAAX	4.00 / EA	999.00	3,996.00
254735	Seek FirePRO Retractor MES-RR-CAA	4.00 / EA	40.00	160.00
254518	ATTACKPRO+ (NFPA) CAMERA (2) BATTERIES (1) DESKTOP BATTERY CHARGER MES-FQ-PANX-SEEK	1.00 / EA	3,999.00	3,999.00
154754	6# FLATHEAD AXE HICKORY HANDLE FHU-WA-6	1.00 / EA	72.50	72.50
254735	Fire Maul Reaper, 32" composite handle, red FIRE MAUL	1.00 / EA	220.00	220.00
154702	30" PRO BAR FORCIBLE ENTRY HALLIGAN TYPE BAR FHU-PB-30	1.00 / EA	285.00	285.00



Siddons-Martin Emergency Group
3500 Shelby Lane
Denton, TX, 76207
USA
Phone: (940) 315-4948

ESTIMATE

DO NOT PAY

Document Info:

Quote #: 700-0021515

154722	10# SLEDGEHAMMER FIBERGLASS-HANDLE 32"- OVERALL 34" FHU-SHF-10	1.00 / EA	56.25	56.25
254735	Fire Maul, 32" composite handle, black Fire Maul	1.00 / EA	220.00	220.00
154583	24" BOLT CUTTERS FHU-BC-24	1.00 / EA	82.50	82.50
084300	51" PRY BAR 3FE95	1.00 / EA	65.78	65.78
154714	6' NY ROOF HOOK FIBERGLASS POLL FHU-RH-6	1.00 / EA	135.00	135.00
166643	LOCKWOOD HOOK OAL 6' FLAT BLACK w/CHISEL END LHT-LWHB-6	1.00 / EA	156.55	156.55
154720	8' NY ROOF HOOK STEEL FHU-RH-8	1.00 / EA	145.50	145.50
154709	10' NY ROOF HOOK STEEL FHU-RH-10	1.00 / EA	169.50	169.50
254735	FHU 4' COLORADO HOOK COLORADO HOOK-4	1.00 / EA	172.50	172.50
154651	K-TOOL LEATHER POUCH TWO LOCK TOOLS KEYS SHOVE KNIFE & INSTRUCTIONS ON THROUGH THE LOCK METHODS FHU-KTKIT	1.00 / EA	180.00	180.00
069659	18" RIGID ALUMINUM PIPE WRENCH 31100	1.00 / EA	105.00	105.00
254735	GRAINGER 36" WATER KEY 34A511	1.00 / EA	17.00	17.00
191518	BIG EASY GLO DELUXE KIT LOCK OUT WIT-32955DLX	1.00 / EA	102.00	102.00



Siddons-Martin Emergency Group
3500 Shelby Lane
Denton, TX, 76207
USA
Phone: (940) 315-4948

ESTIMATE

DO NOT PAY

Document Info:

Quote #: 700-0021515

167326	LS-PIG-33-B-NOTCHED LS-PIG-33-B-NOTCHED	1.00 / EA	217.00	217.00
167332	LS-PLET-B LS-PLET-B	1.00 / EA	210.00	210.00
241473	HAND HELD HOSE ROLLER TFT-A3820	1.00 / EA	217.00	217.00
242559	ADJ HYDRANT WRENCH DBL HEAD SPANNER -FG- KOC-K05-P18	3.00 / EA	52.00	156.00
159305	(4) HSSW-101 SPANNERS w/HOLDER HAR-HSSW-401	3.00 / EA	152.00	456.00
159304	2.5" - 5" SINGLE END SPANNER HAR-HSSW-101	2.00 / EA	37.00	74.00
246989	2 WRENCH HOLDER BRACKET ONLY ZINC SPC-WH7601-2	3.00 / EA	59.00	177.00
254735	ZICO SCBA BRACKET ZIA-UN-6-30-3-SF-CRS	1.00 / EA	90.00	90.00
254735	COLLIION RESTRAINT STRAP ZIA-CRS	1.00 / EA	73.00	73.00
254735	.5" TOOL CLIP ZIA-CL .50	1.00 / EA	27.00	27.00
186504	BLIND CAP 5" STORZ w/LANYARD STORZ LOCK NOT INCLUDED TFT-A01ST	1.00 / EA	130.00	130.00
186503	BLIND CAP 4" STORZ w/LANYARD STORZ LOCK NOT INCLUDED TFT-A01SP	1.00 / EA	103.00	103.00



Siddons-Martin Emergency Group
 3500 Shelby Lane
 Denton, TX, 76207
 USA
 Phone: (940) 315-4948

ESTIMATE

DO NOT PAY

Document Info:

Quote #: 700-0021515

135605	ADAPTER 2.5" NHM x 2.5" NHM RIGID MALE TO RIGID MALE TFT-AA6NJ-NJ	1.00 / EA	44.00	44.00
135601	ADAPTER 2.5" NHF x 1.5" NHM RIGID FEMALE ROCKER LUG TO RIGID MALE TFT-AA5NJ-NF	1.00 / EA	47.00	47.00
134877	ADAPTER 1.5" NHF x 1.5" NHF SWIVEL ROCKER LUG TO SWIVEL ROCKER LUG TFT-AA7NF-NF	1.00 / EA	70.00	70.00
186512	HYDRANT ADAPTER 4.5" NHF x 5" STORZ w/5.0" STORZ BLIND CAP & LANYARD TFT-A04NR-ST	1.00 / EA	291.00	291.00
186511	HYDRANT ADAPTER 4" NHF x 5" STORZ w/5" STORZ BLIND CAP & LANYARD TFT-A04NP-ST	1.00 / EA	437.00	437.00
165883	5" STZ w/LOCK x 4" STZ w/LOCK -FG- KOC-S60S54-H52	1.00 / EA	233.00	233.00
241580	ADAPTER 2.5" NHF x 2.5" NHF SWIVEL ROCKER LUG TO SWIVEL ROCKER LUG TFT-AA7NJ-NJ	1.00 / EA	78.00	78.00
241566	ADAPTER 1.5"NHM x 1.5"NHM RIGID MALE TO RIGID MALE TFT-AA6NF-NF	1.00 / EA	43.00	43.00
135601	ADAPTER 2.5" NHF x 1.5" NHM RIGID FEMALE ROCKER LUG TO	1.00 / EA	47.00	47.00



Siddons-Martin Emergency Group
3500 Shelby Lane
Denton, TX, 76207
USA
Phone: (940) 315-4948

ESTIMATE

DO NOT PAY

Document Info:

Quote #: 700-0021515

RIGID MALE

TFT-AA5NJ-NF

254735	ELBOW, 2.5" NH F X 2.5" NH M TFT-AH5NJ-NJ	1.00 / EA	236.00	236.00
151863	STANDPIPE BAG KIT ELK-80035001	1.00 / EA	1,430.00	1,430.00
154595	CONNECTION Mallet FHU-CM-2	1.00 / EA	23.00	23.00
187109	HE BLITZFIRE COMBO PKG 2.5"NH MONITOR/ BRACKET/MAX-FORCE/3- STACK	1.00 / EA	4,581.00	4,581.00
TFT-XXC-52-HENH1				
151587	GATED WYE B-97-A 2.5"FNH x (2)2.5"MNH ELK O LITE ELK-00302111	1.00 / EA	1,488.00	1,488.00
168230	40V MAX XGT 18" CHAINSAW KIT w/ (1) 5.0 AH BATTERY RAPID CHARGER 18" GUIDE BAR & 18" CHAIN MAK-GCU04T1	1.00 / EA	612.00	612.00
168236	40V MAX (x2) XGT 14' POWER CUTTER KIT w/ (4) BATTERIES (1) RAPID CHARGER SOCKET WRENCH & CUTT OFF WHEEL MAK-GEC01PL4	1.00 / EA	2,602.00	2,602.00
168249	40V MAX XGT RECIPRO SAW TOOL ONLY (NO BATTERY OR CHARGER) MAK-GRJ01Z	1.00 / EA	238.00	238.00
168258	40V MAX XGT 4PC COMBO KIT GPH01Z GDT01Z GSH01 ML001G (1) 2.5AH BATTERY (1) 4.0AH BATTERY CHARGER & TOOL BAG MAK-GT400M1D1	1.00 / EA	754.00	754.00



Siddons-Martin Emergency Group
 3500 Shelby Lane
 Denton, TX, 76207
 USA
 Phone: (940) 315-4948

ESTIMATE

DO NOT PAY

Document Info:

Quote #: 700-0021515

185198	20" PPV, 2x8Ah 2x AC Chargers, Shore Power, MAKITA SVI-V20-BK-08-SP	1.00 / EA	6,659.00	6,659.00
168214	18V X2 LXT LED WORK LIGHT (LIGHT ONLY) MAK-DML809	1.00 / EA	304.00	304.00
168216	MAKITA 18V LXT TOWER WORK/MULTI-DIRECTIONAL LIGHT (LIGHT ONLY) MAK-DML814	1.00 / EA	416.00	416.00
159320	LDH Hose Clamp, HASBRA, 5" HAS-HB228-5	1.00 / EA	902.00	902.00
159321	Bracket, 5" Hasbra hose clamp HAS-HB228A-5	1.00 / EA	105.00	105.00
148912	DBAK-800, 1.75" X 50 w/ALUM COUP, RED NAFH-DK175X50REN	9.00 / EA	309.00	2,781.00
254735	D-BAK 800, 2" W/ 2.5" COUPLINGS BLUE, 50FT NAFH-DK2X50B25EN	18.00 / EA	534.00	9,612.00
170727	HOSE DURA BUILT 800, 50FT, YELLOW NAFH-DB3X50YEN	11.00 / EA	443.00	4,873.00
170745	HOSE, HI-FLOW 400 LDH, 5" X 25, STORZ NAFH-HF5X25YRS	1.00 / EA	535.00	535.00
170764	HOSE, HI-FLOW 400 LDH, 5" X 50, STORZ NAFH-HF5X50YRS	1.00 / EA	793.00	793.00
170743	NORTH AMERICAN, HI-FLOW 400 LDH, 5" X 100, STORZ NAFH-HF5X100YRS	8.00 / EA	1,197.00	9,576.00
186995	EDUCTOR 95 GPM 1.5"F x 1.5"M w/36" HOSE .25% .5% 1% 3% 6%	1.00 / EA	770.00	770.00

TFT-UE-095-NF



Siddons-Martin Emergency Group
3500 Shelby Lane
Denton, TX, 76207
USA
Phone: (940) 315-4948

ESTIMATE

DO NOT PAY

Document Info:

Quote #: 700-0021515

151587	GATED WYE B-97-A 2.5"FNH x (2)2.5"MNH ELK O LITE ELK-00302111	1.00 / EA	1,488.00	1,488.00
151533	XD SMOOTH BORE TIP SHORT BARREL 1.5" FNH INLET 7/8" DISCHARGE RED ELK-000187XD-0103	1.00 / EA	110.00	110.00
151599	XD SHUTOFF 1 3/8" WATERWAY 1.5" FNH INLET 1.5"MNH OUTLET NO PISTOL GRIP RED 0033XD0F-0101000200	1.00 / EA	412.00	412.00
254735	ELKHART 1" TIP RED SHORT ELK-000187XD-0303	4.00 / EA	110.00	440.00
151652	XD SHUTOFF 1 3/8" WATERWAY 2.5"FNH INLET 1.5"MNH NO PISTOL GRIP RED 0069XD0F-0101000200	4.00 / EA	540.00	2,160.00
254735	CHIEF XD 150 GPM @ 75PSI RED 04XD0F57-0201020202B	1.00 / EA	841.00	841.00
151587	GATED WYE B-97-A 2.5"FNH x (2)2.5"MNH ELK O LITE ELK-00302111	1.00 / EA	1,488.00	1,488.00
150187	FOLDING LADDER 10' (SAFETY SHOES ARE STD) DUO-585-A-10	1.00 / EA	362.00	362.00
150195	ROOF LADDER 14' 2 3/4" RAIL DUO-775-A-14	1.00 / EA	502.00	502.00
150205	2 SECTION EXTENSION LADDER 24' 3-1/4" RAIL DUO-900-A-24	1.00 / EA	1,075.00	1,075.00
254735	LITTLE GIANT 12017 LITTLE GIANT	1.00 / EA	855.00	855.00
154728	27" SCOOP SHOVEL w/DHANDLE FHU-SHV-S27	2.00 / EA	60.00	120.00



Siddons-Martin Emergency Group
 3500 Shelby Lane
 Denton, TX, 76207
 USA
 Phone: (940) 315-4948

ESTIMATE

DO NOT PAY

Document Info:

Quote #: 700-0021515

154725	55" FLAT SHOVEL FHU-SHV-F55	1.00 / EA	57.00	57.00
154727	55" POINTED SHOVEL FHU-SHV-P55	1.00 / EA	60.00	60.00
150138	28" CONE 5 PACK w/STORAGE BAG DTC-CC5B	1.00 / EA	158.96	158.96
004790	AMEREX 2.5 GAL WATER FIRE EXTINGUISHER w/WALL HANGER BKS-AX240	1.00 / EA	163.22	163.22
140237	AMEREX 15LB CO2 FIRE EXTINGUISHER w/WALL HANGER 10B:C BKS-AX331	1.00 / EA	348.55	348.55
140241	AMEREX 20LB ABC FIRE EXTINGUISHER w/WALL HANGER 10A:120B:C BKS-AX411	1.00 / EA	180.23	180.23
254735	12x14 HD Tarp B0BG8FPQ6D	1.00 / EA	72.99	72.99
254735	12x18 HD Tarp B0CMXLL6CJ	1.00 / EA	65.99	65.99
173908	SFP-4578-YF SFP-4578-YF	1.00 / EA	15.82	15.82
254735	Job Site 24 in. Smooth Surface Push Broom 863JSHDSU	1.00 / EA	38.55	38.55
178275	R&B LARGE HYDRANT TOOL BAG YELLOW RB-439YL	1.00 / EA	89.90	89.90
254735	RTS Tactical XR32 Level IV Premium Active Shooter Kit MISC-700	4.00 / EA	827.99	3,311.96
254735	The BattlePAK TraumaPAK MISC-700	1.00 / EA	2,499.99	2,499.99



Siddons-Martin Emergency Group
3500 Shelby Lane
Denton, TX, 76207
USA
Phone: (940) 315-4948

ESTIMATE

DO NOT PAY

Document Info:

Quote #: 700-0021515

246364	TEAM WENDY ADVENTURER HELMET RED (FORMERLY SAR BACKCOUNTRY) TWH-82N-RD	4.00 / EA	357.08	1,428.32
254735	Spec Ops DELTA Gen II Ballistic Helmet MISC-700	4.00 / EA	999.99	3,999.96
257620	BASIC VEHICLE & STRUCTURAL SHORING PNEUMATIC SET VS- PS1 HOL-151.004.155	1.00 / EA	10,925.75	10,925.75
161385	HDC 12 CONTROL PANEL HOL-350.182.095	1.00 / EA	1,575.11	1,575.11
242471	ACS 12 HIGH PRESS HLB 12 BAR PKG (CGA 347/4500) HOL-159.000.070	1.00 / EA	2,465.78	2,465.78
161394	HLB31 LIFTING BAG 31 TON 12 BAR 23.9X20.9X1.1 HOL-350.321.028	2.00 / EA	1,798.00	3,596.00
254735	BUILDOUT ESTIMATE (POLY, MOUNTING, ETC) BUILDOUT	1.00 / EA	15,000.00	15,000.00
254735	INFLATION ESTIMATE INFLATION ESTIMATE	1.00 / EA	13,893.53	13,893.53
300056	FREIGHT FREIGHT	1.00 / EA	750.00	750.00

Total of All Services			
Labor total	\$0.00	Shop supplies	\$15.82
Parts total	\$137,536.87	Sublet total	\$0.00
Freight total	\$ 750.00	Core charges	\$0.00
		Sales tax	\$0.00

Total: \$138,302.61 408

Pumper, PUC

BODY

Pumper, PUC, Aluminum

CHASSIS

Enforcer Chassis, PUC

CHASSIS

AXLE, FRONT, CUSTOM

18,000 Lb TAK-4 Axle

AXLE, REAR

27,000 Lb Meritor Axle

ENGINE

450 HP Cummins L9 Engine

TRANSMISSION

Allison 6th Gen, 3000 EVS P

BUMPER

19" Extended Painted Steel

CAB

7010 Enforcer Cab, PUC

BODY

WATER TANK

730 Gallon Poly Water Tank

COMPT, PUMPER, REAR

29.50" FF Lap Rear Compt w/Tailboard, PUC

COMPT, PUMPER, LEFT SIDE

189" RollUp Full Height & Depth Front & Rear, PUC

COMPT, PUMPER, RIGHT SIDE

189" RollUp Full Height & Depth Front & Rear, PUC

FIRE SUPPRESSION

PUMPHOUSE

Control Zone, PUC

PUMP

1500 GPM Pierce PUC

CROSSLAYS, 1.50"

(2) 1.50", Poly Trays, 200'

CROSSLAYS, 2.50"

(1) 2.50" DeadLay, Poly Tray, 200'

GENERATOR

Generator Not Required

Foam System

Husky 3 Foam System

Foam Cell

20 Gal Foam Reduce Water

NOTE
DIMENSIONS SHOWN ARE APPROXIMATE
AND ARE SUBJECT TO MINOR DEVIATIONS
AS MAY OCCUR OR BE NECESSARY IN
CONSTRUCTION.
MINOR DETAILS NOT SHOWN.

- 1. ONE 1.50" OUTLET WITH 2.00" PIPING AND SWIVEL LOCATED ON TOP BUMPER RIGHT SIDE
- 2. BLUE SEA SHORELINE RECEPTACLE LOCATED ON DRIVER SIDE BEHIND CREW CAB
- 3. AIR INLET WITH DISCONNECT COUPLING IN THE DRIVER SIDE STEPIWELL
- 4. BATTERY CHARGER LOCATED IN COMPARTMENT PER SHOP ORDER
- 5. BATTERY CHARGE INDICATOR LOCATED ON THE DRIVER SIDE SEAT RISER
- 6. EIGHT ADJUSTABLE SHELVES IN COMPARTMENTS PER SHOP ORDER
- 7. TWO FLOOR MOUNTED SLIDE-OUT TRAY IN COMPARTMENT PER SHOP ORDER
- 8. ONE SWING-OUT TOOLBOARDS IN COMPARTMENTS PER SHOP ORDER
- 9. FOUR TILT/SLIDE-OUT TRAYS LOCATED PER SHOP ORDER
- 10. LITTLE GIANT VELOCITY LADDER - MODEL 13 ON THE FLOOR PER SHOP ORDER
- 11. TWO RECEPTACLES LOCATED PER SHOP ORDER

Technical drawing of a Pumper, PUC, showing side, front, and top views with dimensions and callouts.

Side View Dimensions:

- Overall Length: 121.00 (10'-1") APPROX O.A.H.
- Overall Width: 88.00
- Wheelbase: 194.00 WB
- Overall Height: 16.00
- Front Overlap: 8.00" NFPA MIN.
- Front Wheel Offset: 2.25
- Front Wheelbase: 33.00
- Front Wheelbase: 33.00
- Front Wheelbase: 61.63 FC
- Front Wheelbase: 90.50
- Front Wheelbase: 98.50
- Front Wheelbase: 14.13
- Front Wheelbase: 23.00
- Front Wheelbase: 23.50
- Front Wheelbase: 70.00
- Front Wheelbase: 70.00
- Front Wheelbase: 88.00

Front View Dimensions:

- Overall Width: 88.00
- Overall Height: 16.00
- Front Wheel Offset: 2.25
- Front Wheelbase: 33.00
- Front Wheelbase: 33.00
- Front Wheelbase: 61.63 FC
- Front Wheelbase: 90.50
- Front Wheelbase: 98.50
- Front Wheelbase: 14.13
- Front Wheelbase: 23.00
- Front Wheelbase: 23.50
- Front Wheelbase: 70.00
- Front Wheelbase: 70.00
- Front Wheelbase: 88.00

Top View Dimensions:

- Overall Length: 121.00 (10'-1") APPROX O.A.H.
- Overall Width: 88.00
- Wheelbase: 194.00 WB
- Overall Height: 16.00
- Front Overlap: 8.00" NFPA MIN.
- Front Wheel Offset: 2.25
- Front Wheelbase: 33.00
- Front Wheelbase: 33.00
- Front Wheelbase: 61.63 FC
- Front Wheelbase: 90.50
- Front Wheelbase: 98.50
- Front Wheelbase: 14.13
- Front Wheelbase: 23.00
- Front Wheelbase: 23.50
- Front Wheelbase: 70.00
- Front Wheelbase: 70.00
- Front Wheelbase: 88.00

Callouts:

- (1) WHELEN PSTANK2 L.E.D. WATER LEVEL GAUGE EACH SIDE AND (1) AT REAR
- (2) WHELEN W10NSMC* WARNING LIGHTS EACH SIDE
- (3) WHELEN M6 L.E.D. WARNING LIGHTS EACH SIDE
- (4) WHELEN M6 L.E.D. WARNING LIGHTS EACH SIDE
- (5) WHELEN M6 L.E.D. WARNING LIGHTS EACH SIDE
- (6) WHELEN M6 L.E.D. WARNING LIGHTS EACH SIDE
- (7) WHELEN M6 L.E.D. WARNING LIGHTS EACH SIDE
- (8) WHELEN TL1A L.E.D. LIGHTS TO BE USED AS A TRAFFIC DIRECTING LIGHT
- (9) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (10) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (11) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (12) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (13) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (14) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (15) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (16) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (17) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (18) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (19) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (20) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (21) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (22) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (23) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (24) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (25) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (26) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (27) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (28) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (29) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (30) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (31) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (32) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (33) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (34) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (35) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (36) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (37) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (38) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (39) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (40) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (41) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (42) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (43) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (44) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (45) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (46) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (47) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (48) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (49) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (50) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (51) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (52) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (53) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (54) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (55) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (56) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (57) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (58) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (59) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (60) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (61) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (62) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (63) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (64) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (65) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (66) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (67) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (68) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (69) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (70) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (71) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (72) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (73) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (74) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (75) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (76) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (77) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (78) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (79) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (80) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (81) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (82) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (83) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (84) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (85) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (86) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (87) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (88) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (89) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (90) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (91) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (92) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (93) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (94) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (95) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (96) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (97) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (98) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (99) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE
- (100) WHELEN M6 L.E.D. WARNING LIGHT EACH SIDE

HOSEBED CAPACITY	
BED 1	600' OF 3.00" MERCEDES HOSE
BED 2	1000' OF 5.00" MERCEDES HOSE
BED 3	400' OF 2.00" MERCEDES HOSE
BED 4	300' OF 1.75" MERCEDES HOSE

Pierce MANUFACTURING INC.		JOB NO.	39218
		SCALE	1:24
		DATE	
		DRAWN BY	MMF
		CHECKED BY	AMI
		SHEET SIZE	D
		SHEET NO.	1 OF 1

REV	DATE	BY	CH	ENFORCER
1	15APR24	MMF	CHR	CHASSIS DATA
2	15FEB24	MMF	CHR	MAKE
3	28NOV23	MMF	CHR	PIERCE
4	20SEP23	MMF	CHR	MODEL

TITLE	Pierce PUC Pumper Approval Drawing
FOR	Guadalupe County
DWG NO.	39218AD

409

Engine Replacement Justification 2024

Industry Guides

For fire apparatus replacement, local best practice utilizes a 10/10 method. The fire apparatus' 20 year life cycle would be in frontline status for 10 years and then placed in reserve status for 10 years. The Town's vehicle replacement policy states a fire apparatus life span should be 20 years. It also states, "front-line life span of the Engine is 15 years and has a reserve lifespan for an additional five years".

National Fire Protection Association (NFPA) states that frontline apparatus should be moved to reserve status after 15 years of service and placed in reserve status. NFPA also states apparatus over 25 years old should be replaced.

The 2020 Community Risks Assessment: Standard of Cover for Westlake Fire-EMS Department states that the life expectancy for an engine is 20 years (Figure 1). It is important to note that age is *not* the only factor for evaluating serviceability and replacement. Vehicle mileage and hours on engines must also be taken into consideration.

Figure 1

Vehicle	Life Expectancy
Utility	15
Engine/Pumper	20
Ladder Truck	25
Attack/Brush	20
Ambulance	10

A common tool utilized in the industry to evaluate vehicle replacement is listed in Figure 2.
Figure 2

Evaluation Components	Points Assignment Criteria	
Age:	One point for every year of chronological age, based on in-service date.	
Miles/Hours:	One point for each 10,000 miles or 1,000 hours.	
Service:	1, 3, or 5 points are assigned based on service-type received (e.g., a pumper would be given a 5 since it is classified as severe duty service).	
Condition:	This category takes into consideration body condition, rust interior condition, accident history, anticipated repairs, etc. The better the condition, the lower the assignment of points.	
Reliability:	Points are assigned as 1, 3, or 5, depending on the frequency a vehicle is in for repair (e.g., a 5 would be assigned to a vehicle in the shop two or more times per month on average; while a 1 would be assigned to a vehicle in the shop an average of once every three months or less.	
Point Ranges	Condition Rating	Condition Description
Under 18 points	Condition I	Excellent
18–22 points	Condition II	Good
23–27 points	Condition III	Consider Replacement
28 points or higher	Condition IV	Immediate Replacement

Current Condition

Currently, we have two fire engines. The 2003 model (21 years old) is our reserve engine, while the other engine is a 2015 model (9 years old) in frontline status.

Engine #1401 (21 years old)

Age:	2003	21
Miles/Hours:	10,253hrs./116,119miles	11
Service:	Pumper	5
Condition:	Average condition	3
Reliability:	Average Reliability	3
Total Points:	-----	43

The point value illustrates: Immediate Replacement

While repair costs have been manageable, the larger concern is the availability of parts. Numerous times we have encountered challenges related to replacement of broken parts that have simply worn out. Additionally, and equally concerning is the out of service (OOS) time and frequency related to difficult repairs. OOS time creates challenges when the frontline apparatus goes OOS for repair at the same time. At that point, we have no other engines for structural firefighting and vehicle extrication.

Benefits to funding and Consequences to Not funding

Benefits: Purchasing a fire engine will improve safety, improve operational effectiveness with a more reliable and dependable fleet, and secure current costs or financing.

Consequences: As reserve unit ages, fleet costs will naturally increase with more downtime associated with necessary repairs and routine maintenance—sometimes because of parts obsolescence. Regardless of its net effect on current apparatus costs, the deferral of replacement purchases unquestionably increases future replacement spending needs and may impact overall operational capabilities impacting safe and efficient use of the apparatus.

Important Notes

Manufactures have reported the lead time for delivery of any engine is approximately 24 months to 40 months. With that in mind, ordering this fall would allow us to receive the engine in late 2026 or late 2027, which would position us better with a new apparatus and a well-maintained backup engine.

Inflation costs are increasing at a rate of approximately eight percent and purchasing now would provide overall savings due to securing the current price.

Recommendations

Based on the age and condition, industry best practice, and nationally recognized standards, we are seeking to replace the 2003 engine and place the 2015 engine in reserve status.

Westlake Fire-EMS Department

Introduction and Background Significance

Who We Are



Values
Focused &
Intellectua
lly Driven



Leader of
Character
Culture



High
expectation
s - hiring,
onboarding,
promotion
standards



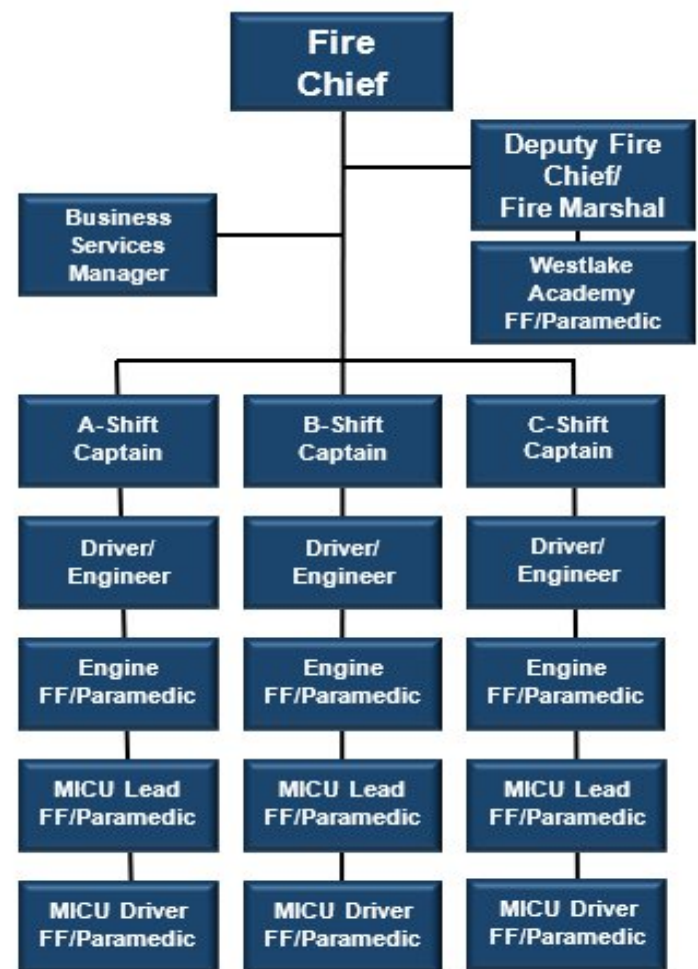
Highly
educated
workforce -
over 75% of
staff have a
Bachelors
degree and
all the
Administratio
n staff have
a Masters
degree



Performance
measures
for
Operations,
Training, &
Risk
Reduction

Organizational Chart

- Minimum Operations daily staffing
- Engine
 - 2 personnel
- Ambulance (MICU)
 - 2 personnel



Divisions

Administration	Operations	Risk Reduction	Emergency Management
• Payroll, Invoicing, Budget Monitoring & Preparation, Human Resource Mgmt., Mental Health Support	• Emergency and Non- Emergency Responses, Training, Program Mgmt.	• Fire Inspection and Testing, Plan Review, Fire Investigations, Arson Investigations, Public Education	• Maintain and Support Town and Academy Emergency Operation Plans (EOP) • Monitor Threats to the Town (e.g., severe weather) • Maintain and Activate Outdoor Weather Sirens (OWS) • Provide EOP Training (e.g., drills, exercises, tabletops, etc.)

What We Do - Scope of Services

- Fires – Structural and Non-structural
- Emergency Medical Services
- Social Services
- Active Shooter/Hostile Event Response (ASHER)
- Risk Reduction – Inspection, Education, Enforcement, and Code Development
- Fire Investigation – Arson, Cause/Origin, Intelligence, Prosecution
- Terrorist Acts – Chemical, Biological, Radiological, Nuclear, and Explosives
- Hazardous Materials Response
- Technical Rescue
- Transportation Incidents – Traffic Incident Management
- Catastrophic Weather Events – Tornadoes, Storms, Hail, Lightning, Floods & Heat
- Special Events

Partnerships and Public Education

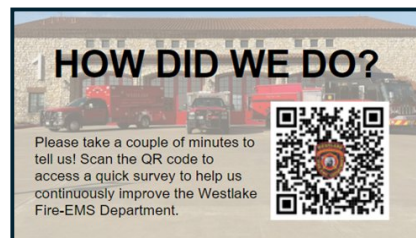
Partnerships

- Westlake Academy
- Westlake Area Network Group (WANG)
- Northeast Fire Department Association
- North Tarrant Regional ???

Initiatives

- Offer CPR and Stop the Bleed Training
- Offer car seat inspections
- Offer home safety inspections
- Fire Extinguisher demonstrations
- Annual Open House
- Station Tours

What does the community say about us?



- very caring and attentive. They represent the best of our community. 2/11/2024 04:49 PM
- They were so great at helping me with my car seat. Such nice men, glad we have them! 2/15/2024 11:52 AM
- I wish I'll never have to need your services, but if I ever do... You have our complete trust and respect. 4/29/2024 10:24 AM

Threats

Non-
Competitive
Compensation
System

Attrition

Insufficient
Staffing

Unfunded
Capital
Equipment

Non-Competitive Compensation System

- All fire department personnel are drastically below market
- We need a current salary market analysis
- We need a comprehensive pay policy
- We need a current adopted competitive pay plan

Example:

Firefighter/Paramedic left our organization in December of 2023 to Lewisville FD.

Westlake paid him a salary of \$67,995.00 (2-year firefighter)

Lewisville offered him lateral pay of \$90,458.34

Difference: \$22,463.34 (33%)

Effective 10/1/2023

		Step 1	Step 2	Step 3	Step 4	Step 5	Step 6	Step 7
Firefighter	Annual	\$ 74,460.15	\$ 77,405.89	\$ 80,474.85	\$ 83,686.78	\$ 87,023.93	\$ 90,458.34	\$ 94,073.88
7101	Monthly	\$ 6,205.01	\$ 6,450.49	\$ 6,706.24	\$ 6,973.90	\$ 7,251.99	\$ 7,538.20	\$ 7,839.49
	Hourly (2080)	\$ 35.7981	\$ 37.2144	\$ 38.6898	\$ 40.2340	\$ 41.8384	\$ 43.4896	\$ 45.2278
	Hourly (2912)	\$ 25.5701	\$ 26.5817	\$ 27.6356	\$ 28.7386	\$ 29.8846	\$ 31.0640	\$ 32.3056

Non-Competitive Compensation System

Sample Comparison

	Westlake	Flower Mound	Lewisville	Southlake	Flower Mound, Lewisville, & Southlake Average	Difference between Average & Westlake
Firefighter/EMT - Step 1	\$59,987.20	\$76,148.80	\$74,460.15	\$63,324.68	\$71,311.21	\$11,324.01
Firefighter/Paradic - Step 1	\$64,093.12	\$80,167.80	\$77,460.15	\$78,459.28	\$78,695.74	\$14,602.62
Firefighter/Paramedic - Step 5	\$70,179.20	\$90,242.88	\$90,023.93	\$86,582.04	\$88,949.62	\$18,770.42
Driver Engineer - Step 1	\$86,136.96	\$102,327.68	\$103,160.19	\$97,545.94	\$101,011.27	\$14,874.31
Lieutenant - Step 1	\$94,057.60			\$110,519.55	\$110,519.55	\$16,461.95
Captain - Step 1	\$98,512.96	\$124,371.52	\$120,321.77		\$122,346.65	\$23,833.69

Non-Competitive Compensation System

Common public safety
incentive pays
offered by other
cities

Incentive Pays	Other Cities	Town of Westlake
Longevity Pay	Yes	No
Certification Pay	Yes	No
Education Based Pay	Yes	No
Out of Class Pay/Interim Status Pay	Yes	No
Standby/On-call Pay	Yes	No
Tuition Reimbursement	Yes	No
Paramedic Pay	Some	No
Assignment Pay: FTO, MICU, etc.	Some	No

Attrition



Disruptive



Hardship



Time



Energy



Lost knowledge



Lost Experience



Very Costly

Facts:

- 12 personnel replaced in 4.5 years
- 10 hiring process completed
- Hiring process takes 4 months

Insufficient Staffing - Independent Studies

Three independent services recommended more personnel and resources

1. Mike Pietsch, P.E. Consulting Services, Inc. (ISO Evaluation, 2013)

- Westlake have in service two (2) engine companies and one (1) ladder truck company deployed from two (2) fire stations
- Note: Company implies both the apparatus and staffing required to operate the apparatus
- Largest deficiency were the result of insufficient engine company staffing and no ladder company (2013 and 2017)

2. Comprehensive Plan Update, Mesa Planning (2015)

- Identified Westlake will need 27 firefighters at build out, which does not include the driver/engineers, company officers, battalion chiefs, or ambulance staffing
- At build out, it is estimated the total fire personnel is 56 (2 Engines, 2 MICUs, 1 Truck, & Administration)
- Two fire stations and illustrates one station located at Dove Road and Davis Blvd, and a second fire station located near Hwy 170 and Roanoke Road

Insufficient Staffing - Independent Studies

3. Community Risks Assessment/Standards of Cover, ESCI (2020)

Current Recommendations

- Four personnel is critical for firefighting operational tasks
- First-arriving companies staffed with three and four firefighters are more efficient
- Add one (1) Fire Inspector/Public Education Coordinator
- Add one (1) Shift Commander/Training Battalion Chief
- Add one (1) ladder truck with 4 personnel

Future Recommendations

- Add second station with training facility at or around 2050 Roanoke Rd. to improve total response time goals of 9:20 90% of the time
- Add one (1) ALS engine for Station 2 with four (4) personnel
- Add one (1) Ambulance (MICU) with two (2) personnel

Insufficient Staffing - Industry Best Practices

National Fire Protection Association (NFPA)

NFPA 1710: Organization and Deployment of Fire Suppression Operations

- First arriving company must consist of four (4) firefighters

NFPA 1730: Organization and Deployment of Fire Prevention Inspection and Code Enforcement

- Add a Fire Inspector based on workload calculations

National Institute of Standards and Technology (NIST)

Four-person crews are able to complete time-critical fireground tasks 25% faster than 3-person crews

Occupational Safety and Health Administration (OSHA)

2-in /2-out Rule

Two firefighters in Immediate Danger to Life and Health (IDLH) and two firefighters outside prepared to perform rescue operations

Insufficient Staffing – Structure Fire

Westlake Fire-EMS Dept.

Engine: 2 personnel

Ambulance: 2 personnel

Challenges:

Engine staffing

Ambulance availability

Mutual aid availability

Arrival time of resources

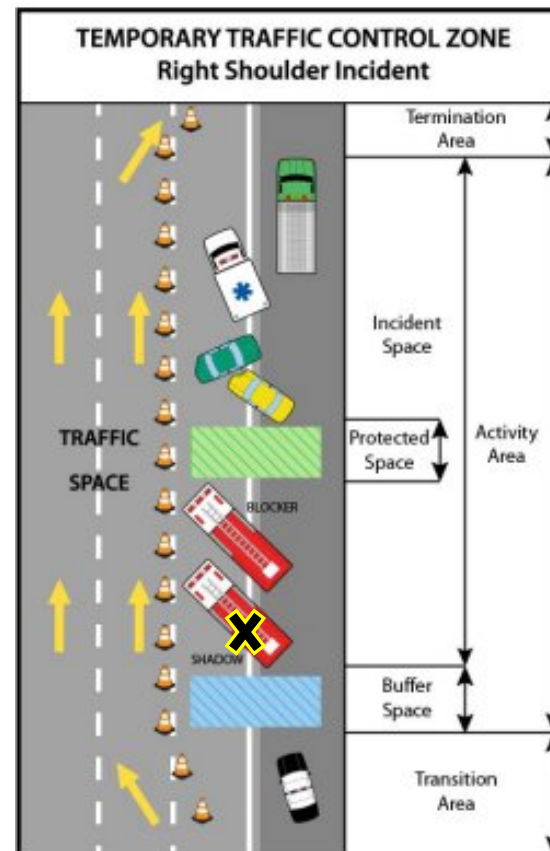
Common Responsibilities for Residential Structure Fire

Initial Full Alarm Assignment	10,000 ft ²
Incident Commander	1
Water Supply Operator	1
2 Application Hose Lines	4
1 Support member per line	2
Victim Search and Rescue Team	2
Ground Ladder Deployment	2
Aerial Device Operator	1
Incident Rapid Intervention Crew (4 FF)	3/4
Safety Officer	1
Medical	2
Total	19/20

Insufficient Staffing – Motor Vehicle Accident

Critical Tasks

- Incident Command
- Scene Safety
- Vehicle Stabilization
- Patient Care
- Fire Control
- Patient Extrication
- Hazardous Materials





Insufficient Staffing – Medical Emergency (CPR)

Critical Tasks

- Scene Safety
- Airway
- Compressions
- IV/IO Drugs
- Cardiac Monitoring
- Lead Medic
- Patient Moving & Transport
- Bystanders (e.g., family)

Unfunded Capitol Equipment and Vehicle Replacement Plan

Capital Equipment Plan

- Cardiac Monitors
- Portable Radios
- Bunker Gear (PPE)
- Lucas Device (CPR compression machine)

Apparatus Replacement Plan

- Ambulances
- Engines
- Attack trucks
- Support vehicles



Critical Needs -Solutions



Implemented Competitive Pay Plan



Three (3) additional Firefighter/Paramedics
(one per shift)



One (1) Engine Replacement

Future Needs

- Three (3) additional Firefighter/Paramedics (one per shift) - Engine
- One (1) Ladder Truck
- Four (4) Firefighter/Paramedics – Ladder Truck
- One (1) Fire Inspector
- One (1) Fire Inspector Vehicle
- One (1) Emergency Management Coordinator
- One (1) Shift Commander
- Second Fire Station Site

Closing Remarks

We strive to be the best we can be
We deliver a broad range of services
We are highly skilled and efficient at what
we do
We lack the resources to effectively and
safely deliver emergency services
The industry experts supports more staffing
and resources

Vehicle Purchase/Replacement Schedule

Vehicle	Unit #	Year Model		FY24/25	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30	FY 30/31	FY 31/32	FY 32/33
Fire Engine	1401	2003	20 Year Life: 10 Frontline/10 Reserve	\$ 1,300,000								
Ambulance	1404	2012	14 Year Life: 7 Frontline/7 Reserve		\$ 500,000							
Fire Attack (Brush Truck)	1405	2012	20 Year Life: Chassis Remount									\$ 400,000
Fire Engine	1408	2015	20 Year Life: 10 Frontline/10 Reserve									
Fire Chief Tahoe	1409	2017	10 Year Life		\$ 75,000							
Ambulance	1410	2019	14 Year Life: 7 Frontline/7 Reserve									
Deputy Chief F150	1411	2022	10 Year Life								\$ 85,000	
UTV	1413	2022	20 Year Life									
Ladder Truck			20 Year Life: 10 Frontline/10 Reserve		\$ 2,400,000							

FY 33/34	FY 34/35	FY 35/36	FY 36/37	FY 37/38
		\$ 1,500,000		
	\$ 600,000			



Town of Westlake

1500 Solana Blvd
Building 7, Suite 7100
Westlake, TX 76262

Staff Report

File #: RES 25-02

Agenda Date: 1/21/2025

Agenda #: G.4.

TOWN STAFF REPORT RECOMMENDATIONS

Consider approving Resolution 25-02 authorizing the Town Manager to contract with inCon-Trol Water Systems to repair and update the existing well system at Glenwyck Park through a Master Interlocal Agreement with the City of Southlake in an amount not to exceed \$71,000. (Cheryl Taylor, Director of Public Works)

STAFF: Cheryl Taylor, Director of Public Works

BACKGROUND:

In November, the Town Manager was notified that the pond at Glenwyck Park was low. Public Works staff determined the well for the pond had failed and is in need of repair. Staff consulted with several vendors, all determined that the pump motor had short to ground. This means that the pump must be pulled and replaced. This well is on the Paluxy aquifer and is nearly 800 feet deep

DISCUSSION:

The pond at Glenwyck Park was constructed with the subdivision in 2000. A well was installed to supply the pond with water for irrigating the landscaping in the park and to keep the water level at a constant elevation for aesthetic purposes. The Town of Westlake maintains the park area and is responsible for the repair and maintenance of the well. The Town Manager was contacted by a resident in November that the pond level was low. Public Works staff determined that the well was inoperable and contacted inControl Water Systems for an assessment and proposal for repair. The assessment concluded that the control panel powering the well also has a load center that supplies power to other amenities within the park that is also in disrepair and improperly wired. The proposal includes making those repairs so that staff can safely operate and control the breakers to fountains and controls.

The Town of Westlake may contract with this vendor through a Master ILA with the City of Southlake. The scope of work provided includes the following:

A.	Well Update & Repair	\$ 51,651.05
B.	Update Level Control Panel	\$ 4,477.26
C.	Load Center	\$ 2,451.87
D.	Transformer	\$ 3,581.55
		\$62,161.73

The request for \$71,000 includes an approximately 12% contingency for any unforeseen parts and improvements that may be necessary when the well is accessed for the repair

FISCAL IMPACT:

The total cost to repair the well at Glenwyck Park shall not exceed \$71,000 and will be funded through a budget amendment to the Fiscal year 2024-2025 Parks Department Operating Budget.

STAFF RECOMMENDATION:

Staff recommends approval of Resolution 25-02 authorizing the Town Manager to contract with inCon-Trol Water Systems to repair and update the existing well system at Glenwyck Park through a Master Interlocal Agreement with the City of Southlake in an amount not to exceed \$71,000

ATTACHMENT(S):

1. inCon-Trol Water Systems Scope of Work and Quote
2. Master Interlocal Agreement with the City of Southlake

TOWN COUNCIL ACTION/OPTIONS:

- 1) Motion to approve
- 2) Motion to amend with the following stipulations (please state stipulations in motion)
- 3) Motion to table
- 4) Motion to deny

TOWN OF WESTLAKE

RESOLUTION NO. 25-02

A RESOLUTION OF THE TOWN COUNCIL OF THE TOWN OF WESTLAKE, TEXAS, AUTHORIZING THE TOWN MANAGER TO ENTER INTO A CONTRACT WITH INCON-TROL WATER SYSTEMS TO REPAIR AND UPDATE THE EXISTING WELL SYSTEM AT GLENWYCK PARK THROUGH A MASTER INTERLOCAL AGREEMENT WITH THE CITY OF SOUTHLAKE IN AN AMOUNT TO EXCEED \$71,000

WHEREAS, the Town Council of the Town of Westlake recognizes the need to maintain and protect public infrastructure to serve its residents; and,

WHEREAS, the leaders of the Town of Westlake desire to improve the quality of life in the public parks throughout the town; and,

WHEREAS, the Town Council recognizes the importance of maintenance of infrastructure within the public parks which requires regular operational inspection, maintenance and repair of critical components that add to the aesthetics and quality of life to the residents of the Town; and,

WHEREAS, the Town Council finds that the passage of this Resolution is in the best interest of the citizens of Westlake.

NOW, THEREFORE, BE IT RESOLVED BY THE TOWN COUNCIL OF THE TOWN OF WESTLAKE, TEXAS:

SECTION 1: That all matters stated in the recitals hereinabove are found to be true and correct and are incorporated herein by reference as if copied in their entirety.

SECTION 2: That the Town Council for the Town of Westlake does hereby approve a contract with inCon-Trol Water Systems through a master interlocal agreement with the City of Southlake to repair and update the existing well system that feeds the pond in Glenwyck Park.

SECTION 2: That the funding for the repair and update of the well system was not a planned expense within the Parks Department operating budget for fiscal year 2024-2025 and will require a future budget amendment.

SECTION 3: If any portion of this Resolution shall, for any reason, be declared invalid by any court of competent jurisdiction, such invalidity shall not affect the remaining provisions hereof and the Council hereby determines that it would have adopted this Resolution without the invalid provision.

SECTION 4: That this Resolution shall become effective from and after its date of passage.

PASSED AND APPROVED ON THIS 21ST DAY OF JANUARY 2025.

Kim Greaves, Mayor

ATTEST:

Dianna Buchanan, Town Secretary

APPROVED AS TO FORM:

L. Stanton Lowry, Town Attorney

EXHIBIT A



Date: December 6, 2024

Contact: Kyle Flanagan
Phone: 817-996-6793
Email: kflanagan@westlaketx.gov

Project: Glenwyck Park – Well Repair Plus Control Updates

inCon-trol Water Systems is pleased to provide the following proposals to repair and update the existing well system. There are multiple irrigation controllers on the property that send run signals to the existing well pump. There are also continuity controllers that can open valves to several fill sources. Proposal does not include the price of the probes or fill valves in the event that any have failed.

The previous contractor included the cost of the VFD and other hardware as the well pump does directly charge a mainline for irrigation purposes. If the pump is not sized perfectly for the zones, or if one of the zones fail to open, the pump will dead head and fail prematurely. This is the reason the other contractor included a cost for the pressure transmitter and VFD. We have included a new VFD and pressure transmitter in the well proposal.

NOTE: This project is a repair job; it should be expected to find unknowns during the removal and replacement of components. inCon-trol is providing this proposal based on investigation of the system and experience with similar structures, but there will be repairs necessary that are not apparent at this time that may incur additional cost.

NOTE: Pricing model is based on agreement with Southlake at the following rates: Material pricing is already discounted. Well Pump & Motor replacement is subcontracted.

InCon-Trol Water Systems			2024 Updated Unit Cost	Increase Percentage May Not Exceed 2%
	ITEM Description:	Unit Cost	Unit Cost	
1	Hourly Labor Rates			
1-1	Hourly Labor Rate for Service Technician to Provide Required Preventative Maintenance Services per Scope of Services.	\$ 110.00	\$ 112.20	2.00%
1-2	Hourly Labor Rate for Service Technician to Provide Required Repair Services per Scope of Services.	\$ 110.00	\$ 112.20	2.00%
1-3	Hourly Labor Rate for Service Technician Helper to Provide Required Preventative Maintenance or Repair Services per Scope of Services.	\$ 55.00	\$ 56.10	2.00%
1-4	Hourly Labor Rate for Service Technician to Provide Emergency or After Hours Repair Services per Scope of Services.	\$ 165.00	\$ 168.30	2.00%
1-5	Hourly Labor Rate for Service Technician Helper to Provide Emergency or After Hours Repair Services per Scope of Services.	\$ 82.50	\$ 84.15	2.00%
1-6	Vendor Trip Charge - Normal Business Hours	\$ 199.25	\$ 203.24	2.00%
1-7	Vendor Trip Charge - Emergency or After Normal Business Hours	\$ 299.95	\$ 305.95	2.00%

410 Interchange, McKinney, TX 75071
tel 214.733.8828 • fax 214.544.9555
www.incontrolwatersystems.com



OPTION A; Scope of Work: Well Update & Repair

- Pull and Set new Equipment – Dailey Rate \$7,280.00 proposal assumes 1.5 days @ \$10,920.00
- New Motor – 10hp 460V 3ph Motor – Size is assumed and will need to be confirmed when pulled
 - \$6,164.93
- New Pump End – 10hp 35gpm - \$5,957.42
- 2.5" Check Valve (2) - \$504.00 each
- Splice kit, Air Line Manifold, 1/4" Air line with cable wrap/secure wire - \$1,455.23
- VFD 10hp, 480V 22amp with disconnect, output sine wave filter, and surge protector with Nema3R enclosure - \$15,681.51
- 10/4 & 8/4 Twisted Shielded Submersible Cable \$5,398.40
- Programmer labor: 8 hours @ \$112.50 = \$900.00
- Fence Removal and Reinstallation
 - Two Leads – 9 hours @ \$112.50 each = \$2,025.00
 - Two Helpers – 9 hours @ \$56.10 each = \$1,009.80
 - Concrete/Materials - \$834.30
- Equipment/logistics/Fuel - \$290.46

Total: \$51,651.05

(Fifty-One Thousand Six Hundred Fifty-One Dollars & Five Cents)

Pricing in this proposal is valid for 30 days

Option A Acceptance: X_____

Date:_____

OPTION B; Scope of Work: Update Level Control Panel

- New Panel
 - Enclosure - \$576.00
 - Level Control Relay (5) - \$27 each @ a total of \$135.00
 - 24VAC Transformer - \$198.00
 - Terminal - \$180
 - Breakers (2) - \$41.40 each @ a total of \$82.80
 - Switches/lights (5) - \$36.00 each @ a total of \$180.00
 - Fabricator – 5 hours @ \$112.50 per hour totaling \$562.50
 - Programmer – 5 hours @ \$112.50 per hour totaling \$562.50
 - Electricians (2) – 4 hours each @ \$112.50 per hour totaling \$900.00
 - Equipment/logistics/Fuel - \$290.46

Total: \$4,477.26

(Four Thousand Four Hundred Seventy-Seven Dollars & Twenty-Six Cents)

410 Interchange, McKinney, TX 75071

tel 214.733.8828 • fax 214.544.9555

www.incontrolwatersystems.com

Initial: Customer _____ inCon-trol Water Systems _____



Pricing in this proposal is valid for 30 days

Option B Acceptance: X _____ Date: _____

OPTION C; Scope of Work: Load Center

- Installation of new GFCI and 1 pole with Load Center
 - E Position Load Center - \$216.00
 - 1 pole (4) - \$28.80 each totaling \$115.20
 - 2 Pole GFCI - \$576.00
 - Electricians (2) – 6 hours each @ \$112.50 per hour totaling \$1,350.00
 - Equipment/logistics/Fuel - \$194.67

Total: \$2,451.87

(Two Thousand Four Hundred Fifty-One Dollars & Eighty-One Cents)

Pricing in this proposal is valid for 30 days

Option C Acceptance: X _____ Date: _____

OPTION D; Scope of Work: Transformer

- New Transformer
 - Transformer - \$2,880.00
 - Electrician – 5 hours @ \$112.50 totaling \$562.50
 - Equipment/logistics/Fuel - \$139.05

Total: \$3,581.55

(Three Thousand Five Hundred Eighty-One Dollars & Fifty-Five Cents)

Pricing in this proposal is valid for 30 days

Option A Acceptance: X _____ Date: _____



Project specific notes:

- Pricing is subject to change based on changes requested by the client.
- inCon-trol Water Systems is not responsible for the pre-existing pumps, motors, vault, or related items.
- inCon-trol Water Systems reserves the right to withdraw its bid upon final review of all contract documents, including, but not limited to, schedules, bonds, and owner contracts.
- Not responsible for vegetation destroyed, utilities, sidewalks, approaches or any other damages to ancillary facilities during installation.
- It is assumed that the equipment required will fit into the spaces provided for such equipment. If it is found that the specified equipment does not fit into the spaces provided, additional costs may apply. Any design, demolition, or construction of such modifications is not included in this proposal.

Start up:

1. Start-up charges include one day on site. If more than one day is required, additional charges will be assessed if the delay is not the fault of inCon-trol Water Systems.

Delivery and Set-up:

1. All reasonable efforts will be made to meet the requested repair date after the receipt of a signed contract; however, inCon-trol Water Systems will not be liable for delays in delivery.
2. Customer will be responsible for having job site readily accessible.
3. Station Set-up charges, if included above, reflect one day on site. If more than one day is required, additional charges will be assessed if the customer caused the delay.

Conditions of Contract:

inCon-trol Water Systems will start the repair process upon the signature of this agreement. When work begins, it cannot be halted. If customer changes his or her mind about work being done, The Buyer is responsible for the full price quoted on this agreement. Any changes shall be brought to inCon-trol Water Systems' attention before work begins. If changes are needed due to Buyer changes, an extra cost for material and labor will be added to the total amount due at the end of the project.

Payment terms are net 30 unless stated specifically elsewhere. Please initial below acknowledging the payment terms.

Initial: Customer: _____ inCon-trol Water Systems _____

Warranty:

1. inCon-trol Water Systems warranties work to be free of defects in materials and workmanship for a period of one (1) year from the date of startup.
2. This warranty is limited to replacing or repairing any defective component at the sole option of inCon-trol Water Systems and does not apply to equipment that has been damaged, misapplied, **age of existing equipment**, or has been modified in any way.
3. inCon-trol Water Systems is not responsible for any and all pre-existing pumps, pump motors, or related equipment.
4. This warranty does not cover damages under the following conditions, unless otherwise specified in writing: (1) Lighting strikes, misapplied or inappropriate in-coming power, improper grounding, freeze damage, vandalism, or any incidental, consequential, or act of God, (2) repairs or replacements made without the pre-authorization of inCon-trol Water Systems or its recognized service provides, (3) exposure to destructive gaseous or chemical solutions

410 Interchange, McKinney, TX 75071
tel 214.733.8828 • fax 214.544.9555
www.incontrolwatersystems.com

Initial: Customer _____ inCon-trol Water Systems _____



5. THIS WARRANTY IS ABSOULELY IN LIEU OF ANY OTHER EXPRESS OR IMPLIED WARRANTIES; THIS INCLUDES ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, AND OF ANY OTHER OBLIGATION ON THE PART OF INCON-TROL WATER SYSTEMS.

InCon-trol Water Systems is not liable for any loss, damage, or injury directly or indirectly caused due to the use or failure of workmanship of this product.

InCon-trol Water Systems is not responsible for the following items, "Disclaimer"

1. Not responsible for water quality coming through the suction manifold. It is the buyer's responsibility to check for sediment and debris that will hinder pump operation.
2. Not responsible for debris clogging flows through the suction or discharge manifold.
3. Pumping Equipment are mechanical items; therefore, they will break down or fail at any given time. inCon-trol Water Systems is not responsible for any damages that may occur in the situation of a Pumping Equipment failure; this includes but is not limited to, loss of plants, livestock, revenues produced. However, inCon-trol Water Systems will schedule a repair or warranty repair crew to assess the potential Pumping Equipment failure at inCon-trol Water System's earliest possible time frame that work schedules will allow.
4. Acts of God.

Thank you for your consideration
Cole Gray

A handwritten signature in black ink, appearing to read "Cole Gray", with a stylized flourish at the end.

Business Development
inCon-trol Water Systems
410 Interchange
McKinney Texas, 75071
972-439-6761
cgray@incontrolwatersystems.com

Printed Name

X _____
Owner/Authorized Agent

Title

Date

TOWN OF WESTLAKE

RESOLUTION NO. 24-82

A RESOLUTION OF THE TOWN COUNCIL OF THE TOWN OF WESTLAKE, TEXAS, AUTHORIZING A MASTER INTERLOCAL COOPERATIVE PURCHASING AGREEMENT BETWEEN THE TOWN OF WESTLAKE AND THE CITY OF SOUTHLAKE.

WHEREAS, Chapter 791 of the Texas Government Code, also known as the Interlocal Cooperation Act, and Chapter 271. 102 of the Texas Local Government Code authorize all local governments to contract with each other to perform governmental functions or services including administrative functions normally associated with the operation of government such as purchasing of necessary equipment, supplies and services; and,

WHEREAS, the Town of Westlake (the " Town") City of Southlake (Southlake) desire to enter into this Agreement for the purpose of fulfilling and implementing their respective public and governmental purposes, needs, objectives, programs and services; and,

WHEREAS, The Town and Southlake represent that each are independently authorized to perform the functions or services contemplated by this Agreement; and,

WHEREAS, it is deemed in the best interest of all participating governments that said governments do enter into a mutually satisfactory agreement for the purchase of necessary equipment, supplies, and services; and,

WHEREAS, the participating governments are of the opinion that cooperation in the purchasing of equipment, supplies, services and auctions will be beneficial to the taxpayers of the Governments through the efficiencies and potential savings to be realized; and,

WHEREAS, the Town Council finds that the passage of this Resolution is in the best interest of the citizens of Westlake.

NOW, THEREFORE, BE IT RESOLVED BY THE TOWN COUNCIL OF THE TOWN OF WESTLAKE, TEXAS:

SECTION 1: That all matters stated in the Recitals hereinabove are found to be true and correct and are incorporated herein by reference as if copied in their entirety.

SECTION 2: The Town and Southlake are authorized to participate in each other's current and/or future contracts for goods and services. Said contracts shall have been established in accordance with all appropriate procedures governing competitive bids and competitive proposals, if required.

SECTION 3: The Town and Southlake agree that the ordering of goods and services is the responsibility of the local government seeking to obtain such goods and services under the established contract, and that participating government shall deal directly with the vendor in obtaining the goods and services and payment therefore. The participating government shall be liable to the vendor only for goods and services ordered and received by it, and shall not, by the execution of this Agreement, assume any additional liability. Neither the Town nor Southlake warrants, or is responsible for, the quality or delivery of goods or services from the vendor under contract. Should a dispute arise between a participating government and a vendor, the same shall be handled by and between that participating government and the vendor.

SECTION 4: That the Town Council for the Town of Westlake does hereby approve a Master Interlocal Cooperative Purchasing Agreement between the Town of Westlake and the City of Southlake to utilize any contracts for goods and services available thereunder, and authorizes the Town Manager or designee to execute Interlocal Agreement attached hereto as "Exhibit A".

SECTION 5: If any portion of this Resolution shall, for any reason, be declared invalid by any court of competent jurisdiction, such invalidity shall not affect the remaining provisions hereof and the Council hereby determines that it would have adopted this Resolution without the invalid provision.

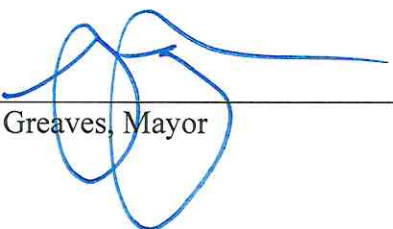
SECTION 6: That this Resolution shall become effective from and after its date of passage.

PASSED AND APPROVED ON THIS 11TH DAY OF NOVEMBER 2024.



ATTEST:


Dianna Buchanan, Town Secretary



Kim Greaves, Mayor

APPROVED AS TO FORM:



L. Stanton Lowry, Town Attorney

EXHIBIT A

**MASTER INTERLOCAL COOPERATIVE PURCHASING AGREEMENT
BETWEEN THE TOWN OF WESTLAKE AND CITY OF SOUTHLAKE**Date Approved 10/21/21

WHEREAS, Chapter 791 of the Texas Government Code, also known as the Interlocal Cooperation Act, and Chapter 271.102 of the Texas Local Government Code authorize all local governments to contract with each other to perform governmental functions or services including administrative functions normally associated with the operation of government such as purchasing of necessary equipment, supplies and services;

WHEREAS, The Town of Westlake (the "Town") City of Southlake (Southlake) desire to enter into this Agreement for the purpose of fulfilling and implementing their respective public and governmental purposes, needs, objectives, programs and services;

WHEREAS, The Town and Southlake represent that each are independently authorized to perform the functions or services contemplated by this Agreement;

WHEREAS, it is deemed in the best interest of all participating governments that said governments do enter into a mutually satisfactory agreement for the purchase of necessary equipment, supplies, and services;

WHEREAS, the participating governments are of the opinion that cooperation in the purchasing of equipment, supplies, services and auctions will be beneficial to the taxpayers of the governments through the efficiencies and potential savings to be realized; and

WHEREAS, each party has sufficient resources to perform the functions contemplated by this Agreement;

NOW THEREFORE, the parties hereto, in consideration of the mutual covenants and conditions contained herein, promise and agree as to each of the other as follows:

1. The Town and Southlake are authorized to participate in each other's current and/or future contracts for goods and services. Said contracts shall have been established in accordance with all appropriate procedures governing competitive bids and competitive proposals, if required.
2. The Town and Southlake agree that the ordering of goods and services is the responsibility of the local government seeking to obtain such goods and services under the established contract, and that participating government shall deal directly with the vendor in obtaining the goods and services and payment therefore. The participating government shall be liable to the vendor only for goods and services ordered and received by it, and shall not, by the execution of this Agreement, assume any additional liability. Neither the Town nor Southlake warrants, or is responsible for, the quality or delivery of goods or services from the vendor under contract. Should a dispute arise between a participating government and a vendor, the same shall be handled by and between that participating government and the vendor.

3. Each government shall pay invoices directly to the providers of goods and services that are invoiced and delivered directly to each respective government.
4. Participation of either government in any cooperative purchasing activity is strictly voluntary. Nothing in this Agreement shall prevent either governments from purchasing and/or accepting and awarding bids, proposals and contracts subject to this Agreement on its own behalf.
5. Each government shall ensure that all applicable laws and ordinances have been satisfied.
6. **Effective Date and Term.** This Agreement shall be effective when the last party signing causes the Agreement to be fully executed and will remain in full force and effect indefinitely. Any party may modify and/or terminate this Agreement in accordance with Paragraphs 7 and 8, respectively.
7. **Modification.** The terms and conditions of this Agreement may be modified upon the mutual consent of all parties. Mutual consent will be demonstrated by approval of the governing body of each party hereto. No modification to this Agreement shall be effective and binding unless and until it is reduced to writing and signed by duly authorized representatives of all parties.
8. **Termination.** This Agreement may be terminated at any time by the Town or Southlake, with or without cause, upon thirty (30) days written notice to the other party in accordance with Paragraph 11 herein.
9. **Hold Harmless.** To the extent allowed by law, the Town and Southlake agree to hold each other harmless from and against any and all claims, losses, damages, causes of action, suits and liabilities of every kind, including all expenses of litigation, court costs and attorney's fees, for injury or death of any person, for damage to any property, or for any breach of contract, arising out of or in connection with the work done under this Agreement.
10. **Invalidity.** If any provision of this Agreement shall be held to be invalid, illegal, or unenforceable by a court or other tribunal of competent jurisdiction, the validity, legality and enforceability of the remaining provisions shall not in any way be affected or impaired thereby. The parties shall use their best efforts to replace the respective provision or provisions of this Agreement with legal terms and conditions approximating the original intent of the parties.
11. **Written Notice.** Unless otherwise specified, written notice shall be deemed to have been duly served if delivered in person, sent by email, by fax with successful send confirmation, or by certified mail to the last business address as listed herein.

Town of Westlake:

Town of Westlake
Attn.: Procurement
1500 Solana Blvd.
Building 7
Suite 7200
Westlake, TX 76262
Phone: (817) 430-0941
Fax: (817) 430-1812

Entity:

Purchasing Department
Attn: Tim Slifka, Purchasing
Manager
City of Southlake
1400 Main St. Suite 420
Southlake, TEXAS 76092
Phone: 817-748-8312
TSlifka@ci.southlake.tx.us

12. **Entire Agreement.** It is understood that this Agreement contains the entire agreement between the parties and supersedes any and all prior agreements, arrangements, or understandings between the parties relating to the subject matter. No oral understandings, statements, promises, or inducements contrary to the terms of this Agreement exist. This Agreement cannot be changed or terminated orally. No verbal agreement or conversation with any officer, agent, or employee of any party before or after the execution of this Agreement shall affect or modify any of the terms or obligations hereunder.
13. **Amendment.** No Amendment to this Agreement shall be effective and binding unless and until it is reduced to writing and signed by duly authorized representatives of both parties.
14. **Texas Law.** This Agreement has been made under and shall be governed by the laws of the State of Texas.
15. **Place of Performance.** Performance and all matters related thereto shall be in the County of the government originating the bid. This shall be Tarrant County, Texas, United States of America for Southlake and shall be Tarrant County, Texas, United States of America for the Town.
16. **Authority to Enter Contract.** Each party has the full power and authority to enter into and perform this Agreement and the person signing this Agreement on behalf of each party has been properly authorized and empowered to enter into this Agreement. The persons executing this Agreement hereby represent that they have authorization to sign on behalf of their respective Government.

17. **Waiver.** Failure of any party, at any time, to enforce a provision of this Agreement, shall in no way constitute a waiver of that provision, nor in anyway affect the validity of this Agreement, any part hereof, or the right of either party thereafter to enforce each and every provision hereof. No term of this Agreement shall be deemed waived or breach excused unless the waiver shall be in writing and signed by the party claimed to have waived. Furthermore, any consent to or waiver of a breach will not constitute consent to or waiver of or excuse of any other different or subsequent breach.
18. **Agreement Read.** The parties acknowledge that they understand and intend to be bound by the terms and conditions of this Agreement.
19. **Multiple Originals.** It is understood and agreed that this Agreement may be executed in multiple counterparts, each of which shall be deemed an original for all purposes.

Handwritten initials

TOWN OF WESTLAKE

CITY OF SOUTHLAKE

BY: *Wade Carroll*
Town Manager Wade Carroll

BY: *Alison Ortowski*
City Manager

DATE: November 11, 2024

Alison Ortowski, City Manager
"BY" Printed Name and Title

ATTEST: *Dianna Buchanan*
Town Secretary Dianna Buchanan

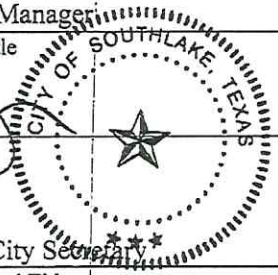
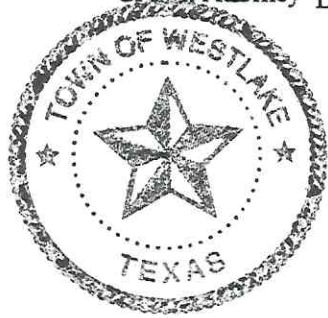
ATTEST: *Amy Shelley*
City Secretary

DATE: November 11, 2024

Amy Shelley, TMRC City Secretary
"ATTEST" Printed Name and Title

APPROVED AS TO FORM:

L. Stanton Lowry
Town Attorney L. Stanton Lowry



RESOLUTION No. 12-049

A RESOLUTION OF THE CITY OF SOUTHLAKE, TEXAS AUTHORIZING THE CITY MANAGER OR HIS OR HER DESIGNEE TO ENTER INTO COOPERATIVE PURCHASING AGREEMENTS WITH OTHER GOVERNMENTAL ENTITIES AND OTHER COOPERATIVE PURCHASING ORGANIZATIONS; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, it is necessary for the City of Southlake to make purchases of supplies, equipment, materials and other things requisite for public purposes; and

WHEREAS, the City cannot normally obtain the best possible purchase price for materials and supplies acting individually and without cooperation; and

WHEREAS, it is deemed in the best interest of the City to enter into mutually satisfactory agreements for the purchase of certain materials and supplies; and

WHEREAS, in order to obtain the best purchase price available in a timely manner, it is also deemed in the best interest of the City to authorize the city manager or his or her designee to enter into cooperative purchasing agreements with other governmental entities.

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

SECTION 1.

The City Manager or her designee is hereby authorized to enter into agreements for cooperative purchasing with other governmental entities and other cooperative purchasing organizations and to take such other actions as may be necessary to implement those agreements.

SECTION 2.

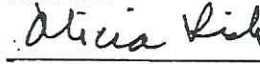
The authorization granted by this Resolution does not affect the City Council's exclusive power and responsibility to make all purchases where the amount of the expenditure is over \$50,000.00

SECTION 3.

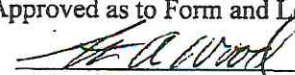
This Resolution shall be effective immediately upon its adoption and approval.

PASSED AND APPROVED THIS THE 16TH DAY OF October, 2012.

ATTEST:


Alicia Richardson TRME, City Secretary




John Terrell, Mayor Pro Tem
Brandon Bledsoe
Approved as to Form and Legality:

City Attorney



Town of Westlake

Staff Report

1500 Solana Blvd
Building 7, Suite 7100
Westlake, TX 76262

File #: 25-26

Agenda Date: 1/21/2025

Agenda #: G.5.

TOWN STAFF REPORT RECOMMENDATIONS

Consider and act to excuse Mayor and Council absence(s), if any.



Town of Westlake

Staff Report

1500 Solana Blvd
Building 7, Suite 7100
Westlake, TX 76262

File #: 25-17

Agenda Date: 1/21/2025

Agenda #: H.1.

TOWN STAFF REPORT RECOMMENDATIONS

Section 551.087: Deliberation regarding Economic Development Negotiations to deliberate the offer of a financial or other incentive to a business prospect: Project ED 25-01.



Town of Westlake

1500 Solana Blvd
Building 7, Suite 7100
Westlake, TX 76262

Staff Report

File #: 25-21

Agenda Date: 1/21/2025

Agenda #: H.2.

TOWN STAFF REPORT RECOMMENDATIONS

Section 551.074(1): Deliberation regarding Personnel Matters - to deliberate the appointment, employment, evaluation, reassignment, duties, of a public officer or employee:

- a) Planning and Zoning Commission
- b) Westlake Development Corporation, Inc. Board (EDC Type 4B)



Town of Westlake

Staff Report

1500 Solana Blvd
Building 7, Suite 7100
Westlake, TX 76262

File #: 25-22

Agenda Date: 1/21/2025

Agenda #: H.3.

TOWN STAFF REPORT RECOMMENDATIONS

Section 551.071: Consultation with and legal advice from the Town Attorney regarding pending litigation - Vertical Bridge v. Town of Westlake



Town of Westlake

Staff Report

1500 Solana Blvd
Building 7, Suite 7100
Westlake, TX 76262

File #: 25-30

Agenda Date: 1/21/2025

Agenda #: H.4.

TOWN STAFF REPORT RECOMMENDATIONS

Section 551.071: Consultation with and legal advice from the Academy Attorney regarding special education due process complaint