City of Colleyville
City Council
Agenda

City Hall
100 Main Street
Colleyville, Texas 76034
817.503.1000
www.colleyville.com

Tuesday, October 20, 2015 | City Council Chambers

PRE COUNCIL MEETING
EXECUTIVE SESSION
5:30 P.M.
EXECUTIVE CONFERENCE ROOM
THIRD FLOOR

CALL TO ORDER

PC-1 Discussion and update on the Glade Road Project

PC-2 Discussion of the intersection of Glade Road and Prestwick Drive/Roberts Road

PC-3 Presentation and discussion regarding Colleyville water usage

PC-4 Discussion of the October 20, 2015, City Council regular agenda items

1. EXECUTIVE SESSION - In accordance with Texas Government Code, Chapter 551, Subchapter D

Section 551.071 - Legal - Consultation with attorney on legal issues raised by public hearing or action items on the agenda

Section 551.071 - Legal - Consultation with attorney on contemplated litigation (Camden Lock LLC)

Section 551.071 - Legal - Consultation with attorney regarding litigation - Billy McCullough v. City of Colleyville

Section 551.071 - Legal - Consultation with attorney regarding litigation - Michael S. Newman v. City of Colleyville and City of Keller

Section 551.071 - Legal - Consultation with attorney regarding litigation - Village Monticello Partners, LTD. v. City of Colleyville

Section 551.072 - Real Estate - Deliberate the purchase, exchange, lease, or value of real property for City facilities

Section 551.087 – Economic Development - Discuss or deliberate regarding commercial or financial information that the City has received from business prospects that the City seeks to have locate, stay, or expand in the City and with which the City is conducting economic development negotiations; deliberate the offer of a financial or other incentive to a business prospect

RESUME REGULAR MEETING
7:30 P.M.
CITY COUNCIL CHAMBERS

INVOCATION: Associate Pastor Kyle Bauman, Bear Valley Church

PLEDGE OF ALLEGIANCE: City Attorney Matthew Boyle

2. EXECUTIVE SESSION READING AND PUBLIC HEARING: CONSIDER AND TAKE ANY ACTION(S) NECESSARY RELATIVE TO ITEMS DISCUSSED IN EXECUTIVE SESSION - RESOLUTION R-15-3920

3. ANNOUNCEMENTS, PROCLAMATIONS, AND PRESENTATIONS
Announcements of civic and charitable events
Presentation of calendar events and updates
Announcements of awards and recognition

In recognition of Colleyville's featured business - Aaron Brothers Art & Framing, General Manager Bert Garcia, 4709 Colleyville Boulevard - Mayor David Kelly and Economic Development Director Marty Wieder

4. CONSENT: READING AND PUBLIC HEARING- Resolution R-15-3921

4a Approval of the minutes of the regular City Council meeting of October 5, 2015

4b Approval of an Interlocal Agreement and funding for the Metroport Teen Court Program

4c Approval of a contract with Digital Resources, Inc., through the TIPS/TAPS Cooperative Purchasing Program, in an amount not to exceed $191,377, for the upgrade and replacement of audio visual technology at the Colleyville Center, and authorize the city manager to execute the agreement

4d Approval to retire and trade-in a fire apparatus for acceptance of a new fire apparatus lease/purchase, and authorize the city manager to release the vehicle title

4e Approval to use Voluntary Park Funds for three projects in a total combined amount not to exceed $39,500

4f Approval to use Park Land Dedication Fund monies in an amount not to exceed $120,000, for the construction of the Cotton Belt Trail - Phase III project

4g Approval of a contract with C. Green Scaping, LP, for construction of the Cotton Belt Trail - Phase III project, in an amount not to exceed $341,133.10, and authorize the city manager to execute the contract

5. ORDINANCE(S): SECOND READING AND PUBLIC HEARING

5a Ordinance O-15-1971
Consideration of an amendment to the PUDC-Planned Unit Development Commercial zoning district on Lots 2, 53, and 54, of the Village at Colleyville, located at 18, 20, and 26 Main Street, Case ZC15-016

6. RESOLUTION(S): READING AND PUBLIC HEARING

6a Resolution R-15-3922
Consideration of an appointment to the Colleyville Tree Board

6b Resolution R-15-3923
Approval of a Master Tax-Exempt Lease/Purchase Agreement with Leasing 2, Inc., for the lease/purchase of a 2016 Pierce Fire Engine, in an amount not to exceed $485,000

7. CITIZEN COMMENTS/PRESENTATIONS REGARDING ITEMS NOT ON THE AGENDA

8. REPORTS

Park Land Dedication Committee Meeting Minutes - October 1, 2014
Parks and Recreation Advisory Board Meeting Minutes - July 6, 2015
Library Board Meeting Minutes - August 10, 2015
Monthly Financial Report - September 2015

9. ACTION/RESOLUTION: DISCUSSION AND CONSIDERATION OF A RESOLUTION RATIFYING COUNCIL AGENDA ACTION FOR OCTOBER 20, 2015 - READING AND PUBLIC HEARING - RESOLUTION R-15-3924

10. ADJOURNMENT

I hereby certify this agenda was posted on City Hall bulletin boards Friday, October 16, 2015 by 5:00 p.m.

Amy Shelley, TRMC
City Secretary

A quorum of any Colleyville board, commission, or committee may be present at this meeting.

Any matter on this agenda may, at the discretion of the governing body, be opened for public comment and discussion.

If you plan to attend this public meeting and have a disability that requires special accommodations, please advise the City Secretary at least 48 hours in advance at 817.503.1133, and reasonable accommodations will be made to assist you.

City of Colleyville
City Council
Agenda Briefing

City Hall
100 Main Street
Colleyville, Texas 76034
www.colleyville.com

Agenda Number PC-1 Agenda Date 10/20/2015
Type Pre Council
Department Public Works

Title
Discussion and update on the Glade Road Project

Strategy Map Connection
F2- Invest to provide and maintain high quality public assets

Explanation
During the July 28, 2015, Pre Council Meeting, staff provided an updated Glade Road presentation, attached for reference. At that time, City Council directed staff to provide regular updates as the design of the Glade Road, Phase 1 project progresses. The purpose of this presentation is for staff, and the design consultant, to provide updated information regarding the aspects of the Phase 1 project design which will provide clarity as to what the final project will entail.

The presentation, to be given by staff, and the exhibit which will be used during the presentation are attached for reference.

The presentation will cover the current status of Phase 1 including:

- Project Timeline Overview
- Phase 1 Project Update including:
  - Estimated right-of-ways
  - Estimated sidewalk easements
  - Estimated drainage easements
  - Estimated temporary construction easements
  - Trees along the project area
- Traffic control considerations
- Construction contract strategies
- Capital Improvements Program (CIP) Phasing

Attachments
1. Glade Road Phase 1 Update Presentation
2. Exhibit (First Draft Plans)
3. July 28, 2015 Presentation

Glade Road
Phase 1 Update

Pre Council Meeting
October 20, 2015

Outline of Presentation

- Project Timeline Overview
- Phase 1 Update
  - Discussion of the estimated right-of-ways, estimated sidewalk easements, estimated drainage easements, estimated temporary construction easements
  - Discussion of the trees along the project area
- Traffic control considerations
- Discussion of construction contract strategies
- Capital Improvements Program (CIP) schedule for future phases

Phase 1

Major milestones for Phase 1 include:

August 2015	Completion of the 30% plans and draft right-of-way plans
September 2015	Completion of the Utility Conflict Plans and initiation of franchise utility relocation
October 2015	Presentation of the first draft plans to City Council
November 2015	Completion of the right-of-way plans and documents
January 2016	Completion of the 90% plans
February 2016	Presentation of the 90% plans to City Council
March 2016	Presentation of the final plans to City Council
March 2016	Completion of the contract documents and plans
March 2016	Project bidding process
April 2016	City Council award of contract
May 2016	Public meeting with contractor
June 2016	Construction of Phase 1 estimated to begin

Project Stages

Completion of Final Plans

ROW Acquisition

- Hire Consultant
- Acquire Appraisals
- Initial Offers
- Negotiations/Commissioners Court

Utility Relocation

- Atmos
- Oncor
- Verizon
- Comcast
- AT & T

Construction

Phases of Glade Road Corridor

Phases of Glade Road Corridor

Phase 1 (Summary Statistics)

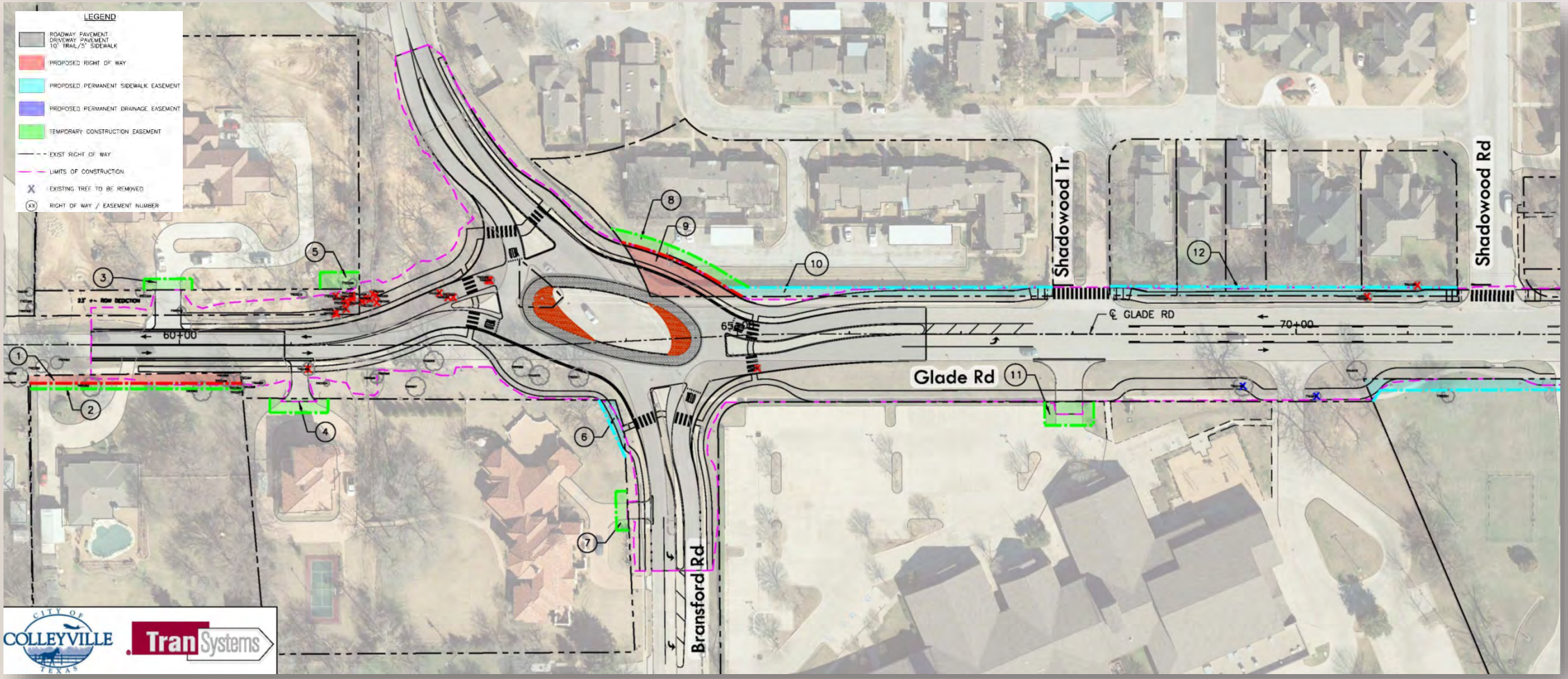
There are a total of 62 parcels along Phase 1

- Estimated right-of-ways needed at 14 Parcels
- Estimated sidewalk easements needed at 18 Parcels
- Estimated drainage easements needed at 1 Parcel
- Estimated temporary construction easements needed at 48 Parcels

The estimated transactions total 81, and will affect 48 separate parcels

Estimated number of trees potentially affected is **112** trees, of which, **19** have been identified that may be avoided with refinement to the plans

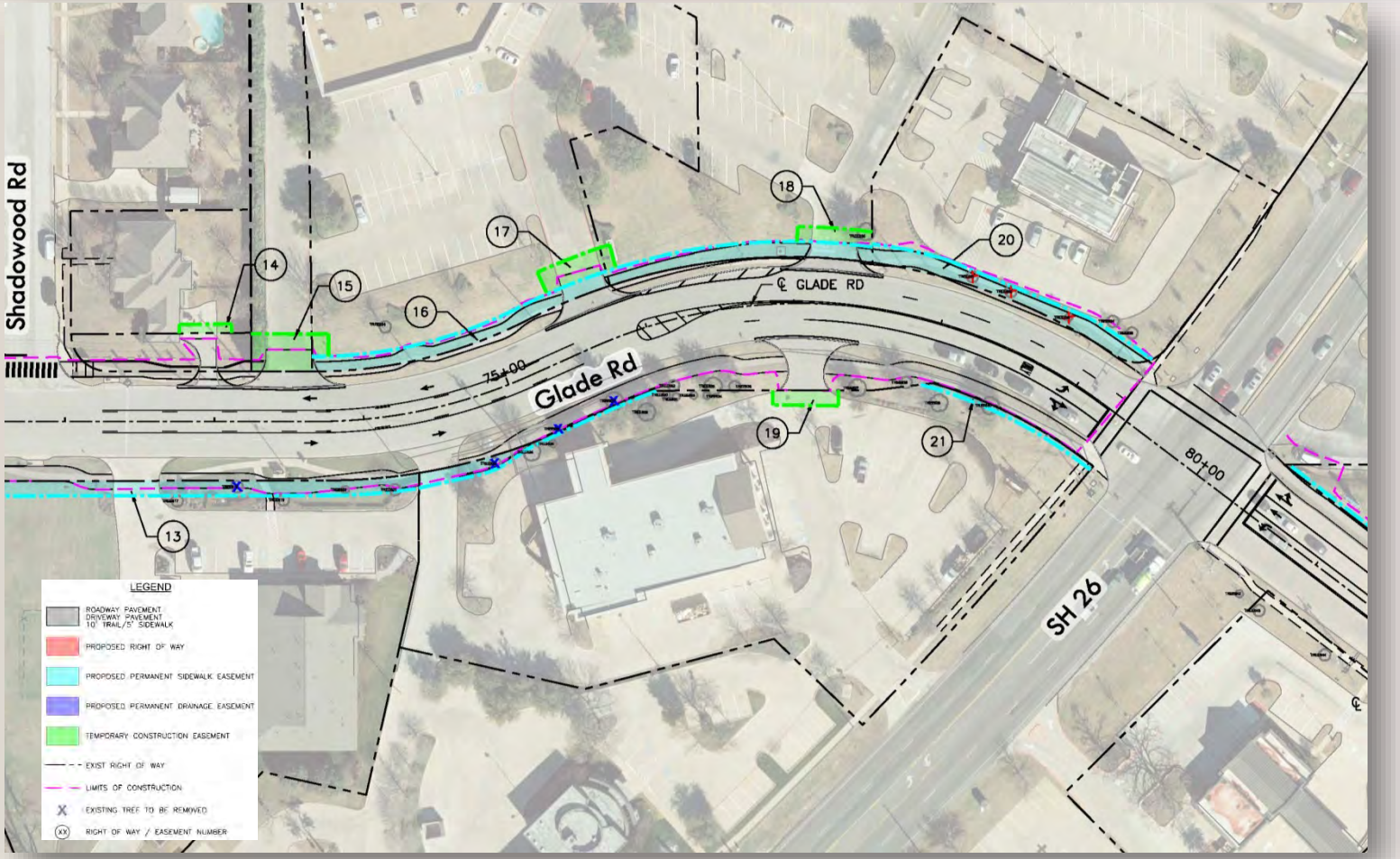
Phase 1 (Section 1A)



Proposed R-O-W	**2 Parcels**	Proposed drainage easements	**0 Parcels**
Proposed sidewalk easements	**7 Parcels**	Temporary construction easements	**7 Parcels**

Total number of trees impacted **26(2)**

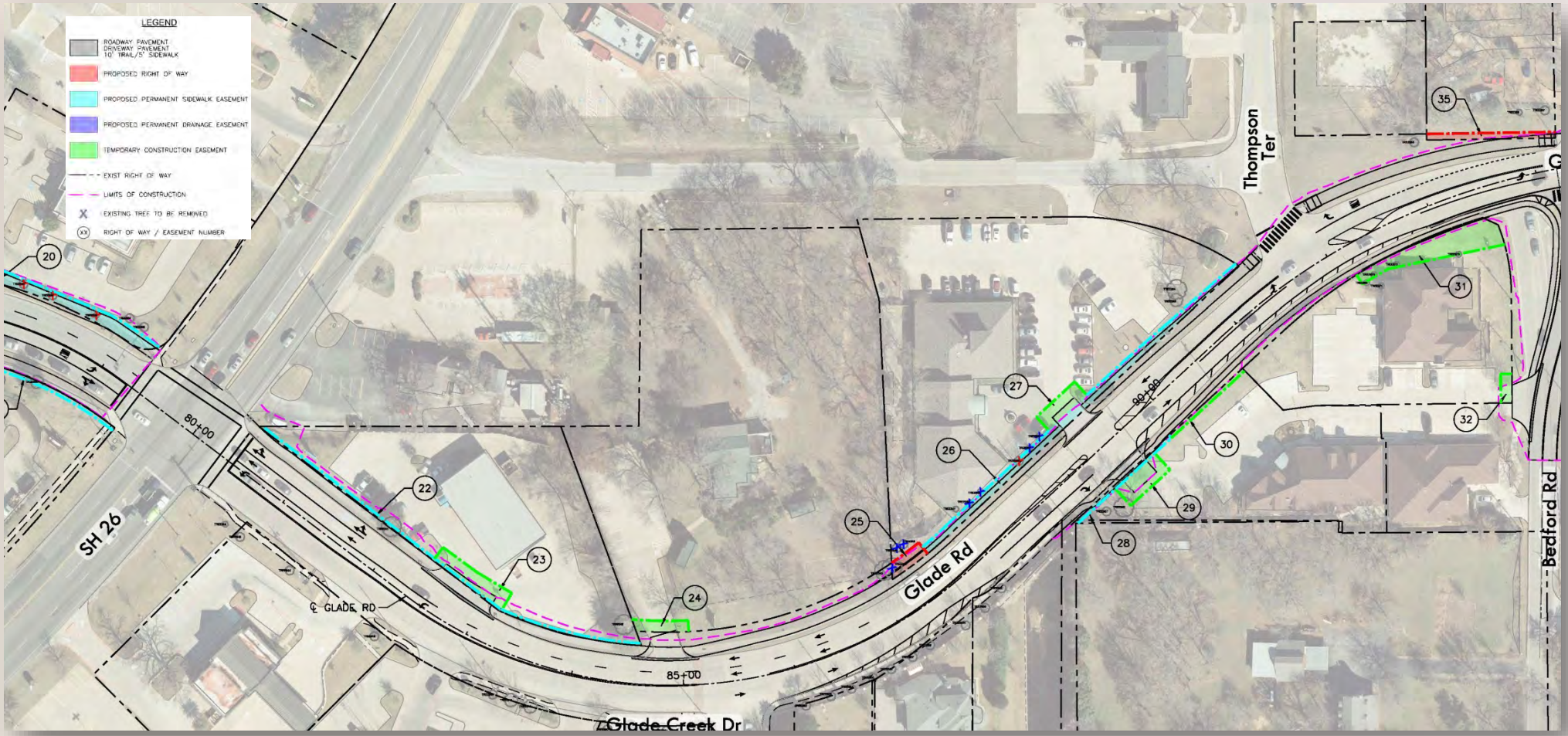
Phase 1 (Section 1B)



Proposed R-O-W	**0 Parcels**	Proposed drainage easements	**0 Parcels**
Proposed sidewalk easements	**6 Parcels**	Temporary construction easements	**6 Parcels**

Total number of trees to be impacted **7(4)**

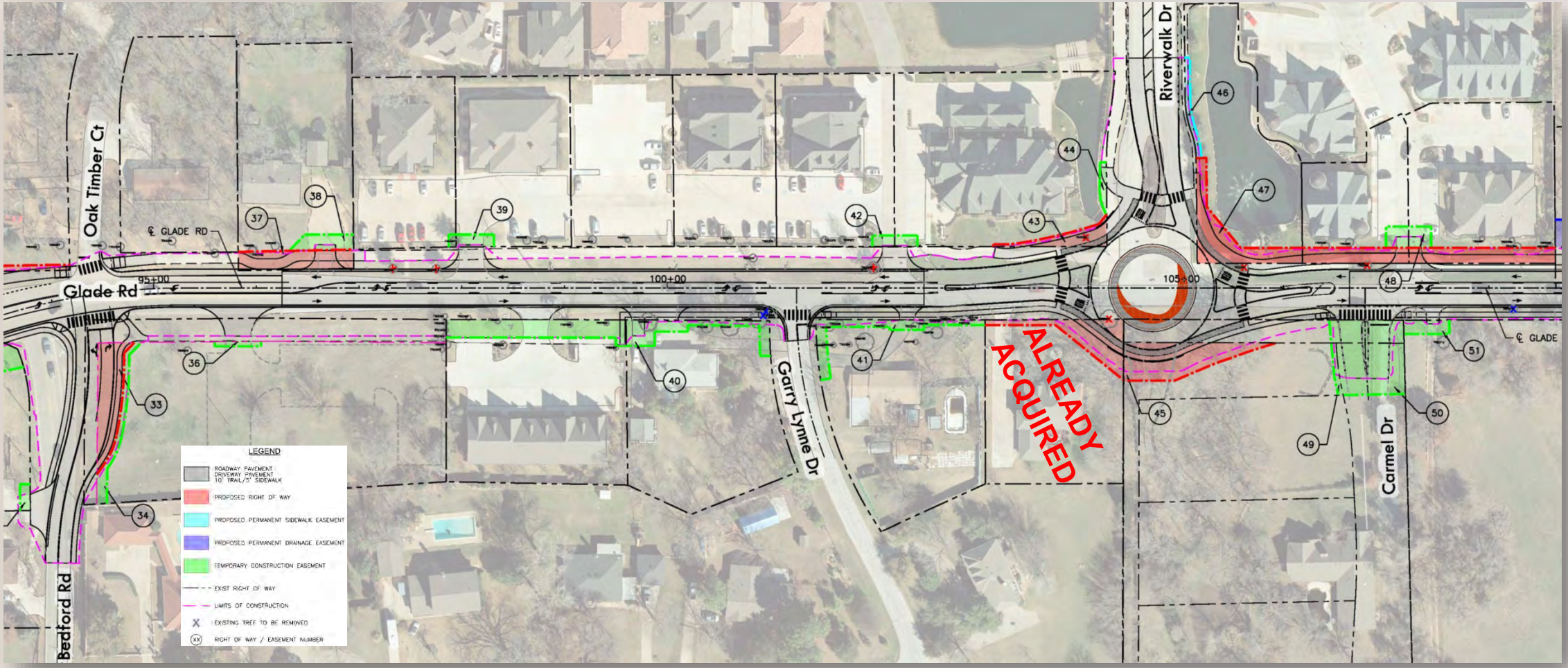
Phase 1 (Section 1C)



Proposed R-O-W	**2 Parcels**	Proposed drainage easements	**0 Parcels**
Proposed sidewalk easements	**3 Parcels**	Temporary construction easements	**6 Parcels**

Total number of trees impacted **8(7)**

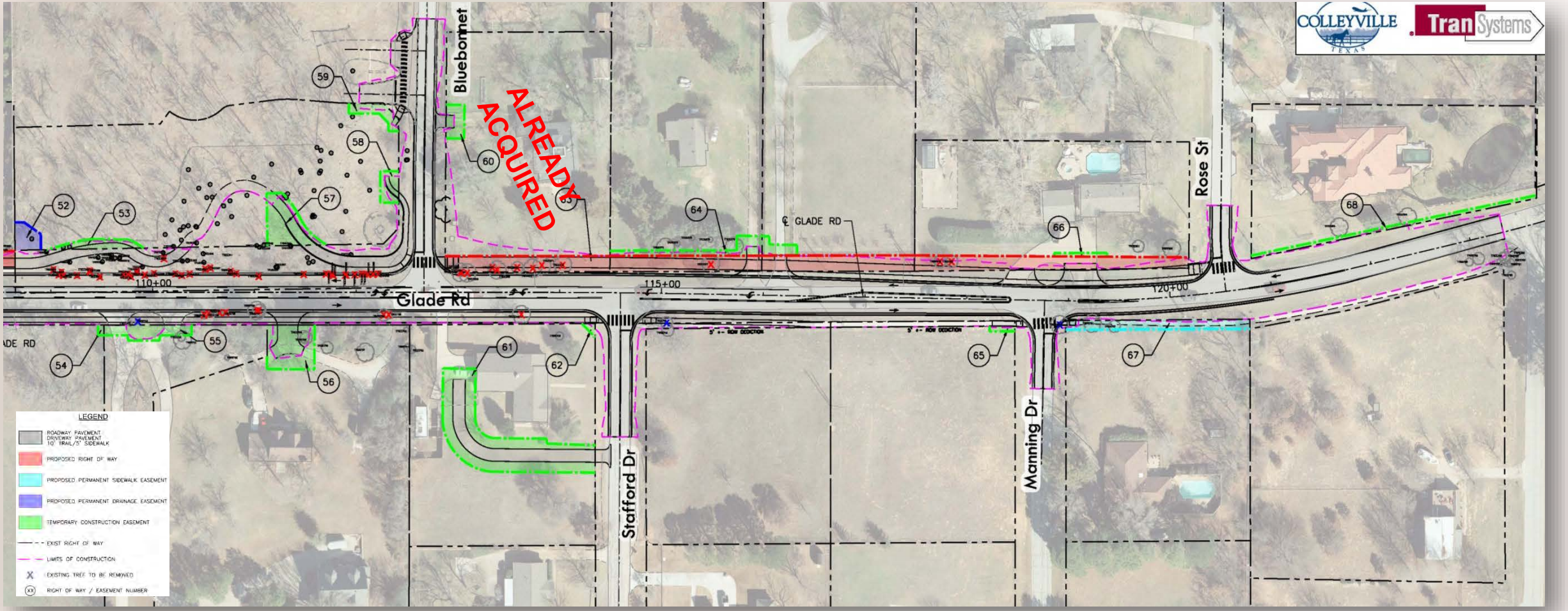
Phase 1 (Section 1D)



Proposed R-O-W	**7 Parcels**	Proposed drainage easements	**0 Parcels**
Proposed sidewalk easements	**1 Parcels**	Temporary construction easements	**15 Parcels**

Total number of trees impacted **10(3)**

Phase 1 (Section 1E)



Proposed R-O-W	**3 Parcels**	Proposed drainage easements	**1 Parcels**
Proposed sidewalk easements	**1 Parcels**	Temporary construction easements	**14 Parcels**

Total number of trees impacted **61(3)**

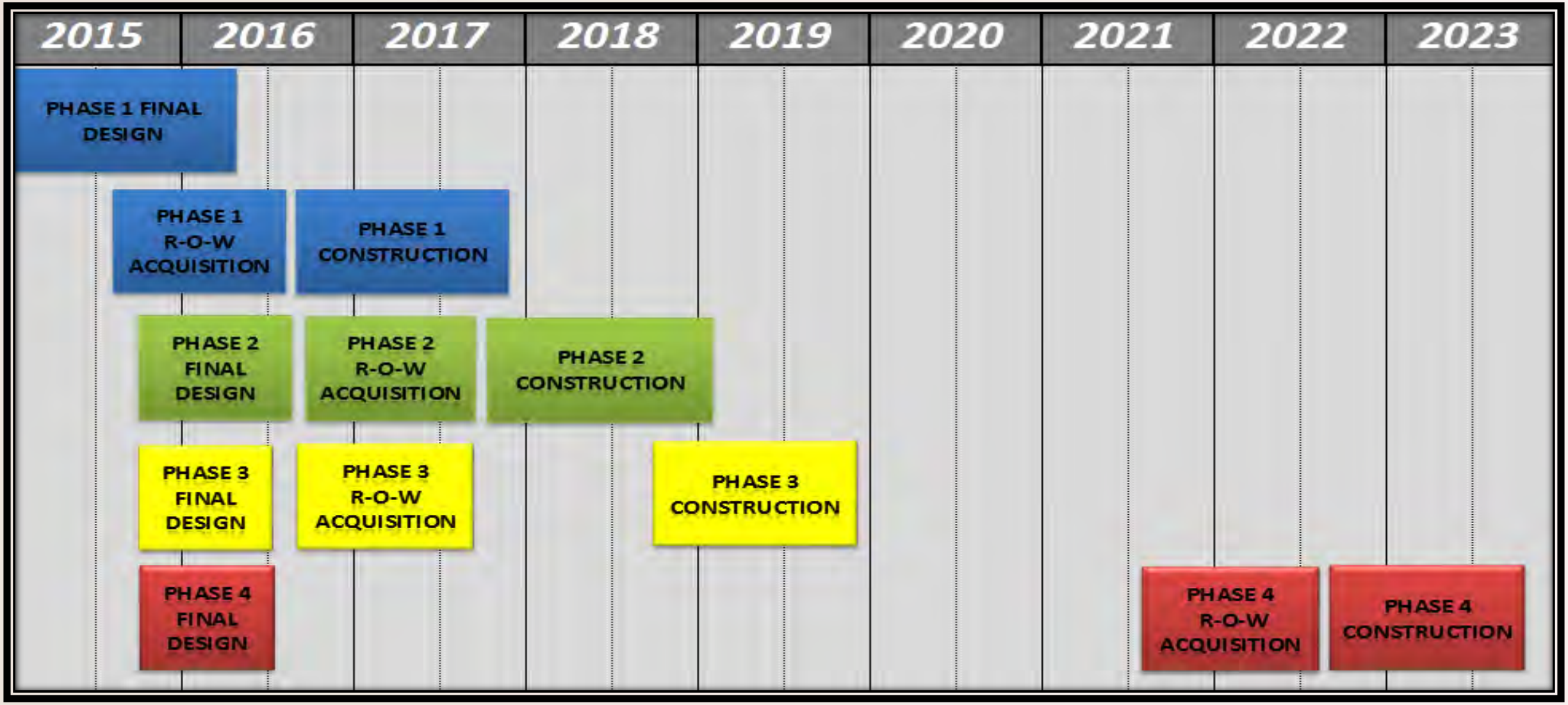
Phase 1 (Traffic Control Considerations)

- Construction Traffic - Optimum Balance
  - ***Limited closures that maximize construction activities including:***
    - **Bransford Elementary –** Bransford Road and Glade Road Roundabout
    - **Glade Road -** Bluebonnet Drive and Glade Road Intersection
    - **Riverwalk Drive –** Riverwalk Drive and Glade Road Roundabout

Phase 1 (Construction Contract Strategies)

- Key Components
  - Bransford Road and Glade Road Roundabout
  - Bluebonnet Drive and Glade Road Intersection (vertical adjustment)
  - Riverwalk Drive and Glade Road Roundabout
- Incentives and Disincentives
- Best Value Contract
  - Contract Experience
  - Proposed Project Price
  - Project Team Resume
  - Schedule and Timelines
  - Written description of the contractor's strategies to keep the project on schedule

Current CIP Schedule



Phase 2 (Design Parameters)

Design parameters to include the following:

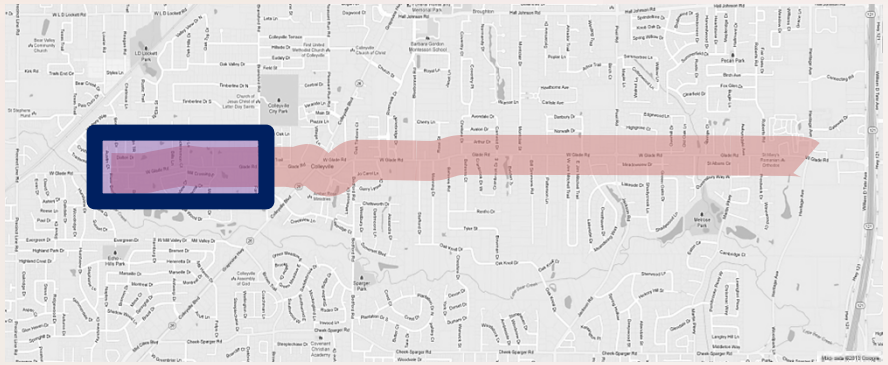
- **Roadway Section**
  - Two-lane roadway with left-turn lanes at:
    - Continuous from Behrens Road to Chelsea Drive, Camelot Drive to Montclair Drive, Jim Mitchell Trail East to Summerbrook Drive.
    - Glade Road west bound left-turn lanes; Jim Mitchell Trail West and East Cranbrook Drive
    - Glade Road east bound left-turn lanes; Camelot Drive, Senior Center
- **Pedestrian Improvements**
  - 10 foot trail on the north side of the roadway
  - If needed - reduce trail width, minimum of 6 foot, to limit the various impacts (right-of-ways, trees, etc.)
  - Consider constructing the trail adjacent to the back of curb to reduce the possible various impacts (right-of-ways, trees, etc.)
  - 5 foot sidewalk on the south side of the roadway
- **Lighting**
  - Street lighting will be included at the intersections
  - Pedestrian low-level lighting to be included along the trail
- **Storm Drainage**
  - Curb and gutter storm drainage
  - Utilize existing curb and gutter on south side of Glade Road (approximately 18%), where feasible

Phase 3 (Design Parameters)

Design parameters to include the following:

- **Roadway Section**
  - From Pool Road to Strathmore Terrace will be two lanes with raised curbed medians and left-turn lanes
  - From Roberts Road to Heritage Avenue, westbound lane to be added
  - Intersection of Glade Road and Prestwick Drive/Roberts Road to be adjusted to increase sight distances
  - Left-turn lanes at:
    - Glade Road west bound left-turn lanes; Green Oaks Drive and Melrose Park Drive
    - Glade Road east bound left-turn lanes; Overhill Drive and Strathmore Terrace
  - A southbound right-turn lane to be added to Roberts Road
- **Pedestrian Improvements**
  - 10 foot trail on the north side of the roadway
  - If needed - reduce trail width, minimum of 6 foot, to limit the various impacts (right-of-ways, trees, etc.)
  - 5 foot sidewalk on the south side of the roadway
- **Lighting**
  - Street lighting will be included at the intersections
  - Pedestrian low-level lighting to be included along the trail
- **Storm Drainage**
  - Curb and gutter storm drainage
  - Utilize existing curb and gutter on south side of Glade Road (approximately 90%), where feasible

Phase 4 (Design Parameters)

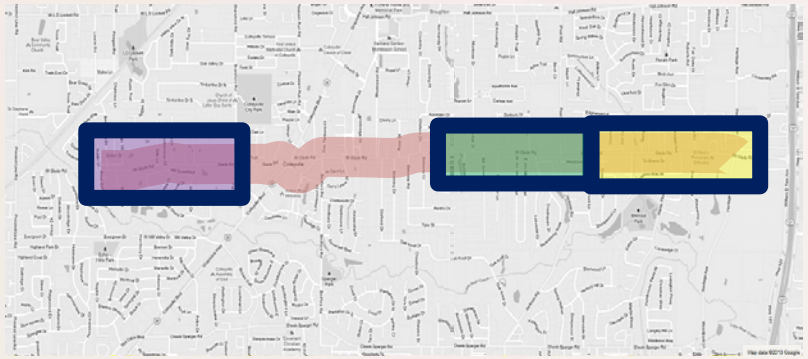


Design parameters to include the following:

- **Roadway Section**
  - From western City limits to Bransford Road will be two-lane roadway with left-turn lanes at:
    - Continuous from River Bend Drive to Bear Creek Drive
    - Glade Road west bound left-turn lanes; Clear Fork Drive, Mill View Drive, Mill Creek Drive
    - Glade Road east bound left-turn lanes; Rockrimmon Court
- **Pedestrian Improvements**
  - 10 foot trail on the north side of the roadway
  - If needed - reduce trail width, minimum of 6 foot, to limit the various impacts (right-of-ways, trees, etc.)
  - 5 foot sidewalk on the south side of the roadway
- **Lighting**
  - Street lighting will be included at the intersections
  - Pedestrian low-level lighting to be included along the trail
- **Storm Drainage**
  - Curb and Gutter storm drainage
  - Culvert replacement or modification between Clear Fork Drive and Rockrimmon Court
  - Utilize existing infrastructure, where feasible
- **Coordination with the City of Hurst**

Phase 2, 3, & 4

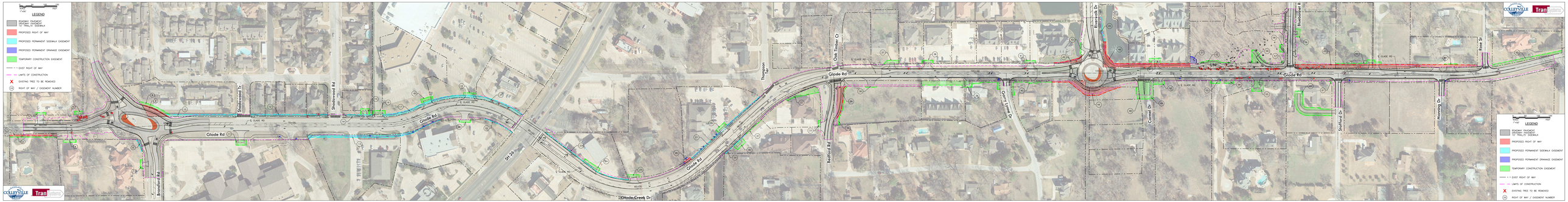
- The final design of Phase 2, 3, and 4 of the Glade Road Corridor Project are included in the current Capital Improvement Plan to begin this year



- Staff is working with the design consultant to finalize the scope of services for the final design of phase 2, 3, and 4

- Once the scope of services and the professional services agreement are ready they will be placed on an upcoming City Council meeting agenda

Questions and Discussion


LEGEND
ROADWAY PAVEMENT
ROADWAY PAVEMENT
10' "TRAIL 2" SIDEWALK
PROPOSED RIGHT OF WAY
PROPOSED PERMANENT SIDEWALK EASEMENT
PROPOSED PERMANENT DRAINAGE EASEMENT
TEMPORARY CONSTRUCTION EASEMENT
EXIST RIGHT OF WAY
LIMITS OF CONSTRUCTION
EXISTING TREE TO BE REMOVED
RIGHT OF WAY / EASEMENT NUMBER
Glade Rd
Brandford Rd
Shadowood Tr
Shadowood Rd
SR 26
Glade Creek Dr
Thompson Ter
Oak Timber Cir
Bedford Rd
Cornell Home Dr
Riverwalk Dr
Carmel Dr
Barbondiant Rd
Stafford Dr
Mossing Dr
Rose St
COLLEYVILLE
Transportation

Glade Road Worksession Discussion

Pre Council Meeting

July 28, 2015

Scope of Worksession

- Project History
  - Summary of Past Efforts
- Phase 1 Update
  - Bransford Road to Manning Drive
- Clarification and Discussion
  - Preliminary/Conceptual Design Phase
  - Final Design Phase
- Phases of the Corridor
  - Key Components
  - Possible Design Parameters
- Possible Funding Sources
- Possible Phasing Scenario
- Need for an Interim Solution
  - Existing Pavement Condition

Project History

October 5, 2011 – Pre Council presentation on the Glade Road and Bluebonnet Road intersection

May 23, 2013 – Initial Public Input Meeting

November 18, 2013 – Second Public Input Meeting (concept designs presented)

June 30, 2014 – Council Worksession to discuss the project. Council provided direction to proceed with the final design of the section between Bransford Road and Manning Drive

July 15, 2014 – Approval of a final design contract for the section between Bransford Road and Manning Drive

October 21, 2014 – Pre Council discussion and project design placed on hold

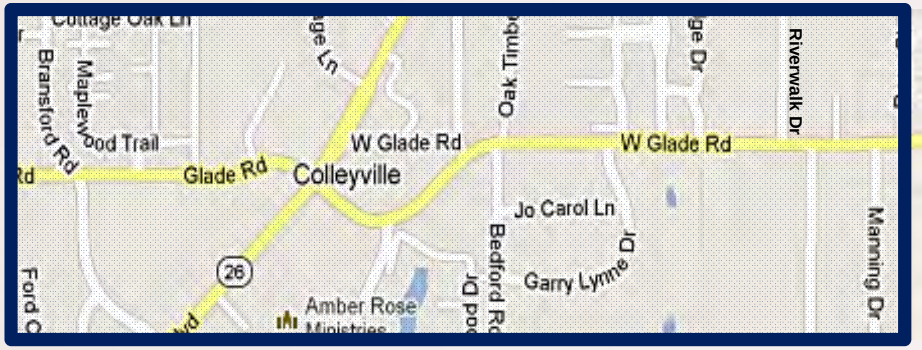
June 2, 2015 – Pre Council discussion and project was released to proceed with the design of Phase I

Phase 1

Phase 1
Bransford Road
to Manning Drive
W Glade Rd
Glade Rd
Colleyville
Bransford Rd
Manning Drive
Map data ©2013 Google

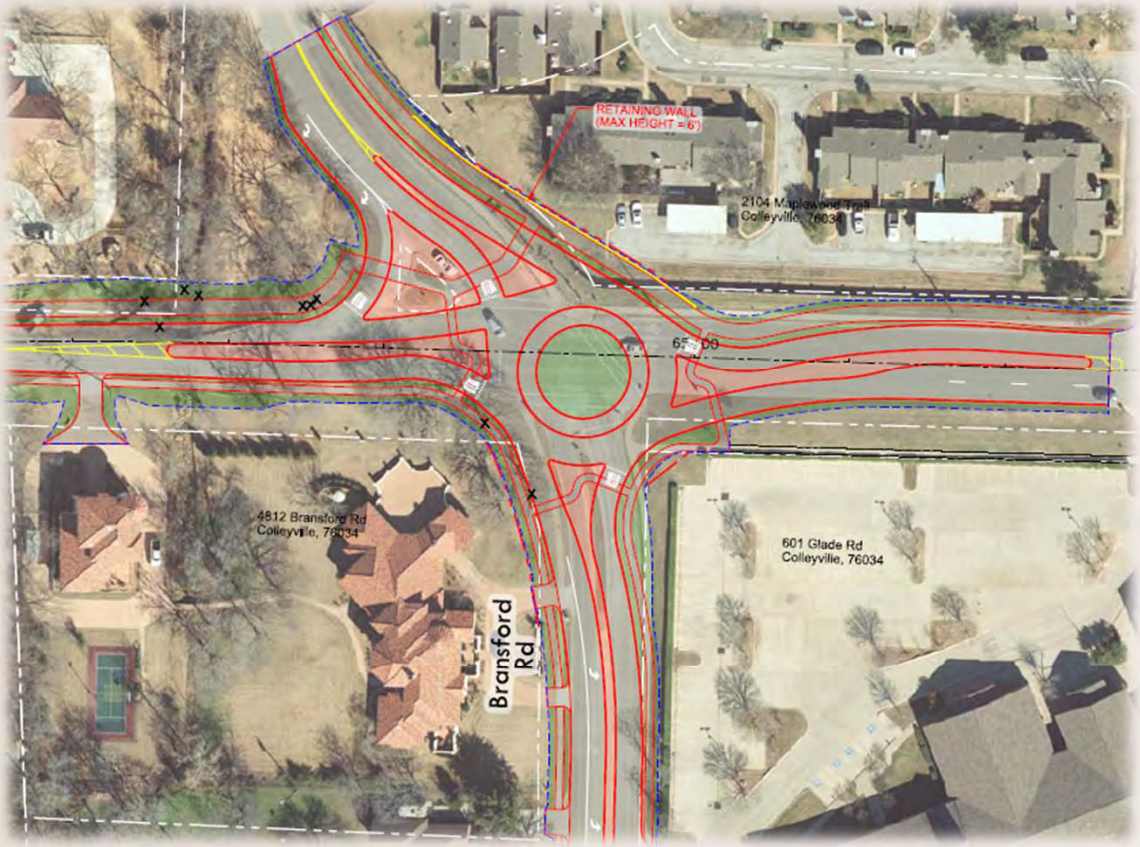
Phase 1 Includes

The section of Glade Road from Bransford Road to Manning Drive, includes:



- Roundabout at Bransford Road Intersection
- Realignment of Bedford Road Intersection
- Roundabout at Riverwalk Drive Intersection
- Address the undersized box culverts under Glade Road at Riverwalk Drive (drainage issue)
- Lowering of the road at Bluebonnet Drive to allow for improved sight distance and the removal of the stop signs along Glade Road

Phase 1 Includes

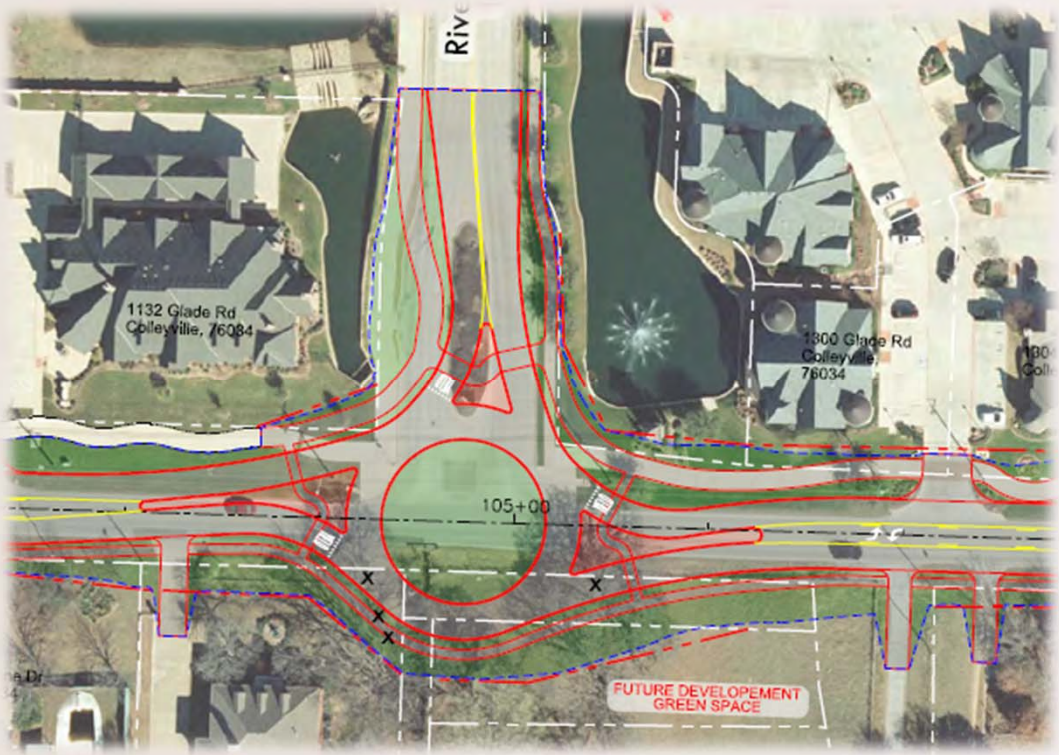


Roundabout at Bransford Road Intersection

Phase 1 Includes

Realignment of Bedford Road Intersection

Phase 1 Includes



Intersection Roundabout at Riverwalk Drive Intersection

Phase 1

As the project moves forward the next major milestones for Phase 1 include:

July 2015	Completion of the 30% Plans and Draft Right-of-Way Plans
August 2015	Completion of the Utility Conflict Plans
August 2015	Initiation of Franchise Utility Relocation
September 2015	Presentation of the Plans to City Council
September 2015	Completion of the Right-of-Way Plans and Documents
November 2015	Completion of the 60% Plans
January 2016	Completion of the 90% Plans
March 2016	Completion of the Contract Documents and Plans
March 2016	Project Bidding Process
April 2016	City Council Award of Contract
May 2016	Public Meeting with Contractor
May 2016	Construction of Phase I Begins
June 2017	Construction of Phase I Complete

Preliminary & Final Design

- Preliminary/Conceptual Design
  - performed for the entire corridor
- Final Design
  - currently underway for Phase I

Preliminary & Final Design

- Preliminary/Conceptual Design
  - performed for the entire corridor
- Final Design
  - currently underway for Phase I

Preliminary/Conceptual Design

- Preliminary/Conceptual Design includes:
  - Conceptual layout of the proposed roadway improvements
  - Locations of needed items such as, dedicated turn-lanes, center turn-lanes, intersection improvements
  - Estimates the need for additional rights-of-way
  - Provides an estimated opinion of cost for the improvements

Preliminary / Conceptual Design

Preliminary or Conceptual Design

(performed for the entire corridor)

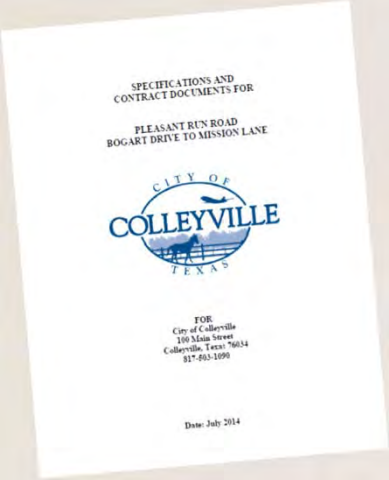
Final Design

- Final Design includes
  - Design parameters established and incorporated into the design
    - City provided guidance to the design engineer that helps define the project. Examples include:
      - ***Utilize the existing infrastructure as much as possible to reduce the scope of the project and cost of construction***
      - ***Minimize impacts to trees***
      - ***Fluctuate trail width between 8' and 10' to accommodate existing trees but maintain a minimum of 8' in width at all times***
  - Engineered Construction Documents
    - Detailed design of the underground infrastructure (water lines, sewer lines, drainage systems)
    - Plan and Profiles for the proposed street
    - Traffic Control Plan
    - Tree Protection and Removal Plan
  - Contracts and Specifications specific to the project
  - Right-of-Way Plans and survey grade documents

Different Levels of Design

Final Design

(Underway for Phase 1)



SPECIFICATIONS AND
CONTRACT DOCUMENTS FOR

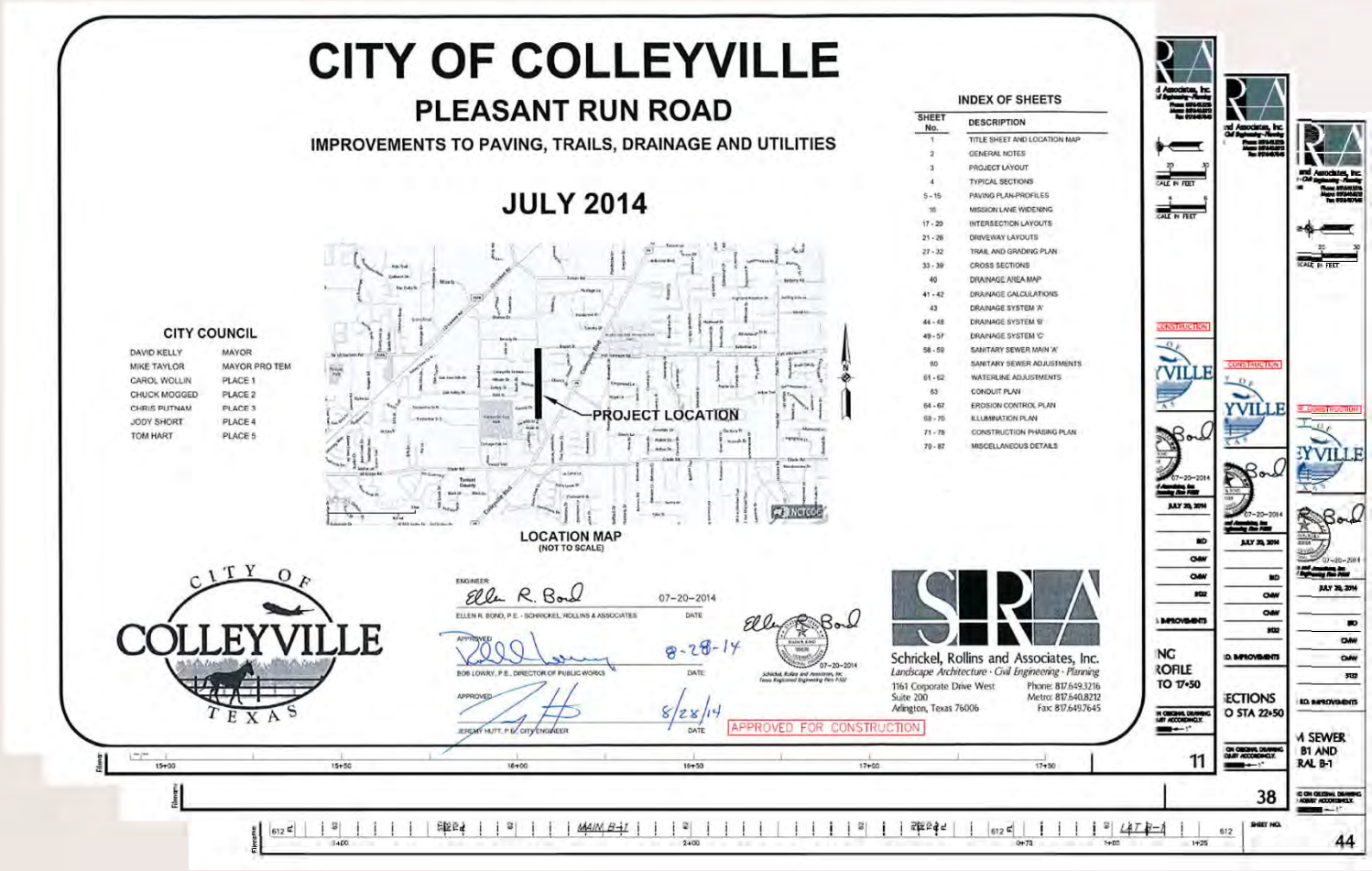
PLEASANT RUN ROAD
BOGART DRIVE TO MISSION LANE

CITY OF COLLEYVILLE TEXAS

FOR
City of Colleyville
100 Main Street
Colleyville, Texas 76034
817-503-1090

Date: July 2014

Project Contract and Specifications



CITY OF COLLEYVILLE

PLEASANT RUN ROAD

IMPROVEMENTS TO PAVING, TRAILS, DRAINAGE AND UTILITIES

JULY 2014

CITY COUNCIL

DAVID KELLY	MAYOR
MIKE TAYLOR	MAYOR PRO TEM
CAROL WOLLIN	PLACE 1
CHUCK MOGGED	PLACE 2
CHRIS PUTNAM	PLACE 3
JODY SHORT	PLACE 4
TOM HART	PLACE 5

PROJECT LOCATION

LOCATION MAP
(NOT TO SCALE)

INDEX OF SHEETS

SHEET No.	DESCRIPTION
1	TITLE SHEET AND LOCATION MAP
2	GENERAL NOTES
3	PROJECT LAYOUT
4	TYPICAL SECTIONS
5 - 15	PAVING PLAN-PROFILES
16	MISSION LANE WIDENING
17 - 20	INTERSECTION LAYOUTS
21 - 26	DRIVEWAY LAYOUTS
27 - 32	TRAIL AND GRADING PLAN
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44 - 48	DRAINAGE SYSTEM 'B'
49 - 57	DRAINAGE SYSTEM 'C'
58 - 59	SANITARY SEWER MAIN 'A'
60	SANITARY SEWER ADJUSTMENTS
61 - 62	WATERLINE ADJUSTMENTS
63	CONDUIT PLAN
64 - 67	EROSION CONTROL PLAN
68 - 70	ILLUMINATION PLAN
71 - 78	CONSTRUCTION PHASING PLAN
79 - 87	MISCELLANEOUS DETAILS

CITY OF COLLEYVILLE TEXAS

ENGINEER
Ellen R. Bond 07-20-2014
ELLEN R. BOND, P.E. - SCHRICKEL, ROLLINS & ASSOCIATES DATE

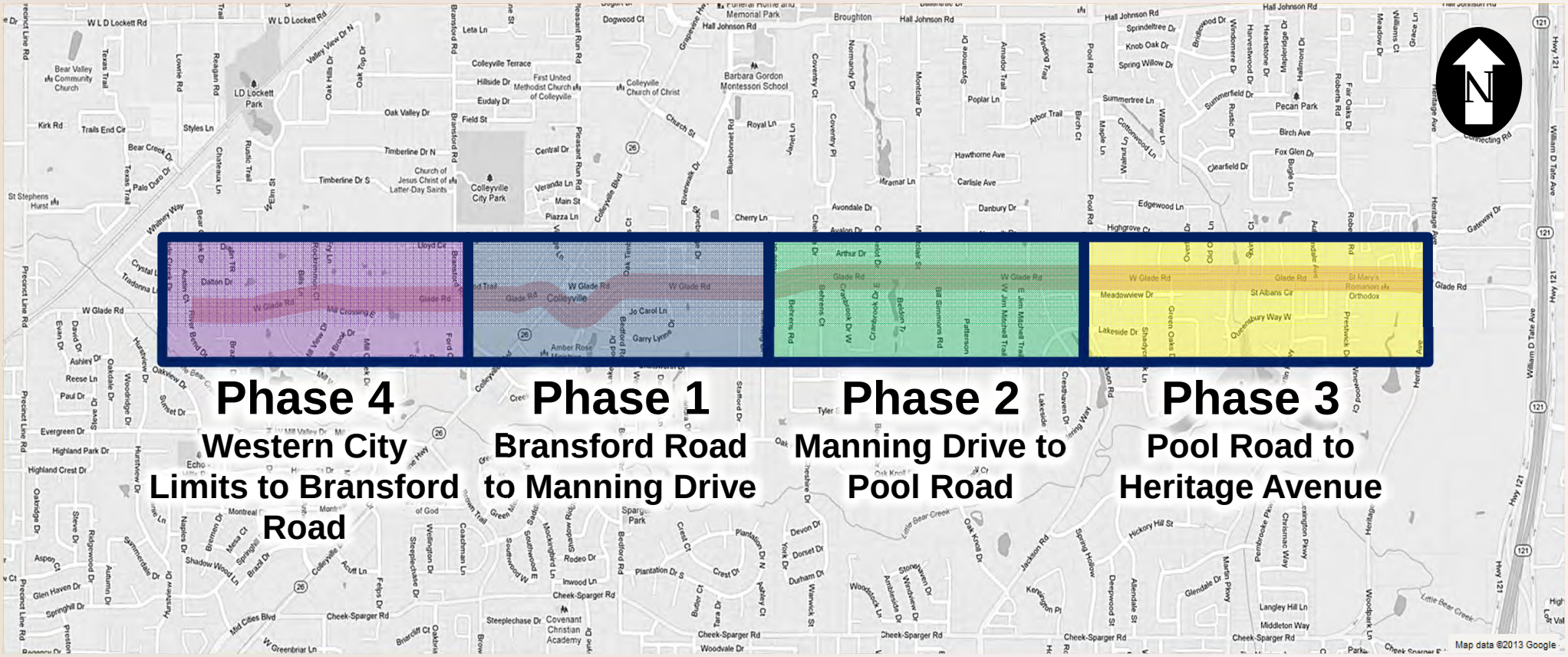
APPROVED
8-28-14
BOB LOWRY, P.E., DIRECTOR OF PUBLIC WORKS DATE

APPROVED
8/28/14
JEREMY HUTT, P.E., CITY ENGINEER DATE

APPROVED FOR CONSTRUCTION

SRA
Schrickel, Rollins and Associates, Inc.
Landscape Architecture · Civil Engineering · Planning
1161 Corporate Drive West
Suite 200
Arlington, Texas 76006
Phone: 817.649.3216
Metro: 817.640.8212
Fax: 817.649.7645

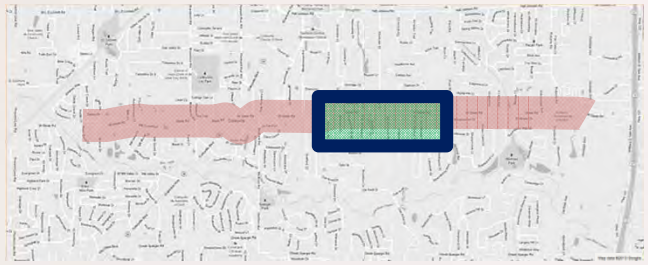
Phases of Glade Road Corridor



Phase 2 (Manning Drive to Pool Road)

Phase 2 (Manning Drive to Pool Road)

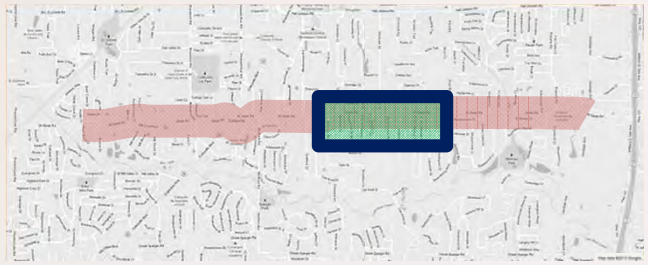
Glade Road from Manning Drive to Pool Road, key components include:



- Engineered drainage system designed to accommodate a 100 year storm using concrete curbs and gutters
- A center turn lane between Behrens Road and Chelsea Drive
- Two lane section for the majority of the section between Chelsea Drive and Camelot Drive to reduce right-of-way impacts
- Eastbound dedicated left turn lane for Camelot Drive
- Center turn-lane for the section between Camelot Drive to Montclair Drive
- Two lane section from Montclair Drive to Jim Mitchell Trail West
- West bound dedicated left turn lane for Jim Mitchell Trail West
- Center turn lane between Jim Mitchell Trail East and Summerbrook Drive
- Eastbound dedicated left turn lane for the Senior Center
- 5’ sidewalk on the south side
- 10’ trail on the north side
- Street lighting at intersections
- Pedestrian (low level) lighting along the trail

Phase 2 (Manning Drive to Pool Road)

Glade Road from Manning Drive to Pool Road

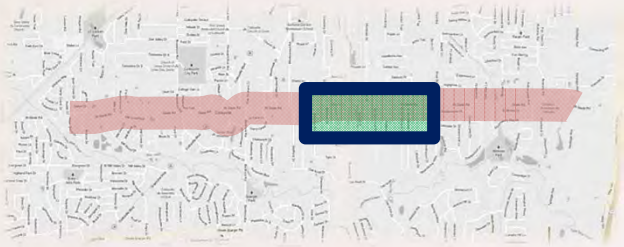


Scope Includes - All new pavement with left turn lanes where warranted and standard curb and gutters. A 10' trail on the north side and 5' sidewalk on the south side.

Estimated Final Design Cost	**$ 460,000***
Estimated Construction Cost	**$5,484,000***
Estimated Right-of-Way Costs	**$ 430,000***
Estimated Number of Right-of-Way Parcels Needed	**27***
Estimated Right-of-Way acquisition and Final Design Duration	**12 Months***
Estimated Construction Duration	**16 Months***

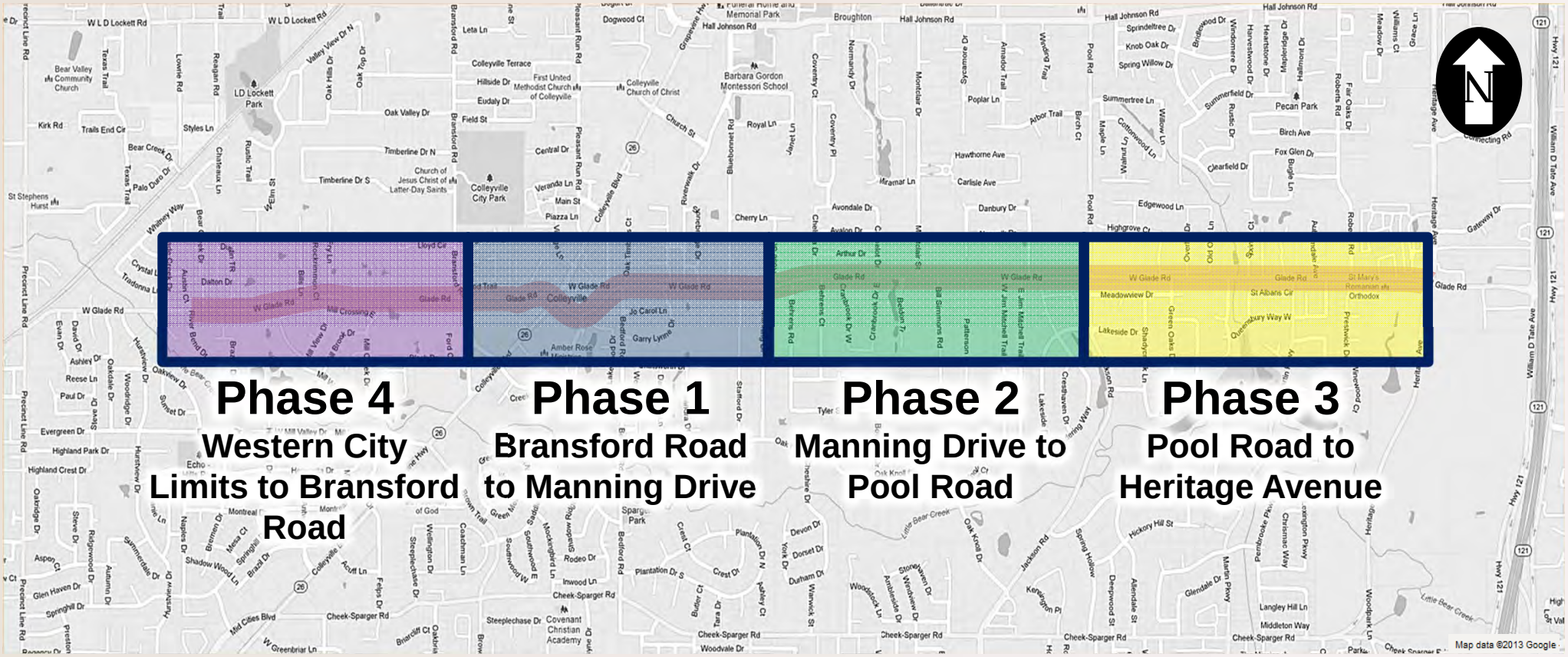
Based on Preliminary design (does not include design parameters)

Phase 2 (Manning Drive to Pool Road)

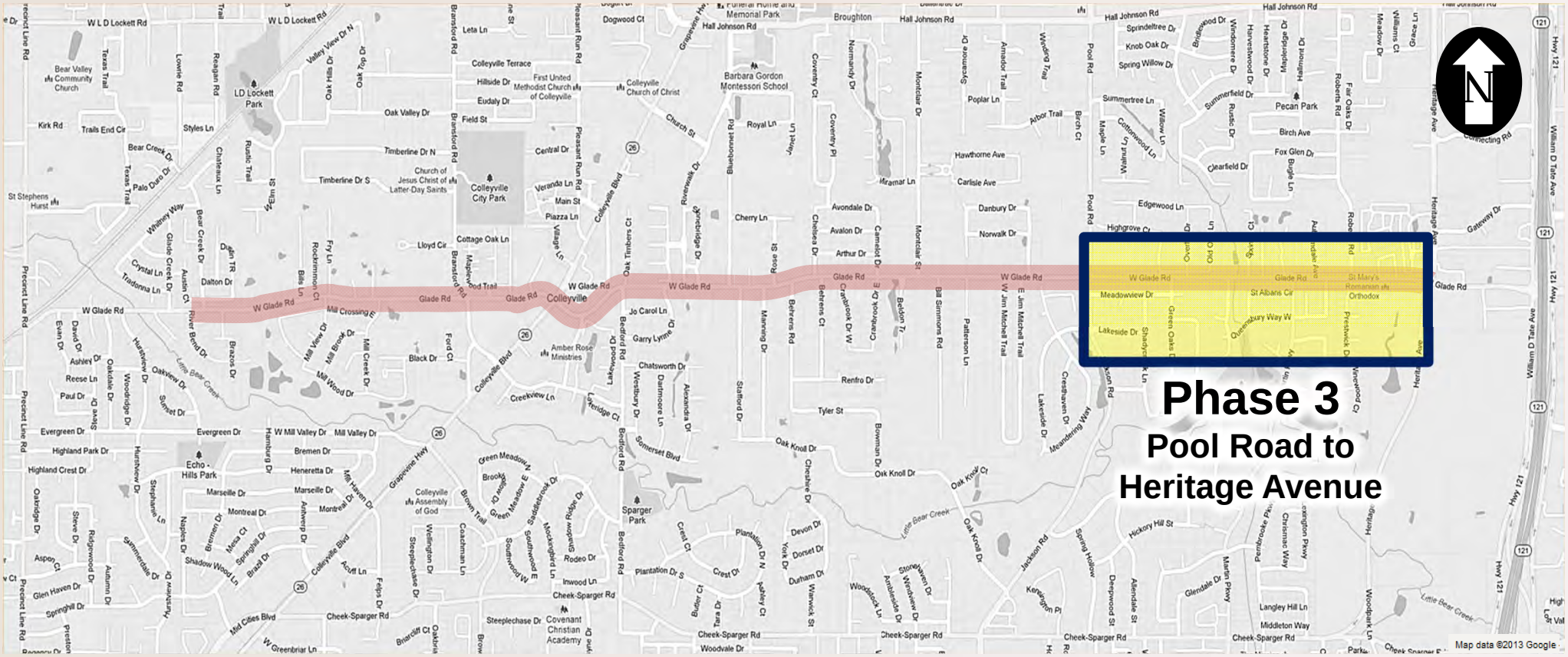


Design parameters could include the following:

- Reduced trail width (10’ to 8’) to limit the possible right-of-way impact
- Construct the trail adjacent to the back of curb to reduce the possible right-of-way impact
- Utilize existing curb and gutter on south side of Glade (approximately 18%), where feasible
- Alternate trail alignment - constructing a 5’ sidewalk on the north side and placing the 10’ trail on the south side from the proposed Riverwalk intersection roundabout to the existing Pool intersection roundabout


Phase 4
Western City Limits to Bransford Road
Phase 1
Bransford Road to Manning Drive
Phase 2
Manning Drive to Pool Road
Phase 3
Pool Road to Heritage Avenue
N
Map data ©2013 Google

Phase 3 (Pool Road to Heritage Avenue)



Phase 3 (Pool Road to Heritage Avenue)

Glade Road from Pool Road to Heritage Avenue, key components include:

- Addition of a westbound lane from Heritage Avenue to Roberts Road
- Add a southbound right-turn lane on Roberts Road
- 5’ Sidewalk on the south side
- 10’ Trail on the north side
- Street lighting at intersections
- Pedestrian (low level) lighting along the trail
- Standard curb and gutter

Phase 3 (Pool Road to Heritage Avenue)

Glade Road from Pool Road to Heritage Avenue

Scope Includes - All new pavement with left turn lanes where warranted and standard curb and gutters. Adds a right turn lane on Roberts Road and a additional westbound lane from Heritage Avenue to Roberts Road. A 10' trail on the north side and 5' sidewalk on the south side.

Estimated Final Design Cost	**$ 309,500***
Estimated Construction Cost	**$3,530,250***
Estimated Right-of-Way Costs	**$ 190,000***
Estimated Number of Right-of-Way Parcels Needed	**7***
Estimated Right-of-Way Acquisition and Final Design Duration	**9 Months***
Estimated Construction Duration	**14 Months***

Based on Preliminary design (does not include design parameters)

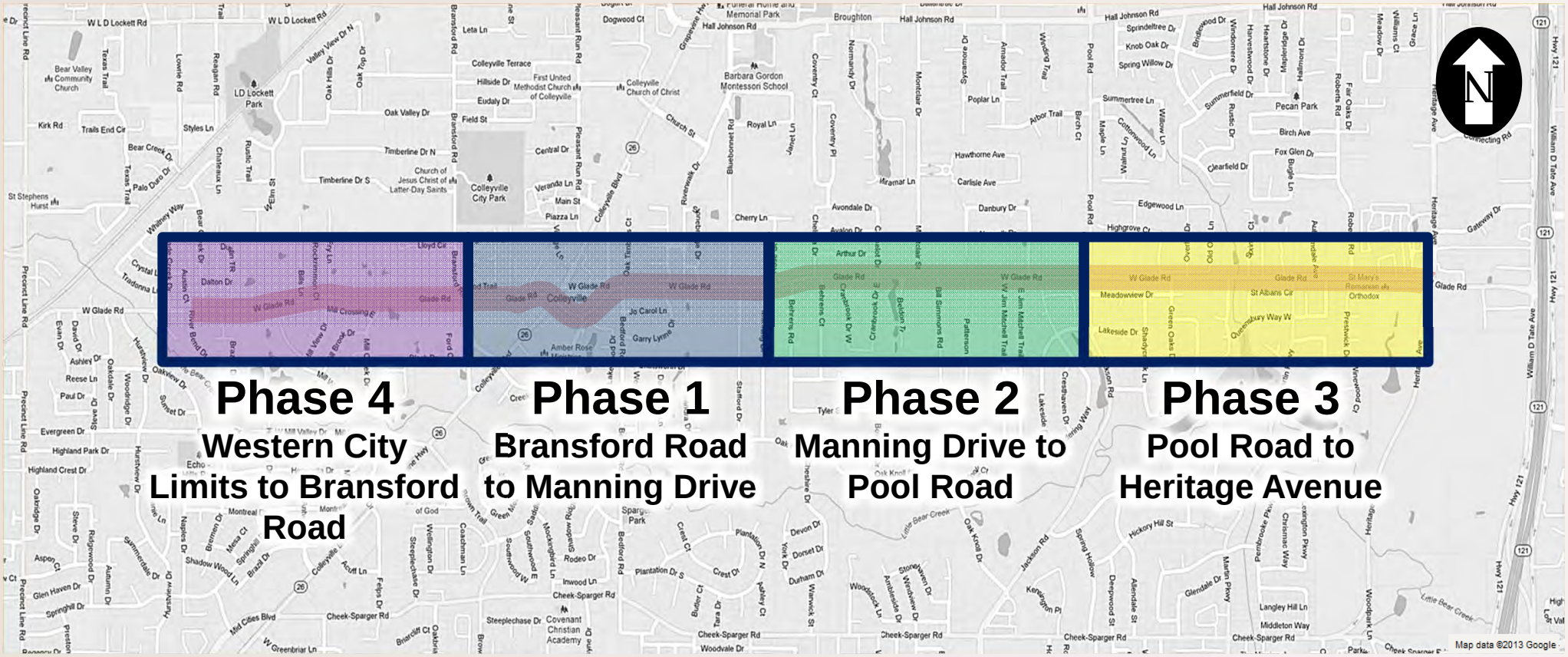
Phase 3 (Pool Road to Heritage Avenue)

Possible Design Parameters

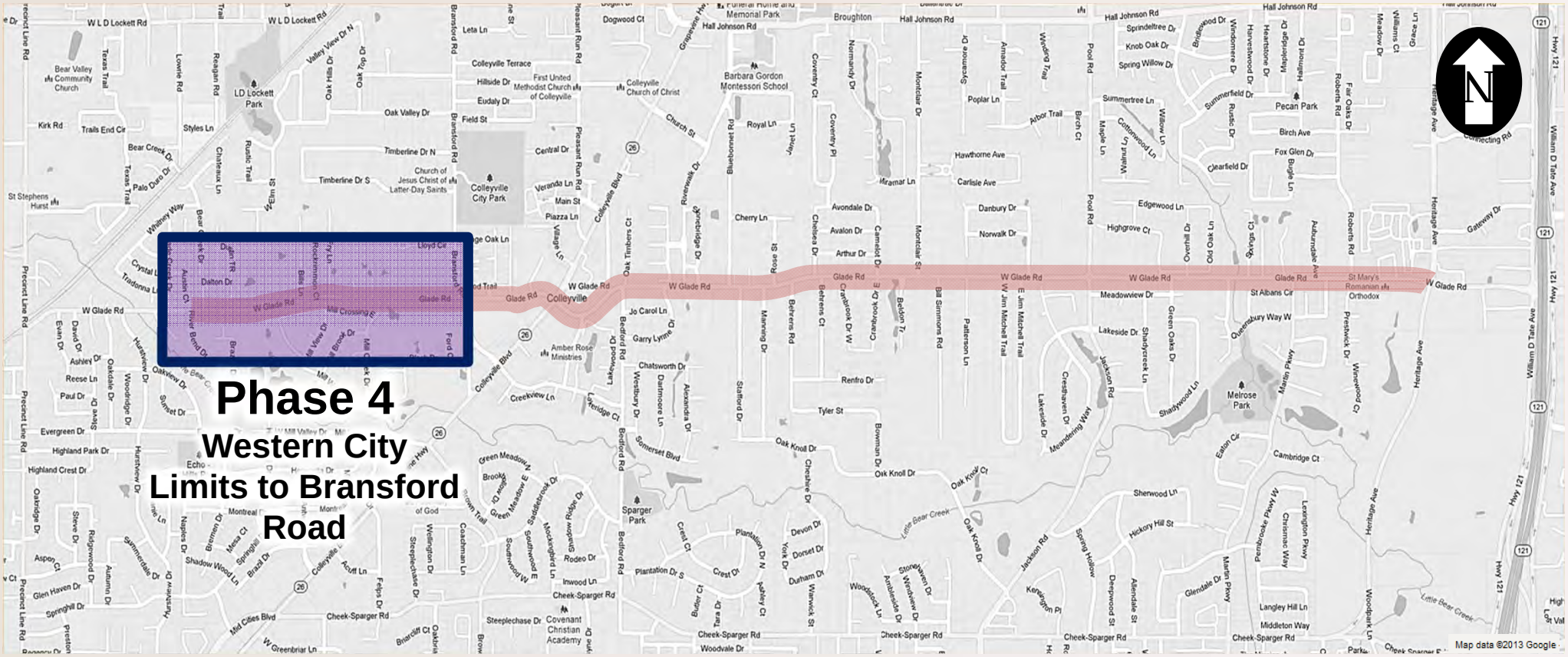
- Utilize the existing infrastructure as much as possible reducing the scope of the project and cost of construction

Design parameters could include the following:

- Utilize existing curb and gutter on south side of Glade (approximately 90%), where feasible
- Utilize existing drainage system, where feasible
- Utilize existing sidewalk on the south side of Glade, where feasible
- Add pavement to the north side of the existing roadway within the existing available right-of-way

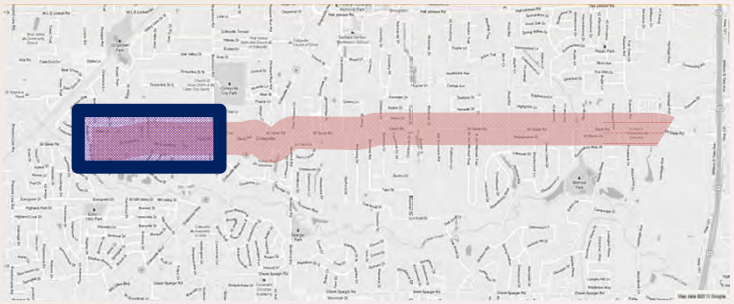

Phase 4
Western City Limits to Bransford Road
Phase 1
Bransford Road to Manning Drive
Phase 2
Manning Drive to Pool Road
Phase 3
Pool Road to Heritage Avenue
N
Map data ©2013 Google

Phase 4 (Western City Limits to Bransford Road)



Phase 4 (Western City Limits to Bransford Road)

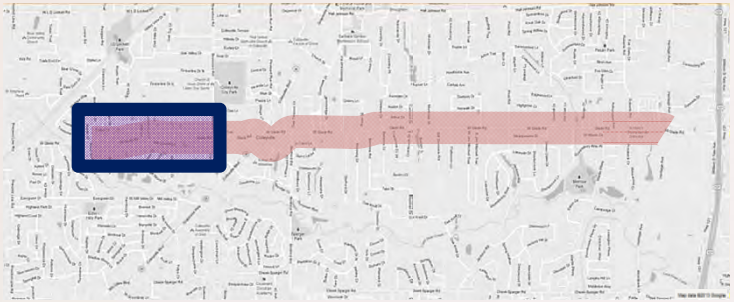
Glade Road from the Western City Limits to Bransford Road, key components include:



- Engineered drainage system designed to accommodate a 100 year storm using concrete curbs and gutters
- A center turn lane between River Bend Drive and Bear Creek Drive
- Westbound dedicated left turn-lane for Clear Fork Drive
- Eastbound dedicated left turn-lane for Rockrimmon Court
- Westbound dedicated left turn-lane for Mill View Drive
- Westbound dedicated left turn-lane for Mill Creek Drive
- 5’ sidewalk on the south and a 10’ trail on the north side
- Street lighting at intersections
- Pedestrian (low level) lighting along the trail
- Standard curb and gutter

Phase 4 (Western City Limits to Bransford Road)

Glade Road from Western City Limits to Bransford Road

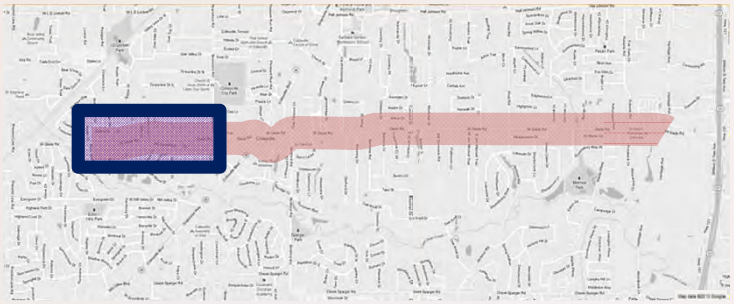


Scope Includes - All new pavement with left turn lanes where warranted and standard curb and gutters. A 10' trail on the north side and 5' sidewalk on the south side.

Estimated Final Design Cost	**$360,000***
Estimated Construction Cost	**$4,737,000***
Estimated Right-of-Way Costs	**$300,000***
Estimated Number of Right-of-Way Parcels Needed	**18***
Estimated Right-of-Way Acquisition and Final Design Duration	**9 Months***
Estimated Construction Duration	**13 Months***

Based on Preliminary design (does not include design parameters)

Phase 4 (Western City Limits to Bransford Road)



Possible Design Parameters

- Utilize the existing infrastructure as much as possible reducing the scope of the project and cost of construction

Design parameters could include the following:

- Utilize existing curb and gutter, trail, and sidewalk from the western city limits east approximately 1,100 feet
- Utilize the existing curb and gutter on the South side of Glade from 304 Glade Road to 204 Glade Road (approximately 1,800 feet along the Mill Creek Subdivision)
- Seek ILA for the construction of the turn lanes for Bear Creek Drive, Clear Fork Drive, and River Mend Drive as they service City of Hurst developments

Project Phase Summary

Project Section	Design		Rights-of-Way	Construction	
	Cost	Time (Months)	Cost	Cost	Time (Months)
Phase 1 (Bransford Road To Manning Drive)	$664,365**	7**	$925,000*	$3,755,000*	13*

Project Section	Design		Rights-of-Way	Construction	
	Cost	Time (Months)	Cost	Cost	Time (Months)
Phase 2 (Manning Drive to Pool Road)	$460,000*	12*	$430,000*	$5,484,000*	16*
Phase 3 (Pool Road to Heritage Avenue)	$309,500*	9*	$190,000*	$3,530,250*	14*
Phase 4 (Western City Limits to Bransford Road)	$360,000*	9*	$300,000*	$4,737,000*	13*

**** Based on Preliminary design (does not include design parameters)***

***** Based on actual contract amount***

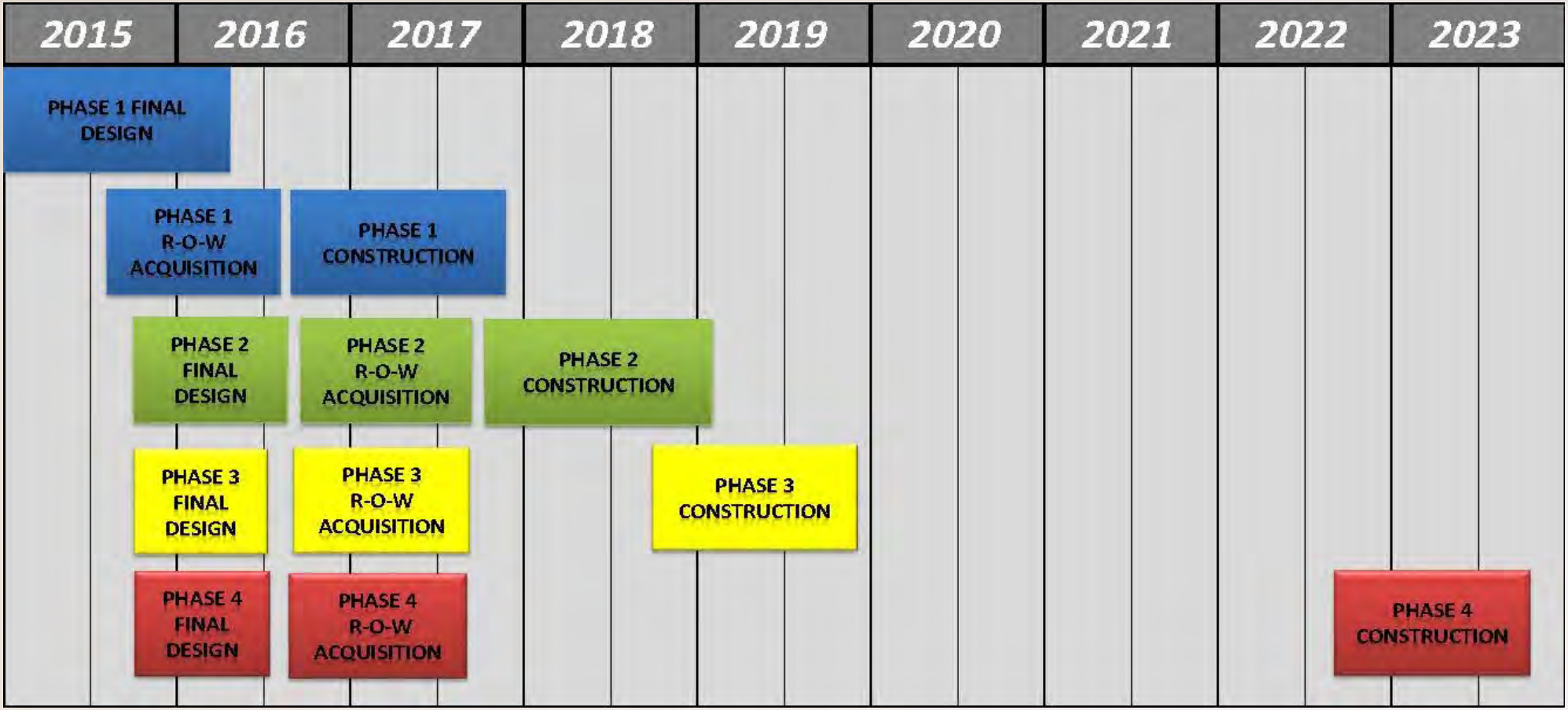
Possible Funding

- The Glade Road Corridor is eligible for several funding sources, including:
  - Tax Increment Financing District Funds (TIF funding)
  - Available Perimeter Street Fees

Phase 1 – Available funds	$ 23,514	Phase 2 – Available funds	$342,897
Phase 3 – Available funds	$245,223	Phase 4 - Available funds	$ 95,971

  - Roadway Impact Fees
    - $604,471.40 available for Service Area 1 (Phase 1 and 4)
    - $ 49,784.13 available for Service Area 2 (Phase 1, 2, and 3)
  - Wastewater Impact Fees (Phase 3 Only approximately $134,000)
  - Water Impact Fees (Phase 2 Only approximately $417,000)
  - Staff will seek additional funding from outside sources/agencies

Possible Phasing Scenario*



*Based only on current and forecasted funding availability from the TIF, existing Perimeter Street Fees, and Impact Fees

Interim Solution

- Current Pavement Condition Index ranges from 12 to 97
- Depth of current pavement varies
  - some sections as thin as 2”
- The need for interim maintenance is dependent on the schedule for reconstruction

- Maintenance over the past 10 Years
  - 2004 M&O Bluebonnet to Summerbrook Drive
  - 2005 M&O Bedford Road to Bluebonnet Drive
  - 2006 Reconstruction from Strathmore Terrace to Heritage Avenue
  - 2008 M&O Bluebonnet Drive to Montclair Drive
  - 2009 M&O SH26 to Bransford Road
  - 2010 M&O Riverwalk Drive to Bluebonnet Drive and Bill Simmons Road to Patterson Lane

Current Pavement Conditions
W Glade Rd
Colleyville City Park
Bill Simmons Rd
Patterson Ln
Bedford Rd
Bluebonnet
Montclair
Meadowview Dr
Lakeside Dr
Glade Rd
Mélrose Park
Cambridge Ct
Oak Knoll Dr
Evergreen Dr
Echo Hills Park
Timberline Dr N
Timberline Dr S
Cottage Oak Ln
Cherry Ln
Avondale Dr
Arthur Dr
Danbury Dr
Norwalk Dr
Hawthorne Ave
Carlisle Ave
Edgewood Ln
Highgrove Ct
Clearfield Dr
Fox Glen Dr
Birch Ave
Jo Carol Ln
Garry Lynne
Chatsworth Dr
Renfro Dr
Black Dr
Ford Ct
Mill Creek Dr
Mill Brook Dr
Mill Wood Dr
Mill Valley Dr
W Mill Valley Dr
Bremen Dr
Henerietta Dr
Dalton Dr
Austin Ct
Bear Creek Dr
Glade Crest Dr
Styles Ln
Chateau Ln
Rustic Trail
Fry Ln
Rockmoor Ct
Bits Ln
Brazos Dr
River Bend Dr
Grapevine Hwy
Green Meadow Dr
Brook
Central Dr
Veranda Ln
Main St
Piazza Ln
Village Dr
Pleasant Run Rd
Colleyville Blvd
Oak Tree Ln
Rosemary Dr
Bransford Rd
Magnolia Trail
Church of Jesus Christ of Latter-Day Saints
Amber Rose Ministries
Lloyd Cir
Manning Dr
Behrens Rd
Behrens Ct
Chelsea Dr
Camelot
Miramar Ln
Foul Rd
Green Oaks Dr
Shadycreek Ln
Quaintbury Way W
St Albans Cir
Romanian Orthodox
Roberts Rd
Prestwick Dr
Wimbledon Ct
Heritage Ave
Marks Pkwy
Eaton Cir
Hardy Dr
Green Meadow Dr
Oak Knoll Ct
Cheshire
Bobbie Ln
Wagon Ln
Pool Rd
Ashburn Ln
Dorne Ct
Lone Ln
Wimbledon Ln
Meadowood Ln
Hadywood Ln
Jackson Ln
Renfro Dr
Garry Lynne
Jo Carol Ln
Bedford Rd
Amber Rose Ministries
Colleyville
W Glade Rd
Glade Rd
W Jim Michael Trail
E Jim Michael Trail
Miramar Ln
Cherry Ln
Oak Tree Ln
Colleyville Blvd
Central Dr
Pleasant Run Rd
Rosemary Dr
Bobbie Ln
Bransford Rd
Magnolia Trail
Church of Jesus Christ of Latter-Day Saints
Colleyville City Park
Veranda Ln
Main St
Piazza Ln
Village Dr
Cottage Oak Ln
Lloyd Cir
Styles Ln
Chateau Ln
Rustic Trail
Fry Ln
Rockmoor Ct
Bits Ln
Brazos Dr
River Bend Dr
Grapevine Hwy
Green Meadow Dr
Brook
Timberline Dr N
Timberline Dr S
Dalton Dr
Austin Ct
Bear Creek Dr
Glade Crest Dr
Black Dr
Ford Ct
Mill Creek Dr
Mill Brook Dr
Mill Wood Dr
Mill Valley Dr
W Mill Valley Dr
Bremen Dr
Henerietta Dr
Evergreen Dr
Echo Hills Park
Hardy Dr
Chatsworth Dr
Garry Lynne
Jo Carol Ln
Renfro Dr
Manning Dr
Behrens Rd
Behrens Ct
Chelsea Dr
Cheshire
Bobbie Ln
Wagon Ln
Camelot
Miramar Ln
Montclair
Bill Simmons Rd
Patterson Ln
Foul Rd
Green Oaks Dr
Shadycreek Ln
Lakeside Dr
Meadowview Dr
Quaintbury Way W
St Albans Cir
Romanian Orthodox
Roberts Rd
Prestwick Dr
Wimbledon Ct
Heritage Ave
Marks Pkwy
Eaton Cir
Mélrose Park
Cambridge Ct
Oak Knoll Dr
Oak Knoll Ct
Cheshire
Hawthorne Ave
Carlisle Ave
Danbury Dr
Norwalk Dr
Avondale Dr
Avalon Dr
Arthur Dr
Cherry Ln
Edgewood Ln
Highgrove Ct
Clearfield Dr
Fox Glen Dr
Birch Ave
Ashburn Ln
Dorne Ct
Lone Ln
Wimbledon Ln
Meadowood Ln
Hadywood Ln
Jackson Ln
Pool Rd
Wagon Ln
Bobbie Ln
Bill Simmons Rd
Patterson Ln

Questions and Discussion

City of Colleyville
City Council
Agenda Briefing

City Hall
100 Main Street
Colleyville, Texas 76034
www.colleyville.com

Agenda Number PC-2 **Agenda Date** 10/20/2015
Type Pre Council
Department Public Works

Title
Discussion of the intersection of Glade Road and Prestwick Drive/Roberts Road

Strategy Map Connection
C4- Provide mobility enhancements that complement neighborhoods

Explanation
At the request of Councilmember Chuck Mogged, staff will provide a presentation and facilitate a discussion regarding the intersection of Glade Road and Prestwick Drive/Roberts Road. The analyses which have been performed for this intersection by Kimley-Horn are attached to the briefing for reference. The presentation will cover:

- Current intersection design
- Recap of the discussion during July 28th worksession
- Discussion of the intersection analyses that have been performed
- Discussion of a possible interim modification

At the end of the presentation and discussion, staff will be seeking guidance from the City Council regarding the pursuit of identified modifications to improve visibility at the intersection.

Attachments
1. Glade Road and Prestwick Drive/Roberts Road Presentation
2. Initial Analysis Report - March 17, 2015
3. Second Analysis Report - September 28, 2015

Glade Road & Prestwick Drive/Roberts Road Intersection

Pre Council Meeting

October 20, 2015

Outline of Presentation

- Current intersection
- Recap of the July 28th worksession discussion
- Discussion of the intersection analyses
- Discussion of the possible interim modification
- City Council direction sought

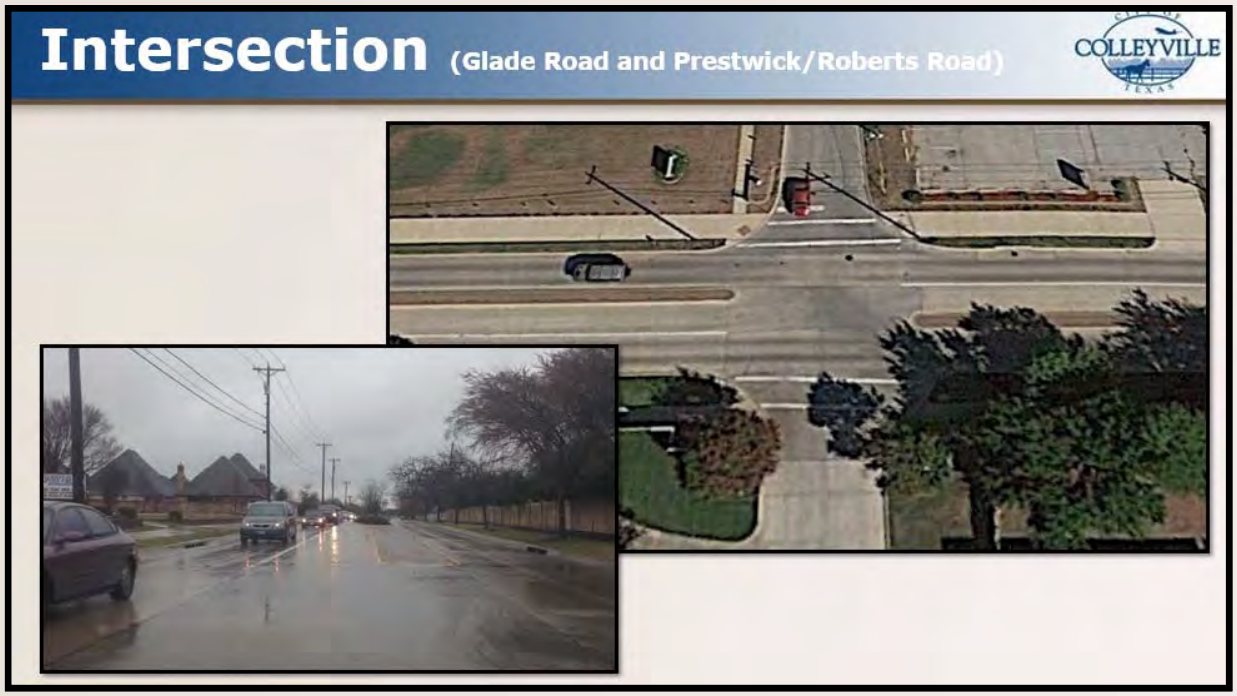
Current Intersection

- The intersection was part of the 2008 Glade Road Project, which included the reconstruction of Glade Road from Heritage Avenue, to just west of Martin Parkway

- The 2008 Glade Road Project was designed by Freese and Nichols, Inc., and constructed by Jackson Construction.

- The project was designed and constructed in compliance with all local, state, and federal requirements, as the project was partially funded with Surface Transportation Program Metropolitan Mobility funds through the Federal Highway Administration

Recap of July 28th Discussion



- This intersection is part of the Glade Road Corridor Project, Phase 3
- Staff was directed to evaluate a more immediate modification that could be done prior to the Glade Road Corridor Project, Phase 3

- Staff coordinated with a design professional, Kimley Horn and Associates (KHA) to conduct an analysis of the intersection, and make a recommendation with the estimated associated costs

Analyses

- Initial Analysis (Performed in March 2015)
  - Field observations at the intersection to analyze existing traffic
  - Intersection analysis for the current intersection, based on existing traffic patterns
  - Intersection analysis for the current intersection, based on future traffic patterns
  - Analysis of sight distance at the intersection, and potential use of mirrors for sight distance
  - Evaluation of crash history at the intersection

- Second Analysis (Performed in September 2015)
  - Analysis of removing the existing median to provide a positive offset to improve visibility
  - Options to enhance visibility
  - Conceptual level of design of the proposed solution

Kimley»Horn

MEMORANDUM

To: Jeremy Hutt, PE
City Engineering
City of Colleyville, Texas

From: Jeff Whitacre, P.E., AICP, PTP
Kimley-Horn and Associates, Inc.
TBPE Registered Firm Number F-928

Date: March 17, 2015

Subject: Glade Road & Roberts Road Intersection Evaluation
Colleyville, Texas

INTRODUCTION

This technical memorandum documents a traffic engineering evaluation performed for the Glade Road & Roberts Road intersection located a little more than a half mile west of SH 121 in the City of Colleyville, Texas.

The purpose of this study is

- Perform field observations at the study intersection to analyze existing traffic;
- Perform an intersection analysis for the current intersection based on existing traffic patterns;
- Perform an intersection analysis for the current intersection based on future traffic patterns;
- Analyze sight distance at the intersection and potential use of mirrors for sight distance; and
- Evaluate crash history at the intersection.

FIELD OBSERVATIONS

General Observations

Glade Road near Roberts Road is a two-lane divided facility with a posted speed limit of 35 mph. According to the currently adopted City of Colleyville Master Thoroughfare Plan, Glade Road is designated as a two-lane minor arterial (80' of right-of-way) and as such is built to its ultimate thoroughfare capacity. Glade Road is an important east-west connector that transverses the entire City Limits of Colleyville. Glade Road carries approximately 13,700 vehicles per day near Roberts Road. It is estimated that approximately ½ of the vehicles along Glade Road traveling westbound are exceeding the posted speed while the excessive speeds are not observed as frequently traveling eastbound. This is may be due to the transition of Glade Road from a commercial corridor to a neighborhood corridor. Based on observations, the motorists tended to drive slower in the neighborhood corridor as opposed to the commercial corridor.

Kimley-Horn.com 801 Cherry Street, Unit 11, Suite 650, Ft. Worth, TX 76102 817-335-6511

Kimley»Horn

MEMORANDUM

To: Jeremy Hutt, PE
City Engineering
City of Colleyville, Texas

From: Jeff Whitacre, P.E., AICP, PTP
Kimley-Horn and Associates, Inc.
TBPE Registered Firm Number F-928

Date: September 28, 2015

Subject: Glade Road & Roberts Road Intersection Evaluation
Colleyville, Texas

INTRODUCTION

This technical memorandum documents a traffic engineering evaluation performed for the Glade Road & Roberts Road intersection located a little more than a half mile west of SH 121 in the City of Colleyville, Texas.

The purpose of this study is

- Determine if removing the existing median will provide a large enough positive offset to improve visibility;
- Provide recommendations to enhance visibility;
- Provide a conceptual level design of proposed solution;

TRAFFIC ANALYSIS

Sight Distance Analysis

Procedures to determine sight distances at intersections are presented in Chapter 9 of the AASHTO publication *A Policy on Geometric Design of Highways and Streets* according to different types of traffic control. For the Glade Road & Roberts Road intersection the following cases were evaluated based on field observations:

Case F – Left turns from the major road (285' of sight distance needed)

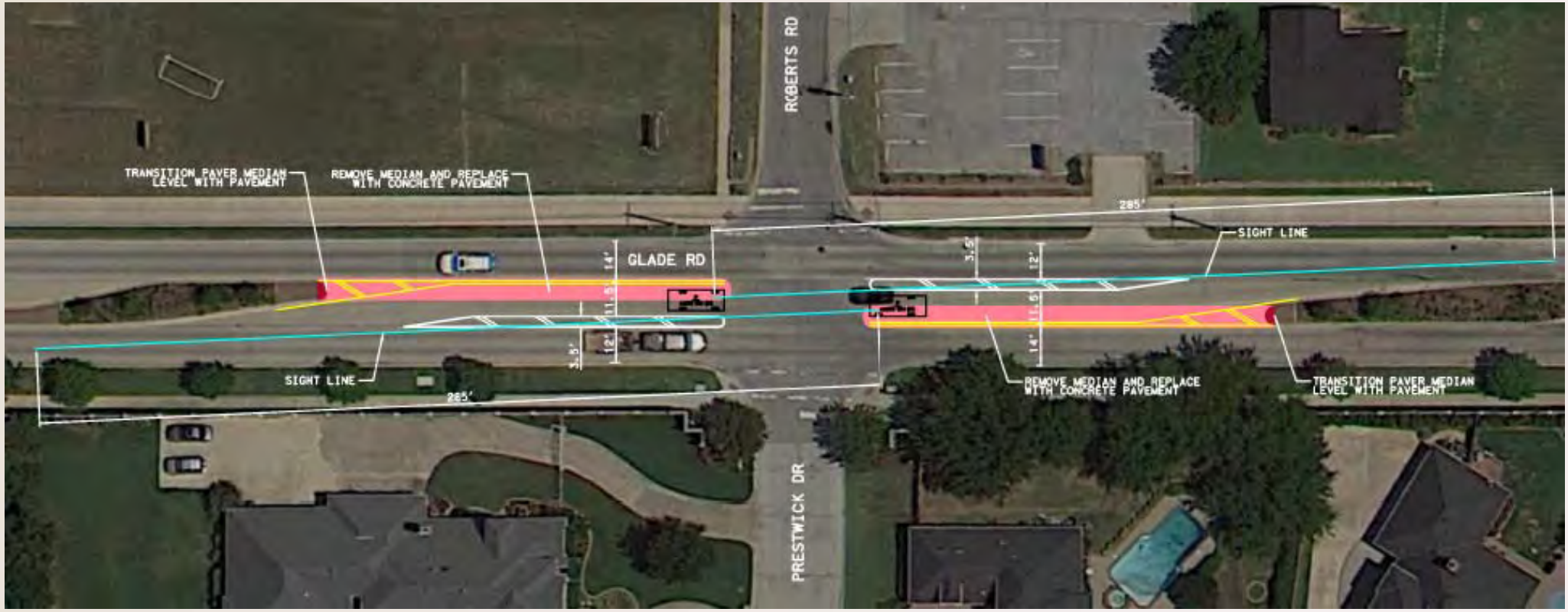
Photos from the field observations have been provided in the **Appendix**.

Kimley-Horn.com 801 Cherry Street, Unit 11, Suite 650, Ft. Worth, TX 76102 817-335-6511

Conclusions

- Conclusion of the Analyses
  - The intersection of Glade Road and Roberts Road ***currently operates at an acceptable level of service, except for the southbound approach during the PM peak***. However, adequate gaps in traffic are available so traffic is not experiencing excessive queuing.
  - The eastbound left-turn from Glade Road on Roberts Road can be visually obstructed from the traffic in the opposing left-turn lane. Due to the minimal volumes using these turn lanes, it is seldom that two vehicles are present, blocking each other's view, but it does occur.
  - ***To improve visibility***, an option would be to remove the existing raised-median and replace with double yellow striping, and striped-medians.

Interim Modification (layout)



Interim Modification (associated costs)

City of Colleyville - Glade Road and Roberts Road Intersection Improvements

Date: 9/28/2015
Prepared By: SJL
Checked By: JAW

Glade Road and Roberts Road - Option 1

Sheet 1 of 1

Bid Item No.	Item Description	Total Quantity	Unit	Unit Price	Item Cost
1	Remove Median	215	SY	$ 25.00	$ 5,375.00
2	6" Conc Pvmt	215	SY	$ 110.00	$ 23,650.00
3	4" SLD Pvmt Marking HAS (Y)	575	LF	$ 0.50	$ 287.50
4	8" SLD Pvmt Marking HAS (W)	225	LF	$ 1.00	$ 225.00
5	12" SLD Pvmt Marking HAE (W)	55	LF	$ 2.75	$ 151.25
6	12" SLD Pvmt Marking HAE (Y)	35	LF	$ 2.75	$ 96.25
7	Remove and Relay Pavers	5	SY	$ 150.00	$ 750.00
8	Traffic Control	1	MO	$ 5,000.00	$ 5,000.00
		Subtotal:			$ 35,600
		Mobilization (%,+/-)		20	$ 7,120
		Design (%,+/-)		10	$ 3,560
		Conting. (%,+/-)		20	$ 7,120
				Total	$ 53,400

Project Total	$ 53,400.00

Basis for Cost Projection:

x No Design Completed
Preliminary Design
Final Design

City Council Direction

Consider the suggested modification with the Glade Road Project, Phase 3

Proceed with the interim modifications prior to Glade Road Project, Phase 3

Questions and Discussion

Initial Analysis Report - March 17, 2015

Kimley»Horn

MEMORANDUM

To:	Jeremy Hutt, PE City Engineering City of Colleyville, Texas
From:	Jeff Whitacre, P.E., AICP, PTP Kimley-Horn and Associates, Inc. TBPE Registered Firm Number F-928
Date:	March 17, 2015
Subject:	Glade Road & Roberts Road Intersection Evaluation Colleyville, Texas

STATE OF TEXAS
JEFFREY A. WHITACRE
102469
LICENSED
PROFESSIONAL ENGINEER

J A Whitacre
3-17-2015

INTRODUCTION

This technical memorandum documents a traffic engineering evaluation performed for the Glade Road & Roberts Road intersection located a little more than a half mile west of SH 121 in the City of Colleyville, Texas.

The purpose of this study is

- Perform field observations at the study intersection to analyze existing traffic;
- Perform an intersection analysis for the current intersection based on existing traffic patterns;
- Perform an intersection analysis for the current intersection based on future traffic patterns;
- Analyze sight distance at the intersection and potential use of mirrors for sight distance; and
- Evaluate crash history at the intersection.

FIELD OBSERVATIONS

General Observations

Glade Road near Roberts Road is a two-lane divided facility with a posted speed limit of 35 mph. According to the currently adopted *City of Colleyville Master Thoroughfare Plan*, Glade Road is designated as a two-lane minor arterial (95' of right-of-way) and as such is built to its ultimate thoroughfare capacity. Glade Road is an important east-west connector that transverses the entire City Limits of Colleyville. Glade Road carries approximately 13,700 vehicles per day near Roberts Road. It is estimated that approximately ¼ of the vehicles along Glade Road traveling westbound are exceeding the posted speed while the excessive speeds are not observed as frequently traveling eastbound. This is may be due to the transition of Glade Road from a commercial corridor to a neighborhood corridor. Based on observations, the motorists tended to drive slower in the neighborhood corridor as opposed to the commercial corridor.

Roberts Road is a two-lane facility with a posted speed limit of 30 mph. According to the currently adopted *City of Colleyville Master Thoroughfare Plan*, Roberts Road is designated as a two-lane minor collector (75' of right-of-way) and as such is built to its ultimate thoroughfare capacity. Roberts Road provides a north-south connection between Glade Road in the City of Colleyville and Hall Johnson in the City of Grapevine. Roberts Road carries approximately 2,400 vehicles per day. It is estimated that most of the vehicles along Roberts Road are traveling at or under the posted speed.

AM Traffic Observations

AM peak observations were made on Tuesday, March 3rd, 2015. No issues were observed during this observation. The primary notes were:

- The eastbound traffic on Glade Road heading towards SH 121 was the heaviest movement;
- A vast majority (90%) of the SB traffic on Roberts Road turned left onto Glade to head to SH 121.
- Students used Glade Road and Roberts Road as a running path.
- The largest observed southbound queue was three vehicles.

PM Traffic Observations

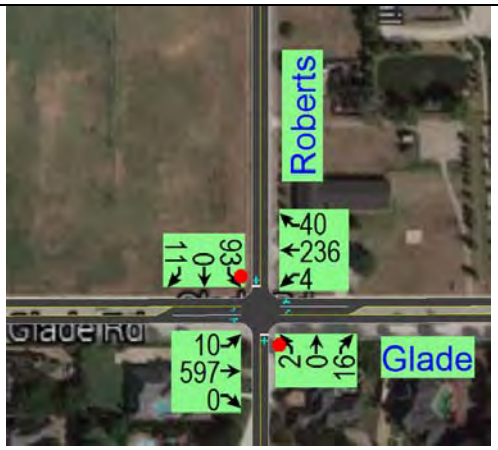
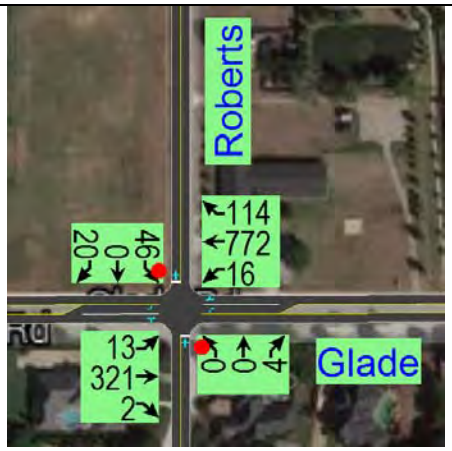
PM peak observations were made on Tuesday, March 3rd, 2015 and Monday, March 9th, 2015. Note, March 9th was the week and Spring Break and were sight distance purposes only and not for traffic analysis. The primary notes were:

- The westbound traffic on Glade Road from SH 121 was the heaviest movement;
- A vast majority (90%) of the northbound traffic on Roberts Road turned right from Glade Road.
- A continuous stream of traffic heading westbound was observed, but adequate gaps from Heritage Avenue were available that allowed the southbound, eastbound and westbound turning movements to experience minor queues.

TRAFFIC ANALYSIS

Existing Traffic Volumes

AM and PM peak hour turning movement volumes were estimated based on previously collected 24-hour recording machine counts. The existing traffic volumes are presented below:

AM Peak	PM Peak
	

Future Traffic Volumes

It is not anticipated that the traffic volumes along Roberts Road will grow significantly since a majority of the land adjacent to the roadway is developed. In addition, Heritage Avenue and Pool Road both provide similar access.

However, there is undeveloped land south of Covenant Church that could develop into single-family resident (see Figure 1). This undeveloped land has an area similar in size to the lot immediately to the west ("Auburndale Avenue" area). The Auburndale Avenue area contains sixteen single-family homes. However, for conservative analysis purposes, it was assumed that this undeveloped area was denser and contained 32 homes. This size of development would be expected to generate 24 trips in the AM peak hour (6 entering, 18 exiting), and 32 trips in the PM peak hour (20 entering, 12 exiting).

Figure 1: Undeveloped Land South of Covenant Church

Future AM and PM peak hour turning movement volumes are presented below:

AM Peak	PM Peak

Intersection Level of Service (LOS) and Queuing Analysis

An intersection level of service analysis was performed using Synchro. The existing modeled analysis matched observations.

Minor delay is experienced on the southbound approach of Roberts Road. This delay is primarily a result of the heavier peak hour traffic on Glade Road. The southbound turning vehicles are waiting for a gap on Glade Road and adequate gaps are available that prevents excessive queue lengths. In the future the delay is projected to slightly increase, however, the increase in the projected queue and delay is minimal.

Intersection Capacity Analysis							
Existing (2015)							
INTERSECTION	**APPROACH**	**AM Peak Hour**			**PM Peak Hour**		
		DELAY[1] (Sec/Veh)	**LOS**	**QUEUE LENGTH[2] (vehicles)**	**DELAY[1] (Sec/Veh)**	**LOS**	**QUEUE LENGTH[2] (vehicles)**
Glade Road & Roberts Road	NB Approach	14.00	B	1.0	10.20	B	1.0
	EB Left-Turn	7.88	A	1.0	10.14	B	1.0
	WB Left-Turn	8.86	A	1.0	8.02	A	1.0
	SB Approach	32.50	D	3.0	44.20	E	3.0
Future Intersection							
Glade Road & Roberts Road	NB Approach	14.00	B	1.0	10.20	B	1.0
	EB Left-Turn	7.89	A	1.0	10.24	B	1.0
	WB Left-Turn	8.86	A	1.0	8.02	A	1.0
	SB Approach	37.40	E	4.0	51.50	F	3.0

Note 1: Delay is reported in seconds / vehicle.

Note 2: Queue length represents 95th percentile queue rounded up to whole vehicle

Sight Distance Analysis

Procedures to determine sight distances at intersections are presented in Chapter 9 of the AASHTO publication *A Policy on Geometric Design of Highways and Streets* according to different types of traffic control. For the Glade Road & Roberts Road intersection the following cases were evaluated based on field observations:

Case B – Intersection with stop control on the minor road

- Case B1 – Left turn from the minor road (390' of sight distance needed)
- Case B2 – Right turn from the minor road (335' of sight distance needed)

Case F – Left turns from the major road (285' of sight distance needed)

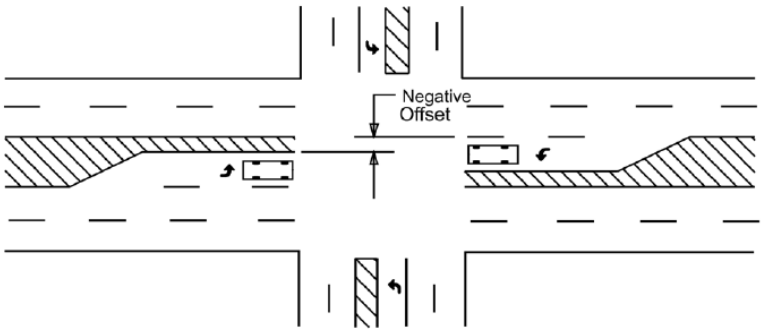
Photos from the field observations have been provided in the **Appendix**.

Based on the field observations the ability to turn left or right from the Roberts Road (minor road) was adequately provided. Looking to the east a motorist can see the Heritage Avenue signal (>335') and looking to the west can see past Auburndale Avenue (>390').

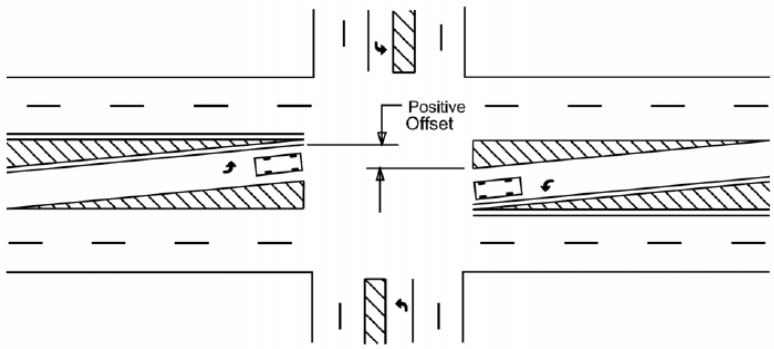
Based on the field observations the vehicles turning left from opposing left-turn lanes at the Glade Road & Roberts Road intersection could restrict each other's sight distance (Case F). Although in all three observations periods there was not an observed instance that this obstruction occurred. This is because the volumes in both the eastbound and westbound left-turn lanes are minimal and traffic in both turn lanes were not present at the same time. Below is an illustration of the sight distance conflict:

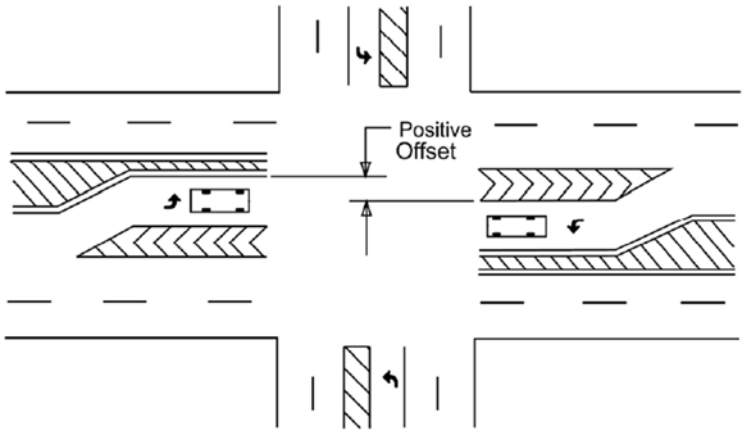
This conflict occurs when the left turns are not significantly offset. Offset is defined as the lateral distance between the left edge of a left-turn lane and the right edge of the opposing left-turn lane.

A negative offset is when the right edge of the opposing left-turn is to the left of the left edge of the left-turn as shown below. This is the case on Glade Road.



A positive offset is when the right edge of the opposing left-turn is to the right of the left edge of the left-turn as shown below. A positive offset aids in intersection sight distance. If the median is wide enough, positive offsets should be consider. Below are two examples of positive offsets:





It positively offsetting the turn lanes is not feasible then other potential mitigation options for sight distance improvements would be an all-way stop, roundabout, or a signalized intersection.

An all-way stop is not recommended because the volumes are not balance at the intersection since Glade Road carries a vast majority of the traffic volumes. In addition, the westbound queue in the PM peak would be high (17 vehicles) and longer delay would be experience.

A traffic signal is anticipated to only meet signal warrants during the AM peak hour. Ideally a signal is not installed when only one hour of warrants is met. A signal warrant study should be completed before a signal is considered. Note a signalized intersection would only solve this issue if the eastbound and westbound turn lanes are ran protected only which is not ideal given the low volumes of these movements.

A roundabout would require a large amount of reconstruction which could be a relatively high construction costs. Adjusting the offset of the left-turn lanes (if feasible) is likely a less costly solution.

Mirrors

Convex mirrors are commonly used for security and safety reasons to overcome sight restriction problems in visibility deficient areas. Their use for safety is now widely accepted in low speed vehicle and pedestrian conflict areas such as parking garages, alleys, and loading bays. In some cases they are being used at private driveways to aid visibility to the public road from these driveways.

The use of mirrors on a left-turn from a major (Case F) sight distance issue should be avoided on Glade Road for a few reasons:

- Distorted Image – The convex mirror shows a distorted image and images may not appear correctly to judge sight distance;
- Distraction – Mirrors along the roadway can be a distraction; and
- Expectancy – Motorists do not expect to use mirrors to turn left and is not common practice.

Evaluation of Crash History

Available crash data was reviewed. The data was from 2009 – 2015. Six crashes were reviewed at the studied intersections. Four of the crashes were single unit accidents. These crashes are unlikely a result of a sight distance issue. The other two crashes were (1) failing to yield at the stop sign and (2) failed to give half of the roadway. These crashes do not appear to be caused by sight distance issues, but the actual accident reports would need to be evaluated to confirm.

CONCLUSION

The intersection of Glade Road and Roberts Road currently operates at an acceptable level of service except for the southbound approach during the PM peak. However, adequate gaps in traffic are available so that traffic is not experience excessive queuing.

The eastbound left-turn from Glade Road on Roberts Road can be visually obstructed from the traffic in the opposing left-turn lane. Due to the minimal volumes using these turn lanes it is seldom that two vehicles are present blocking each other's view, but it does occur. In order to address this concern the exploration of positively offsetting the turn lanes could be considered.

APPENDIX

PHOTOTLOG

LEVEL OF SERVICE ANALYSIS

PHOTOTLOG

Case B1 – Left-Turn from Minor Road – Southbound Looking West

PHOTOTLOG

Case B2 – Right-Turn from Minor Road – Southbound Looking East

PHOTOTLOG

Case F – Left-Turns from the Major Road

LEVEL OF SERVICE ANALYSIS

Intersection	
Intersection Delay, s/veh	3.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	597	0	4	236	40	2	0	16	93	0	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	649	0	4	257	43	2	0	17	101	0	12

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	300	0	0	649	0	0	964	980	649	966	958	278
Stage 1	-	-	-	-	-	-	671	671	-	287	287	-
Stage 2	-	-	-	-	-	-	293	309	-	679	671	-
Follow-up Headway	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Capacity-1 Maneuver	1261	-	-	937	-	-	235	250	470	234	257	761
Stage 1	-	-	-	-	-	-	446	455	-	720	674	-
Stage 2	-	-	-	-	-	-	715	660	-	441	455	-
Time blocked-Platoon, %		-	-		-	-						
Mov Capacity-1 Maneuver	1261	-	-	937	-	-	229	247	470	223	254	761
Mov Capacity-2 Maneuver	-	-	-	-	-	-	229	247	-	223	254	-
Stage 1	-	-	-	-	-	-	442	451	-	714	671	-
Stage 2	-	-	-	-	-	-	701	657	-	421	451	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.1	14	32.5
HCM LOS			B	D

Minor Lane / Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	421	1261	-	-	937	-	-	241
HCM Lane V/C Ratio	0.046	0.009	-	-	0.005	-	-	0.469
HCM Control Delay (s)	14	7.88	-	-	8.86	-	-	32.5
HCM Lane LOS	B	A			A			D
HCM 95th %tile Q(veh)	0.146	0.026	-	-	0.014	-	-	2.315

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	13	321	2	16	772	114	0	0	4	46	0	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	349	2	17	839	124	0	0	4	50	0	22

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	963	0	0	351	0	0	1325	1376	350	1316	1315	901
Stage 1	-	-	-	-	-	-	378	378	-	936	936	-
Stage 2	-	-	-	-	-	-	947	998	-	380	379	-
Follow-up Headway	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Capacity-1 Maneuver	715	-	-	1208	-	-	133	145	693	135	158	337
Stage 1	-	-	-	-	-	-	644	615	-	318	344	-
Stage 2	-	-	-	-	-	-	314	322	-	642	615	-
Time blocked-Platoon, %		-	-		-	-						
Mov Capacity-1 Maneuver	715	-	-	1208	-	-	121	140	693	131	153	337
Mov Capacity-2 Maneuver	-	-	-	-	-	-	121	140	-	131	153	-
Stage 1	-	-	-	-	-	-	631	603	-	312	339	-
Stage 2	-	-	-	-	-	-	290	317	-	625	603	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	0.1	10.2	44.2
HCM LOS			B	E

Minor Lane / Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	693	715	-	-	1208	-	-	161
HCM Lane V/C Ratio	0.006	0.02	-	-	0.014	-	-	0.446
HCM Control Delay (s)	10.2	10.136	-	-	8.024	-	-	44.2
HCM Lane LOS	B	B			A			E
HCM 95th %tile Q(veh)	0.019	0.06	-	-	0.044	-	-	2.039

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	4.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	11	597	0	4	236	45	2	0	16	109	0	14
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	649	0	4	257	49	2	0	17	118	0	15

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	305	0	0	649	0	0	970	987	649	972	963	281
Stage 1	-	-	-	-	-	-	673	673	-	290	290	-
Stage 2	-	-	-	-	-	-	297	314	-	682	673	-
Follow-up Headway	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Capacity-1 Maneuver	1256	-	-	937	-	-	233	247	470	232	256	758
Stage 1	-	-	-	-	-	-	445	454	-	718	672	-
Stage 2	-	-	-	-	-	-	712	656	-	440	454	-
Time blocked-Platoon, %		-	-		-	-						
Mov Capacity-1 Maneuver	1256	-	-	937	-	-	226	244	470	221	252	758
Mov Capacity-2 Maneuver	-	-	-	-	-	-	226	244	-	221	252	-
Stage 1	-	-	-	-	-	-	441	450	-	711	669	-
Stage 2	-	-	-	-	-	-	695	653	-	420	450	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.1	14	37.4
HCM LOS			B	E

Minor Lane / Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	420	1256	-	-	937	-	-	240
HCM Lane V/C Ratio	0.047	0.01	-	-	0.005	-	-	0.557
HCM Control Delay (s)	14	7.894	-	-	8.86	-	-	37.4
HCM Lane LOS	B	A			A			E
HCM 95th %tile Q(veh)	0.146	0.029	-	-	0.014	-	-	3.066

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	3.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	15	321	2	16	772	132	0	0	4	54	0	24
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	16	349	2	17	839	143	0	0	4	59	0	26

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	983	0	0	351	0	0	1342	1400	350	1331	1330	911
Stage 1	-	-	-	-	-	-	383	383	-	946	946	-
Stage 2	-	-	-	-	-	-	959	1017	-	385	384	-
Follow-up Headway	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Capacity-1 Maneuver	703	-	-	1208	-	-	129	140	693	132	155	332
Stage 1	-	-	-	-	-	-	640	612	-	314	340	-
Stage 2	-	-	-	-	-	-	309	315	-	638	611	-
Time blocked-Platoon, %		-	-		-	-						
Mov Capacity-1 Maneuver	703	-	-	1208	-	-	116	135	693	128	149	332
Mov Capacity-2 Maneuver	-	-	-	-	-	-	116	135	-	128	149	-
Stage 1	-	-	-	-	-	-	625	598	-	307	335	-
Stage 2	-	-	-	-	-	-	281	311	-	620	597	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0.1	10.2	51.5
HCM LOS			B	F

Minor Lane / Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	693	703	-	-	1208	-	-	158
HCM Lane V/C Ratio	0.006	0.023	-	-	0.014	-	-	0.537
HCM Control Delay (s)	10.2	10.242	-	-	8.024	-	-	51.5
HCM Lane LOS	B	B			A			F
HCM 95th %tile Q(veh)	0.019	0.071	-	-	0.044	-	-	2.686

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Second Analysis Report - September 28, 2015

Kimley»Horn

MEMORANDUM

To:	Jeremy Hutt, PE City Engineering City of Colleyville, Texas
From:	Jeff Whitacre, P.E., AICP, PTP Kimley-Horn and Associates, Inc. TBPE Registered Firm Number F-928
Date:	September 28, 2015
Subject:	Glade Road & Roberts Road Intersection Evaluation Colleyville, Texas

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INTRODUCTION

This technical memorandum documents a traffic engineering evaluation performed for the Glade Road & Roberts Road intersection located a little more than a half mile west of SH 121 in the City of Colleyville, Texas.

The purpose of this study is

- Determine if removing the existing median will provide a large enough positive offset to improve visibility;
- Provide recommendations to enhance visibility;
- Provide a conceptual level design of proposed solution;

TRAFFIC ANALYSIS

Sight Distance Analysis

Procedures to determine sight distances at intersections are presented in Chapter 9 of the AASHTO publication *A Policy on Geometric Design of Highways and Streets* according to different types of traffic control. For the Glade Road & Roberts Road intersection the following cases were evaluated based on field observations:

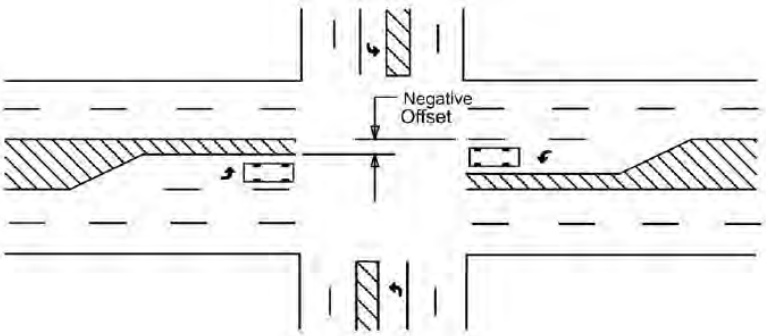
Case F – Left turns from the major road (285' of sight distance needed)

Photos from the field observations have been provided in the **Appendix**.

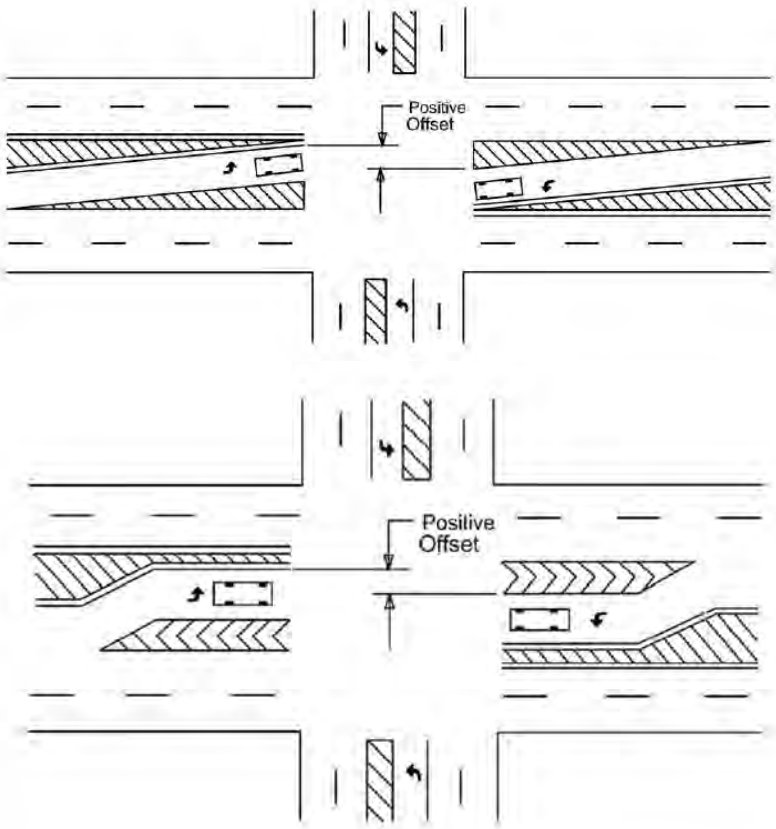
Based on the field observations, vehicles turning left, from opposing left-turn lanes, at the Glade Road & Roberts Road intersection could restrict each other's sight distance (Case F). Although in all three observation periods there was not an observed instance that this obstruction occurred. This is because the volumes in both the eastbound and westbound left-turn lanes are minimal and traffic in both turn lanes were not present at the same time. Below is an illustration of the sight distance conflict:

This conflict occurs when the left turns are not significantly offset. Offset is defined as the lateral distance between the left edge of a left-turn lane and the right edge of the opposing left-turn lane.

A negative offset is when the right edge of the opposing left-turn is to the left of the left edge of the left-turn as shown below. This is the case on Glade Road.



A positive offset is when the right edge of the opposing left-turn is to the right of the left edge of the left-turn as shown below. A positive offset aids in intersection sight distance. If the median is wide enough, positive offsets should be consider. Below are two examples of positive offsets:



Recommendations

It is recommended to remove the existing raised median adjacent to the left turn lanes on Glade Road to improve sight distance visibility for the left turn movements. It is recommended to replace raised median with double yellow striping and a striped out median. A striped median shall also be placed between the through lanes and left turn lanes to create a positive offset. The removed raised median shall be replaced with concrete pavement to match existing pavement.

Proposed conceptual designs have been provided in the **Appendix.**

CONCLUSION

The eastbound left-turn from Glade Road on Roberts Road can be visually obstructed from the traffic in the opposing left-turn lane. Due to the minimal volumes using these turn lanes it is seldom that two vehicles are present blocking each other's view, but it does occur. To improve visibility, it is recommended to remove the existing raised median and replace with double yellow striping and striped out medians.

APPENDIX

PHOTOTLOG

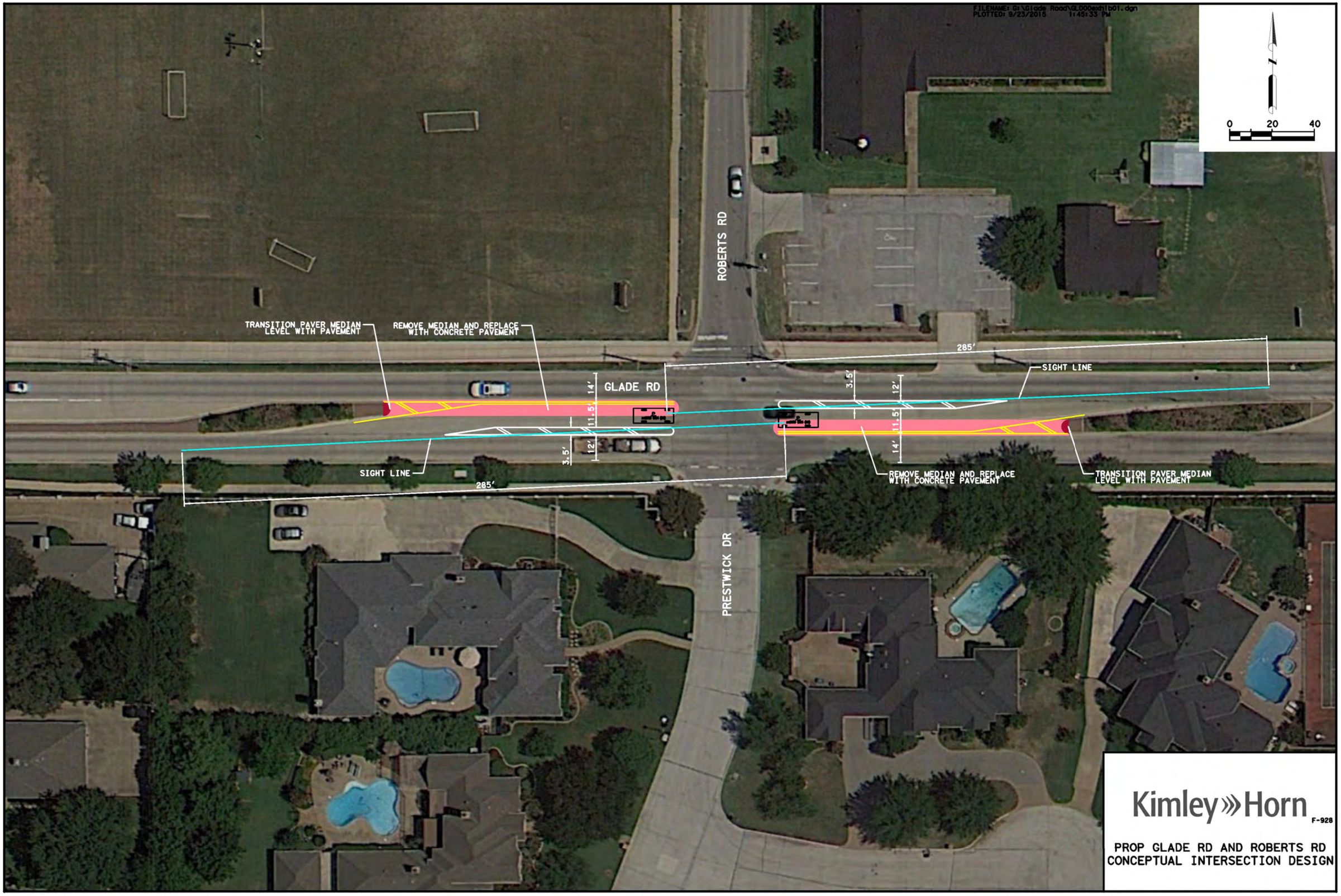
CONCEPTUAL DESIGNS

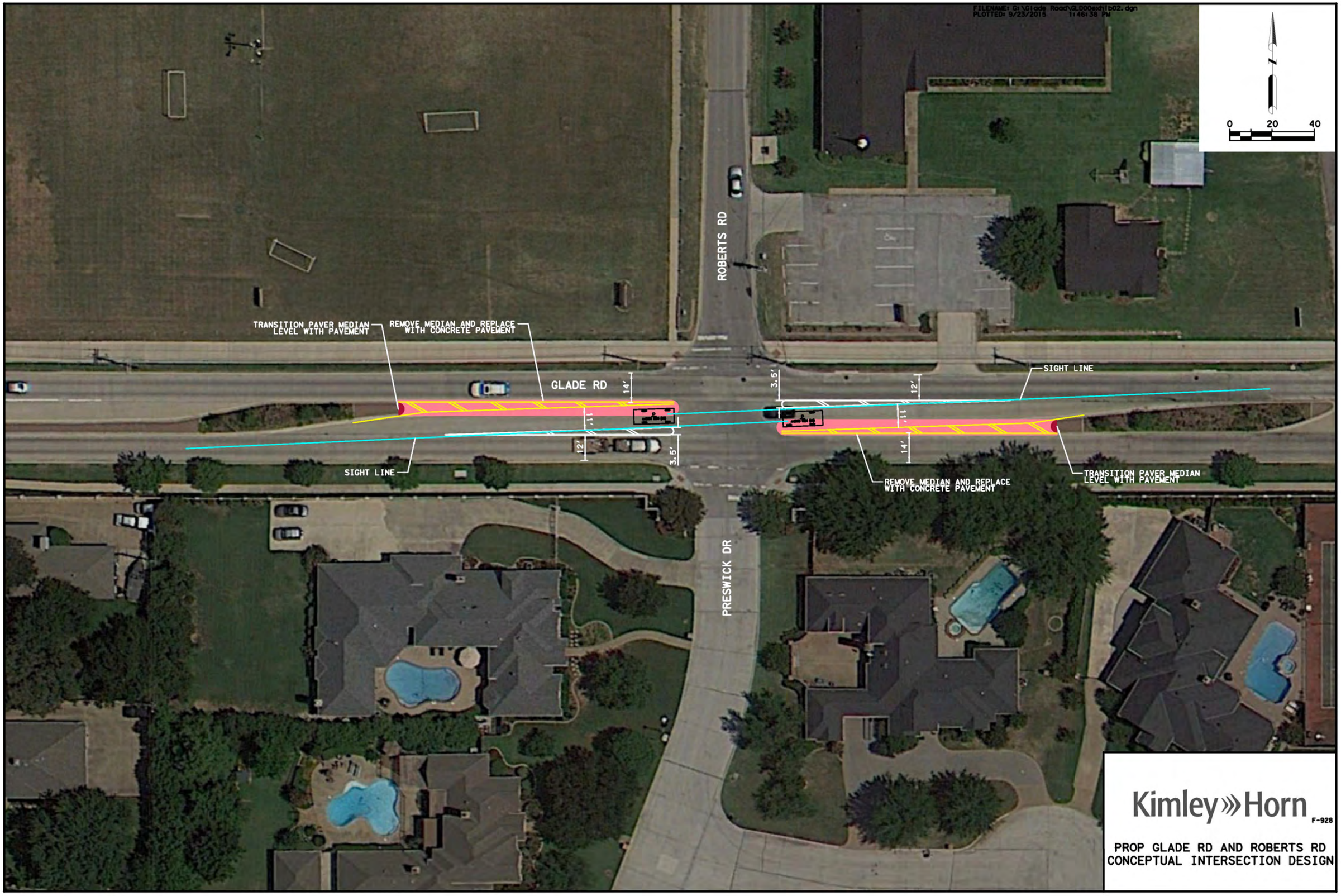
OPINION OF PROBABLE CONSTRUCTION COST

PHOTOTLOG

Case F – Left-Turns from the Major Road

CONCEPTUAL DESIGN


FILENAME: G:\Glade Road\GL000exhib01.dgn
PLOTTED: 9/23/2015 1:45:33 PM
0 20 40
ROBERTS RD
TRANSITION PAVER MEDIAN LEVEL WITH PAVEMENT
REMOVE MEDIAN AND REPLACE WITH CONCRETE PAVEMENT
285'
SIGHT LINE
GLADE RD
14'
11.5'
12'
3.5'
SIGHT LINE
285'
REMOVE MEDIAN AND REPLACE WITH CONCRETE PAVEMENT
TRANSITION PAVER MEDIAN LEVEL WITH PAVEMENT
PRESTWICK DR
Kimley»Horn
F-928
PROP GLADE RD AND ROBERTS RD
CONCEPTUAL INTERSECTION DESIGN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PLOTTED: 9/23/2015 1:46:38 PM
0 20 40
ROBERTS RD
GLADE RD
PRESWICK DR
TRANSITION PAVER MEDIAN LEVEL WITH PAVEMENT
REMOVE MEDIAN AND REPLACE WITH CONCRETE PAVEMENT
SIGHT LINE
14'
11'
12'
3.5'
Kimley»Horn
F-928
PROP GLADE RD AND ROBERTS RD
CONCEPTUAL INTERSECTION DESIGN

OPINION OF PROBABLE CONSTRUCTION COST

City of Colleyville - Glade Road and Roberts Road Intersection Improvements

Date: 9/28/2015
Prepared By: SJL
Checked By: JAW

Glade Road and Roberts Road - Option 1

Sheet 1 of 1

Bid Item No.	Item Description	Total Quantity	Unit	Unit Price	Item Cost
1	Remove Median	215	SY	$ 25.00	$ 5,375.00
2	6" Conc Pvmt	215	SY	$ 110.00	$ 23,650.00
3	4" SLD Pvmt Marking HAS (Y)	575	LF	$ 0.50	$ 287.50
4	8" SLD Pvmt Marking HAS (W)	225	LF	$ 1.00	$ 225.00
5	12" SLD Pvmt Marking HAE (W)	55	LF	$ 2.75	$ 151.25
6	12" SLD Pvmt Marking HAE (Y)	35	LF	$ 2.75	$ 96.25
7	Remove and Relay Pavers	5	SY	$ 150.00	$ 750.00
8	Traffic Control	1	MO	$ 5,000.00	$ 5,000.00
		Subtotal:			$ 35,600
		Mobilization (%,+/-)		20	$ 7,120
		Design (%,+/-)		10	$ 3,560
		Conting. (%,+/-)		20	$ 7,120
				Total	$ 53,400

Basis for Cost Projection:

- **x** No Design Completed
- Preliminary Design
- Final Design

Project Total $ 53,400.00

City of Colleyville
City Council
Agenda Briefing

City Hall
100 Main Street
Colleyville, Texas 76034
www.colleyville.com

Agenda Number PC-3 **Agenda Date** 10/20/2015
Type Pre Council
Department City Manager

Title
Presentation and discussion regarding Colleyville water usage

Strategy Map Connection
B4- Cultivate a culture of transparency and consistent communication

Explanation
The purpose of this agenda item is to provide information and allow for discussion of water usage by customers in Colleyville. This item is provided at the request of Councilmember Putnam. Background information and details are included in the attached presentation.

Attachments
1. Presentation on Water Usage
2. Water Rate History

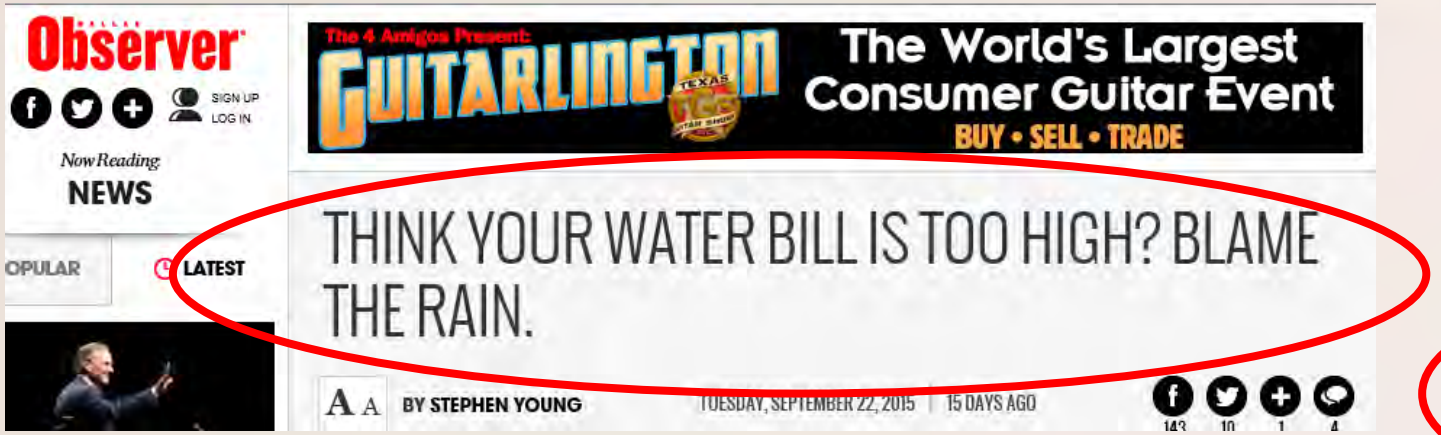
Colleyville Water Usage

Pre Council Meeting – October 20, 2015

Purpose

- Address inquiries regarding recent water usage
- Provide information
  - Background
  - Water Usage
  - Billing History
  - Regional Context
  - Communication Efforts

Background- Regional Context



Background- Weather

- Abnormally wet spring and early summer, followed by an extremely dry mid/late summer
- <1.5 inches total in July and August 2015
- September 2015 was 5th warmest on record
- Historical July - September rainfall:
  - 2011- 1.71 inches
  - 2012- 5.72 inches
  - 2013- 6.09 inches
  - 2014- 5.35 inches
  - 2015- 3.52 inches

Background- Watering Restrictions

- Twice-per-week watering restrictions
- 2015 was first summer without restrictions since tiered rates were implemented in December 2012
- Watering restrictions were in place:

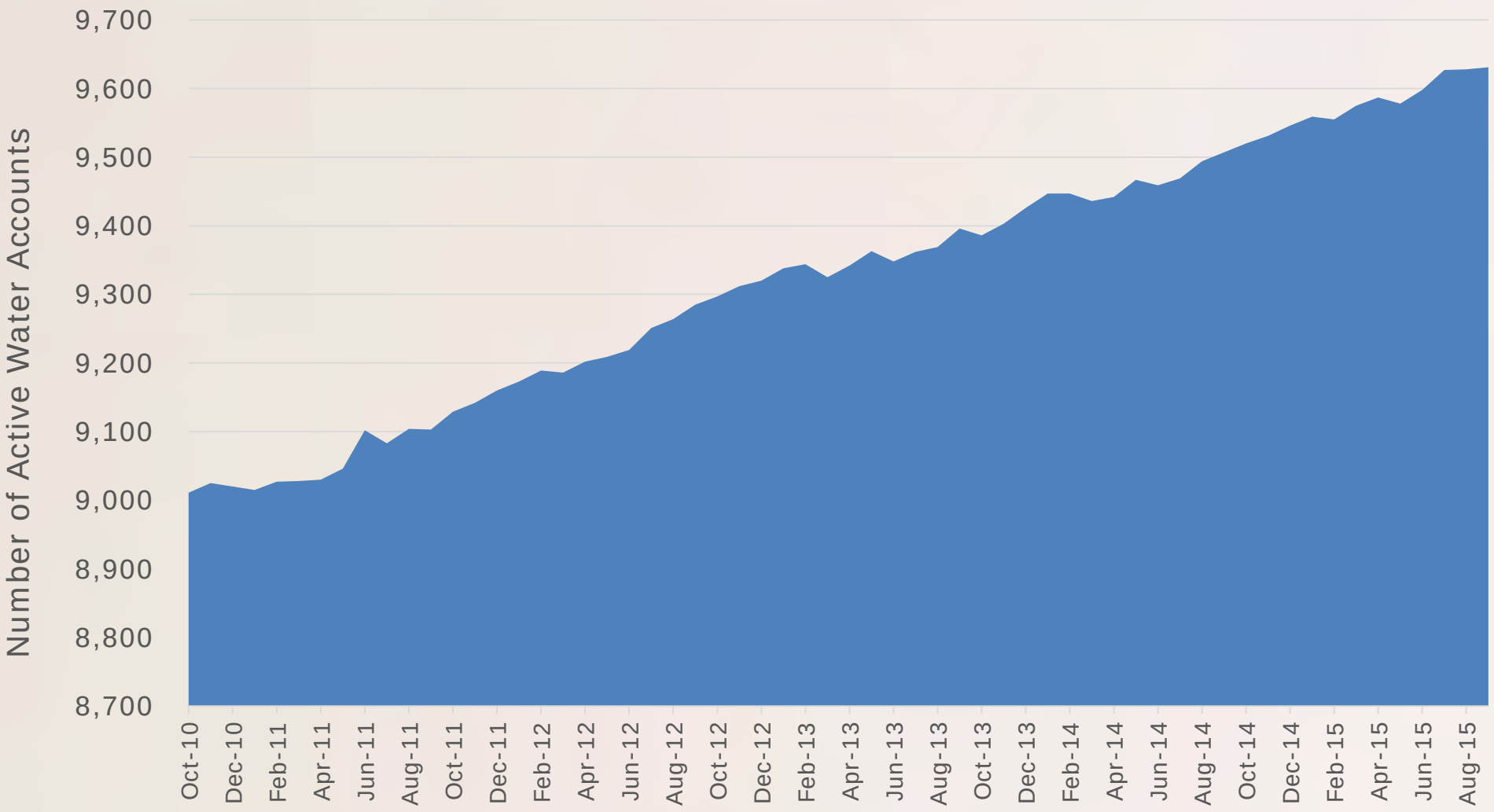
  August 29, 2011 - May 4, 2012

  June 3, 2013 - May 18, 2015

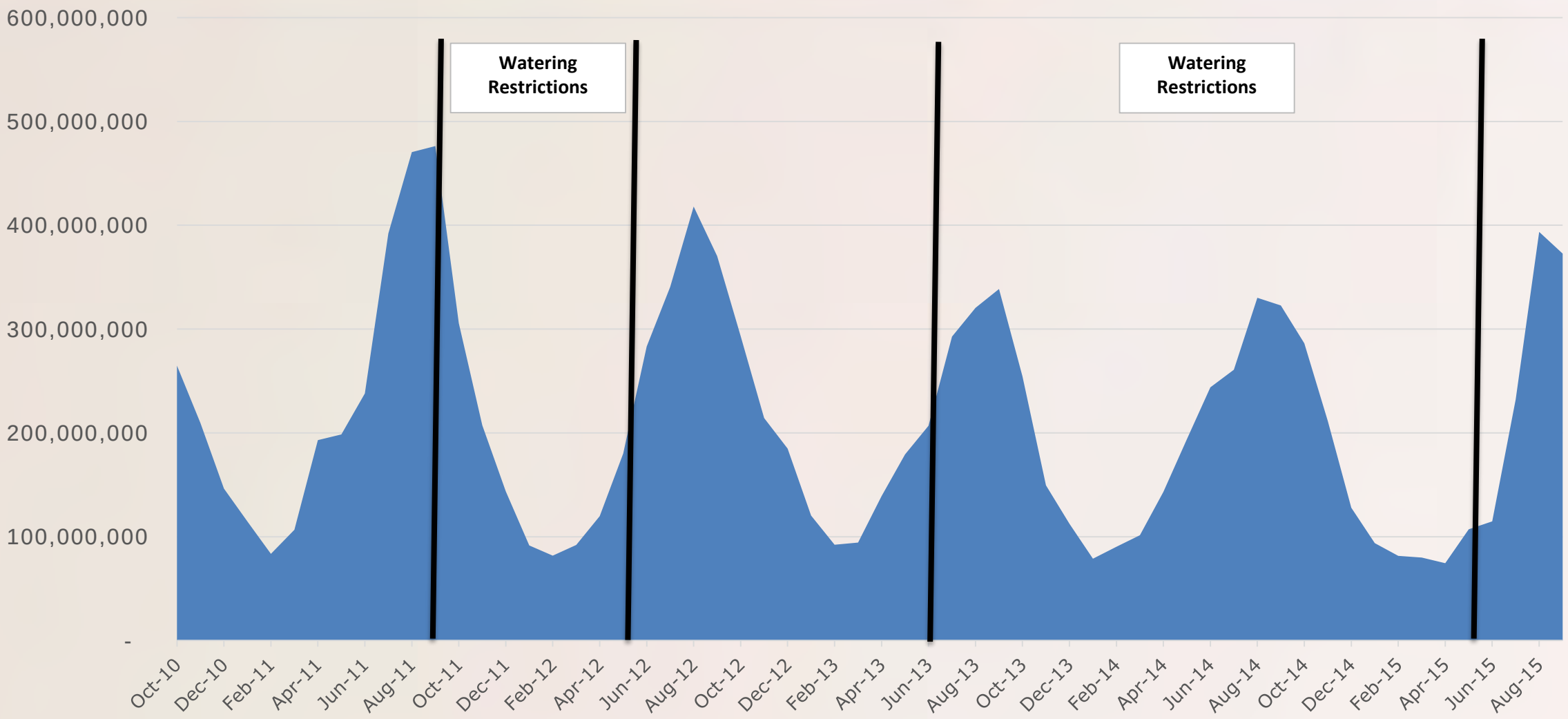
Background- Meters & Billing

- All 9,631 meters are read every month
- Bills are based on actual meter reads, not averages
- Colleyville has two billing cycles and two meter readers
- Meter readers alternate so they do not read the same routes each month
- Meter billing accuracy rating is consistently at 98%+

Background- Active Water Accounts



Usage History



Usage History

	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	Average
October	264,782,200	305,649,900	293,267,900	254,390,200	286,269,400	280,871,920
November	209,448,900	207,313,200	214,316,600	149,486,900	211,422,200	198,397,560
December	146,356,400	143,692,600	184,884,560	112,472,300	127,913,400	143,063,852
January	114,656,700	91,593,300	120,358,800	78,829,300	93,818,700	99,851,360
February	83,502,000	81,759,600	92,276,900	90,321,700	81,548,700	85,881,780
March	106,690,300	92,063,800	94,360,100	101,442,400	79,925,400	94,896,400
April	193,033,400	119,826,200	139,086,100	143,226,200	74,497,900	133,933,960
May	198,520,100	180,123,700	179,281,400	193,916,500	107,139,900	171,796,320
June	237,996,500	283,199,000	206,903,600	243,898,600	114,782,500	217,356,040
July	392,062,900	340,574,500	292,759,600	260,821,900	232,266,000	303,696,980
August	470,426,300	418,001,200	320,446,900	330,125,300	393,577,900	386,515,520
September	476,249,600	370,313,300	338,576,600	322,733,100	372,674,300	376,109,380
TOTAL	2,893,725,300	2,634,110,300	2,476,519,060	2,281,664,400	2,175,836,300	2,492,371,072

Note: Shaded boxes indicate watering restrictions were in place

Usage History

	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
October					
November					
December					
January					
February					
March					
April					
May					
June					114,782,500
July					232,266,000
August					393,577,900
September					372,674,300

Average increase from June to July usage has been 1.3x

2x usage

Usage History

	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
October					
November					
December					
January					
February					
March					
April					
May					
June					114,782,500
July					232,266,000
August					393,577,900
September					372,674,300

Average increase from June to August usage has been 1.6x

3.4x usage

Quality Control

- 9,631 total accounts
- Rereads are:
  - City initiated (proactive)
  - Customer initiated
- Billing accuracy maintained at 98%+

City Initiated	July	Aug.	Sept.	Total
System Flagged Accounts	416	797	678	1,891
Rereads	320	181	111	612
Corrections (made prior to billing)	241[1]	76	59	376

Customer Initiated	July	Aug.	Sept.	Total
Rereads	10	53	164	227
Corrections (adjustments to customer's account)	4	17	12[3]	33
#over/under[2]				29/4

Notes:
1- delayed readings due to temporary meter readers
2- customers are unlikely to call regarding a bill that seems too low
3- 4 of these 12 corrections were requests to adjust bills based on a longer billing cycle

Example: Tier 1 & 2

City of Colleyville
Utility Billing
P.O. Box 1016
Colleyville, TX 76034-1016

Utility Bill

OFFICE HOURS: 8:00 a.m. - 5:00 p.m. Monday - Friday with the exception of holidays.
An after-hours deposit is located in back foyer of City Hall 100 Main Street
AFTER HOURS EMERGENCY: (817) 743.4522 (after hours fee may apply)
CUSTOMER SERVICE - BILLING INQUIRIES: (817) 503.1020
GARBAGE/RECYCLE CUSTOMER SERVICE: (817) 222.2221
Residential yearly sewer calculations based on DEC., JAN., FEB., Water Usage.
WEBSITE - www.colleyville.com

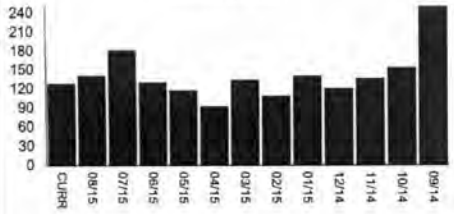
Customer Name	Service Address
	ST ALBANS CIR

Bill Number	Bill Date	Account Number - Customer Number	Due Date
	09/14/2015		10/01/2015

Description	Previous Read Date	Current Read Date	Previous Meter Reading	Current Meter Reading	Usage In 100's of Gallons	Tiered Rates Per 1,000 Gallons	Charge
WATER-RESIDENTIAL	08/06/2015	09/04/2015	3261	3390	129		
BASE RATE							13.28
RATE STEP GALLONS							
TIER 1 2,001 - 20,000					109	4.12	44.91
SEWER-RESIDENTIAL							42.02
GARBAGE PICKUP							9.77
RECYCLE PICKUP							3.22
GARBAGE/RECYCLE TAX							1.07
DRAINAGE-RESIDENTIAL							7.00
VOLUNTARY PARK/LIBRARY FUND							4.00

12,900 gallons
$125.27 total

BILLED USAGE



To avoid a 10% penalty, amount is due in our office by 5:00 P.M. on or before due date.
Services are subject to disconnection with a previous balance.

Total Current Billing	125.27
Previous Balance	130.21
Penalty/Adjustments	0.00
Deposits	0.00
Less Payments Received	130.21
Total Amount Due	**$125.27**

VISIT WWW.COLLEYVILLE.COM FOR WATER TIPS & USAGE FAQ

City of Colleyville
Utility Billing
P.O. Box 1016
Colleyville, TX 76034-1016

Utility Bill

OFFICE HOURS: 8:00 a.m. - 5:00 p.m. Monday - Friday with the exception of holidays.
An after-hours deposit is located in back foyer of City Hall 100 Main Street
AFTER HOURS EMERGENCY: (817) 743.4522 (after hours fee may apply)
CUSTOMER SERVICE - BILLING INQUIRIES: (817) 503.1020
GARBAGE/RECYCLE CUSTOMER SERVICE: (817) 222.2221
Residential yearly sewer calculations based on DEC., JAN., FEB., Water Usage.
WEBSITE - www.colleyville.com

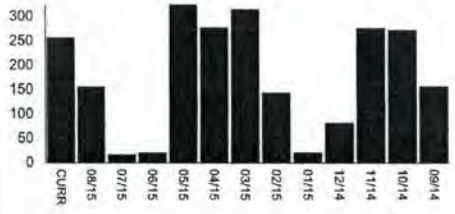
Customer Name	Service Address
	ST ALBANS CIR

Bill Number	Bill Date	Account Number - Customer Number	Due Date
	09/14/2015		10/01/2015

Description	Previous Read Date	Current Read Date	Previous Meter Reading	Current Meter Reading	Usage In 100's of Gallons	Tiered Rates Per 1,000 Gallons	Charge
WATER-RESIDENTIAL	08/06/2015	09/04/2015	2887	3145	258		
BASE RATE							13.28
RATE STEP GALLONS							
TIER 1 2,001 - 20,000					180	4.12	74.16
TIER 2 20,001 - 30,000					58	4.68	27.14
SEWER-RESIDENTIAL							51.76
GARBAGE PICKUP							9.77
RECYCLE PICKUP							3.22
GARBAGE/RECYCLE TAX							1.07
DRAINAGE-RESIDENTIAL							7.00
VOLUNTARY PARK/LIBRARY FUND							4.00

25,800 gallons
$191.40 total

BILLED USAGE



To avoid a 10% penalty, amount is due in our office by 5:00 P.M. on or before due date.
Services are subject to disconnection with a previous balance.

Total Current Billing	191.40
Previous Balance	146.54
Penalty/Adjustments	-4.00
Deposits	0.00
Less Payments Received	142.54
Total Amount Due	**$191.40**

VISIT WWW.COLLEYVILLE.COM FOR WATER TIPS & USAGE FAQ

1st cycle: Woodland Hills addition

Example: Tier 3 & 4

City of Colleyville
Utility Billing
P.O. Box 1016
Colleyville, TX 76034-1016

Utility Bill

OFFICE HOURS: 8:00 a.m. - 5:00 p.m. Monday - Friday with the exception of holidays.
An after-hours deposit is located in back foyer of City Hall 100 Main Street
AFTER HOURS EMERGENCY: (817) 743.4522 (after hours fee may apply)
CUSTOMER SERVICE - BILLING INQUIRIES: (817) 503.1020
GARBAGE/RECYCLE CUSTOMER SERVICE: (817) 222.2221
Residential yearly sewer calculations based on DEC., JAN., FEB., Water Usage.
WEBSITE - www.colleyville.com

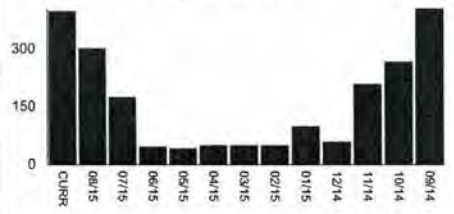
Customer Name	Service Address
	ST ALBANS CIR

Bill Number	Bill Date	Account Number - Customer Number	Due Date
	09/14/2015		10/01/2015

Description	Previous Read Date	Current Read Date	Previous Meter Reading	Current Meter Reading	Usage in 100's of Gallons	Tiered Rates Per 1,000 Gallons	Charge
WATER-RESIDENTIAL	08/06/2015	09/04/2015	2878	3278	400		
BASE RATE							13.28
RATE STEP GALLONS							
TIER 1 2,001 - 20,000					180	4.12	74.16
TIER 2 20,001 - 30,000					100	4.68	46.80
TIER 3 30,001 - 40,000					100	5.24	52.40
SEWER-RESIDENTIAL							24.03
GARBAGE PICKUP							9.77
RECYCLE PICKUP							3.22
GARBAGE/RECYCLE TAX							1.07
DRAINAGE-RESIDENTIAL							7.00

40,000 gallons
$231.73 total

BILLED USAGE



To avoid a 10% penalty, amount is due in our office by 5:00 P.M. on or before due date.
Services are subject to disconnection with a previous balance.

Total Current Billing	231.73
Previous Balance	180.90
Penalty/Adjustments	0.00
Deposits	0.00
Less Payments Received	180.90
Total Amount Due	**$231.73**

VISIT WWW.COLLEYVILLE.COM FOR WATER TIPS & USAGE FAQ

City of Colleyville
Utility Billing
P.O. Box 1016
Colleyville, TX 76034-1016

Utility Bill

OFFICE HOURS: 8:00 a.m. - 5:00 p.m. Monday - Friday with the exception of holidays.
An after-hours deposit is located in back foyer of City Hall 100 Main Street
AFTER HOURS EMERGENCY: (817) 743.4522 (after hours fee may apply)
CUSTOMER SERVICE - BILLING INQUIRIES: (817) 503.1020
GARBAGE/RECYCLE CUSTOMER SERVICE: (817) 222.2221
Residential yearly sewer calculations based on DEC., JAN., FEB., Water Usage.
WEBSITE - www.colleyville.com

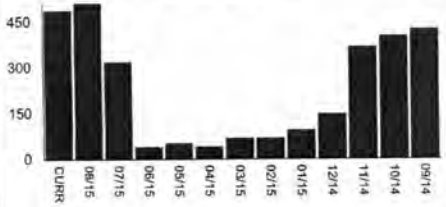
Customer Name	Service Address
	ST ALBANS CIR

Bill Number	Bill Date	Account Number - Customer Number	Due Date
	09/14/2015		10/01/2015

Description	Previous Read Date	Current Read Date	Previous Meter Reading	Current Meter Reading	Usage in 100's of Gallons	Tiered Rates Per 1,000 Gallons	Charge
WATER-RESIDENTIAL	08/06/2015	09/04/2015	3956	4445	489		
BASE RATE							13.28
RATE STEP GALLONS							
TIER 1 2,001 - 20,000					180	4.12	74.16
TIER 2 20,001 - 30,000					100	4.68	46.80
TIER 3 30,001 - 40,000					100	5.24	52.40
TIER 4 40,001 - 50,000					89	5.80	51.62
SEWER-RESIDENTIAL							27.57
GARBAGE PICKUP							9.77
RECYCLE PICKUP							3.22
GARBAGE/RECYCLE TAX							1.07
DRAINAGE-RESIDENTIAL							7.00

48,900 gallons
$286.89 total

BILLED USAGE



To avoid a 10% penalty, amount is due in our office by 5:00 P.M. on or before due date.
Services are subject to disconnection with a previous balance.

Total Current Billing	286.89
Previous Balance	301.54
Penalty/Adjustments	0.00
Deposits	0.00
Less Payments Received	301.54
Total Amount Due	**$286.89**

VISIT WWW.COLLEYVILLE.COM FOR WATER TIPS & USAGE FAQ

1st cycle: Woodland Hills addition

Example: Tier 5

City of Colleyville
Utility Billing
P.O. Box 1016
Colleyville, TX 76034-1016

Utility Bill

OFFICE HOURS: 8:00 a.m. - 5:00 p.m. Monday - Friday with the exception of holidays.
An after-hours deposit is located in back foyer of City Hall 100 Main Street
AFTER HOURS EMERGENCY: (817) 743.4522 (after hours fee may apply)
CUSTOMER SERVICE - BILLING INQUIRIES: (817) 503.1020
GARBAGE/RECYCLE CUSTOMER SERVICE: (817) 222.2221
Residential yearly sewer calculations based on DEC., JAN., FEB., Water Usage.
WEBSITE - www.colleyville.com

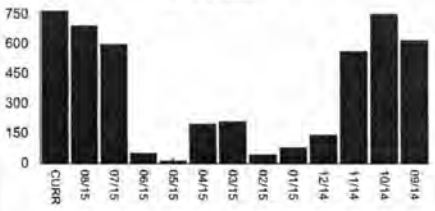
Customer Name	Service Address
	ST ALBANS CIR

Bill Number	Bill Date	Account Number - Customer Number	Due Date
	09/14/2015		10/01/2015

Description	Previous Read Date	Current Read Date	Previous Meter Reading	Current Meter Reading	Usage in 100's of Gallons	Tiered Rates Per 1,000 Gallons	Charge
WATER-RESIDENTIAL	08/06/2015	09/04/2015	5384	6153	769		
BASE RATE							13.28
RATE STEP GALLONS							
TIER 1 2,001 - 20,000					180	4.12	74.16
TIER 2 20,001 - 30,000					100	4.68	46.80
TIER 3 30,001 - 40,000					100	5.24	52.40
TIER 4 40,001 - 50,000					100	5.80	58.00
TIER 5 OVER - 50,000					269	6.36	171.08
SEWER-RESIDENTIAL							37.89
GARBAGE PICKUP							9.77
RECYCLE PICKUP							3.22
GARBAGE/RECYCLE TAX							1.07
DRAINAGE-RESIDENTIAL							7.00
VOLUNTARY PARK/LIBRARY FUND							4.00

76,900 gallons
$478.67 total

BILLED USAGE



To avoid a 10% penalty, amount is due in our office by 5:00 P.M. on or before due date.
Services are subject to disconnection with a previous balance.

Total Current Billing	478.67
Previous Balance	432.25
Penalty/Adjustments	0.00
Deposits	0.00
Less Payments Received	432.25
Total Amount Due	**$478.67**

VISIT WWW.COLLEYVILLE.COM FOR WATER TIPS & USAGE FAQ

1st cycle: Woodland Hills addition

Example: Tier 1 & 2

City of Colleyville
Utility Billing
P.O. Box 1016
Colleyville, TX 76034-1016

Utility Bill

OFFICE HOURS: 8:00 a.m. - 5:00 p.m. Monday - Friday with the exception of holidays.
An after-hours deposit is located in back foyer of City Hall 100 Main Street
AFTER HOURS EMERGENCY: (817) 743.4522 (after hours fee may apply)
CUSTOMER SERVICE - BILLING INQUIRIES: (817) 503.1020
GARBAGE/RECYCLE CUSTOMER SERVICE: (817) 222.2221
Residential yearly sewer calculations based on DEC., JAN., FEB., Water Usage.
WEBSITE - www.colleyville.com

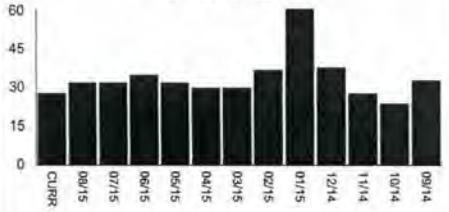
Customer Name	Service Address
	REMINGTON CT

Bill Number	Bill Date	Account Number - Customer Number	Due Date
	09/29/2015		10/15/2015

Description	Previous Read Date	Current Read Date	Previous Meter Reading	Current Meter Reading	Usage In 100's of Gallons	Tiered Rates Per 1,000 Gallons	Charge
WATER-RESIDENTIAL	08/14/2015	09/15/2015	4471	4499	28		
BASE RATE							13.28
RATE STEP GALLONS							
TIER 1 2,001 - 20,000					8	4.12	3.30
SEWER-RESIDENTIAL							17.54
GARBAGE PICKUP							9.77
RECYCLE PICKUP							3.22
GARBAGE/RECYCLE TAX							1.07
DRAINAGE-RESIDENTIAL							7.00
VOLUNTARY PARK/LIBRARY FUND							4.00

2,800 gallons
$59.18 total

BILLED USAGE



To avoid a 10% penalty, amount is due in our office by 5:00 P.M. on or before due date.
Services are subject to disconnection with a previous balance.

Total Current Billing	59.18
Previous Balance	60.64
Penalty/Adjustments	0.00
Deposits	0.00
Less Payments Received	60.64
Total Amount Due	**$59.18**

VISIT COLLEYVILLE.COM FOR WATER TIPS & USAGE FAQ

City of Colleyville
Utility Billing
P.O. Box 1016
Colleyville, TX 76034-1016

Utility Bill

OFFICE HOURS: 8:00 a.m. - 5:00 p.m. Monday - Friday with the exception of holidays.
An after-hours deposit is located in back foyer of City Hall 100 Main Street
AFTER HOURS EMERGENCY: (817) 743.4522 (after hours fee may apply)
CUSTOMER SERVICE - BILLING INQUIRIES: (817) 503.1020
GARBAGE/RECYCLE CUSTOMER SERVICE: (817) 222.2221
Residential yearly sewer calculations based on DEC., JAN., FEB., Water Usage.
WEBSITE - www.colleyville.com

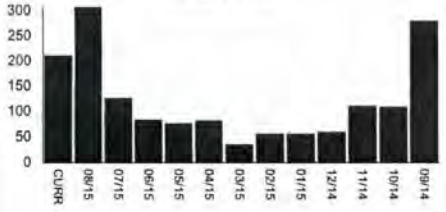
Customer Name	Service Address
	REMINGTON PKY

Bill Number	Bill Date	Account Number - Customer Number	Due Date
	09/29/2015		10/15/2015

Description	Previous Read Date	Current Read Date	Previous Meter Reading	Current Meter Reading	Usage In 100's of Gallons	Tiered Rates Per 1,000 Gallons	Charge
WATER-RESIDENTIAL	08/14/2015	09/15/2015	6893	7105	212		
BASE RATE							13.28
RATE STEP GALLONS							
TIER 1 2,001 - 20,000					180	4.12	74.16
TIER 2 20,001 - 30,000					12	4.68	5.62
SEWER-RESIDENTIAL							21.37
GARBAGE PICKUP							9.77
RECYCLE PICKUP							3.22
GARBAGE/RECYCLE TAX							1.07
DRAINAGE-RESIDENTIAL							7.00
VOLUNTARY PARK/LIBRARY FUND							4.00

21,200 gallons
$157.47 total

BILLED USAGE



To avoid a 10% penalty, amount is due in our office by 5:00 P.M. on or before due date.
Services are subject to disconnection with a previous balance.

Total Current Billing	139.49
Previous Balance	184.86
Penalty/Adjustments	17.98
Deposits	0.00
Less Payments Received	184.86
Total Amount Due	**$157.47**

VISIT COLLEYVILLE.COM FOR WATER TIPS & USAGE FAQ

2nd cycle: Remington Park addition

Example: Tier 3 & 4

City of Colleyville
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WEBSITE - www.colleyville.com

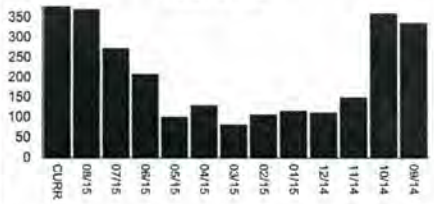
Customer Name	Service Address
	REMINGTON PKY

Bill Number	Bill Date	Account Number - Customer Number	Due Date
	09/29/2015		10/15/2015

Description	Previous Read Date	Current Read Date	Previous Meter Reading	Current Meter Reading	Usage in 100's of Gallons	Tiered Rates Per 1,000 Gallons	Charge
WATER-RESIDENTIAL	08/14/2015	09/15/2015	9291	9669	378		
BASE RATE							13.28
RATE STEP GALLONS							
TIER 1 2,001 - 20,000					180	4.12	74.16
TIER 2 20,001 - 30,000					100	4.68	46.80
TIER 3 30,001 - 40,000					78	5.24	40.87
SEWER-RESIDENTIAL							37.60
GARBAGE PICKUP							9.77
RECYCLE PICKUP							3.22
GARBAGE/RECYCLE TAX							1.07
DRAINAGE-RESIDENTIAL							7.00
VOLUNTARY PARK/LIBRARY FUND							4.00

37,800 gallons
$237.77 total

BILLED USAGE



To avoid a 10% penalty, amount is due in our office by 5:00 P.M. on or before due date.
Services are subject to disconnection with a previous balance.

Total Current Billing	237.77
Previous Balance	463.63
Penalty/Adjustments	22.90
Deposits	0.00
Less Payments Received	486.53
Total Amount Due	**$237.77**

VISIT COLLEYVILLE.COM FOR WATER TIPS & USAGE FAQ

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Utility Billing
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Utility Bill

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Residential yearly sewer calculations based on DEC., JAN., FEB., Water Usage.
WEBSITE - www.colleyville.com

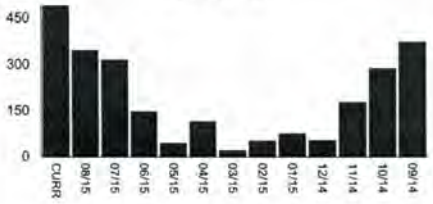
Customer Name	Service Address
	REMINGTON CT

Bill Number	Bill Date	Account Number - Customer Number	Due Date
	09/29/2015		10/15/2015

Description	Previous Read Date	Current Read Date	Previous Meter Reading	Current Meter Reading	Usage in 100's of Gallons	Tiered Rates Per 1,000 Gallons	Charge
WATER-RESIDENTIAL	08/14/2015	09/15/2015	4369	4861	492		
BASE RATE							13.28
RATE STEP GALLONS							
TIER 1 2,001 - 20,000					180	4.12	74.16
TIER 2 20,001 - 30,000					100	4.68	46.80
TIER 3 30,001 - 40,000					100	5.24	52.40
TIER 4 40,001 - 50,000					92	5.80	53.36
SEWER-RESIDENTIAL							22.55
GARBAGE PICKUP							9.77
RECYCLE PICKUP							3.22
GARBAGE/RECYCLE TAX							1.07
DRAINAGE-RESIDENTIAL							7.00
VOLUNTARY PARK/LIBRARY FUND							4.00

49,200 gallons
$287.61 total

BILLED USAGE



To avoid a 10% penalty, amount is due in our office by 5:00 P.M. on or before due date.
Services are subject to disconnection with a previous balance.

Total Current Billing	287.61
Previous Balance	207.53
Penalty/Adjustments	0.00
Deposits	0.00
Less Payments Received	207.53
Total Amount Due	**$287.61**

VISIT COLLEYVILLE.COM FOR WATER TIPS & USAGE FAQ

2nd cycle: Remington Park addition

Example: Tier 5

City of Colleyville
Utility Billing
P.O. Box 1016
Colleyville, TX 76034-1016

Utility Bill

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CUSTOMER SERVICE - BILLING INQUIRIES: (817) 503.1020
GARBAGE/RECYCLE CUSTOMER SERVICE: (817) 222.2221
Residential yearly sewer calculations based on DEC., JAN., FEB., Water Usage.
WEBSITE - www.colleyville.com

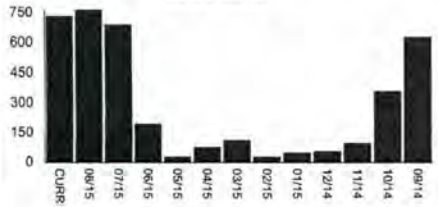
Customer Name	Service Address
	REMINGTON CT

Bill Number	Bill Date	Account Number - Customer Number	Due Date
	09/29/2015		10/15/2015

Description	Previous Read Date	Current Read Date	Previous Meter Reading	Current Meter Reading	Usage in 100's of Gallons	Tiered Rates Per 1,000 Gallons	Charge
WATER-RESIDENTIAL	08/14/2015	09/15/2015	8330	9065	735		
BASE RATE							13.28
RATE STEP GALLONS							
TIER 1 2,001 - 20,000					180	4.12	74.16
TIER 2 20,001 - 30,000					100	4.68	46.80
TIER 3 30,001 - 40,000					100	5.24	52.40
TIER 4 40,001 - 50,000					100	5.80	58.00
TIER 5 OVER - 50,000					235	6.36	149.46
SEWER-RESIDENTIAL							17.83
GARBAGE PICKUP							9.77
RECYCLE PICKUP							3.22
GARBAGE/RECYCLE TAX							1.07
DRAINAGE-RESIDENTIAL							7.00
VOLUNTARY PARK/LIBRARY FUND							4.00

73,500 gallons
$436.99 total

BILLED USAGE



To avoid a 10% penalty, amount is due in our office by 5:00 P.M. on or before due date.
Services are subject to disconnection with a previous balance.

Total Current Billing	436.99
Previous Balance	456.71
Penalty/Adjustments	0.00
Deposits	0.00
Less Payments Received	456.71
Total Amount Due	**$436.99**

VISIT COLLEYVILLE.COM FOR WATER TIPS & USAGE FAQ

2nd cycle: Remington Park addition

Customers by Tier

	0-2,000	2,001-20,000	20,001-30,000	30,001-40,000	40,001-50,000	>50,001
June	6.6%	79.6%	9.0%	3.0%	1.1%	0.7%
July	5.8%	47.9%	19.9%	12.1%	7.0%	7.3%
August	4.0%	25.5%	15.9%	15.2%	13.3%	26.1%
September	4.0%	24.6%	15.8%	16.8%	13.1%	25.7%

Regional Context- Usage

City	July 2015	August 2015	% Difference
Azle	51,031,993	63,573,664	25%
Colleyville	**232,266,000**	**393,577,900**	**69%**
Dallas	6,292,386,000	7,690,490,000	22%
Ft Worth	5,691,000,000	7,750,000,000	36%
Grand Prairie	599,813,000	830,568,000	38%
Lake Worth	22,244,000	35,176,000	58%
Murphy	85,370,984	181,676,308	113%
North Richland Hills	281,825,206	392,742,702	39%
Richardson	623,019,000	1,001,485,000	61%
Sachse	176,900,000	259,800,000	47%
The Colony	120,495,000	220,127,000	83%
White Settlement	46,273,100	62,634,200	35%
Average			**52%**

Data Source: City of Dallas

Colleyville Communications

- Colleyville E-News
- E-Communicator
- Facebook
- City website – public education materials and water usage calculators
- Homeowners Associations

Conclusions

Minimal Rain (July-Sept) + High Temperatures + Removal of Watering Restrictions = Increased Water Usage

- Increased water usage may bump customers into a higher tier in our tiered rate structure
- Communities across Texas are having similar experiences

Monthly Residential and Commercial Water Rates

	Pass Through	Pass Through	Pass Through	Pass Through & Implement Tiered Rates	Pass Through	Pass Through	Pass Through & Structure Shift to Recover Fixed Costs
	Dec-09	**Feb-11**	**Dec-11**	**Dec-12**	**Dec-13**	**Dec-14**	**Dec-15**
0 - 2,000 gallons (minimum bill)*	$ 12.10	$ 12.10	$ 12.52	$ 12.52	$ 12.74	$ 13.28	$ 13.55
2,001 - 20,000 gallons (per 1,000 gallons)**	$ 3.48	$ 3.53	$ 3.74	$ 3.74	$ 3.85	$ 4.12	$ 4.30
20,001 - 30,000 gallons (per 1,000 gallons)	$ 3.48	$ 3.53	$ 3.74	$ 4.30	$ 4.41	$ 4.68	$ 4.86
30,001 - 40,000 gallons (per 1,000 gallons)	$ 3.48	$ 3.53	$ 3.74	$ 4.86	$ 4.97	$ 5.24	$ 5.42
40,001 - 50,000 gallons (per 1,000 gallons)	$ 3.48	$ 3.53	$ 3.74	$ 5.42	$ 5.53	$ 5.80	$ 5.98
Over 50,000 gallons (per 1,000 gallons)	$ 3.48	$ 3.53	$ 3.74	$ 5.98	$ 6.09	$ 6.36	$ 6.54

Notes:

*As of December 2015, minimum bill includes 0 - 1,500 gallons

**As of December 2015, 1st tier is 1,501 - 20,000 gallons

City of Colleyville
City Council
Agenda Briefing

City Hall
100 Main Street
Colleyville, Texas 76034
www.colleyville.com

Agenda Number PC-4 **Agenda Date** 10/20/2015
Type Pre Council
Department City Secretary

Title
Discussion of the October 20, 2015, City Council regular agenda items

City of Colleyville
City Council
Agenda Briefing

City Hall
100 Main Street
Colleyville, Texas 76034
www.colleyville.com

Agenda Number 1 **Agenda Date** 10/20/2015
Type Executive Session
Department City Secretary

Title

Section 551.071 - Legal - Consultation with attorney on legal issues raised by public hearing or action items on the agenda

Section 551.071 - Legal - Consultation with attorney on contemplated litigation (Camden Lock LLC)

Section 551.071 - Legal - Consultation with attorney regarding litigation - Billy McCullough v. City of Colleyville

Section 551.071 - Legal - Consultation with attorney regarding litigation - Michael S. Newman v. City of Colleyville and City of Keller

Section 551.071 - Legal - Consultation with attorney regarding litigation - Village Monticello Partners, LTD. v. City of Colleyville

Section 551.072 - Real Estate - Deliberate the purchase, exchange, lease, or value of real property for City facilities

Section 551.087 – Economic Development - Discuss or deliberate regarding commercial or financial information that the City has received from business prospects that the City seeks to have locate, stay, or expand in the City and with which the City is conducting economic development negotiations; deliberate the offer of a financial or other incentive to a business prospect

Attachments

RESOLUTION R-15-3920

A RESOLUTION APPROVING COUNCIL ACTION
REGARDING EXECUTIVE SESSION ITEMS AT THE REGULAR
CITY COUNCIL MEETING OF
OCTOBER 20, 2015

WHEREAS, following discussion in Executive Session, and in full accordance with the requirements of the Open Meetings Act, the City Council determines that the following action is in the best interests of the health, safety, and welfare of the public.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF COLLEYVILLE, TEXAS:

Sec. 1. THAT

AND IT IS SO RESOLVED.

APPROVED BY A VOTE OF ___ AYES, ___ NAYS, AND ___ ABSTENTIONS ON THIS THE 20TH DAY OF OCTOBER 2015.

ATTEST: CITY OF COLLEYVILLE

Amy Shelley, TRMC
City Secretary

David Kelly
Mayor

City of Colleyville
City Council
Agenda Briefing

City Hall
100 Main Street
Colleyville, Texas 76034
www.colleyville.com

Agenda Number 3 **Agenda Date** 10/20/2015
Type Announcements, Proclamations, and Presentations
Department City Secretary

Title

In recognition of Colleyville's featured business - Aaron Brothers Art & Framing, General Manager Bert Garcia, 4709 Colleyville Boulevard - Mayor David Kelly and Economic Development Director Marty Wieder

Attachments

RESOLUTION R-15-3921

A RESOLUTION APPROVING CITY COUNCIL ACTION UNDER CONSENT ITEMS AT THE REGULAR CITY COUNCIL MEETING OF OCTOBER 20, 2015

WHEREAS, City Council has taken action on certain items on the agenda under Consent Items.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF COLLEYVILLE, TEXAS:

Sec. 1. THAT the agenda decisions approved by City Council action under Consent Items as follows are hereby adopted:

a. Approval of the minutes of the regular City Council meeting of October 5, 2015

b. Approval of an Interlocal Agreement and funding for the Metroport Teen Court Program

c. Approval of a contract with Digital Resources, Inc., through the TIPS/TAPS Cooperative Purchasing Program, in an amount not to exceed $191,377, for the upgrade and replacement of audio visual technology at the Colleyville Center, and authorize the city manager to execute the agreement

d. Approval to retire and trade-in a fire apparatus for acceptance of a new fire apparatus lease/purchase, and authorize the city manager to release the vehicle title

e. Approval to use Voluntary Park Funds for three projects in a total combined amount not to exceed $39,500

f. Approval to use Park Land Dedication Fund monies in an amount not to exceed $120,000, for the construction of the Cotton Belt Trail - Phase III project

g. Approval of a contract with C. Green Scaping, LP, for construction of the Cotton Belt Trail Phase III project, in an amount not to exceed $341,133.10, and authorize the city manager to execute the contract

AND IT IS SO RESOLVED.

APPROVED BY A VOTE OF ___ AYES, ___ NAYS, AND ___ ABSTENTIONS ON THIS THE 20TH DAY OF OCTOBER 2015.

ATTEST:

CITY OF COLLEYVILLE

Amy Shelley, TRMC
City Secretary

David Kelly
Mayor

City of Colleyville
City Council
Minutes - Draft

City Hall
100 Main Street
Colleyville, Texas 76034
817. 503.1000
www.colleyville.com

Monday, October 5, 2015 City Council Chambers

Mayor David Kelly called the Pre Council meeting of the Colleyville City Council to order on October 5, 2015, at 5:31 p.m.

ROLL CALL: Mayor David Kelly, Mayor Pro Tem Mike Taylor, and Councilmembers Carol Wollin, Chuck Mogged, Chris Putnam, Jody Short, and Nancy Coplen

City Manager Jennifer Fadden, Deputy City Manager Chris Fuller, Assistant City Manager/Director of Public Safety Mike Holder, Fire Chief Brian Riley, Assistant Police Chief Robert Hinton, Human Resources Director Rachel Huitt, Public Works Director Jeremy Hutt, City Engineer Cheryl Taylor, Community Development Director Abra Nusser, Principal Planner Shane Pace, Economic Development Director Marty Wieder, Colleyville Center Manager Leslie Hill, Parks Manager James Hubbard, Strategic Services Manager Adrienne Lothery, Communications and Marketing Director Mona Gandy, Information Systems Manager Chris Pena, Assistant City Attorney Matt Butler, and City Secretary Amy Shelley

PC-1 Review of the Comprehensive Plan Advisory Committee (CPAC) meeting held on September 28, 2015

Community Development Director Abra Nusser presented this item and briefed the City Council.

Mayor Kelly stated there may be some questions from residents about making this a detailed document versus a higher level type document.

Councilmember Mogged suggested having a conversation with residents about the various plans which the City uses to execute the items in the comprehensive plan.

Councilmember Putnam stated the details are also revealed as we make specific amendments to the Land Development Code. Mayor Kelly concurred.

Councilmember Coplen concurred about residents' concerns when they see all areas are noted as residential, and it should be understood about the different variations. Director Nusser agreed.

Councilmember Putnam stated we have to educate the residents about their expectation of 1.8 dwelling units per acre, how and why it is not always the case. Mayor Kelly agreed.

Councilmember Coplen asked staff about the McDonwell School Road connection to Pleasant Run Road. Director Nusser replied an analysis has been completed which indicates this is viable for connectivity.

Mayor Pro Tem Taylor asked staff why the school campuses are included in the Colleyville Boulevard corridor. Director Nusser replied if those uses change, over time, and the building becomes something else, they could be incorporated into the corridor for connectivity and form.

Mayor Pro Tem Taylor asked about Little Bear Creek, and why the zoning is wrapped behind the existing residential homes. Director Nusser replied there has been recent development interest in this area; therefore, staff wants to ensure the development preserves the established neighborhoods, and yet or still allows something special that might be a great development opportunity for the Colleyville Boulevard corridor.

Councilmember Short asked staff if the creek area is developable. Director Nusser replied yes; however, there are obstacles to overcome.

Mayor Pro Tem Taylor stated he appreciates the fact of looking at the school locations for other uses, if necessary for the future.

Councilmember Wollin asked staff about the format of the open house. Director Nusser replied it will be a come and go event, with no structure or presentation. She stated there will be stations to visit to review the highlights of the plan. She stated at the end, there will be plans to review to allow for residents to leave specific comments or concerns.

PC-2 Discussion of the October 5, 2015, City Council regular agenda items

Economic Development Director Marty Wieder presented and briefed City Council about item 4d. City Manager Jennifer Fadden added any reference to October 1, should be modified to November 1, 2015.

Mayor Kelly stated he would like staff to review the attendance of all board, commission, and committee members to replace those who are not meeting the 75 percent attendance requirement.

City Manager Jennifer Fadden recapped the Mayor's request to notify those that have not maintained the 75 percent attendance requirement, and re-advertise for those positions. City Councilmembers agreed.

Mayor Kelly recessed the Pre Council meeting at 6:03 p.m.

Mayor Kelly reconvened the Pre Council meeting at 6:47 p.m.

Mayor Kelly stated Gary Sanders did not wish to serve on the Zoning Board of Adjustment. He then detailed the appointments for items 7a, 7b, and 7c.

The regular meeting of the Colleyville City Council was called to order by Mayor Kelly at 7:30 p.m.

ROLL CALL: Mayor David Kelly, Mayor Pro Tem Mike Taylor, and Councilmembers Carol Wollin, Chuck Mogged, Chris Putnam, and Nancy Coplen

Absent: Councilmember Jody Short

City Manager Jennifer Fadden, Deputy City Manager Chris Fuller, Assistant City Manager/Director of Public Safety Mike Holder, Fire Chief Brian Riley, Assistant Police Chief Robert Hinton, Human Resources Director Rachel Huitt, Public Works Director Jeremy Hutt, City Engineer Cheryl Taylor, Community Development Director Abra Nusser, Principal Planner Shane Pace, Economic Development Director Marty Wieder, Parks Manager James Hubbard, Strategic Services Manager Adrienne Lothery, Communications and Marketing Director Mona Gandy, Information Systems Manager Chris Pena, Assistant City Attorney Matt Butler, and City Secretary Amy Shelley

1. EXECUTIVE SESSION - In accordance with Texas Government Code, Chapter 551, Subchapter D

   Section 551.071 - Legal - Consultation with attorney on legal issues raised by public hearing or action items on the agenda

   Section 551.071 - Legal - Consultation with attorney on contemplated litigation (Camden Lock LLC)

   Section 551.071 - Legal - Consultation with attorney regarding litigation - Billy McCullough v. City of Colleyville

   Section 551.071 - Legal - Consultation with attorney regarding litigation - Michael S. Newman v. City of Colleyville and City of Keller

   Section 551.072 - Real Estate - Deliberate the purchase, exchange, lease, or value of real property for City facilities

   Section 551.087 – Economic Development - Discuss or deliberate regarding commercial or financial information that the City has received from business prospects that the City seeks to have locate, stay, or expand in the City and with which the City is conducting economic development negotiations; deliberate the offer of a financial or other incentive to a business prospect

Mayor Kelly explained the Executive Session had been called in accordance with the Texas Government Code, Chapter 551, Subchapter D, Section 551.071, Legal, Section 551.072, Real Estate, and Section 551.087, Economic Development. He further explained there would be no decisions made or action taken during this time. The meeting was recessed at 6:03 p.m. and reconvened at 6:04 p.m.

INVOCATION: Pastor Dale Molden, First Baptist Church Colleyville

PLEDGE OF ALLEGIANCE: Assistant City Attorney Matt Butler

2. EXECUTIVE SESSION READING AND PUBLIC HEARING: CONSIDER AND TAKE ANY ACTION(S) NECESSARY RELATIVE TO ITEMS DISCUSSED IN EXECUTIVE SESSION - Resolution R-15-3914

This resolution was not needed.

3. ANNOUNCEMENTS, PROCLAMATIONS, AND PRESENTATIONS
   Announcements of civic and charitable events
   Presentation of calendar events and updates
   Announcements of awards and recognition

Councilmember Wollin welcomed and encouraged everyone to attend an event to be presented by the Colleyville Police Department, “Protecting Against Identity Theft,” on Thursday, October 15, 2015, from 6:00 p.m. to 7:30 p.m. at the Colleyville Justice Center located at 5201 Riverwalk Drive.

Mayor Kelly welcomed and encouraged everyone to attend the Public Open House to present the Colleyville Comprehensive Plan “Destination Colleyville,” on Wednesday, October 14, 2015, from 6:30 p.m. to 8:30 p.m. at the Colleyville Center located at 5301 Riverwalk Drive.

Mayor Kelly welcomed and encouraged everyone to attend National Night Out on Tuesday, October 6, 2015, from 6:00 p.m. to 9:00 p.m. at City Park located on Bransford Road.

Mayor Kelly expressed his appreciation to the Public Works Department for diligently repairing the supply lines from the Trinity River Authority. He also thanked the residents which helped to minimize water usage during the break.

Presentation of the Texas Municipal League 2015 Municipal Excellence Award in Management Innovations - Municipal Court Administrator Karen Randolph, Judge Sara Jane del Carmen - Mayor David Kelly

Mayor Kelly presented the Texas Municipal League 2015 Municipal Excellence Award in Management Innovations to Municipal Court Administrator Karen Randolph, Judge Sara Jane del Carmen, and Finance Manager Karen Hines. Mayor

Kelly explained the award recognizes the City for implementing a combined municipal court.

4. CONSENT: READING AND PUBLIC HEARING- Resolution R-15-3915

4a Approval of the minutes of the regular City Council meeting of September 15, 2015

4b Approval to purchase four Chevrolet Tahoe patrol vehicles, from Caldwell Country Chevrolet, in an amount not to exceed $135,960, bid through the State of Texas Cooperative Purchasing Program; approval to purchase one administrative vehicle, from Silsbee Ford, in an amount not to exceed $20,931, bid through the State of Texas Cooperative Purchasing Program; and approval to purchase two Harley Davidson motorcycles, from American Eagle Harley Davidson, in an amount not to exceed $37,025.30, bid through the competitive bid process, and authorize the city manager to execute all purchasing documents

4c Approval of the disposal and sale of obsolete vehicles

4d Approval of a Chapter 380 Agreement with Toll Brothers for local sales/use taxes through a Texas Direct Payment Permit, and authorize the city manager to execute the agreement

Mayor Kelly read Resolution R-15-3915 in its entirety.

Economic Development Director Marty Wieder presented item 4d, and briefed City Council.

Mayor Kelly opened the public hearing at 7:44 p.m.

There was no one present wishing to speak and Mayor Kelly closed the public hearing at 7:44 p.m.

Mayor Pro Tem Taylor made a motion to approve Resolution R-15-3915 with an amendment to the agreement in item 4d to reflect a beginning date of November 1, 2015, and all other references to that beginning date be changed to November 1, 2015; and, the expiration date for the agreement shall be changed to October 31, 2025. Councilmember Mogged seconded the motion.

The motion to approve carried by the following vote:

Aye: 6 - Mayor Kelly, Mayor Pro Tem Taylor, Councilmembers Carol Wollin, Chuck Mogged, Chris Putnam, and Nancy Coplen

Absent: 1 – Councilmember Jody Short

5. CONTINUED: READING AND PUBLIC HEARING

5a Ordinance O-15-1963
Consideration of a zoning change from the R-40-Single Family Residential zoning district to the PUDR-Planned Unit Development Residential zoning district on Lot 4, Block 1, of the Lavaca Trail Addition, located at 1013 Lavaca Trail, Case ZC15-012

Mayor Kelly read the caption of Ordinance O-15-1963.

Community Development Director Abra Nusser provided an update on this item and briefed City Council.

Mayor Kelly opened the public hearing at 7:50 p.m.

John Fegan and Konstantine Bakintas, presented an update to this item and briefed the City Council.

Lynnette Stanley, 1101 Lavaca Trail, spoke in opposition to this request with concerns for density, and the loss of the rural atmosphere.

David Warrick, 6104 Emmas Court, spoke in opposition to this request with concerns for drainage and density.

Elizabeth Warrick, 6104 Emmas Court, spoke in opposition to this request with concerns for drainage.

Joel Stanley, 1609 Douglas Avenue, spoke in opposition to this request with concerns for density.

Bill Martins, 604 Shetland Drive, spoke in opposition to this request with concerns for density, traffic, and safety.

Mark Assaad, 5000 Thompson Terrace, spoke in opposition to this request with concerns for density.

Jason Stanley, 909 Chateau Court, spoke in opposition to this request with concerns for density.

Craig Walter, 5910 Crescent Lane, spoke in opposition to this request with concerns for commercial zoning in the Future Land Use Plan and downstream drainage.

The following persons did not wish to speak, but did wish to register their opposition to this request: Bobby Lindamood, 4913 Jim Mitchell Trail W., and Salman Moti, 6216 Emmas Court.

There were no others wishing to speak and Mayor Kelly closed the public hearing at 8:12 p.m.

Mayor Kelly asked staff if the developer will have to do engineered drainage, if the property is improved. Public Works Director Jeremy Hutt replied yes.

Mayor Kelly asked Mr. Bakintas if a 25 foot rear setback is something that could be considered. Mr. Bakintas replied the current proposed setback is 20 feet on all lots, except for the northern most lot and the two southern lots. He stated those lots are at 15 feet due to lot configuration.

Mayor Kelly asked Mr. Bakintas about the five foot difference from the front yard. Mr. Bakintas replied they were trying to be consistent with the development to the north. Mayor Kelly stated it would seem the extra five feet could be placed to the back, to create the 25 foot rear setback. Mr. Fegan stated this allows a larger footprint for the builder for a 50 percent lot coverage.

Mayor Kelly asked staff why the extra five feet of pavement is needed for the street width. Fire Chief Brian Riley replied the cul-de-sac street is one-way in and one-way out, the extra space is needed for emergency operations.

Mayor Kelly asked staff if the length of the street triggers the need for extra pavement width. Chief Riley replied this street is over 1,200 feet in length and the extra pavement width allows for the stacking of emergency vehicles.

Councilmember Putnam asked staff about the residential density targets, since there have been variances to this language in the past. Director Nusser replied the PUDR section of the Land Development Code requires that PUDR zoning requests come in at 1.8 dwelling units per acre. She stated it allows a density bonus to be achieved, if they provide enhanced open space, such as trees being planted one (1) per 50 linear feet. She stated in this case, the applicant is proposing one (1) per 40 linear feet, and .1 percent of additional open space; therefore, they have achieved the density bonus. She stated this automatically reflects deviations in lot dimensions. She added the PUDR section does not cap the residential density, it states the bonus is achieved under certain conditions.

Councilmember Putnam asked staff why we approve up to this level, if the language states development shall not exceed 1.8 units, and with the density bonus in this development, it calculates at 2.94, as this variances creates this conflict within our own code. Director Nusser replied the section does not cap the residential density, and staff considered this as a transitional area between commercial and residential.

Councilmember Putnam stated he understands the concept of a transitional area, but all open land does not have to be developed, especially if it has the potential to adversely affect the surrounding neighbors. Mayor Kelly stated there are higher density products in this area that have been accepted by the community. Councilmember Putnam stated the neighbors disagree, and he stated he does not recall one neighbor who supports this request. Mayor Kelly stated there has to be a balance with what is appropriate.

Councilmember Wollin stated the residents who live adjacent to this property on Emmas Court have opposed this, and that speaks loudly. Mayor Kelly stated the opposition for them was it is too close to their property. He stated they are proposing a 25 foot setback.

Councilmember Wollin stated this extends too far from an R20 zoning district for a transitional area.

Mayor Pro Tem Taylor stated the Villas at Colleyville and the Emerald Park subdivisions are all higher density products. He stated this is a residential piece of property, and the proposed product is consistent with the products at both the north and south ends. He further explained the development of this area.

Councilmember Mogged stated as the population ages, this product allows persons to downsize; however, he added he has heartburn over this layout. He stated it is a very important transitional area, but at the same time, it needs to be like Colleyville.

Mayor Kelly stated this being a PUDR, City Council has the ability and discretion to set the parameters of the PUDR.

Mayor Kelly asked staff about the depth of the proposed lots. Mr. Bakintas replied 127 feet. Mayor Kelly stated with minimum development depth and foot requirements, other zoning districts will not be available.

Mayor Pro Tem Taylor stated he stated he does not like alleyways, even with fencing, and if the box culverts are placed, the potential for mosquito breeding can occur.

Councilmember Coplen asked staff about drainage. Public Works Director Jeremy Hutt replied there would be a portion of drainage to be conveyed through the street with an inlet structure at the end of the cul-de-sac. He stated this development would not be taking the creek flow into the street; this portion would be conveyed into the open space next to the proposed street. Mr. Bakintas further explained how the drainage works in this area.

Councilmember Wollin stated she would like to see some additional work completed for this development, such as transitional. She stated not being confident it fits. She stated having concerns about density, drainage, and the one-way-in-one-way-out street.

Councilmember Wollin made a motion to deny without prejudice. Councilmember Mogged seconded the motion.

The motion to deny without prejudice carried by the following vote:

Aye: 6 - Mayor Kelly, Mayor Pro Tem Taylor, Councilmembers Carol Wollin, Chuck Mogged, Chris Putnam, and Nancy Coplen

Absent: 1 – Councilmember Jody Short

6. ORDINANCE(S):
FIRST READING AND PUBLIC HEARING

6a Ordinance O-15-1971
Consideration of an amendment to the PUDC-Planned Unit Development Commercial zoning district on Lots 2, 53, and 54, of the Village at Colleyville, located at 18, 20, and 26 Main Street, Case ZC15-016

Mayor Kelly read the caption of Ordinance O-15-1971.

Community Development Director Abra Nusser presented this item and briefed the City Council.

Mayor Kelly opened the public hearing at 8:53 p.m.

Jeff Polk, 5705 Ponderosa Street, applicant, presented this item and briefed City Council.

There was no one present wishing to speak and Mayor Kelly closed the public hearing at 8:58 p.m.

Mayor Kelly stated the original design of this development is to be a walk-able development. He stated the revised angle parking was granted due to the retail uses versus service uses. He stated there is already angled parking to the east of the subject property. He stated having concerns for the appearance of angled parking at the entrance of this development.

Mayor Pro Tem Taylor asked staff about the number of parking spaces. Director Nusser replied there are six parallel parking spaces to be replaced by six angled parking spaces. Mr. Polk replied there are actually five existing parking spaces.

Mayor Pro Tem Taylor asked Mr. Polk if the angled parking would actually be encroaching into his property. Mr. Polk replied yes.

Mayor Kelly stated parallel parking was a design element of the Village and there have been no safety concerns with such.

Councilmember Mogged asked Mr. Polk if there is an actual study that states angled parking is safer than parallel parking. Mr. Polk replied yes, and he stated he would present that at the next meeting.

Mayor Kelly asked Mr. Polk to provide the proposed traffic volume with this use, especially since there will be the same number of parking spaces.

Mayor Kelly asked Mr. Polk why the angled parking spaces to the east would not work. Mr. Polk replied the accessible entrance will front Main Street; therefore, the path of travel would be longer, and they would have to cross the street.

Councilmember Putnam asked staff about the original intent of the angled parking along Mission Lane. Mayor Kelly replied those spaces were placed there since there could not be a building placed next to the creek, and it added more parking.

Mayor Pro Tem Taylor asked Mayor Kelly if the median would stay. Mayor Kelly replied yes.

Councilmember Wollin asked Mr. Polk about the angle for these parking spaces. Mr. Polk replied the same as currently exists further down, right at 45 degrees.

Mayor Kelly asked Mr. Polk about the entrance to the back of the building, and if those parking spaces will be used by clients. Mr. Polk replied it is an accessible entrance; however, the reception area will be located in the front of the building. He stated the rear parking spaces will be used mostly for employees.

Mayor Pro Tem Taylor asked Mr. Polk how they will be intentional about preserving those spaces for their customers. Mr. Polk replied the most we can do is state that no employees will not park there, but no signs can be placed on these spaces.

Mayor Kelly stated having concerns for the appearance of the main entrance to the Village, with these parking spaces being angled.

Mayor Pro Tem Taylor stated angled parking is rural, and it will not change the appearance. He stated it has been an improvement on Main Street.

Mayor Kelly asked staff if these trees die, will the mitigation be to place them elsewhere. Director Nusser stated it is preferred to replace them in the parkway; however, if they cannot replace in the same number of caliper inches, they would

be required to make up the difference, somewhere in the open space, as part of the subject property.

Mayor Kelly stated worst case scenario, they could mitigate by moving those trees elsewhere, and then there would no longer be a tree path.

Mayor Kelly asked Mr. Polk if an arborist could look at these trees. Mr. Polk replied there is a letter in the packet from an arborist, which states the trees have a 50 percent survival rate.

Mayor Kelly asked Mr. Polk if they have considered five angled parking spaces to leave more room for the trees. Mr. Polk replied yes, they considered that scenario; however, it would only accommodate one tree.

Councilmember Wollin asked Mr. Polk if there will be a change in the elevation of the trees. Mr. Polk replied no, and added by removing the concrete on each side of the trees, the space will be enhanced for additional soil for the trees.

Councilmember Wollin asked Mr. Polk about tree protection during construction. Mr. Polk stated the arborist has suggested a tree protection plan during construction. Director Nusser added the tree drip lines are to be secured with protective fencing during construction; however, staff is unsure if the drip line will be secured during the proposed construction.

Councilmember Wollin asked Mr. Polk about the width of the parking area between the trees. Mr. Polk replied six or seven feet.

This was a first reading; therefore, City Council did not take any action.

7. RESOLUTION(S): READING AND PUBLIC HEARING

7a Resolution R-15-3916

A resolution nominating a candidate to the Tarrant Appraisal District (TAD) Board of Directors

Mayor Kelly read Resolution R-15-3916 in its entirety.

Mayor Kelly opened the public hearing at 9:19 p.m.

There was no one present wishing to speak and Mayor Kelly closed the public hearing at 9:19 p.m.

Mayor Pro Tem Taylor made a motion to approve Resolution R-15-3916, nominating Mark Wood to the Tarrant Appraisal District Board of Directors. Councilmember Coplen seconded the motion.

The motion to approve carried by the following vote:

Aye: 6 - Mayor Kelly, Mayor Pro Tem Taylor, Councilmembers Carol Wollin, Chuck Mogged, Chris Putnam, and Nancy Coplen

Absent: 1 – Councilmember Jody Short

7b Resolution R-15-3917
Consideration of appointments to the Planning and Zoning Commission

Mayor Kelly read Resolution R-15-3917 in its entirety.

Mayor Kelly opened the public hearing at 9:20 p.m.

There was no one present wishing to speak and Mayor Kelly closed the public hearing at 9:20 p.m.

Councilmember Wollin made a motion to approve Resolution R-15-3917, appointing Carel Tornes - Place 5; Don Davis - Place 6; and Jason Elms - Place 7; to the Planning and Zoning Commission with a term expiring September 2017. Mayor Kelly seconded the motion.

The motion to approve carried by the following vote:

Aye: 6 - Mayor Kelly, Mayor Pro Tem Taylor, Councilmembers Carol Wollin, Chuck Mogged, Chris Putnam, and Nancy Coplen

Absent: 1 – Councilmember Jody Short

7c Resolution R-15-3918
Consideration of appointments to the Zoning Board of Adjustment

Mayor Kelly read Resolution R-15-3918 in its entirety.

Mayor Kelly opened the public hearing at 9:21 p.m.

There was no one present wishing to speak and Mayor Kelly closed the public hearing at 9:21 p.m.

Councilmember Mogged made a motion to approve Resolution R-15-3918, appointing Dee McNosky - Place 4 and Raymond Allee - Place 5; to the Zoning Board of Adjustment with a term expiring September 2017. Mayor Kelly seconded the motion.

The motion to approve carried by the following vote:

Aye: 6 - Mayor Kelly, Mayor Pro Tem Taylor, Councilmembers Carol Wollin, Chuck Mogged, Chris Putnam, and Nancy Coplen

Absent: 1 – Councilmember Jody Short

8. CITIZEN COMMENTS/PRESENTATIONS REGARDING ITEMS NOT ON THE AGENDA

There was no discussion of this item.

9. REPORTS

Planning and Zoning Commission Meeting Minutes - August 10, 2015

There was no discussion of this item.

10. ACTION/RESOLUTION: DISCUSSION AND CONSIDERATION OF A RESOLUTION RATIFYING COUNCIL AGENDA ACTION FOR OCTOBER 5, 2015 - READING AND PUBLIC HEARING - RESOLUTION R-15-3919

This resolution was not needed.

11. ADJOURNMENT

There being no further business before the City Council, Councilmember Coplen motioned to adjourn. Mayor Kelly seconded.

Mayor Kelly adjourned the City Council meeting at 9:22 p.m.

APPROVED BY A VOTE OF __ AYES, __ NAYS, AND __ ABSTENTIONS ON THIS THE 20TH DAY OF OCTOBER 2015.

Minutes taken and prepared by:

Amy Shelley, TRMC
City Secretary

City of Colleyville
City Council
Agenda Briefing

City Hall
100 Main Street
Colleyville, Texas 76034
www.colleyville.com

Agenda Number 4b **Agenda Date** 10/20/2015 **Number** Resolution R-15-3921
Type Resolution
Department Finance

Title
Approval of an Interlocal Agreement and funding for the Metroport Teen Court Program

Strategy Map Connection
B3- Utilize partnerships to implement cost-effective service solutions

Explanation
Reading and Public Hearing

Since 1994, the City of Colleyville has participated in the Metroport Teen Court program with the cities of Grapevine and Southlake. Fiscal Year 2011 was the first year that the City of Keller participated in the program. Attached is the proposed Interlocal Agreement for the Metroport Teen Court for Fiscal Year 2016, for an annual cost of $36,750. The cost of the program is split equally between the four participating cities, and there is no cost increase from Fiscal Year 2015. Per the attached memo, in Fiscal Year 2015, the Metroport Teen Court program was used by 111 participants for violations occurring in Colleyville, which reflects 14.3 percent of the 775 Metroport Teen Court participants.

Financial Impact
Funding in the amount of $33,750 was approved in the Fiscal Year 2016 Colleyville Crime Control and Prevention District budget, approved by City Council on July 7, 2015. The remaining $3,000 is funded out of the Court Building Security Fund for bailiff security services provided during teen court sessions.

Recommendation
Approve

Attachments
1. Memorandum dated September 30, 2015 - Interlocal Agreement for funding of Teen Court Program
2. Interlocal Agreement among City of Colleyville, City of Grapevine, City of Keller and City of Southlake

MEMORANDUM

September 30, 2015

TO: Karen Hines, Colleyville Finance Manager

FROM: Crystal Maddalena, Metroport Teen Court Coordinator

SUBJECT: **Interlocal Agreement for funding of the Teen Court Program**

The attached FY 2016 Interlocal Agreement, outlines the METROPORT Teen Court Program. This agreement also outlines the development of the METROPORT Teen Court Advisory Board and the duties of its members. The agreement also authorizes the City of Southlake to employ a full-time Teen Court Coordinator, provide office space for him/her and collect revenues from the other participating Cities in order to maintain the program.

Metroport Teen Court has a success rate of **90%**. North Texas Teen Courts average a success rate of **75%**, putting Metroport 15**%** above average. Following are the requested data of Teen Court referrals for the City of Colleyville.

- **FY 2015:** 117 Total Referrals for Metroport Teen Court
- **FY 2015**: 111 case referrals with 117 violations from the City of Colleyville
- **FY 2015**: 775 Total Referrals for the cities of Colleyville, Grapevine, Keller, and Southlake

Historical Data of Colleyville Referrals:

- **FY 2014**: 90 case referrals with 107 violations
- **FY 2013**: 109 case referrals with 119 violations
- **FY 2012**: 199 case referrals with 215 violations
- **FY 2011**: 175 case referrals with 187 violations
- **FY 2010**: 247 case referrals with 255 violations
- **FY 2009**: 214 case referrals with 237 violations

Metroport Teen Court would like to thank the City of Colleyville for its long-standing and continued support and look forward to a lasting relationship. Should you need any further information and/or data, please feel free to contact Crystal Maddalena at (817) 748-8346.

INTERLOCAL AGREEMENT

AMONG

CITY OF COLLEYVILLE, CITY OF GRAPEVINE, CITY OF KELLER, AND CITY OF SOUTHLAKE

This Interlocal Agreement ("Agreement"), entered into effective on the 1st day of October, 2015, by and among the City of Colleyville, the City of Grapevine, City of Keller, and the City of Southlake, all municipal corporations of the State of Texas (herein called "Cities" or "each participating City"), the parties acting herein under the authority and pursuant to the terms of Chapter 791, INTERLOCAL COOPERATION CONTRACTS, Texas Government Code, **WITNESSETH THAT:**

WHEREAS, the City Councils of the Cities of Colleyville, Grapevine, Keller, and Southlake jointly find that it will be in the public's best interest to enter into this Agreement for the purposes set forth herein below.

NOW, THEREFORE, it is mutually agreed between each participating City that:

1. Teen Court is a volunteer program which allows juvenile misdemeanor offenders an alternative to the criminal justice system while allowing them also to assume responsibility for their own actions through their involvement in the judicial process and community services in order that their offenses will not be recorded. Bringing juvenile offenders to a jury of their peers and to the community for constructive punishment will provide the juveniles with an understanding of the judicial system and a realization of their roles and responsibilities in the community.

2. The community will benefit from this interaction in that, through Teen Court, the community is afforded a unique opportunity to become involved in the education of juvenile offenders and will benefit from the community services provided to the community by the juvenile offenders.

3. A Teen Court Advisory Board shall be appointed by the respective governing bodies comprised of two (2) members at large from each participating City and one (1) city council member from each participating City as each so chooses all of whom are voting members. The role and duties of the Teen Court Advisory Board shall be established by the

Municipal Court Judges in the participating Cities.

4. The name of the program established by this Agreement shall be the "METROPORT Teen Court Program." The City of Southlake shall employ an administrator to administer and coordinate the activities of the METROPORT Teen Court Program. The title of the administrator shall be "Teen Court Coordinator."

5. This Agreement shall be executed in separate counterparts for each participating city, which counterparts shall be valid and binding as if the original. Each participating city, as its contribution for participating in the METROPORT Teen Court Program, shall pay to the City of Southlake $36,750.00 ("Service Fee") upon such participating City's execution of this Agreement. It is expressly agreed that such payment fairly compensates the City of Southlake for the performance of services contemplated under this Agreement. Each participating City shall make this payment from current revenues available to that City.

6. The Teen Court Coordinator shall be an exempt employee for purposes of Fair Labor Standards Act (FLSA) coverage.

7. The scope of responsibilities of the Teen Court Coordinator shall be established by the City of Southlake.

8. The term of this Agreement shall be for a period of (12) twelve months beginning October 1, 2015, and ending September 30, 2016. If the parties have failed to adopt a new Agreement by the expiration date of this Agreement, this Agreement shall be deemed to continue on the same terms and conditions until such time as the new Agreement is adopted for the ensuing year, unless any party terminates its participation in this Agreement as provided below. In such event, this Agreement shall continue in effect until either the City of Southlake or all other participating Cities have terminated this Agreement. Upon renewal or continuation of this Agreement, each participating City shall pay the Service Fee to the City of Southlake for the ensuing year.

9. Any party hereto may terminate its participation in this Agreement without recourse or liability upon thirty (30) days written notice to the other party.

10. By execution of this Agreement, each party represents to the other that:

    a. In performing its duties and obligations hereunder, it will be carrying out one or more governmental functions or services which it is authorized to perform; and

    b. The undersigned officer or agent of the party has been properly authorized by that party's governing body to execute this Agreement and that any necessary resolutions extending such authority have been duly passed and are now in effect.

11. This Agreement is made pursuant to Chapter 791 and Subchapter E, Chapter 418, Texas Government Code. It is agreed that in the execution of this Agreement, no party waives any immunity or defense that would otherwise be available to it, against claims arising from the exercise of governmental powers and functions.

ATTEST:

City Secretary, City of Colleyville	Date	Mayor, City of Colleyville	Date
City Secretary, City of Grapevine	Date	Mayor, City of Grapevine	Date
City Secretary, City of Keller	Date	Mayor, City of Keller	Date
City Secretary, City of Southlake	Date	Mayor, City of Southlake	Date

Approved as to form and legality:

City Attorney, City of Colleyville	City Attorney, City of Grapevine
City Attorney, City of Keller	City Attorney, City of Southlake

City of Colleyville
City Council
Agenda Briefing

City Hall
100 Main Street
Colleyville, Texas 76034
www.colleyville.com

Agenda Number 4c **Agenda Date** 10/20/2015 **Number** Resolution R-15-3921
Type Resolution
Department Colleyville Center

Title
Approval of a contract with Digital Resources, Inc., through the TIPS/TAPS Cooperative Purchasing Program, in an amount not to exceed $191,377, for the upgrade and replacement of audio visual technology at the Colleyville Center, and authorize the city manager to execute the agreement

Strategy Map Connection
C1- Provide attractive and unique spaces for enjoyment of personal interests and community interaction
B1- Seek innovative technology solutions where appropriate
F2- Invest to provide and maintain high quality public assets

Explanation
Reading and Public Hearing

The City Council approved the Fiscal Year 2016 (FY 2016) Colleyville Economic Development Corporation (CEDC) budget on September 15, 2015, which was adopted by the CEDC Board of Directors on August 25, 2015. The FY 2016 CEDC budget contains funding for a project that will upgrade the audio visual (A/V) components at the Colleyville Center. Most of the technology infrastructure is original to the building and is in need of replacement. Colleyville Center staff has utilized the TIPS/TAPS cooperative purchasing program to ensure competitively bid pricing and has recommended Digital Resources, Inc. as the vendor for the project. This vendor is familiar with the City's technology and has installed A/V components in other City facilities, such as City Hall and the Fire Training Room.

The A/V upgrade and replacement project at the Colleyville Center includes work in almost every room of the building. The scope includes:

- Secure room for receivers, transmitters, and controller components currently housed on the stage floor in an unsecured environment during events;
- Independent operation of sound and video systems in all three rooms with individual room functionality on wireless remotes during multiple events;
- ADA required assisted listening system complete with modulators, headphones, multi-channel capacity;
- Six lavaliere microphones for simultaneous use in all rooms without feedback and intermittent audio loss;
- Six handheld wireless microphones capable of transmitting in unison and

independently through upgraded transmitters;
- Three drop down stage ceiling microphones for theater, band, and music productions;
- Extended range wireless gateway to improve both input and output of digital signal;
- North and south hall rewiring of sound and video;
- Updated video controller switch/panel in secured closet with all digital receivers, transmitters, speakers, and amps on an integrated system in south hall;
- Complete digital wiring and presentation system including ceiling projection, amplifier, and screen in small meeting room;
- Replacement of existing shorting speakers and amps in north and south halls for clear, digital theater sound and amplification of voice;
- Web-based panel control for after hour and weekend remote control capability to assist event staff remotely with sound and video issues during an event;
- 70" LED monitor for programmed lobby signage;
- Banquet room to small conference room controller to allow scalability of audio and video from larger hall into small conference room for meeting overflow.

Financial Impact
The contract includes a five percent contingency and funding for this project is included in the FY 2016 CEDC budget.

Recommendation
Approve

Attachments
1. Digital Resources, Inc. Proposal

DIGITAL RESOURCES, INC
2107 Greenbriar - Suite B - Southlake, TX 76092
Ph: 817-481-9300 Fx: 817-488-0595 www.digitalresources.com

Proposal

Quote #	AAAQ15934-B
Date	10/08/15
Valid for	30 Days
Sales Rep.	Nanette Cook
Mobile #:	817-980-2336

ncook@digitalresources.com

Quote To:

City of Colleyville Center
Leslie Hill
5301 Riverwalk Drive
Colleyville, TX 76034
United States of America

(817) 503-1328

lhill@colleyville.com

Ship To:

City of Colleyville Center
Leslie Hill
5301 Riverwalk Drive
Colleyville, TX 76034
United States of America

(817) 503-1328
lhill@colleyville.com

Ship Via: Installation
Payment Terms (with approved credit): NET 30
Delivery Terms: Shipping Point

Itm	Qty	MFR	Description	Unit Price	Ext. Price
1			**TIPS CONTRACT NUMBER 01012612** **Contract Expiration Date: 12/19/17** **Commodity: Audio Visual Equipment & Supplies**		
2					
3			**BANQUET NORTH**		
4					
5	1		VIDEO CONTROL 8X8 SWITCHER & COMPONENTS	$23,531.00	$23,531.00
6		Crestron	16-Port PoDM Power Supply for DM® Switchers		
7		Crestron	8x8 DigitalMedia™ Switcher		
8		Crestron	(2) DigitalMedia 8G+™ Transmitter 201		
9		Crestron	4K DigitalMedia 8G+™ Receiver & Room Controller w/Scaler		
10		Crestron	Extended Range RF Wireless Gateway		
11		Crestron	(2) DVI/RGB Input Card for DM Switchers		
12		Crestron	(3) HDBaseT® Certified 4K DigitalMedia 8G+™ Input Card for DM® Switchers		
13		Crestron	(3) 4K HDMI® Input Card for DM® Switchers		
14		Crestron	2-Channel HDBaseT® Certified 4K DigitalMedia 8G+™ Output Card for DM® Switchers		
15		Crestron	2-Channel 4K Scaling HDMI® Output Card for DM® Switchers		
16		Crestron	5.7" Wireless Touch Screen, Black Textured		
17		Crestron	3-Series Control System®		
18					

Itm	Qty	MFR	Description	Unit Price	Ext. Price
19	1		SPEAKERS, AMP, DSP, & MICROPHONES	$20,672.00	$20,672.00
20		JBL	(4) 15" two-way front of house passive speaker system; 1000 Watt peak power handling, 128dB Maximum SPL, 8 ohms. 19mm MDF enclosure, 18-gauge hexagon perforated steel grille. Net Weight 27.4kg (60.5 lbs).		
21		JBL	(6) Control 26C with Transformer. For use on a 70.7V or 100V Distributed Line, Switchable Taps at 60W, 30W and 15W (Plus 7.5W at 70.7V only), No SonicGuard. Priced as Each, Packed as Pairs. Master Pack Quantity: 4 Pieces.		
22		QSC	2 channels, 250 watts/ch at 70V		
23		QSC	4 channels, 250 watts/ch at 8Ù, 400 watts/ch at 4Ù		
24		BIAMP Systems	12 mic/line level inputs with AEC, 8 mic/line level outputs		
25		BIAMP Systems	12 mic/line level inputs with AEC, 8 mic/line level outputs		
26		BIAMP Systems	Switch management		
27					
28		Shure	(2) Microflex® Cardioid Lavalier Microphone		
29		Shure	(2) Omnidirectional Earset Headworn Microphone, Tan		
30		Shure	(4) Digital Wireless Bodypack Transmitter with Miniature 4-Pin Connector		
31		Shure	4 channel receiver		
32		Shure	Antenna distributor		
33		Shure	(4) Handheld Transmitter with Microphone		
34		Shure	(4) Cardioid Dynamic, Includes 25' XLR to XLR Cable		
35		Shure	(4) Cardioid - Black Mini-Condenser for Overhead Miking, 30' Unterminated Cable, Plate Mount Preamp with Screw Terminals		
36					
37	1		RF ASSISTED LISTENING SYSTEM	$0.00	$0.00
38	1		ASSISTED LISTENING SYSTEM	$4,107.00	$4,107.00
39		Williams Sound	Two-Channel IR Modulator, 2.3/2.8/3.3/3.8MHz, 110VAC		
40		Williams Sound	Single Rack Mount Kit for Half-Rack Space Products		
41		Williams Sound	(2) Multi-Channel IR Emitter, 2.3/2.8/3.3/3.8 MHz, black housing, black lens, with 1 TFP 010 power supply, 1 WCA 079 50' power cable, 1 WCA 084 100' RG58 coaxial cable, 1 BKT 024 mounting bracket		
42		Williams Sound	(4) Stetho-style IR Receiver, 2.3/stereo/2.8 MHz, rechargeable		
43		Williams Sound	(4) IR Body-Pack 4 Channel Receiver - no batteries or earphones includded, 2.3/2.8/3.3/3.8 MHz		
44		Williams Sound	(8) Rechargeable NiMH Battery for WIR RX18, WIR RX240 / 250, WFM 260 / 270 Receivers		
45		Williams Sound	5 Bay Drop in Charger for WIR RX18, PLR SR1 with Universal Power Supply		

Itm	Qty	MFR	Description	Unit Price	Ext. Price
46		Williams Sound	(2) ADA Wall Plaque		
47		Williams Sound	(10) Replacement Eartips for WIR RX18, WIR RX240 (pair)		
48		Williams Sound	(4) Deluxe Folding Headphone		
49		Williams Sound	(2) 2 Unit Charger for Body pack receivers & transmitters		
50		Williams Sound	(4) (2) 1.2 Volt AA Rechargeable NiMH Battery		
51					
52	1	Da-Lite	Advantage Tensioned 220D HD HD1.1 48" of Black drop at Top 7" of total Black Drop at Bottom Ulralight angle (rear screen)	$8,273.00	$8,273.00
53	1	Sony	Blu-ray player features DVD upsscaling	$317.00	$317.00
54	1	Barco	ClickShare for Conference Rooms Complete Starting Package (1) Base Station (4) USB Buttons	$3,897.00	$3,897.00
55					
56			**BANQUET SOUTH**		
57	1		VIDEO CONTROL 8X2 SWITCHER & COMPONENTS	$9,570.00	$9,570.00
58		Crestron	5.7" Wireless Touch Screen, Black Textured		
59		Crestron	3-Series® 4K DigitalMedia™ Presentation System 150		
60		Crestron	4K DigitalMedia 8G+™ Receiver & Room Controller w/Scaler		
61		Crestron	(2) Wall Plate DigitalMedia 8G+™ Transmitter 200, Black Textured; includes PW-2407WUL		
62		Crestron	Extended Range RF Wireless Gateway		
63					
64	1		SPEAKERS, AMP, DSP, & MICROPHONES	$8,471.00	$8,471.00
65		JBL	(6) Control 26C with Transformer. For use on a 70.7V or 100V Distributed Line, Switchable Taps at 60W, 30W and 15W (Plus 7.5W at 70.7V only), No SonicGuard. Priced as Each, Packed as Pairs. Master Pack Quantity: 4 Pieces.		
66		QSC	2 channels, 250 watts/ch at 70V		
67		BIAMP Systems	DSP 12 mic/line level inputs, 8 mic/line level outputs		
68		Shure	(2) Microflex® Cardioid Lavalier Microphone		
69		Shure	(2) Omnidirectional Earset Headworn Microphone, Tan		
70		Shure	(2) Digital Wireless Bodypack Transmitter with Miniature 4-Pin Connector		
71		Shure	(2) Single Digital Wireless Receiver with Power Supply, 1/2 Wave Antenna and Rack Mounting Hardware		
72		Shure	Antenna distributor		
73		Shure	(2) Handheld Transmitter with Microphone		

Itm	Qty	MFR	Description	Unit Price	Ext. Price
74		Shure	(2) Cardioid Dynamic, Includes 25' XLR to XLR Cable		
75	1	Da-Lite	Advantage Deluxe Tensioned 164D HD1.1 (48" total black drop at the top)	$5,943.00	$5,943.00
76	1	Panasonic	7000lm,1DLP,WXGA(1280x800) RGB Booster ensures vivid, colorful images, Eco Filter eliminates the need for filter replacement for up to 12,000 hours	$6,773.00	$6,773.00
77	1	Sony	Blu-ray player features DVD upsscaling	$317.00	$317.00
78	1	Barco	ClickShare CSM Base Unit and 2 ClickShare Buttons	$1,623.00	$1,623.00
79					
80	1		CONFERENCE ROOM PACKAGE	$5,267.00	$5,267.00
81		Crestron	3-Series® 4K DigitalMedia™ Presentation System 150		
82		Crestron	5” Touch Screen, Black Smooth		
83		Crestron	PoE Injector, universal 100-250 Volts AC		
84		Crestron	Wall Plate DigitalMedia 8G+™ Transmitter 200, Black Textured; includes PW-2407WUL		
85	1	Da-Lite	Contour Tensioned 137D Da-Matt (2" total black drop at the top) white case	$2,283.00	$2,283.00
86	1	Panasonic	3500 Lumen WXGA(1280x800) Solid St Ill-BLK	$3,267.00	$3,267.00
87	1	Chief Manufacturing	KIT, RSAU, CMS440, CMS003	$278.00	$278.00
88	4	JBL	Control 26C with Transformer. For use on a 70.7V or 100V Distributed Line, Switchable Taps at 60W, 30W and 15W (Plus 7.5W at 70.7V only), No SonicGuard. Priced as Each, Packed as Pairs. Master Pack Quantity: 4 Pieces.	$153.00	$612.00
89	1	Crestron	2x210W Commercial Power Amplifier, 4/8 or 70/100V	$833.00	$833.00
90	1	Sony	Blu-ray player features DVD upsscaling	$317.00	$317.00
91	1	Middle Atlantic	10 SPACE (17 1/2”) SECTIONAL WALL RACK, FITS 20” DEEP EQUIP., BLACK FINISH	$387.00	$387.00
92	1	Middle Atlantic	2 SPACE (3 1/2”) RACK DRAWER, BLACK BRUSHED FINISH	$127.00	$127.00
93	2	Middle Atlantic	2 SPACE (3 1/2") VENTED RACKSHELF	$47.00	$94.00
94	1	Middle Atlantic	9 OUTLET, SINGLE 15 AMP CIRCUIT, SURGE/SPIKE PROTECTED RACKMOUNT POWER DISTRIBUTION W/9' CORD, BLACK POWDERCOAT FINISH	$93.00	$93.00
95					
96			**DIGITAL SIGNAGE PLAYERS**		
97	1	Total Channel	Media Players- Includes Software, 50 Content Apps , Content Creation Lics	$1,675.00	$1,675.00
98			**Systems come standard with 3 years of Hardware amd Software Warranty (Including 12 months fo software updates) AND 3 years of Service and Support.**		

Itm	Qty	MFR	Description	Unit Price	Ext. Price
99					
100			**Added for scope change**		
101			**XPanel web panel for remote controlled room**		
102	1	DRI	Video Control Programming	$750.00	$750.00
103			**Lobby Display**		
104	1	Sharp	LCD, 70" 1080P 5000:1 CONT LED PRO W/3YR WNTY & VGA & RS232	$2,113.00	$2,113.00
105	1	Chief Manufacturing	THINSTALL IN-WALL BOX- LARGE, TS525/TS32	$225.00	$225.00
106	1	Chief Manufacturing	THIN SWING ARM (LARGE)	$415.00	$415.00
107			**Overflow Banquet Rooms to Conference Room & Office Reference monitor from Banquet Rooms**		
108	1	Crestron	4K DigitalMedia 8G+™ Receiver & Room Controller w/Scaler	$1,153.00	$1,153.00
109	2	Crestron	2-Channel HDBaseT® Certified 4K DigitalMedia 8G+™ Output Card for DM® Switchers	$833.00	$1,666.00
110					
111	1	DRI	CC&H & Rack & Wallplates		
112		Middle Atlantic	35 SPACE (61 1/4") 24" DEEP RACK CONFIGURED WITH REMOVABLE SIDE, GLASS FRONT DOOR, REAR ACCESS PANEL, SHELVES, PANELS, CASTERS & LEVELING FEET, CHARCOAL FINISH		
113		Middle Atlantic	ESSEX, RACK DRAWER, 2 SPACE (3 1/2"), LOCKING, BLACK POWDERCOAT FINISH		
114		Middle Atlantic	ESSEX, FLANGED VENT PANEL, 2 SPACE (3 1/2"), 2 PACK, BLACK POWDERCOAT FINISH		
115		Middle Atlantic	1 SP (1 3/4") RACKMOUNT PANEL WITH DUAL GOOSENECK LED LIGHTS, BLACK		
116		Middle Atlantic	(2) RACKMOUNT UPS, 1000VA / 750W, 2 SPACE (3 1/2"), BLACK FINISH		
117		Middle Atlantic	ESSEX 16 OUTLET, 15A VERTICAL POWER STRIP, CORDED, 33"		
118		Middle Atlantic	SLIDING SHELF, HEAVY DUTY		
119		Barco	Rackmounting Kit for ClickShare CSC Base (2RU)		
120		Extron	Full-Rack Width, 1U AAP Mounting Frame for rack		
121		Extron	One 15-pin HD Female to Female Gender Changer, One 3.5 mm Stereo Mini Jack to Solder Tabs		
122		Extron	Blank Plate - Double		
123		Liberty	(2) Floor Plates XLR's, HDMI, VGA, 3.5 MM		
124		Liberty	(4) XLR for wired mics		
125		Middle Atlantic	12 SPACE (21”), 16” DEEP BLACK LAMINATE READY-TO-ASSEMBLE RACK		
126		Middle Atlantic			

Itm	Qty	MFR	Description	Unit Price	Ext. Price
			BLACK 10-32 PHILLIPS PREMIUM SCREWS W/ WASHERS		
127		Middle Atlantic	(2) 9OUT,15A,RCKMNT POWER CEN		
128		Middle Atlantic	2 SPACE (3 1/2") UTILITY DRAWER, BLACK POWDER COAT FINISH		
129		DRI	Plenum DigitalMedia Cable - (1) High-bandwidth/low-crosstalk shielded 4-twisted pair, (1) CAT5e, & (1) DMNet control cable; plenum-rated, 500 ft spool		
130		DRI	(2) DigitalMedia Cable Connectors, 20-Pack		
131		DRI	Plenum cables, connectors, misc cables, and hardware		
132	1	Rapco	Snake Cable 16-Channel Pro Series Fan To Box with Female XLR Returns	$665.00	$665.00
133					
134			**Additional for scope adding options**		
135	1	Crestron	Connectors for DM-CBL-8G DigitalMedia 8G™ Cable	$48.00	$48.00
136	1	Crestron	DigitalMedia 8G™ Cable, plenum	$773.00	$773.00
137	1	DRI	Misc Hardware	$350.00	$350.00
138	1	DRI	Progamming	$677.00	$677.00
139					
140	1		DRI SERVICES	$49,807.00	$49,807.00
141		DRI	Design and Engineering Labor		
142		DRI	Crestron Certified Digital Media Programmer & Touchpanel Design		
143		DRI	DSP & Commissioning Engineer		
144		DRI	Project Manager		
145		DRI	Installation Labor		
146	2	Rental One	One man Lifts for 5 Days (includes delivery & pick up	$587.00	$1,174.00
147	1	DRI	Contingency	$5,000.00	$5,000.00
148			**Center to provide plywood to protect floors**		
149					
150			**See freight below**		
151			**ELECTRICAL & NETWORK DROPS TO BE PROVIDED BY CITY**		

Itm	Qty	MFR	Description	Unit Price	Ext. Price
				SubTotal	$187,877.00
				Sales Tax	$0.00
				Shipping	$3,500.00
				Total	**$191,377.00**
				Deposit	*$0.00*
				New Balance Total	**$191,377.00**

If paying by Credit Card, a seperate 3% credit card processing fee will apply.
Unless otherwise stated in the total amount shown, Sales Tax and/or Shipping Charges are not included. Sales tax will be invoiced according to point of delivery, unless a valid tax exemption certificate is provided at the time of order.
All shipping costs will be added to the final invoice.

SCOPE OF WORK: (CUSTOMER MUST APPROVE Scope of Work before order is processed.

Customer Comments:

** Target Completion / Delivery Date: _____. This date allows DRI to clearly understand the desired time frame of completing the delivery or work to be performed. DRI will confirm the feasibility of completing the delivery and work as requested.*

WARRANTY: Digital Resources installation warranty includes a 90 day workmanship warranty. All warranty service requests after 90 days will be subject to standard service billing rates and on-site trip charges. Any product defects and or failures will be subject to the specific manufacturer's warranty repair or replacement policy, which does not include the cost of on-site service labor (unless manufacturer specific warranty states that service labor is included). If the field engineer/technician determines that the defect is not relative to failed physical workmanship of the installation provided by DRI, standard service rates will be applied and billed accordingly. On-site labor to inspect, trouble shoot, remove and install faulty equipment is not included under the warranty and is subject to standard DRI service rates. All freight charges to return warranty repairs and/or returns will be billed accordingly.

Digital Resources strives to offer excellent service and support. Please consult with our company representative for information on additional warranty options.

Refernce Quote # AAAQ15934-B **Client PO#:** _____ **Print Name:** _____

Deposit Required *$0.00* **Date:** _____ **Authorized Signature:** _____

Please sign above and complete the information requested within to authorize Digital Resources to execute this order. By signing, you agree to Digital Resources general terms and conditions along with the conditions set forth in this proposal. Partial Shipments will be shipped and invoiced unless noted otherwise. Taxes and Shipping charges will be invoiced separately.

*** Purchase will be taxable according to state/local tax laws for point of delivery.**
YES _____ NO _____ Tax ID # _____ (A Sales tax Exempt Form Must Be On File)

Fax this Signature Page to 817-488-0595 or Email to: orders@digitalresources.com

Thank you for your business!

City of Colleyville
City Council
Agenda Briefing

City Hall
100 Main Street
Colleyville, Texas 76034
www.colleyville.com

Agenda Number 4d **Agenda Date** 10/20/2015 **Number** Resolution R-15-3921
Type Resolution
Department Fire

Title
Approval to retire and trade-in a fire apparatus for acceptance of a new fire apparatus lease/purchase, and authorize the city manager to release the vehicle title

Strategy Map Connection
F2- Invest to provide and maintain high quality public assets
C5- Achieve the highest standards of safety and security

Explanation
Reading and Public Hearing

During the August 11, 2015 City Council Worksession, City Council directed staff to be prepared to move forward in Fiscal Year 2016 with a lease/purchase of a new 2016 Pierce Fire Engine, to allow for the replacement of a 1999 Pierce 65' Telesquirt in the fire department's fleet. As a condition of the new purchase, the apparatus being retired is to be traded-in on the purchase of the new apparatus. With approval of this resolution, the 1999 Pierce 65' Telesquirt will be retired and turned over to Siddons-Martin Emergency Group when construction of the new apparatus is complete.

As a requirement of a lease/purchase financing agreement, staff is also seeking City Council approval of Resolution R-15-3923, on this agenda. If approved, staff will place the order for the new apparatus, which will be scheduled for delivery to the City in nine to 10 months of the order date.

Financial Impact
The trade-in value of the 1999 Pierce 65' Lance Telesquirt is $17,000.00.

Recommendation
Approve

Attachments
1. Photograph of 1999 Pierce 65’ Lance Telesquirt, Quint/Ladder Truck

1999 Pierce 65’ Lance Telesquirt, Quint/Ladder Truck

City of Colleyville
City Council
Agenda Briefing

City Hall
100 Main Street
Colleyville, Texas 76034
www.colleyville.com

Agenda Number 4e | Agenda Date 10/20/2015 | Number Resolution R-15-3921
Type Resolution
Department Parks and Recreation

Title
Approval to use Voluntary Park Funds for three projects in a total combined amount not to exceed $39,500

Strategy Map Connection
C1- Provide attractive and unique spaces for enjoyment of personal interests and community interaction
F2- Invest to provide and maintain high quality public assets

Explanation
Reading and Public Hearing

Staff has identified, and is recommending three projects, to the City Council for their consideration in the use of Voluntary Park Fund monies as partial funding for each project.

Project 1 – Flashing Signage at Trail Intersections
In late 2014 flashing signalized crossing equipment was installed at the intersection of John McCain Road and the Cotton Belt Trail. The equipment allows trail users to activate flashing lights located on signs visible to vehicles on John McCain Road prior to entering the intersection by pressing a button located on a bollard. The system greatly improves the ability of drivers to detect activity within the intersection, providing a safety benefit to both the driver and the trail user.

As seen in the attached trail crossing exhibit, staff is proposing to have identical signalized crossing equipment installed at the intersections of the Cotton Belt Trail with Pleasant Run Road and Bransford Road. This would provide signalized crossings at all roadway intersections along the Cotton Belt Trail within Colleyville. Staff feels the anticipated completion of the Cotton Belt Trail – Phase III project will increase trail use and this project would serve a great benefit.

Per the attached quotes, the total cost to complete this project is $25,158. Staff is seeking approval to utilize $23,000 of Voluntary Park Fund monies for the project. The remainder of the project funding is to come from the City's Special Donations Fund which has donation money designated specifically for Parks trails and sidewalks.

Project 2 – Replacement Fountain at Kimzey Park
In September 2015 the fountain in the pond at Kimzey Park ceased working and was

removed for evaluation. Upon inspection by a qualified fountain repair contractor, it was determined the fountain had deteriorated to a point in which replacement was recommended in lieu of repair. The cost of repairs was estimated at approximately $3,500, largely due to the fountain being a discontinued model, and would not be warrantied against future maintenance issues.

Staff has received the attached quote in the amount of $10,673 for the purchase and installation of a new fountain to include a light kit. The fountain would come with a five year manufacturer's warranty.

Staff is still in the process of receiving additional quotes for the replacement of the fountain, but is seeking approval to utilize up to $8,000 of Voluntary Park Fund monies for the project. The remainder of the project funding is to come from funds previously allocated for improvements at Kimzey Park.

A temporary aerator has been installed in the pond at Kimzey Park to oxygenate the water and to help with algae control.

Project 3 – Replacement of Trash Receptacles at Kimzey Park

Staff is recommending that the 13 trash receptacles at Kimzey Park, seen in the attached exhibit, be replaced due to signs of aging and to bring them to the current branding standard, which would match the existing benches at Kimzey Park. The proposed trash receptacles, identical to the ones recently installed at Sparger Park, are extremely durable and provide an aesthetically pleasing option for trash control.

Per the attached quote, the total cost to complete this project is $10,968.25. Staff is seeking approval to utilize $8,500 of Voluntary Park Fund monies for the project. The remainder of the project funding is to come from funds previously allocated for park improvements.

Conclusion

As seen in the attached proposed project table, staff is seeking approval to utilize a total amount not to exceed $39,500 from the Voluntary Park Fund to complete these three projects. Per the attachment, as of September 30, 2015, there is an available balance of $724,876 in the Voluntary Park Fund.

These proposed projects and funding sources were reviewed and unanimously recommended for approval by the Parks and Recreation Advisory Board at the meeting on October 12, 2015. Should these projects be approved by the City Council, completion would be expected by early 2016.

Financial Impact

As of September 30, 2015, there is an available balance of $724,876 in the Voluntary Park Fund.

Recommendation
Approve

Attachments
1. Trail Crossing Exhibit
2. Trail Crossing Quote Tabulation
3. Pond Fountain Quote
4. Trash Receptacle Exhibit
5. Trash Receptacle Quote
6. Proposed Projects - Voluntary Park Fund
7. Financial Status of the Voluntary Park Fund as of September 30, 2015

Trail Crossing Exhibit

Location 1
Bransford Road at Cotton Belt Trail

Location 2
Pleasant Run Road at Cotton Belt Trail

Proposed Equipment

Approximate Location of Flashing Sign

N

Trail Crossing Quote Tabulation

Item / Service	Vendor / Contractor	Quantity	Unit Price	Total Price
Installation	TX Services	1	$9,600.00	$9,600.00
Equipment 1	Paradigm Traffic Systems, Inc.	2	$7,399.00	$14,798.00
Equipment 2	Paradigm Traffic Systems, Inc.	2	$380.00	$760.00
			Grand Total	**$25,158.00**

TX SERVICES

QUOTE 10.02.15
BUY BOARD CONTRACT #432-13

ATTN: CITY OF COLLEYVILLE
JAMES HUBBARD

PARKS MANAGER
817-503-1182
JHUBBARD@COLLEYVILLE.COM

DATE: 10.02.15
OWNER: CITYOF COLLEYVILLE
PUBLIC WORKS
PROJECT: RAPID FLASHING PED CROSSING
LOCATION: PLEASANT RUN @ L.D. LOCKETT
BRANSFORD @ L.D. LOCKETT

ITEM#	DESCRIPTION	QTY	UNIT	PRICE	TOTAL
	PLEASANT RUN @ L.D. LOCKETT				
1	INSTALLATION ONLY OF CITY FURNISHED DOUBLE LIGHT BAR RAPID FLASHING BEACON TO INCLUDE FOUNDATIONS	40.00	HRS	$ 120.00	$ 4,800.00
	BRANSFORD @ L.D. LOCKETT				
2	INSTALLATION ONLY OF CITY FURNISHED DOUBLE LIGHT BAR RAPID FLASHING BEACON TO INCLUDE FOUNDATIONS	40.00	HRS	$ 120.00	$ 4,800.00

NOTE: ALL MATERIALS TO BE FURNISHED BY THE CITY

TOTAL $ 9,600.00

SUBMITTED BY:

DAWN PERKINS

ACCEPTED BY:

Price Excludes Pavement Markings, Sidewalk & Wheelchair ramps, Bonding, Stake-out, Field Engineering, Temp Signals, Foundation Removal
TX Service will not provide primary or non-contributory insurance, or hold others harmless for their actions.
Price Includes all labor and materials, sales tax for construction equipment only and insurance for items of work quoted
Construction barricades are excluded unless they are listed above
Please allow 120 days for signal poles. (If poles are included)
PAYMENT IN FULL (NO RETAINAGE) IS DUE UPON COMPLETION OF WORK FOR CONTRACTS UNDER $10,000.00.
QUOTED UNIT PRICES ARE VALID FOR 45 DAYS FROM DATE OF BID PROPOSAL
TERMS AND CONDITIONS STATED ABOVE WILL BE INCLUDED IN ANY SUBSEQUENT CONTRACT

P.O. BOX 535969 • GRAND PRAIRIE, TX 75053 • PHONE 817-470-1914

(817) 831-9406 ph
(817) 831-9407 fx

PARADIGM
TRAFFIC SYSTEMS, INC.

P.O. Box 5508
Arlington,TX 76005-5508

QUOTATION

TO: City of Colleyville
Public Works
Parks Manager
attn: James Hubbard
ph: 817-503-1182
email: jhubbard@colleyville.com

RFQ: BuyBoard Contract # 432-13
Public Safety, Fire House Supply& Equipment
Traffic Signals
512-467-0222 pn
1-800-211-5454 fax

DATE	SLSMN	DELIVERY	FREIGHT	SHIP VIA	F.O.B.	TERMS	QUOTE #
9/30/15	MH	30 - 45 Days ARO	PPD & Allowed or Add	Best Way	Destination	Net 30	Q18547MH

ITEM	QTY	DESCRIPTION	PRICE	TOTAL
		R920 RRFB w/Double Light Bar & Post Assembly c/o:		
1	2	R920- Solar Engine (Natural Aluminum) Rectangular Rapid Flashing Beacon	$1,800.00	$3,600.00
2	2	69100- 4"-4-1/2" Side Of Post Mount	$100.00	$200.00
3	4	68352- Light Bar with Confirmation Lights	$500.00	$2,000.00
4	2	68320- Black Push Button	$165.00	$330.00
5	2	69979- 2"-4" Black Push Button Mount, Black.	$125.00	$250.00
6	2	SP-1014-TX, Square Base Assembly	$128.00	$256.00
7	2	PB-5100, 15' Ped Pole	$285.00	$570.00
8	2	PB-5306, Anchor Bolt Assembly	$30.00	$60.00
9	2	PB-5325, Collar Assembly	$55.00	$110.00
10	2	PB-5401, Pole Cap	$11.50	$23.00
		NOTE: PURCHASE ORDER MUST BE PROCESSED THROUGH WWW.BUYBOARD.COM		
			TOTAL	$7,399.00

Thank you for the opportunity to submit a proposal to you on this equipment. **Please reference this quotation (by QTE number) when placing order.** If you have any questions please call or send a fax to me.
This quote is valid for 60 days. Thereafter it is subject to change without notice.

OFFERED BY:

Matt Hendricks
Paradigm Traffic Systems, Inc.
Federal ID# 75-2520341

(817) 831-9406 ph
(817) 831-9407 fx

PARADIGM
TRAFFIC SYSTEMS, INC.

P.O. Box 5508
Arlington,TX 76005-5508

QUOTATION

TO: City of Colleyville
Public Works
Parks Manager
attn: James Hubbard
ph: 817-503-1182
email: jhubbard@colleyville.com

RFQ:

DATE	SLSMN	DELIVERY	FREIGHT	SHIP VIA	F.O.B.	TERMS	QUOTE #
9/30/15	MH	30 - 45 Days ARO	PPD & Allowed or Add	Best Way	Destination	Net 30	Q18548MH

ITEM	QTY	DESCRIPTION	PRICE	TOTAL
1	2	W11-2 Crossing Man Figure Sign 30" x 30"	$125.00	$250.00
2	2	W16-7 Downward Pointing Arrow 24" x 12"	$65.00	$130.00
		NOTE: The Above Items Are Not Available On The BuyBoard.		
			TOTAL	$380.00

Thank you for the opportunity to submit a proposal to you on this equipment. **Please reference this quotation (by QTE number) when placing order.** If you have any questions please call or send a fax to me.
This quote is valid for 60 days. Thereafter it is subject to change without notice.

OFFERED BY:

Matt Hendricks
Paradigm Traffic Systems, Inc.
Federal ID# 75-2520341

Pond Fountain Quote

Lone Star Fountains, Inc.
P.O. Box 3087
Coppell, TX 75019

office: 972.724.0071
fax: 972.471.2824
stan@lonestarfountains.com

Colleyville Parks Department
5109 Bransford Road
Colleyville, Tx. 76034

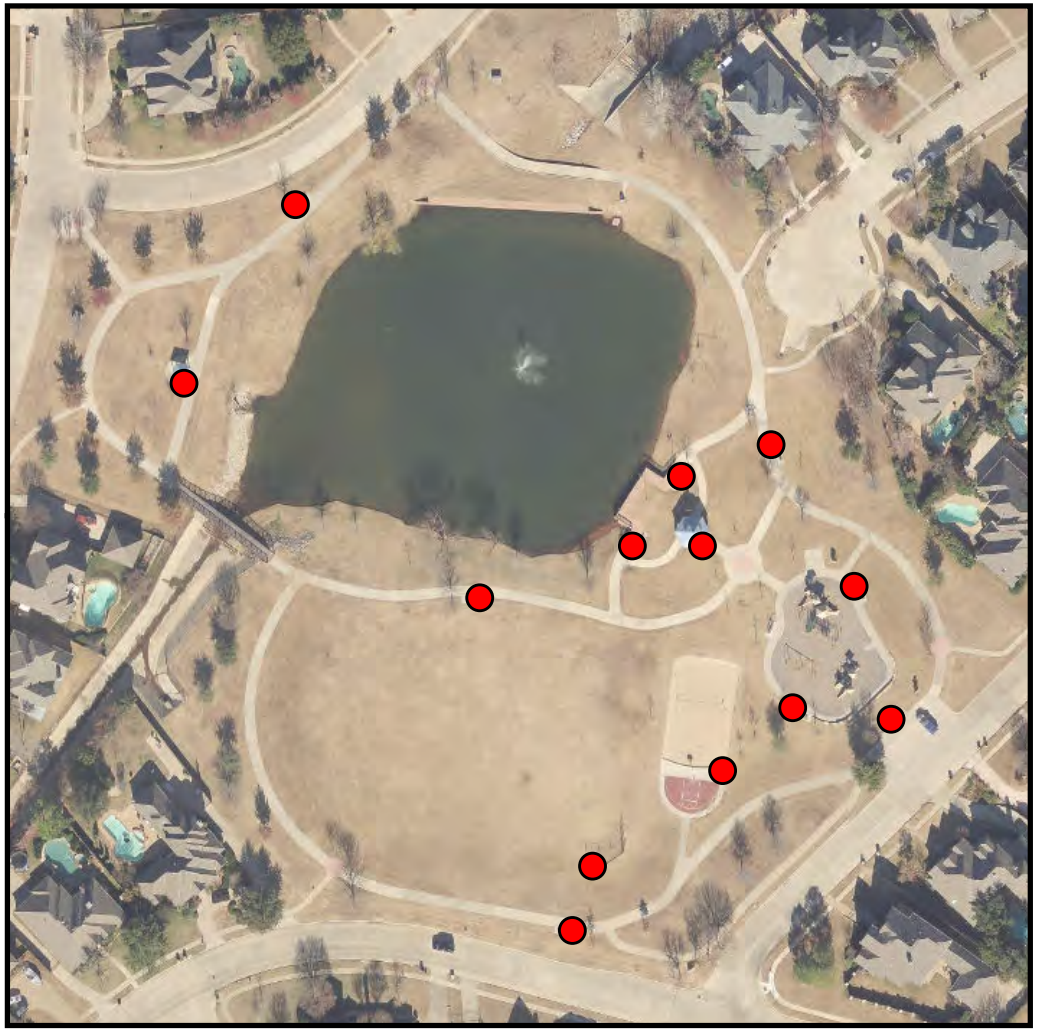
Proposal

PO	Job	Project	Proposal Number	Date
	Kimsey Park	Kimsey Park	6431	9/29/2015

Qty	Description	Unit	Total
	Lone Star Fountains proposes to furnish and install one (1) Aqua Control Select Series floating fountain with five year manufacturer's warranty and the following specifications: 5 hp with lily nozzle (19' high X 55' diameter) Control panel with digital pump timer GFCI protection 200 ft underwater cable Oversized suction screen 5 year factory warranty 3 X 35 Watt LED light set (3 year factory warranty) We will connect the unit to a 230 volt 20 amp single phase electrical power supply which is located within 25 feet of the lake edge. We will install the unit about 4 weeks after we receive your notice to proceed. The balance will be invoiced and is due upon installation. We can not be responsible for delays caused by others, ie. no electrical power or water in lake.		
1	Aqua Control fountain installed as described above	8,288.00	8,288.00
	3 X 35 watt Light Kit installed with power cable	2,385.00	2,385.00

Subtotal	$10,673.00
Sales Tax (0.00)	$0.00
Total	$10,673.00

Trash Receptacle Exhibit



Kimzey Park

Existing Trash Receptacles

Proposed Trash Receptacles

Existing and proposed location of trash receptacles

PEACO
Paul E. Allen Company, Inc.
P. O. Box 271003
Flower Mound, TX 75027-1003
(972) 724-2656 / (888) 877-4887
peaco@grandecom.net / FAX: (972) 724-2659

QUOTATION

DATE	ESTIMATE NO.
10/8/15	3584

NAME /ADDRESS
ATTN: JAMES HUBBARD CITY OF COLLEYVILLE

VALIDITY	TERMS	REP	FOB	PROJECT	EST. SHIPPING
EXP: 11/8/15	Net 30	EH	JOBSITE	KIMZEY PARK - TRASH RECEPTA...	4-6 WEEKS

ITEM	DESCRIPTION	QTY	UNIT PRICE	TOTAL
84-32-FTO	TRASH RECEPTACLE BY DUMOR, ALL STEEL, 32-GALLON PLASTIC LINER, FLAT COVER, SURFACE MOUNT, BLACK POWDERCOAT COLOR.	13	775.00	10,075.00
DISC	5% PRODUCT DISCOUNT		-503.75	-503.75
FREIGHT	FREIGHT		1,397.00	1,397.00
	TAX EXEMPT		0.00	0.00

THANK YOU! PLEASE CALL WITH ANY QUESTIONS. ERIC HILLER

Total $10,968.25

Proposed Projects - Voluntary Park Fund

	Project	Estimated Project Cost	Requested Funding
1	Flashing Signage at Trail Intersections	$26,000.00	$23,000.00
2	Replacement Fountain at Kimzey Park	$11,000.00	$8,000.00
3	Replacement of Trash Receptacles at Kimzey Park	$11,000.00	$8,500.00
	Totals	$48,000.00	$39,500.00

FINANCIAL STATUS OF VOLUNTARY PARK FUND AT 9-30-2015

FUND BALANCE AT 9-30-2014: $761,544

FY 2015 REVENUE

Donations:	*PROJECTED*	*ACTUAL*
October	$13,293	$13,293
November	$11,901	$11,901
December	$14,843	$14,843
January	$12,886	$12,886
February	$12,964	$12,964
March	$10,945	$10,945
April	$10,717	$10,717
May	$12,505	$12,505
June	$11,913	$11,913
July	$12,723	$12,723
August	$12,920	$12,920
September	$12,480	$12,480
Total Donations	$150,090	$150,090
Interest income Received	$1,260	$1,260
TOTAL	$151,350	$151,350

FY 2015 EXPENDITURES

	RECOMMENDED (PARKS BOARD)	*APPROVED (COUNCIL)*	*EXPENDED YEAR-TO-DATE*
BALANCE OF COTTONBELT TRAIL PHASE III ~~	$44,954	$44,954	$0
BALANCE OF MCPHERSON - PHASE II <<	$28,708	$28,708	$14,812
BALANCE OF FY 2014 LASER LEVELING OF BASEBALL FIELDS ##	$4,355	$4,355	$4,355
REPLACEMENT OF SHADE PANELS - CITY PARK **	$25,000	$25,000	$25,000
PLEASANT RUN PLAYGROUND^^	$55,000	$55,000	$0
LASER LEVELING OF SOFTBALL FIELDS **	$30,000	$30,000	$17,389
TOTAL	$188,018	$188,018	$61,556

UNENCUMBERED FUND BALANCE AT 9-30-2015 (COUNCIL APPROVED) $724,876

PROJECTED FUND BALANCE AT 9-30-2015 $724,876

EXPENDITURE KEY:

EXPENDITURE KEY:

~~ FY 2015 PROJECT/APPROVED JUNE 2001

<< FY 2015 PROJECT/APPROVED JAN 2006

FY 2015 PROJECT/APPROVED NOV 2013

** FY 2015 PROJECT/APPROVED OCT 2014

^^FY 2015 PROJECT/APPROVED JAN 2015 (R-15-3835)

City of Colleyville
City Council
Agenda Briefing

City Hall
100 Main Street
Colleyville, Texas 76034
www.colleyville.com

Agenda Number 4f | Agenda Date 10/20/2015 | Number Resolution R-15-3921
Type Resolution
Department Parks and Recreation

Title
Approval to use Park Land Dedication Fund monies in an amount not to exceed $120,000, for the construction of the Cotton Belt Trail - Phase III project

Strategy Map Connection
C1- Provide attractive and unique spaces for enjoyment of personal interests and community interaction
C4- Provide mobility enhancements that complement neighborhoods
F2- Invest to provide and maintain high quality public assets

Explanation
Reading and Public Hearing

At the meeting on June 2, 2015 the City Council approved attached Resolution R-15-3877 for the acquisition of real property located at 7100 Colleyville Boulevard. The property, located at the northwest corner of the intersection of John McCain Road and Colleyville Boulevard, was acquired for purposes including parks and trail uses.

The acquisition of the property allowed for the Cotton Belt Trail – Phase III project to be designed in a manner that would take advantage of the property's natural beauty and create an attractive, functional, and highly visible amenity at the City's northern gateway.

At the City Council meeting on August 18, 2015 staff presented the attached renderings, which reflect a preliminary design and layout for the property. The site design provides connection of the Cotton Belt Trail, from its current northern terminus at John McCain Road, to the previously completed portion of the trail that extends to the northern City limit. Improvements to the property also include the addition of a curvilinear seating area with three benches, newly planted trees, and an irrigated open space. Additionally, a multifunctional drinking fountain will be installed at the intersection of the Cotton Belt Trail and the pedestrian walkway that extends from the roadway intersection into the property. After review of the preliminary site design and renderings, the City Council expressed a desire to move forward with the project.
In the following weeks staff worked with engineers from Teague Nall and Perkins, Inc., the design consultant, to finalize the plans for the trail connection and related park amenities.

The project was advertised in the print and electronic edition of the *Fort Worth Star-Telegram* for two consecutive weeks beginning on September 23, 2015. A bid opening

was held on October 7, 2015, at which time five bids were received. Per the attached bid tabulation, the bid of best value was determined to be submitted by C. Green Scaping, LP in the amount of $341,133.10. This amount includes a 10 percent contingency allowance that is controlled by the City to cover any cost overages that may occur during construction and installation. The contractor's qualifications and references have been verified by the consultant and staff.

Staff is seeking City Council approval to utilize Park Land Dedication Fund monies in an amount not to exceed $120,000 toward the completion of this project. The remainder of the project is to be funded by previously allocated amounts of $150,000 from the Colleyville Economic Development Corporation (CEDC); $39,562 from the Park Land Dedication Fund; and $44,954 from the Voluntary Park Fund.

At their respective meetings on October 12, 2015, the Parks and Recreation Advisory Board and the Park Land Dedication Committee unanimously approved the recommendation of this expenditure to the City Council.

Per the attached financial status, as of September 30, 2015, the Park Land Dedication Fund has an unencumbered balance of $1,564,953.

Financial Impact

As of September 30, 2015, the Park Land Dedication Fund has an unencumbered balance of $1,564,953.

Recommendation

Approve

Attachments

1. Resolution R-15-3877
2. Preliminary Renderings
3. Bid Tabulation
4. Financial Status of the Park Land Dedication Fund as of September 30, 2015

RESOLUTION R-15-3877

A RESOLUTION APPROVING THE ACQUISITION OF REAL PROPERTY LOCATED AT 7100 COLLEYVILLE BOULEVARD

WHEREAS, the City hereby declares a public purpose in acquiring additional real estate for public purposes, including but not limited to parks and trail uses; and

WHEREAS, the City has examined and explored the value of the property at 7100 Colleyville Boulevard (hereinafter the "Property"), and has determined that the fair market value for that tract is $479,052; and

WHEREAS, by the adoption of this Resolution, the City Council determines that the proposed purchase price represents the fair market value of the Property; and

WHEREAS, the City hereby determines that the passage of this Resolution is in the best interests of the health, safety, and welfare of the public.

WHEREAS, all legal prerequisites for the approval of this Resolution have been met, including but not limited to the Open Meetings Act.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF COLLEYVILLE, TEXAS:

Sec. 1. THAT all matters stated above are found to be true and correct and are incorporated herein by reference as if copied in their entirety.

Sec. 2. THAT the City Council hereby approves the purchase of the Property for a purchase price not to exceed $479,052, including closing costs, and authorizes the City Manager to execute all associated documents as approved by the City Attorney.

Sec. 3. THAT the sources of funding for the property acquisition are $84,450 from the proceeds from the acquisition of property by TxDOT for the State Highway 26 project (CSJ No. 0363-01-123 Acct No. Parcels No. 149 and No. 149E), Park Land Dedication Funds in the amount of $150,000, as unanimously approved and recommended by the Parks and Recreation Board at their October 1, 2014, meeting, and unanimously approved and recommended

by the Park Land Dedication Committee at their October 1, 2014, meeting to be used for property acquisition for the construction of the Cotton Belt Phase III project, and $244,602 and all closing costs from the Tax Increment Financing District 1 project plan category of Trails and Public Amenities as amended on November 20, 2012, which can be reimbursed, in the future back, to the Tax Increment Financing District Fund by approved funding to be allocated from the Park Land Dedication Fund or the Parks Tomorrow Fund.

AND IT IS SO RESOLVED.

APPROVED BY A VOTE OF 7 AYES, 0 NAYS, AND 0 ABSTENTIONS ON THIS THE 2nd DAY OF JUNE 2015.

ATTEST:

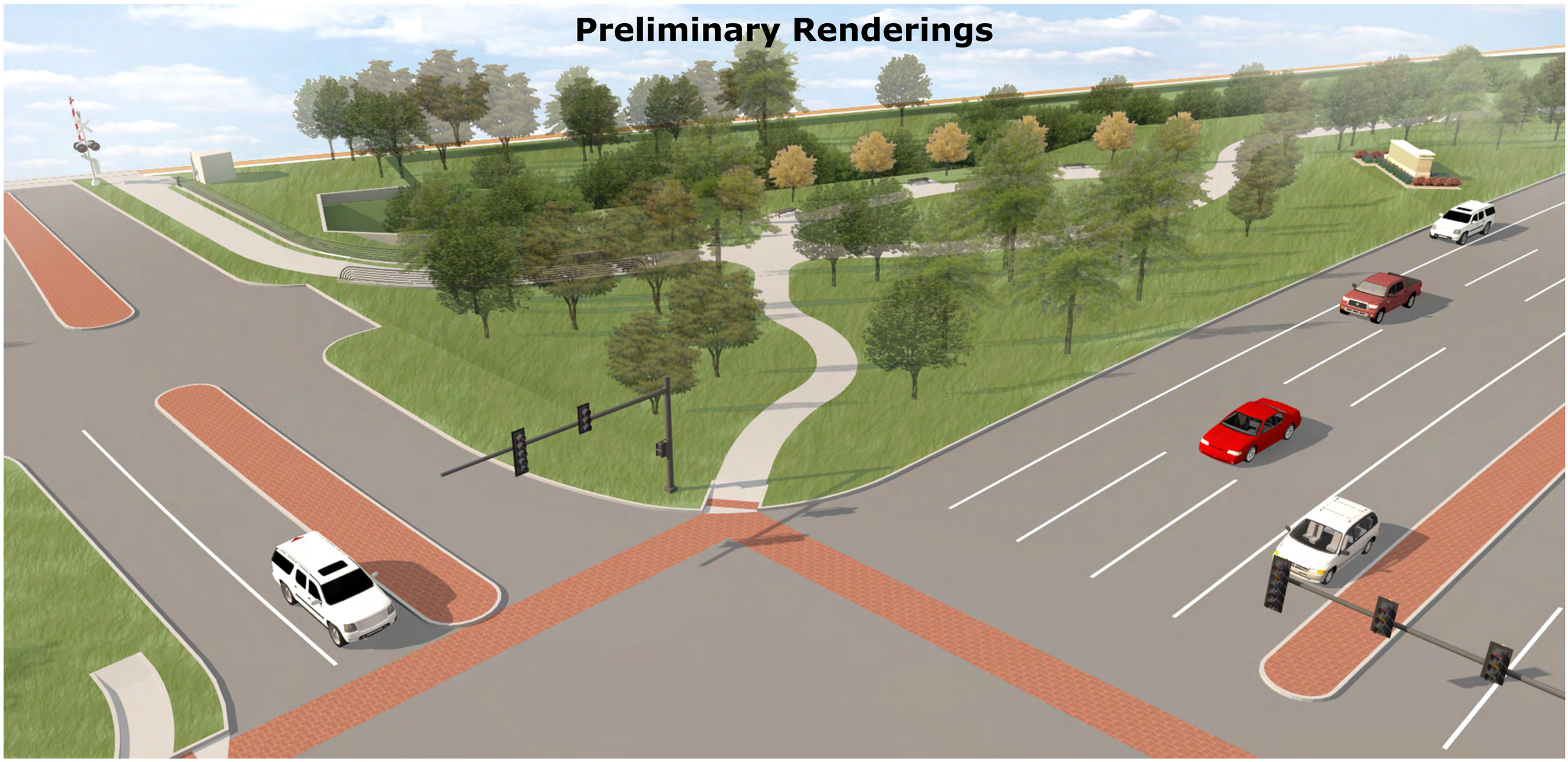
Amy Shelley, TRMC
City Secretary

CITY OF COLLEYVILLE

David Kelly
Mayor

Preliminary Renderings

Preliminary Renderings



Preliminary Renderings

Preliminary Renderings

Cotton Belt Trail - Phase III
Verified Bid Tabulation

	Bidder	Bid Bond	Total Bid	Total Bid w/ 10% contingency
1	SOI Group, INC.	X	$310,031.30	$341,034.43
2	C. Greenscaping, LP	X	$310,121.00	$341,133.10
3	Drive Construction	X	$414,164.67	$455,581.14
4	Axis Contracting	X	$554,326.95	$609,759.65
5	C.C. Zamora Construction	X	$431,351.74	$474,486.91

FINANCIAL STATUS OF PARK LAND DEDICATION FUND AT 9-30-2015

TOTAL REVENUES	$4,718,948
TOTAL INTEREST INCOME REC'D	$553,918
LESS EXPENSES:	
KIDSVILLE DONATION	$1,000
LANDSCAPING NATURE CENTER	$1,169
NATURE CENTER TREES	$1,035
KIMSEY PARK APPRAISALS	$4,700
CITY PARK SOD	$72,881
TPWD KIMSEY PARK GRANT	$8,800
COTTON BELT TRAIL I	$161,447
COTTON BELT TRAIL I ROW ACQUISITION	$32,323
WEBB HOUSE RESTORATION	$98,584
COTTON BELT TRAIL II	$147,006
MC DONWELL SCHOOL TRAIL	$162,790
PARK PROPERTY	$508,047
CASTLETON TRAIL	$18,956
MC PHERSON PARK PHASE I	$1,084,147
LOG BARN	$111,000
SPARGER PARK TRAIL	$82,838
COTTON BELT TRAIL III	$145,735
PLEASANT RUN SOCCER COMPLEX IMPROVEMENTS	$124,444
LD LOCKETT / COTTON BELT TRAILHEAD IMPROVEMENTS	$21,490
WEBB HOUSE TRAIL	$20,000
COTTON BELT TRAIL III - 6950 COLLEYVILLE BLVD PURCHA	$150,000
TOTAL EXPENSES	$2,958,391
LESS ENCUMBERANCES:	
COTTON BELT TRAIL II	$61,292
COTTON BELT TRAIL III	$39,562
WEBB HOUSE TRAIL	$0
PLEASANT RUN SOCCER COMPLEX IMPROVEMENTS	$75,556
LD LOCKETT / COTTON BELT TRAILHEAD IMPROVEMENTS	$328,510
COTTON BELT TRAIL III - 6950 COLLEYVILLE BLVD PURCHA	$0
COTTON BELT TRAIL III - TO REIMBURSE TIF (R-15-3877)	$244,602
TOTAL ENCUMBRANCES	$749,522
TOTAL AVAILABLE AT 9-30-2015	$1,564,953

City of Colleyville
City Council
Agenda Briefing

City Hall
100 Main Street
Colleyville, Texas 76034
www.colleyville.com

Agenda Number 4g | Agenda Date 10/20/2015 | Number Resolution R-15-3921
Type Resolution
Department Parks and Recreation

Title
Approval of a contract with C. Green Scaping, LP, for construction of the Cotton Belt Trail - Phase III project, in an amount not to exceed $341,133.10, and authorize the city manager to execute the contract

Strategy Map Connection
C1- Provide attractive and unique spaces for enjoyment of personal interests and community interaction
C4- Provide mobility enhancements that complement neighborhoods
F2- Invest to provide and maintain high quality public assets

Explanation
Reading and Public Hearing

At the City Council meeting on August 18, 2015, staff presented the attached renderings, which reflect a preliminary design and layout for the Cotton Belt Trail – Phase III project. After receiving direction to move forward with the project as proposed, staff worked closely with engineers from Teague Nall and Perkins to complete the design.

Completion of this, the last phase of the Cotton Belt Trail in Colleyville, will create a continuous stretch of trail spanning just over 11 miles from North Richland Hills to Grapevine, of which approximately 3.4 miles will be in Colleyville.

As the proposed trail segment moves through the newly acquired property at 7100 Colleyville Boulevard, it will take advantage of the site's natural beauty and create an attractive, functional, and highly visible amenity at the City's northern gateway. The site design also includes passive park elements and amenities that will provide trail users an opportunity to rest and enjoy the outdoors. Additionally, the proposed improvements at the site will serve as a fitting backdrop to the existing Colleyville monument sign on the property, and set apart the northern entrance to Colleyville.

The project was advertised in the print and electronic edition of the *Fort Worth Star-Telegram* for two consecutive weeks beginning on September 23, 2015. A bid opening was held on October 7, 2015, at which time five bids were received. Per the attached bid tabulation, the bid of best value was determined to be submitted by C. Green Scaping, LP, in the amount of $341,133.10, which includes a 10 percent contingency allowance controlled by the City to cover any cost overages that may occur during construction and installation.

The contractor's qualifications and references have been verified by the consultant and staff.

Staff is seeking City Council approval to award the contract for the construction of the Cotton Belt Trail - Phase III project to C. Green Scaping, LP. The award of this contract includes the necessary concrete flatwork, retaining walls, pedestrian safety railing, drainage improvements, irrigation improvements, landscape improvements, and the multi-functional drinking fountain included in the project.

Proposed funding for this project is to be allocated from the following sources, $150,000 from the Colleyville Economic Development Corporation (CEDC); $159,562 from the Park Land Dedication Fund; $120,000 of which is subject to City Council approval, as requested in a previous item on this agenda, and $31,571.10 from the Voluntary Park Fund.

Pending award of the contract, it is anticipated the contractor would commence work in November, and the project should take approximately 64 consecutive calendar days to complete.

Financial Impact

Approval of this contract will utilize previously allocated funding from the following sources the Colleyville Economic Development Corporation (CEDC) ($150,000); the Park Land Dedication Fund ($159,562); and the Voluntary Park Fund ($31,571.10).

Recommendation

Approve

Attachments

1. Proposed Renderings
2. Bid Tabulation
3. Construction Contract - Cotton Belt Trail - Phase III

Proposed Renderings

Proposed Renderings

Proposed Renderings

Proposed Renderings

Cotton Belt Trail - Phase III
Verified Bid Tabulation

	Bidder	Bid Bond	Total Bid	Total Bid w/ 10% contingency
1	SOI Group, INC.	X	$310,031.30	$341,034.43
2	C. Greenscaping, LP	X	$310,121.00	$341,133.10
3	Drive Construction	X	$414,164.67	$455,581.14
4	Axis Contracting	X	$554,326.95	$609,759.65
5	C.C. Zamora Construction	X	$431,351.74	$474,486.91

CITY OF COLLEYVILLE

CONTRACT AGREEMENT

STATE OF TEXAS §
§ KNOWN ALL MEN BY THESE PRESENTS:
COUNTY OF TARRANT §

THIS AGREEMENT, made and entered into this ____day of _____, 2015, by and between CITY OF COLLEYVILLE, (hereinafter referred to as "CITY" and _____ (hereinafter referred to as "CONTRACTOR"). In consideration of the mutual covenants hereinafter set forth, the City and Contractor agree as follows:

WITNESSETH, that for and in consideration of the payments and agreements hereinafter mentioned, to be made and performed by the CITY, and under the conditions expressed in the bond bearing even date herewith, the said CONTRACTOR, hereby agrees with the CITY to commence and complete the construction of certain improvements described as follows:

COTTON BELT TRAIL – PHASE III
IN CITY OF COLLEYVILLE, TEXAS

and all extra work in connection therewith, under the terms as stated in the General Conditions of the Agreement and at his (or their) own proper cost and expense to furnish all the materials, supplies, machinery, equipment, tools, superintendence, labor, insurance, and other accessories and services necessary to complete the said construction, in accordance with the conditions and prices stated the Proposal attached hereto, and in accordance with the Notice to Bidders and General Conditions of Agreement, Plans and other drawings (including or written explanatory matter thereof), and the Specifications and addenda thereof, as prepared by The City of Colleyville Public Works Department herein entitled the ENGINEER, together with the CONTRACTOR'S written proposal, the General Conditions of the Agreement, and the Performance and payment Bonds hereto attached; all of which are made a part hereof and collectively evidence and constitute the entire contract.

The Contractor hereby represents and covenants that neither it nor any of its employees or representatives, has or shall have, directly or indirectly, any agreement or arrangement with any party that would constitute a conflict of interest in regard to the work being performed by the City during the terms of this agreement. Contractor will inform the City of other assignments undertaken on behalf of neighboring communities or governmental agencies that may constitute a conflict of interest.

The Contractor agrees City of Colleyville will not be held liable for any personal or real property damages occurring from acts of agents during the tenure of said agreement.

The City agrees, to the extent provided by the laws and constitution of the State of Texas without establishment of a sinking fund, to indemnify and save Contractor harmless from any and against

all losses, claims, demands, damages, and causes of action directly resulting from the negligent acts or omissions of the City, its officers, agents, employees, or subcontractors.

Contractor agrees to indemnify and save City harmless from and against all losses, claims, demands, damages, and causes of action resulting from the negligent acts or omissions of the oblige, or otherwise reduce any other rights or obligations of indemnity which would otherwise reduce any other rights or obligations of indemnity which would otherwise exist as to any part or persons described in this paragraph.

Notwithstanding any of the above, the City shall not be liable for any indirect, remote, or consequential damages.

City of Colleyville may terminate this contract at any time by giving written notice to the other of such termination and specifying the effective date thereof, at least seven (7) days before the effective date of such termination. In that event, all finished or unfinished documents, and other materials, should be at the option of the City to become its property. If the contract is terminated as provided herein, the Contractor fee would be paid in an amount which bears the same ratio to the total compensation as the services actually performed bears to the total services of the Contractor covered by this contract.

The Contractor represents that it has or will secure at its own expense all personnel required to perform the services covered by this contract.

It is agreed that City of Colleyville will provide all necessary project information, to include Standard Construction Details.

All materials prepared by the Contractor shall become the property of the City. The City shall have unrestricted authority to publish, disclose, distribute, and otherwise use, in whole or in part, any reports, data, or other materials prepared under this contract.

Contractor certifies that the firm is an independent contractor, and none of its contractors, employees, agents, or independent workmen shall be deemed an employee of City of Colleyville for any purpose whatsoever.

The CITY agrees to pay the CONTRACTOR in current funds the price or prices shown in the proposal, which forms a part of this contract, such payments to be subject to the General and Special Conditions of the Contract.

This agreement consists of this document, upon which the parties have affixed their signatures, and those documents specifically incorporated herein by reference. This agreement as so constituted is the entire agreement between the parties with respect to the subject matter hereof, and supersedes all other previous statement, communications, or agreements, whether oral or written. No modification, alteration, or waiver of any provision hereof shall be binding upon the parties unless evidenced in writing and signed by both parties.

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

CITY OF COLLEYVILLE

_____	_____
Party of the First Part (City)	Party of the Second Part (Contractor)
By: _____	By: _____ Print or Type Name
	Title: _____ (President/Vice President)
ATTEST:	ATTEST:
_____ By Authority of City Council	_____ Corporation Secretary
_____	_____ Print or Type Name

City of Colleyville
City Council
Agenda Briefing

City Hall
100 Main Street
Colleyville, Texas 76034
www.colleyville.com

Agenda Number 5a | Agenda Date 10/20/2015 | Number Ordinance O-15-1971
Type Ordinance
Department Community Development

Title
Consideration of an amendment to the PUDC-Planned Unit Development Commercial zoning district on Lots 2, 53, and 54, of the Village at Colleyville, located at 18, 20, and 26 Main Street, Case ZC15-016

Strategy Map Connection
There is no strategy map connection for this item.

Explanation
Second Reading and Public Hearing

There were no speakers regarding this item at the October 5, 2015 City Council meeting.

First Reading and Public Hearing

The applicant, Jeff Polk, is requesting to rezone the subject property from PUD-C – Planned Unit Development – Commercial District to PUD-C – Planned Unit Development – Commercial District to change six parallel parking spaces to six angled parking spaces along Main Street in the Village at Colleyville. The subject property consists of approximately 0.427 acres and is located at 18, 20, and 26 Main Street.

Existing Conditions. The subject property is currently zoned PUD-C – Planned Unit Development Commercial (Ordinance Number O-12-1859) and is platted as Lots 2, 53, and 54 of the Village at Colleyville Addition.

Statement of Planning Objectives. The applicant submitted a Statement of Planning Objectives with an associated zoning exhibit (attached), which contains a description of the proposed development. The applicant is proposing to construct an 8,602 square-foot, one-story office building. The proposed rezoning request is for a PUD amendment to change six parallel parking spaces to six angled parking spaces along Main Street in the Village at Colleyville. The parking spaces are associated with a proposed office building to house Steward Financial Group and the Early Law Firm. The applicant has stated in the Statement of Planning Objectives that "the proposed angled parking will offer clients and visitors a more convenient and comfortable parking option and is substantially preferable to parallel parking as it exists."

History. A brief summary of the amendments to The Village PUD is below:

- The PUD-C zoning for The Village development was originally established on

January 19, 1999, with the approval of Ordinance O-99-1131. The PUD-C zoning for this project allows a mixture of retail, office, and residential units within multi-level structures.

- Additional development regulations were later affixed to the development on May 7, 2002, with the approval of Ordinance O-02-1337.4. The May 7, 2002 amendments served to amend Ordinance O-99-1131 in its entirety and were primarily designed to address a number of issues not anticipated when the original ordinance was adopted by the City Council in 1999, such as encroachments of right-of-ways with bay windows and balcony overhangs.

- Ordinance O-02-1337.4 was amended on January 17, 2006 under Ordinance O-06-1560 in order to allow more residential units to be built provided certain performance criteria are met with a maximum of 200 residential units allowed.

- The previous PUD-C ordinances noted above were amended on May 20, 2008 in order to allow removal of the median on Main Street between Village Lane and Pleasant Run Road and allow installation of 45 degree angled parking.

- On December 18, 2012, Ordinance O-12-1859 was adopted to increase the number of residential units allowed on the ground floor in the development, along with multiple other changes. The ordinance also replaced all previous Village ordinances to consolidate them and simplify the project.

Development Standards. The applicant is proposing to amend Exhibit "C" of Ordinance O-12-1859 to replace six parallel parking spaces with six angled parking spaces, as reflected on the attached site plan exhibit, along Main Street, east of Pleasant Run Road. The change to parking spaces in this area would also necessitate a change to Section H of the ordinance (Parking Requirements) where it states that "45 degree angled public on-street parking spaces shall be allowed along both sides of Main Street between Village Lane and Pleasant Run Road." The applicant is proposing provision H1.d.(1) to read "45 degree angled public on-street parking spaces shall be allowed along both sides of Main Street, between Village Lane and Pleasant Run and on the north side of Main Street between Pleasant Run and Mission Lane." The proposed site plan exhibit is meant to illustrate the proposed parking configuration and is not meant to be fully reviewed for all site plan criteria at this time. This request constitutes a preliminary site plan review, and all site plan criteria will be reviewed at the time of building permit submittal.

The applicant has provided elevations and a conceptual rendering of the proposed building for review. All elevations submitted in a forthcoming building permit package would need to comply with any changes that were deemed appropriate by the Planning and Zoning Commission upon review of this request.

Open Space and Landscaping. No changes to approved open space are being proposed, and the applicant's landscaping will be reviewed at the time of building permit.

Screening. No changes to screening are being proposed at this time.

Sidewalks and Trails. The applicant intends to provide and maintain a 10-foot sidewalk along Main Street as required. A trail exists on the west side of the subject property. In order to satisfy the trail requirement for this project, ADA compliance must be demonstrated and will be reviewed at the time of building permit.

Right-of-Way Dedication. No right-of-way dedication is applicable to the proposed request.

Traffic Generation and Access. The applicant's request does not trigger a Traffic Impact Analysis at this time.

Development Fees. All fees will be assessed upon submittal of a building permit application.

Tree Preservation. As required by Chapter 5 (Tree Preservation) of the Land Development Code, a Tree Removal Permit is required prior to the removal of any tree on the subject property. Although the applicant is proposing to preserve five, 12-inch Bald Cypress Trees along Main Street in the area of work, staff has concerns that they might not survive. The applicant has submitted a letter from a Certified Arborist that the trees essentially have a 50 percent chance of surviving with the work proposed if the critical root zones are protected. Staff has assessed that these trees are in danger of becoming critically altered with the proposed work being done in the area and that they may not survive.

Infrastructure. The existing lot is served with water and sewer. The developer will be required to provide any extensions necessary for the project, and the utility proposals will be further reviewed at the time of building permit.

Drainage and Stormwater Runoff. The drainage and stormwater facilities for the project have been preliminarily reviewed and appear feasible. Full review will take place at the time of building permit.

Residential Density. Not applicable.

Surrounding Development Trends. The subject property is surrounded by other properties in The Village's PUD. The property to the north is an office use, to the northwest is medical office, southwest is miscellaneous retail and service uses, to the south is a shared parking lot, to the east is a creek, and the property to the west is undeveloped.

Master Plan. The Future Land Use Map designates the subject property as Retail. Although the proposed office use is inconsistent with the Future Land Use Map, the applicant is not proposing to change the allowed uses on the subject property. The request to change the parking from parallel to angled is inconsistent with the Master Plan's goal of applying sound land use planning principles since it does not complement

the existing development. The Village PUD was established as a master planned development. The existing parallel parking spaces and trees were installed as part of a vision for that development, and they mirror what is across the street to create a boulevard effect. This request is inconsistent with the vision for the development as established in the PUD.

Public Notification. Staff mailed notices to 14 adjacent property owners within 200 feet of the subject property, in addition to courtesy notices to Grapevine-Colleyville ISD and the applicant, regarding this request. Notice was published in the *Fort Worth Star-Telegram* as required by state law and the Land Development Code. To date, no correspondence has been received.

Planning and Zoning Commission Recommendation. The Planning and Zoning Commission recommended approval of this request at the September 14, 2015 meeting by a vote of 5-0, subject to the following special ordinance provision:

Existing Bald Cypress trees along the northern edge of Main Street, between Mission Lane and Pleasant Run Road, addressed as 18, 20, and 26 Main Street are to be preserved and maintained by the property owner(s) at 26 Main Street and must meet the following standards:

i. Should the trees be removed, destroyed, or critically altered within three years of the date of issuance of the building permit for the project at 26 Main Street, they shall be mitigated by replanting the same number of caliper inches in the parkway along Main Street. If additional space is needed for replanting after the parkway is replanted, the open space area at the northwest corner of Main Street and Mission Lane must be utilized.

ii. The replacement trees shall be of similar size and species to the existing trees to the best of availability. Where these provisions are silent, Chapter 5 (Tree Preservation) of the Land Development Code applies.

Summary. The applicant has not provided justification to replace the existing parallel parking spaces with angled spaces, especially when considering how it will affect the aesthetic of Main Street in The Village. Staff recommends denial of the proposed PUD amendment. Should the rezoning request be approved, staff recommends the special ordinance provisions as stated in the attached proposed ordinance.

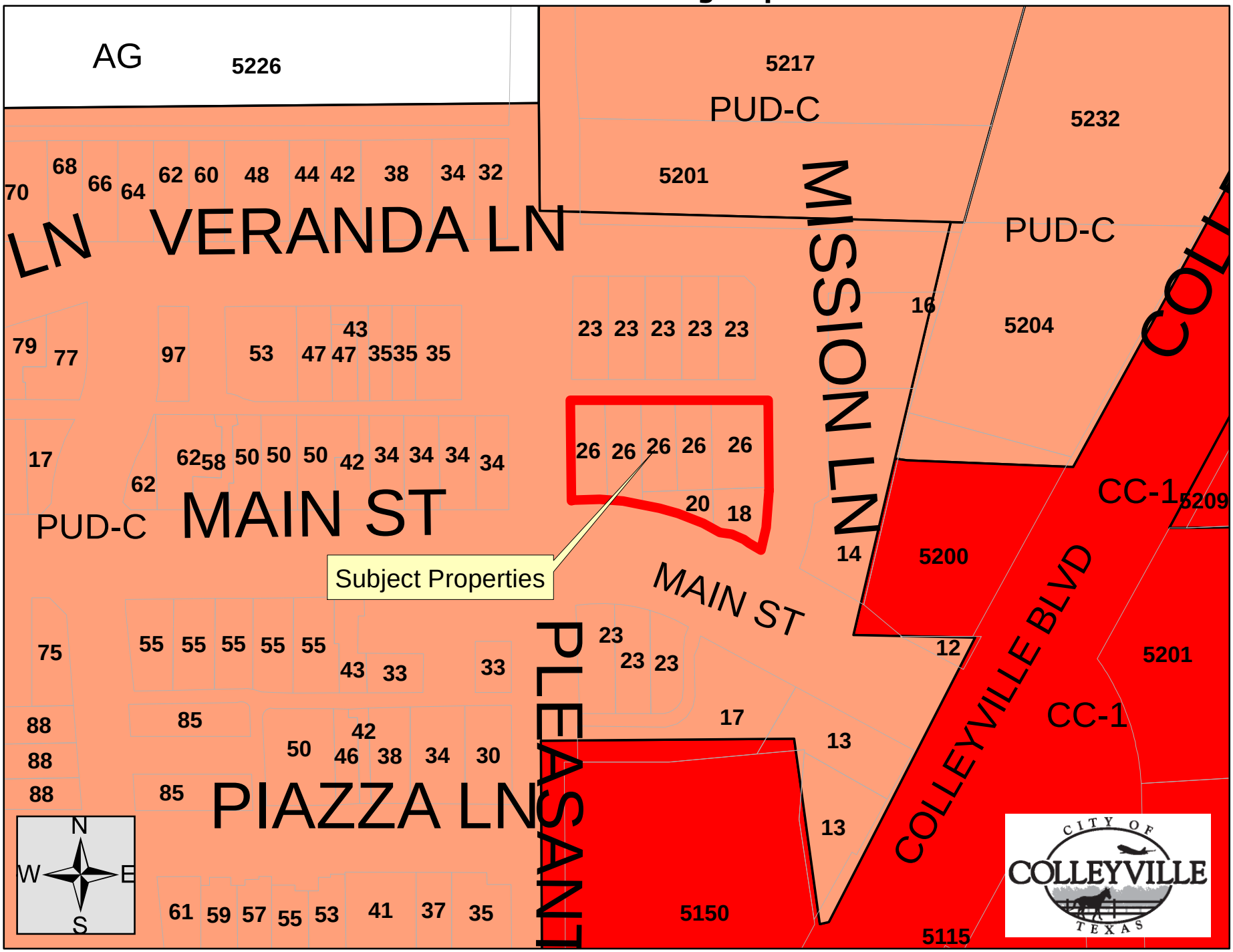
Financial Impact
There is no financial impact to the City.

Recommendation
Denial

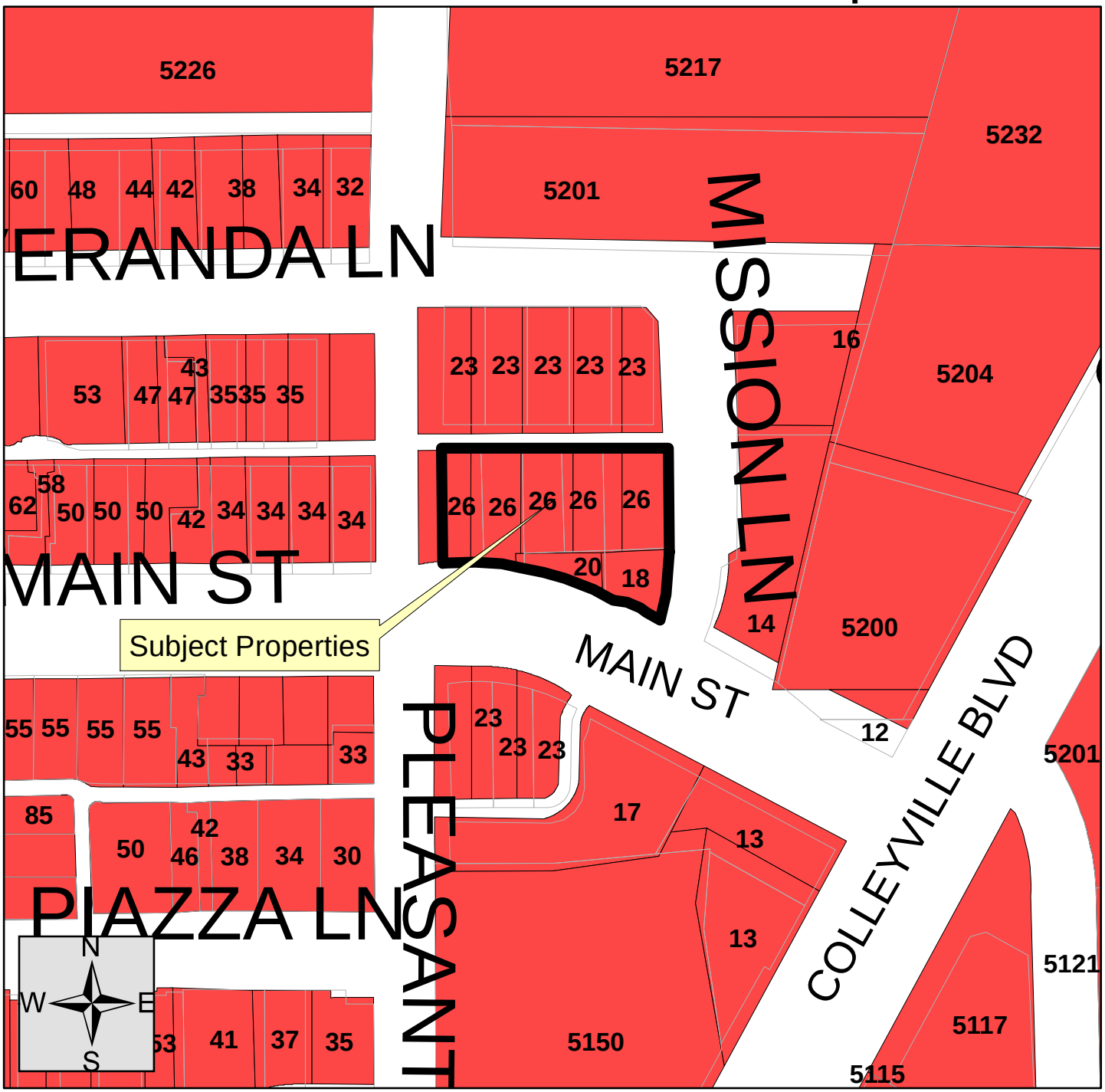
Attachments

1. Location and Zoning Map
2. Future Land Use Map
3. Aerial Map
4. Public Notification Map
5. Notification List
6. Statement of Planning Objectives
7. Site Plan Exhibit
8. Building Elevations
9. Architectural Rendering
10. Letter from Arborist (Provided by Applicant)
11. Ordinance O-12-1859
12. Ordinance O-15-1971

Location and Zoning Map



Future Land Use Map



Legend

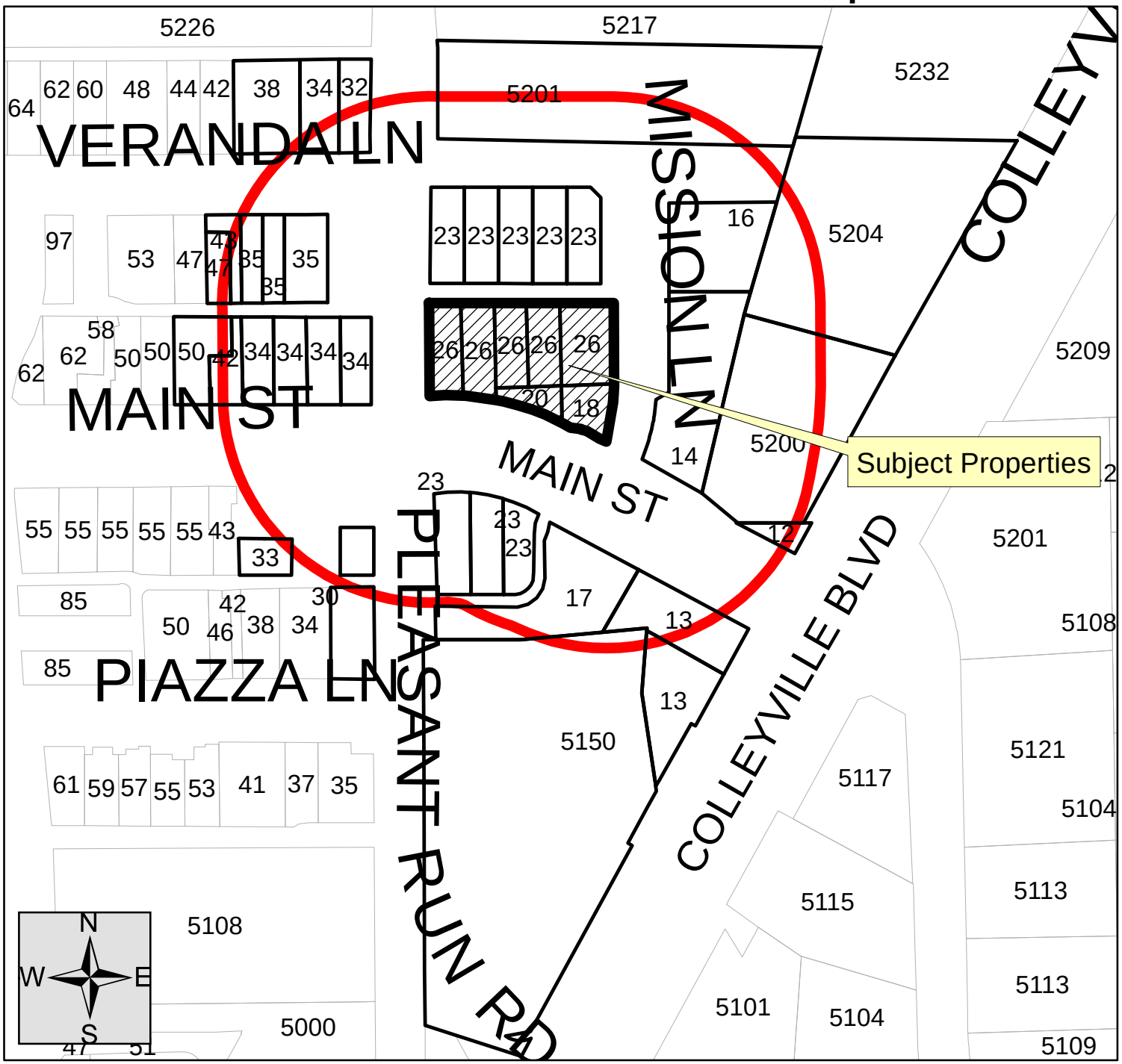
- Subject Properties
- Parcels
- Single Family
- Multi-Family
- Office
- Retail
- Institutional
- Industrial
- Roadway
- Utilities
- Parks
- Private Open Space
- Water
- City Limit

CITY OF COLLEYVILLE TEXAS

Aerial Map

VERANDA LN
MAIN ST
PIAZZA LN
PLEASANT
MISSION LN
MAIN ST
COLLEYVILLE BLVD
Subject Properties
N
W
E
S
CITY OF
COLLEYVILLE
TEXAS

Public Notification Map



Case ZC15-016

18, 20, & 26 Main St.

Legend

- Properties within 200 feet
- Subject Properties
- Parcels
- City Limit

CITY OF COLLEYVILLE TEXAS

NOTIFICATION LIST

Owner Name	Owner Address	Owner City	Owner State	Owner Zip	Situs Address
VILLAGE OWNERS ASSOCIATION INC	909 LAKE CAROLYN PKWY STE 150	IRVING	Texas	75039	17 MAIN ST
VILLAGE MANAGEMENT LTD	909 LAKE CAROLYN PKWY STE 150	IRVING	Texas	75039	50 MAIN ST
TAP REALTY LLC	600 E LAS COLINAS BLVD	DALLAS	Texas	75254	23 MISSION LN
TCN INVESTMENTS III LLC	1861 BROWN BLVD # 744	ARLINGTON	Texas	76006	35 VERANDA LN # 210
VILLAGE MONTICELLO PRTNS LTD	909 LAKE CAROLYN PKWY STE 150	IRVING	Texas	75039	14 MAIN ST
MORANI PROPERTIES LTD	909 LAKE CAROLYN PKWY STE 150	IRVING	Texas	75309	33 MAIN ST
WINCHESTER, NATALIE	2121 MORNING GLORY AVE	FORT WORTH	Texas	76111	32 VERANDA LN # 111
BOJKU, AFRIM	5309 COLLYVILLE BLVD	COLLEYVILLE	Texas	76034	5150 COLLEYVILLE BLVD
DUNHAM, KELLEN C	33 MAIN ST STE 200	COLLEYVILLE	Texas	76034	33 MAIN ST
DDK REAL ESTATE INV LLC	PO BOX 1131	COLLEYVILLE	Texas	76034	5204 COLLEYVILLE BLVD
BOES, MARK	34 VERNADA LN # 210	COLLEYVILLE	Texas	76034	34 VERANDA LN # 210
ROGERS, J ANDREW	201 MAIN ST STE 2500	FORT WORTH	Texas	76102	30 PIAZZA LN
SOUTH BOWIE INVESTMENT PARTNER	PO BOX 126	COLLEYVILLE	Texas	76034	5201 PLEASANT RUN RD
BEAM REAL ESTATE LLC	14455 WEBB CHAPEL RD	FARMERS BRANCH	Texas	75234	5200 COLLEYVILLE BLVD
GRAPEVINE-COLLEYVILLE ISD	3051 IRA E WOODS AVE	GRAPEVINE	TEXAS	76051	STATE LAW REQ.
HESLAND, LLC	5850 COLLEYVILLE BLVD., STE 110	COLLEYVILLE	TEXAS	76034	APPLICANT

Public hearing notices were mailed
Friday, September 4, 2015 by Taci
Wrisley

STATEMENT OF PLANNING OBJECTIVES

PUD Amendment Request – angled parking in lieu of parallel parking
26 Main St. – Steward Financial Office Building

Application for PUD Amendment date:	7/22/2015
Ordinance:	0-12-1859
	Village at Colleyville Development

TABLE OF CONTENTS

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Parties & Contact Information

Owner

Owner:	Hesland, LLC
Address:	5850 Colleyville Blvd. Ste. 110
	Colleyville, TX 76034
Principals:	Dustin Stiefel
	Vince Hawkins
	Steve Early

Building Tenant

Tenants:	Steward Financial Group	Early Law Firm
Address:	5850 Colleyville Blvd. Ste. 110	5850 Colleyville Blvd. Ste. 110
	Colleyville, TX 76034	Colleyville, TX 76034
Principals:	Dustin Stiefel	Steve Early
	Vince Hawkins	

Owner's Agent / Designer / Builder

Agent:	Polk design Build Group, LLC
Principal:	Jeff Polk
Address:	1904 Industrial Blvd. Ste. 104
	Colleyville, TX 76034

Civil Engineer / Surveyor

Engineer / Surveyor:	Neel-Schaffer
Address:	2501 Avenue J, Suite 120
	Arlington, TX 76006
PE of record:	Derek Cheatham, PE
Surveyor:	Phil Wolters, RPLS

Statement of Planning Objectives

Hesland, LLC is made up of partners representing both Steward Financial Group and the Early Law Firm, both of which will be tenants in the proposed office building to be built at 26 Main St on the subject lot. These companies currently office in Colleyville and the partners all reside in Colleyville. The building design and proposed site plan reflect the diligent pursuit of an office building that will be consistent with the architectural and styling excellence indicative of the Village at Colleyville and the clients these firms serve.

In an effort to optimize design, safety and convenience for its clients, pedestrians and vehicle traffic, the preliminary site plan design includes angled parking to be installed in lieu of the existing parallel parking on the Main St. frontage of the lot. We understand that this proposed change would require an amendment to the PUD and the PUD approved master site plan. The PUD does not explicitly prohibit angled parking at the proposed location but the approved site plan attached to the PUD calls for the existing parallel parking. The PUD does however specifically allow for angled parking on Main St. between Village Lane and Pleasant Run.

We believe the proposed angled parking will offer clients and visitors a more convenient and comfortable parking option and is substantially preferable to parallel parking as it exists. In addition, should the amendment pass we plan to replace the existing 4' sidewalk adjacent to the parallel parking spaces and replace it with a 10' sidewalk as required by the PUD for all "new" sidewalks. While the existing 4' sidewalk is compliant with the PUD if we do not modify the parking necessitating a "new" sidewalk, we believe that a 10' sidewalk is preferable. The proposed 10' sidewalk would provide a consistent sidewalk width along Main Street and enhances the pedestrian experience and community feel of the Village.

We understand that a concern exists relative to the mature Bald Cypress trees located in the area of the proposed parking change. The proposed design accounts for the existing Bald Cypress trees and incorporates peninsulas at each tree location as seen on the attached zoning exhibit. Also note that the proposed design actually increases the root capacity around the circumference of the trees on the south side of each tree. Bald Cypress trees are selected by landscape architects for this exact application because they do very well in close proximity to curbs, sidewalks and parking spaces. We are confident that these trees were selected initially for this very reason and we are confident that this modification will have no adverse effect on the health of these trees. Hesland is willing to warrant the livelihood of the 5 Bald Cypress trees in question and will, if amendment passes, draft an agreement stating such.

Our proposed site plan to change to angled parking will require owner(s) to dedicate a small portion of the east side of the lots to the City of Colleyville where the angled parking encroaches into each lot. Both Hesland, LLC and the VOA who owns lots 53 and 54 which are set aside as private park are in agreement to this dedication. Additionally, the VOA is in support of the proposed parking and has provided a letter attached. Hesland, LLC and the VOA have also provided an access agreement stating its level of cooperation in the development of these lots.

In summary, we believe that this proposed parking change will enhance the ease of use and overall aesthetic of the Steward Financial office building as well as the Village at Colleyville in whole. Please do not hesitate to call me with any questions.

Jeff Polk
President, Polk Design Build Group
Owner's Agent

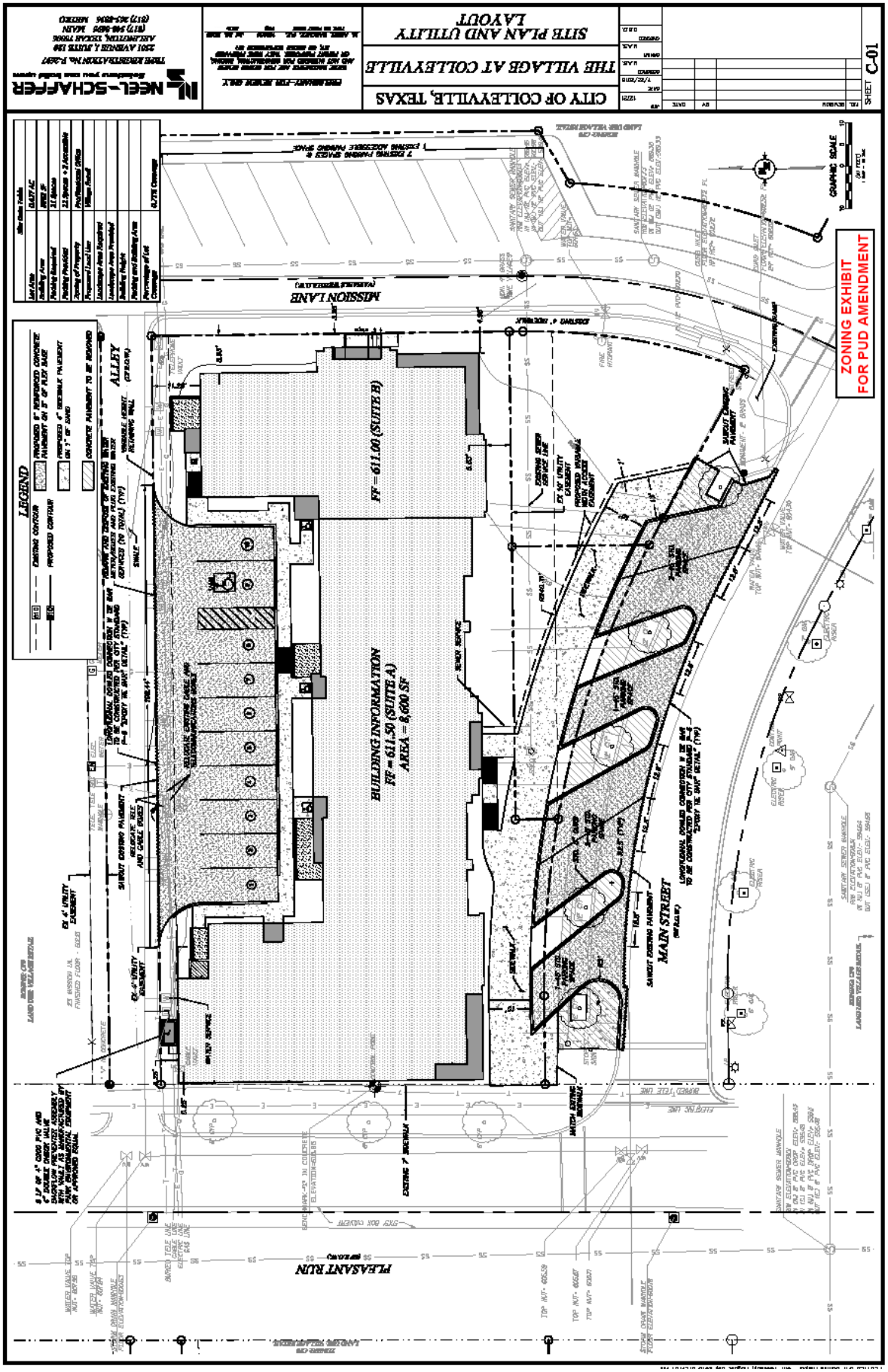
Development Schedule

We plan to pull building permits as soon as possible.

Economic Development Information

Steward Financial – Suite A

Building Square Feet – Suite A only	6,358
Estimated Sales per Year	$2,300,000.00
Estimated Sales per Square Foot	$361.75
Estimated Ad Valorum Tax	$34,000.00


CITY OF COLLEYVILLE, TEXAS
THE VILLAGE AT COLLEYVILLE
SITE PLAN AND UTILITY LAYOUT
NEEL-SCHAFFER
SHEET C-01
ZONING EXHIBIT
FOR PUD AMENDMENT
MISSION LANE
PLEASANT RUN
MAIN STREET
ALLEY
BUILDING INFORMATION
FF = 611.50 (SUITE A)
AREA = 8,600 SF
FF = 611.00 (SUITE B)
LEGEND
GRAPHIC SCALE

Supporting Documentation Appendix

Access Agreement with Realty Capital / Village Owners Association, onwers of lots 53 &54

Document to be finalized for P&Z Review – see email below

From: Jimmy Archie
Date: July 21, 2015 at 2:59:10 PM EDT
To: Steven Early
Cc: Dustin Stiefel
Subject: Re: Access Easement Agreement

I am back from vacation on Thursday and won't be able to do anything until then. Also, since we passed the Board of Directorship off to the homeowners last month recently, I will need some time to explain this to them and ultimately get their consent. We still manage the Owners Association but no longer serve on the board. There will be no issue getting their consent but I need to take it though the proper channel as I no longer have he authority to execute the easement.

This should not hold you up from your submitting your application. You can tell the staff you will have the agreement in place and a letter or support by the time it gets to council for a vote.

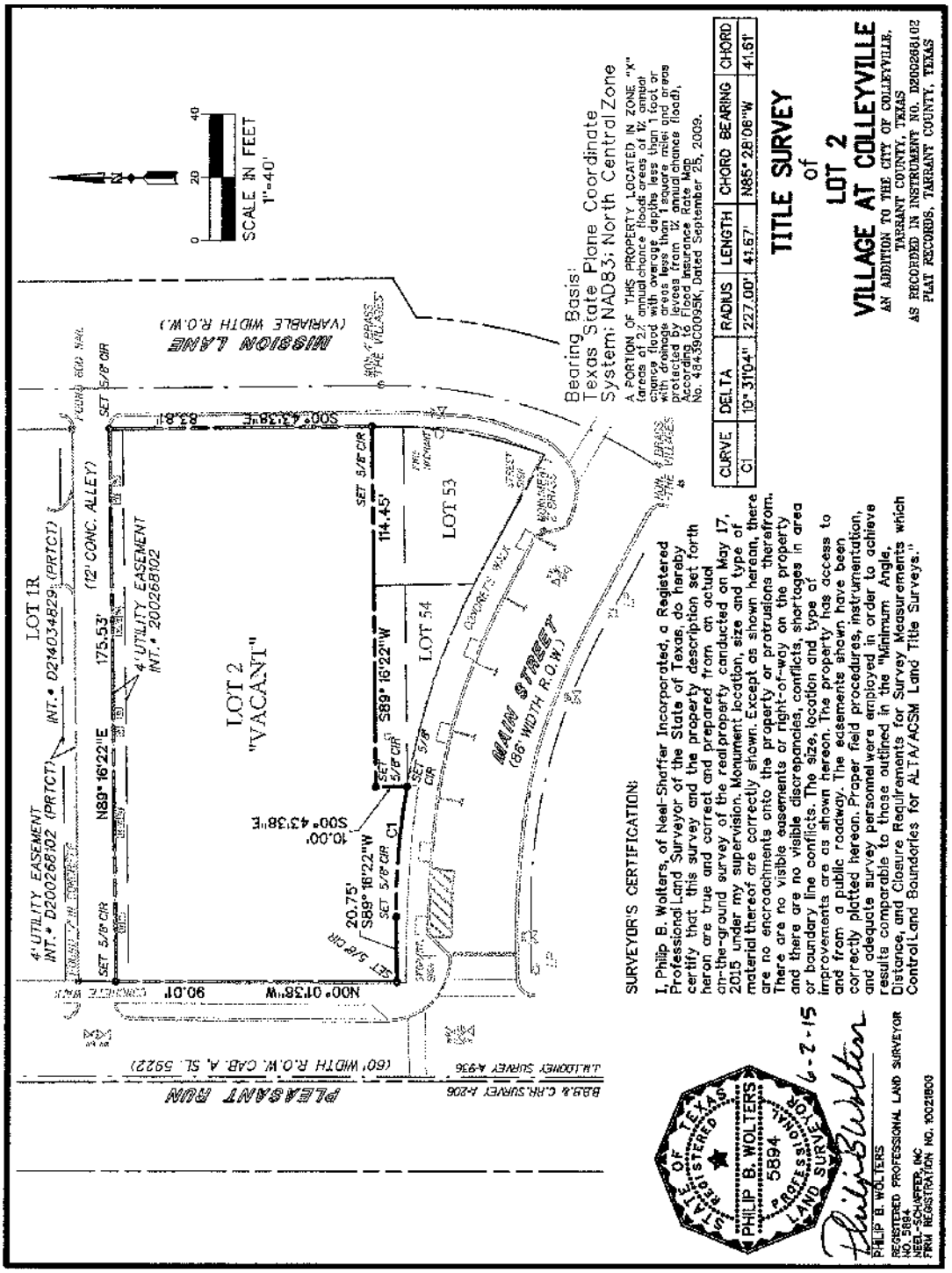
Jimmy Archie

Realty Capital Management, LLC

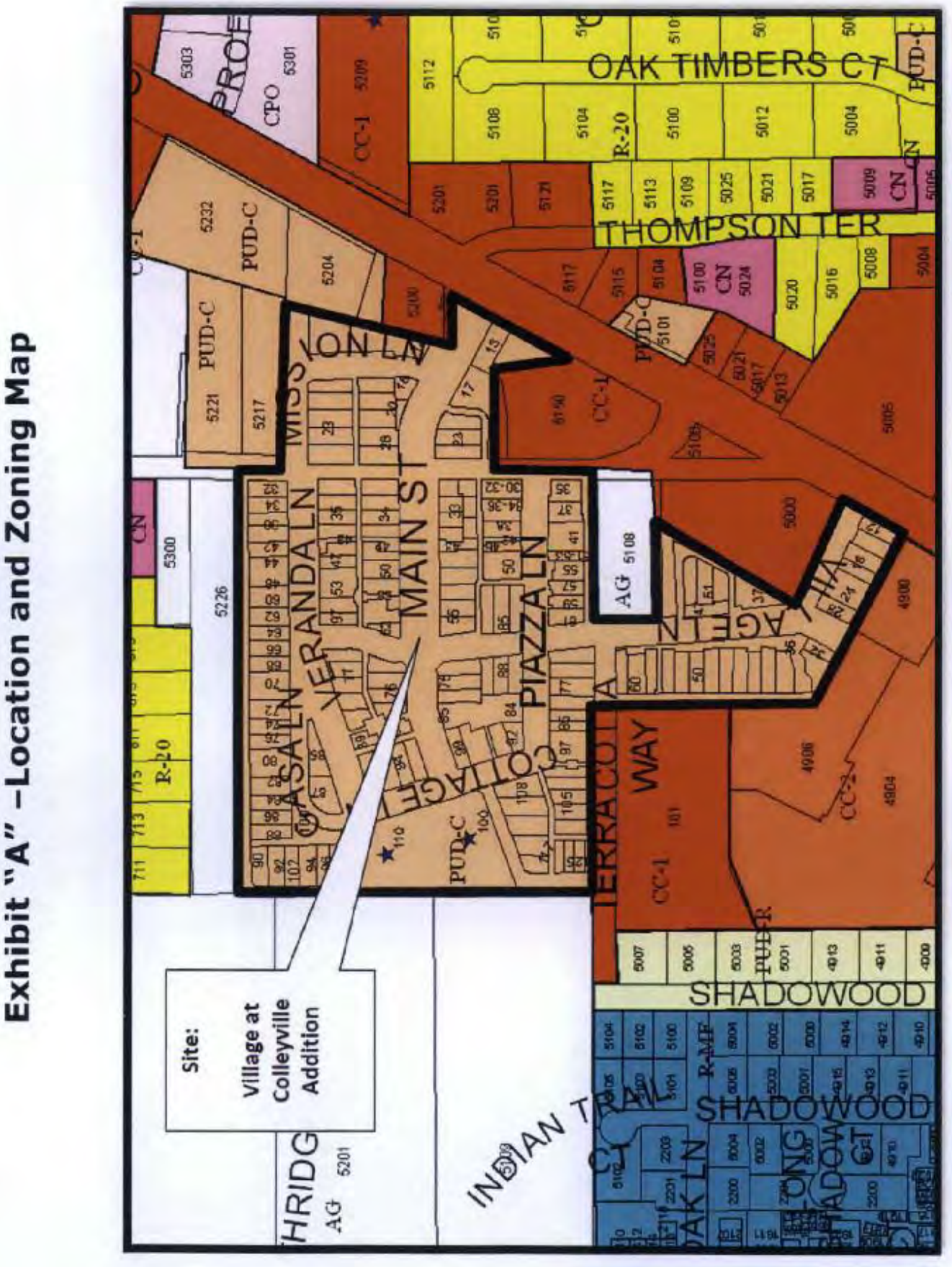
Letter of Support – Village Owner's Association

Will provide document prior to P&Z Review

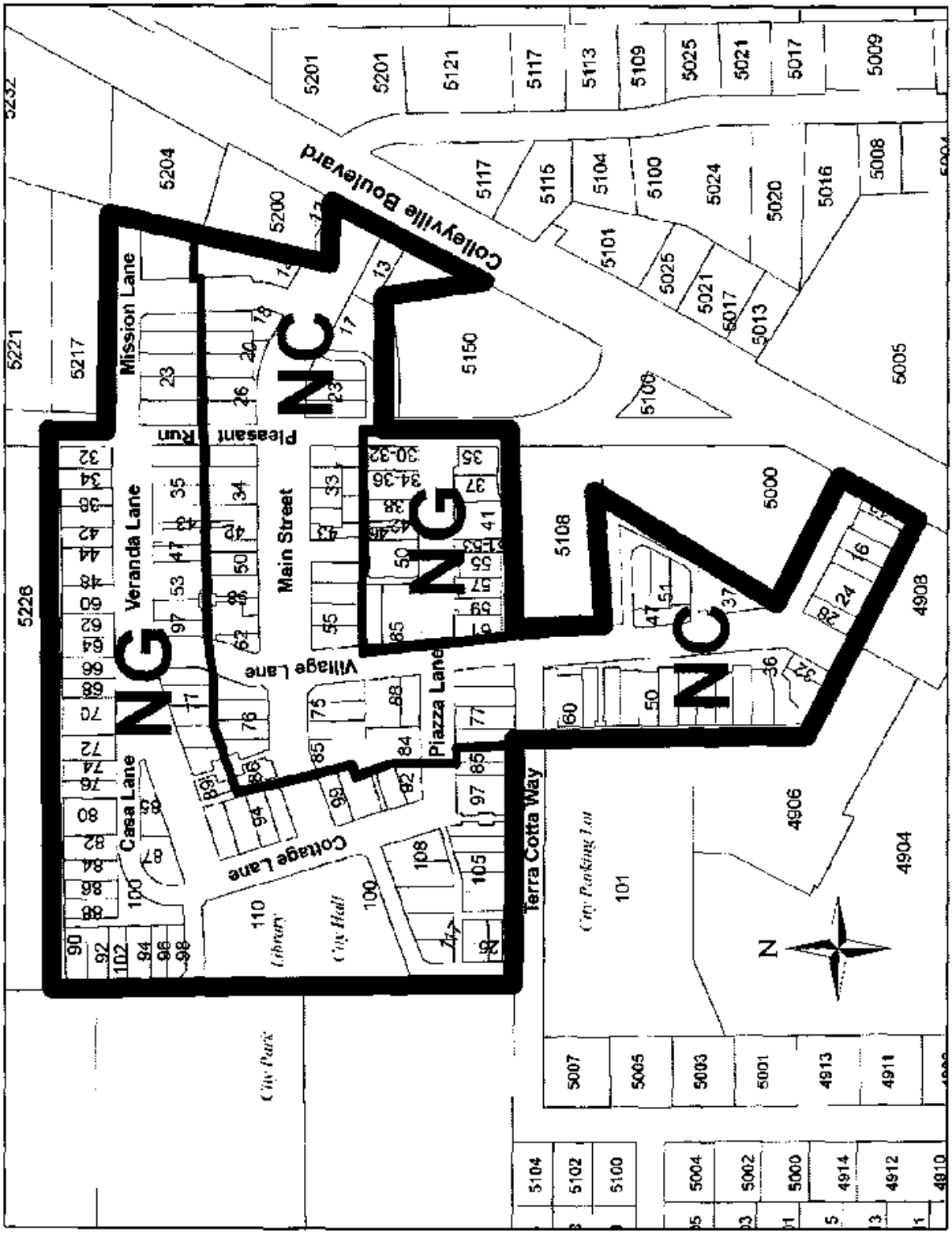
Lot 2 Survey


SCALE IN FEET
1"=40'
Bearing Basis:
Texas State Plane Coordinate
System: NAD83; North Central Zone
A PORTION OF THIS PROPERTY LOCATED IN ZONE "X" (areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood), According to Flood Insurance Rate Map No. 48439C0095K, Dated September 25, 2009.
CURVE | DELTA | RADIUS | LENGTH | CHORD BEARING | CHORD
C1 | 10° 31'04" | 227.00' | 41.67' | N85° 28'06"W | 41.61'
TITLE SURVEY
of
LOT 2
VILLAGE AT COLLEYVILLE
AN ADDITION TO THE CITY OF COLLEYVILLE, TARRANT COUNTY, TEXAS
AS RECORDED IN INSTRUMENT NO. D200268102 PLAT RECORDS, TARRANT COUNTY, TEXAS
MISSION LANE
(VARIABLE WIDTH R.O.W.)
LOT 1R
INT.# D214034829 (PRTCT)
INT.# D200268102 (PRTCT)
4' UTILITY EASEMENT
INT.# D200268102 (PRTCT)
(12' CONC. ALLEY)
175.53'
4' UTILITY EASEMENT
INT.# 20026810Z
LOT 2
"VACANT"
N89° 16'22"E
S00° 43'38"E 83.81'
S00° 43'38"E
10.00'
20.75'
S89° 16'22"W
114.45'
S89° 16'22"W
N00° 01'38"W 90.01'
SET 5/8" CIR
C1
LOT 53
LOT 54
MAIN STREET
(66' WIDTH R.O.W.)
PLEASANT RUN
(60' WIDTH R.O.W. CAB. A, SL. 5922)
J.M.LOONEY SURVEY A-936
B.B.B.& C.RR.SURVEY A-206
SURVEYOR'S CERTIFICATION:
I, Philip B. Wolters, of Neel-Shaffer Incorporated, a Registered Professional Land Surveyor of the State of Texas, do hereby certify that this survey and the property description set forth hereon are true and correct and prepared from an actual on-the-ground survey of the real property conducted on May 17, 2015 under my supervision. Monument location, size and type of material thereof are correctly shown. Except as shown hereon, there are no encroachments onto the property or protrusions therefrom. There are no visible easements or right-of-way on the property and there are no visible discrepancies, conflicts, shortages in area or boundary line conflicts. The size, location and type of improvements are as shown hereon. The property has access to and from a public roadway. The easements shown have been correctly plotted hereon. Proper field procedures, instrumentation, and adequate survey personnel were employed in order to achieve results comparable to those outlined in the "Minimum Angle, Distance, and Closure Requirements for Survey Measurements which Control Land Boundaries for ALTA/ACSM Land Title Surveys."
STATE OF TEXAS REGISTERED
PHILIP B. WOLTERS
5894
PROFESSIONAL LAND SURVEYOR
6-2-15
PHILIP B. WOLTERS
REGISTERED PROFESSIONAL LAND SURVEYOR NO. 5894
NEEL-SCHAFFER, INC.
FIRM REGISTRATION NO. 10021800

Location and Zoning Map



Neighborhood Areas



Ariel View of Site

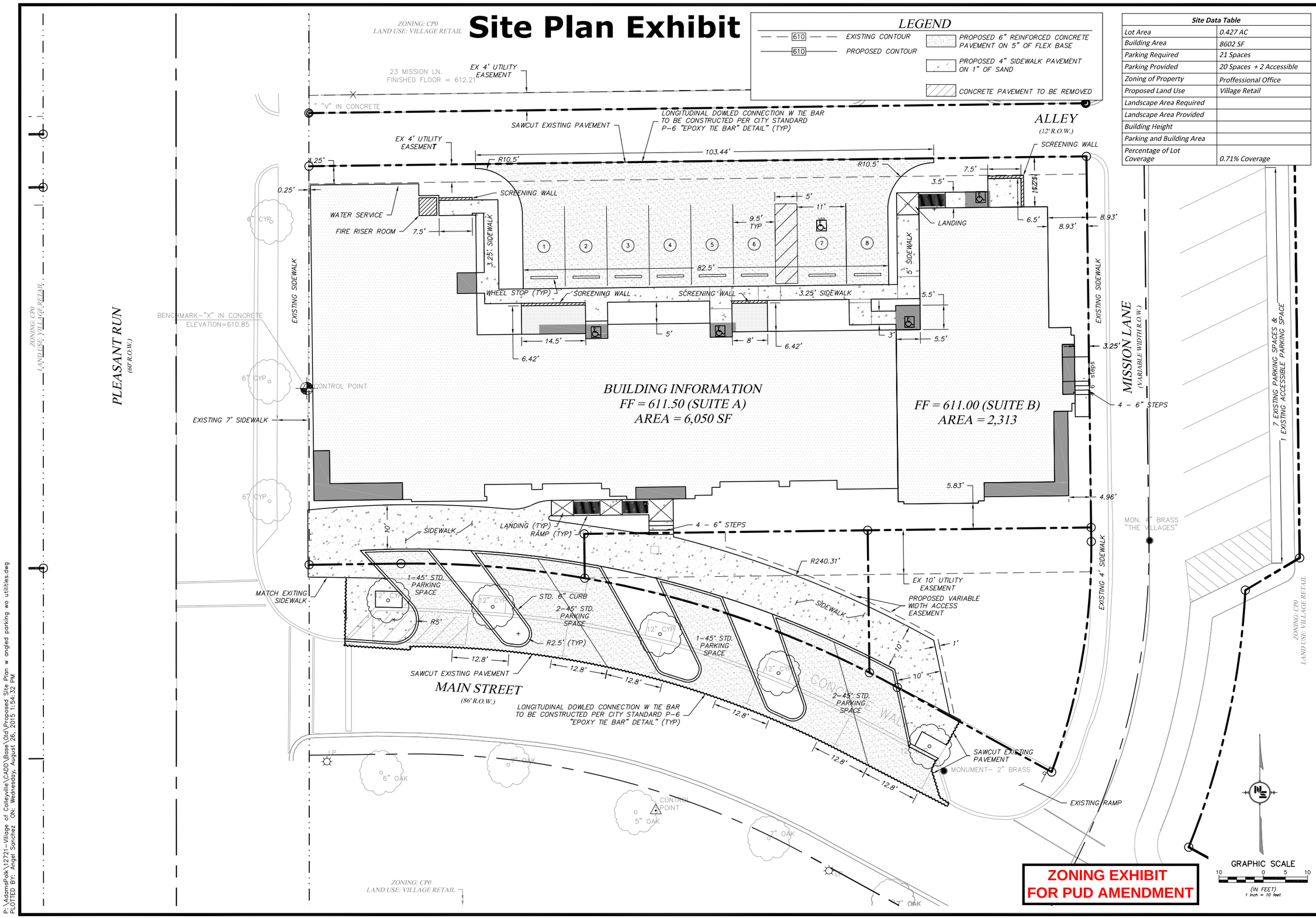
Letter of Support from Adjacent Property Owners

Will provide document prior to P&Z Review

Bald Cyprus Information

Will provide document prior to P&Z Review

Site Plan Exhibit



Site Data Table	
Lot Area	0.427 AC
Building Area	8602 SF
Parking Required	21 Spaces
Parking Provided	20 Spaces + 2 Accessible
Zoning of Property	Proffessional Office
Proposed Land Use	Village Retail
Landscape Area Required	
Landscape Area Provided	
Building Height	
Parking and Building Area	
Percentage of Lot Coverage	0.71% Coverage

NEEL-SCHAFFER
Solutions you can build upon
TBPE REGISTRATION No. F-2697
2501 A AVENUE I, SUITE 120
ARLINGTON, TEXAS 76006
(817) 548-0696 MAIN
(817) 265-8836 METRO

PRELIMINARY-FOR REVIEW ONLY

THESE DOCUMENTS ARE FOR DESIGN REVIEW AND NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES. THEY WERE PREPARED BY, OR UNDER SUPERVISION OF:

M. ANGEL SANCHEZ, P.E. 110254 Aug. 26, 2015
TYPE OR PRINT NAME PE# DATE

CITY OF COLLEYVILLE, TEXAS

VILLAGE AT COLLEYVILLE

SITE PLAN LAYOUT
ANGLED PARKING EXHIBIT

JOB	12721
DATE	8/26/2015
DESIGNED	M.A.S.
DRAWN	M.A.S.
CHECKED	D.B.C.

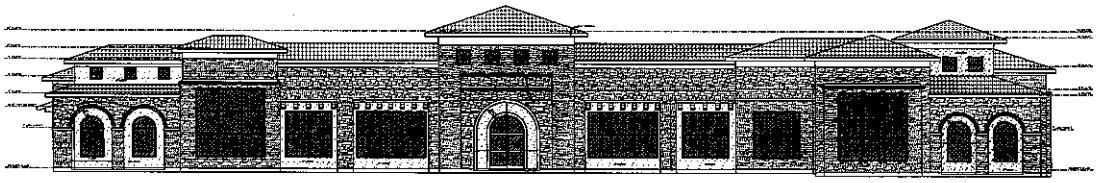
NO.	REVISION	BY	DATE

SHEET C-01

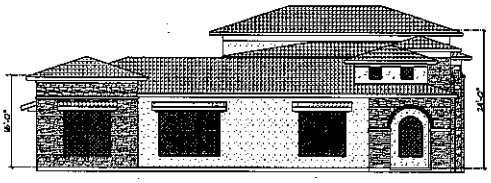
P:\AdamsPolk\12721-Village of Colleyville\CADD\Base\Old\Proposed Site Plan w angled parking wo utilities.dwg
PLOTTED BY: Angel Sanchez ON: Wednesday, August 26, 2015 1:54:32 PM

BUILDING ELEVATIONS

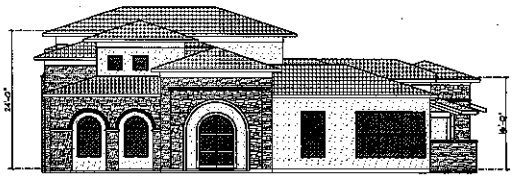
NON-DETAILED ELEVATIONS FOR REVIEW PURPOSES ONLY



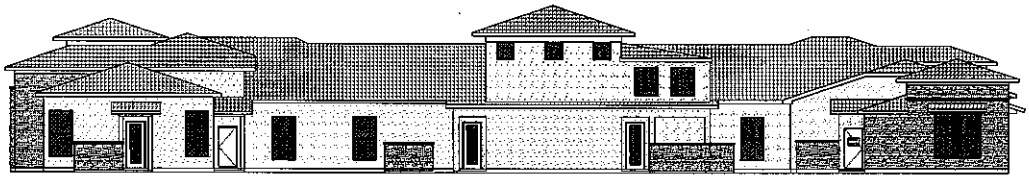
FRONT ELEVATION - MAIN ST. FRONTAGE



LEFT ELEVATION - PLEASANT RUN FRONTAGE



RIGHT ELEVATION - MISSION LN. FRONTAGE



REAR ELEVATION - ALLEY FRONTAGE

HESLAND OFFICE
28 MAIN ST.
COLLEYVILLE, TX 76034

DRAWN BY: Jeff Polk
DATE: 08.25.15

Polk Design Build Group, LLC
1904 Industrial blvd. st. 104
Colleyville, TX 76034
PHONE: 817.829.0040
jpolk@polkdbg.com

©2015, POLK DESIGN BUILD GROUP

APPROVED:
SCALE: 1/16" = 1'

THESE PLANS ARE PROTECTED UNDER COPYRIGHT LAW. REPRODUCTION OF ANY MEANS IS STRICTLY PROHIBITED. ONLY THE ORIGINAL SEALED SET IS VALID. STRUCTURE IS LICENSED EXCLUSIVELY TO THE ORIGINAL BUYER.

1 of 1

Architectural Rendering

Letter from arborist

Mr. Polk,

I reviewed your plans for the parking spaces at 26 Main St. in Colleyville and inspected the site with the bald cypress trees in question. My opinion is as follows:

There are several factors that suggest the odds that the trees will survive are good:

1. Bald cypress is a species that is resistant to construction damage, adding to its suitability as an urban tree.
2. The trees are currently in very good health.
3. The available soil volume will not be dramatically changed.

Also, fertilization and vertical mulching can further reduce the likelihood of long term damage to the trees. It is essential, however, that the critical root zone be vigorously protected throughout the construction process, or all of the advantages could mean little. Fences, signage, wrapping trunks with protective material (such as burlap), and mulching the critical root zone should be employed to ensure protection. Also, if cutting large roots is necessary, it should be done with an appropriate tool such as a saw or wood chisel, rather than ripping through it with blunt tools. This facilitates healing of the roots, rather than rotting and mortality. Although plant health (especially in construction sites) can never be guaranteed, if all of these guidelines are followed, I would expect a better than 50% chance the trees survive.

Thank you,

Wesley Rivers - ISA Certified Arborist # TX 3642A

Alpine Tree Service, Inc.

817.505.9913 cell

817.656.8733 office

ORDINANCE O-12-1859

AN ORDINANCE OF THE CITY OF COLLEYVILLE, TEXAS, AMENDING THE COMPREHENSIVE ZONING ORDINANCE OF THE CITY OF COLLEYVILLE, TEXAS, AS HERETOFORE AMENDED; BY REPEALING ORDINANCES O-99-1141, O-02-1337.4, O-06-1560 AND O-08-1680; BY AMENDING THE OFFICIAL ZONING MAP AND CHANGING THE ZONING ON 26 ACRES IN THE VILLAGE AT COLLEYVILLE ADDITION AND LOTS 3A AND 3B, BLOCK 1, VILLAGE FRONT DOOR ADDITION, FROM THE PUD-C-PLANNED UNIT DEVELOPMENT COMMERCIAL ZONING DISTRICT TO THE PUD-C-PLANNED UNIT DEVELOPMENT COMMERCIAL ZONING DISTRICT; PROVIDING A SAVINGS CLAUSE; PROVIDING FOR INJUNCTIVE RELIEF; PROVIDING A SEVERABILITY CLAUSE; PROVIDING A PENALTY OF FINE NOT TO EXCEED THE SUM OF TWO THOUSAND DOLLARS ($2,000.00) FOR EACH OFFENSE; AND PROVIDING AN EFFECTIVE DATE

WHEREAS, the City of Colleyville has received an application for rezoning under Case No. ZC12-022; and

WHEREAS, Ordinances O-99-1141, O-02-1337.4, O-06-1560 and O-08-1680 are hereby repealed in their entirety; and

WHEREAS, the City of Colleyville deems it necessary, for the purpose of promoting the health, safety, morals, or general welfare of the City to enact a new zoning ordinance; and

WHEREAS, the City Council has appointed a Planning and Zoning Commission to recommend the boundaries of the various original zoning districts and appropriate regulations be enforced therein and to recommend a new zoning ordinance; and

WHEREAS, the Planning and Zoning Commission has divided the City into districts and has prepared regulations pertaining to such districts in accordance with a comprehensive plan and designed to lessen congestion in the streets; to secure safety from fire, panic, and other dangers; to promote health, general welfare; to provide adequate light and air; to prevent the overcrowding of land; to avoid undue concentration of population; to facilitate the adequate provision of transportation, water, sewerage, schools, parks, and other public requirements; and

WHEREAS, the Planning and Zoning Commission, has given reasonable consideration to, among other things, the character of the districts and their peculiar suitability for particular uses, with a

view to conserving the value of buildings and encouraging the most appropriate use of land throughout the City; and

WHEREAS, the Planning and Zoning Commission of the City of Colleyville and the City of Colleyville City Council, in compliance with the Charter of the City of Colleyville, and State Law with reference to changes to zoning classifications under the Zoning Ordinance Regulations and Zoning Map, having given the requisite notices by publication and otherwise, and after holding due hearings and affording a full and fair hearing to all the property owners generally, and to the persons interested and situated in the affected area and in the vicinity thereof, the governing body of the City of Colleyville is of the opinion that said change in zoning should be made.

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

Sec. 1. THAT all the foregoing premises and findings are found to be true and correct and are incorporated into the body of this ordinance as if copied in their entirety.

Sec. 2. THAT the Comprehensive Zoning Ordinance of the City of Colleyville, Texas, be, and the same is hereby amended by changing the zoning on 26 acres in the Village at Colleyville Addition and Lots 3a and 3b, Block 1, Village Front Door Addition, from the PUD-C-Planned Unit Development Commercial Zoning District to the PUD-C-Planned Unit Development Commercial Zoning District, as depicted in Exhibit "A".

Sec. 3. THAT the above described tract of land shall be used only in the manner and for the purposes provided by the Comprehensive Zoning Ordinance of the City of Colleyville as heretofore amended, and as amended herein.

Sec. 4. THAT Ordinances O-99-1141, O-02-1337.4, O-06-1560 and O-08-1680 are hereby repealed in their entirety.

Sec. 5. THAT the above described tract of land shall be subject to the following conditions:

A. PURPOSE

The purpose of this planned unit development is to encourage

mixed-use, compact development that is sensitive to the environmental characteristics of the land and facilitates the efficient use of services. This planned unit development diversifies and integrates residential and commercial land uses within close proximity to each other and promotes long-term economic sustainability for the City.

B. PUD BOUNDARIES

The properties shown on the attached Zoning Exhibit "A" are zoned PUD-C Planned Unit Development-Commercial district and the Official Zoning Map and Land Development Code of the City of Colleyville, Texas and are hereby amended by the terms of this ordinance.

C. NEIGHBORHOOD AREAS

This Planned Unit Development is hereby divided into two neighborhood areas. The boundaries of the neighborhood areas are shown on the attached Exhibit "B". The neighborhood areas and their symbol designations are described as follows:

Neighborhood Center – The Neighborhood Center area shall serve as the commercial and business focal point of the development with a limited amount of area used for residential purposes. The Neighborhood Center area shall be designated with the letters "NC".

Neighborhood General - The Neighborhood General area shall serve as a secondary area for commercial and business activities of the development and may have a higher percentage of residential dwellings than the Neighborhood Center area. The Neighborhood General area shall be designated with the letters "NG".

D. DEVELOPMENT STANDARDS

Buildings or structures containing any combination of single-family residences and business use listed herein shall be allowed in accordance with the following Development Standards:

1. Permitted Uses – the following permitted uses shall be

allowed within this planned unit development:

a. *Single-family Residences:* Residential units may be either detached or attached, and more than one residence may be located per building site. A building site may also have one ancillary residential structure. An ancillary unit is a residential unit that is accessory to the primary residential unit allowed by this section. Ancillary units shall not be sold separate from the primary unit to which they are connected. For the purpose of this ordinance, a building site is defined as a single building site as identified on the Condominium Exhibit of The Village at Colleyville. The habitable area of the ancillary structure shall not exceed 600 square feet. Within each neighborhood area, the maximum number of residential units on the ground floor of a building shall not exceed the following maximum residential densities:

(1) NC Area: A maximum of 14 of the building sites in the Neighborhood Center area may contain a single-family residence use on the first floor of its building.

(2) NG Area: A maximum of 61 of the building sites in the Neighborhood General area may contain a single-family residence use on the first floor of its building.

(3) A maximum of 75 of the building sites within the boundaries of this PUD-C may contain a single-family residence use on the first floor of its building.

(4) Work/Live Units: A work/live unit is defined as a single unit consisting of both a commercial/office and a residential component that is occupied by the same resident. The work/live unit shall be the primary dwelling of the occupant. Provided compliance with sections 1 through 3 above are met, all lots within this development may contain a work/live unit. Work areas are encouraged to be placed on the ground floor while the living area is encouraged to be placed on upper floor above the work unit.

(5) Not including ancillary units or the units described in subsection 6 below, all residential units shall have a minimum of 1,500 square feet of climate controlled area.

(6) No more than a total of twenty-four (24) residential units may be built with a minimum square footage of 1,000 square feet. Units allowed by this subsection shall not be located on the ground floor of any building.

(7) The method of calculating the square footage of a residential unit within this PUD-C shall not include floor areas used as common area hallways and stairwells, but shall include the climate controlled space of the dwelling unit.

(8) There shall be no residential units located on the ground floor of any building located along Main Street between Cottage Lane and SH26.

(9) Not including ancillary units, defined above, there shall be no more than 200 residential units constructed within this PUD.

b. *Retail:* Retail specialty shops including, but not limited to, the sale of clothing, gifts, antiques, flowers and plants, books, jewelry, music, electronic equipment, computers and software, tobacco and related supplies, crafts, toys, cameras, souvenirs, greeting cards, artwork, furniture, hardware, sporting goods, house and garden supplies, office supplies, leather goods and periodicals.

c. *Service:* Personal service shops including, but not limited to, travel agency, banks, airline ticket office, tailor, barber, beauty salon, spa, health club/fitness center, shoe repair, food catering, dry cleaners, studios for dance, art, music, photography, radio, and television, or similar service uses.

d. *Food and Lodging:* Boutique hotels, bed and breakfast inns, restaurants, cafes, coffee shops, bakeries, butchers, fish markets, delicatessens, ice

cream parlors, cookie stores, grocery stores, drug stores, bagel or doughnut shops, and soda fountain shops.

e. *Entertainment:* Entertainment venues including movie theatres, provided the total number of all movie screens does not exceed four; playhouses, comedy clubs, and jazz/music clubs.

f. *Office:* Business offices including, but not limited to, software design firms, business consulting, security and commodity brokerage, general business offices, real estate sales, insurance sales, advertising, mailing and stenographic services, professional offices for lawyers, engineers, architects, doctors, dentists, psychiatrists, accountants, investment advisors, orthodontists, or other office related businesses.

g. *Educational:* Private schools, and day-care centers.

h. *Mixed-use:* buildings or structures containing any combination of single-family residences and other uses listed herein.

i. *Public/Semi-public:* Buildings or structures owned or operated by the City of Colleyville or The Village Owner's Association. Semi-public uses such as a neighborhood center, pool and related recreational facilities. The lots bounded by Cottage Lane, Village Lane, Veranda Lane and Main Street may be used, either all or in part, as a public plaza including the installation of permanent public amenities such as a fountain and seating area. The purpose of the plaza would be for public gatherings and events.

j. Parking lots.

k. Accessory buildings or uses as defined herein.

l. Any use of a nature similar to the above when granted a Special Use Permit by the Colleyville City Council.

m. Outside sales on the sidewalk of art, antiques, fruit,

vegetables, flowers, plants, gifts and souvenirs.

n. Outdoor seating areas for food, lodging or entertainment uses.

o. Above ground parking garages containing fourteen (14) or fewer parking spaces, underground parking garages, basements, and cellars.

2. Permitted Uses with a Special Use Permit – The following uses may be permitted upon approval of a Special Use Permit by the City Council as provided in the Land Development Code of the City of Colleyville:

a. Food trucks, including outside sales of cooked food and other items not listed in Section E.1 Permitted Uses.

c. Television and appliance repair service shop.

d. Club, lodge or other fraternal organizations.

e. Above ground parking garages containing fifteen (15) or more parking spaces. Any above ground parking garage that fronts a street within the Neighborhood Central (NC) zone shall be allowed only with the approval of a Special Use Permit.

f. Package (liquor) stores

g. Wedding chapel

h. Alcoholic beverage sales for on-premise consumption in conjunction with a restaurant use.

i. Alcoholic beverage sales for off-premise consumption for a grocery store, specialty wine shop or gourmet food store.

j. The Special Use Permit requirements for the alcoholic beverage sales allowed in subsections "h" and "I" above shall not become effective until May 1, 2013.

3. Prohibited Uses – The following uses shall be prohibited within this planned unit development:

a. Drive-through commercial uses where patrons remain in automobiles.

b. Vending machines, except within buildings.

c. Retail uses containing more than 40,000 square feet of floor area per certificate of occupancy.

d. Industrial and manufacturing businesses that create noise, vibration or obnoxious odors.

e. Kennels.

f. Terminals or depots for large-scale storage or distribution of goods.

g. Scrap yards for the processing or storage of waste materials.

h. Automotive repair businesses.

i. Telemarketing office with over 20 employees.

j. Uses not listed herein shall be considered by following the procedures outlined in the Colleyville Land Development Code for new and unlisted uses.

4. General Lot Criteria – See Table 1 below:

Table 1
General Lot Criteria

	Neighborhood General Zone (NG)		Neighborhood Center Zone (NC)	
Lot Dimensions	Min.Area	2,600 s.f.	Min. Area	2,600 s.f.
	Max. Area	5 acres	Max. Area	5 acres
	Min. Lot Coverage	30%	Min. Lot Coverage	45%
	Max. Lot Coverage	90%	Max. Lot Coverage	95%
Setbacks	Front	0' min – 15' max.	Front	0' min – 15' max.
	Side	0' min – 15' max.	Side	0' min – 15' max.
	Rear – Main Bldg.	4' min.	Rear – Main Bldg.	4' min.
	Rear – Accy. Bldg.	4'	Rear – Accy. Bldg.	4'

Height	Max. Height	48 ft. or 3.5 stories	Max. Height	48 ft. or 3.5 stories
	Notes: 1. the one-half story above third floor shall not exceed 400 s.f.			

5. Building Exteriors - The exposed exterior walls of each building must contain 100% masonry. For purpose of this ordinance, masonry shall consist of any combination of brick, stone, faux-stone, or stucco. Non-masonry materials may be utilized for building accents per the requirements of Chapter 6-Building Design in the Land Development Code.

6. Roofing - If a flat roof is constructed, all sides of the building shall have a mansard or built-up parapet wall roof at least four feet (4') in height, which shall simulate the look of a pitched roof from street level. If a roof terrace is constructed, then railings may be used which comply with Section (8) Balconies below.

7. Balconies - Balcony railings must be constructed with wrought iron or masonry balustrades.

8. Building Design Requirements - Articulation of walls shall not be mandatory. Buildings within this planned unit development shall be exempt from Chapter 6 Building Design of the Colleyville Land Development Code.

9. Exterior Building Lighting - Buildings may be lit with wall washer type lights, natural gas lamps, or low wattage decorative electric lamps. Lights shall be placed on buildings in a manner so as to not be a nuisance.

10. HVAC Systems - All air-conditioning condenser units must be hidden from street view or placed on the roof.

11. Backyard Walls - These shall be constructed 100% masonry materials or wrought-iron fencing. Any gates must be constructed of wrought iron.

12. Landscaping – Lots with street frontage within this planned unit development shall, at a minimum, meet the requirements of *Chapter 4 – Landscaping and Buffering*

in the Land Development Code. The owners of the first floor shall plant and maintain the storefront planting area (if applicable) along its street frontage. All sidewalks in the project will have tree planter islands spaced every thirty to thirty-five feet. Approved trees shall include trees allowed for planting in *Chapter 4 – Landscaping and Buffering* in the Land Development Code. A minimum of 25% of the building sites shall be required to install and maintain a 24" wide planting area (at least 8 feet long) in the setback between their building and the sidewalk. The owners of the ground floor levels of these buildings shall be required to plant, irrigate and maintain flowers, vines or shrubs in those areas. In addition, any roof terraces shall contain at least two irrigated, potted shrubs or trees. A landscaped buffer with natural openings shall be provided along the entire length of the northern boundary from City Park to Pleasant Run Road, in lieu of the masonry screening wall. Said landscape buffer shall consist of a row of trees. Trees shall be a minimum of four (4") caliper, spaced at 25' intervals. Trees shall be selected from the list of approved trees contained in *Chapter 4 – Landscaping and Buffering* of the Land Development Code. Fifty percent of said trees shall be Highrise Live Oaks (quercus virginiana). In addition, there shall be a minimum five foot tall wrought iron fence installed along the northern boundary from City Park to Pleasant Run Road, said minimum five foot tall wrought iron fence shall also be installed on top of any retaining wall along the northern boundary line.

13. Awnings – Buildings with commercial uses on the ground level shall install awnings over all windows on the ground level that front public sidewalks, if those buildings contain a residential use above the ground level.

14. Architectural Control Committee - The Property Owner's Association must create an Architectural Control Committee, which shall be funded by the Property Owner's Association. All building exterior specifications, site plans, lighting, signage and landscaping plans must be approved by the Architectural Control Committee prior to approval of a building permit.

15. Limitation on Late Night Hours of Operation – Businesses located within the PUD-C shall close no later than 12:00 midnight on all days except on Friday and Saturday nights where such businesses shall close no later than 2:00 a.m. on Saturday and Sunday mornings respectively.

16. Dumpster Screening – All freestanding dumpsters shall be screened on all four sides with an opaque closure measuring to a height at least six (6) inches above the top of the dumpster. A dumpster located in an alley on the perimeter of the project shall be screened from view on all sides with an opaque enclosure or building niche measuring at least six (6) inches above the top of the dumpster. The enclosure and/or building niche shall be constructed of material that matches the building.

17. Fire Prevention – All buildings within this PUD-C shall be equipped with fire detection and suppression systems as required and approved by the City of Colleyville Fire Marshal. Said systems shall be maintained and inspected as required by the Fire Marshal.

E. ENCROACHMENTS AND USE OF PUBLIC RIGHT-OF-WAY

Due to the unique nature of this planned unit development, the encroachments of buildings and architectural features into the public right-of-way and certain uses within the public right-of-way, stated herein in Section E.1, shall be allowed within this planned unit development and shall be exceptions to the requirements of the Land Development Code. All encroachments, including temporary structures, must maintain a forty-eight (48") inch pedestrian right-of-way and comply with all other ADA regulations.

1. Encroachments below grade - Approval by the Director of Public Works of a Right-of-way Permit is required for any building encroachments below grade. All encroachments shall not exceed eighteen (18") inches.

2. Encroachments of architectural features above grade - Approval by the Building Inspection Department is required for any encroachment of architectural features above grade, provided such encroachments comply with

the standards contained in the following table and local building and fire codes:

Right-of-way Encroachment Standards	
Type of Encroachment	**Maximum Allowable Encroachment**
Bay Windows	18 inches with max. 7 foot length, 3 feet min. spacing & one bay window per 15 feet of site frontage
Awnings & canopies	80% of sidewalk width, 8 feet clearance over pedestrian area & 14 feet clearance over vehicle area
Signs	66% of sidewalk width, 8 feet clearance over pedestrian area & 14 feet clearance over vehicle area
Lights	If the light encroaches 12 inches or less, it may be mounted at any height on the building façade. From 8 feet to 11 feet above grade, one additional inch of encroachment shall be required for each inch of clearance above 8 feet, not to exceed 48 inches of encroachment. Encroachments over 12 inches require 8 feet clearance over pedestrian areas & 14 feet clearance over vehicle areas, and shall not encroach beyond 48 inches
Eaves, cornices and balconies	From 8 feet to 15 feet above grade, one inch of encroachment for each inch of clearance above 8 feet not to exceed 48 inches of encroachment. Encroachments 15 feet or more above grade shall have 8 feet of clearance over pedestrian area & 14 feet clearance over vehicle area and shall not encroach beyond 6 feet

3. Temporary structures in public right-of-way – The temporary use of sidewalk areas located within a public right-of-way shall be allowed for the following types of temporary structures: planter boxes, benches, sandwich board signs, retail merchandise, and four (4) tables with chairs. Use of the public right-of-way for retail merchandise shall be limited to business hours.

4. Outdoor Eating Areas on public sidewalks – The use of a public sidewalk as an outdoor eating area containing more than four tables shall only be permitted with administrative approval of the Community Development Director.

F. SUPPLEMENTAL REQUIREMENTS

This planned unit development shall comply with the following supplementary requirements:

1. Open Space Requirements - This development shall provide open space areas as shown on the attached Exhibit "C" in lieu of any other open space requirements of the Colleyville Land Development Code.

2. Park Land Dedication Fees – Payment of Park Land Dedication Fees at the rate applicable at the time of building permit shall be due and payable when a building permit is issued for each non-residential structure or primary single-family dwelling unit.

3. Street Right-of-Way Widths – These shall be established upon approval of the Final Plat using the street and alley design standards contained in Paragraph 7 below.

    a. Not later than 90 days from the date of approval of this ordinance , the developer shall convey to the City at no cost all necessary right-of-way to accommodate the roadway widening for the portion of Mission Lane located between Pleasant Run Road and Lot 1, Block 1 of the Village Front Door Addition such that said portion of the roadway can accommodate two-way automobile traffic. The final determination of the amount of right-of-way needed shall be performed by the Public Works Director. The sidewalk width requirements of Section 5(F)4 shall not apply to the portion of Mission Lane addressed in this section, specifically as it relates to the widening of the street.

4. Sidewalks – Sidewalks shall be required for all lots in this development. Where no sidewalks exist as of the passage of this ordinance, any new sidewalks constructed shall be a minimum of ten feet in width and shall comply with the Americans with Disabilities Act.

5. Garages/Accessory Buildings - The walls of the buildings shall be 100% masonry, constructed of similar materials as the building on the same building site and shall cover no more than 20% of the building site area, and they

may be connected to the main building by an enclosed walkway. These buildings shall comply with all other requirements in this ordinance.

6. Advertising Signs – Buildings may contain the following types of signs:

a. Wall Signs - The size of a wall sign shall be limited to the size of the building wall it is attached to: either 10 percent of the wall area or 1.5 square feet for each linear foot of the building's wall, whichever is less.

b. Projecting Signs - These may not exceed 20 square feet in size, with a clearance of at least eight feet above ground level.

c. Awning Signs - Individual letters on awning signs shall not exceed 12 inches in height.

d. None of the above signs shall be internally lit. These signs may be front-lit with lights that do not create an unreasonable glare on adjacent buildings.

e. Window Signs – Food and Lodging and Entertainment uses may use internally lit window signs (made of decorative neon) inside of their businesses. Any business shall be limited to a maximum of two window signs. Internally lit box signs are permitted.

f. Grand Opening Signs – When a certificate of occupancy has been issued for a new business and within one (1) year thereafter, one (1) Grand Opening Sign permit shall be allowed to advertise the new business. A Grand Opening Sign permit shall not be valid for more than sixty (60) days. No permit fee shall be required for a Grand Opening Sign permit. Only one grand opening sign may be placed at this location at any given time.

g. State Highway 26 (SH26) Off-Premise Signage – Businesses located within this development may place one temporary sign along SH26. Not more than two businesses may place a sign allowed by this section at any one time at this location. The signs must meet all

permitting and time restrictions for temporary business signs in the Land Development Code.

h. The signage authorized by sections f and g above shall be located at the southwest corner of Main Street and SH26 along SH26 with the permission of the property owner. The signs shall not be placed within any right-of-way and shall meet the visibility requirements stated in Chapter 7-Sign Regulations of the Land Development Code. Said signage shall not exceed eight (8) feet in height and eight (8) feet in width and shall not exceed 64 square feet in area. Said signage shall be composed of metallic material with the sign(s) message either painted on or wrapped over the metallic surface of the sign(s) as allowed by the Community Development Director. The sign(s) shall be affixed to a masonry or decorative metal support column on both sides.

i. Sandwich Board (A-Frame) Signs – One (1) temporary Sandwich Board sign shall be allowed per business, provided such sign does not exceed forty-eight inches (48") high and thirty-six inches (36") wide and is located in front of the business site. Sandwich Board Signs may be placed in front of another business site with the approval of that business owner. For the purpose of this regulation, Sandwich Board signs shall include easels and podiums.

7. <u>Street and Alley Design</u>

a. Two-way Street - The cross-section of the typical village street shall be comprised of twenty-four feet of drive lanes (two, twelve-foot lanes); two, seven-foot parallel parking spaces; and a ten-foot sidewalk on each side of the street. The total public right-of-way shall not be less than fifty-eight (58) feet wide.

b. One-way Street - A cross-section of a typical one-way street shall contain an eighteen-foot drive lane, one seven-foot parallel parking space and sidewalks ten (10) feet in width. The public right-of-way for a one-way street shall not be less than forty-five (45) feet.

c. Alley - The cross section of the typical alley shall

contain twelve feet of pavement with green space on each side. The alley right-of-way width shall not be less than twenty (20) feet.

8. Public Area Landscaping – Public parks in the project shall be landscaped and irrigated according to plans approved by the City of Colleyville.

G. AMENITIES

1. Parks and Playgrounds - All or portions of certain lots identified on the project site plan must be set aside for public parks, meeting areas and playgrounds.

2. Sidewalk Amenities - Besides the trees and other landscaping, sidewalks may be constructed to contain the following amenities: bicycle racks, benches, bulletin boards, drinking fountains, underground electric outlets for sidewalk vendors, chess and checkers tables, and water fountains. All amenities shall be maintained by the Village Owner's Association.

3. Street Lights - The street lights may be either gas or electric and shall be installed on the sidewalks and be of a style which compliments that architectural style of the project's buildings. The final location and number shall be determined and approved by the Public Works Director.

4. Walking Paths - Certain paths in front of some lots and building sites will be for pedestrian and bicycle use only. These paths shall range from eight to twenty feet in width and shall be constructed of brick, stone and/or concrete.

5. Street Signs – Street signs may be attached on the appropriate buildings at each intersection. The signs, if attached, shall be placed fifteen (15) feet above street level and shall be front lit with a decorative lighting fixture. The signs shall contain eight-inch letters.

H. PARKING REQUIREMENTS

The parking requirements for this planned unit development shall be as follows and subject to review when the project is 50% complete:

1. Parking spaces shall consist of a combination of parking spaces provided on the street, on each building site, within a parking garage or in an open parking lot. Approximately thirty (30) percent of the parking requirements will be provided on the streets as streets are constructed within the development. The remaining seventy (70) percent of the parking requirements shall be provided as building permits are issued for each structure in accordance with the following requirements:

   a. Residential Uses – The parking requirements for residential units shall be as follows:

   (1) Ground floor – when a primary residence is located on the ground floor, two (2) parking spaces shall be provided on the same building site as the dwelling unit and one additional on-site parking space if the building site contains an ancillary residential unit.

   (2) Upper floor – when a primary residence is located on an upper floor, two (2) parking spaces shall be provided either on the same building site as the residence or in a parking lot or parking garage located within 400 feet of the residence. Said parking spaces shall not have been used in calculating parking needs for any other residence or use within the planned unit development.

   b. Non-Residential Uses (includes work/live units) – The parking requirements for non-residential uses shall be at a ratio of one (1) parking space per 400 square feet of floor area. Parking spaces shall either be located on the building site, in a parking lot, or in a parking garage. Said parking lot or parking garage shall be located within 400 feet of the use requiring the parking space. Said parking spaces shall not have been used in calculating the parking needs for any other use within the planned unit development.

c. Public Parking - Public parking lots and parallel parking spaces shall be located as shown on the attached Exhibit "C". All public parking shall be free of charge. Overnight parking shall be allowed. Any modification to the current configuration of parallel parking shall be approved specifically by site plan approval by the City Council.

d. 45 degree Angled Public Parking

(1) 45 degree angled public on-street parking spaces shall be allowed along both sides of Main Street between Village Lane and Pleasant Run Road.

(2) There shall be a minimum unobstructed pavement width of 28 feet maintained on Main Street between Village Lane and Pleasant Run Road.

(3) These spaces shall meet the minimum design specifications for parking spaces as stated in Section 3.29.1 – Parking Space Construction Standards in the Land Development Code, except where amended herein.

(4) No parking spaces may be placed such that a vehicle backing out of said space would impede the flow of traffic and/or create a threat to public safety within a street intersection.

I. PROPERTY OWNERS ASSOCIATION

Each property owner in the project shall be a member of the owners' association which shall collect quarterly fees from each property owner for payment for the following common services: landscaping, Village promotions and events, cleaning, security, marketing, architectural control and project administration. If a Village property owner fails to timely pay its association fees, the owners association's declaration of covenants shall enable it to file a lien against that owner's property.

J. CITY/DEVELOPER AGREEMENT

Not later than one year from the approval date of this ordinance, an amended city/developer agreement shall be approved by the City Council for this development between the City and the "developer" and/or their assigns, transferee(s) or designee(s) listed on the current, approved agreement. Said agreement shall, at a minimum, amend and repeal all previous city/developer agreements related to this development by creating a single updated new agreement. Failure to meet this requirement within the specified time frame shall be considered a violation of the terms of this ordinance on the part of the current named "developer", their assigns, transferee(s) or designee(s).

Sec. 6. THAT any person, firm or corporation violating any of the provisions or terms of this ordinance shall be subject to the same penalty as provided for in the Comprehensive Zoning Ordinance of the City of Colleyville, and upon conviction shall be punishable by a fine not to exceed the sum of Two Thousand Dollars ($2,000.00) for each offense.

Sec. 7. THAT if any section, paragraph, subdivision, clause, phrase or provision of this ordinance shall be judged invalid or unconstitutional, the same shall not affect the validity of this ordinance as a whole or any portion thereof other than that portion so decided to be invalid or unconstitutional.

Sec. 8. THAT in addition to and accumulative of all other penalties, the City shall have the right to seek injunctive relief for any and all violations of this ordinance.

Sec. 9. THAT all provisions of the Land Development Code shall remain in full force and effect, except where amended herein.

Sec. 10. THAT it has been found that there has been a change in conditions in the above described property, it is now necessary that it be given the above zoning classification in order to permit its proper development and in order to protect the public interest, comfort and general welfare, and requires that this ordinance shall take effect immediately from and after its passage.

AND IT IS SO ORDERED.

The first reading and public hearing being conducted on the 4th day of December 2012.

The second reading and public hearing being conducted on the 18th day of December 2012.

PASSED AND APPROVED by the City Council of the City of Colleyville, Texas, on this the 18th day of December 2012.

ATTEST:

Cynthia Singleton, TRMC, CMC
City Secretary

CITY OF COLLEYVILLE

David Kelly
Mayor

APPROVED AS TO FORM AND LEGALITY:

Matthew C. G. Boyle
City Attorney

Exhibit "A" –Location and Zoning Map

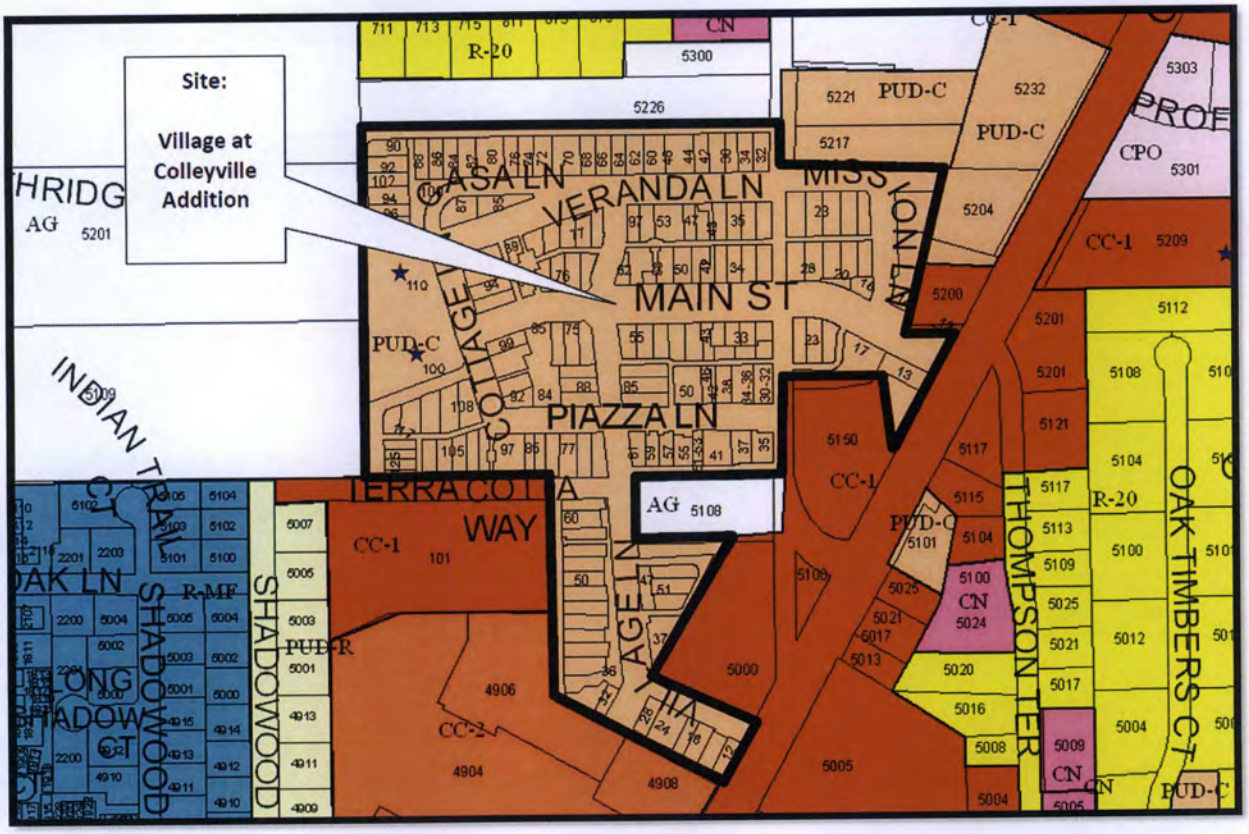


EXHIBIT "B"- Neighborhood Areas

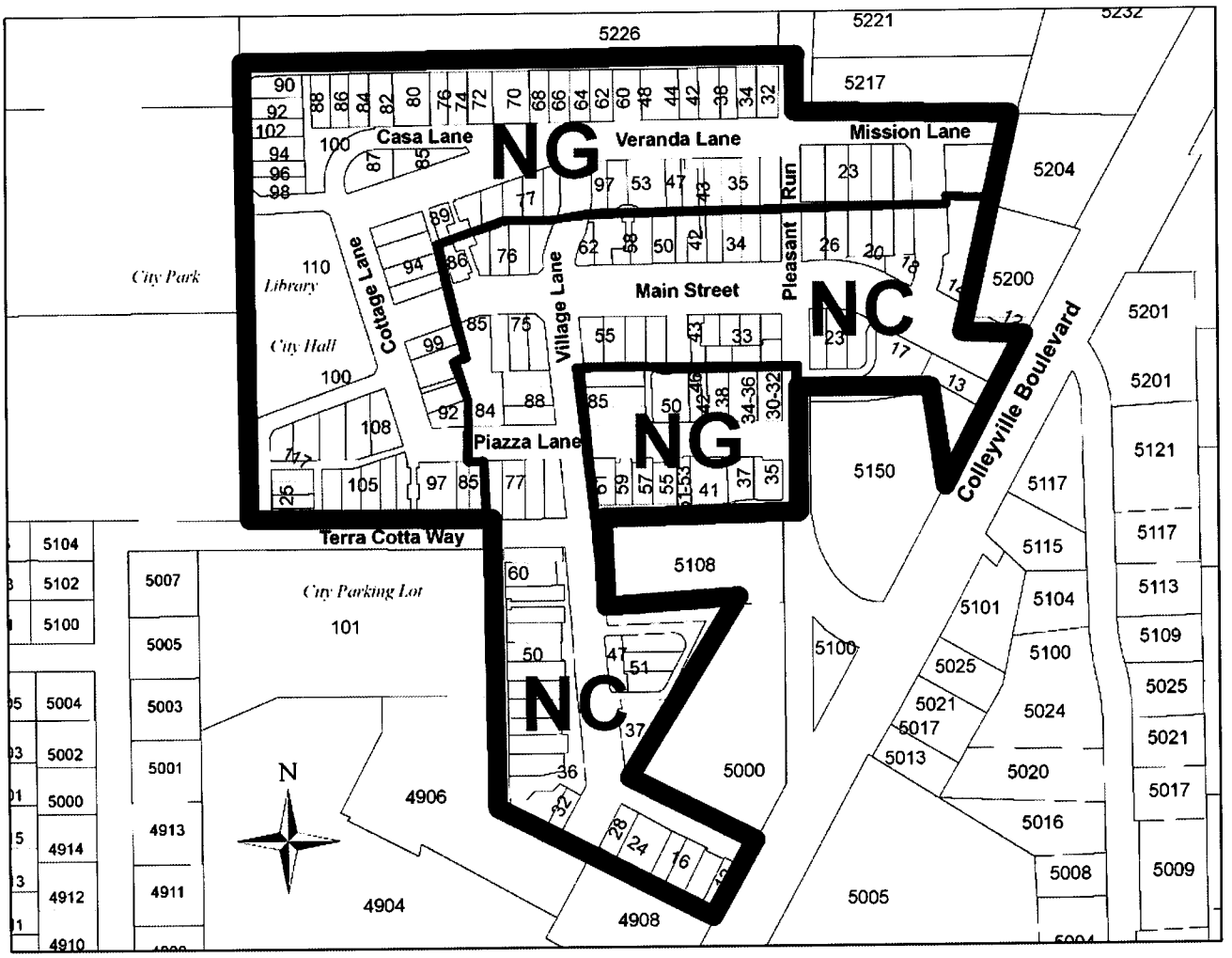
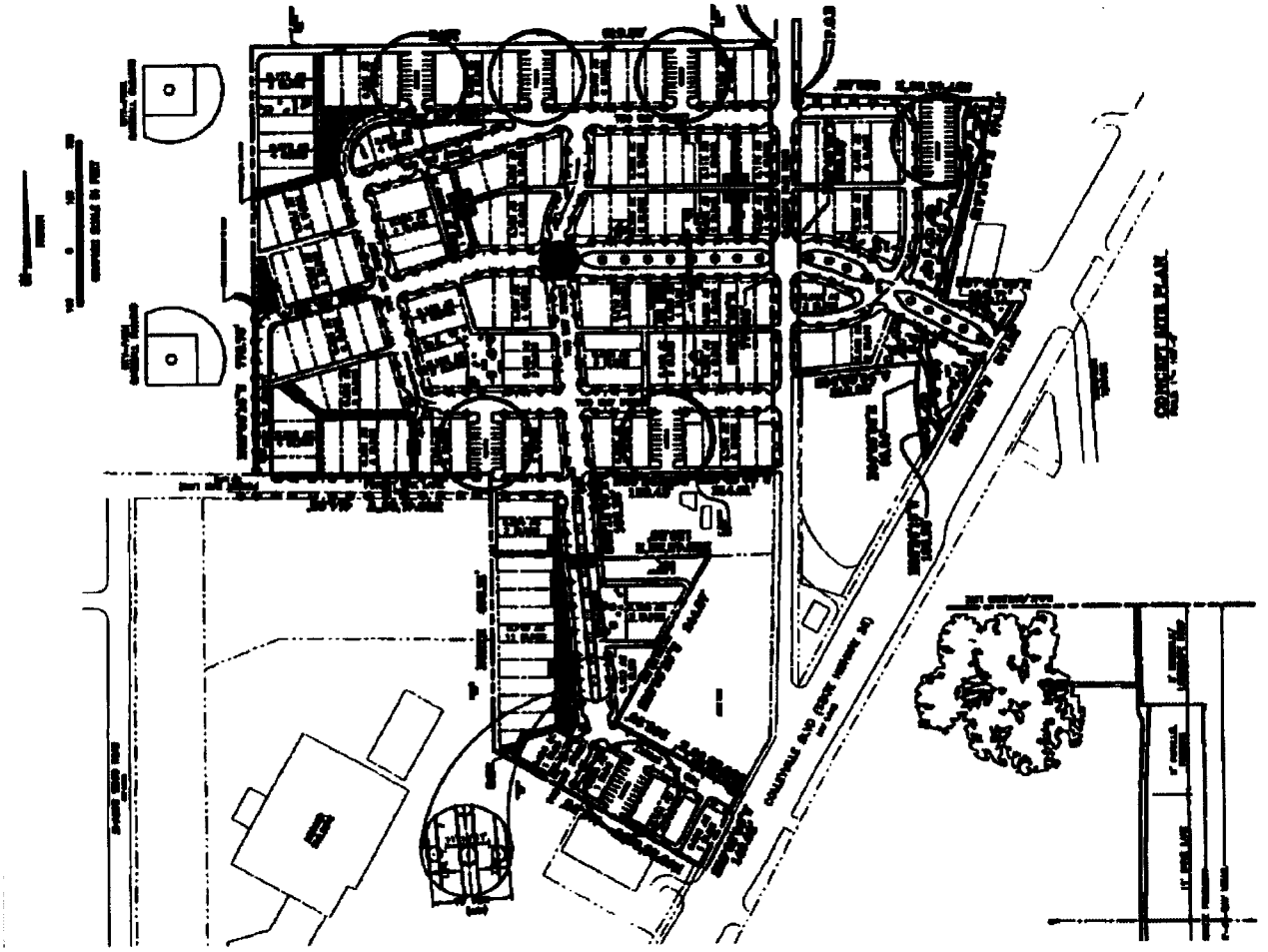


EXHIBIT "C"- Parking and Open Space Areas



ORDINANCE O-15-1971

AMENDING THE ZONING ORDINANCE AND THE OFFICIAL ZONING MAP OF THE CITY OF COLLEYVILLE, TEXAS, BY CHANGING THE ZONING ON .427 ACRES ON LOTS 2, 53, and 54, OF THE VILLAGE AT COLLEYVILLE ADDITION, LOCATED AT 18, 20, AND 26 MAIN STREET FROM THE PUD-C-PLANNED UNIT DEVELOPMENT COMMERCIAL ZONING DISTRICT TO THE PUD-C-PLANNED UNIT DEVELOPMENT COMMERCIAL ZONING DISTRICT, GENERALLY TO AMEND ORDINANCE O-12-1859 TO ALLOW FOR ANGLED PARKING; PROVIDING A PENALTY OF FINE NOT TO EXCEED THE SUM OF TWO THOUSAND DOLLARS ($2,000.00) AND PROVIDING AN EFFECTIVE DATE

WHEREAS, the City of Colleyville has received an application for a rezoning under Case No. ZC15-016; and

WHEREAS, the City of Colleyville deems it necessary, for the purpose of promoting the health, safety, morals, or general welfare of the City to enact a new zoning ordinance; and

WHEREAS, the City Council has appointed a Planning and Zoning Commission to recommend the boundaries of the various original zoning districts and appropriate regulations be enforced therein, and to recommend a new zoning ordinance; and

WHEREAS, the Planning and Zoning Commission has divided the City into districts and has prepared regulations pertaining to such districts in accordance with a comprehensive plan designed to lessen congestion in the streets; to secure safety from fire, panic, and other dangers; to promote health, general welfare; to provide adequate light and air; to prevent the overcrowding of land; to avoid undue concentration of population; to facilitate the adequate provision of transportation, water, sewerage, schools, parks, and other public requirements; and

WHEREAS, the Planning and Zoning Commission, has given reasonable consideration, among other things, to the character of the districts and their peculiar suitability for particular uses, with a view to conserving the value of buildings and encouraging the most appropriate use of land throughout the City; and

WHEREAS, the Planning and Zoning Commission of the City of Colleyville and the City of Colleyville City Council, in compliance with the Charter of the City of Colleyville, and state law with reference to changes to zoning classifications under the Zoning Ordinance

Regulations and Zoning Map, having given the requisite notices by publication and otherwise, and after holding due hearings and affording a full and fair hearing to all the property owners generally, and to the persons interested and situated in the affected area and in the vicinity thereof, the governing body of the City of Colleyville is of the opinion that said change in zoning should be made.

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

Sec. 1. THAT all the foregoing premises and findings are found to be true and correct and are incorporated into the body of this ordinance as if copied in their entirety.

Sec. 2. THAT the Comprehensive Zoning Ordinance of the City of Colleyville, Texas, be, and the same is hereby amended by changing the zoning on .427 acres on Lots 2, 53, and 54, of the Village at Colleyville Addition, located at 18, 20, and 26 Main Street from the PUD-C Planned Unit Development Commercial District to the PUD-C Planned Unit Development Commercial District, generally to amend Ordinance O-12-1859 to allow for angled parking, as depicted in the attached Exhibit "A".

Sec. 3. THAT the Official Zoning Map of the City of Colleyville be amended to incorporate the zoning change approved herein.

Sec. 4. THAT the above described tract of land shall remain subject to the requirements of Ordinance O-12-1859 as amended by the following special ordinance provisions as they amend Ordinance O-12-1859.

Subsection 5. D.12. is hereby amended and replaced as follows:

"12. Landscaping – Lots with street frontage within this planned unit development shall, at a minimum, meet the requirements of *Chapter 4 – Landscaping and Buffering* in the Land Development Code.

a. The owners of the first floor shall plant and maintain the storefront planting area (if applicable) along its street frontage.

b. All sidewalks in the project will have tree planter islands spaced every thirty to thirty-five feet.

c. Approved trees shall include trees allowed for planting in *Chapter 4 – Landscaping and Buffering* in the Land Development Code.

d. A minimum of 25 percent of the building sites shall be required to install and maintain a 24 inch wide planting area (at least 8 feet long) in the setback between their building and the sidewalk. The owners of the ground floor levels of these buildings shall be required to plant, irrigate and maintain flowers, vines or shrubs in those areas. In addition, any roof terraces shall contain at least two irrigated, potted shrubs or trees.

e. A landscaped buffer with natural openings shall be provided along the entire length of the northern boundary from City Park to Pleasant Run Road, in lieu of the masonry screening wall. Said landscape buffer shall consist of a row of trees. Trees shall be a minimum of four (4") caliper inches, spaced at 25 foot intervals. Trees shall be selected from the list of approved trees contained in *Chapter 4 – Landscaping and Buffering* of the Land Development Code. Fifty percent of said trees shall be Highrise Live Oaks (quercus virginiana).

f. In addition, there shall be a minimum five foot tall wrought iron fence installed along the northern boundary from City Park to Pleasant Run Road, said minimum five foot tall wrought iron fence shall also be installed on top of any retaining wall along the northern boundary line.

g. Existing Bald Cypress trees along the northern edge of Main Street, between Mission Lane and Pleasant Run Road, addressed as 18, 20, and 26 Main Street are to be preserved and maintained by the property owners and must meet the following standards:

    i. Should the trees be removed, destroyed, or critically altered within three years of the date of issuance of the building permit for the project at 26 Main Street, they shall be mitigated by replanting the same

number of caliper inches in the parkway along Main Street. If additional space is needed for replanting after the parkway is replanted, the open space area at the northwest corner of Main Street and Mission Lane must be utilized.

ii. The replacement trees shall be of similar size and species to the existing trees to the best of availability. Where these provisions are silent, Chapter 5 (Tree Preservation) of the Land Development Code applies."

Subsection 5. H.1.c. and d. are hereby amended and replaced as follows:

H. Parking Requirements

"c. Public Parking – Public parking lots and parallel parking spaces shall be located as shown on the attached Exhibit "C." All public parking shall be free of charge. Overnight parking shall be allowed. Any modification to the current configuration of parallel parking shall be approved specifically by site plan approval by the City Council. One said site plan has been approved by City Council and is attached as an amendment to this ordinance as Exhibit "C-1."

d. 45 degree angled public on-street parking spaces shall be allowed along both sides of Main Street, between Village Lane and Pleasant Run Road and on the north side of Main Street between Pleasant Run Road and Mission Lane."

Sec. 5. THAT the above described tract of land shall be used only in the manner and for the purposes provided by the Comprehensive Zoning Ordinance of the City of Colleyville as heretofore amended, and as amended herein.

Sec. 6. THAT any person, firm, or corporation violating any of the provisions or terms of this ordinance shall be subject to the same penalty as provided for in the Comprehensive Zoning Ordinance of the City of Colleyville, and upon conviction shall be punishable

by a fine not to exceed the sum of Two Thousand Dollars ($2,000.00) for each offense.

Sec. 7. THAT if any section, paragraph, subdivision, clause, phrase, or provision of this ordinance shall be judged invalid or unconstitutional, the same shall not affect the validity of this ordinance as a whole or any portion thereof other than that portion so decided to be invalid or unconstitutional.

Sec. 8. THAT in addition to and accumulative of all other penalties, the City shall have the right to seek injunctive relief for any and all violations of this ordinance.

Sec. 9. THAT it has been found that there has been a change in conditions in the above described property, it is now necessary that it be given the above zoning classification in order to permit its proper development and in order to protect the public interest, comfort, and general welfare, and requires that this ordinance shall take effect immediately from and after its passage.

AND IT IS SO ORDERED.

The first reading and public hearing being conducted on the 5th day of October 2015.

The second reading and public hearing being conducted on the 20th day of October 2015.

PASSED AND APPROVED by the City Council of the City of Colleyville, Texas, on this the _____ day of _____ 2015.

ATTEST: **CITY OF COLLEYVILLE**

Amy Shelley, TRMC
City Secretary

David Kelly
Mayor

APPROVED AS TO FORM AND LEGALITY:

Matthew C. G. Boyle
City Attorney

Exhibit A –Location and Zoning Map

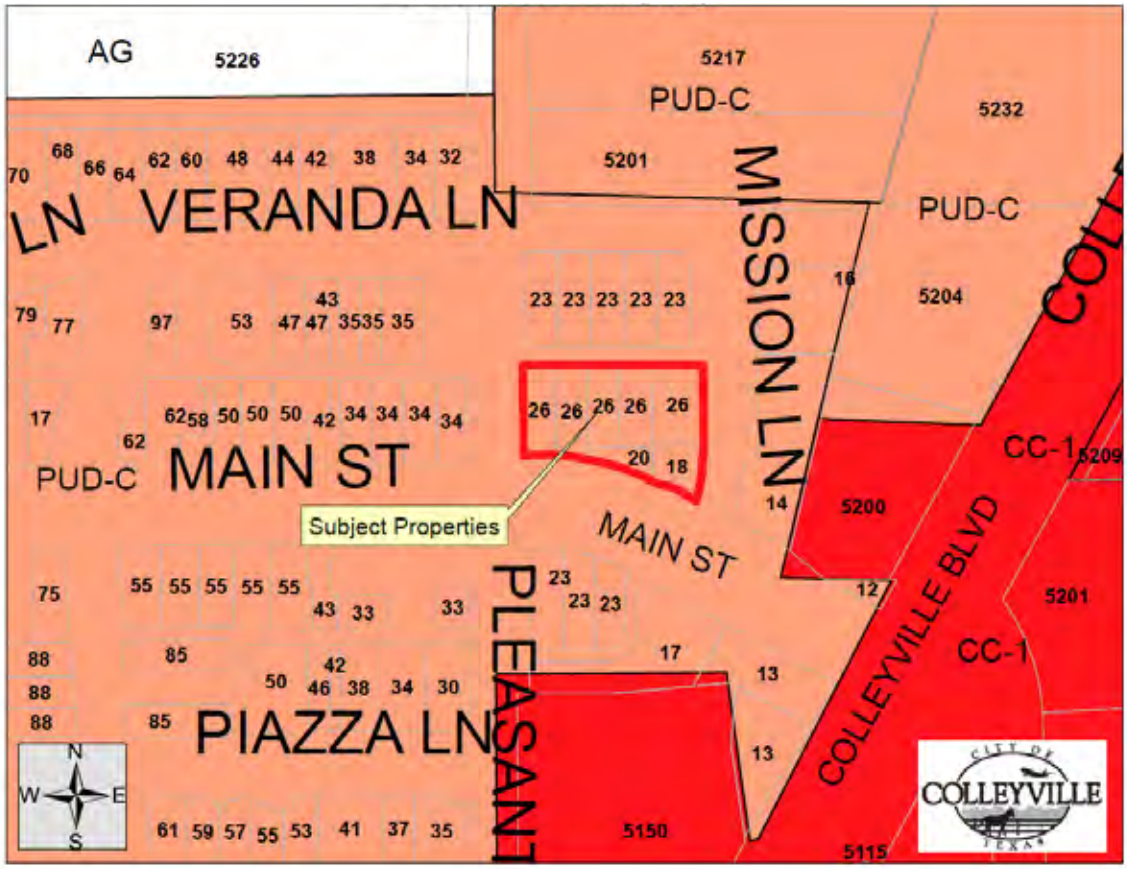
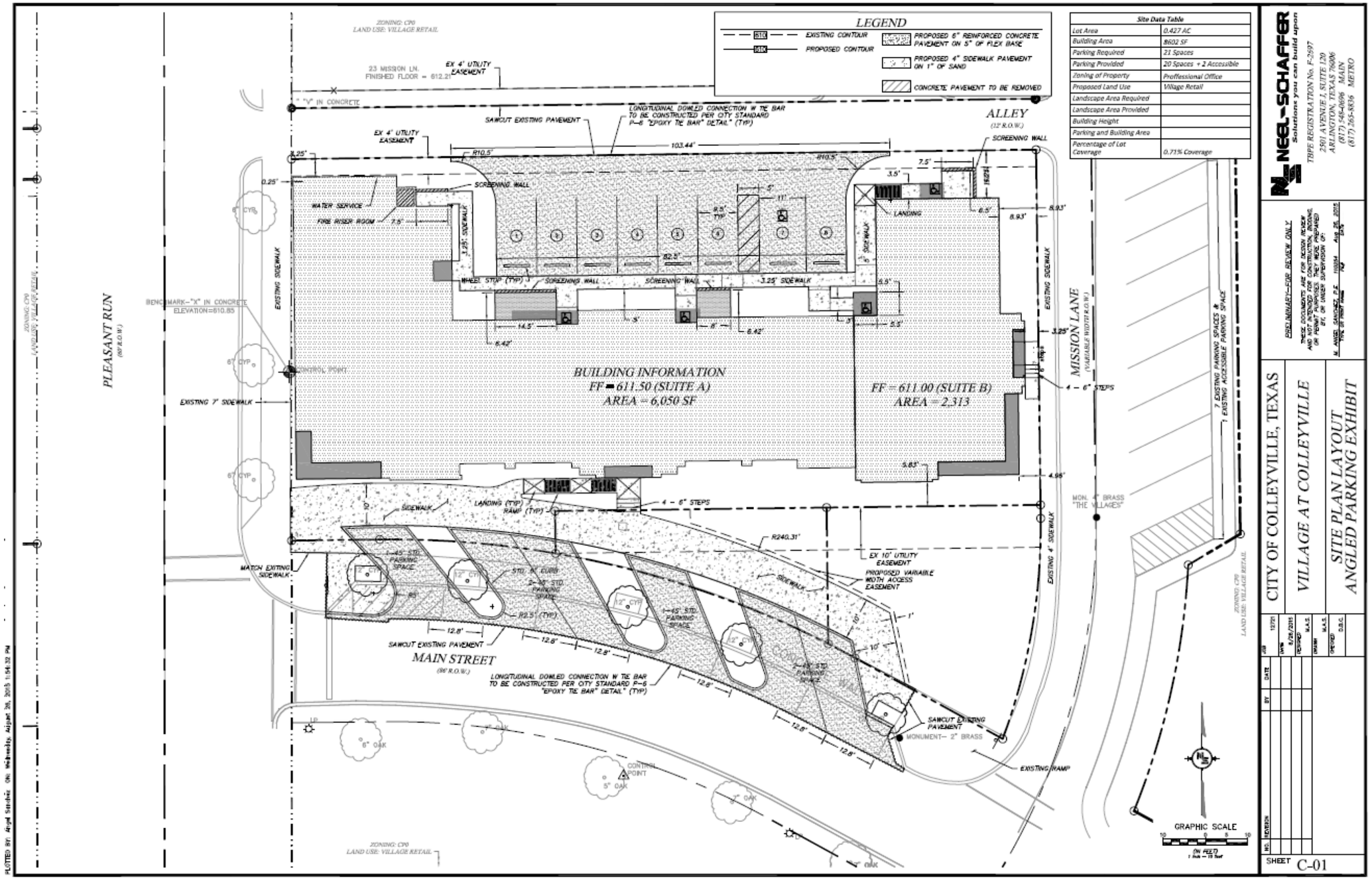


Exhibit C-1 – Site Plan Exhibit



City of Colleyville
City Council
Agenda Briefing

City Hall
100 Main Street
Colleyville, Texas 76034
www.colleyville.com

Agenda Number 6a **Agenda Date** 10/20/2015 **Number** Resolution R-15-3922
Type Resolution
Department City Secretary

Title
Consideration of an appointment to the Colleyville Tree Board

Strategy Map Connection
B4- Cultivate a culture of transparency and consistent communication

Explanation
Reading and Public Hearing

The Colleyville Tree Board consists of representatives from the Parks and Recreation Advisory Board and the Keep Colleyville Beautiful Committee and/or the Colleyville Garden Club, and the terms run concurrent with the members' terms on such.

On the attached letter dated September 24, 2015, the Keep Colleyville Beautiful Committee recommended the appointment of Mr. Ryan Milakovich to the Colleyville Tree Board to fulfill the vacancy created by Nancy Coplen when she was elected to City Council in May. This term will expire in December 2015. Staff anticipates this Board meeting in either October or November; therefore, this vacancy needs to be filled.

Resolution R-15-3922 provides for City Council to accept the Keep Colleyville Beautiful Committee recommendation to fill this vacancy until December 2015.

Financial Impact
There is no financial impact to the City.

Recommendation
Approve

Attachments
1. Colleyville Tree Board roster
2. Keep Colleyville Beautiful Committee Recommendation Letter
3. Resolution R-15-3922

Colleyville Tree Board

Keep Colleyville Beautiful Representative vacant TERM: March 2014-December 2015	Keep Colleyville Beautiful Representative Natalie Genco 1104 John McCain Colleyville, TX 76034 P: 817.421.6828 nataliegenco@gmail.com TERM: March 2014-December 2015
Keep Colleyville Beautiful Representative Brenda Ritz 6700 Colleyville Boulevard Colleyville, TX 76034 P: 817.689.0844 BrendaRitz@me.com TERM: March 2014-December 2015	Parks and Recreation Representative Michelle McGarry 4912 Prestwick Drive Colleyville, TX 76034 P: 214.449.8155 mlamontagne15@hotmail.com TERM: Jan 2015 – Dec 2016
Parks and Recreation Representative Ajit Purandare 1109 Riverwalk Court Colleyville, TX 76034 W: 202.361.7674 P: 628.325.4172 apurandoc@aol.com TERM: Mar 2014 – Dec 2015	Parks and Recreation Representative Hillary Schwanbeck 5816 Quality Hill Colleyville, TX 76034 W: 817.552.7302 P: 832.656.4977 hillary.schwanbeck@gmail.com TERM: Jan 2015 – Dec 2015

Amy Shelley

Subject: FW: Tree Board recommendation

-----Original Message-----
From: BRENDA RITZ
Sent: Thursday, September 24, 2015 4:46 PM
To: James Hubbard
Subject: Tree Board recommendation

Mr. James Hubbard:

As Chairman of Keep Colleyville Beautiful I would like to recommend Ryan Milakovich to serve on the Colleyville Tree Board with the approval of council and/or the powers that be. He is a responsible citizen with regards for our fine city.

Thank You,
BRENDA RITZ
KCB Chairman

RESOLUTION R-15-3922

A RESOLUTION APPOINTING A MEMBER TO
THE COLLEYVILLE TREE BOARD

WHEREAS, the Colleyville Tree Board consists of representatives from the Parks and Recreation Advisory Board and the Keep Colleyville Beautiful Committee and/or the Colleyville Garden Club; and

WHEREAS, the Keep Colleyville Beautiful Committee recommends the appointment of Mr. Ryan Milakovich to fill an unexpired term to December 2015.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF COLLEYVILLE, TEXAS:

Sec. 1. THAT the City Council hereby appoints the following person to the Colleyville Tree Board to fill an unexpired term to December 2015:

•

AND IT IS SO RESOLVED.

APPROVED BY A VOTE OF ____ AYES, ____ NAYS, AND ____ ABSTENTIONS THIS THE 20TH DAY OF OCTOBER 2015.

ATTEST: CITY OF COLLEYVILLE

Amy Shelley, TRMC
City Secretary

David Kelly
Mayor

City of Colleyville
City Council
Agenda Briefing

City Hall
100 Main Street
Colleyville, Texas 76034
www.colleyville.com

Agenda Number 6b **Agenda Date** 10/20/2015 **Number** Resolution R-15-3923
Type Resolution
Department Fire

Title
Approval of a Master Tax-Exempt Lease/Purchase Agreement with Leasing 2, Inc., for the lease/purchase of a 2016 Pierce Fire Engine, in an amount not to exceed $485,000

Strategy Map Connection
F2- Invest to provide and maintain high quality public assets
C5- Achieve the highest standard of safety and security

Explanation
Reading and Public Hearing

On September 15, 2015, City Council approved attached Ordinance O-15-1967, adopting the Fiscal Year 2016 (FY 2016) budget. The FY 2016 budget allows a $125,000 payment from the Debt Service Fund for the purchase of a new 2016 Pierce Fire Engine, in the amount of $541,073, after prepay and trade-in discounts, through the Houston-Galveston Area Council of Governments (HGAC). This fire apparatus will replace an existing Pierce 65' Lance Telesquirt. The purchase price includes the retirement and trade-in of the Pierce 65' Lance Telesquirt for $17,000, which City Council was asked to approve earlier on this agenda under Consent Resolution R-15-3921.

In order to receive favorable financing at an interest rate of 2.883%, and prepayment discounts, the prepayment funding of $125,000 was allocated from the Debt Service Fund. The lease/purchase agreement is for a period of ten years, beginning October 12, 2016. The payments over the ten year period total $484,489.40 ($416,073 principal / $68,776.40 interest). The City Attorney has reviewed the attached Mater Tax-Exempt Lease-Purchase Agreement.

Financial Impact
The first year lease down payment is included in the FY 2016 Debt Service Fund budget in the amount of $125,000. The subsequent annual payments of $48,484.94 will be paid from the Debt Service Fund budget.

Recommendation
Approve

Attachments
1. Ordinance O-15-1967

2. Siddons-Martin Emergency Group proposal for Pierce pumper dated September 28, 2015
3. Pierce Proposal Option List for Pierce pumper
4. Proposal for Impel Pumper
5. Master Tax-Exempt Lease/Purchase Agreement
6. Resolution R-15-3923

ORDINANCE O-15-1967

AN ORDINANCE BY THE CITY COUNCIL OF THE CITY OF COLLEYVILLE, TEXAS, APPROVING AND ADOPTING THE ANNUAL BUDGET FOR THE CITY OF COLLEYVILLE, TEXAS, FOR THE FISCAL YEAR BEGINNING OCTOBER 1, 2015 THROUGH SEPTEMBER 30, 2016, A COPY OF SAME BEING ON FILE IN THE OFFICE OF THE CITY SECRETARY, TO BECOME EFFECTIVE ON OCTOBER 1, 2015

WHEREAS, in compliance with Article 689a-14, Vernon's Texas Civil Statutes, the city manager did file with the city secretary, a copy of the budget of the proposed expenditures for the fiscal year beginning October 1, 2015, and ending September 30, 2016, such filing being more than thirty (30) days prior to the date on which the City Council makes its tax levy for said fiscal year; and

WHEREAS, all statutory and constitutional requirements for the passage of this ordinance have been adhered to, including but not limited to the Open Meeting Act; and

WHEREAS, the City Council determines that the passage of this ordinance is in the best interests of the health, safety and welfare of the public.

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

Sec. 1. THAT all matters stated hereinabove are found to be true and correct and are incorporated herein by reference as if copied in their entirety.

Sec. 2. THAT the budget of the proposed expenditures for the fiscal year beginning October 1, 2015, and ending September 30, 2016, which was prepared by the city manager, a copy of which is on file in the Office of the City Secretary, is hereby made a part of this ordinance by reference and is hereby approved and adopted by the City Council of the City of Colleyville, Texas, as the official budget for the fiscal year beginning October 1, 2015, and ending September 30, 2016.

Sec. 3. THAT appropriation amounts for the Fiscal Year 2016 budget for the different funds of the City of Colleyville are hereby fixed as follows:

General Fund	$23,977,370
Utility Fund (Water & Wastewater)	$15,886,362
Debt Service Fund	$ 1,461,593
Drainage Utility Fund	$ 917,997

Sec. 4. THAT the expenditure budget for the Fiscal Year 2016 Capital Improvement Program (CIP) of the City of Colleyville is hereby approved as follows:

Fiscal Year 2016 CIP	$41,935,940

Sec. 5. THAT the city manager is hereby authorized to execute all contracts and documents for which funding is appropriated in the aforementioned budgets.

AND IT IS SO ORDERED.

The first reading and public hearing being conducted on the 1st day of September 2015.

The second reading and public hearing being conducted on the 15th day of September 2015.

PASSED, APPROVED and ADOPTED BY THE CITY COUNCIL OF THE CITY OF COLLEYVILLE, TEXAS, THIS THE 15th DAY OF September 2015, BY THE FOLLOWING VOTE:

David Kelly	Aye	Carol Wollin	Aye
Chuck Mogged	Aye	Chris Putnam	— ABSENT —
Jody Short	Aye	Nancy Coplen	Aye
Mike Taylor	Aye		

ATTEST:

Amy Shelley, TRMC
City Secretary

CITY OF COLLEYVILLE

David Kelly
Mayor

APPROVED AS TO FORM AND LEGALITY:

Matthew C. G. Boyle
City Attorney

Ben L. Stool
Ass't City Attorney
Boyle & Lowry, LLP

3500 Shelby Lane
Denton, Texas 76207
GDN P115891
TXDOT MVD No. A115890
EIN 27-4333590

September 28, 2015

Nick Cushing, Lt.
Colleyville Fire Department
5209 Colleyville Blvd
Colleyville TX 76034

RE: Proposal for Pierce pumper

Siddons-Martin Emergency Group, LLC is pleased to provide the following proposal to Colleyville Fire Department. Unit will comply with all specifications attached and made a part of this proposal. Total price includes delivery FOB Colleyville Fire Department and training on operation and use of the apparatus.

Description		Amount
300205-499 Pierce pumper Pierce, Impel, Pumper, ISL9 450hp Price guaranteed for 30 days. Delivery within 9-10 months of order date.	Vehicle Price	$ 571,379.00
Chassis Prepay Discount **($ 8,635.00). $ 287,842.00** due with order.	Prepay Discount	($ 8,635.00)
Full Prepay Discount **($ 14,671.00).** Total amount due with order.	Prepay Discount	($ 14,671.00)
	Equipment	$ 8,000.00
	Trade-In	($ 17,000.00)
	SUB TOTAL	**$ 539,073.00**
	H-GAC FS12-13	$ 2,000.00
	TOTAL	**$ 541,073.00**

Additional. Trade-In vehicle of Pierce 65 Lance Telesquirt is due upon delivery of new unit to Colleyville FD with time to remove and replace equipment on new pumper as negotiated by the fire department and sales representative.

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 TX. 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,

Travis Ownby
Siddons-Martin Emergency Group, LLC

I, _____, the authorized representative of Colleyville Fire Department, agree to purchase the proposed and agree to the terms of this proposal and the specifications attached hereto.

_____
Signature & Date

Proposal Option List

9/28/2015

Customer:	Colleyville FD	**Bid Number:**	499
Representative	Ownby, Travis	**Job Number:**	
Organization:	Siddons-Martin Emergency Group	**Bid Date:**	01-29-2015
Requirements Manager:		**Stock Number:**	
Description:	Impel Colleyville dup 27717	**DBVersion:**	02.00.0675.0000
Body:	Pumper, Med, Alum, 2nd Gen		
Chassis:	Impel Chassis		

Line	Option	Type	Option Description	Qty
1	0010012		No Boiler Plates requested	1
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	0533316		Comply NFPA 1901 Changes Effective Jan 1, 2009, With Exceptions	1
7	0533347		Pumper/Pumper with Aerial Device Fire Apparatus	1
8	0588611		Vehicle Certification, Pumper	1
9	0661778		Agency, Apparatus Certification, Pumper/Tanker, U.L.	1
10	0008036		Career/Paid Department	1
11	0537375		Unit of Measure, US Gallons	1
12	0529326		Bid Bond, 10%, Pierce Built Chassis	1
13	0050066		Performance Bond, 100% Req'd (Statement by Rep)	1
14	0000007		Approval Drawing	1
15	0002928		Electrical Diagrams	1
16	0597579		Impel Chassis, 2010	1
17	0000110		Wheelbase	1
			Wheelbase - 209.00"	
18	0000070		GVW Rating	1
			GVW rating - 43,500#	
19	0000203		Frame Rails, 13.38 x 3.50 x .375, Qtm/AXT/Imp/Vel/DCF	1
20	0020018		Frame Liner Not Req'd	1
21	0508848		Axle, Front, Oshkosh TAK-4, Non Drive, 19,500 lb, Imp/Vel	1
22	0030264		Suspension, Front TAK-4, 19,500 lb, Qtm/AXT/Imp/Vel/Dash CF/Enf	1
23	0087572		Shock Absorbers, KONI, TAK-4, Qtm/AXT/Imp/Vel/DCF/Enf	1
24	0000322		Oil Seals, Front Axle	1
25	0594821		Tires, Front, Goodyear, G296 MSA, 425/65R22.50, 20 ply	1
26	0019611		Wheels, Front, Alcoa, 22.50" x 12.25", Aluminum, Hub Pilot	1
27	0530464		Axle, Rear, Meritor RS24-160, 24,000 lb, Imp/Vel/Dash CF	1
28	0544253		Top Speed of Vehicle, 68 MPH	1
29	0122076		Suspen, Rear, Standens, Spring, 24,000 lb, Imp/Vel/Dash CF	1
30	0000485		Oil Seals, Rear Axle	1
31	0587216		Tires, Rear, Goodyear, G622 RSD, 12R22.50, 16 ply, Single	1
32	0019625		Wheels, Rear, Alcoa, 22.50" x 8.25", Aluminum, Hub Pilot, Single	1
33	0568081		Tire Balancing, Counteract Beads	1
34	0545391		Tire Pressure Monitoring Valve Cap	1
			Qty, Tire Pressure Ind - 6	
35	0003245		Axle Hub Covers w/center hole, S/S, Front Axle	1
36	0001960		Axle Hub Covers, Rear, S/S, High Hat (Pair)	1
37	0002045		Mud Flaps, w/logo front & rear	1
38	0532930		Chocks, Wheel, Pumper, NFPA, Provided by Fire Department	1
39	0544690		Mounting Brackets, Chocks, Provided by Fire Department	1
40	0010670		ABS Wabco Brake System, Single rear axle	1
41	0030185		Brakes, Knorr/Bendix 17", Disc, Front, TAK-4	1
42	0000730		Brakes, Meritor, Cam, Rear, 16.50 x 7.00"	1
43	0020784		Air Compressor, Brake, Cummins/Wabco 18.7 CFM	1
44	0000785		Brake Reservoirs, Three	1
45	0568012		Air Dryer, Wabco System Saver 1200, Heater, 2010	1
46	0000790		Brake Lines, Nylon	1

Line	Option	Type	Option Description	Qty
47	0000854		Air Inlet, w/Disconnect Coupling	1
			Location, Air Coupling(s) - a) DS Step Well	
			Qty, Air Coupling (s) - 1	
48	0586772		Box, Recessed, Alum Treadplate, for Air Fitting	1
			Location - upper right corner of driver side step well.	
			Qty, Air Coupling (s) - 1	
49	0610802		Engine, Cummins ISL9, 450 hp, 1250 lb-ft, W/OBD, EPA 2016, Imp/Vel	1
50	0001244		High Idle w/Electronic Engine, Custom	1
51	0687994		Engine Brake, Jacobs Compression Brake, Cummins Engine	1
			Switch, Engine Brake - e) ISC/ISM/ISL9/ISX Hi Med Lo	
52	0552334		Clutch, Fan, Air Actuated, Horton Drive Master	1
53	0123135		Air Intake, w/Ember separator, Imp/Vel	1
54	0597542		Exhaust System, 4", 2010 ISL9/ISC 8.3 Engine, Horizontal, Officer Side	1
55	0557543		Radiator, Impel/Velocity	1
56	0511425		Cooling Hoses, Rubber	1
57	0001125		Fuel Tank, 65 Gallon, Left Side Fill	1
58	0001129		Lines, Fuel	1
59	0582182		DEF Tank, 4.5 Gallon, DS Fill, Rear of Rear Axle, Common Door	1
			Door, Material & Finish, DEF Tank - Polished Stainless	
60	0552793		Not Required, Fuel Priming Pump	1
61	0582243		Shutoff Valves, Fuel Line @ Primary Filter, Cummins	1
62	0699437		Cooler, Chassis Fuel, Not Req'd.	1
63	0690880		No Selection Required From This Category	1
64	0642572		Trans, Allison 5th Gen, 3000 EVS P, Imp/Vel/DCF/SFR/Enf, With Prognostics	1
65	0625329		Transmission, Shifter, 5-Spd, Push Button, 3000 EVS	1
66	0684459		Transmission Oil Cooler, Modine, External	1
67	0024895		Mode, Downshift, Aggressive downshift to 2nd, w/engine brake, 5 speed	1
68	0001370		Driveline, Spicer 1710	1
69	0669988		Steering, Sheppard M110 w/Tilt, TAK-4, Eaton Pump, w/Cooler	1
70	0001544		Not Required, Steering assist cylinder on front axle	1
71	0621843		Steering Wheel, 4 Spoke without Controls, Impel	1
72	0559647		Pierce Logo on Horn Button	1
73	0123625		Bumper, 19" Extended, Imp/Vel	1
74	0616491		Tray, Hose, Center, 19" Bumper, Outside Air Horns, Rolled Edge, Imp/Vel	1
			Grating, Bumper extension - Grating, Rubber	
			Capacity, Bumper Tray - 21) 150' of 1.75	
75	0630809		Cover, Aluminum Treadplate, One (1) D-Ring Latch, Hose Tray, Notched	1
			Stay arm, Tray Cover - b) Pneumatic Stay Arm	
76	0510226		Lift & Tow Package, Imp/Vel, AXT, Dash CF	1
77	0522573		Tow Hooks Not Required, Due to Lift and Tow package	1
78	0641933	SP	Cab, Impel FR, 7010 Raised Roof w/Notch, Pumper	1
79	0668309		Engine Tunnel, ISL and DD13, Impel/Velocity FR	1
80	0677478		Rear Wall, Exterior, Cab, Aluminum Treadplate	1
81	0122465		Cab Lift, Elec/Hyd, Imp/Vel	1
82	0123176		Grille, Bright Finished, Front of Cab, Impel/Velocity	1
83	0002224		Scuffplates, S/S At Cab Door Jambs, 4-Door Cab	1
			Material Trim/Scuffplate - c) S/S, Polished	
84	0646179		Trim, S/S, Rect Headlights, VEL/IMP	1
			Material Trim/Scuffplate - c) S/S, Polished	
			Turnsignal Covers - No Covers	
85	0087357		Molding, Chrome on Side of Cab	1
86	0566620		Mirrors, Retrac, West Coast Style, Htd/Rmt, w/Bolt-On Convex	1
87	0667942		Door, Half-Height, Impel FR 4-Door Cab, Raised Roof	1
88	0655511		Door Panel, Brushed Stainless Steel, Impel/Velocity 4-Door Cab	1
89	0667905		Storage Pockets w/ Elastic Cover, Recessed, Impel/Velocity FR	1
90	0667902		Controls, Electric Windows, All Cab Doors, Impel/Velocity FR	1
91	0555486		Steps, 4-Door Cab, Dual, Imp/Vel	1
			Light, Step, Additional - P25 LED	
92	0509656		Lights, Cab and Crew Cab Access Steps, P25, LED w/Bezel, 2 Lights Per Step	1
93	0002140		Fenders, S/S on Cab	1
94	0122479		Window, Side of C/C, Fixed, Imp/Vel	1

Line	Option	Type	Option Description	Qty
95	0553144		Trim, Cab Side Windows, Impel	1
96	0012090		Not Required, Windows, Front/Side of raised roof	1
97	0509287		Windows, Rear CC, (2) 8" x 14", Imp/Vel	1
98	0553197		Not Required, Trim, Cab Rear Windows, Impel	1
99	0647586		Cab Interior, Turnout Tuff, Impel/Velocity FR	1
			Color, Cab Interior Vinyl/Fabric - m) Gray	
100	0667943		Cab Interior, Paint Color, Impel/Velocity FR	1
			Color, Cab Interior Paint - i) fire smoke gray	
101	0509532		Floor, Rubber Padded Cab & Crew Cab, Imp/Vel, Dash CF	1
102	0667936		Heater/defroster, Dual Zone Control, Impel/Velocity FR	1
103	0668089		Air Conditioning, Impel/Velocity FR, Dual Zone Control, Center Mount	1
104	0640814		Dual Condensate Drain Tubes for A/C Drip Pan, Imp/Vel FR	1
105	0012485		Air Conditioning, Coleman Mach 3, 120V, 13.5K Cool Only, Cab Roof	1
106	0639675		Sun Visor, Smoked Lexan, AXT, Dash CF, Imp/Vel, Saber FR/Enforcer	1
			Sun Visor Retention - No Retention	
107	0548173		Grab Handles, Driver and Passenger Door Post, Imp/Vel	1
108	0002526		Light, Engine Compt, All Custom Chassis	1
109	0122516		Fluid Check Access, Imp/Vel	1
110	0583042		Side Roll and Frontal Impact Protection	1
111	0622618		Seating Capacity, 5 Seats	1
112	0697005		Seat, Driver, Pierce PS6, Premium, Air Ride, High Back, Safety	1
113	0587668		Seat, Officer, Pierce, PS6, Base, SCBA, Safety	1
114	0510038		Radio Compartment, Behind Officer Seat, Imp/Vel	1
115	0122183		Seat, Rr Facing C/C, DS Outboard, Pierce PS6, Premium, Safety, SCBA	1
116	0102783		Not Required, Seat, Rr Facing C/C, Center	1
117	0122186		Seat, Rr Facing C/C, PS Outboard, Pierce PS6, Premium, Safety, SCBA	1
118	0108189		Not Required, Seat, Forward Facing C/C, DS Outboard	1
119	0103319		Not Required, Seat, Forward Facing C/C, Center	1
120	0122728		Seat, Forward Facing C/C, PS Outboard, Pierce PS6, Premium Safety, Hi-Back	1
121	0511300		Upholstery, Seats In Cab, All Imperial 1200, Pierce PS6	1
			Color, Cab Interior Vinyl/Fabric - h) Gray/Black	
122	0543991		Bracket, Air Bottle, Hands-Free II, Cab Seats	3
			Qty, - 03	
123	0627339		Seat Belt, Ready Reach	1
			Seat Belt Color - Red	
124	0553393		Seat Belt Height Adjustment, Imp/Vel, Dash CF	5
			Qty, - 05	
125	0627014		Pick Not Required, Seat Belt Color Selected in Seat Belt Option 627339	1
126	0566465		Seat Belt Monitoring, NFPA 2009, Command Zone Color Display	1
127	0543917		Helmet Storage, Provided by Fire Department, NFPA	1
128	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 White - Door Switches and Lens Switch	
			Control, Dome Lt Color - Lens Switch	
129	0631779		Light, Map, Overhead, Round Halogen, AXT/Imp/Vel/Dash CF, Hawk EX	1
			12vdc power from - Battery switched	
130	0544332		Portable Hand Light, Provided by Fire Department, Pumper NFPA Classification	1
131	0594554		Cab Instruments, Blk Gags, Blk Bez, Impel 2010	1
132	0509511		Air Restriction Indicator, Imp/Vel, AXT, Dash CF, Enf MUX	1
133	0543751		Light, Do Not Move Apparatus	1
			Alarm, Do Not Move Truck - Pulsing Alarm	
134	0509042		Messages, Open Door/Do Not Move Truck, MUX w/Color Display	1
135	0611681		Switching, Cab, Membrane, Impel/Velocity/Quantum, Dash CF, AXT WiFi MUX	1
			Location, Emerg Sw Pnls - Driver's Side Overhead	
136	0555915		Wiper Control, 2-Speed with Intermittent, MUX, Impel/Velocity	1
137	0548004		Wiring, Spare, 15 A 12V DC 1st	1
			Qty, - 01	
			12vdc power from - Battery direct	
			Wire termination - 15 amp power point plug	

Line	Option	Type	Option Description	Qty
137			Location, Spare Wiring - Behind Officer Seat	
138	0566101		Recess, Dash Panel, Officer Side, Vel/Imp	1
139	0615214		Vehicle Information Center, LCD On Gauge Cluster w/7" Color Disp,Touchscreen,Imp	1
			Location, CZ Display - DS Instrument Panel, Impel Camera System	
			System Of Measurement - US Customary	
140	0543930		Vehicle Data Recorder, Dual Module	1
141	0677696		Intercom, Sigtronics US-45S, 4-Pos, 2-Radio, D,O,2C	1
			location, intercom, C Cab - 2) 2 rearward facing seats	
142	0006288		Cable, Radio to Intercom Interface, Sigtronics, 1 Radio	1
			Radio, First Two-Way Model - XTL 5000	
			Radio, First Two-Way Make - Motorola High Power	
143	0559826		Headset, Sigtronics, SE-2 Under Helmet, Chrome Boom Mic, Standard	4
			Qty, - 04	
			Location - D,O, and 2 crew	
144	0696439		Antenna Mount, Custom Chassis, Cable Routed to Instrument Panel Area	1
			Qty, - 01	
			Location, Antenna Mount - Left Side	
145	0653526		Camera, Pierce, Driver Mux, Rear Camera Only	1
			Camera System Audio - Not Provided	
146	0523921		Recess, Rear Vision Camera	1
			Location, Recessed Camera - Center Rear	
147	0615106		Pierce Command Zone, Advanced Electronics & Control System, Impel, WiFi	1
148	0624255		Electrical System, Impel	1
149	0079166		Batteries, (4) Exide Grp 31, 950 CCA each, Threaded Stud	1
150	0008621		Battery System, Single Start, All Custom Chassis	1
151	0123174		Battery Compartment, Imp/Vel	1
152	0531307		Charger, Sngl Sys, Dual Bank, Dual Pro Charger	1
153	0012781		Location, Charger/Compr, Front left body compt	1
154	0530951		Location, Battery Charger Indicator, DS Behind Cab Door	1
155	0507624		Shoreline, 30A 120V, Kussmaul Auto Eject, 091-159-30-120, Super	2
			Qty, - 02	
			Color, Kussmaul Cover - b) red	
			Connection, Shoreline - battery charger and Aux AC	
156	0026800		Shoreline Location	1
			Location, Shoreline(s) - DS Cab Side	
157	0036802		Sub Feed Breaker Box Cutler Hammer, For Shoreline	1
			Location, CB Panel - in D3 and as far out of the way as possible	
158	0036800		Switch, Auto Transfer, Up to 30Amp, Gen Shoreline	1
			Connection, Transfer Switch - AC Powered Air Conditioner	
159	0647728		Alternator, 430 amp, Delco Remy 55SI	1
160	0092582		Load Manager/Sequencer, MUX	1
			Enable/Disable Hi-Idle - e)High Idle enable	
161	0632735		Not Required, Custom Chassis	1
162	0648713		Headlights, Rectangular LED, JW Speaker, Imp/Vel	1
163	0648425		Light, Directional, Whelen 600 LED Combination, Cab Corners, Imp/Vel/AXT/Qtm/DCF	1
			Color, Lens, LED's - c)clear	
164	0648074		Lights, Clearance/Marker/ID, Front, P25 LED 7 Lts	1
165	0620055		Light, Directional/Marker, Intermediate Light, Truck-Lite 60115Y LED 2lts	1
166	0627282		Lights, Clearance/Marker/ID, Rear, FRP LED Bar & P25 LED 4Lts	1
167	0564683		Lights, Tail, Whelen M6BTT* Red LED Stop/Tail & M6T* Amber LED Dir Arw For Hsg	1
			Color, Lens - Clear	
168	0561471		Lights, Backup, Whelen M6BUW, LED, For Tail Lt Housing	1
169	0664481		Bracket, License Plate & Light, P25 LED	1
170	0556842		Bezels, Whelen, (2) M6 Chrome Pierce, For mtg (4) Whelen M6 lights	1
171	0589905		Alarm, Back-up Warning, PRECO 1040	1
172	0666446		Lights, Perimeter Cab, Amdor AY-9500-020 & AY-9500-012 LED 4Dr	1
173	0617926		Lights, Perimeter Pump House, Amdor AY-9500-012 LED 2lts	1
174	0653901		Lights, Perimeter Body, Amdor AY-9500-012 LED 2lts, Rear Step	1
			Control, Perimeter Lts - Parking Brake Applied	
175	0556360		Lights, Step, P25 LED 4lts, Pump Pnl Sw	1

Line	Option	Type	Option Description	Qty
176	0692052		Light, FRC, 12V SPA260-Q15* LED, Surface Mount 1st	2
			Qty, - 02	
			Switch, Lt Control 1 DC,1 - a) DS Switch Panel	
			Switch, Lt Control 2 DC,2 - g) PS Switch Panel	
			Switch, Lt Control 3 DC,3 - d) No Control	
			Switch, Lt Control 4 DC,4 - d) No Control	
			Color, FRC/Rom Lt Housing - FRC, Chrome Bezel	
			Location, 12/24 Volt Lights - PS Body, Forward, 1lt and PS Body, Rearward, 1lt	
			Location, 12/24 Volt Lights - PS Body, Forward, 1lt and PS Body, Rearward, 1lt	
177	0692048		Light, FRC, 12V SPA260-Q15* LED, Surface Mount 2nd	2
			Qty, - 02	
			Switch, Lt Control 1 DC,1 - a) DS Switch Panel	
			Switch, Lt Control 2 DC,2 - g) PS Switch Panel	
			Switch, Lt Control 3 DC,3 - d) No Control	
			Switch, Lt Control 4 DC,4 - d) No Control	
			Color, FRC/Rom Lt Housing - FRC, Chrome Bezel	
			Location, 12/24 Volt Lights - DS Body, Forward, 1lt and DS Body, Rearward, 1lt	
			Location, 12/24 Volt Lights - DS Body, Forward, 1lt and DS Body, Rearward, 1lt	
178	0618301		Light, Visor, FRC, 12V SPA851-Q15-*, LED 1st	1
			Qty, - 01	
			Location, driver's/passenger's/center - centered	
			Switch, Lt Control 1 DC,1 - a) DS Switch Panel	
			Switch, Lt Control 2 DC,2 - g) PS Switch Panel	
			Switch, Lt Control 3 DC,3 - d) No Control	
			Color, FRC/Rom Lt Housing - FRC, Black Chrome Face	
179	0672327		Lights, Deck, Whelen (2) MPBW Micro Pioneer LED Rear Flood Lights	1
			Switch, Scene Lt Cntrl - a)driver sw panel	
180	0609538		Lights, Hose Bed, Below Aluminum Cover, Dual LED Light Strips	1
			Control, Hose Bed Lts - Auto Cover Sw	
181	0645681		Lights, Not Required, Rear Work, Deck Lights At Rear	1
182	0060115		Pumper, Med, Alum, 2nd Gen	1
183	0554271		Body Skirt Height, 20"	1
184	0013303		Tank, Water, 500 Gallon, Poly, Med, New York Style	1
185	0003405		Overflow, 4" Water Tank, Poly	1
186	0028104		Foam Cell Required	1
187	0553725		Restraint, Water Tank, Heavy Duty, Special Type Tank, 4x4, or Export	1
188	0003429		Not Required, Direct Tank Fill	1
189	0003424		(No Dump Valve required)	1
190	0048710		Jet Assist Not Req'd	1
191	0030007		(No Dump Chute Required)	1
192	0514778		Not Required, Switch, Tank Dump Master	1
193	0556223		Hose Bed, Aluminum, Pumper, New York Style, Fill In Blank Height	1
			Fill in Blank - 67"	
			Material Trim/Scuffplate - b) S/S, Brushed	
194	0003481		Hose Bed Capacity, Special	1
			Capacity, Hosebed - 1000' of 5.00" and (2) 500' of 3"	
195	0003488		Divider, Hose Bed, Unpainted	2
			Qty, Hosebed Dividers - 2	
196	0621037		Plate, Painted, Mounted Over Side Sheet	2
			Location - the full length	
			Qty, - 02	
			Size - as fits	
			Fill in Blank - full length	
			Location, driver's/passenger's/center - driver & passenger	
197	0530804		Cover, Hose Bed, Alum Treadplate	1
198	0589778		Flap, Rear of Alum Hose Bed Cover, Vinyl, Paddle Seat Belt Buckles, 6" Straps	1
			Color, Vinyl Cover - a) red	
199	0013512		Running Boards, 12.75" Deep	1
200	0689621		Tailboard, 16" Deep	1

Line	Option	Type	Option Description	Qty
201	0690037		Wall, Rear, Smooth Aluminum/Body Material	1
			Material, Rear Wall Inboard Facing Surfaces - Aluminum Diamondplate	
202	0003531		Tow Bar, Under Tailboard	1
203	0590926		Hose Restraint, Running Board, Velcro Straps	2
			Location, Hose Tray, runn - a) both sides	
			Qty, Tray, Hose - 2	
204	0024110		Tray, Hose, Running Board, 20' of 5.00" Soft Suction Hose	2
			Location, Hose Tray, runn - a) both sides	
			Qty, Tray, Hose - 2	
205	0003561		Construction, Compt, Alum, Pumper	1
206	0083686		DS 152" Rollup, Full Height & Depth Front & Rear	1
207	0063658		PS 152" Rollup, Full Height Front & Rear, FDLER	1
208	0692733		Doors, Rollup, Gortite, Side Compartments	6
			Qty, Door Accessory - 06	
			Color,Gortite,Roll-upDoor - Painted	
			Latch, Gortite, Roll-up - Non-locking Liftbar	
209	0665037	SP	Rear, Transverse Area Only, No Door, 40.63" Tall	1
210	0083910		No Rear Compartmentation Doors Required	1
211	0554995		No Body Modification Required	1
212	0616670		Lights, Compt, Pierce LED, Dual Light Strips, Each Side of Door, Pumper/Tanker	7
			Qty, - 07	
			Location, Compartment Lights - All Body Compts	
213	0562348		Fasteners, Mechanical, Strip Lighting In Compartments	1
214	0045679		Raise Side Sheet Above Pump House	1
215	0687146		Shelf Tracks, Painted	5
			Qty, Shelf Track - 05	
			Location, Shelf Track -	
216	0687112		Shelves, Adjustable, 500 lb Capacity, Full Width/Depth, Painted	7
			Qty, Shelf - 07	
			Location, Shelf - D1, D3, R1, P1, P3, upper portion of compartment. 2 others TBD	
217	0647091		Tray, Floor Mounted, Slide-Out, 500lb, 2.00" Sides, 2G	1
			Qty, - 01	
			Material - paint to match compt interior	
			Location, Tray Slide-Out, Floor Mounted - D3	
218	0540335		Toolboard, Swing-out, Alum, .188", No Holes	1
			location - D2	
			Qty - 1	
			Location, Pivot - Front	
			Mounting, Toolboard - Adjustable Frt-back	
			Finish, Pegboard/Toolboard - Painted	
219	0000000	STF	tool holder, Plastic, Siddons-Martin	5
			Location - TBD	
			Qty, Comp. Accessory - 05	
220	0003908		Partition, Trans Rear Compt	2
			Qty, Partition - 02	
			Location, Partition - c) both sides	
221	0027090		Tracks, Equipment Mounting, Horizontal	2
			Location - D2 and P2	
			Qty, Shelf Track - 02	
222	0024016		Rub Rail, Aluminum Extruded, Side & Rear of Body	1
223	0004024		Fender Crowns, Rear, S/S	1
224	0519849		Not Required, Hose, Hard Suction	1
225	0626229		Handrails, Side Pump Panels, Per Print	1
226	0004126		Handrails, Beavertail, Standard	1
227	0610196		Handrail, Rear, Above Hose Bed, New York Style/Low Hose Bed	1
			Handrail Finish - Black Rubber Covered	
			Reinforcement, Hose Bed Divider - Tied to Upper Handrail/Crossbar	
228	0657522		Compt, Air Bottle, Triple, Fender Panel	2
			Qty, Air Bottle Comp - 2	
			Door Finish, Fender Compt - Painted	
			Location, Fender Compt - Triple - PS Fwd and Triple - PS Rear	
			Location, Fender Compt - Triple - PS Fwd and Triple - PS Rear	

Line	Option	Type	Option Description	Qty
228			Latch, Air Bottle Compt - Flush Lift & Turn	
			Insert, Air Bottle Compt - Rubber Matting	
229	0622393		Compt, Air Pack in Fender Panel	1
			Location, Bracket/comp. - DS forward fender	
			Qty, - 01	
			Door Finish, Fender Compt - Polished	
			Latch, Air Bottle Compt - Flush Lift & Turn	
			Insert, Air Bottle Compt - Rubber Matting	
230	0004225		Ladder, 24' Duo-Safety 900A 2-Section	1
231	0635956		Ladder, 14' Duo-Safety 775-DR Roof	1
			Qty, - 01	
232	0598395		Ladders/Backboard Btwn Tank & S.Sht, Ext'd Rr, Encl'd Complete, RPH, PS	1
			Size, Backboard - 18" x 3" x 72"	
			Door, Material & Finish, Ladder Storage - c) smooth aluminum	
			Latch, Door Ladder Storage - "D" Handle latch	
233	0519566		Ladder, 10' 585A, Duo-Safety,w/Mtg, Provided by Fire Department, Pumper NFPA	1
			Location, Folding Ladder - d) Ladder comp	
234	0004236		Ladder, 14' 701 Fresno, Duo-Safety	1
			Location, Folding Ladder - d) Ladder comp	
235	0638810		Pike Pole, Pumper, Provided by Fire Department, NFPA	1
			Pike Pole Make/Model - Akron 10' Pike Pole	
236	0638855		Pike Pole, 6', Pumper, Provided by Fire Department, NFPA	1
			Pike Pole Make/Model - Akron 6' Pike Pole	
237	0004361		Tubes, Alum, Pike Pole Storage	4
			Qty, Pike Pole Tubes - 04	
			Location, Pike Pole Tube - Ladder Storage and Crosslay/Speedlay	
			Location, Pike Pole Tube - Ladder Storage and Crosslay/Speedlay	
238	0593072		Steps, Folding, Front of Body, w/LED, Trident	1
			Coating, Step - black	
239	0592994		Steps, Folding, Rear of Body, w/LED, Trident	1
			Coating, Step - black	
240	0591914		Step, Folding - Extra, Body Only, Black, w/LED, Trident	2
			Qty, Folding Step - 02	
			Location, Steps Additional - DS Front Bulkhead - 2	
241	0004425		Pump, Waterous, CSU, 1500 GPM, Single Stage	1
242	0004481		Packing, Grafoil, Waterous	1
243	0559769		Transmission, Pump, Waterous C20 Series	1
244	0535256		Pump Shift, Air w/Manual Override, Split Shaft, Waterous	1
245	0003148		Transmission Lock-up, EVS	1
246	0004547		Auxiliary Cooling System	1
247	0014486		Not Required, Transfer Valve, Stage Pump	1
248	0661474		Valve, Relief Intake, Trident Air Max, Set @ 125 PSI, Control at Operator Panel	1
249	0564941		Controller, Pressure, FRC, Pump Boss, PBA200	1
250	0072153		Primer, Trident, Air Prime, Air Operated	1
251	0058516		Manuals, Pump (2), CD	1
252	0055482		Plumbing, Stainless Steel & Hose, Includes Side Large Dia. (Control Zone)	1
253	0091470		Plumbing, Foam System w/Control Zone Pump House	1
254	0004645		Inlets, 6.00" - 1250 GPM or Larger Pump	1
255	0519393		Cap, Main Pump Inlet, Provided by Fire Department, NFPA	1
256	0084610		Valves, Akron 8000 series- All	1
257	0004660		Inlet, Left Side, 2.50"	1
258	0029147		Not Required, Inlet, Right Side	1
259	0016158		Valve, Inlet(s) Recessed, Side Cntrl, "Control Zone"	1
			Qty, Inlets - 1	
260	0004700		Control, Inlet, at Valve	1
261	0092569		No Rear Inlet (Large Dia) Requested	1
262	0092696		Not Required, Cap, Rear Inlet	1
263	0064116		No Rear Inlet Actuation Required	1
264	0009648		No Rear Intake Relief Valve Required on Rear Inlet	1
265	0092568		No Rear Auxiliary Inlet Requested	1
266	0563738		Valve, .75" Bleeder, Aux. Side Inlet, Swing Handle	1
267	0029043		Tank to Pump, (1) 3.00" Valve, 3.00" Plumbing	1

Line	Option	Type	Option Description	Qty
268	0004905		Outlet, 1.50" Tank Fill	1
269	0004940		Outlet, Left Side, 2.50"	2
			Qty, Discharges - 02	
270	0092570		Not Required, Outlets, Left Side Additional	1
271	0004945		Outlet, Right Side, 2.50"	1
			Qty, Discharges - 01	
272	0092571		Not Required, Outlets, Right Side Additional	1
273	0005047		Outlet, 4.00" w/4.00" Right, Handwheel	1
			Valve, Brand - Akron	
274	0648906		Outlet, Front, 2.50" w/2.50" Plumbing	1
			Fitting, Outlet - 2.50" NST with 90 degree swivel	
			Drain, Front Outlet - Class 1 Automatic	
			Location, Front, Single - top of left bumper	
275	0004995		Outlet, Rear, 2.50"	1
			Qty, Discharges - 01	
			Location, Outlet - b) driver's side	
276	0092574		Not Required, Outlet, Rear, Additional	1
277	0092573		Not Required, Outlet, Hose Bed/Running Board Tray	1
278	0065077		Caps for 1.50" to 3.00" Discharges, Vinyl Cable	1
279	0563739		Valve, 0.75" Bleeder, Discharges, Swing Handle	1
280	0005091		Elbow, Left Side Outlets, 45 Degree, 2.50" FNST x 2.50" MNST, VLH	1
281	0035094		Not Required, Elbow, Left Side Outlets, Additional	1
282	0025091		Elbow, Right Side Outlets, 45 Degree, 2.50" FNST x 2.50" MNST, VLH	1
283	0089584		Not Required, Elbow, Right Side Outlets, Additional	1
284	0045091		Elbow, Rear Outlets, 45 Degree, 2.50" FNST x 2.50" MNST, VLH	1
285	0085695		Not Required, Elbow, Rear Outlets, Large, Additional	1
286	0005097		Elbow, Large Dia Outlet, 30 Deg, 4.00" FNST x 5.00" Storz	1
			Qty, - 01	
287	0062133		Control, Outlets, Manual, Pierce HW if applicable	1
288	0091106		Outlet, 3.00" Deluge w/TFT Extend-a-Gun XG18, Handwheel	1
288	0000000	STF	Monitor, Deck Gun TFT XFC with no ground base	1
289	0040423		Nozzle, TFT Master Stream 1250 M-R, 1,250 GPM, Manual	1
290	0029605		Deluge Mount, TFT XFF-APL	1
291	0029279		Deadlay(s) No Plumbing, Spl Capacity	1
			Capacity, Special Xlay - 250' of 2.5"	
			Qty, Deadlays - 1	
292	0090442		Crosslays Sngl Sheet Unpainted, (1) 2.50" Std Cap	1
293	0064896		Speed, (2) 1.50" W/ Poly Tray, Top Mt/Side Cntrl, Std. Cap.	1
294	0591098		Hose Restraint, Speedlay, Vinyl, Fasteners, Each Side	3
			Color, Vinyl Cover - a) red	
			Qty, - 03	
			Type of fastener - Velcro/Snaps - 1 side of crosslay/deadlay/speedlay	
			Restraint Location - Bottom (towards the ground)	
295	0590877		Hose Restraint, Crosslay/Deadlay, Aluminum Treadplate, Top Only	1
			Stay arm, Tray Cover - g) Socket and Plunger	
			Restraint Location - Front (towards front of truck)	
296	0545212		Reel, Booster, Aluminum, Rear Tailboard Compartment	1
297	0005279		Switch, Reel Rewind - One at Reel	1
298	0005300		Hose, Booster - 150' of 1.00"/800 PSI	1
299	0017858		Capacity, Hose Reel 150' of 1"	1
300	0007428		Nozzle for Booster Reel Not Req'd	1
301	0592633		Foam Sys, Husky 3, Single Agent	1
			Discharge - 3 crosslays, rear 2.5" and the front bumper	
			Amount of Disc. W/Foam - 5	
302	0012126		Not Required, CAF Compressor	1
303	0592527		Refill, Foam Tank, Integral, Husky 3	1
304	0031896		Demonstration, Foam System, Dealer Provided	1
305	0005446		Foam Cell, 20 Gallon, Not Reduce Water	1
			Type of Foam - Class "A"	
306	0697589		Drain, 1.00", Foam Tank #1, Husky 3 Foam System	1
307	0091079		Not Required, Foam Tank #2	1

Line	Option	Type	Option Description	Qty
308	0091112		Not Required, Foam Tank Drain	1
309	0040061		Pump House, Side Control, 56", Control Zone	1
310	0032479		Pump Panel Configuration, Control Zone	1
311	0005525		Material, Pump Panels, Side Control Brushed Stainless	1
312	0005578		Panel, Pump Access - Pass Side Only	1
313	0037731		Pump House Structure, Raised, Included with Ladder Storage	1
314	0005945		Light, Pump Compt	1
315	0586382		Engine Indicators, Included With Pressure Controller	1
316	0005601		Throttle Included w/ Pressure Controller	1
317	0549333		Indicators, Engine, Included with Pressure Controller	1
318	0553643		Control, Air Horn at Pump Panel w/Red Switch	1
319	0511078		Gauges, 4.00" Master, Class 1, 30"-0-600psi	1
320	0511100		Gauge, 2.00" Pressure, Class 1, 30"-0-400psi	1
321	0062586		Gauge, Water Level, Class 1, Pierce Std	1
322	0062992		Gauge, Foam Level, (1) Tank, Class 1	1
323	0593161		Light Shield, S/S LED	1
324	0066052		Air Horns, (2) Grover in Bumper Outside Frame	1
325	0006066		Control, Air Horn, DS & PS Lanyard	1
326	0533071		Siren, Whelen 295SLSC1, w/Detachable Mic Cord	1
327	0510206		Location, Elect Siren, Recessed Overhead In Console	1
			Location, Elec Siren - Overhead, Above Eng Tunnel DS	
328	0076156		Control, Elec Siren, Head Only	1
329	0618915		Speaker, Whelen SP123BMC, Chrome ABS	1
			Qty, Speakers - 1	
			Connection, Speaker - siren head	
330	0548456		Location, Recessed in the Front Bumper, Center	1
331	0016080		Siren, Federal Q2B	1
332	0006095		Siren, Mechanical, Mounted Above Deckplate	1
			Location, Siren, Mech - a) Left	
333	0026170		Control, Mech Siren, DS Foot Sw, PS Push Button	1
334	0551932		Lightbar, Whelen, Freedom, FN**QLED, 8-R, 2-W, 2-RC, LED Opt	1
			Length, Wln Lightbar - 77"	
			Opticom Priority - b) High	
			Color, Lens, LED's - c)clear	
335	0549166		Light, Front Zone, Whelen M6*C LED, Clear Lens, 4 Lts	1
			Flange Kit - w)with flange	
			Color, Lt DS Frnt Outside - DS Front Outside Red	
			Color, Lt PS Frnt Outside - PS Front Outside Red	
			Color, Lt DS Front Inside - r) DS Front Inside Red	
			Color, Lt PS Front Inside - r) PS Front Inside Red	
336	0525249		Flash Pattern, Two (2) Pair Front Warning Lights, Outside with Outside	1
337	0653937		Flasher, Headlight Alternating	1
			Headlt flash deactivation - a)w/high beam	
338	0540692		Lights, Side Zone Lower, Whelen M6*C LED, Clear Lens, 3pr, Ovr 25	1
			Location, Lights Frt Side - b)each side bumper	
			Color, Lt Side Front - Red	
			Color, Lt Side Middle - Red	
			Color, Lt Side Rear - Red	
			Location, Lights Mid Side - Rearward of Crew Cab Doors	
			Location, Lights Rear Side - Over Rear Wheels	
339	0564655		Lights, Rear Zone Lower, Whelen M6*C LED, Clear Lens, For Tail Lt Housing	1
			Color, Lt DS Rear - r) DS Rear Lt Red	
			Color, Lt PS Rear - r) PS Rear Lt Red	
340	0540804		Lights, Rear, Whelen M6*C LED, Clear Lens	2
			Color, Light - ae) red	
			Location, Rear Lights - Above taillights	
			Qty, - 02	
			Control, light - c) rear lower warning	
341	0088745		Light, Rear Zone Upper, Whelen L31HRFN LED Beacon, Red LED	1
			Color, Dome, Rear Warning - j) both domes clear	
342	0006551		Not Required, Lights, Rear Upper Zone Blocking	1
343	0006615		Mtg, Rear Warn Lts, On Top of Compt	1

Line	Option	Type	Option Description	Qty
344	0006646		Electrical System, 120/240VAC, General Design	1
345	0563275		Generator, Harrison 6kW MSV, Hydraulic, Hotshift PTO, Volt Meter Only	1
			Generator Interlocks - No Interlocks	
346	0006645		Location, Hydraulic Generator Above Pump	1
			Location, Generator(s) - Over Pump, Right Side	
347	0016752		Starting Sw, Truck Engine Powered Gen, Cab Sw Pnl	1
348	0016757		Not Required, Remote Start, Generator	1
349	0016740		Not Required, Fuel System	1
350	0016767		Not Required, Oil Drain Extension, Generator	1
351	0016771		Not Required, Routing Exhaust, Generator	1
352	0672957		Circuit Breaker Panel, PTO Gen, As Small As Practical	1
			Location, CB Panel - D3 and as much out of the way as possible	
353	0636229		Light Twr, W-B Chf NS1.8-3000 MAG, 4-KR-36 120VAC Lts Cld 6'	1
			Color, Tower, Wlb - White Paint	
354	0664474		Location, Light Tower, Cab Roof	1
355	0617750		Controller, Light Tower, W-B, Wired Handheld, E-STOP Chf, Chf Pr, Pow Pr	1
356	0664791		Location, Light Tower Controller, Driver's Side Front Body Compartment	1
357	0526994		Reel, Elect Cable, Akron, (4) Wire	1
			Qty, Cord Reels - 1	
			Reel Guide - a) Nylatron guide	
			Finish, Reel - Powder Coated Silver	
			Location, Electric Cord Reel - Above Pump With Generator, 1 Reel	
358	0086632		Cord, Electric, 10/4 Yellow, 4 Wire	1
			Lengths of Elect Cord - 1	
			Feet of Yellow Cord - e)200	
			Connection, Cord - Direct connection	
359	0016794		Receptacle Strip, 15A 120V 6-Place, Shoreline	1
			Location, Receptacles - in crew cab to be determined	
			Qty, - 01	
360	0519934		Not Required, Brand, Hydraulic Tool System	1
361	0007150		Bag of Nuts and Bolts	1
			Qty, Bag Nuts and Bolts - 1	
362	0532883		NFPA Required Loose Equipment, Pumper, Provided by Fire Department	1
363	0540114		Soft Suction Hose, Provided by Fire Department, Pumper NFPA Classification	1
364	0027023		No Strainer Required	1
365	0533269		Extinguisher, Dry Chemical, Pumper NFPA Class, Provided by Fire Department	1
366	0533278		Extinguisher, 2.5 Gal. Pressurized Water, Pumper NFPA, Provided by Fire Dept	1
367	0532921		Axe, Flathead, Pumper NFPA Classification, Provided by Fire Department	1
368	0532924		Axe, Pickhead, Pumper NFPA Classification, Provided by Fire Department	1
369	0559690		Paint, Two Tone, Cab and Body, w/shield, Custom Cab	1
			Paint, Color - red #90	
			Paint Color, Upper Area - black	
370	0646897		Paint Chassis Frame Assy, E-Coat, Standard	1
			Paint Color, Frame Assembly, Predefined - Black	
371	0645644		No Pick Required	1
372	0693797		No Paint Required, Aluminum Front Wheels	1
373	0693792		No Paint Required, Aluminum Rear Wheels	1
374	0007230		Compartment, Painted, Spatter gray	1
375	0544129		Reflective Band, 1"-6"-1"	1
			Color, Reflect Band - A - a) white	
			Color, Reflect Band - B - l) white	
			Color, Reflect Band - C - w) white	
376	0547618		Stripe, Diamond Grade, Chevron, Front Bumper	1
			Size, Chevron Striping - 06	
			Color, Chevron DG - Yellow Green, Fluorescent	
377	0536954		Stripe, Chevron, Rear, Diamond Grade, Pumper	1
			Color, Rear Chevron DG - fluorescent yellow green	
378	0593225		Stripe, Reflective, Cab Doors Interior, Diamond Grade	1
			Color, Reflect Band - A - p) fluorescent yellow green diamond grade	
379	0033179		Lettering Specifications, Reflective	1
380	0686160		Lettering, Reflective, 3.00", (21-40)	1
			Outline, Lettering - Outline	

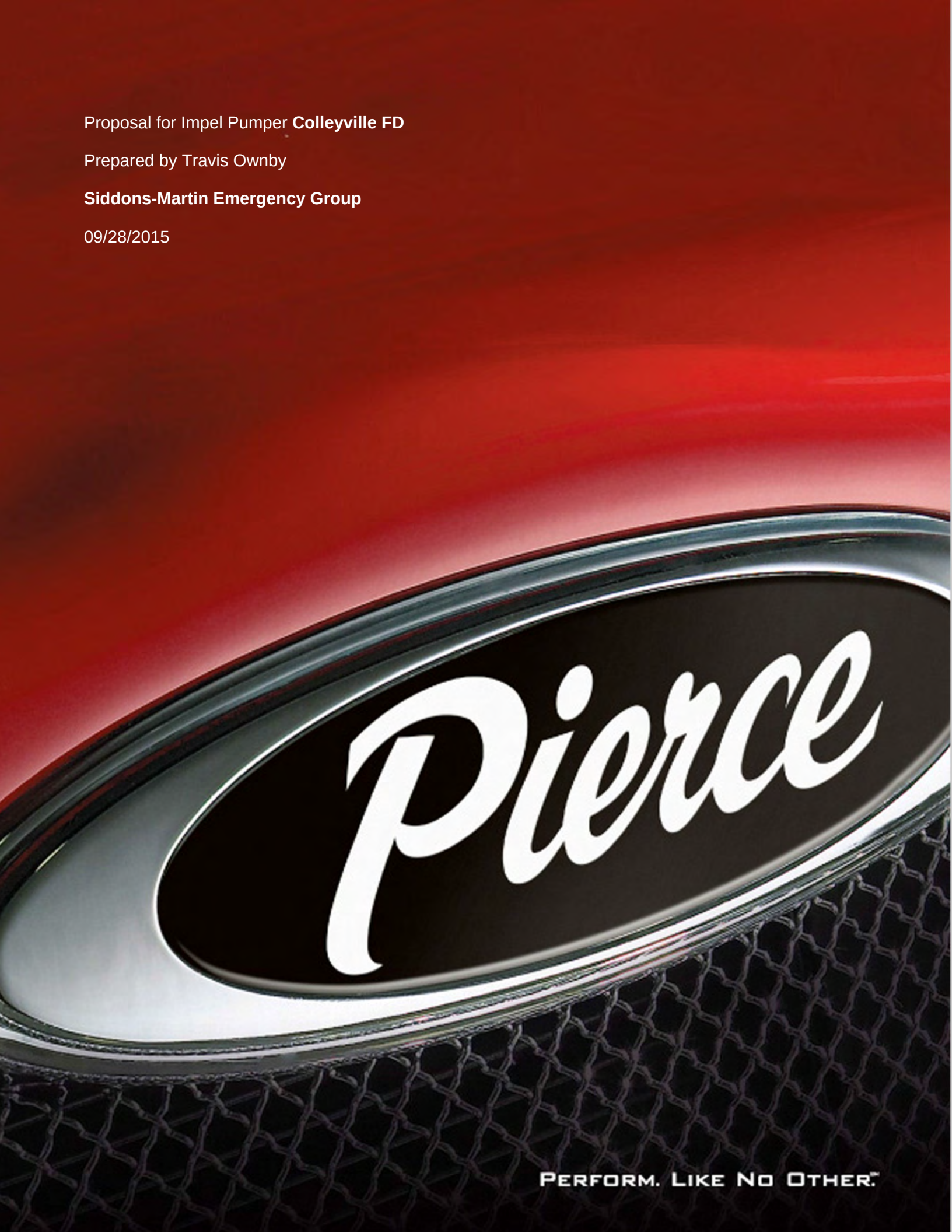
Line	Option	Type	Option Description	Qty
381	0686002		Lettering, Reflective, 8.00", Each	4
			Qty, Lettering - 04	
			Outline, Lettering - Outline	
382	0686018		Lettering, Reflective, 5.00", Each	10
			Qty, Lettering - 10	
			Outline, Lettering - Outline	
383	0516701		Emblem, American Flag Painted on Cab Grille, All Custom Chassis	1
384	0529225		Manuals, Two (2) CD, Fire Apparatus Parts, Custom Chassis	1
385	0543577		Manuals, One (1) Chassis Service & (1) CD, Custom	1
386	0531638		Manual, Two (2) CD, Chassis Operation, Custom	1
387	0030008		Warranty, Basic, 1 Year, Apparatus, WA0008	1
388	0611136		Warranty, Chassis, 3 Year, Velocity/Impel, WA0284	1
389	0696698		Warranty, Engine, Cummins, 5 Year, WA0181	1
390	0684953		Warranty, Steering Gear, Sheppard M110, 3 Year WA0201	1
391	0595767		Warranty, Frame, 50 Year, Velocity/Impel, Dash CF, WA0038	1
392	0595698		Warranty, Axle, 3 Year, TAK-4, WA0050	1
393	0530524		Warranty, Axle, 2 Year, Meritor, General Service, WA0046	1
394	0652758		Warranty, ABS Brake System, 3 Year, Meritor Wabco, WA0232	1
395	0019914		Warranty, Structure, 10 Year, Custom Cab, WA0012	1
396	0595813		Warranty, Paint, 10 Year, Cab, Pro-Rate, WA0055	1
397	0524627		Warranty, Electronics, 5 Year, MUX, WA0014	1
398	0695416		Warranty, Pierce Camera System, WA0188	1
399	0647720		Warranty, Pierce LED Strip Lights, WA0203	1
400	0046369		Warranty, 5-year EVS Transmission, Standard Custom, WA0187	1
401	0685945		Warranty, Transmission Cooler, WA0216	1
402	0688798		Warranty, Water Tank, Lifetime, UPF, Poly Tank, WA0195	1
403	0596025		Warranty, Structure, 10 Year, Body, WA0009	1
404	0693127		Warranty, Gortite, Roll-up Door, 6 Year, WA0190	1
405	0063510		Warranty, Pump, Waterous, 5 Year Parts, WA0225	1
406	0648675		Warranty, 10 Year S/S Pumbing, WA0035	1
407	0657990		Warranty, Foam System, Husky 3, WA0231	1
408	0595588		Warranty, Harrison Generator, 2 Year, WA0051	1
409	0595820		Warranty, Paint, 10 Year, Body, Pro-Rate, WA0057	1
410	0595412		Warranty, Graphics Lamination, 1 Year, Apparatus, WA0168	1
411	0596346		Warranty, Extended, 2 Year, Custom Chassis, Class M, WA0060	1
412	0683627		Certification, Vehicle Stability, CD0089	1
413	0610739		Certification, Engine Installation, Imp/Vel, Cummins ISL9, 2016, CD0112	1
414	0686786		Certification, Power Steering, CD0098	1
415	0667418		Certification, Cab Integrity, Impel FR, CD0009	1
416	0548950		Certification, Cab Door Durability, Velocity/Impel, CD0001	1
417	0548967		Certification, Windshield Wiper Durability, Impel/Velocity, CD0005	1
418	0667411		Certification, Electric Window Durability, Velocity/Impel FR, CD0004	1
419	0549273		Certification, Seat Belt Anchors and Mounting, Imp/Vel/Vel SLT, CD0018	1
420	0667416		Certification, Cab Heater and Defroster, Velocity/Impel FR, CD0015	1
421	0667415		Certification, Cab Air Conditioning Performance, Velocity/Impel FR, CD0016	1
422	0545073		Amp Draw Report, NFPA Current Edition	1
423	0002758		Amp Draw, NFPA/ULC Radio Allowance	1
424	0000018		PUMPER, 2ND GEN	1
425	0000012		PIERCE CHASSIS	1
426	0004713		ENGINE, OTHER	1
427	0046395		EVS 3000 Series TRANSMISSION	1
428	0020011		WATEROUS PUMP	1
429	0020009		POLY TANK	1
430	0028048		FOAM SYSTEM	1
431	0020006		SIDE CONTROL	1
432	0020007		AKRON VALVES	1
433	0020015		ABS SYSTEM	1
434	0658751		Manufacturing Attribute	1

Proposal for Impel Pumper **Colleyville FD**

Prepared by Travis Ownby

Siddons-Martin Emergency Group

09/28/2015



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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.

Your apparatus will be manufactured in Appleton, Wisconsin.

NFPA 2009 STANDARDS

This unit will comply with the NFPA standards effective January 1, 2009, 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.

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.

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".

VEHICLE INSPECTION PROGRAM CERTIFICATION

To assure the vehicle is built to current NFPA standards, the apparatus, in its entirety, will be third-party, audit-certified through Underwriters Laboratory (UL) that it is built and complies to all applicable standards in the current edition of NFPA 1901. The certification will include: 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.

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, *Standard on Breathing Air Quality for Fire and Emergency Services Respiratory Protection.*

BID BOND

A bid bond as security for the bid in the form of a 10% 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.

PERFORMANCE BOND, 1 YEAR

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.

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.

ELECTRICAL WIRING DIAGRAMS

Two (2) electrical wiring diagrams, prepared for the model of chassis and body, will be provided.

IMPEL™ CHASSIS

The Pierce Impel 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.

WHEELBASE

The wheelbase of the vehicle will be 209.00".

GVW RATING

The gross vehicle weight rating will be 43,500#.

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.

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 third party certified turning angle of 45 degrees. Front discharge, front suction, or aluminum wheels will not infringe on this cramp angle.

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.

FRONT SHOCK ABSORBERS

KONI heavy-duty telescoping shock absorbers will be provided on the front suspension.

FRONT OIL SEALS

Oil seals with viewing window will be provided on the front axle.

FRONT TIRES

Front tires will be Goodyear® 425/65R22.50 radials, 20 ply G296 MSA tread, rated for 22,800 lb maximum axle load and 68 mph maximum speed.

The tires will be mounted on Alcoa 22.50" x 12.25" polished aluminum disc type wheels with a ten (10)stud, 11.25" bolt circle.

REAR AXLE
The rear axle will be a Meritor™, Model RS-24-160, with a capacity of 24,000 lb.

TOP SPEED OF VEHICLE
A rear axle ratio will be furnished to allow the vehicle to reach a top speed of 68 mph.

REAR SUSPENSION
The rear suspension will be Standens, semi-elliptical, 3.00" wide x 53.00" long, 12-leaf pack with a ground rating of 24,000 lbs. 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. To reduce bending stress due to acceleration and braking, the front eye will be a berlin eye that will place the front spring pin in the horizontal plane within the main leaf.

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.

REAR OIL SEALS
Oil seals will be provided on the rear axle.

REAR TIRES
Rear tires will be four (4) Goodyear® 12R22.50 radials, 16 ply all season G622 RSD tread, rated for 27,120 lb maximum axle load and 75 mph maximum speed.

The tires will be mounted on Alcoa 22.50" x 8.25" polished aluminum disc wheels with a ten (10) stud 11.25" bolt circle.

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.

TIRE PRESSURE MANAGEMENT
There will be a VECSAFE LED tire alert pressure management system provided that will monitor each tire's pressure. A chrome plated brass 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 20 and 120 psi. The sensor will activate an integral battery operated LED when the pressure of that tire drops 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 blinking.

FRONT HUB COVERS
Stainless steel hub covers will be provided on the front axle. An oil level viewing window will be provided.

REAR HUB COVERS
A pair of stainless steel high hat hub covers will be provided on rear axle hubs.

MUD FLAPS
Mud flaps with a Pierce logo will be installed behind the front and rear wheels.

WHEEL CHOCKS, PROVIDED BY FIRE DEPARTMENT
NFPA 1901, 2009 edition, section 5.8.3 requires two or more wheel chocks mounted in readily accessible locations, that together will hold the apparatus, when loaded to its GVWR or GCWR, on a hard surface with a 20 percent grade with the transmission in neutral and the parking brake released.

The wheel chocks are not on the apparatus as manufactured. The fire department will provide and install these wheel chocks.

WHEEL CHOCK BRACKETS, PROVIDED BY FIRE DEPARTMENT
The wheel chock brackets are not on the apparatus as manufactured. The fire department will provide and install the wheel chock brackets.

ANTI-LOCK BRAKE SYSTEM
The vehicle will be equipped with a Meritor WABCO 4S4M, anti-lock braking system. The ABS will provide a 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 particular wheel begins to lockup, a signal will be sent to the control unit. This control unit then will 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.

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.

The rear brakes will be Meritor™ 16.50" x 7.00" cam operated with automatic slack adjusters. Dust shields will be provided.

BRAKE SYSTEM AIR COMPRESSOR
The air compressor will be a Cummins/WABCO with 18.7 cubic feet per minute output.

BRAKE SYSTEM
The brake system will include:

- Bendix® dual brake treadle valve with vinyl covered foot surface
- Heated automatic moisture ejector on air dryer
- Total air system capacity of 4,362 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)

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.

BRAKE SYSTEM AIR DRYER

The air dryer will be WABCO System Saver 1200 with spin-on coalescing filter cartridge and 100 watt heater.

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.

AIR INLET

One (1) air inlet with male coupling will be provided. It will allow station air to be supplied to the apparatus brake system through a shoreline hose. The inlet will be located in the driver side lower step well of cab. A check valve will be provided to prevent reverse flow of air. The inlet will discharge into the "wet" tank of the brake system. A mating female coupling will also be provided with the loose equipment.

RECESSED BOX FOR AIR FITTING

One (1) air inlet will have an aluminum treadplate recessed box provided. The box(es) will allow the air fitting to be recessed inside the stepwell to prevent damage. upper right corner of driver side step well..

ENGINE

The chassis will be powered by an electronically controlled engine as described below:

Make:	Cummins
Model:	ISL9
Power:	450 hp at 2100 rpm
Torque:	1250 lb-ft at 1400 rpm
Governed Speed:	2200 rpm
Emissions Level:	EPA 2016
Fuel:	Diesel
Cylinders:	Six (6)
Displacement:	543 cubic inches (8.9L)

Starter:	Delco 39MT™
Fuel Filters:	Spin-on style primary filter with water separator and water-in-fuel sensor. Secondary spin-on style filter.

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.

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."

ENGINE BRAKE

A Jacobs® engine brake is to be installed with the controls located on the instrument panel within easy reach of the driver.

The driver will be able to turn the engine brake system on/off and have a high, medium and low setting.

The engine brake will activate when the system is on and the throttle is released.

The high setting of the brake application will activate and work simultaneously with the variable geometry turbo (VGT) provided on the engine.

The engine brake will be installed in such a manner that when the engine brake is slowing the vehicle the brake lights are activated.

The ABS system will automatically disengage the auxiliary braking device, when required.

CLUTCH FAN

A Horton® fan clutch will be provided. The fan clutch will be automatic when the pump transmission is in "Road" position, and fully engaged in "Pump" position.

ENGINE AIR INTAKE

An air intake with an ember separator (to prevent road dirt, burning embers, and recirculating hot air from entering the engine) will be mounted at the front of the apparatus, on the passenger side of the engine. The ember separator will be mounted in the air intake with flame retardant, roto-molded polyethylene housing. It will be easily accessible by the hinged access panel at the front of the vehicle.

EXHAUST SYSTEM

The exhaust system will be stainless steel from the turbo to the inlet of the selective catalytic reduction (SCR) device, and will be 4.00" in diameter. The exhaust system will include a diesel particulate filter

(DPF) and an SCR device to meet current EPA standards. An insulation wrap will be provided on all exhaust pipes between the turbo and DPF to minimize the transfer of heat to the cab. The exhaust will terminate horizontally ahead of the passenger side rear wheels. A tailpipe diffuser will be 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.

RADIATOR

The radiator and the complete cooling system will meet or exceed 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 core will be made of aluminum fins, having a serpentine design, brazed to aluminum tubes. The tubes will be brazed to aluminum headers. No solder joints or leaded material of any kind will be acceptable in the core assembly. The radiator core will have a minimum frontal area of 1434 square inches. Supply and return tanks made of glass-reinforced nylon will be crimped on to the core assembly using header tabs and a compression gasket to complete the radiator core assembly. The radiator will be compatible with commercial antifreeze solutions.

There will be a full steel frame around the entire radiator core assembly. The radiator core assembly will be isolated within the steel frame by rubber inserts to enhance cooling system durability and reliability. The radiator will be mounted in such a manner as to prevent the development of leaks caused by twisting or straining when the apparatus operates over uneven ground. The radiator assembly will be isolated from the chassis frame rails with rubber isolators.

The radiator assembly will include an integral deaeration tank permanently mounted to the top of the radiator framework, with a readily accessible remote-mounted overflow 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.

A heavy-duty fan will draw in fresh, cool air through the radiator. Shields or baffles will be provided to prevent recirculation of hot air to the inlet side of the radiator.

COOLANT LINES

Gates, or Goodyear, rubber hose will be used for all engine coolant lines installed by the chassis manufacturer.

Hose clamps will be stainless steel "constant torque type" to prevent coolant leakage. They will react to temperature changes in the cooling system and expand or contract accordingly while maintaining a constant clamping pressure on the hose.

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, stainless steel 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.

All fuel lines will be provided as recommended by the engine manufacturer.

DIESEL EXHAUST FLUID TANK

A 4.5 gallon diesel exhaust fluid (DEF) tank will be provided and mounted in the driver's side body rearward of the rear axle.

A 0.50" drain plug will be provided in a low point of the tank for drainage.

A fill inlet will be provided and marked "Diesel Exhaust Fluid Only". The fill inlet will be located adjacent to the engine fuel inlet behind a common hinged, spring loaded, polished stainless steel door on the driver side of the vehicle.

The tank will meet the engine manufacturers requirement for 10 percent expansion space in the event of tank freezing.

The tank will include an integrated heater unit that utilizes engine coolant to thaw the DEF in the event of freezing.

FUEL SHUTOFF

A fuel line shutoff valve will be installed on both the inlet and outlet of the primary fuel filter.

TRANSMISSION

An Allison 5th generation, Model EVS 3000P, 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 both sides of converter housing (positions 4 o'clock and 8 o'clock) as viewed from the rear.

A transmission temperature gauge with red light and audible alarm will be installed on the cab dash.

TRANSMISSION SHIFTER

A five (5)-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	3.49 to 1.00
2nd	1.86 to 1.00
3rd	1.41 to 1.00
4th	1.00 to 1.00
5th	0.75 to 1.00
R	5.03 to 1.00

TRANSMISSION COOLER

A Modine plate and fin transmission oil cooler will be provided using engine coolant to control the transmission oil temperature.

DOWNSHIFT MODE (W/ENGINE BRAKE)

The transmission will be provided with an aggressive downshift mode.

This will provided earlier transmission downshifts to 2nd gear, resulting in improved engine braking performance.

DRIVELINE

Drivelines will be a heavy-duty metal tube and be equipped with Spicer® 1710 universal joints.

The shafts will be dynamically balanced before installation.

A splined slip joint will be provided in each driveshaft, slip joint will be coated with Glidecoat® or equivalent.

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 an Eaton, Model VN20, 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.

STEERING WHEEL

The steering wheel will be 18.00" in diameter, have tilting and telescoping capabilities, and a 4-spoke design.

BUMPER

A one (1) piece, ten (1) gauge, 304-2B type polished stainless steel bumper, a minimum of 10.00" high, will be attached to a bolted modular extension frame constructed of 50,000 psi tensile steel "C" channel mounted directly behind it to provide adequate support strength.

The bumper will be extended 19.00" from front face of cab.

Documentation will be provided, upon request to show that the options selected have been engineered for fit-up and approval for this modular bumper extension. A chart will be provided to indicate the option

locations and will include, but not be limited to the following options: air horns, mechanical sirens, speakers, hose trays (with hose capacities), winches, lights, discharge, and suction connections.

GRAVEL PAN

A gravel pan, constructed of bright aluminum treadplate, will be furnished between the bumper and cab face. The gravel pan will be properly supported from the underside to prevent flexing and vibration of the aluminum treadplate.

CENTER HOSE TRAY

A hose tray, constructed of aluminum, will be placed in the center of the bumper extension. A smooth rolled edge will be provided on the top of the front and sides of the tray.

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.

CENTER HOSE TRAY COVER

A bright aluminum treadplate cover will be provided over the center hose tray.

The cover will be "notched" allowing the hose to be pre connected to hose connection.

The cover will be attached with a stainless steel hinge.

A D-ring latch will secure the cover in the closed position and a pneumatic stay arm will hold the cover in the open position.

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.

TOW HOOKS

No tow hooks are to be provided. This truck will be equipped with a lift and tow package with integral tow eyes.

CAB

The cab will be designed specifically for the fire service and will be manufactured by the chassis builder.

To provide quality at the source and single source customer support, 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 of 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 0.25" heavy wall extrusions joined by a solid A356-T6 aluminum joint casting. The B-

pillar and C-pillar will also be constructed from 0.25" heavy wall extrusions. The rear wall will be constructed of two (2) 4.00" x 2.00" outer aluminum extrusions and two (2) 3.00" x 2.00" inner aluminum extrusions. All main vertical structural members will run from the floor to 7.50" x 3.50" x 0.125" thick roof extrusions to provide a cage-like structure with the A-pillar and roof extrusions being welded into a 0.75" thick corner casting at each of the front corners of the roof assembly.

The front of the cab will be constructed of a 0.25" thick firewall, covered with a 0.125" front skin (for a total thickness of 0.38"), and reinforced with 24.50" wide x 10.00" deep x 0.50" thick supports on each side of the engine tunnel. The cross-cab support will be welded to the A-pillar, 0.25" firewall, and engine tunnel, on the left and right sides.

The cab floors will be constructed of 0.1875" thick aluminum plate and reinforced at the firewall with an additional 0.25" thick cross-floor support providing a total thickness of 0.44" of structural material at the front floor area. The front floor area will also be supported with three (3) 0.50" plates bolted together that also provides the mounting point for the cab lift. This tubing will run from the front of the cab to the 0.1875" thick engine tunnel, creating the structure to support the forces created when lifting the cab.

The cab will be a full-tilt style. A three (3)-point cab mount system with rubber isolators will improve ride quality by isolating chassis vibrations from the cab.

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 forward cab section will have an overall height (from the cab roof to the ground) of approximately 102.00". The crew cab section will have a 10.00" raised roof, with an overall cab height of approximately 112.00". The raised portion will start at the most forward point of the B-pillar and continue rearward to the back of the cab. The overall height listed will be calculated based on a truck configuration with the lowest suspension weight ratings, 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 raised roof section of the crew cab will have a 58.00" wide x 10.00" high square notch in the center section of the roof. This will allow the auxiliary equipment to be mounted to the rear of the crew cab roof.

The cab will have an interior width of not less than 93.50". The driver and passenger seating positions will have a minimum 24.00" clear width at knee level.

To reduce injuries to occupants in the seated positions, proper head clearance will be provided. The floor-to-ceiling height inside the forward cab will be no less than 60.25". The floor-to-ceiling height inside the crew cab will be no less than 52.95" in the center position and 68.75" in the outboard positions.

The crew cab will measure a minimum of 57.50" from the rear wall to the backside of the engine tunnel (knee level) for optimal occupant legroom.

INTERIOR CAB INSULATION

The cab walls, ceiling and engine tunnel will be insulated in all strategic locations to maximize acoustic absorption and thermal insulation. The cab will be insulated with 2.00" insulation in the rear wall, 3.00" insulation in the side walls, and 1.50" insulation in the ceiling.

FENDER LINERS

Full-circular, aluminum inner fender liners in the wheel wells will be provided.

PANORAMIC WINDSHIELD

A one (1)-piece, safety glass windshield with more than 2,802 square inches of clear viewing area will be provided. The windshield will be full width and will provide the occupants with a panoramic view. The windshield will consist of three (3) layers: the outer light, the middle safety laminate, and the inner light. The 0.114" thick 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 a washer, in conformance with FMVSS and SAE requirements, will be provided. The wiper blades will be 21.65" long and together will clear a minimum of 1,783 square inches of the windshield for maximum visibility in inclement weather.

The windshield washer fluid reservoir will be located at the front of the vehicle and be accessible through the access hood for simple maintenance.

FAST SERVICE ACCESS FRONT TILT HOOD

A full-width access hood will be provided for convenient access to engine coolant, steering fluid, wiper fluid, cab lift controls, headlight power modules, and ember separator. The hood will also provide complete access to the windshield wiper motor and components. The hood will be contoured to provide a sleek, automotive appearance. The hood will be constructed of two (2) fiberglass panels bonded together and will include reinforcing ribs for structural integrity. The hood will include air cylinders to hold the hood in open and closed positions, and a heavy duty latch system that will meet FMVSS 113 (Hood Latch System). The spring-loaded hood latch will be located at the center of the hood with a double-action release lever located behind the Pierce logo. The two (2)-step release requires the lever first be pulled to the driver side until the hood releases from the first latch (primary latch) then to the passenger side to fully release the hood (secondary latch).

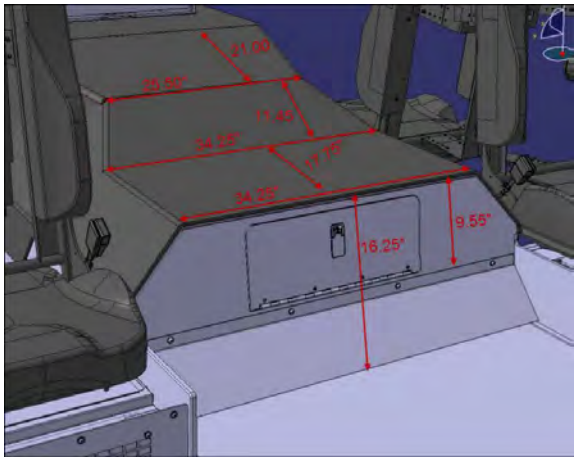
ENGINE TUNNEL

To provide structural strength, the engine tunnel sidewalls will be constructed of .50" aluminum plate that is welded to both the .25" firewall and .38" heavy wall extrusion under the crew cab floor. To maximize occupant space, the top edges will be tapered.

The back of the engine tunnel will be no higher than 16.25" off the crew cab floor.

The engine tunnel will be insulated on both sides for thermal and acoustic absorption. The underside of the tunnel will be covered with 1.00" thick polyether foam that is reinforced with an aluminized face.

Thermal rating for this insulation will be -40 degrees Fahrenheit to 300 degrees Fahrenheit. The insulation will keep noise (dBA) levels at or lower than the specifications in the current edition of the NFPA 1901 standards.



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.

CAB LIFT

A hydraulic cab lift system will be provided, consisting of an electric-powered hydraulic pump, fluid reservoir, dual lift cylinders, remote cab lift controls and all necessary hoses and valves.

The cab lift controls will be located at the driver side front of the cab, easily accessible under the full width front access hood. The controls will include a permanently mounted raise/lower switch. For enhanced visibility during cab tilt operations, a remote control tether with on/off switch will be supplied on a coiled cord that will extend from 2.00' (coiled) to 6.00' (extended).

The cab will be capable of tilting 42 degrees and 80 degrees with crane assist to accommodate engine maintenance and removal. The cab pivots will be located 46.00" apart to provide stability while tilting the cab.

The rear of the cab will be locked down by a two (2)-point, automatic, hydraulic, double hook mechanism that fully engages after the cab has been lowered (self-locking). The dual 2.25" diameter hydraulic cylinders will be equipped with a velocity fuse that protects the cab from accidentally descending when the cab is in the tilt position.

For increased safety, a redundant mechanical stay arm will be provided that must be manually put in place on the driver side between the chassis and cab frame when 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 safety 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.

GRILLE

A bright finished aluminum mesh grille screen, inserted behind a formed bright finished grille surround, will be provided on the front center of the cab, and will serve as an air intake to the radiator.

DOOR JAMB SCUFFPLATES

All cab door jambs will be furnished with a polished stainless steel scuffplate, mounted on the striker side of the jamb.

FRONT CAB TRIM

There will be polished stainless steel rectangular garnish plates installed behind the two (2) headlight bezels for an enhanced appearance.

There will be no covers provided over the painted cab corner where the cab turn signals are located.

SIDE OF CAB MOLDING

Chrome molding will be provided on both sides of cab.

MIRRORS

A Retrac, Model 613275, single vision, motorized, west coast style mirror with chrome finish will be mounted on each side of the front cab door. The flat glass will be heated and adjustable with remote control within reach of the driver.

There will be a convex mirror, Model 980-4, provided and located below the flat glass. The convex mirror will be manually adjustable.

DOORS

The forward cab and crew cab doors will be the half-height style door. To enhance entry and egress to the cab, the forward cab doors will be a minimum of 43.59" wide x 64.71" high. The crew cab doors will measure a minimum of 37.87" wide x 73.75" high.

The forward cab and crew cab doors will be constructed of extruded aluminum with a nominal material thickness of 0.125". The exterior door skins will be constructed from 0.090" aluminum.

The forward cab door windows will include a 7.50" high x 10.00" wide drop area at the front to enhance visibility.

A customized, vertical, pull-down type door handle will be provided on the exterior of each cab door. 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 be 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 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 shall be provided on the inside of each cab and crew cab door.

The cab steps at each cab door location will be located below the cab doors and will be exposed to the exterior of the cab.

DOOR PANELS

The inner cab door panels will be constructed out of brushed stainless steel. The cab door panels will be removable without disconnecting door and window mechanisms.

RECESSED POCKET WITH ELASTIC COVER

To provide organized storage (clutter control) in the cab for miscellaneous equipment, the cab interior will be provided with recessed storage pockets. The pockets will be 5.63" wide x 2.00" high x 4.00" deep. The pockets will be provided with a perforated elastic material cover to secure the equipment in the pocket. The pockets will be installed in all available mounting locations of the overhead console.

ELECTRIC WINDOW CONTROLS

Each cab entry door will be equipped with an electrically operated tempered glass window. A window control panel will be located on the door panel within easy reach of the respective occupant. 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 1/2 second. The driver control panel will contain a control switch for each cab door's window. All other door control panels will contain a single switch to operate the window within that door.

The window switches will be connected directly to the battery power. This allows the windows to be raised and lowered when the battery switch is in the off position.

DUAL STEPS

A dual step will be provided below each cab and crew cab door. The steps will be designed with a grip pattern punched into bright aluminum treadplate material providing support, slip resistance, and drainage. The steps will be a bolt-on design and provide a 24.00" wide x 7.00" deep stepping surface. The step design raises the middle step higher and closer to the cab floor, resulting in a 12.00" distance from the step to cab floor in the cab and a 13.50" distance from the step to cab floor in the crew cab. Stepping distances from the ground to first step will be 16.50" and from first step to middle step will be 12.00".

The first step will be lit by a white 12 volt DC LED light provided on the step.

STEP LIGHTS

For reduced overall maintenance costs compared to incandescent lighting, there will be eight (8) white LED, step lights provided. The lights will be installed at each cab and crew cab door, two (2) per step, in the driver side front doorstep, driver side crew cab doorstep, passenger side front doorstep and passenger side crew cab doorstep.

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 adjacent door is opened.

FENDER CROWNS

Stainless steel fender crowns will be installed at the cab wheel openings.

CREW CAB WINDOWS

One (1) fixed window with tinted glass will be provided on each side of the cab, to the rear of the front cab door. The windows will be sized to enhance light penetration into the cab interior. The windows will measure 20.00" wide x 20.50" high.

WINDOWS INTERIOR TRIM

For improved aesthetics, the cab side windows will include a vacuum formed ABS interior trim panel.

WINDOWS, REAR

The rear wall of the crew cab will have two (2) windows, each being 8.00" wide x 14.00" high.

CAB INTERIOR

With safety as the primary objective, the wrap-around style cab instrument panel will be designed with unobstructed visibility to instrumentation. The dash layout will provide the driver with a quick reference to gauges that allows more time to focus on the road.

The center console will be a high impact ABS polymer and will be easily removable for access to the defroster. The center console will include louvers strategically located for optimal air flow and defrost capability to the windshield.

The passenger side dashboard will be constructed of painted aluminum for durability and low maintenance. For enhanced versatility, the passenger side dash will include a flat working surface.

To provide optional (service friendly) control panels, switches and storage modules, a painted aluminum overhead console will also be provided.

To complete the cab front interior design, painted aluminum modesty panels will be provided under the dash on both sides of the cab. The driver side modesty panel will provide mounting for the battery switch and diagnostic connectors, while the passenger side modesty panel provides a glove box, and ground access to the main electrical distribution panel via quick quarter turn fasteners.

To provide a deluxe automotive interior, the engine tunnel, side walls and rear wall will be covered by Turnout Tuff fabric.

The headliner will be installed in both forward and rear cab sections. The headliner panel will be a composition of an aluminum panel covered with a sound barrier and upholstery.

The cab structure will include designated raceways for electrical harness routing from the front of the cab to the rear upper portion of the cab. Raceways will be extruded in the forward door frame, floor, walls and overhead in the area where the walls meet the ceiling. The raceways located in the floor will be covered by aluminum extrusion, while the vertical and overhead raceways will be covered by painted aluminum covers. The raceways will improve harness integrity by providing a continuous harness path that eliminates wire chafing and abrasion associated with exposed wiring or routing through drilled metal holes. Harnesses will be laid in place.

CAB INTERIOR UPHOLSTERY

The cab interior upholstery will be gray. All cab interior materials will meet FMVSS 302 (flammability of interior materials).

INTERIOR PAINT (CAB)

A rich looking interior will be provided by painting all the metal surfaces inside the cab fire smoke gray, vinyl texture paint.

CAB FLOOR

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 .25" thick closed cell foam (no water absorption) which offers a sound dampening material for reducing sound levels.

CAB DEFROSTER

To provide maximum defrost and heating performance, a 54,961 BTU heater-defroster unit with 558 SCFM of air flow will be provided inside the cab. The defroster unit will be strategically located under the center forward portion of the instrument panel. For easy access, a removable metal cover will be installed over the defroster unit. The defroster will include an integral aluminum frame air filter, high performance dual scroll blowers, and ducts designed to provide maximum defrosting capabilities for the 1-piece windshield. The defroster ventilation will be built into the design of the cab dash instrument panel and will be easily removable for maintenance. 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 CAB HEATER

Two (2) 36,702 BTU auxiliary heaters with 276 SCFM (each unit) of air flow will be provided inside the crew cab, one (1) in each outboard rear facing seat riser. The heaters will include high performance dual scroll blowers, one (1) for each unit. Outlets for the heaters will be located below each rear facing seat riser and below the fronts of the driver and passenger seats, for efficient airflow. An extruded

aluminum plenum will be incorporated in the cab structure that will transfer heat to the forward cab seating positions.

The heater/defroster and crew cab heaters will be controlled by an integral electronic control panel. The heater control panel will allow the driver to control heat flow to the front and rear independently. The control panel will include variable adjustment for temperature and fan control, and be conveniently located on the dash in clear view of the driver. The control panel will include highly visible, progressive LED indicators for both fan speed and temperature.

AIR CONDITIONING

Due to the large space inside the cab, a high-performance, customized air conditioning system will be furnished. A 19.10 cubic inch compressor will be installed on the engine.

The air conditioning system will be capable of cooling the average cab temperature from 100 degrees Fahrenheit to 64 degrees Fahrenheit in the forward section of the cab, and 69 degrees Fahrenheit in the rear section of the cab, at 50 percent relative humidity within 30 minutes. The cooling performance test will be run only after the cab has been heat soaked at 100 degrees Fahrenheit for a minimum of 4 hours.

A roof-mounted condenser with a 63,000 BTU output 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 evaporator unit will be installed in the rear portion of the cab ceiling over the engine tunnel. The evaporator will include two (2) high performance cores and plenums with multiple outlets, one (1) plenum directed to the front and one (1) plenum directed to the rear of the cab.

The evaporator unit will have a 49,000 BTU (4.08 tons) rating that meets and exceeds the performance specifications.

Adjustable air outlets will be strategically located on the evaporator cover per the following:

- Four (4) will be directed towards the drivers location
- Four (4) will be directed towards the officers location
- Nine (9) will be directed towards crew cab area

The air conditioner refrigerant will be R-134A and will be installed by a certified technician.

The air conditioner will be controlled by dual zone integral electronic control panels for the heater, defroster and air conditioner. The cab control panel will be located in the center console. For ease of operation, the control panels will include variable adjustment for temperature and fan control.

INTERIOR CAB INSULATION

The cab walls, ceiling and engine tunnel will be insulated in all strategic locations to maximize acoustic absorption and thermal insulation. The cab will be insulated with 2.00" insulation in the rear wall, 3.00" insulation in the side walls, and 1.50" insulation in the ceiling. Headliners will be constructed from a

0.20" high density polyethylene corrugated material. Each headliner will be wrapped with a 0.25" thick foil faced poly damp low emissivity foam insulation barrier for acoustic and thermal control.

Designed for maximum sound absorption and thermal insulation, the rear cab wall will be insulated with a 1.50" thick open cell acoustical foam. The thermal protection of the foam will provide and R-value of four (4) per 1.00" thickness.

SPECIAL 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. The standard evaporator pumps will be disabled.

120 VOLT AIR CONDITIONING

A Coleman Mach III air conditioning unit will be provided. The unit will be located on the crew cab roof. The air conditioning unit will be provided with a two (2) speed compressor which is rated for 210 CFM at low speed and 320 CFM at high speed. The evaporator rating will be 13,500 BTU.

INTERIOR CAB INSULATION

The cab and crew cab walls will be insulated with 2.00" insulation where possible and the roof with 1.00" insulation to aid in cooling.

SUN VISORS

Two (2) smoked Lexan™ sun visors provided. The sun visors will be located above the windshield with one (1) mounted on each side of the cab.

There will be no retention bracket provided to help secure each sun visor in the stowed position.

GRAB HANDLE

A black rubber covered grab handle will be mounted on the door post of the driver side and passenger side cab door to assist in entering the cab. The grab handle will be securely mounted to the post area between the door and windshield.

ENGINE COMPARTMENT LIGHT

An engine compartment light will be installed under the engine hood, of which the switch is an integral part. Light will have a .125" diameter hole in its lens to prevent moisture retention.

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 door will be 17.75" wide x 12.75" high and be flush with the wall of the engine tunnel.

The engine oil dipstick will allow for checking only. The transmission dipstick will allow for both checking and filling. An additional port will be provided for filling the engine oil.

The door will have a rubber seal for thermal and acoustic insulation. One (1) flush latch will be provided on the access door.

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

SEATING CAPACITY

The seating capacity in the cab will be five (5).

DRIVER SEAT

A Pierce PS6® 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 electric controls to adjust the rake (15 degrees), height (1.12" travel) and horizontal (7.75" travel) position. Electric controls will be located below the forward part of the seat cushion. To provide flexibility for multiple driver configurations, the seat will have a reclining back, adjustable from 20 degrees back to 45 degrees forward. Providing for maximum comfort, the seat back will be a high back style with manual lumbar adjustment lever, for lower back support, and will include minimum 7.50" deep side bolster pads for maximum support. The lumbar adjustment lever will be easily located at the lower outboard position of the seat cushion. For optimal comfort, the seat will be provided with 17.00" deep dual density 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. To provide quick, easy use for occupants wearing bunker gear, the seat belt will have a minimum 120.00" shoulder length and 55.00" lap length. The seat belt tongue will be stored at waist position for quick application by the seat occupant. The seat belt receptacle will be provided on a cable conveniently nested next to the seat cushion, providing easy accessibility. The seat belt will be furnished with dual automatic retractors that will provide ease of operation in the normal seating position.

OFFICER SEAT

A Pierce, PS6®, seat will be provided in the cab for the officer. The seat will be a fixed type, with no suspension. For optimal comfort, the seat will be provided with 17.00" deep foam cushions. To ensure safe operation, the seat 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. The seat back will be an SCBA back style with 7.5 degree fixed recline angle, and will include minimum 4.50" wide x 7.50" deep side

bolster pads for maximum support. 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 seat safety system will be included. When activated, this system will pretension the seat belt.

The seat will be furnished with a 3-point, shoulder type seat belt. To provide quick, easy use for occupants wearing bunker gear, the seat belt will have a minimum 120.00" shoulder length and 55.00" lap length. The seat belt tongue will be stored at waist position for quick application by the seat occupant. The seat belt receptacle will be provided on a cable conveniently nested next to the seat cushion, providing easy accessibility. The seat belt will be furnished with dual automatic retractors that will provide ease of operation in the normal seating position.

RADIO COMPARTMENT

A compartment for the radio amplifier will be located on the floor of the cab behind the front passenger's seat. A lift-up door with a chrome plated lift and turn latch will be provided for access. The compartment will be constructed of smooth aluminum and painted to match the cab interior.

REAR FACING DRIVER SIDE OUTBOARD SEAT

There will be One (1) rear facing, Pierce PS6 seat provided at the driver side outboard position in the crew cab. For optimal comfort, the seat will be provided with 17.00" deep dual density foam cushions designed with EVC (elastomeric vibration control). To ensure safe operation, the seat will be equipped with seat belt sensors in the seat cushion and belt receptacle. It will activate an alarm indicating a seat is occupied but not buckled.

The seat back will be an SCBA back style with 7.50 degree fixed recline angle, and will include minimum 4.50" wide x 7.50" deep side bolster pads for maximum support. 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 seat safety system will be included. When activated this system will pretension the seat belt around the occupant to firmly hold them in place in the event of a side roll.

The seat will be furnished with a three (3)-point, shoulder type seat belt. To provide quick, easy use for occupants wearing bunker gear, the seat belt will have a minimum 120.00" shoulder length and 55.00" lap length. The seat belt tongue will be stored at waist position for quick application by the seat occupant. The seat belt receptacle will be provided on a cable conveniently nested next to the seat

cushion, providing easy accessibility. The seat belt will be furnished with dual automatic retractors that will provide ease of operation in the normal seating position.

REAR FACING PASSENGER SIDE OUTBOARD SEAT

There will be one (1) rear facing, Pierce PS6 seat provided at the passenger side outboard position in the crew cab. For optimal comfort, the seat will be provided with 17.00" deep dual density foam cushions designed with EVC (elastomeric vibration control). To ensure safe operation, the seat 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. The seat back will be an SCBA back style with 7.50 degree fixed recline angle, and will include minimum 4.50" wide x 7.50" deep side bolster pads for maximum support. 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 seat safety system will be included. When activated this system will pretension the seat belt and firmly hold the occupant in the event of a side roll.

The seat will be furnished with a three (3)-point, shoulder type seat belt. To provide quick, easy use for occupants wearing bunker gear, the seat belt will have a minimum 120.00" shoulder length and 55.00" lap length. The seat belt tongue will be stored at waist position for quick application by the seat occupant. The seat belt receptacle will be provided on a cable conveniently nested next to the seat cushion, providing easy accessibility. The seat belt will be furnished with dual automatic retractors that will provide ease of operation in the normal seating position.

FORWARD FACING PASSENGER SIDE OUTBOARD SEAT

There will be one (1) forward facing, Pierce PS6 seat provided at the passenger side outboard position in the crew cab. The seat back will be a high back style with 7.50 degree fixed recline angle, and will include minimum 7.50" deep side bolster pads for maximum support. For optimal comfort, the seat will be provided with 17.00" deep dual density foam cushions designed with EVC (elastomeric vibration control). To ensure safe operation, the seat 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.

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 seat safety system will be included. When activated, this system will pretension the seat belt around the occupant to firmly hold them in place in the event of a side roll.

The seat will be furnished with a three (3)-point, shoulder type seat belt. To provide quick, easy use for occupants wearing bunker gear, the seat belt will have a minimum 120.00" shoulder length and 55.00"

lap length. The seat belt tongue will be stored at waist position for quick application by the seat occupant. The seat belt receptacle will be provided on a cable conveniently nested next to the seat cushion, providing easy accessibility. The seat belt will be furnished with dual automatic retractors that will provide ease of operation in the normal seating position.

SEAT UPHOLSTERY

All Pierce PS6 seat upholstery will be gray woven with black Imperial 1200 material.

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. Bracket designs with manual restraints (belts, straps, buckles) that could be inadvertently left unlocked and allow the SCBA to move freely within the cab during an accident, will not be acceptable.

There will be a quantity of three (3) SCBA brackets.

SEAT BELTS

All seating positions in the cab and crew cab will have red seat belts.

The belts will also include the Ready Reach® D-loop assembly to the shoulder belt system. The Ready Reach feature adds an extender arm to the D-loop location placing the D-loop in a closer, easier to reach location.

SHOULDER HARNESS HEIGHT ADJUSTMENT

All seating positions furnished with three (3)-point shoulder type seat belts will include a height adjustment. This adjustment will optimize the belts effectiveness and comfort for the seated firefighter.

A total of five (5) seating positions will have the adjustable shoulder harness.

SEAT BELT MONITORING ON COMMAND ZONE COLOR DISPLAY

A seat belt monitoring screen will be provided on the Command Zone, color display. The system will be capable of monitoring up to ten (10) seating positions in the cab with green and red seating icons illuminated as follows:

- Seat Occupied & Buckled = Green
- Seat Occupied & Unbuckled = Red
- No Occupant & Buckled = Red
- No Occupant & Unbuckled = Not Illuminated

The seat belt monitoring screen will become active on the Command Zone, color display when:

- The park brake is released:
    - and there is any occupant seated but not buckled or any belt buckled without an occupant:
    - and there are no other Do Not Move Truck conditions present. As soon as all Do Not Move Truck conditions are cleared, the seat belt monitoring screen will be deactivated.

The seat belt monitoring screen will be manually selected anytime the Command Zone, color display is powered.

AUDIBLE ALARM

The seat belt monitoring screen will be accompanied by an audible alarm that will activate when a red seat icon condition exists and the parking brake is released.

HELMET STORAGE, PROVIDED BY FIRE DEPARTMENT

NFPA 1901, 2009 edition, section 14.1.8.4.1 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.

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.

OVERHEAD MAP LIGHTS

There will be two (2) white halogen, round adjustable map lights installed in the cab:

- One (1) overhead in front of the driving position.
- One (1) overhead in front of the passenger's position.

Each light will include a switch on the light housing.

The light switches will be connected directly to the battery switched power.

PORTABLE HAND LIGHTS, PROVIDED BY FIRE DEPARTMENT

NFPA 1901, 2009 edition, section 5.8.3 requires two portable hand lights mounted in brackets fastened to the apparatus.

The hand lights are not on the apparatus as manufactured. The fire department will provide and mount these hand lights.

CAB INSTRUMENTATION

The cab instrument panel will consist of gauges, an LCD display, telltale indicator lights, alarms, control switches, and a diagnostic panel. The function of 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 directly forward of the driver. Gauge and switch panels will be designed to be removable for ease of service and low cost of ownership.

GAUGES

The gauge panel will include the following ten (10) black gauges with black bezels to monitor vehicle performance:

Voltmeter gauge (Volts)

Low volts (11.8 VDC)

Amber indicator on gauge assembly with alarm

High volts (15 VDC)

Amber indicator on gauge assembly with alarm

Very low volts (11.3 VDC)

Amber indicator on gauge assembly with alarm

Very high volts (16 VDC)

Amber indicator on gauge assembly with alarm

Tachometer (RPM)

Speedometer (Primary (outside) MPH, Secondary (inside) Km/H)

Fuel level gauge (Empty - Full in fractions)

Low fuel (1/8 full)

Amber indicator on gauge assembly with alarm

Very low fuel (1/32) fuel

Amber indicator on gauge assembly with alarm

Engine oil pressure gauge (PSI)

Low oil pressure to activate engine warning lights and alarms

Red indicator on gauge assembly with alarm

Front air pressure gauge (PSI)

Low air pressure to activate warning lights and alarm

Red indicator on gauge assembly with alarm

Rear air pressure gauge (PSI)

Low air pressure to activate warning lights and alarm

Red indicator on gauge assembly with alarm

Transmission oil temperature gauge (Fahrenheit)

High transmission oil temperature activates warning lights and alarm

Amber indicator on gauge assembly with alarm

Engine coolant temperature gauge (Fahrenheit)

High engine temperature activates an engine warning light and alarm

Red indicator on gauge assembly with alarm

Diesel Exhaust Fluid Level Gauge (Empty - Full in fractions)

Low fluid (1/8 full)

Amber indicator on gauge assembly with alarm

All gauges and gauge indicators will perform prove out at initial power-up to ensure proper performance.

INDICATOR LAMPS

To promote safety, the following telltale indicator lamps will be integral to the gauge assembly and are located above and below the center gauges. 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)

SRS (supplemental restraint system) fault (where applicable)

DEF (low diesel exhaust fluid level)

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 (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

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.

Emergency master switch: A molded plastic push button switch with integral indicator lamp will be provided. Pressing the switch will activate emergency response lights and siren control. A green lamp on the switch provides indication that the emergency master mode is active. Pressing the switch again disables the emergency master mode.

Headlight / Parking light switch: A three (3)-position maintained rocker switch will be provided. The first switch position will deactivate all parking lights and the headlights. The second switch position will activate the parking lights. The third switch position will activate the headlights.

Panel backlighting intensity control switch: A three (3)-position momentary rocker switch will be provided. The first switch position decreases the panel backlighting intensity to a minimum level as the switch is held. The second switch position is the default position that does not affect the backlighting intensity. The third switch position increases the panel backlighting intensity to a maximum level as the switch is held.

The following standard controls will be integral to the gauge assembly and are located below the right hand gauges. All switches have backlit labels for low light applications.

High idle engagement switch: A two (2)-position momentary rocker switch with integral indicator lamp will be provided. The first switch position is the default switch position. The second switch position will activate and deactivate the high idle function when pressed and released. 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.

The following standard controls will be provided adjacent to the cab gauge assembly within easy reach of the driver. All switches will have backlit labels for low light applications.

Ignition switch: A three (3)-position maintained/momentary rocker switch will be provided. The first switch position will deactivate vehicle ignition. The second switch position will activate vehicle ignition. The third momentary position will disable the Command Zone audible alarm if held for three (3) to five (5) seconds. A green indicator lamp will be activated with vehicle ignition.

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.

4-way hazard switch: A two (2)-position maintained rocker switch will be provided. The first switch position will deactivate the 4-way hazard switch function. The second switch position will activate the 4-way hazard function. The switch actuator will be red and includes the international 4-way hazard symbol.

Heater, defroster, and optional air conditioning control panel: A control panel with membrane switches will be provided to control heater/defroster temperature and heater, defroster, and air conditioning fan speeds. A green LED status bar will indicate the relative temperature and fan speed settings.

Turn signal arm: A self-canceling turn signal with high beam headlight and windshield wiper/washer controls will be provided. The 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.

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 overhead console on the driver's side, up to four (4) switch panels in the engine tunnel console facing the driver, up to four (4) switch panels in the overhead console on the officer's side and up to two (2) switch panels in the engine tunnel console facing the officer. All switches will have backlit labels for low light applications.

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 engine and 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

SRS diagnostic port (where applicable)

Command Zone USB diagnostic port

Engine diagnostic switch (blink codes flashed on check engine telltale indicator)

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 odometer, trip mileage, PTO hours, fuel consumption, engine hours, and other configuration specific information. 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.

AIR RESTRICTION INDICATOR

A high air restriction warning indicator light LCD message with amber warning indicator and audible alarm will be provided.

"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.

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)
- Hatch Door Open
- 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.

SWITCH PANELS

The emergency light switch panel will have a master switch for ease of use plus individual switches for selective control. Each switch panel will contain eight (8) membrane-type switches each rated for one million (1,000,000) cycles. Panels containing less than eight (8) switch assignments will include non-functioning black appliqués. Documentation will be provided by the manufacturer indicating the rated cycle life of the switches. The switch panel(s) will be located in the overhead position above the windshield on the driver side overhead to allow for easy access.

The switches will be membrane-type and also act as an integral indicator light. For quick, visual indication the entire surface of the switch will be illuminated white whenever back lighting is activated and illuminated green whenever the switch is active. For ease of use, a two (2)-ply, scratch resistant laser engraved Gravoply label indicating the use of each switch will be placed in the center of the switch. The label will allow light to pass through the letters for ease of use in low light conditions.

WIPER CONTROL

For simple operation and easy reach, the windshield wiper control will be an integral part of the directional light lever located on the steering column. The wiper control will include high and low wiper speed settings, a one (1)-speed intermittent wiper control and windshield washer switch. The control will have a "return to park" provision, which allows the wipers to return to the stored position when the wipers are not in use.

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 15 amps at 12 volts DC
- Power and ground will terminate behind officer seat
- Termination will be with 15 amp, power point plug with rubber cover
- Wires will be sized to 125 percent of the protection

The circuit(s) may be load managed when the parking brake is set.

RECESS, DASH PANEL
The dash panel across from the officer will be recessed to accommodate the mounting of miscellaneous items. The recess will be 8.25" down x 7.81" back and 20.88" wide.

INFORMATION CENTER
An LCD display integral to the cab gauge panel will be included as outlined in the cab instrumentation area.

ADDITIONAL INFORMATION CENTER
An information center employing a 7.00" diagonal touch screen color LCD display will be encased in an ABS plastic housing and will be located on the in view of the driver per the instrument panel layout diagram.

The information center will have the following specifications:

- Operate in temperatures from -40 to 185 degrees Fahrenheit
- An Optical Gel will be placed between the LCD and protective 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 languageA 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 equipped)
- Foam Level (if equipped)
- 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 indicate
        - 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)

Button functions and button labels may change with each screen.

VEHICLE DATA RECORDER

A vehicle data recorder (VDR) will be provided. The VDR will be capable of reading and storing vehicle information.

The information stored on the VDR can be downloaded through a USB port mounted in a convenient location determined by cab model. A CD provided with the apparatus will include the programming to download the information from the VDR. A USB cable can be used to connect the VDR to a laptop to retrieve required information.

The vehicle data recorder will be capable of recording the following data via hardwired and/or CAN inputs:

- Vehicle Speed - MPH
- Acceleration - MPH/sec
- Deceleration - MPH/sec
- Engine Speed - RPM
- Engine Throttle Position - % of Full Throttle
- ABS Event - On/Off
- Seat Occupied Status - Yes/No by Position (7-12 Seating Capacity)
- Seat Belt Buckled Status - Yes/No by Position (7-12 Seating Capacity)
- Master Optical Warning Device Switch - On/Off
- Time - 24 Hour Time
- Date - Year/Month/Day

INTERCOM SYSTEM

A four (4) position Sigtronics, Model US-45S, intercom system with single radio interface at the driver and officer positions will be provided. Two (2) crew located, at both rear facing seats , will have radio listen / intercom only.

The following components will be included:

- One (1) US-45S Intercom master station
- Four (4) Headset jacks in blue boxes (Driver, Officer, 2 Crew)
- Two (2) Push-to-transmit buttons in blue boxes (Driver, Officer)
- All necessary cabling

RADIO / INTERCOM INTERFACE CABLE

The apparatus manufacturer will supply and install one (1) radio interface cable before delivery of the vehicle.

The radio equipment to be used by the customer will be:

- Motorola High Power , Model number XTL 5000 .

HEADSET, UNDER HELMET

There will be four (4) Sigtronics, Model SE-2, under helmet, standard headset(s) provided D,O, and 2 crew.

Each headset will feature:

- Coiled cord with single nickel coated plug
- Noise cancelling electret microphone with wind muff
- Chrome plated swivel boom rotates 180 degrees for left or right dress
- Gel filled earseals

- Volume control
- 24 dB noise reduction

RADIO ANTENNA MOUNT

There will be one (1) standard 1.125", 18 thread antenna-mounting base(s) installed on the left 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.

VEHICLE CAMERA SYSTEM

There will be a color vehicle camera system provided with the following:

- One (1) 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 driver's Command Zone™, color display. Audio from the microphone on the active camera will be not provided.

The following components will be included:

- One (1) SV-CW134639CAI, camera
- One (1) amplified speaker (if applicable)
- All necessary cables

RECESS REAR CAMERA

A rear camera recess will be provided in the center at the rear .

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 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 re programmable to accommodate changes to the vehicle's operating parameters
- Complete operating and troubleshooting manuals
- USB connection to the main control module for advanced troubleshooting

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 -40C to +70C
- Storage temperature from -40C to +70C
- 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 16 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

Advanced on-board diagnostic messages will be provided to support rapid troubleshooting of the electrical power and control system. The diagnostic messages will be displayed on the information center located at the driver's position.

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

TECH MODULE WITH WIFI

An in cab module will provide Wifi wireless interface and data logging capability. (No Exception) The Wifi interface will comply with IEEE 802.11 b/g/n capabilities while communicating at 2.4 Gigahertz. The module will provide an external antenna connection 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 data logging 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 logger will provide up to 2 Gigabytes of data storage.

A USB connection will be provided on the Tech Module. It will provide a means to download data logger information and update software in the device.

PROGNOSTICS

A software based vehicle tool will be provided to predict remaining life of the vehicles critical fluid and events (no exceptions).

The system will send automatic indications to the Command Zone, color display and/or wireless enabled device to proactively alert of upcoming service intervals.

Prognostics will include:

- Engine oil and filter
- Transmission oil and filter

- Pump oil (if equipped)
- Foam oil (if equipped)
- Aerial oil and filter (if equipped)

ADVANCED DIAGNOSTICS

An advanced, Windows-based, diagnostic software program will be provided for this control system. The software will provide troubleshooting tools to service technicians equipped with a Windows-based computer or wireless enabled device.

The service and maintenance software will be easy to understand and use and have the ability to view system input/output (I/O) information.

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.

ENHANCED SOFTWARE

The solid-state control system will include the following software enhancements:

All perimeter lights and scene lights (where applicable) will be deactivated when the parking brake is released.

Cab and crew cab dome lights will remain on for ten (10) seconds for improved visibility after the doors close. The dome lights will dim after ten (10) seconds or immediately if the vehicle is put into gear.

Cab and crew cab perimeter lights will remain on for ten (10) seconds for improved visibility after the doors close. The dome lights will dim after ten (10) seconds or immediately if the vehicle is put into gear.

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.

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:

1. All holes made in the roof will be caulked with silicon, rope caulk is not acceptable. Large fender washers, liberally caulked, will be used when fastening equipment to the underside of the cab roof.
2. 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.
3. 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.
4. 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).

5. All lights that have their sockets in a weather exposed area will have corrosion preventative compound added to the socket terminal area.
6. All electrical terminals in exposed areas will have silicon (1890) 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.

BATTERY SYSTEM

There will be four (4) 12 volt 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 3800 CCA at 0 degrees Fahrenheit
- 760 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.

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.

BATTERY COMPARTMENTS

The batteries will be stored in well-ventilated compartments that are located under the cab and bolted directly to the chassis frame. The battery compartments will be constructed of 3/16" steel plate and be designed to accommodate a maximum of three (3) group 31 batteries in each compartment. The compartments will include formed fit heavy-duty roto-molded polyethylene battery tray inserts with drains on each side of the frame rails. The batteries will be mounted inside of the roto-molded trays.

JUMPER STUDS

One (1) set of battery jumper studs with plastic color-coded covers will be installed on the battery box on the driver's side. This will allow enough room for easy jumper cable access.

BATTERY CHARGER

A Charging Systems International, Dual Pro Charger, dual bank 20 amp battery charger will be provided.

This charging system will include the single remote indicator.

The battery charger will be wired to the AC shoreline inlet through an AC receptacle adjacent to this battery charger.

Battery charger/compressor will be located in the front left body compartment.

The battery charger indicator will be located behind the driver's door on the outside of the cab.

KUSSMAUL AUTO EJECT FOR SHORELINE

There will be two (2) Kussmaul Model 091-159-30-120, 30 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 will be connected to battery charger and Aux AC.

A mating connector body will be supplied with the loose equipment.

There will be a label installed near the inlet(s) that state the following:

- Line Voltage
- Current Ratting (amps)
- Phase
- Frequency

The shoreline receptacle will be located on the driver side of cab, above wheel.

SUB FEED CIRCUIT BREAKER BOX (SHORELINE)

A Cutler Hammer sub feed box will be supplied to protect the on board circuits when an auxiliary power source is used.

The box will be installed in the in D3 and as far out of the way as possible.

The sub feed box will distribute power to specific circuits in the vehicle.

A directory for each breaker will be provided adjacent to the circuit breaker panel.

Identification of circuits will be done in a durable manner that provides years of service.

AUTO TRANSFER SWITCH

To protect either the generator or external power source from back feed, an automatic relay system will be installed to switch the on line device between the generator and the external power source when it is connected for use.

The transfer switch will power the AC powered air conditioner.

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.

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)

HEADLIGHTS

There will be four (4) JW Speaker, rectangular LED lights mounted in the front quad style, chrome trim housing on each side of the cab grille:

- The outside light on each side will contain a Model 8800-12V - DOT/ECE LB LED low beam module.
- The inside light on each side will contain a Model 8800 -12V - DOT/ECE HB LED high beam module.

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.

CAB CLEARANCE/MARKER/ID LIGHTS

There will be seven (7) amber LED lights provided to indicate the presence and overall width of the vehicle in the following locations:

- 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.
- Two (2) amber LED marker lights will be installed, one (1) on each side above the cab doors.

INTERMEDIATE LIGHT

There will be two (2) Truck-Lite®, Model 60115Y, amber LED lights furnished, one (1) each side, horizontally in the rear fender panel. The light will double as a turn signal and marker light.

A stainless steel trim will be included with this installation.

REAR CLEARANCE/MARKER/ID LIGHTING

There will be a three (3) LED light bar 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) 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) LED lights installed on the side of the apparatus used 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.

REAR FMVSS LIGHTING

The rear stop/tail and directional LED lighting will consist of the following:

- Two (2) Whelen®, Model M6BTT, red LED stop/tail lights
- Two (2) Whelen, Model M6T, amber LED arrow turn lights

The lights shall be provided with clear lenses.

The lights will be mounted in a polished combination housing.

There will be two (2) Whelen Model M6BUW, LED backup lights provided in the tail light housing.

LICENSE PLATE BRACKET

There will be one (1) license plate bracket mounted on the rear of the body.

A white LED light will illuminate the license plate. A polished stainless steel light shield will be provided over the light that will direct illumination downward, preventing white light to the rear.

LIGHTING BEZEL

There will be two (2) Whelen, Model M6FCV4P, four (4) place chromed ABS housings with Pierce logos provided for the rear M6 series stop/tail, directional, back up, scene lights or warning lights.

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.

CAB PERIMETER SCENE LIGHTS

There will be four (4) Amdor LumaBar H2O white LED strip lights provided, one (1) for each cab door and crew cab door.

- Two (2) Amdor LumaBar H2O, Model AY-9500-020, 20.00" LED strip lights, one (1) for each cab door.
- Two (2) Amdor LumaBar H2O, Model AY-9500-012, 12.00" LED strip lights, one (1) for each crew cab door.

These lights will be activated automatically when the battery switch is on and the exit doors are opened or by the same means as the body perimeter scene lights.

PUMP HOUSE PERIMETER LIGHTS

There will be two (2) Amdor LumaBar H2O, Model AY-9500-012, 12.00" LED weatherproof strip lights with brackets 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.

BODY PERIMETER SCENE LIGHTS

There will be two (2) Amdor LumaBar H2O™, Model AY-9500-012, 12.00" 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.

STEP LIGHTS

Four (4) white LED step lights will be provided. One (1) step light will be provided on each side, on the front compartment face and two (2) step lights at the rear to illuminate the tailboard.

In order to ensure exceptional illumination, each light will provide a minimum of 25 foot-candles (fc) covering an entire 15.00" x 15.00" square placed 10.00" below the light and a minimum of 1.5 fc covering an entire 30.00" x 30.00" square at the same 10.00" distance below the light.

These step lights will be actuated with the pump panel light switch.

All other steps on the apparatus will be illuminated per the current edition of NFPA 1901.

12 VOLT LIGHTING

There will be two (2) Fire Research Spectra, Model SPA260-Q15*, 12 volt LED surface mounted scene light(s) with chrome bezel(s) provided one (1) high and forward on driver's side body and one (1) high and rearward on driver's side body.

The light(s) will be controlled in the following way:

- a switch at the driver's side switch panel
- a switch at the passenger's side switch panel

The light(s) may be load managed when the parking brake is applied.

12 VOLT LIGHTING

There will be two (2) Fire Research Spectra, Model SPA260-Q15*, 12 volt LED surface mounted scene light(s) with chrome bezel(s) provided one (1) high and forward on passenger's side body and one (1) high and rearward on passenger's side body.

The light(s) will be controlled in the following way:

- a switch at the driver's side switch panel
- a switch at the passenger's side switch panel

The light(s) may be load managed when the parking brake is applied.

12 VOLT LIGHTING

There will be one (1) Fire Research, Model SPA851-Q15-*, 12 volt LED floodlight(s) provided on the front visor, centered.

The painted parts of this light assembly to be black with a chrome bezel.

The light(s) will be controlled in the following way:

- a switch at the driver's side switch panel
- a switch at the passenger's side switch panel

These lights may be load managed when the parking brake is applied.

DECK LIGHTS

There shall be two (2) Whelen®, Model MPBW, white 12 volt DC LED floodlights with stud bail mount provided at the rear of the hose bed, one (1) each side.

The lights will be activated by a control from the driver side switch panel.

HOSE BED LIGHTS

There will be white 12 volt DC LED light strips, provided to light the hose bed area.

- One (1) light strip will be installed the entire length of the driver's side of the hose bed cover.
- One (1) light strip will be installed the entire length of the passenger's side of the hose bed cover.

The lights will be activated when the hosebed cover is raised.

SPECIAL WATER TANK

Booster tank will have a capacity of 500 gallons and be constructed of polypropylene plastic by United Plastic Fabricating, Incorporated.

The Special tank will be T-shaped to provide for deep side compartments and to serve as a large sump to limit the amount of undraftable water.

The tank will be designed to achieve a low hose bed. Tank design will be a stepped design with the forward section of the tank higher than the section of the tank that is below the hose bed.

Tank joints and seams will be nitrogen welded inside and out.

Tank will be baffled in accordance with NFPA Bulletin 1901 requirements.

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 is a minimum of 8.00" long x 8.00" wide x 6.00" deep will be provided at the bottom of the water tank.

Sump will include a drain plug and the tank outlet.

Tank will have a combination vent and 14.00" fill tower.

Tank will be installed in a special size fabricated cradle assembly constructed of structural steel.

Sufficient crossmembers will be provided to properly support bottom of tank. Crossmembers will be constructed of steel flat bar 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 to be approved by the tank manufacturer.

Fill tower will be constructed of .50" polypropylene and will be a minimum of 8.00" wide x 14.00" long.

Fill tower will be furnished with a .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.

WATER TANK RESTRAINT

A heavy-duty water tank restraint will be provided.

HOSE BED

The hose bed will be fabricated of .125"-5052 aluminum with a nominal 38,000 psi tensile strength.

The hose bed will be as low as practical.

Standard hose bed width will be 68.00" inside.

Upper and rear edges of side panels will have a double break for rigidity, a split tube finish will not be acceptable.

The upper inside area of the beavertails will be covered with brushed stainless steel to prevent damage to painted surface when hose is removed.

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.

The hose bed floor will be 67"" from the ground when the truck is fully loaded.

Hose bed will accommodate 1000' of 5.00" and (2) 500' of 3".

HOSE BED DIVIDER

Two (2) adjustable 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.

PAINTED PANEL FOR LETTERING/ NUMERALS

There will be two (2) smooth panel(s) mounted on the driver's and passenger's side sheet(s) for the installation of lettering/numerals. The panel(s) will cover body tubes and be located the full length on the side sheet. There will be no large bolt holes through the panel. The panel will have only one seam, situated between the lettering/numerals.

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.

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.

A red vinyl flap will be installed on the rear of the bright aluminum treadplate hose bed cover. A chain weight and paddle seat belt buckles will be provided along bottom edge of the cover. The web/seat belt straps will be 6.00" in length so that they are approximately 3.00" in length when doubled over. The top edge of the cover will be secured to the hose bed structure with quarter-turn fasteners.

Note: The buckles will not be mounted to the hosebed divider mount.

RUNNING BOARDS
Running boards will be fabricated of .125" bright aluminum treadplate.

Each running board will be supported by a welded 2.00" square tubing and channel assembly, which will be bolted to the pump compartment substructure.

Running boards will be 12.75" deep and spaced .50" away from the pump panel.

A splash guard will be provided above the running board treadplate.

TAILBOARD
The tailboard will also 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 16.00" deep.

The exterior side will be flanged down and in for increased rigidity of tailboard structure.

REAR WALL, SMOOTH ALUMINUM/BODY MATERIAL
The rear facing surfaces of the center rear wall will be smooth aluminum.

The bulkheads, the surface to the rear of the side body compartments, will be smooth and the same material as the body.

Any inboard facing surfaces below the height of the hosebed will be aluminum diamondplate .

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.

RUNNING BOARD HOSE RESTRAINT
A pair of 2.00" wide black nylon straps with Velcro fasteners will be provided for each hose tray to secure the hose during travel. There will be Two (2) hose trays located one (1) in each side running board.

HOSE TRAY
Two (2) hose trays will be recessed one (1) in each side running board.

Capacity of the tray will be 20.00' of 5.00" soft suction hose.

Rubber matting will be installed on the floor of the tray to provide proper ventilation.

COMPARTMENTATION

Body and compartments will be fabricated of .125", 5052-H32 aluminum.

Side compartments will be an integral assembly with the rear fenders.

Circular fender liners will be provided for prevention of rust pockets and ease of maintenance.

Compartment flooring will be of the sweep out design with the floor higher than the compartment door lip.

The compartment door opening will be framed by flanging the edges in 1.75" and bending out again .75" to form an angle.

Drip protection will be provided above the doors by means of bright aluminum extrusion, formed bright aluminum treadplate or polished stainless steel.

The top of the compartment will be covered with bright aluminum treadplate rolled over the edges on the front, rear and outward side. These covers will have the corners welded.

Side compartment covers will be separate from the compartment tops.

Front facing compartment walls will be covered with bright aluminum treadplate.

All screws and bolts which 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 support system will be the chassis frame rails which is the strongest component of the chassis and is designed for sustaining maximum loads.

The support system will include .375" thick steel vertical angle supports bolted to the chassis frame rails with .625" diameter bolts.

Attached to the bottom of the steel vertical angles will be horizontal angles, with gussets welded to the vertical members, which extend to the outside edge of the body.

A steel frame will be mounted on the top of these supports to create a floating substructure which will result in a 500 lb equipment support rating per lower compartment.

The floating substructure will be separated from the horizontal members with neoprene elastomer isolators. These isolators will reduce the natural flex stress of the chassis from being transmitted to the body.

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.

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.

LOUVERS

Louvers will be stamped into compartment walls to provide the proper airflow inside the body compartments and to prevent water from dripping into the compartment. Where these louvers are provided, they will be formed into the metal and not added to the compartment as a separate plate.

TESTING OF BODY DESIGN

Body structural analysis has been fully tested. Proven engineering and test techniques such as finite element analysis, stress coating and strain gauging have been performed with special attention given to fatigue, life and structural integrity of the cab, body and substructure.

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 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 actual testing techniques will be made available upon request.

COMPARTMENTATION, DRIVER'S SIDE

A full height, rollup door compartment ahead of the rear wheels will be provided. The interior dimensions of this compartment will be 34.50" wide x 65.13" high x 25.75" deep in the lower 57.25" of the compartment and 15.63" deep in the remaining upper portion. 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 28.75" wide x 57.25" high.

Closing of the door will not require releasing, unlocking, or unlatching any mechanism and will easily be accomplished with one hand.

A rollup door compartment over the rear wheels will be provided. The interior dimensions of this compartment will be 66.50" wide x 31.38" high x 25.75" deep in the lower 25.38" of the compartment and 15.63" deep in the remaining upper portion. The depth of the compartment will be calculated with the compartment door closed. The clear door opening of this compartment will be 58.25" wide x 25.12" 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, rollup door compartment behind the rear wheels will be provided. The interior dimensions of this compartment will be 47.50" wide x 66.13" high x 25.75" deep in the lower 58.25" of the compartment and 15.63" deep in the remaining upper portion. 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 44.75" wide x 58.25" high.

Closing of the door will not require releasing, unlocking, or unlatching any mechanism and will easily be accomplished with one hand.

COMPARTMENTATION, PASSENGER'S SIDE

A full height, rollup door compartment ahead of the rear wheels will be provided.. The interior dimensions of this compartment will be 34.50" wide x 58.25" high x 25.88" deep in the lower 26.00" of the compartment and 12.00" deep in the remaining upper portion. The height of the compartment will be measured from the compartment floor to the bottom edge of the door roll. 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 28.75" wide x 58.25" high.

Closing of the door will not require releasing, unlocking, or unlatching any mechanism and will easily be accomplished with one hand.

A rollup door compartment over the rear wheels will be provided. The interior dimensions of this compartment will be 66.50" wide x 25.38" high x 12.00" deep. The height of the compartment will be measured from the compartment floor to the bottom edge of the door roll. The depth of the compartment will be calculated with the compartment door closed. The clear door opening of this compartment will be 58.25" wide x 25.12" 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, rollup door compartment behind the rear wheels will be provided. The interior dimensions of this compartment will be 47.50" wide x 58.25" high x 25.88" deep in the lower 26.00" of the compartment and 12.00" deep in the remaining upper portion. The height of the compartment will be measured from the compartment floor to the bottom edge of the door roll. 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 44.75" wide x 58.25" high.

Closing of the door will not require releasing, unlocking, or unlatching any mechanism and will easily be accomplished with one hand.

ROLLUP DOOR, SIDE COMPARTMENTS

There will be six (6) compartment doors installed on the side compartments. The doors will be double faced aluminum construction, painted one (1) color to match the lower portion of the body and manufactured by A&A Manufacturing (Gortite).

Lath sections will be an interlocking rib design and will be individually replaceable without complete disassembly of door.

Between each slat at the pivoting joint will be a PVC inner seal to prevent metal to metal contact and prevent dirt or moisture from entering the compartments. Seals will allow door to operate in extreme temperatures ranging from plus 180 to minus 40 degrees Fahrenheit. Side, top and bottom seals will be provided to resist ingress of dirt and weather and be made of Santoprene.

All hinges, barrel clips and end pieces will be nylon 66. All nylon components will withstand temperatures from plus 300 to minus 40 degrees Fahrenheit.

A polished stainless steel lift bar to be provided for each roll-up door. Lift bar will be located at the bottom of door and have latches on the outer extrusion of the doors frame. A ledge will be supplied over lift bar for additional area to aid in closing the door.

Doors will be constructed from an aluminum box section. The exterior surface of each slat will be flat. The interior surfaces will be concave to provide strength and prevent loose equipment from jamming the door from inside.

To conserve space in the compartments, the spring roller assembly will not exceed 3.00" in diameter.

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.

TRANSVERSE AREA

A transverse area above the rear tailboard will be provided.

Interior dimensions of this area will be 40.00" wide x 40.63" high x 25.88" deep.

A louvered, removable access panel will be furnished on the back wall of the compartment.

This area will be open into the rear side compartments.

COMPARTMENT LIGHTING

There will be seven (7) compartment(s) with two (2) white 12 volt DC LED compartment light strips. The dual light strips will be centered vertically along each side of the door framing. There will be two (2) light strips per compartment.The dual light strips will be in all body compartment(s).

Any remaining compartments without light strips will have a 6.00" diameter Truck-Lite, Model: 79384 light. Each light will have a number 1076 one filament, two wire bulb.

Opening the compartment door will automatically turn the compartment lighting on.

COMPARTMENT LIGHTING

Metal clamps will be used to retain the strip lighting in all body compartments.

The side sheet over the pump house will be raised to conceal the equipment stored in the cargo compartment.

MOUNTING TRACKS

There will be five (5) sets of tracks for mounting shelf(s) in [Location, Shelf Track]. These tracks will be installed vertically to support the adjustable shelf(s), and will be full height of the compartment. The tracks will be painted to match the compartment interior.

ADJUSTABLE SHELVES

There will be seven (7) shelves with a capacity of 500 lb provided. The shelf construction will consist of .188" aluminum with 2.00" sides. Each shelf will be painted to match the compartment interior. 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 will be D1, D3, R1, P1, P3, upper portion of compartment. 2 others TBD.

SLIDE-OUT FLOOR MOUNTED TRAY

There will be one (1) floor mounted slide-out tray(s) with 2.00" sides provided D3. Each tray will be rated for up to 500lb in the extended position. The tray(s) will be constructed of a minimum .13" aluminum with welded corners. The finish will be painted to match compartment interior.

There will be two undermount-roller bearing type slides rated at 250lb 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.

SWING OUT TOOLBOARD

A swing out aluminum toolboard will be provided.

It will be a minimum of .188" thick without holes in the board.

A 1.00" x 1.00" aluminum tube frame will be welded to the edge of the pegboard.

The board will be mounted on a pivoting device at the front of the compartment on the top and bottom to allow easy movement in and out of the compartment. The maximum tool load will be 400 pounds.

The board will have positive lock in the stowed and extended position.

The board will be mounted on adjustable tracks from front to back within the compartment.

There will be One (1) toolboard(s) provided. The toolboard(s) will be spatter gray painted and installed D2.

COMPARTMENT GRATING

UPF non-recycled plastic grating will be provided in five (5) compartments. The locations are, TBD.

Grating slats will have spacing provided for aeration.

PARTITION, TRANSVERSE REAR COMPARTMENT

Two (2) partitions will be bolted in place to separate driver and passenger side rear compartments from the rear tailboard compartment.

MOUNTING TRACKS

There will be two (2) sets of tracks for mounting equipment. These tracks will be installed horizontally on the back wall of the compartment(s).

The compartment(s) with mounting tracks will be D2 and P2.

RUB RAIL

Bottom edge of the side and rear of the body compartments will be trimmed with a bright aluminum extruded rub rail.

Trim will be 2.12" high with 1.38" flanges turned outward for rigidity.

The rub rails will not be an integral part of the body construction, which allows replacement in the event of damage.

BODY FENDER CROWNS

Stainless steel fender crowns will be provided around the rear wheel openings.

A rubber welting will be installed between the body and the crown to seal the seam and restrict moisture from entering.

A dielectric barrier will be provided between the fender crown fasteners (screws) and the fender sheet metal to prevent corrosion.

HARD SUCTION HOSE

Hard suction hose will not be required.

HANDRAILS

The handrails will be 1.25" diameter anodized aluminum extrusion, with a ribbed design, to provide a positive gripping surface.

Chrome plated 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.

Handrails will be provided to meet NFPA 1901 section 15.8 requirements. The handrails will be installed as noted on the sales drawing.

HANDRAILS

One (1) vertical handrail, not less than 29.00" long, will be located on each rear beavertail.

One (1) horizontal black rubber-covered handrail will be provided above the hose bed at the rear of the apparatus. The hose bed dividers shall be tied to the upper handrail or cross bar in order to provide sufficient reinforcement.

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 passenger side forward of the rear wheels and on the passenger side rearward of the rear wheels. A painted stainless steel door with a chrome plated flush lift & turn 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 rubber matting 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.

AIR PACK STORAGE

A total of one (1) air pack compartment(s) will be provided and located DS forward fender. The air pack compartment(s) will be tapered to match the profile of the space available in the fender. The compartment(s) will be approximately 15.50" wide at the top and 5.00" wide at the bottom for the wheel cutout. The compartment(s) will be 15.50" tall at the body side compartment and 6.00" tall at the wheel cutout. The compartment(s) will be 26.00" deep and have a drain hole.

Inside the compartment, black rubber matting will be provided.

A polished stainless steel hinged door with a chrome plated flush lift & turn latch will be provided to contain the air pack. A dielectric barrier will be provided between the door hinge, hinge fasteners and the body sheet metal.

EXTENSION LADDER

There will be a 24', two-section, aluminum, Duo-Safety, Series 900-A extension ladder provided.

ROOF LADDER

There will be one (1) 14' aluminum, Duo-Safety, Series 775-DR roof ladder(s) provided. The ladder(s) will have roof hooks on both ends.

LADDER STORAGE

The ladders and a single backboard will be stored between the water tank and the passenger's side compartments.

The ladders will extend into the pump compartment just to the rear of the water pump discharges.

Backboard dimensions will be 18" x 3" x 72".

The ladder storage area will be enclosed as practical by means of sheet metal to protect the ladders from road dirt. The ladders that extend into the pump house will also be enclosed. A black rubber boot will be provided to enclosed the ladders in the gap between the pump house and the body.

Each ladder will be stored vertically in a separate stainless steel storage trough. Each stainless steel trough will be lined with Dura-Surf nylon slides.

A bright aluminum treadplate enclosure will be provided at the rear of the body to properly contain the ladders This enclosure will extend to the rear of the side body compartments.

The enclosure will also include a vertically hinged smooth aluminum door with a D-handle latch to access the ladders.

FOLDING LADDER PROVIDED BY FIRE DEPARTMENT

NFPA 1901, 2009 edition, section 5.7.1.2 requires a folding ladder.

The folding ladder is not on the apparatus as manufactured. There will be one (1) 10.00' aluminum, Series 585-A, Duo-Safety folding ladder provided by the fire department. The ladder will be installed in a U-shaped trough inside the ladder storage compartment.

ATTIC LADDER

One (1) 14' aluminum, Series 701 Fresno ladder will be installed in a U-shaped trough inside the ladder storage compartment.

PIKE POLE PROVIDED BY FIRE DEPARTMENT

NFPA 1901, 2009 edition, Section 5.8.3 requires one (1) 8 ft or longer pike pole mounted in a bracket fastened to the apparatus.

The pike pole is not on the apparatus as manufactured. The fire department will provide and mount the pike pole.

The pike pole(s) will be a Akron 10' pike pole.

6 FT PIKE POLE PROVIDED BY FIRE DEPARTMENT

NFPA 1901, 2009 edition, Section 5.8.3 requires one (1) 6 ft pike pole or plaster hook mounted in a bracket fastened to the apparatus.

The pike pole is not on the apparatus as manufactured. The fire department will provide and mount the pike pole.

The pike pole(s) will be a Akron 6' pike pole.

PIKE POLE STORAGE

Aluminum tubing will be used for the storage of four (4) pike poles and will be located in ladder storage compartment and in the crosslay/speedlay area. If the head of a pike pole can come in contact with a painted surface, a stainless steel scuffplate will be provided.

STEPS

A folding step will be provided on the front of each fender compartment. The step will be bright finished, non-skid with a black coating. Each step will incorporate an LED light to illuminate the stepping surface. The step can be used as a hand hold with two openings wide enough for a gloved hand.

REAR FOLDING STEPS

Bright finished, non-skid folding steps with a black coating 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.

Two (2) additional folding steps will be located two (2) on the driver side front bulkhead. The step(s) will be bright finished, non-skid with a black coating. 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.

PUMP

Pump will be a Waterous CSU, 1500 gpm single (1) stage midship mounted centrifugal type.

Pump will be the class "A" type.

Pump will deliver the percentage of rated discharge at pressures indicated below:

- 100% of rated capacity at 150 psi net pump pressure.

-70% of rated capacity at 200 psi net pump pressure.

-50% of rated capacity at 250 psi net pump pressure.

Pump body will be close-grained gray iron, bronze fitted, and horizontally split in two (2) sections for easy removal of the entire impeller shaft assembly (including wear rings).

Pump will be designed for complete servicing from the bottom of the truck, without disturbing the pump setting or apparatus piping.

Pump case halves will be bolted together on a single horizontal face to minimize chance of leakage and facilitate ease of reassembly. No end flanges will be used.

Discharge manifold of the pump will be cast as an integral part of the pump body assembly and will provide a minimum of three (3) 3.50" openings for flexibility in providing various discharge outlets for maximum efficiency.

The three (3) 3.50" openings will be located as follows: one (1) outlet to the right of the pump, one (1) outlet to the left of the pump, and one (1) outlet directly on top of the discharge manifold.

Impeller shaft will be stainless steel, accurately ground to size. It will be supported at each end by sealed, anti-friction ball bearings for rigid precise support. Impeller will have flame plated hubs assuring maximum pump life and efficiency despite any presence of abrasive matter in the water supply.

Bearings will be protected from water and sediment by suitable stuffing boxes, flinger rings, and oil seals. No special or sleeve type bearings will be used.

Stuffing boxes will be of the conventional two (2) piece, split-gland type, to permit adjustment or replacement of Grafoil packing without disturbing the pump. Water will be fed into stuffing box lantern rings for proper lubrication and cooling when the pump is operating.

Lantern rings will be located at the inner ends of the stuffing boxes, to avoid having to remove them when replacing pump packing.

Wear rings will be bronze and easily replaceable to restore original pump efficiency and eliminate the need to replace the entire pump casing due to wear.

PUMP TRANSMISSION

The pump transmission will be made of a three (3) piece, aluminum, horizontally split casing. Power transfer to pump will be through a high strength Morse HY-VO silent drive chain. By the use of a chain rather than gears, 50% of the sprocket will be accepting or transmitting torque, compared to two (2) or three (3) teeth doing all the work.

Drive shafts will be 2.35" diameter hardened and ground alloy steel and supported by ball bearings. The case will be designed to eliminate the need for water cooling.

AIR PUMP SHIFT

Pump shift engagement will be made by a two (2) position sliding collar, actuated pneumatically (by air pressure), with a three (3) position air control switch located in the cab. A manual back-up shift control will also be located on the pump operator's pump panel.

Two (2) indicator lights will be provided adjacent to the pump shift inside the cab. One (1) green light will indicate the pump shift has been completed and be labeled "pump engaged". The second green light will indicate when the pump has been engaged, and that the chassis transmission is in pump gear. This indicator light will be labeled "OK to pump".

Another green indicator light will be installed adjacent to the hand throttle on the pump panel and indicate either the pump is engaged and the road transmission is in pump gear, or the road transmission is in neutral and the pump is not engaged. This indicator light will be labeled "Warning: Do not open throttle unless light is on".

The pump shift control in the cab will be illuminated to meet NFPA requirements.

TRANSMISSION LOCK-UP

The direct gear transmission lock-up for the fire pump operation will engage automatically when the pump shift control in the cab is activated.

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. The heat exchanger will be cylindrical type and will be a separate unit. The heat exchanger will be installed in the pump or engine compartment with the control located on the pump operator's control panel. Exchanger will be plumbed to the master drain valve.

INTAKE RELIEF VALVE

A Trident Air Max intake relief valve will be installed on the suction side of the pump preset at 125 psig.

Relief valve will have a working range of 50 psig to 350 psig.

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.

An adjustable air regulator and pressure indicating gauge will be located at the pump operator's panel.

PRESSURE CONTROLLER

A Fire Research Pump Boss Model PBA200 pressure governor will be provided.

A pressure transducer will be installed in the water discharge manifold on the pump.

The display panel will be located at the pump operator's panel.

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 NFPA 1901.

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.

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) CDs. Each manual will cover pump operation, maintenance, and parts.

PLUMBING

All outlet plumbing, 4.00" and smaller, will be plumbed with either stainless steel pipe or synthetic rubber hose reinforced with hi-tensile polyester braid. Small diameter secondary plumbing such as drain lines will be stainless steel, brass or hose.

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 lines will drain through a master drain valve or will be equipped with individual drain valves. All individual drain lines for discharges will be extended with a hose to drain below the chassis frame.

All water carrying gauge lines will be of flexible polypropylene tubing.

All foam piping that is in contact with the foam concentrate or foam/water solution will be stainless steel.

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 INLET CAP, PROVIDED BY FIRE DEPARTMENT

NFPA 1901, section 16.6.8 requires all intakes to be provided with caps or closures capable of withstanding a hydrostatic gauge pressure of 500 psi.

The caps are not on the apparatus as manufactured. The fire department will provide both caps for the main pump inlets.

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.

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.

The location of the valve for the one (1) inlet will be recessed behind the pump panel.

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.

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 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.

TANK TO PUMP

The booster tank will be connected to the intake side of the pump with heavy duty piping and a quarter turn 3.00" full flow line valve with the control remotely located at the operator's panel. Tank to pump line will run straight (no elbows) from the pump into the front face of the water tank and angle down into the tank sump. 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.

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.

LEFT SIDE DISCHARGE OUTLETS

There will be two (2) discharge outlets with a 2.50" valve on the left side of the apparatus, terminating with 2.50" (M) National Standard hose thread adapter.

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" (M) National Standard hose thread adapter.

LARGE DIAMETER DISCHARGE OUTLET

There will be a 4.00" discharge outlet with a 4.00" Akron valve installed on the right side of the apparatus, terminating with a 4.00" (M) National Standard hose thread adapter. This discharge outlet will be actuated with a handwheel control at the pump operator's control panel.

An indicator will be provided to show when the valve is in the closed position.

FRONT DISCHARGE OUTLET

There will be one (1) 2.50" discharge outlet piped to the front of the apparatus and located on the top of the left side of the front bumper.

Plumbing will consist of 2.50" piping and flexible hose with a 2.50" full flow 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 2.50" NST with 90 degree stainless steel swivel.

There will be Class 1 automatic drains provided at all low points of the piping.

REAR DISCHARGE OUTLET

There will be one (1) discharge outlet piped to the rear of the hose bed, driver's 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 CAPS

Chrome plated, rocker lug, caps with vinyl covered cables will be furnished for all discharge outlets.

OUTLET BLEEDERS

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 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 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.

LEFT SIDE OUTLET ELBOWS

The 2.50" discharge outlets located on the left side pump panel 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.

RIGHT SIDE OUTLET ELBOWS

The 2.50" discharge outlets located on the right side pump panel 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.

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.

LARGE DIAMETER OUTLET ELBOWS

The 4.00" outlet(s) will be furnished with one (1) 4.00" (F) National Standard hose thread x 5.00" Storz elbow adapter with Storz cap.

DISCHARGE OUTLET CONTROLS

The discharge outlets will incorporate a quarter-turn ball valve with the control located at the pump operator's panel. The valve operating mechanism will indicate the position of the valve.

If a handwheel control valve is used, the control will be a minimum of a 3.9" diameter stainless steel handwheel with a dial position indicator built in to the center of the handwheel.

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. Piping will be rigidly braced and installed securely so no movement develops when the line is charged. The riser will be gated and controlled at the pump operator's panel with a handwheel control.

TELESCOPIC PIPING

The deluge riser piping will include a 18.00" Task Force Model XG18 Extend-A-Gun extension.

This extension will be telescopic to allow the deluge gun to be raised 18.00" increasing the range of operation.

A position sensor will be provided on the telescopic piping that will activate the "do not move vehicle" light inside the cab when the monitor is in the raised position.

One TFT Crossfire deck gun package will be provided and will include the following:

* Crossfire Monitor Top

* M-R Master stream 1250 GPM Fog Nozzle

* Quad Stacked Tips

* 10" Stream Straightener

NOZZLE

A Task Force Tips Master Stream 1250 M-R nozzle will be provided.

The deluge extension will have a Task Force, Model XFF-APL, truck mount adapter for mounting the monitor.

DEADLAY HOSE BEDS

One (1) deadlay bed, without plumbing, will be provided above the pump compartment capable of carrying 250' of 2.5".

The center crosslay dividers will be fabricated of .25" aluminum and will provide adjustment from side to side. The divider will be unpainted with a DA finish.

Stainless steel vertical scuffplates will be provided at hose bed ends (each side of vehicle). Bottom of hose bed ends (each side) will also be equipped with a stainless steel scuffplate.

Deadlay bed flooring will consist of removable perforated brushed aluminum.

2.50" CROSSLAY HOSE BED

One (1) crosslay with 2.50" outlets will be provided. This bed to be capable of carrying 200' of 2.50" double jacketed hose and will be plumbed with 2.50" i.d. pipe and gated with a 2.50" quarter turn ball valve.

Outlet to be equipped with a 2.50" National Standard hose thread 90 degree swivel located in the hose bed so that hose may be removed from either side of apparatus.

The crosslay control will be at the pump operator's panel.

The center crosslay dividers will be fabricated of 0.25" aluminum and will provide adjustment from side to side. The divider will be unpainted with a brushed finish. The remainder of the crosslay bed will be painted job color.

Stainless steel vertical scuffplates will be provided at hose bed ends (each side of vehicle). Bottom of hose bed ends (each side) will also be equipped with a stainless steel scuffplate.

Crosslay bed flooring will consist of removable perforated brushed aluminum.

SPEEDLAYS WITH TRAY

Ahead of the pump enclosure will be two (2) 1.75" speedlay hose beds. Each bed will have a 2.00" preconnect line with a 2.00" quarter-turn ball valve and terminate with a 1.50" National Standard hose thread 90 degree swivel. The swivel will be located at the top of the speedlay compartment to allow easy removal of the hose in either direction.

Individual controls for the speedlays will be at the pump operator's panel.

Each compartment will be capable of carrying 200 feet of 1.75" double jacketed hose with the one (1) compartment located above the other.

A removable tray will be provided for each speedlay hosebed. The speedlay trays 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. The bottom of the speedlay compartments will be lined with stainless steel to allow the tray to slide with ease. Scuffplates will be provided on both sides, at the sides and bottom of each opening to protect the paint.

SPEEDLAY HOSE RESTRAINT

There will be red vinyl end flaps provided across each end of three (3) speedlay(s) to secure the hose during travel. The vinyl end flaps will be permanently attached at the bottom of the speedlay opening. There will be velcro with jacket snaps in two (2) corners fasteners located at the opposite end of the permanently attached vinyl.

A nylon strap with snap will be provided to hold the flap in the open position for reloading of hose.

CROSSLAY/DEADLAY HOSE RESTRAINT

An aluminum treadplate cover, hinged at the front will be installed over the top of the crosslay/deadlay(s). It will include a latch at each end of the cover to hold it securely in place, a

chrome grab handle at each end for opening and closing the cover and a foam rubber gasket where the cover comes into contact to a painted surface. The cover will be provided with socket and plunger hold open device.

BOOSTER HOSE REEL

A Hannay electric rewind aluminum booster hose with polished discs will be installed in the rear tailboard compartment.

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.

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.

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.

Capacity of the hose reel will be 150 feet of 1.00" booster hose.

HUSKY 3 FOAM PROPORTIONER

A Pierce Husky® 3 foam proportioning system will be provided. The Husky 3 is an on demand, automatic proportioning, single point, direct injection system suitable for all types of Class A and B foam concentrates, including the high viscosity (6000 cps), alcohol resistant Class B foams. Operation will be based on direct measurement of water flow, and remain consistent within the specified flows and pressures. The system will automatically proportion foam solution at rates from .1 percent to 3.0 percent regardless of variations in water pressure and flow, up to the maximum rated capacity of the foam concentrate pump.

The design of the system will allow operation from draft, hydrant, or relay operation.

SYSTEM CAPACITY

The system will have the ability to deliver the following minimum foam solution flow rates at accuracies that meet or exceed NFPA requirements at a pump rating of 150 psi.

100 gpm @ 3 percent

300 gpm @ 1 percent

600 gpm @ 0.5 percent

Class A foam setting in .1 percent increments from .1 percent to 1 percent. Typical settings of 1 percent, .5 percent and .3 percent (maximum capacity will be limited to the plumbing and water pump capacity).

CONTROL SYSTEM

The system will be equipped with a digital electronic control display located on the pump operators panel. Push button controls will be integrated into the panel to turn the system on/off, control the foam percentage, and to set the operation modes.

The percent of injection will have a preset. This preset can be changed at the fire department as desired. The percent of injection will be able to be easily changed at the scene to adjust to changing demands.

Three (3) .50 tall LEDs will display the foam percentage in numeric characters. Three (3) indicator LEDs will also be included, one (1) green, one (1) red, and one (1) yellow. The LEDs will indicate various system operation or error states.

The indications will be:

Solid Green - System On

Solid Red - Valve Position Error

Solid Yellow - Priming System

Flashing Green - Injecting Foam

Flashing Red - Low Tank Level

Flashing Yellow - Refilling Tank

The control display will house a microprocessor, which receives input from the systems water flow meter while also monitoring the position of the foam concentrate pump. The microprocessor will compare the values of the water flow versus the position/rate of the foam pump, to ensure the proportion rate is accurate. One (1) check valve will be installed in the plumbing to prevent foam from contaminating the water pump.

HYDRAULIC DRIVE SYSTEM

The foam concentrate pump will be powered by an electric over hydraulic drive system. The hydraulic system and motor will be integrated into one (1) unit.

FOAM CONCENTRATE PUMP

The foam concentrate pump will be of positive displacement, self-priming; linear actuated design, driven by the hydraulic system. The pump will be constructed of brass body; chrome plated stainless steel shaft, with a stainless steel piston. In order to increase longevity of the pump, no aluminum will be present in its construction.

A relief system will be provided which is designed to protect the drive system components and prevent over pressuring the foam concentrate pump

The foam concentrate pump will have minimum capacity for 3 gpm with all types of foam concentrates with a viscosity at or below 6000 cps including protein, fluoroprotein, AFFF, FFFP, or AR-AFFF. The system will deliver only the amount of foam concentrate flow required, without recirculating foam back to the storage tank. Recirculating foam concentrate back to the storage tank can cause agitation and premature foaming of the concentrate, which can result in system failure. The foam concentrate pump will be self-priming and have the ability to draw foam concentrate from external supplies such as drums or pails.

EXTERNAL FOAM CONCENTRATE CONNECTION

An external foam pick-up will be provided to enable use of a foam agent that is not stored on the vehicle. The external foam pick-up will be designed to allow continued operation after the on-board foam tank is empty, or the use of foam different than the foam in the foam tank.

PANEL MOUNTED EXTERNAL PICK-UP CONNECTION / VALVE

A bronze three (3)-way valve will be provided. The unit will be mounted to the pump panel. The valve unit will function as the foam system tank to pump valve and external suction valve. The external foam pick-up will be one (1) .75" male connection GHT (garden hose thread) with a cap.

PICK-UP HOSE

A .75" flexible hose with an end for insertion into foam containers will be provided. The hose will be supplied with a .75" female swivel GHT (garden hose thread) swivel connector. The hose will be shipped loose.

DISCHARGES

The foam system will be plumbed to five (5) discharges. The discharges capable of dispensing foam will be 3 crosslays, rear 2.5" and the front bumper.

SYSTEM ELECTRICAL LOAD

The maximum current draw of the electric motor and system will be no more than 55 amperes at 12 VDC.

SINGLE FOAM TANK REFILL

The foam system's proportioning pump will be used to fill the foam tank. This will allow use of the auxiliary foam pick-up to pump the foam from pails or a drum on the ground into the foam tank. A foam shut-off switch will be installed in the fill dome of the tank to shut the system down when the tank is full. The fill operation will be controlled by a mode in the foam system controller. While the proportioner pump is filling the tank, the controller will display a flashing yellow LED to indicate that the tank is filling. When the tank is full, as determined by the float switch in the tank dome, the pump will stop and the controller will shut the yellow LED off. If it attempted to use tank fill and the refill valve and suction valve are in the wrong position(s), then a red LED will illuminate to indicate the improper valve position(s). When the valves are positioned properly, then filling will commence.

FOAM TANK

The foam tank will be an integral portion of the polypropylene water tank. The cell will have a capacity of 20 gallons of foam with the intended use of Class A foam. The foam cell will not reduce the capacity of the water tank. The foam cell will have a screen in the fill dome and a breather in the lid.

FOAM TANK DRAIN

A system of 1.00" foam tank drains will be provided, integrated into the foam systems strainer and tank to foam pump valve management system.The tank to pump hoses running from the tank(s) to the panel mounted strainer will 1.00" diameter.The foam system controller will have a mode that allows for a given foam valve to be opened at will. Flow of foam from the tank valve to the strainer will be usable as a tank drain mode.

An adaptor will be supplied, that allows the 1.00" foam intake screen to assembly to be used as a drain outlet. The standard supplied 1.00" foam pick up hose will be attached to the screen assembly by way of the adapter. The drain mode will allow the operator to open and close the tank valve as required from the control head, to drain foam and re-fill foam containers through the connected hose, without foam spillage beneath the vehicle.

PUMP COMPARTMENT

The pump compartment will be separate from the hose body and compartments so that each may flex independently of the other. It will be a fabricated assembly of steel tubing, angles and channels which supports both the fire pump and the side running boards.

The pump compartment will be mounted on the chassis frame rails with rubber biscuits in a four point pattern to allow for chassis frame twist.

Pump compartment, pump, plumbing and gauge panels will be removable from the chassis in a single assembly.

PUMP MOUNTING

Pump will be mounted to a substructure which will be mounted to the chassis frame rail using rubber isolators. The mounting will allow chassis frame rails to flex independently without damage to the fire pump.

PUMP CONTROL PANELS (LEFT SIDE CONTROL)

All pump controls and gauges will be located at the left (driver's) side of the apparatus and properly identified.

Layout of the pump control panel will be ergonomically efficient and systemmatically organized.

The pump operator's control panel will be removable in two (2) main sections for ease of maintenance:

The upper section will contain sub panels for the mounting of the pump pressure control device, engine monitoring gauges, electrical switches, and foam controls (if applicable). Sub panels will be removable from the face of the pump panel for ease of maintenance. Below the sub panels will be located all valve controls and line pressure gauges.

The lower section of the panel will contain all inlets, outlets, and drains.

All push/pull valve controls will have 1/4 turn locking control rods with polished chrome plated zinc tee handles. Guides for the push/pull control rods will be chrome plated zinc castings securely mounted to the pump panel. Push/pull valve controls will be capable of locking in any position. The control rods will pull straight out of the panel and will be equipped with universal joints to eliminate binding.

IDENTIFICATION TAGS

The identification tag for each valve control will be recessed in the face of the tee handle.

All discharge outlets will have color coded identification tags, with each discharge having its own unique color. Color coding will include the labeling of the outlet and the drain for each corresponding discharge.

All line pressure gauges will be mounted directly above the corresponding discharge control tee handles and recessed within the same chrome plated casting as the rod guide for quick identification. The gauge and rod guide casting will be removable from the face of the pump panel for ease of maintenance. The casting will be color coded to correspond with the discharge identification tag.

All remaining identification tags will be mounted on the pump panel in chrome plated bezels.

The pump panel on the right (passenger's) side will be removable with lift and turn type fasteners.

Trim rings will be installed around all inlets and outlets.

The trim rings for the side discharge outlets will be color coded and labeled to correspond with the discharge identification tag.

PUMP PANEL CONFIGURATION

The pump panel configuration will be arranged and installed in an organized manner that will provide user-friendly operation.

PUMP AND GAUGE PANEL

The pump and gauge panels will be constructed of stainless steel with a brushed finish. A polished aluminum trim molding will be provided on both sides of the pump panel.

The passenger's side pump panel will be removable and fastened with swell type fasteners.

PUMP COMPARTMENT LIGHT

A pump compartment light will be provided inside the right side pump enclosure and accessible through a door on the pump panel.

A .125" weep hole will be provided in each light lens, preventing moisture retention.

Engine monitoring graduated LED indicators will be incorporated with the pressure controller.

Also provided at the pump panel will be the following:

- Master Pump Drain Control

AIR HORN SWITCH

An air horn control switch will be provided at the pump operator's control panel. This switch will be red and properly labeled. The button will be located within easy reach of the operator in the electrical switch panel.

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 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.

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.

WATER LEVEL GAUGE

There will be an electronic water level gauge provided on the operator's panel that registers water level by means of five (5) colored LED lights. The lights will be durable, ultra-bright five (5) LED design viewable through 180 degrees. The water level indicators will be as follows:

- 100 percent = Green
- 75 percent = Yellow
- 50 percent = Yellow
- 25 percent = Yellow

- Refill = Red

The light will flash when the level drops below the given level indicator to provide an eighth of a tank indication. To further alert the pump operator, the lights will flash sequentially when the water tank is empty.

The level measurement will be based on the sensing of head pressure of the fluid in the tank.

The display will be constructed of a solid plastic material with a chrome plated die cast bezel to reduce vibrations that can cause broken wires and loose electronic components. The encapsulated design will provide complete protection from water and environmental elements. An industrial pressure transducer will be mounted to the outside of the tank. The field calibratable display measures head pressure to accurately show the tank level.

FOAM LEVEL GAUGE

An electronic foam level gauge will be provided on the operator's panel that registers foam level by means of five (5) colored LED lights. The lights will be durable, ultra-bright five (5) LED design viewable through 180 degrees. The foam level indicators will be as follows:

- 100 percent = Green
- 75 percent = Yellow
- 50 percent = Yellow
- 25 percent = Yellow
- Refill = Red

The light will flash when the level drops below the given level indicator to provide an eighth of a tank indication. To further alert the pump operator, the lights will flash sequentially when the foam tank is empty.

The level measurement will be based on the sensing of head pressure of the fluid in the tank.

The display will be constructed of a solid plastic material with a chrome plated die cast bezel to reduce vibrations that can cause broken wires and loose electronic components. The encapsulated design will provide complete protection from foam and environmental elements. An industrial pressure transducer will be mounted to the outside of the tank. The display will be able to be calibrated in the field and will measure head pressure to accurately show the tank level.

LIGHT SHIELD

There will be a polished, 16 gauge stainless steel light shield installed over the pump operator's panel.

- There will be 12 volt DC white LED lights installed under the stainless steel light shield to illuminate the controls, switches, essential instructions, gauges, and instruments necessary for the operation of the apparatus. These lights will be activated by the pump panel light switch. Additional lights will be included every 18.00" depending on the size of the pump house.
- One (1) pump panel light will come on when the pump is in ok to pump mode.

There will be a light activated above the pump panel light switch when the parking brake is set. This is to afford the operator some illumination when first approaching the control panel.

There will be a green pump engaged indicator light activated on at the operator's panel when the pump is shifted into gear from inside the cab.

AIR HORN SYSTEM

There will be two (2) Grover, air horns provided and located in the front bumper, recessed to the outside of the frames. The horn system will be piped to the air brake system wet tank utilizing 0.38" tubing. A pressure protection valve will be installed in-line to prevent loss of air in the air brake system.

AIR HORN CONTROL

Two (2) lanyard rope pull controls will be provided, one (1) within reach of the driver and one (1) within reach of the officer.

ELECTRONIC SIREN

A Whelen, Model: 295SLSC1, electronic siren with detachable noise canceling microphone will be provided.

This siren to be active when the battery switch is on and that emergency master switch is on.

Electronic siren head will be recessed in the overhead console above the engine tunnel on the driver side.

The electronic siren will be controlled on the siren head only. No horn button or foot switches will be provided.

SPEAKER

There will be one (1) speaker provided. Each speaker will be a Whelen®, Model SP123BMC, 100-watt, flange mount speaker with a chrome plated ABS grille. Each speaker will be connected to the siren amplifier.

The speaker(s) will be recessed in the center of the front bumper.

AUXILIARY MECHANICAL SIREN

A Federal Q2B® siren will be furnished. A siren brake button will be installed on the switch panel.

The control solenoid will be powered up after the emergency master switch is activated.

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.

MECHANICAL SIREN CONTROL

The mechanical siren WIll be actuated by a push button located on the officer's side instrument panel and by a foot switch on the driver's side.

LIGHTBAR

There will be one (1) 77.00" Whelen Freedom, Model FN**QLED, LED lightbar mounted on the cab roof.

The lightbar will include the following:

- Six (6) red flashing LED modules facing forward.
- Two (2) white flashing LED modules facing forward.
- Two (2) red flashing corner LED modules, one (1) in each front corner.
- One (1) red flashing LED module facing the driver side.
- One (1) red flashing LED module facing the passenger side.
- One (1) GTT Model 795 LED Opticom™, traffic light controller with national standard high priority.

The color of the lenses will be clear.

There will be two (2) switches located on a cab switch panel to control this lightbar.

- One (1) switch will control all the warning lights.
- One (1) switch will control the traffic light controller.

The white warning lights and the traffic light controller will be disabled when the parking brake is set.

CAB FACE WARNING LIGHTS

There will be four (4) Whelen, Model M6*C, LED flashing warning lights installed on the cab face, above the headlights with with a flange.

- The driver's side front outside warning light to be red.
- The driver's side front inside warning light to be red.
- The passenger's side front inside warning light to be red.
- The passenger's side front outside warning light to be red.

All four (4) lights will include a clear lens.

There will be a switch located in the cab, on the switch panel, to control the four (4) lights.

The inside lights may be load managed if colored or disabled if white, when the parking brake is set.

FLASH PATTERN

The front warning lights will have an alternating flash pattern (outboard/inboard). Both outboard lights will flash at the same time and both inboard lights will flash at the same time.

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.

SIDE ZONE LOWER LIGHTING

There will be six (6) Whelen®, Model M6*C, LED flashing warning lights with Model 6EFLANGE, chrome flanges located in the following positions:

- Two (2) lights, one (1) each side on the bumper extension
    - The side front lights to be red
- Two (2) lights, one (1) each side of cab rearward of crew cab doors
    - The side middle lights to be red
- Two (2) lights, one (1) each side above rear wheels
    - The side rear lights to be red

All six (6) lights will include a clear lens.

There will be a switch located in the cab on the switch panel to control the lights.

REAR ZONE LOWER LIGHTING

There shall be two (2) Whelen®, Model M6*C, LED flashing warning lights located at the rear of the apparatus.

- The driver's side rear light to be red
- The passenger's side rear light to be red

Both lights will include a lens that is clear.

There will be a switch located in the cab on the switch panel to control the lights.

REAR WARNING LIGHTS

There will be two (2) Whelen®, Model M6*C, LED flashing warning light(s) with bezel(s) provided above the taillights.

The color of these light(s) will be red.

These light(s) will be controlled with the rear lower warning switch.

These light(s) will include a lens that is clear.

REAR/SIDE ZONE UPPER WARNING LIGHTS

There will be two (2) Whelen®, Model L31H*FN, LED warning beacons provided at the rear of the truck, located one (1) each side. There will be a switch located in the cab on the switch panel to control the beacons.

The color of the lights will be red LEDs with both domes clear.

The rear warning lights will be mounted on top of the compartmentation with all wiring totally enclosed. The rear deck lights will be mounted on the beavertails as high as possible.

ELECTRICAL SYSTEM GENERAL DESIGN FOR ALTERNATING CURRENT

The following guidelines will apply to the 120/240 VAC system installation:

General

Any fixed line voltage power source producing alternating current (ac) line voltage will produce electric power at 60 cycles plus or minus 3 cycles.

Except where superseded by the requirements of NFPA 1901, all components, equipment and installation procedures will conform to NFPA 70, National Electrical Code (herein referred to as the NEC).

Line voltage electrical system equipment and materials included on the apparatus will be listed and installed in accordance with the manufacturer's instructions. All products will be used only in the manner for which they have been listed.

Grounding

Grounding will be in accordance with Section 250-6 "Portable and Vehicle Mounted Generators" of the NEC. Ungrounded systems will not be used. Only stranded or braided copper conductors will be used for grounding and bonding.

An equipment grounding means will be provided in accordance with Section 250-91 (Grounding Conductor Material) of the NEC.

The grounded current carrying conductor (neutral) will be insulated from the equipment grounding conductors and from the equipment enclosures and other grounded parts. The neutral conductor will be colored white or gray in accordance with Section 200-6 (Means of Identifying Grounding Conductors) of the NEC.

In addition to the bonding required for the low voltage return current, each body and driving or crew compartment enclosure will be bonded to the vehicle frame by a copper conductor. This conductor will have a minimum amperage rating of 115 percent of the nameplate current rating of the power source specification label as defined in Section 310-15 (amp capacities) of the NEC. A single conductor properly sized to meet the low voltage and line voltage requirements will be permitted to be used.

All power source system mechanical and electrical components will be sized to support the continuous duty nameplate rating of the power source.

Operation

Instructions that provide the operator with the essential power source operating instructions, including the power-up and power-down sequence, will be permanently attached to the apparatus at any point where such operations can take place.

Provisions will be made for quickly and easily placing the power source into operation. The control will be marked to indicate when it is correctly positioned for power source operation. Any control device used in the drive train will be equipped with a means to prevent the unintentional movement of the control device from its set position.

A power source specification label will be permanently attached to the apparatus near the operator's control station. The label will provide the operator with the information detailed in Figure 19-4.10.

Direct drive (PTO) and portable generator installations will comply with Article 445 (Generators) of the NEC.

Overcurrent protection

The conductors used in the power supply assembly between the output terminals of the power source and the main over current protection device will not exceed 144.00" (3658 mm) in length.

For fixed power supplies, all conductors in the power supply assembly will be type THHW, THW, or use stranded conductors enclosed in nonmetallic liquid tight flexible conduit rated for a minimum of 194 degree Fahrenheit (90 degrees Celsius).

For portable power supplies, conductors located between the power source and the line side of the main overcurrent protection device will be type SO or type SEO with suffix WA flexible cord rated for 600-volts at 194 degrees Fahrenheit (90 degrees Celsius).

Wiring Methods

Fixed wiring systems will be limited to the following:

- Metallic or nonmetallic liquid tight flexible conduit rated at not less than 194 degrees Fahrenheit (90 degrees Celsius)
- or
- Type SO or Type SEO cord with a WA suffix, rated at 600 volts at not less than 194 degrees Fahrenheit (90 degrees Celsius)

Electrical cord or conduit will not be attached to chassis suspension components, water or fuel lines, air or air brake lines, fire pump piping, hydraulic lines, exhaust system components, or low voltage wiring. In addition the wiring will be run as follows.

- Separated by a minimum of 12.00" (305 mm), or properly shielded, from exhaust piping
- Separated from fuel lines by a minimum of 6.00" (152 mm) distance

Electrical cord or conduit will be supported within 6.00" (152 mm) of any junction box and at a minimum of every 24.00" (610 mm) of continuous run. Supports will be made of nonmetallic materials or corrosion protected metal. All supports will be of a design that does not cut or abrade the conduit or cable and will be mechanically fastened to the vehicle.

Wiring Identification

All line voltage conductors located in the main panel board will be individually and permanently identified. The identification will reference the wiring schematic or indicate the final termination point. When prewiring for future power sources or devices, the unterminated ends will be labeled showing function and wire size.

Wet Locations

All wet location receptacle outlets and inlet devices, including those on hardwired remote power distribution boxes, will be of the grounding type provided with a wet location cover and installed in accordance with Section 210-7 "Receptacles and Cord Connections" of the NEC.

All receptacles located in a wet location will be not less than 24.00" (610 mm) from the ground. Receptacles on off-road vehicles will be a minimum of 30.00" (762 mm) from the ground.

The face of any wet location receptacle will be installed in a plane from vertical to not more than 45 degrees off vertical. No receptacle will be installed in a face up position.

Dry Locations

All receptacles located in a dry location will be of the grounding type. Receptacles will be not less than 30.00" (762 mm) above the interior floor height.

All receptacles will be marked with the type of line voltage (120-volts or 240-volts) and the current rating in amps. If the receptacles are direct current, or other than single phase, they will be so marked.

Listing

All receptacles and electrical inlet devices will be listed to UL 498, Standard for Safety Attachment Plugs and Receptacles, or other appropriate performance standards. Receptacles used for direct current voltages will be rated for the appropriate service.

Electrical System Testing

The wiring and associated equipment will be tested by the apparatus manufacturer or the installer of the line voltage system.

The wiring and permanently connected devices and equipment will be subjected to a dielectric voltage withstand test of 900-volts for one (1) minute. The test will be conducted between live parts and the neutral conductor, and between live parts and the vehicle frame with any switches in the circuit(s) closed. This test will be conducted after all body work has been completed.

Electrical polarity verification will be made of all permanently wired equipment and receptacles to determine that connections have been properly made.

Operational Test per Current NFPA 1901 Standard

The apparatus manufacturer will perform the following operation test and ensure that the power source and any devices that are attached to the line voltage electrical system are properly connected and in working order. The test will be witnessed and the results certified by an independent third-party certification organization.

The prime mover will be started from a cold start condition and the line voltage electrical system loaded to 100 percent of the nameplate rating.

The power source will be operated at 100 percent of its nameplate voltage for a minimum of two (2) hours unless the system meets category certification as defined in the current NFPA 1901 standard.

Where the line voltage power is derived from the vehicle's low voltage system, the minimum continuous electrical load as defined in the current NFPA 1901 standard will be applied to the low voltage electrical system during the operational test.

GENERATOR
The apparatus will be equipped with a complete AC (alternating current) electrical power system. The generator will be a Harrison, Model MSV, 6,000 watt hydraulic driven unit with vertical exhaust.

The generator will be driven by a transmission power take off unit, through a hydraulic pump and motor.

The hydraulic engagement supply will be operational at any time (no interlocks).

An electric/hydraulic valve will supply hydraulic fluid to the clutch engagement unit provided on the chassis PTO drive.

Generator Instruments and Controls
To properly monitor the generator performance, a voltmeter will be furnished near the breaker box.

GENERATOR LOCATION
The generator will be mounted in the in the area over the pump on the right side. The flooring in this area will be either reinforced or constructed in such a manner that it will handle the additional weight of the generator.

GENERATOR START
There will be a switch provided on the cab instrument panel to engage the generator.

CIRCUIT BREAKER PANEL
The smallest size practical circuit breaker panel will be located D3 and as much out of the way as possible.

LIGHT TOWER
There will be one (1) Will-Burt, Model NS1.8-3000 MAG light tower provided.

There will be four (4) ROM Magnafire 750 watt 120 volt AC light heads included on this tower.

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 will be powered through the AC breaker box.

LIGHT TOWER LOCATION
The light tower will be installed on the cab roof.

LIGHT TOWER CONTROLLER
There will be one (1) handheld wired controller included.

LOCATION FOR THE LIGHT TOWER CONTROLLER
The light tower controller will be installed in the driver's side front body compartment.

ELECTRIC CORD REEL
Furnished with the 120/240 volt AC electrical system will be an Akron cord reel. The reel will be provided with a 12 volt electric rewind switch that is guarded to prevent accidental operation and

labeled for its intended use. The switch will be protected with a fuse and installed at a height not to exceed 72.00" above the operators standing position.

The reel will be capable holding 200' of 10/4, 600 volt cable.

The exterior finish of the reel(s) will be powder coated silver from the reel manufacturer.

A Nylatron guide to be provided to aid in the payout and loading of the reel. A ball stop will be provided to prevent the cord from being wound on the reel.

A label will be provided in a readily visible location adjacent to the reel. The label will indicate current rating, current type, phase, voltage and total cable length.

A total of one (1) cord reel will be provided one (1) above the pump area, opposite side of the generator.

The cord reel should be configured with four (4) conductors.

Reel Warranty
The electric reel will come with a **five (5)-year** warranty provided by the reel manufacturer.

CORD
Provided for electric distribution will be one (1) length installed on the reel of 200 feet of yellow 10/4 electrical cord. No connector will be installed on the end of the cord.

POWER OUTLET STRIP
There will be one (1) receptacle strip(s) with six (6) 15 amp 120 volt AC straight blade receptacles provided in crew cab to be determined.

The strip(s) selected will be powered from the shoreline inlet.

There will be a label installed near the receptacle(s) that state the following:

- Line Voltage
- Current Ratting (amps)
- Phase
- Frequency
- Power Source

LOOSE EQUIPMENT
The following equipment will be furnished with the completed unit:

- One (1) bag of chrome, stainless steel, or cadmium plated screws, nuts, bolts and washers, as used in the construction of the unit.

NFPA REQUIRED LOOSE EQUIPMENT,PROVIDED BY FIRE DEPARTMENT
The following loose equipment as outlined in NFPA 1901, 2009 edition, section 5.8.2 and 5.8.3 will be provided by the fire department. All loose equipment will be installed on the apparatus before placed in emergency service, unless the fire department waives NFPA section 4.21.

- 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) playpipe with shutoff and 1.00" (25 mm), 1.125" (29 mm), and 1.25" (32 mm) tips.
- One (1) SCBA complying with NFPA 1981, *Standard on Open-Circuit Self-Contained Breathing Apparatus for Fire and Emergency Services*, for each assigned seating position, but not fewer than four (4), mounted in brackets fastened to the apparatus or stored in containers supplied by the SCBA manufacturer.
- One (1) spare SCBA cylinder for each SCBA carried, each mounted in a bracket fastened to the apparatus or stored in a specially designed storage space(s).
- One (1) first aid kit.
- Four (4) combination spanner wrenches mounted in bracket(s) fastened to the apparatus.
- Two (2) hydrant wrenches mounted in brackets fastened to the apparatus.
- Four (4) ladder belts meeting the requirements of NFPA 1983, *Standard on Fire Service Life Safety Rope and System Components* (if equipped with an aerial device).
- One (1) double female 2.50" (65 mm) adapter with National Hose threads, mounted in a bracket fastened to the apparatus.
- One (1) double male 2.50' (65 mm) adapter with National Hose threads, mounted in a bracket fastened to the apparatus.
- One (1) rubber mallet, for use on suction hose connections, mounted in a bracket fastened to the apparatus.
- Two (2) salvage covers each a minimum size of 12 ft x 14 ft (3.7 m x 4.3 m).
- One (1) traffic vest for each seating position, each vest to comply with ANSI/ISEA 207, *Standard for High Visibility Public Safety Vests*, 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.
- One (1) automatic external defibrillator (AED).
- If the supply hose carried does not use sexless couplings, an additional double female adapter and double male adapter, sized to fit the supply hose carried, will be carried mounted in brackets fastened to the apparatus.
- If none of the pump intakes are valved, a hose appliance that is equipped with one or more gated intakes with female swivel connection(s) compatible with the supply hose used on one side and a swivel connection with pump intake threads on the other side will be carried. Any intake connection larger than 3.00" (75 mm) will include a pressure relief device that meets the requirements of 16.6.6.
- If the apparatus does not have a 2.50" National Hose (NH) intake, an adapter from 2.50" NH female to a pump intake will be carried, mounted in a bracket fastened to the apparatus if not already mounted directly to the intake.
- If the supply hose carried has other than 2.50" National Hose (NH) threads, adapters will be carried to allow feeding the supply hose from a 2.50" NH thread male discharge and to allow the hose to connect to a 2.50" NH female intake, mounted in brackets fastened to the apparatus if not already mounted directly to the discharge or intake.

SOFT SUCTION HOSE PROVIDED BY FIRE DEPARTMENT

NFPA 1901, 2009 edition, section 5.7.2 requires a minimum of 20 ft of suction hose or 15 ft of supply hose.

Hose is not on the apparatus as manufactured. The fire department will provide suction or supply hose.

DRY CHEMICAL EXTINGUISHER PROVIDED BY FIRE DEPARTMENT

NFPA 1901, 2009 edition, section 5.8.3 requires one (1) approved dry chemical portable fire extinguisher with a minimum 80-B:C rating mounted in a bracket fastened to the apparatus.

The extinguisher is not on the apparatus as manufactured. The fire department will provide and mount the extinguisher.

WATER EXTINGUISHER PROVIDED BY FIRE DEPARTMENT

NFPA 1901, 2009 edition, section 5.8.3 requires one (1) 2.5 gallon or larger water extinguisher mounted in a bracket fastened to the apparatus.

The extinguisher is not on the apparatus as manufactured. The fire department will provide and mount the extinguisher.

FLATHEAD AXE PROVIDED BY FIRE DEPARTMENT

NFPA 1901, 2009 edition, Section 5.8.3 requires one (1) flathead axe mounted in a bracket fastened to the apparatus.

The axe is not on the apparatus as manufactured. The fire department will provide and mount the axe.

PICKHEAD AXE PROVIDED BY FIRE DEPARTMENT

NFPA 1901, 2009 edition, Section 5.8.3 requires one (1) pickhead axe mounted in a bracket fastened to the apparatus.

The axe is not on the apparatus as manufactured. The fire department will provide and mount the axe.

PAINT - BODY PAINTED TO MATCH CAB

The exterior custom cab and body painting procedure will consist of a seven (7) step finishing process as follows:

1. Manual Surface Preparation - 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.
2. Chemical Cleaning and Pretreatment - 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. A final pure water rinse will be applied to all metal surfaces.
3. Surfacer Primer - 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.
4. Finish Sanding - 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.

5. Sealer Primer - 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.
6. Basecoat Paint - 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.
7. Clear Coat - 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 manufacture.

Specifications are written to define cyclic corrosion testing, physical strengths, durability and minimum appearance requirements must be met in order for an exterior paint finish to be considered acceptable as a Pierce quality finish.

Each batch of basecoat color is checked for a proper match before painting of the cab and the body. After the cab and body are painted, the color is verified again to make sure that it matches the color standard. Electronic color measuring equipment is used to compare the color sample to the color standard entered into the computer. Color specifications are used to determine the color match. A Delta E reading is 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 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 cab and body will be two-tone, with the upper section painted black along with a shield design on the cab face and lower section of the cab and body painted red #90.

PAINT - 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% 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 98.00%. Water wash systems will be 99.97% 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 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.

PAINT CHASSIS FRAME ASSEMBLY

The chassis frame assembly will be painted black 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 not e-coated are:

- Frame rails
- 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
- Air tanks
- Fuel tank
- Castings
- Individual piece parts used in chassis and body assembly

FILM TECHNICAL PROPERTIES

PROPERTY	TEST METHOD	PERFORMANCE
Color	–	Black
Film Thickness	–	0.5 - 1.5 Mils
Gloss - 60 Degree	ASTM D523	65 - 85
Pencil Hardness	ASTM D3363	2H Minimum
Direct Impact	ASTM D2794	100 in. - lbs. Minimum
Reverse Impact	ASTM D2794	60 in. - lbs. Minimum
Crosshatch Adhesion	ASTM D3359	4B - 5B
Humidity	ASTM D1735	1000 Hours Minimum
Water Immersion	ASTM D870	250 Hours Minimum
Gravelometer	GM9508P	6 Minimum
Throwpower	GM9535P	12 - 15 in.

Cold rolled steel lab panels, Zinc Phosphate pretreatment, 0.6 mils average film thickness, cured 20 minutes @ 350°F

PROPERTY	SUBSTRATE PRETREATMENT	SALT SPRAY* 1000 HOURS
Corrosion Resistance	CRS / Zinc Phos / Non-Chrome	1 - 2 mm

*Salt Spray - ASTM B117, cold rolled steel lab panels cured 20 minutes @ 350°F (Average Total Scribe Creep)

Components treated with epoxy E-coat protection prior to paint:

- Two (2) C-channel frame rails

The E-coat process will meet the technical properties shown.

COMPARTMENT INTERIOR PAINT

The compartment interior will be painted with a gray spatter finish for ease of cleaning and to make it easier to touch up scratches and nicks.

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" white stripe at the top with a 1.00" gap then a 6.00" white stripe with a 1.00" gap and a 1.00" white stripe on the bottom.

CHEVRON STRIPING ON THE FRONT BUMPER
There will be alternating chevron striping located on the front bumper.

The colors will be red and fluorescent yellow green diamond grade.

The size of the striping will be 6.00".

CHEVRON STRIPING, REAR
There will be alternating chevron striping located on the rear-facing vertical surface of the apparatus. The rear surface, excluding the rear compartment door, will be covered.

The colors will be red and fluorescent yellow green diamond grade.

Each stripe will be 6.00" in width.

This will meet the requirements of NFPA 1901, 2009 edition, which states that 50% of the rear surface will be covered with chevron striping.

REFLECTIVE STRIPE, CAB DOORS
A 6.00" x 16.00" fluorescent yellow green diamond grade reflective stripe will be provided across the interior of each cab door. The stripe will be located approximately 1.00" up from the bottom, on the door panel.

This stripe will meet the NFPA 1901 requirement.

LETTERING
Twenty-one (21) to forty (40) reflective lettering, 3.00" high, with outline will be provided.

LETTERING
There will be reflective lettering, 8.00" high, with outline provided. There will be four (4) letters provided.

LETTERING
There will be reflective lettering, 5.00" high, with outline provided. There will be ten (10) letters provided.

CAB GRILLE DESIGN
An American flag design will be painted on the cab grille.

FIRE APPARATUS PARTS CD MANUAL
There will be two (2) custom parts manuals for the complete fire apparatus provided in CD format with the completed unit.

The manuals 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

The manuals 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 factory 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.

CHASSIS SERVICE MANUALS

One (1) chassis service manuals containing parts and service information on major components will be provided with the completed unit.

One (1) compact disk (CD) will also be provided that will include all of the information from the above manual.

The manuals 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.

CHASSIS OPERATION CD MANUALS

There will be two (2) CD format chassis operation manuals provided.

ONE (1) YEAR MATERIAL AND WORKMANSHIP

A Pierce basic apparatus limited warranty certificate, WA0008, is included with this proposal.

THREE (3) YEAR MATERIAL AND WORKMANSHIP

The Pierce custom chassis limited warranty certificate, WA0284, is included with this proposal.

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ENGINE WARRANTY

A Cummins **five (5) year** limited engine warranty will be provided. A limited warranty certificate, WA0181, is included with this proposal.

STEERING GEAR WARRANTY

A Sheppard **three (3) year** limited steering gear warranty shall be provided. A copy of the warranty certificate shall be submitted with the bid package.

FIFTY (50) YEAR STRUCTURAL INTEGRITY

The Pierce custom chassis frame and crossmembers limited warranty certificate, WA0038, is included with this proposal.

FRONT AXLE THREE (3) YEAR MATERIAL AND WORKMANSHIP WARRANTY

The Pierce TAK-4 suspension limited warranty certificate, WA0050, is included with this proposal.

REAR AXLE TWO (2) YEAR MATERIAL AND WORKMANSHIP WARRANTY

A Meritor axle limited warranty certificate, WA0046, is included with this proposal.

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.

TEN (10) YEAR STRUCTURAL INTEGRITY

The Pierce custom cab limited warranty certificate, WA0012, is included with this proposal.

TEN (10) YEAR PRO-RATED PAINT AND CORROSION

A Pierce cab limited pro-rated paint warranty certificate, WA0055, is included with this proposal.

FIVE (5) YEAR MATERIAL AND WORKMANSHIP

The Pierce Command Zone electronics limited warranty certificate, WA0014, is included with this proposal.

CAMERA SYSTEM WARRANTY

A Pierce fifty four (54) month warranty will be provided for the camera system**.**

COMPARTMENT LIGHT WARRANTY

The Pierce 12 volt DC LED strip lights limited warranty certificate, WA0203, is included with this proposal.

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.

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 submitted with the bid package.

WATER TANK WARRANTY

A UPF poly water tank limited warranty certificate, WA0195, is included with this proposal.

TEN (10) YEAR STRUCTURAL INTEGRITY

The Pierce apparatus body limited warranty certificate, WA0009, is included with this proposal.

ROLL UP DOOR MATERIAL AND WORKMANSHIP WARRANTY

A Gortite roll-up door limited warranty will be provided. The mechanical components of the roll-up door will be warranted against defects in material and workmanship for the lifetime of the vehicle. A **six (6) year** limited warranty will be provided on painted and satin roll up doors.

The limited warranty certificate, WA0190, is included with this proposal.

PUMP WARRANTY

A Waterous pump limited warranty certificate, WA0225, is included with this proposal.

TEN (10) YEAR PUMP PLUMBING WARRANTY

The Pierce apparatus plumbing limited warranty certificate, WA0035, is included with this proposal.

FOAM SYSTEM WARRANTY

The Husky 3 foam system limited warranty certificate, WA0231, is included with this proposal.

TWO (2) YEAR GENERATOR MATERIAL AND WORKMANSHIP WARRANTY

A Harrison Hydra-Gen limited warranty certificate, WA0051, is included with this proposal.

TEN (10) YEAR PRO-RATED PAINT AND CORROSION

A Pierce body limited pro-rated paint warranty certificate, WA0057, is included with this proposal.

ONE (1) YEAR MATERIAL AND WORKMANSHIP

The Pierce graphics fading and deterioration limited warranty limited warranty certificate, WA0168, is included with this proposal.

TWO (2) YEAR EXTENDED

The Pierce custom chassis warranty certificate, WA0060, is included with this proposal.

VEHICLE STABILITY CERTIFICATION

The fire apparatus manufacturer will provide a certification stating the apparatus complies with NFPA 1901, current edition, section 4.13, Vehicle Stability. The certification will be provided at the time of bid.

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 bid.

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 will be provided at the time of bid.

CAB INTEGRITY CERTIFICATION

The fire apparatus manufacturer will provide a cab integrity certification with this proposal. The certification will state that 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:

- European Occupant Protection Standard ECE Regulation No.29.
- SAE J2422 Cab Roof Strength Evaluation - Quasi-Static Loading Heavy Trucks.
- SAE J2420 COE Frontal Strength Evaluation - Dynamic Loading Heavy Trucks.

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 10 metric tons.

Additional Roof Crush

The same cab will be subjected to a roof crush force of 100,000 lbs. This value exceeds the ECE 29 criteria by nearly 4.5 times.

Side Impact

The same cab will be subjected to dynamic preload where a 13,275 lb moving barrier slams into the side of the cab at 5.5 mph at a force of 13,000 ft-lbs. 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-lbs of force using a moving barrier in accordance with SAE J2420.

Additional Frontal Impact

The same cab will withstand a frontal impact of 65,200 ft-lbs of force using a moving barrier, (twice the force required by SAE J2420).

The same cab will withstand all tests without any measurable intrusion into the survival space of the occupant area.

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.

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 *Windshield Wiper Systems - Trucks, Buses and Multipurpose Vehicles.* The bidder will certify that the wiper system design has been tested and that the wiper system has met these criteria.

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.

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 that each seat mount and cab structure design was pull tested to the required force and met the appropriate criteria.

CAB DEFROSTER CERTIFICATION

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. The bidder will certify that the defrost system design has been tested in a cold chamber and passes the SAE J381 criteria.

CAB HEATER CERTIFICATION

Good cab heat performance and regulation provides a more effective working environment for personnel, whether in-transit, or at a scene. The cab heaters will warm the cab 75 F from a cold-soak, within 30 minutes when tested using the coolant supply methods found in SAE J381. The bidder will certify that a substantially similar cab has been tested and has met these criteria.

CAB AIR CONDITIONING PERFORMANCE CERTIFICATION

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 67 degrees Fahrenheit in 30 minutes. The bidder will certify that a substantially similar air conditioning system has been tested and has met these criteria. The certification will be available at the time of delivery.

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:
        - Applicable NFPA 1901 or 1906 (Current Edition).
    - The minimum continuous load of each component that is specified per:
        - Applicable NFPA 1901 or 1906 (Current Edition).
    - 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 applicable NFPA 1901 or 1906 (Current Edition).

Master Tax-Exempt Lease/Purchase Agreement

Between: Leasing 2, Inc. (the "Lessor")
1720 West Cass Street
Tampa, FL 33606

And: City Of Colleyville (the "Lessee")
100 Main Street
Colleyville, TX 76034
Attention: Brian Riley
Telephone: 817-503-1410

Dated: October 12, 2015

ARTICLE I
DEFINITIONS

The following terms will have the meanings indicated below unless the context clearly requires otherwise:

"Agreement" means this Master Tax-Exempt Lease/Purchase Agreement, including all exhibits and schedules attached hereto.

"Code" is defined in Section 3.01(f).

"Commencement Date" is the date when the term of a Property Schedule and Lessee's obligation to pay rent thereunder commences, which date shall be set forth in such Property Schedule.

"Event of Default" is defined in Section 13.01.

"Lease Payments" means the Lease Payments payable by Lessee under Article VI of this Agreement and each Property Schedule, as set forth in each Property Schedule.

"**Lease Payment Dates"** means the Lease Payment dates for the Lease Payments as set forth in each Property Schedule.

"Lease Term" means, with respect to a Property Schedule, the Original Term and all Renewal Terms. The Lease Term for each Property Schedule executed hereunder shall be set forth in such Property Schedule, as provided in Section 4.02.

"Lessee" means the entity identified as such in the first paragraph hereof, and its permitted successors and assigns.

"Lessor" means the entity identified as such in the first paragraph hereof, and its successors and assigns.

"Nonappropriation Event" is defined in Section 6.06.

"Original Term" means, with respect to a Property Schedule, the period from the Commencement Date until the end of the budget year of Lessee in effect at the Commencement Date.

"Property" means, collectively, the property leased/purchased pursuant to this Agreement, and with respect to each Property Schedule, the property described in such Property Schedule, and all replacements, repairs, restorations, modifications and improvements thereof or thereto made pursuant to Section 8.01 or Article IX.

"Property Schedule" means a Property Schedule in the form attached hereto for Property Schedule 1. Subsequent Property Schedules pursuant to this Agreement shall be numbered consecutively, beginning with Property Schedule 2.

"Purchase Price" means the amount that Lessee may, in its discretion, pay to Lessor to purchase the Property under a Property Schedule, as provided in Section 11.01 and as set forth in the Property Schedule.

"Renewal Terms" means the renewal terms of a Property Schedule, each having a duration of one year and a term coextensive with Lessee's budget year.

"State" means the state where Lessee is located.

"Vendor" means the manufacturer or contractor of the Property as well as the agents or dealers of the manufacturer or contractor from whom Lessor or Lessee purchased or is purchasing all or any portion of the Property.

ARTICLE II

2.01Property Schedules Separate Financings. Each Property Schedule executed and delivered under this Agreement shall be a separate financing, distinct from other Property Schedules. Without limiting the foregoing, upon the occurrence of an Event of Default or a Nonappropriation Event with respect to a Property Schedule, Lessor shall have the rights and remedies specified herein with respect to the Property financed and the Lease Payments payable under such Property Schedule, and except as expressly provided in Section 12.02 below, Lessor shall have no rights or remedies with respect to Property financed or Lease Payments payable under any other Property Schedules unless an Event of Default or Nonappropriation Event has also occurred under such other Property Schedules.

ARTICLE III

3.01 Covenants of Lessee. As of the Commencement Date for each Property Schedule executed and delivered hereunder, Lessee shall be deemed to represent, covenant and warrant for the benefit of Lessor as follows:

(a) Lessee is a public body corporate and politic duly organized and existing under the constitution and laws of the State with full power and authority to enter into this Agreement and the Property Schedule and the transactions contemplated thereby and to perform all of its obligations thereunder.

(b) Lessee will do or cause to be done all things necessary to preserve and keep in full force and effect its existence as a body corporate and politic. To the extent Lessee should merge with another entity under the laws of the State, Lessee agrees that as a condition to such merger it will require that the remaining or resulting entity shall be assigned Lessee's rights and shall assume Lessee's obligations hereunder.

(c) Lessee has been duly authorized to execute and deliver this Agreement and the Property Schedule by proper action by its governing body, or by other appropriate official approval, and all requirements have been met and procedures have occurred in order to ensure the validity and enforceability of this Agreement and the Property Schedule, and Lessee has complied with such public bidding requirements as may be applicable to this Agreement and the Property Schedule and the acquisition by Lessee of the Property thereunder. On or before the Commencement Date for the Property Schedule, Lessee shall cause to be delivered an opinion of counsel in substantially the form attached to the form of the Property Schedule as Exhibit 2.

(d) During the Lease Term for the Property Schedule, the Property thereunder will perform and will be used by Lessee only for the purpose of performing essential governmental uses and public functions within the permissible scope of Lessee's authority.

(e) Lessee will provide Lessor with current financial statements, budgets and proof of appropriation for the ensuing budget year and other financial information relating to the ability of Lessee to continue this Agreement and the Property Schedule in such form and containing such information as may be requested by Lessor.

(f) Lessee will comply with all applicable provisions of the Internal Revenue Code of 1986, as amended (the "Code"), including Sections 103 and 148 thereof, and the regulations of the Treasury Department thereunder, from time to time proposed or in effect, in order to maintain the excludability from gross income for federal income tax purposes of the interest component of Lease Payments under the Property Schedule and will not use or permit the use of the Property in such a manner as to cause a Property Schedule to be a "private activity bond" under Section 141(a) of the Code. Lessee covenants and agrees that it will use the proceeds of the Property Schedule as soon as practicable and with all reasonable dispatch for the purpose for which the Property Schedule has been entered into, and that no part of the proceeds of the Property Schedule shall be invested in any securities, obligations or other investments except for the temporary period pending such use nor used, at any time, directly or indirectly, in a manner which, if such use had been reasonably anticipated on the date of issuance of the Agreement, would have caused any portion of the Property Schedule to be or become "arbitrage bonds" within the meaning of Section 103(b)(2) or Section 148 of the Code and the regulations of the Treasury Department thereunder proposed or in effect at the time of such use and applicable to obligations issued on the date of issuance of the Property Schedule.

(g) The execution, delivery and performance of this Agreement and the Property Schedule and compliance with the provisions hereof and thereof by Lessee does not conflict with or result in a violation or breach or constitute a default under, any resolution, bond, agreement, indenture, mortgage, note, lease or other instrument to which Lessee is a party or by which it is bound by any law or any rule, regulation, order or decree of any court, governmental agency or body having jurisdiction over Lessee or any of its activities or properties resulting in the creation or imposition of any lien, charge or other security interest or encumbrance of any nature whatsoever upon any property or assets of Lessee or to which it is subject.

(h) Lessee's exact legal name is as set forth on the first page of this Agreement. Lessee will not change its legal name in any respect without giving thirty (30) days prior notice to Lessor.

ARTICLE IV

4.01 Lease of Property. On the Commencement Date of each Property Schedule executed hereunder, Lessor will be deemed to demise, lease and let to Lessee, and Lessee will be deemed to rent, lease and hire from Lessor, the Property described in such Property Schedule, in accordance with this Agreement and such Property Schedule, for the Lease Term set forth in such Property Schedule.

4.02 Lease Term. The term of each Property Schedule shall commence on the Commencement Date set forth therein and shall terminate upon payment of the final Lease Payment set forth in such Property Schedule and the exercise of the Purchase Option described in Section 11.01, unless terminated sooner pursuant to this Agreement or the Property Schedule.

4.03 Delivery, Installation and Acceptance of Property. Lessee shall order the Property, shall cause the Property to be delivered and installed at the locations specified in the applicable Property Schedule and shall pay all taxes, delivery costs and installation costs, if any, in connection therewith. To the extent funds are deposited under an escrow agreement or trust agreement for the acquisition of the Property, such funds shall be disbursed as provided therein. When the Property described in such Property Schedule is delivered, installed and accepted as to Lessee's specifications, Lessee shall immediately accept the Property and evidence said acceptance by executing and delivering to Lessor the Acceptance Certificate substantially in the form attached to the Property Schedule.

ARTICLE V

5.01 Enjoyment of Property. Lessee shall during the Lease Term peaceably and quietly have, hold and enjoy the Property, without suit, trouble or hindrance from Lessor, except as expressly set forth in this Agreement. Lessor shall not interfere with such quiet use and enjoyment during the Lease Term so long as Lessee is not in default under the subject Property Schedule.

5.02 Location; Inspection. The Property will be initially located or based at the location specified in the applicable Property Schedule. Lessor shall have the right at all reasonable times during business hours to enter into and upon the property of Lessee for the purpose of inspecting the Property.

ARTICLE VI

6.01 Lease Payments to Constitute a Current Expense of Lessee. Lessor and Lessee understand and intend that the obligation of Lessee to pay Lease Payments hereunder shall constitute a current expense of Lessee and shall not in any way be construed to be a debt of Lessee in contravention of any applicable constitutional, statutory or charter limitation or requirement concerning the creation of indebtedness by Lessee, nor shall anything contained herein constitute a pledge of the faith and credit or taxing power of Lessee. Upon the appropriation of Lease Payments for a fiscal year, the Lease Payments for said fiscal year, and only the Lease Payments for said current fiscal year, shall be a binding obligation of Lessee; provided that such obligation shall not include a pledge of the taxing power of Lessee.

6.02 Payment of Lease Payments. Lessee shall promptly pay Lease Payments under each Property Schedule, exclusively from legally available funds, in lawful money of the United States of America, to Lessor in such amounts and on such dates as described in the applicable Property Schedule, at Lessor's address set forth on the first page of this Agreement, unless Lessor instructs Lessee otherwise. Lessee shall pay Lessor a charge on any delinquent Lease Payments under a Property Schedule in an amount sufficient to cover all additional costs and expenses incurred by Lessor from such delinquent Lease Payment. In addition, Lessee shall pay a late charge of five cents per dollar or the highest amount permitted by applicable law, whichever is lower, on all delinquent Lease Payments and interest on said delinquent amounts from the date such amounts were due until paid at the rate of 12% per annum or the maximum amount permitted by law, whichever is less..

6.03 Interest Component. A portion of each Lease Payment due under each Property Schedule is paid as, and represents payment of, interest, and each Property Schedule hereunder shall set forth the interest component (or method of computation thereof) of each Lease Payment thereunder during the Lease Term.

6.04 Lease Payments to be Unconditional. SUBJECT TO SECTION 6.06, THE OBLIGATIONS OF LESSEE TO PAY THE LEASE PAYMENTS DUE UNDER THE PROPERTY SCHEDULES AND TO PERFORM AND OBSERVE THE OTHER COVENANTS AND AGREEMENTS CONTAINED HEREIN SHALL BE ABSOLUTE AND UNCONDITIONAL IN ALL EVENTS WITHOUT ABATEMENT, DIMINUTION, DEDUCTION, SET-OFF OR DEFENSE, FOR ANY REASON, INCLUDING WITHOUT LIMITATION, ANY DEFECTS, MALFUNCTIONS, BREAKDOWNS OR INFIRMITIES IN THE PROPERTY OR ANY ACCIDENT, CONDEMNATION OR UNFORESEEN CIRCUMSTANCES. THIS PROVISION SHALL NOT LIMIT LESSEE'S RIGHTS OR ACTIONS AGAINST ANY VENDOR AS PROVIDED IN SECTION 10.02.

6.05 Continuation of Lease by Lessee. Lessee intends to continue all Property Schedules entered into pursuant to this Agreement and to pay the Lease Payments thereunder. Lessee reasonably believes that legally available funds in an amount sufficient to make all Lease Payments during the term of all Property Schedules can be obtained. Lessee agrees that its staff will provide during the budgeting process for each budget year to the governing body of Lessee notification of any Lease Payments due under the Property Schedules during the following budget year. Notwithstanding this covenant, if Lessee fails to appropriate the Lease Payments for a Property Schedule pursuant to Section 6.06, such Property Schedule shall terminate at the end of the then current Original Term or Renewal Term. Although Lessee has made this covenant, in the event that it fails to provide such notice, no remedy is provided and Lessee shall not be liable for any damages for its failure to so comply.

6.06 Nonappropriation. If during the then current Original Term or Renewal Term, sufficient funds are not appropriated to make Lease Payments required under a Property Schedule for the following fiscal year, Lessee shall be deemed to not have renewed such Property Schedule for the following fiscal year and the Property Schedule shall terminate at the end of the then current Original Term or Renewal Term and Lessee shall not be obligated to make Lease Payments under said Property Schedule beyond the then current fiscal year for which funds have been appropriated. Upon the occurrence of such nonappropriation (a "Nonappropriation Event") Lessee shall, no later than the end of the fiscal year for which Lease Payments have been appropriated, deliver possession of the Property under said Property Schedule to Lessor. If Lessee fails to deliver possession of the Property to Lessor upon termination of said Property Schedule by reason of a Nonappropriation Event, the termination shall nevertheless be effective but Lessee shall be responsible for the payment of damages in an amount equal to the portion of Lease Payments thereafter coming due that is attributable to the number of days after the termination during which the Lessee fails to deliver possession and for any other loss suffered by Lessor as a result of Lessee's failure to deliver possession as required. In addition, Lessor may, by written instructions to any escrow agent who is holding proceeds of the Property Schedule, instruct such escrow agent to release all such proceeds and any earnings thereon to Lessor, such sums to be credited to Lessee's obligations under the Property Schedule and this Agreement. Lessee

shall notify Lessor in writing within seven (7) days after the failure of the Lessee to appropriate funds sufficient for the payment of the Lease Payments, but failure to provide such notice shall not operate to extend the Lease Term or result in any liability to Lessee.

6.07 Defeasance of Lease Payments. Lessee may at any time irrevocably deposit in escrow with a defeasance escrow agent for the purpose of paying all of the principal component and interest component accruing under a Property Schedule, a sum of cash and non-callable securities consisting of direct obligations of, or obligations the principal of an interest on which are unconditionally guaranteed by, the United States of America or any agency or instrumentality thereof, in such aggregate amount, bearing interest at such rates and maturing on such dates as shall be required to provide funds sufficient for this purpose. Upon such defeasance, all right, title and interest of Lessor in the Property under said Property Schedule shall terminate. Lessee shall cause such investment to comply with the requirements of federal tax law so that the exclusion from gross income of the interest component of Lease Payments on said Property Schedule is not adversely affected.

6.08 Gross-Up. If an Event of Taxability occurs with respect to a Property Schedule, the interest component of Lease Payments on the Property Schedule shall thereafter be payable at the Taxable Rate, and Lessee shall pay to Lessor promptly following demand an amount sufficient to supplement prior Lease Payments on such Property Schedule so that Lessor receives the interest component of such Lease Payments, retroactive to the date as of which the interest component is determined to be includible in the gross income of Lessor for federal income tax purposes, calculated at the Taxable Rate, together with any penalties and interest actually imposed on Lessor as a result of the Event of Taxability. For purposes of this Section, “Event of Taxability” means, with respect to a Property Schedule, (a) a final determination by the Internal Revenue Service or a court of competent jurisdiction that the interest component of Lease Payments on the Property Schedule is includible for federal income tax purposes in the gross income of Lessor, or (b) receipt by Lessor of a written opinion of a nationally recognized public finance lawyer or law firm to the effect that there exists substantial doubt whether the interest component of Lease Payments on the Property Schedule is excludible for federal income tax purposes from the gross income of Lessor, in each case due to any action or failure to take action by Lessee. “Taxable Rate” means the interest rate at which the interest component of Lease Payments on a Property Schedule was originally calculated, divided by 0.65.

ARTICLE VII

7.01 Title to the Property. Upon acceptance of the Property by Lessee and unless otherwise required by the laws of the State, title to the Property shall vest in Lessee, subject to Lessor's interests under the applicable Property Schedule and this Agreement.

7.02 Personal Property. The Property is and will remain personal property and will not be deemed to be affixed to or a part of the real estate on which it may be situated, notwithstanding that the Property or any part thereof may be or hereafter become in any manner physically affixed or attached to real estate or any building thereon. If requested by Lessor, Lessee will, at Lessee's expense, furnish a waiver of any interest in the Property from any party having an interest in any such real estate or building.

7.03 Security Interest. To the extent permitted by law and to secure the performance of all of Lessee's obligations under this Agreement with respect to a Property Schedule, including without limitation all Property Schedules now existing are hereafter executed, Lessee grants to Lessor, for the benefit of Lessor and its successors and assigns, a security interest constituting a first lien on Lessee's interest in all of the Property under the Property Schedule, whether now owned or hereafter acquired, all additions, attachments, alterations and accessions to the Property, all substitutions and replacements for the Property, and on any proceeds of any of the foregoing, including insurance proceeds. Lessee shall execute any additional documents, including financing statements, affidavits, notices and similar instruments, in form and substance satisfactory to Lessor, which Lessor deems necessary or appropriate to establish, maintain and perfect a security interest in the Property in favor of Lessor and its successors and assigns. Lessee hereby authorizes Lessor to file all financing statements which Lessor deems necessary or appropriate to establish, maintain and perfect such security interest.

ARTICLE VIII

8.01 Maintenance of Property by Lessee. Lessee shall keep and maintain the Property in good condition and working order and in compliance with the manufacturer's specifications, shall use, operate and maintain the Property in conformity with all laws and regulations concerning the Property's ownership, possession, use and maintenance, and shall keep the Property free and clear of all liens and claims, other than those created by this Agreement. Lessee shall have sole responsibility to maintain and repair the Property. Should Lessee fail to maintain, preserve and keep the Property in good repair and working order and in accordance with manufacturer's specifications, and if requested by Lessor, Lessee will enter into maintenance contracts for the Property in form approved by Lessor and with approved providers.

8.02 Liens, Taxes, Other Governmental Charges and Utility Charges. Lessee shall keep the Property free of all levies, liens and encumbrances, except for the interest of Lessor under this Agreement. The parties to this Agreement contemplate that the Property will be used for a governmental or proprietary purpose of Lessee and, therefore, that the Property will be exempt from all property taxes. The Lease Payments payable by Lessee under this Agreement and the Property Schedules hereunder have been established to reflect the savings resulting from this exemption from taxation. Lessee will take such actions necessary under applicable law to obtain said exemption. Nevertheless, if the use, possession or acquisition of the Property is determined to be subject to taxation or later becomes subject to such taxes, Lessee shall pay when due all taxes and governmental charges lawfully assessed or levied against or with respect to the Property. Lessee shall pay all gas, water, steam, electricity, heat, power, telephone, utility and other charges incurred in the operation, maintenance, use, occupancy and upkeep of the Property. Lessee shall pay such taxes or charges as the same may become due; provided that, with respect to any such taxes or charges that may lawfully be paid in installments over a period of years, Lessee shall be obligated to pay only such installments as accrue during the then current fiscal year of the Lease Term for such Property.

8.03 Insurance. At its own expense, Lessee shall maintain (a) casualty insurance insuring the Property against loss or damage by fire and all other risks covered by the standard extended coverage endorsement then in use in the State and any other risks reasonably required by Lessor in an amount equal to at least the outstanding principal component of Lease Payments, and (b) liability insurance that protects Lessor from liability in all events in an amount reasonably acceptable to Lessor, and (c) worker's compensation insurance covering all employees working on, in, near or about the Property; provided that Lessee may self-insure against all such risks. All insurance proceeds from casualty losses shall be payable as hereinafter provided in this Agreement. All such insurance shall be with insurers that are authorized to issue such insurance in the State. All such liability insurance shall name Lessor as an additional insured. All such casualty insurance shall contain a provision making any losses payable to Lessor and Lessee as their respective interests may appear. All such insurance shall contain a provision to the effect that such insurance shall not be canceled or modified without first giving written notice thereof to Lessor and Lessee at least thirty (30) days in advance of such cancellation or modification. Such changes shall not become effective without Lessor's prior written consent. Lessee shall furnish to Lessor, on or before the Commencement Date for each Property Schedule, and thereafter at Lessor's request, certificates evidencing such coverage, or, if Lessee self-insures, a written description of its self-insurance program together with a certification from Lessee's risk manager or insurance agent or consultant to the effect that Lessee's self-insurance program provides adequate coverage against the risks listed above.

8.04 Advances. In the event Lessee shall fail to either maintain the insurance required by this Agreement or keep the Property in good repair and working order, Lessor may, but shall be under no obligation to, purchase the required insurance and pay the cost of the premiums thereof or maintain and repair the Property and pay the cost thereof. All amounts so advanced by Lessor shall constitute additional rent for the Lease Term for the applicable Property Schedule and shall be due and payable on the next Lease Payment Date and Lessee covenants and agrees to pay such amounts so advanced by Lessor with interest thereon from the date such amounts are advanced until paid at the rate of 12% per annum or the maximum amount permitted by law, whichever is less.

ARTICLE IX

9.01 Damage or Destruction. If (a) the Property under a Property Schedule or any portion thereof is destroyed, in whole or in part, or is damaged by fire or other casualty, or (b) title to, or the temporary use of, the Property under a Property Schedule or any part thereof shall be taken under the exercise or threat of the power of eminent domain by any governmental body or by any person, firm or corporation acting pursuant to governmental authority, Lessor and Lessee will cause the Net Proceeds (as hereinafter defined) of any insurance claim, condemnation award or sale under threat of condemnation to be applied to the prompt replacement, repair, restoration, modification or improvement of the Property, unless Lessee shall have exercised its right to defease the Property Schedule as provided herein, or unless Lessee shall have exercised its option to purchase Lessor's interest in the Property if the Property Schedule so provides. Any balance of the Net Proceeds remaining after such work has been completed shall be paid to Lessee. For purposes of Section 8.03 and this Article IX, the term "Net Proceeds" shall mean the amount remaining from the gross proceeds of any insurance claim, condemnation award or sale under threat of condemnation after deducting all expenses, including attorneys' fees, incurred in the collection thereof.

9.02 Insufficiency of Net Proceeds. If the Net Proceeds are insufficient to pay in full the cost of any repair, restoration, modification or improvement referred to in Section 9.01, Lessee shall (a) complete such replacement, repair, restoration, modification or improvement and pay any costs thereof in excess of the amount of the Net Proceeds and, if Lessee shall make any payments pursuant to this Section, Lessee shall not be entitled to any reimbursement therefor from Lessor nor shall Lessee be entitled to any diminution of the amounts payable under Section 6.02, or (b) defease the Property Schedule pursuant to Section 6.07, or (c) exercise its option to purchase

Lessor's interest in the Property pursuant to the optional purchase provisions of the Property Schedule, if any. The amount of the Net Proceeds, if any, remaining after completing such repair, restoration, modification or improvement or after such defeasance or purchase may be retained by Lessee.

ARTICLE X

10.01 Disclaimer of Warranties. LESSOR MAKES NO (AND SHALL NOT BE DEEMED TO HAVE MADE ANY) WARRANTIES, EXPRESS OR IMPLIED, AS TO ANY MATTER WHATSOEVER, INCLUDING, WITHOUT LIMITATION, THE DESIGN, OPERATION OR CONDITION OF, OR THE QUALITY OF THE MATERIAL, EQUIPMENT OR WORKMANSHIP IN, THE PROPERTY, ITS MERCHANTABILITY OR ITS FITNESS FOR ANY PARTICULAR PURPOSE, THE STATE OF TITLE THERETO OR ANY COMPONENT THEREOF, THE ABSENCE OF LATENT OR OTHER DEFECTS (WHETHER OR NOT DISCOVERABLE), AND LESSOR HEREBY DISCLAIMS THE SAME; IT BEING UNDERSTOOD THAT THE PROPERTY IS LEASED TO LESSEE "AS IS" ON THE DATE OF THIS AGREEMENT OR THE DATE OF DELIVERY, WHICHEVER IS LATER, AND ALL SUCH RISKS, IF ANY, ARE TO BE BORNE BY LESSEE. Lessee acknowledges that it has made (or will make) the selection of the Property from the Vendor based on its own judgment and expressly disclaims any reliance upon any statements or representations made by Lessor. Lessee understands and agrees that (a) neither the Vendor nor any sales representative or other agent of Vendor, is (i) an agent of Lessor, or (ii) authorized to make or alter any term or condition of this Agreement, and (b) no such waiver or alteration shall vary the terms of this Agreement unless expressly set forth herein. In no event shall Lessor be liable for any incidental, indirect, special or consequential damage in connection with or arising out of this Agreement, the Property Schedules, or the existence, furnishing, functioning or use of any item, product or service provided for in this Agreement or the Property Schedules.

10.02 Vendor's Warranties. Lessor hereby irrevocably assigns to Lessee all rights that Lessor may have to assert from time to time whatever claims and rights (including without limitation warranties) related to the Property against the Vendor. Lessee's sole remedy for the breach of such warranty, indemnification or representation shall be against the Vendor of the Property, and not against Lessor, nor shall such matter have any effect whatsoever on the rights and obligations of Lessor with respect to this Agreement, including the right to receive full and timely payments hereunder. Lessee expressly acknowledges that Lessor makes, and has made no representations or warranties whatsoever as to the existence or the availability of such warranties of the Vendor of the Property.

10.03 Use of the Property. Lessee will not install, use, operate or maintain the Property improperly, carelessly, in violation of any applicable law or in a manner contrary to that contemplated by this Agreement and the applicable Property Schedule. Lessee shall provide all permits and licenses, if any, necessary for the installation and operation of the Property. In addition, Lessee agrees to comply in all respects with all laws of the jurisdiction in which its operations involving any item of Property may extend and any legislative, executive, administrative or judicial body exercising any power or jurisdiction over the items of the Property; provided that Lessee may contest in good faith the validity or application of any such law or rule in any reasonable manner that does not, in the opinion of Lessor, adversely affect the interest of Lessor in and to the Property or its interest or rights under this Agreement. Lessee shall promptly notify Lessor in writing of any pending or threatened investigation, inquiry, claim or action by any governmental authority which could adversely affect this Agreement, any Property Schedule or the Property thereunder.

10.04 Modifications. Subject to the provisions of this Section, Lessee shall have the right, at its own expense, to make alterations, additions, modifications or improvements to the Property. All such alterations, additions, modifications and improvements shall thereafter comprise part of the Property and shall be subject to the provisions of this Agreement. Such alterations, additions, modifications and improvements shall not in any way damage the Property, substantially alter its nature or cause it to be used for purposes other than those authorized under the provisions of state and federal law; and the Property, on completion of any alterations, additions, modifications or improvements made pursuant to this Section, shall be of a value which is equal to or greater than the value of the Property immediately prior to the making of such alterations, additions, modifications and improvements. Lessee shall, at its own expense, make such alterations, additions, modifications and improvements to the Property as may be required from time to time by applicable law or by any governmental authority.

ARTICLE XI

11.01 Option to Purchase. Lessee shall have the option to purchase Lessor's entire interest in all of the Property subject to a Property Schedule and to terminate any restrictions herein on the Property under such Property Schedule on the last day of the Lease Term for a Property Schedule, if the Property Schedule is still in effect on such day, upon payment in full of the Lease Payments due thereunder plus payment of One (1) Dollar to Lessor. Upon exercise of the purchase option as set forth in this Section 11.01 and payment of the purchase price under the applicable Property Schedule, and performance by Lessee of all other terms, conditions and provisions hereof, Lessor shall deliver to Lessee all such documents and instruments as Lessee may reasonably require to evidence the transfer, without warranty by or recourse to Lessor, of all of Lessor's right, title and interest in and to the Property subject to such Property Schedule to Lessee.

11.02 Option to Prepay. Lessee shall have the option to prepay in whole the Lease Payments due under a Property Schedule, but only if the Property Schedule so provides, and on the terms set forth in the Property Schedule. Lessee shall give written notice to Lessor of its intent to purchase Lessor's interest in the Property at least sixty (60) days prior to the last day of the Lease Term for applicable Property Schedule.

ARTICLE XII

12.01 Assignment by Lessor. Lessor's right, title and interest in, to and under each Property Schedule and the Property under such Property Schedule may be assigned and reassigned in whole or in part to one or more assignees or subassignees by Lessor without the necessity of obtaining the consent of Lessee; provided that any assignment shall not be effective until Lessee has received written notice, signed by the assignor, of the name, address and tax identification number of the assignee. Lessee shall retain all such notices as a register of all assignees and shall make all payments to the assignee or assignees designated in such register. Lessee agrees to execute all documents, including notices of assignment and chattel mortgages or financing statements that may be reasonably requested by Lessor or any assignee to protect its interests in this Agreement and the Property Schedules.

12.02 Property Schedules Separate Financings. Assignees of the Lessor's rights in one Property Schedule shall have no rights in any other Property Schedule unless such rights have been separately assigned..

12.03 Assignment and Subleasing by Lessee. NONE OF LESSEE'S RIGHT, TITLE AND INTEREST IN, TO AND UNDER THIS AGREEMENT AND IN THE PROPERTY MAY BE ASSIGNED, SUBLEASED OR ENCUMBERED BY LESSEE FOR ANY REASON, WITHOUT THE PRIOR WRITTEN CONSENT OF LESSOR.

12.04 Release and Indemnification Covenants. To the extent permitted by applicable law, Lessee shall indemnify, protect, hold harmless, save and keep harmless Lessor from and against any and all liability, obligation, loss, claim and damage whatsoever, regardless of cause thereof, and all expenses in connection therewith, including, without limitation, counsel fees and expenses, penalties and interest (collectively, “Losses”) arising out of or resulting from the entering into this Agreement, any Property Schedules hereunder, the ownership of any item of the Property, the loss of federal tax exemption of the interest on any of the Property Schedules, the ordering, acquisition, use, operation, condition, purchase, delivery, rejection, storage or return of any item of the Property or any accident in connection with the operation, use, condition, possession, storage or return of any item of the Property resulting in damage to property or injury to or death to any person; provided, however, that Lessee shall not be required to indemnify Lessor for Losses arising out of or resulting from Lessor's own willful or negligent conduct, or for Losses arising out of or resulting from Lessor' preparation of disclosure material relating to certificates of participation in this Agreement and any Property Schedule (other than disclosure material provided to Lessor by Lessee). The indemnification arising under this Section shall continue in full force and effect notwithstanding the full payment of all obligations under this Agreement, or the applicable Property Schedule, or the termination of the Lease Term for such Property Schedule for any reason.

ARTICLE XIII

13.01 Events of Default Defined. Any of the following shall constitute an “Event of Default” under a Property Schedule:

(a) Failure by Lessee to pay any Lease Payment under the Property Schedule or other payment required to be paid with respect thereto at the time specified therein;

(b) Failure by Lessee to observe and perform any covenant, condition or agreement on its part to be observed or performed with respect to the Property Schedule, other than as referred to in subparagraph (a) above, for a period of thirty (30) days after written notice specifying such failure and requesting that it be remedied is given to Lessee by Lessor, unless Lessor shall agree in writing to an extension of such time prior to its expiration; provided that, if the failure stated in the notice cannot be corrected within the applicable period, Lessor will not unreasonably withhold its consent to an extension of such time if corrective action is instituted by Lessee within the applicable period and diligently pursued until the default is corrected;

(c) Any statement, representation or warranty made by Lessee in or pursuant to the Property Schedule or its execution, delivery or performance shall prove to have been false, incorrect, misleading or breached in any material respect on the date when made;

(d) Lessee shall (i) apply for or consent to the appointment of a receiver, trustee, custodian or liquidator of Lessee, or of all or a substantial part of the assets of Lessee, (ii) be unable, fail or admit in writing its inability generally to pay its debts as they become due, (iii) make a general assignment for the benefit of creditors, (iv) have an order for relief entered against it under applicable federal bankruptcy law, or (v) file a voluntary petition in bankruptcy or a petition or an answer seeking reorganization or an arrangement with creditors or taking advantage of any insolvency law or any answer admitting the material allegations of a petition filed against Lessee in any bankruptcy, reorganization or insolvency proceeding; or

(e) An order, judgment or decree shall be entered by any court of competent jurisdiction, approving a petition or appointing a receiver, trustee, custodian or liquidator of Lessee or of all or a substantial part of the assets of Lessee, in each case without its application, approval or consent, and such order, judgment or decree shall continue unstayed and in effect for any period of 60 consecutive days.

The foregoing provisions of Section 13.01 are subject to the following limitation: if by reason of force majeure Lessee is unable in whole or in part to perform its agreements under this Agreement and the Property Schedule (other than the obligations on the part of Lessee contained in Article VI hereof) Lessee shall not be in default during the continuance of such inability. The term "force majeure" as used herein shall mean the following: acts of God; strikes, lockouts or other industrial disturbances; acts of public enemies; orders or restraints of any kind of the government of the United States or of the State or any of their departments, agencies or officials, or any civil or military authority; insurrections, riots, landslides, earthquakes, fires, storms, droughts, floods, explosions, breakage or accident to machinery, transmission pipes or canals; or any other cause or event not reasonably within the control of Lessee.

A Nonappropriation Event is not an Event of Default.

13.02 Remedies on Default. Whenever any Event of Default exists with respect to a Property Schedule, Lessor shall have the right, at its sole option without any further demand or notice, to take one or any combination of the following remedial steps:

(a) Without terminating the Property Schedule, and by written notice to Lessee, Lessor may declare all Lease Payments and other amounts payable by Lessee thereunder to the end of the then-current budget year of Lessee to be due, including without limitation delinquent Lease Payments under the Property Schedule from prior budget years, and such amounts shall thereafter bear interest at the rate of 12% per annum or the maximum rate permitted by applicable law, whichever is less;

(b) Lessor may terminate the Property Schedule, may enter the premises where the Property subject to the Property Schedule is located and retake possession of the Property, or require Lessee, at Lessee's expense, to promptly return any or all of the Property to the possession of Lessor at such place within the United States as Lessor shall specify, and Lessor may thereafter dispose of the Property in accordance with Article 9 of the Uniform Commercial Code in effect in the State; provided, however, that any proceeds from the disposition of the property in excess of the sum required to (i) pay off any outstanding principal component of Lease Payments, (ii) pay any other amounts then due under the Property Schedule, and (iii) pay Lessor's costs and expenses associated with the disposition of the Property (including attorneys' fees), shall be paid to Lessee or such other creditor of Lessee as may be entitled thereto, and further provided that no deficiency shall be allowed against Lessee except with respect to unpaid costs and expenses incurred by Lessor in connection with the disposition of the Property;

(c) By written notice to any escrow agent who is holding proceeds of the Property Schedule, Lessor may instruct such escrow agent to release all such proceeds and any earnings thereon to Lessor, such sums to be credited to payment of Lessee's obligations under the Property Schedule;

(d) Lessor may take any action, at law or in equity, that is permitted by applicable law and that may appear necessary or desirable to enforce or to protect any of its rights under the Property Schedule and this Agreement.

Notwithstanding the foregoing, if the proceeds are insufficient to pay items (i) to (iii) in Section 13.02(b) in whole, Lessee shall remain obligated after application of proceeds to items (i) and (ii), to pay in whole the amounts for item (iii).

13.03 No Remedy Exclusive. No remedy herein conferred upon or reserved to Lessor is intended to be exclusive and every such remedy shall be cumulative and shall be in addition to every other remedy given under this Agreement now or hereafter existing at law or in equity. No delay or omission to exercise any right or power accruing upon any default shall impair any such right or power or shall be construed to be a waiver thereof, but any such right or power may be exercised from time to time and as often as may be deemed expedient. In order to entitle Lessor to exercise any remedy reserved to it in this Article it shall not be necessary to give any notice, other than such notice as may be required in this Article.

13.04 Costs and Attorney Fees. Upon the occurrence of an Event of Default by Lessee in the performance of any term of this Agreement, Lessee agrees to pay to Lessor or reimburse Lessor for, in addition to all other amounts due hereunder, all of Lessor's costs of collection, including reasonable attorney fees, whether or not suit or action is filed thereon. Any such costs shall be immediately due and payable upon written notice and demand given to Lessee, shall be secured by this Agreement until paid and shall bear interest at the rate of 12% per annum or the maximum amount permitted by law, whichever is less. In the event suit or action is instituted to enforce any of the terms of this Agreement, the prevailing party shall be entitled to recover from the other party such sum as the court may adjudge reasonable as attorneys' fees at trial or on appeal of such suit or action or in any bankruptcy proceeding, in addition to all other sums provided by law.

ARTICLE XIV

14.01 Notices. All notices, certificates or other communications hereunder shall be sufficiently given and shall be deemed given when delivered or mailed by certified mail, postage prepaid, to the parties hereto at the addresses as specified on the first page of this Agreement (or at such other address as either party hereto shall designate in writing to the other for notices to such party), to any assignee at its address as it appears on the registration books maintained by Lessee.

14.02 Arbitrage Certificates. Unless a separate Arbitrage Certificate is delivered on the Commencement Date, Lessee shall be deemed to make the following representations and covenants as of the Commencement Date for each Property Schedule:

(a) The estimated total costs, including taxes, freight, installation, and cost of issuance, of the Property under the Property Schedule will not be less than the total principal amount of the Lease Payments.

(b) The Property under the Property Schedule has been ordered or is expected to be ordered within six months after the Commencement Date and the Property is expected to be delivered and installed, and the Vendor fully paid, within eighteen months from the Commencement Date. Lessee will pursue the completion of the Property and the expenditure of the net proceeds of the Property Schedule with due diligence.

(c) Lessee has not created or established, and does not expect to create or establish, any sinking fund or other similar fund (i) that is reasonably expected to be used to pay the Lease Payments under the Property Schedule, or (ii) that may be used solely to prevent a default in the payment of the Lease Payments under the Property Schedule.

(d) The Property under the Property Schedule has not been and is not expected to be sold or otherwise disposed of by Lessee, either in whole or in major part, prior to the last maturity of the Lease Payments under the Property Schedule.

(e) There are no other obligations of Lessee which (i) are being sold within 15 days of the Commencement Date of the Property Schedule; (ii) are being sold pursuant to the same plan of financing as the Property Schedule; and (iii) are expected to be paid from substantially the same source of funds.

(f) The officer or official who has executed the Property Schedule on Lessee's behalf is familiar with Lessee's expectations regarding the use and expenditure of the proceeds of the Property Schedule. To the best of Lessee's knowledge, information and belief, the facts and estimates set forth in herein are accurate and the expectations of Lessee set forth herein are reasonable.

14.03 Further Assurances. Lessee agrees to execute such other and further documents, including, without limitation, confirmatory financing statements, continuation statements, certificates of title and the like, and to take all such action as may be necessary or appropriate, from time to time, in the reasonable opinion of Lessor, to perfect, confirm, establish, reestablish, continue, or complete the interests of Lessor in this Agreement and the Property Schedules, to consummate the transactions contemplated hereby and thereby, and to carry out the purposes and intentions of this Agreement and the Property Schedules.

14.04 Binding Effect. This Agreement shall inure to the benefit of and shall be binding upon Lessor and Lessee and their respective successors and assigns.

14.05 Severability. In the event any provision of this Agreement shall be held invalid or unenforceable by any court of competent jurisdiction, such holding shall not invalidate or render unenforceable any other provision hereof.

14.06 **Waiver of Jury Trials.** Lessee and Lessor hereby irrevocably waive all right to trial by jury in any action, proceeding or counterclaim (whether based on contract, tort or otherwise) arising out of or relating to this Agreement or the actions of Lessor or Lessee in the negotiation, administration, performance or enforcement hereof.

14.07 **Amendments, Changes and Modifications.** This Agreement may be amended in writing by Lessor and Lessee to the extent the amendment or modification does not apply to outstanding Property Schedules at the time of such amendment or modification. The consent of all assignees shall be required to any amendment or modification before such amendment or modification shall be applicable to any outstanding Property Schedule.

14.08 **Execution in Counterparts.** This Agreement and the Property Schedules hereunder may be simultaneously executed in several counterparts, each of which shall be an original and all of which shall constitute but one and the same instrument.

14.09 **Applicable Law.** This Agreement shall be governed by and construed in accordance with the laws of the State.

14.10 **Captions.** The captions or headings in this Agreement are for convenience only and in no way define, limit or describe the scope or intent of any provisions or sections of this Agreement.

IN WITNESS WHEREOF, Lessor and Lessee have caused this Agreement to be executed in their names by their duly authorized representatives as of the date first above written.

Lessor: Leasing 2, Inc.
By:
Name:
Title:

Lessee: City Of Colleyville
By:
Name: David Kelly
Title: Mayor

Attest:
By:
Name: Amy Shelley
Title: City Secretary

ADDENDUM (TEXAS)
Master Tax-Exempt Lease/Purchase Agreement

THIS ADDENDUM, which is entered into as of October 12, 2015 between Leasing 2, Inc. ("Lessor") and City Of Colleyville ("Lessee"), is intended to modify and supplement the Master Tax-Exempt Lease/Purchase Agreement between Lessor and Lessee of even date herewith (the "Master Agreement"). Capitalized terms not otherwise defined herein shall have the meanings set forth in the Master Agreement.

1.The Master Agreement is amended to delete Section 6.05.

2. Lessor and Lessee agree that lease participation certificates in any Property Schedule shall not be issued without the approval of the Texas Attorney General.

IN WITNESS WHEREOF, Lessor and Lessee have caused this Addendum to be executed in their names by their duly authorized representatives as of the date first above written.

Lessor: Leasing 2, Inc.
By:
Name:
Title:

Lessee: City Of Colleyville
By:
Name: David Kelly
Title: Mayor

Attest:
By
Name: Amy Shelley
Title: City Secretary

Property Schedule No.1

Master Tax-Exempt Lease/Purchase Agreement

This **Property Schedule No.1** is entered into as of the Commencement Date set forth below, pursuant to that certain Master Tax-Exempt Lease/Purchase Agreement (the "Master Agreement"), dated as of October 12, 2015, between Leasing 2, Inc., and City Of Colleyville.

1. Interpretation. The terms and conditions of the Master Agreement are incorporated herein by reference as if fully set forth herein. Reference is made to the Master Agreement for all representations, covenants and warranties made by Lessee in the execution of this Property Schedule, unless specifically set forth herein. In the event of a conflict between the provisions of the Master Agreement and the provisions of this Property Schedule, the provisions of this Property Schedule shall control. All capitalized terms not otherwise defined herein shall have the meanings provided in the Master Agreement.

2. Commencement Date. The Commencement Date for this Property Schedule is October 12, 2015.

3. Property Description and Payment Schedule. The Property subject to this Property Schedule is described in Exhibit 1 hereto. Lessee shall not remove such property from the locations set forth therein without giving prior written notice to Lessor. The Lease Payment Schedule for this Property Schedule is set forth in Exhibit 1.

4. Opinion. The Opinion of Lessee's Counsel is attached as Exhibit 2.

5. Lessee's Certificate. The Lessee's Certificate is attached as Exhibit 3.

6. Proceeds. Lessor shall disburse the proceeds of this Property Schedule in accordance with the instructions attached hereto as Exhibit 4.

7. Acceptance Certificate. The form of Acceptance Certificate is attached as Exhibit 5.

8. Additional Purchase Option Provisions. In addition to the Purchase Option provisions set forth in the Master Agreement, Lease Payments payable under this Property Schedule shall be subject to prepayment in whole at any time by payment of the applicable Termination Amount set forth in Exhibit 1 (Payment Schedule) and payment of all accrued and unpaid interest through the date of prepayment.

9. Private Activity Issue. Lessee understands that among other things, in order to maintain the exclusion of the interest component of Lease Payments from gross income for federal income tax purposes, it must limit and restrict the rights private businesses (including, for this purpose, the federal government and its agencies and organizations described in the Code § 501(c)(3)) have to use the Property. Each of these requirements will be applied beginning on the later of the Commencement Date or date each portion of the Property is placed in service and will continue to apply until earlier of the end of the economic useful life of the Property or the date the Agreement or any tax-exempt obligation issued to refund the Property Schedule is retired (the "Measurement Period").

Lessee will comply with the requirements of Section 141 of the Code and the regulations thereunder which provide restrictions on special legal rights that users other than Lessee or a state or local government or an agency or instrumentality of a state or a local government (an "Eligible User") may have to use the Property. For this purpose, special legal rights may arise from a management or service agreement, lease, research agreement or other arrangement providing any entity except an Eligible User the right to use the Property. Any use of the Property by a user other than an Eligible User is referred to herein as **"**Non-Qualified Use".

Throughout the Measurement Period, all of the Property is expected to be owned by Lessee. Throughout the Measurement Period, Lessee will not permit the Non-Qualified Use of the Property to exceed 10%.

10. Bank Qualification and Arbitrage Rebate. Attached as Exhibit 6.

11. Expiration. Lessor, at its sole determination, may choose not to accept this Property Schedule if the fully executed, original Master Agreement (including this Property Schedule and all ancillary documents) is not received by Lessor at its place of business by November 15, 2015.

IN WITNESS WHEREOF, Lessor and Lessee have caused this Property Schedule to be executed in their names by their duly authorized representatives as of the Commencement Date above.

Lessor: Leasing 2, Inc.
By:
Name:
Title:

Lessee: City Of Colleyville
By:
Name: David Kelly
Title: Mayor

Attest:
By:
Name: Amy Shelley
Title: City Secretary

EXHIBIT 1

Property Description and Payment Schedule

Re: **Property Schedule No. 1** to Master Tax-Exempt Lease/Purchase Agreement between Leasing 2, Inc. and City of Colleyville.

THE PROPERTY IS AS FOLLOWS: The Property as more fully described in Exhibit A incorporated herein by reference and attached hereto. It includes all replacements, parts, repairs, additions, accessions and accessories incorporated therein or affixed or attached thereto and any and all proceeds of the foregoing, including, without limitation, insurance recoveries.

PROPERTY LOCATION: After delivery:
5209 Colleyville Boulevard
Address

Colleyville, TX 76034
City, State Zip Code

USE: Fire Truck - This use is essential to the proper, efficient and economic functioning of Lessee or to the services that Lessee provides; and Lessee has immediate need for and expects to make immediate use of substantially all of the Property, which need is not temporary or expected to diminish in the foreseeable future.

Lease Payment Schedule

Total Principal Amount: $416,073.00

Payment No.	Due Date	Lease Payment	Principal Portion	Interest Portion	Termination Amount (After Making Payment for said Due Date)
1	12-Oct-2016	48,484.94	36,490.75	11,994.19	390,969.72
2	12-Oct-2017	48,484.94	37,542.67	10,942.27	352,300.77
3	12-Oct-2018	48,484.94	38,624.92	9,860.02	312,517.10
4	12-Oct-2019	48,484.94	39,738.37	8,746.57	271,586.58
5	12-Oct-2020	48,484.94	40,883.91	7,601.03	229,476.16
6	12-Oct-2021	48,484.94	42,062.47	6,422.47	186,151.81
7	12-Oct-2022	48,484.94	43,275.01	5,209.93	141,578.54
8	12-Oct-2023	48,484.94	44,522.51	3,962.43	95,720.36
9	12-Oct-2024	48,484.94	45,805.97	2,678.97	48,540.21
10	12-Oct-2025	48,484.94	47,126.42	1,358.52	0.00
	Totals	**484,849.40**	**416,073.00**	**68,776.40**	

Interest Rate: 2.883%

Lessee: City Of Colleyville
By:
Name: David Kelly
Title: Mayor

EXHIBIT A

Property Description

Fire Truck

VIN# To Be Determined

As built per Pierce Proposal Option dated 9/28/2015 as attached

Proposal Option List

9/28/2015

Customer:	Colleyville FD	**Bid Number:**	499
Representative	Ownby, Travis	**Job Number:**	
Organization:	Siddons-Martin Emergency Group	**Bid Date:**	01-29-2015
Requirements Manager:		**Stock Number:**	
Description:	Impel Colleyville dup 27717	**DBVersion:**	02.00.0675.0000
Body:	Pumper, Med, Alum, 2nd Gen		
Chassis:	Impel Chassis		

Line	Option	Type	Option Description	Qty
1	0010012		No Boiler Plates requested	1
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	0533316		Comply NFPA 1901 Changes Effective Jan 1, 2009, With Exceptions	1
7	0533347		Pumper/Pumper with Aerial Device Fire Apparatus	1
8	0588611		Vehicle Certification, Pumper	1
9	0661778		Agency, Apparatus Certification, Pumper/Tanker, U.L.	1
10	0008036		Career/Paid Department	1
11	0537375		Unit of Measure, US Gallons	1
12	0529326		Bid Bond, 10%, Pierce Built Chassis	1
13	0050066		Performance Bond, 100% Req'd (Statement by Rep)	1
14	0000007		Approval Drawing	1
15	0002928		Electrical Diagrams	1
16	0597579		Impel Chassis, 2010	1
17	0000110		Wheelbase	1
			Wheelbase - 209.00"	
18	0000070		GVW Rating	1
			GVW rating - 43,500#	
19	0000203		Frame Rails, 13.38 x 3.50 x .375, Qtm/AXT/Imp/Vel/DCF	1
20	0020018		Frame Liner Not Req'd	1
21	0508848		Axle, Front, Oshkosh TAK-4, Non Drive, 19,500 lb, Imp/Vel	1
22	0030264		Suspension, Front TAK-4, 19,500 lb, Qtm/AXT/Imp/Vel/Dash CF/Enf	1
23	0087572		Shock Absorbers, KONI, TAK-4, Qtm/AXT/Imp/Vel/DCF/Enf	1
24	0000322		Oil Seals, Front Axle	1
25	0594821		Tires, Front, Goodyear, G296 MSA, 425/65R22.50, 20 ply	1
26	0019611		Wheels, Front, Alcoa, 22.50" x 12.25", Aluminum, Hub Pilot	1
27	0530464		Axle, Rear, Meritor RS24-160, 24,000 lb, Imp/Vel/Dash CF	1
28	0544253		Top Speed of Vehicle, 68 MPH	1
29	0122076		Suspen, Rear, Standens, Spring, 24,000 lb, Imp/Vel/Dash CF	1
30	0000485		Oil Seals, Rear Axle	1
31	0587216		Tires, Rear, Goodyear, G622 RSD, 12R22.50, 16 ply, Single	1
32	0019625		Wheels, Rear, Alcoa, 22.50" x 8.25", Aluminum, Hub Pilot, Single	1
33	0568081		Tire Balancing, Counteract Beads	1
34	0545391		Tire Pressure Monitoring Valve Cap	1
			Qty, Tire Pressure Ind - 6	
35	0003245		Axle Hub Covers w/center hole, S/S, Front Axle	1
36	0001960		Axle Hub Covers, Rear, S/S, High Hat (Pair)	1
37	0002045		Mud Flaps, w/logo front & rear	1
38	0532930		Chocks, Wheel, Pumper, NFPA, Provided by Fire Department	1
39	0544690		Mounting Brackets, Chocks, Provided by Fire Department	1
40	0010670		ABS Wabco Brake System, Single rear axle	1
41	0030185		Brakes, Knorr/Bendix 17", Disc, Front, TAK-4	1
42	0000730		Brakes, Meritor, Cam, Rear, 16.50 x 7.00"	1
43	0020784		Air Compressor, Brake, Cummins/Wabco 18.7 CFM	1
44	0000785		Brake Reservoirs, Three	1
45	0568012		Air Dryer, Wabco System Saver 1200, Heater, 2010	1
46	0000790		Brake Lines, Nylon	1

Line	Option	Type	Option Description	Qty
47	0000854		Air Inlet, w/Disconnect Coupling	1
			Location, Air Coupling(s) - a) DS Step Well	
			Qty, Air Coupling (s) - 1	
48	0586772		Box, Recessed, Alum Treadplate, for Air Fitting	1
			Location - upper right corner of driver side step well.	
			Qty, Air Coupling (s) - 1	
49	0610802		Engine, Cummins ISL9, 450 hp, 1250 lb-ft, W/OBD, EPA 2016, Imp/Vel	1
50	0001244		High Idle w/Electronic Engine, Custom	1
51	0687994		Engine Brake, Jacobs Compression Brake, Cummins Engine	1
			Switch, Engine Brake - e) ISC/ISM/ISL9/ISX Hi Med Lo	
52	0552334		Clutch, Fan, Air Actuated, Horton Drive Master	1
53	0123135		Air Intake, w/Ember separator, Imp/Vel	1
54	0597542		Exhaust System, 4", 2010 ISL9/ISC 8.3 Engine, Horizontal, Officer Side	1
55	0557543		Radiator, Impel/Velocity	1
56	0511425		Cooling Hoses, Rubber	1
57	0001125		Fuel Tank, 65 Gallon, Left Side Fill	1
58	0001129		Lines, Fuel	1
59	0582182		DEF Tank, 4.5 Gallon, DS Fill, Rear of Rear Axle, Common Door	1
			Door, Material & Finish, DEF Tank - Polished Stainless	
60	0552793		Not Required, Fuel Priming Pump	1
61	0582243		Shutoff Valves, Fuel Line @ Primary Filter, Cummins	1
62	0699437		Cooler, Chassis Fuel, Not Req'd.	1
63	0690880		No Selection Required From This Category	1
64	0642572		Trans, Allison 5th Gen, 3000 EVS P, Imp/Vel/DCF/SFR/Enf, With Prognostics	1
65	0625329		Transmission, Shifter, 5-Spd, Push Button, 3000 EVS	1
66	0684459		Transmission Oil Cooler, Modine, External	1
67	0024895		Mode, Downshift, Aggressive downshift to 2nd, w/engine brake, 5 speed	1
68	0001370		Driveline, Spicer 1710	1
69	0669988		Steering, Sheppard M110 w/Tilt, TAK-4, Eaton Pump, w/Cooler	1
70	0001544		Not Required, Steering assist cylinder on front axle	1
71	0621843		Steering Wheel, 4 Spoke without Controls, Impel	1
72	0559647		Pierce Logo on Horn Button	1
73	0123625		Bumper, 19" Extended, Imp/Vel	1
74	0616491		Tray, Hose, Center, 19" Bumper, Outside Air Horns, Rolled Edge, Imp/Vel	1
			Grating, Bumper extension - Grating, Rubber	
			Capacity, Bumper Tray - 21) 150' of 1.75	
75	0630809		Cover, Aluminum Treadplate, One (1) D-Ring Latch, Hose Tray, Notched	1
			Stay arm, Tray Cover - b) Pneumatic Stay Arm	
76	0510226		Lift & Tow Package, Imp/Vel, AXT, Dash CF	1
77	0522573		Tow Hooks Not Required, Due to Lift and Tow package	1
78	0641933	SP	Cab, Impel FR, 7010 Raised Roof w/Notch, Pumper	1
79	0668309		Engine Tunnel, ISL and DD13, Impel/Velocity FR	1
80	0677478		Rear Wall, Exterior, Cab, Aluminum Treadplate	1
81	0122465		Cab Lift, Elec/Hyd, Imp/Vel	1
82	0123176		Grille, Bright Finished, Front of Cab, Impel/Velocity	1
83	0002224		Scuffplates, S/S At Cab Door Jambs, 4-Door Cab	1
			Material Trim/Scuffplate - c) S/S, Polished	
84	0646179		Trim, S/S, Rect Headlights, VEL/IMP	1
			Material Trim/Scuffplate - c) S/S, Polished	
			Turnsignal Covers - No Covers	
85	0087357		Molding, Chrome on Side of Cab	1
86	0566620		Mirrors, Retrac, West Coast Style, Htd/Rmt, w/Bolt-On Convex	1
87	0667942		Door, Half-Height, Impel FR 4-Door Cab, Raised Roof	1
88	0655511		Door Panel, Brushed Stainless Steel, Impel/Velocity 4-Door Cab	1
89	0667905		Storage Pockets w/ Elastic Cover, Recessed, Impel/Velocity FR	1
90	0667902		Controls, Electric Windows, All Cab Doors, Impel/Velocity FR	1
91	0555486		Steps, 4-Door Cab, Dual, Imp/Vel	1
			Light, Step, Additional - P25 LED	
92	0509656		Lights, Cab and Crew Cab Access Steps, P25, LED w/Bezel, 2 Lights Per Step	1
93	0002140		Fenders, S/S on Cab	1
94	0122479		Window, Side of C/C, Fixed, Imp/Vel	1

Line	Option	Type	Option Description	Qty
95	0553144		Trim, Cab Side Windows, Impel	1
96	0012090		Not Required, Windows, Front/Side of raised roof	1
97	0509287		Windows, Rear CC, (2) 8" x 14", Imp/Vel	1
98	0553197		Not Required, Trim, Cab Rear Windows, Impel	1
99	0647586		Cab Interior, Turnout Tuff, Impel/Velocity FR	1
			Color, Cab Interior Vinyl/Fabric - m) Gray	
100	0667943		Cab Interior, Paint Color, Impel/Velocity FR	1
			Color, Cab Interior Paint - i) fire smoke gray	
101	0509532		Floor, Rubber Padded Cab & Crew Cab, Imp/Vel, Dash CF	1
102	0667936		Heater/defroster, Dual Zone Control, Impel/Velocity FR	1
103	0668089		Air Conditioning, Impel/Velocity FR, Dual Zone Control, Center Mount	1
104	0640814		Dual Condensate Drain Tubes for A/C Drip Pan, Imp/Vel FR	1
105	0012485		Air Conditioning, Coleman Mach 3, 120V, 13.5K Cool Only, Cab Roof	1
106	0639675		Sun Visor, Smoked Lexan, AXT, Dash CF, Imp/Vel, Saber FR/Enforcer	1
			Sun Visor Retention - No Retention	
107	0548173		Grab Handles, Driver and Passenger Door Post, Imp/Vel	1
108	0002526		Light, Engine Compt, All Custom Chassis	1
109	0122516		Fluid Check Access, Imp/Vel	1
110	0583042		Side Roll and Frontal Impact Protection	1
111	0622618		Seating Capacity, 5 Seats	1
112	0697005		Seat, Driver, Pierce PS6, Premium, Air Ride, High Back, Safety	1
113	0587668		Seat, Officer, Pierce, PS6, Base, SCBA, Safety	1
114	0510038		Radio Compartment, Behind Officer Seat, Imp/Vel	1
115	0122183		Seat, Rr Facing C/C, DS Outboard, Pierce PS6, Premium, Safety, SCBA	1
116	0102783		Not Required, Seat, Rr Facing C/C, Center	1
117	0122186		Seat, Rr Facing C/C, PS Outboard, Pierce PS6, Premium, Safety, SCBA	1
118	0108189		Not Required, Seat, Forward Facing C/C, DS Outboard	1
119	0103319		Not Required, Seat, Forward Facing C/C, Center	1
120	0122728		Seat, Forward Facing C/C, PS Outboard, Pierce PS6, Premium Safety, Hi-Back	1
121	0511300		Upholstery, Seats In Cab, All Imperial 1200, Pierce PS6	1
			Color, Cab Interior Vinyl/Fabric - h) Gray/Black	
122	0543991		Bracket, Air Bottle, Hands-Free II, Cab Seats	3
			Qty, - 03	
123	0627339		Seat Belt, Ready Reach	1
			Seat Belt Color - Red	
124	0553393		Seat Belt Height Adjustment, Imp/Vel, Dash CF	5
			Qty, - 05	
125	0627014		Pick Not Required, Seat Belt Color Selected in Seat Belt Option 627339	1
126	0566465		Seat Belt Monitoring, NFPA 2009, Command Zone Color Display	1
127	0543917		Helmet Storage, Provided by Fire Department, NFPA	1
128	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 White - Door Switches and Lens Switch	
			Control, Dome Lt Color - Lens Switch	
129	0631779		Light, Map, Overhead, Round Halogen, AXT/Imp/Vel/Dash CF, Hawk EX	1
			12vdc power from - Battery switched	
130	0544332		Portable Hand Light, Provided by Fire Department, Pumper NFPA Classification	1
131	0594554		Cab Instruments, Blk Gags, Blk Bez, Impel 2010	1
132	0509511		Air Restriction Indicator, Imp/Vel, AXT, Dash CF, Enf MUX	1
133	0543751		Light, Do Not Move Apparatus	1
			Alarm, Do Not Move Truck - Pulsing Alarm	
134	0509042		Messages, Open Door/Do Not Move Truck, MUX w/Color Display	1
135	0611681		Switching, Cab, Membrane, Impel/Velocity/Quantum, Dash CF, AXT WiFi MUX	1
			Location, Emerg Sw Pnls - Driver's Side Overhead	
136	0555915		Wiper Control, 2-Speed with Intermittent, MUX, Impel/Velocity	1
137	0548004		Wiring, Spare, 15 A 12V DC 1st	1
			Qty, - 01	
			12vdc power from - Battery direct	
			Wire termination - 15 amp power point plug	

Line	Option	Type	Option Description	Qty
137			Location, Spare Wiring - Behind Officer Seat	
138	0566101		Recess, Dash Panel, Officer Side, Vel/Imp	1
139	0615214		Vehicle Information Center, LCD On Gauge Cluster w/7" Color Disp,Touchscreen,Imp	1
			Location, CZ Display - DS Instrument Panel, Impel Camera System	
			System Of Measurement - US Customary	
140	0543930		Vehicle Data Recorder, Dual Module	1
141	0677696		Intercom, Sigtronics US-45S, 4-Pos, 2-Radio, D,O,2C	1
			location, intercom, C Cab - 2) 2 rearward facing seats	
142	0006288		Cable, Radio to Intercom Interface, Sigtronics, 1 Radio	1
			Radio, First Two-Way Model - XTL 5000	
			Radio, First Two-Way Make - Motorola High Power	
143	0559826		Headset, Sigtronics, SE-2 Under Helmet, Chrome Boom Mic, Standard	4
			Qty, - 04	
			Location - D,O, and 2 crew	
144	0696439		Antenna Mount, Custom Chassis, Cable Routed to Instrument Panel Area	1
			Qty, - 01	
			Location, Antenna Mount - Left Side	
145	0653526		Camera, Pierce, Driver Mux, Rear Camera Only	1
			Camera System Audio - Not Provided	
146	0523921		Recess, Rear Vision Camera	1
			Location, Recessed Camera - Center Rear	
147	0615106		Pierce Command Zone, Advanced Electronics & Control System, Impel, WiFi	1
148	0624255		Electrical System, Impel	1
149	0079166		Batteries, (4) Exide Grp 31, 950 CCA each, Threaded Stud	1
150	0008621		Battery System, Single Start, All Custom Chassis	1
151	0123174		Battery Compartment, Imp/Vel	1
152	0531307		Charger, Sngl Sys, Dual Bank, Dual Pro Charger	1
153	0012781		Location, Charger/Compr, Front left body compt	1
154	0530951		Location, Battery Charger Indicator, DS Behind Cab Door	1
155	0507624		Shoreline, 30A 120V, Kussmaul Auto Eject, 091-159-30-120, Super	2
			Qty, - 02	
			Color, Kussmaul Cover - b) red	
			Connection, Shoreline - battery charger and Aux AC	
156	0026800		Shoreline Location	1
			Location, Shoreline(s) - DS Cab Side	
157	0036802		Sub Feed Breaker Box Cutler Hammer, For Shoreline	1
			Location, CB Panel - in D3 and as far out of the way as possible	
158	0036800		Switch, Auto Transfer, Up to 30Amp, Gen Shoreline	1
			Connection, Transfer Switch - AC Powered Air Conditioner	
159	0647728		Alternator, 430 amp, Delco Remy 55SI	1
160	0092582		Load Manager/Sequencer, MUX	1
			Enable/Disable Hi-Idle - e)High Idle enable	
161	0632735		Not Required, Custom Chassis	1
162	0648713		Headlights, Rectangular LED, JW Speaker, Imp/Vel	1
163	0648425		Light, Directional, Whelen 600 LED Combination, Cab Corners, Imp/Vel/AXT/Qtm/DCF	1
			Color, Lens, LED's - c)clear	
164	0648074		Lights, Clearance/Marker/ID, Front, P25 LED 7 Lts	1
165	0620055		Light, Directional/Marker, Intermediate Light, Truck-Lite 60115Y LED 2lts	1
166	0627282		Lights, Clearance/Marker/ID, Rear, FRP LED Bar & P25 LED 4Lts	1
167	0564683		Lights, Tail, Whelen M6BTT* Red LED Stop/Tail & M6T* Amber LED Dir Arw For Hsg	1
			Color, Lens - Clear	
168	0561471		Lights, Backup, Whelen M6BUW, LED, For Tail Lt Housing	1
169	0664481		Bracket, License Plate & Light, P25 LED	1
170	0556842		Bezels, Whelen, (2) M6 Chrome Pierce, For mtg (4) Whelen M6 lights	1
171	0589905		Alarm, Back-up Warning, PRECO 1040	1
172	0666446		Lights, Perimeter Cab, Amdor AY-9500-020 & AY-9500-012 LED 4Dr	1
173	0617926		Lights, Perimeter Pump House, Amdor AY-9500-012 LED 2lts	1
174	0653901		Lights, Perimeter Body, Amdor AY-9500-012 LED 2lts, Rear Step	1
			Control, Perimeter Lts - Parking Brake Applied	
175	0556360		Lights, Step, P25 LED 4lts, Pump Pnl Sw	1

Line	Option	Type	Option Description	Qty
176	0692052		Light, FRC, 12V SPA260-Q15* LED, Surface Mount 1st	2
			Qty, - 02	
			Switch, Lt Control 1 DC,1 - a) DS Switch Panel	
			Switch, Lt Control 2 DC,2 - g) PS Switch Panel	
			Switch, Lt Control 3 DC,3 - d) No Control	
			Switch, Lt Control 4 DC,4 - d) No Control	
			Color, FRC/Rom Lt Housing - FRC, Chrome Bezel	
			Location, 12/24 Volt Lights - PS Body, Forward, 1lt and PS Body, Rearward, 1lt	
			Location, 12/24 Volt Lights - PS Body, Forward, 1lt and PS Body, Rearward, 1lt	
177	0692048		Light, FRC, 12V SPA260-Q15* LED, Surface Mount 2nd	2
			Qty, - 02	
			Switch, Lt Control 1 DC,1 - a) DS Switch Panel	
			Switch, Lt Control 2 DC,2 - g) PS Switch Panel	
			Switch, Lt Control 3 DC,3 - d) No Control	
			Switch, Lt Control 4 DC,4 - d) No Control	
			Color, FRC/Rom Lt Housing - FRC, Chrome Bezel	
			Location, 12/24 Volt Lights - DS Body, Forward, 1lt and DS Body, Rearward, 1lt	
			Location, 12/24 Volt Lights - DS Body, Forward, 1lt and DS Body, Rearward, 1lt	
178	0618301		Light, Visor, FRC, 12V SPA851-Q15-*, LED 1st	1
			Qty, - 01	
			Location, driver's/passenger's/center - centered	
			Switch, Lt Control 1 DC,1 - a) DS Switch Panel	
			Switch, Lt Control 2 DC,2 - g) PS Switch Panel	
			Switch, Lt Control 3 DC,3 - d) No Control	
			Color, FRC/Rom Lt Housing - FRC, Black Chrome Face	
179	0672327		Lights, Deck, Whelen (2) MPBW Micro Pioneer LED Rear Flood Lights	1
			Switch, Scene Lt Cntrl - a)driver sw panel	
180	0609538		Lights, Hose Bed, Below Aluminum Cover, Dual LED Light Strips	1
			Control, Hose Bed Lts - Auto Cover Sw	
181	0645681		Lights, Not Required, Rear Work, Deck Lights At Rear	1
182	0060115		Pumper, Med, Alum, 2nd Gen	1
183	0554271		Body Skirt Height, 20"	1
184	0013303		Tank, Water, 500 Gallon, Poly, Med, New York Style	1
185	0003405		Overflow, 4" Water Tank, Poly	1
186	0028104		Foam Cell Required	1
187	0553725		Restraint, Water Tank, Heavy Duty, Special Type Tank, 4x4, or Export	1
188	0003429		Not Required, Direct Tank Fill	1
189	0003424		(No Dump Valve required)	1
190	0048710		Jet Assist Not Req'd	1
191	0030007		(No Dump Chute Required)	1
192	0514778		Not Required, Switch, Tank Dump Master	1
193	0556223		Hose Bed, Aluminum, Pumper, New York Style, Fill In Blank Height	1
			Fill in Blank - 67"	
			Material Trim/Scuffplate - b) S/S, Brushed	
194	0003481		Hose Bed Capacity, Special	1
			Capacity, Hosebed - 1000' of 5.00" and (2) 500' of 3"	
195	0003488		Divider, Hose Bed, Unpainted	2
			Qty, Hosebed Dividers - 2	
196	0621037		Plate, Painted, Mounted Over Side Sheet	2
			Location - the full length	
			Qty, - 02	
			Size - as fits	
			Fill in Blank - full length	
			Location, driver's/passenger's/center - driver & passenger	
197	0530804		Cover, Hose Bed, Alum Treadplate	1
198	0589778		Flap, Rear of Alum Hose Bed Cover, Vinyl, Paddle Seat Belt Buckles, 6" Straps	1
			Color, Vinyl Cover - a) red	
199	0013512		Running Boards, 12.75" Deep	1
200	0689621		Tailboard, 16" Deep	1

Line	Option	Type	Option Description	Qty
201	0690037		Wall, Rear, Smooth Aluminum/Body Material	1
			Material, Rear Wall Inboard Facing Surfaces - Aluminum Diamondplate	
202	0003531		Tow Bar, Under Tailboard	1
203	0590926		Hose Restraint, Running Board, Velcro Straps	2
			Location, Hose Tray, runn - a) both sides	
			Qty, Tray, Hose - 2	
204	0024110		Tray, Hose, Running Board, 20' of 5.00" Soft Suction Hose	2
			Location, Hose Tray, runn - a) both sides	
			Qty, Tray, Hose - 2	
205	0003561		Construction, Compt, Alum, Pumper	1
206	0083686		DS 152" Rollup, Full Height & Depth Front & Rear	1
207	0063658		PS 152" Rollup, Full Height Front & Rear, FDLER	1
208	0692733		Doors, Rollup, Gortite, Side Compartments	6
			Qty, Door Accessory - 06	
			Color,Gortite,Roll-upDoor - Painted	
			Latch, Gortite, Roll-up - Non-locking Liftbar	
209	0665037	SP	Rear, Transverse Area Only, No Door, 40.63" Tall	1
210	0083910		No Rear Compartmentation Doors Required	1
211	0554995		No Body Modification Required	1
212	0616670		Lights, Compt, Pierce LED, Dual Light Strips, Each Side of Door, Pumper/Tanker	7
			Qty, - 07	
			Location, Compartment Lights - All Body Compts	
213	0562348		Fasteners, Mechanical, Strip Lighting In Compartments	1
214	0045679		Raise Side Sheet Above Pump House	1
215	0687146		Shelf Tracks, Painted	5
			Qty, Shelf Track - 05	
			Location, Shelf Track -	
216	0687112		Shelves, Adjustable, 500 lb Capacity, Full Width/Depth, Painted	7
			Qty, Shelf - 07	
			Location, Shelf - D1, D3, R1, P1, P3, upper portion of compartment. 2 others TBD	
217	0647091		Tray, Floor Mounted, Slide-Out, 500lb, 2.00" Sides, 2G	1
			Qty, - 01	
			Material - paint to match compt interior	
			Location, Tray Slide-Out, Floor Mounted - D3	
218	0540335		Toolboard, Swing-out, Alum, .188", No Holes	1
			location - D2	
			Qty - 1	
			Location, Pivot - Front	
			Mounting, Toolboard - Adjustable Frt-back	
			Finish, Pegboard/Toolboard - Painted	
219	0000000	STF	tool holder, Plastic, Siddons-Martin	5
			Location - TBD	
			Qty, Comp. Accessory - 05	
220	0003908		Partition, Trans Rear Compt	2
			Qty, Partition - 02	
			Location, Partition - c) both sides	
221	0027090		Tracks, Equipment Mounting, Horizontal	2
			Location - D2 and P2	
			Qty, Shelf Track - 02	
222	0024016		Rub Rail, Aluminum Extruded, Side & Rear of Body	1
223	0004024		Fender Crowns, Rear, S/S	1
224	0519849		Not Required, Hose, Hard Suction	1
225	0626229		Handrails, Side Pump Panels, Per Print	1
226	0004126		Handrails, Beavertail, Standard	1
227	0610196		Handrail, Rear, Above Hose Bed, New York Style/Low Hose Bed	1
			Handrail Finish - Black Rubber Covered	
			Reinforcement, Hose Bed Divider - Tied to Upper Handrail/Crossbar	
228	0657522		Compt, Air Bottle, Triple, Fender Panel	2
			Qty, Air Bottle Comp - 2	
			Door Finish, Fender Compt - Painted	
			Location, Fender Compt - Triple - PS Fwd and Triple - PS Rear	
			Location, Fender Compt - Triple - PS Fwd and Triple - PS Rear	

Line	Option	Type	Option Description	Qty
228			Latch, Air Bottle Compt - Flush Lift & Turn	
			Insert, Air Bottle Compt - Rubber Matting	
229	0622393		Compt, Air Pack in Fender Panel	1
			Location, Bracket/comp. - DS forward fender	
			Qty, - 01	
			Door Finish, Fender Compt - Polished	
			Latch, Air Bottle Compt - Flush Lift & Turn	
			Insert, Air Bottle Compt - Rubber Matting	
230	0004225		Ladder, 24' Duo-Safety 900A 2-Section	1
231	0635956		Ladder, 14' Duo-Safety 775-DR Roof	1
			Qty, - 01	
232	0598395		Ladders/Backboard Btwn Tank & S.Sht, Ext'd Rr, Encl'd Complete, RPH, PS	1
			Size, Backboard - 18" x 3" x 72"	
			Door, Material & Finish, Ladder Storage - c) smooth aluminum	
			Latch, Door Ladder Storage - "D" Handle latch	
233	0519566		Ladder, 10' 585A, Duo-Safety,w/Mtg, Provided by Fire Department, Pumper NFPA	1
			Location, Folding Ladder - d) Ladder comp	
234	0004236		Ladder, 14' 701 Fresno, Duo-Safety	1
			Location, Folding Ladder - d) Ladder comp	
235	0638810		Pike Pole, Pumper, Provided by Fire Department, NFPA	1
			Pike Pole Make/Model - Akron 10' Pike Pole	
236	0638855		Pike Pole, 6', Pumper, Provided by Fire Department, NFPA	1
			Pike Pole Make/Model - Akron 6' Pike Pole	
237	0004361		Tubes, Alum, Pike Pole Storage	4
			Qty, Pike Pole Tubes - 04	
			Location, Pike Pole Tube - Ladder Storage and Crosslay/Speedlay	
			Location, Pike Pole Tube - Ladder Storage and Crosslay/Speedlay	
238	0593072		Steps, Folding, Front of Body, w/LED, Trident	1
			Coating, Step - black	
239	0592994		Steps, Folding, Rear of Body, w/LED, Trident	1
			Coating, Step - black	
240	0591914		Step, Folding - Extra, Body Only, Black, w/LED, Trident	2
			Qty, Folding Step - 02	
			Location, Steps Additional - DS Front Bulkhead - 2	
241	0004425		Pump, Waterous, CSU, 1500 GPM, Single Stage	1
242	0004481		Packing, Grafoil, Waterous	1
243	0559769		Transmission, Pump, Waterous C20 Series	1
244	0535256		Pump Shift, Air w/Manual Override, Split Shaft, Waterous	1
245	0003148		Transmission Lock-up, EVS	1
246	0004547		Auxiliary Cooling System	1
247	0014486		Not Required, Transfer Valve, Stage Pump	1
248	0661474		Valve, Relief Intake, Trident Air Max, Set @ 125 PSI, Control at Operator Panel	1
249	0564941		Controller, Pressure, FRC, Pump Boss, PBA200	1
250	0072153		Primer, Trident, Air Prime, Air Operated	1
251	0058516		Manuals, Pump (2), CD	1
252	0055482		Plumbing, Stainless Steel & Hose, Includes Side Large Dia. (Control Zone)	1
253	0091470		Plumbing, Foam System w/Control Zone Pump House	1
254	0004645		Inlets, 6.00" - 1250 GPM or Larger Pump	1
255	0519393		Cap, Main Pump Inlet, Provided by Fire Department, NFPA	1
256	0084610		Valves, Akron 8000 series- All	1
257	0004660		Inlet, Left Side, 2.50"	1
258	0029147		Not Required, Inlet, Right Side	1
259	0016158		Valve, Inlet(s) Recessed, Side Cntrl, "Control Zone"	1
			Qty, Inlets - 1	
260	0004700		Control, Inlet, at Valve	1
261	0092569		No Rear Inlet (Large Dia) Requested	1
262	0092696		Not Required, Cap, Rear Inlet	1
263	0064116		No Rear Inlet Actuation Required	1
264	0009648		No Rear Intake Relief Valve Required on Rear Inlet	1
265	0092568		No Rear Auxiliary Inlet Requested	1
266	0563738		Valve, .75" Bleeder, Aux. Side Inlet, Swing Handle	1
267	0029043		Tank to Pump, (1) 3.00" Valve, 3.00" Plumbing	1

Line	Option	Type	Option Description	Qty
268	0004905		Outlet, 1.50" Tank Fill	1
269	0004940		Outlet, Left Side, 2.50"	2
			Qty, Discharges - 02	
270	0092570		Not Required, Outlets, Left Side Additional	1
271	0004945		Outlet, Right Side, 2.50"	1
			Qty, Discharges - 01	
272	0092571		Not Required, Outlets, Right Side Additional	1
273	0005047		Outlet, 4.00" w/4.00" Right, Handwheel	1
			Valve, Brand - Akron	
274	0648906		Outlet, Front, 2.50" w/2.50" Plumbing	1
			Fitting, Outlet - 2.50" NST with 90 degree swivel	
			Drain, Front Outlet - Class 1 Automatic	
			Location, Front, Single - top of left bumper	
275	0004995		Outlet, Rear, 2.50"	1
			Qty, Discharges - 01	
			Location, Outlet - b) driver's side	
276	0092574		Not Required, Outlet, Rear, Additional	1
277	0092573		Not Required, Outlet, Hose Bed/Running Board Tray	1
278	0065077		Caps for 1.50" to 3.00" Discharges, Vinyl Cable	1
279	0563739		Valve, 0.75" Bleeder, Discharges, Swing Handle	1
280	0005091		Elbow, Left Side Outlets, 45 Degree, 2.50" FNST x 2.50" MNST, VLH	1
281	0035094		Not Required, Elbow, Left Side Outlets, Additional	1
282	0025091		Elbow, Right Side Outlets, 45 Degree, 2.50" FNST x 2.50" MNST, VLH	1
283	0089584		Not Required, Elbow, Right Side Outlets, Additional	1
284	0045091		Elbow, Rear Outlets, 45 Degree, 2.50" FNST x 2.50" MNST, VLH	1
285	0085695		Not Required, Elbow, Rear Outlets, Large, Additional	1
286	0005097		Elbow, Large Dia Outlet, 30 Deg, 4.00" FNST x 5.00" Storz	1
			Qty, - 01	
287	0062133		Control, Outlets, Manual, Pierce HW if applicable	1
288	0091106		Outlet, 3.00" Deluge w/TFT Extend-a-Gun XG18, Handwheel	1
288	0000000	STF	Monitor, Deck Gun TFT XFC with no ground base	1
289	0040423		Nozzle, TFT Master Stream 1250 M-R, 1,250 GPM, Manual	1
290	0029605		Deluge Mount, TFT XFF-APL	1
291	0029279		Deadlay(s) No Plumbing, Spl Capacity	1
			Capacity, Special Xlay - 250' of 2.5"	
			Qty, Deadlays - 1	
292	0090442		Crosslays Sngl Sheet Unpainted, (1) 2.50" Std Cap	1
293	0064896		Speed, (2) 1.50" W/ Poly Tray, Top Mt/Side Cntrl, Std. Cap.	1
294	0591098		Hose Restraint, Speedlay, Vinyl, Fasteners, Each Side	3
			Color, Vinyl Cover - a) red	
			Qty, - 03	
			Type of fastener - Velcro/Snaps - 1 side of crosslay/deadlay/speedlay	
			Restraint Location - Bottom (towards the ground)	
295	0590877		Hose Restraint, Crosslay/Deadlay, Aluminum Treadplate, Top Only	1
			Stay arm, Tray Cover - g) Socket and Plunger	
			Restraint Location - Front (towards front of truck)	
296	0545212		Reel, Booster, Aluminum, Rear Tailboard Compartment	1
297	0005279		Switch, Reel Rewind - One at Reel	1
298	0005300		Hose, Booster - 150' of 1.00"/800 PSI	1
299	0017858		Capacity, Hose Reel 150' of 1"	1
300	0007428		Nozzle for Booster Reel Not Req'd	1
301	0592633		Foam Sys, Husky 3, Single Agent	1
			Discharge - 3 crosslays, rear 2.5" and the front bumper	
			Amount of Disc. W/Foam - 5	
302	0012126		Not Required, CAF Compressor	1
303	0592527		Refill, Foam Tank, Integral, Husky 3	1
304	0031896		Demonstration, Foam System, Dealer Provided	1
305	0005446		Foam Cell, 20 Gallon, Not Reduce Water	1
			Type of Foam - Class "A"	
306	0697589		Drain, 1.00", Foam Tank #1, Husky 3 Foam System	1
307	0091079		Not Required, Foam Tank #2	1

Line	Option	Type	Option Description	Qty
308	0091112		Not Required, Foam Tank Drain	1
309	0040061		Pump House, Side Control, 56", Control Zone	1
310	0032479		Pump Panel Configuration, Control Zone	1
311	0005525		Material, Pump Panels, Side Control Brushed Stainless	1
312	0005578		Panel, Pump Access - Pass Side Only	1
313	0037731		Pump House Structure, Raised, Included with Ladder Storage	1
314	0005945		Light, Pump Compt	1
315	0586382		Engine Indicators, Included With Pressure Controller	1
316	0005601		Throttle Included w/ Pressure Controller	1
317	0549333		Indicators, Engine, Included with Pressure Controller	1
318	0553643		Control, Air Horn at Pump Panel w/Red Switch	1
319	0511078		Gauges, 4.00" Master, Class 1, 30"-0-600psi	1
320	0511100		Gauge, 2.00" Pressure, Class 1, 30"-0-400psi	1
321	0062586		Gauge, Water Level, Class 1, Pierce Std	1
322	0062992		Gauge, Foam Level, (1) Tank, Class 1	1
323	0593161		Light Shield, S/S LED	1
324	0066052		Air Horns, (2) Grover in Bumper Outside Frame	1
325	0006066		Control, Air Horn, DS & PS Lanyard	1
326	0533071		Siren, Whelen 295SLSC1, w/Detachable Mic Cord	1
327	0510206		Location, Elect Siren, Recessed Overhead In Console	1
			Location, Elec Siren - Overhead, Above Eng Tunnel DS	
328	0076156		Control, Elec Siren, Head Only	1
329	0618915		Speaker, Whelen SP123BMC, Chrome ABS	1
			Qty, Speakers - 1	
			Connection, Speaker - siren head	
330	0548456		Location, Recessed in the Front Bumper, Center	1
331	0016080		Siren, Federal Q2B	1
332	0006095		Siren, Mechanical, Mounted Above Deckplate	1
			Location, Siren, Mech - a) Left	
333	0026170		Control, Mech Siren, DS Foot Sw, PS Push Button	1
334	0551932		Lightbar, Whelen, Freedom, FN**QLED, 8-R, 2-W, 2-RC, LED Opt	1
			Length, Wln Lightbar - 77"	
			Opticom Priority - b) High	
			Color, Lens, LED's - c)clear	
335	0549166		Light, Front Zone, Whelen M6*C LED, Clear Lens, 4 Lts	1
			Flange Kit - w)with flange	
			Color, Lt DS Frnt Outside - DS Front Outside Red	
			Color, Lt PS Frnt Outside - PS Front Outside Red	
			Color, Lt DS Front Inside - r) DS Front Inside Red	
			Color, Lt PS Front Inside - r) PS Front Inside Red	
336	0525249		Flash Pattern, Two (2) Pair Front Warning Lights, Outside with Outside	1
337	0653937		Flasher, Headlight Alternating	1
			Headlt flash deactivation - a)w/high beam	
338	0540692		Lights, Side Zone Lower, Whelen M6*C LED, Clear Lens, 3pr, Ovr 25	1
			Location, Lights Frt Side - b)each side bumper	
			Color, Lt Side Front - Red	
			Color, Lt Side Middle - Red	
			Color, Lt Side Rear - Red	
			Location, Lights Mid Side - Rearward of Crew Cab Doors	
			Location, Lights Rear Side - Over Rear Wheels	
339	0564655		Lights, Rear Zone Lower, Whelen M6*C LED, Clear Lens, For Tail Lt Housing	1
			Color, Lt DS Rear - r) DS Rear Lt Red	
			Color, Lt PS Rear - r) PS Rear Lt Red	
340	0540804		Lights, Rear, Whelen M6*C LED, Clear Lens	2
			Color, Light - ae) red	
			Location, Rear Lights - Above taillights	
			Qty, - 02	
			Control, light - c) rear lower warning	
341	0088745		Light, Rear Zone Upper, Whelen L31HRFN LED Beacon, Red LED	1
			Color, Dome, Rear Warning - j) both domes clear	
342	0006551		Not Required, Lights, Rear Upper Zone Blocking	1
343	0006615		Mtg, Rear Warn Lts, On Top of Compt	1

Line	Option	Type	Option Description	Qty
344	0006646		Electrical System, 120/240VAC, General Design	1
345	0563275		Generator, Harrison 6kW MSV, Hydraulic, Hotshift PTO, Volt Meter Only	1
			Generator Interlocks - No Interlocks	
346	0006645		Location, Hydraulic Generator Above Pump	1
			Location, Generator(s) - Over Pump, Right Side	
347	0016752		Starting Sw, Truck Engine Powered Gen, Cab Sw Pnl	1
348	0016757		Not Required, Remote Start, Generator	1
349	0016740		Not Required, Fuel System	1
350	0016767		Not Required, Oil Drain Extension, Generator	1
351	0016771		Not Required, Routing Exhaust, Generator	1
352	0672957		Circuit Breaker Panel, PTO Gen, As Small As Practical	1
			Location, CB Panel - D3 and as much out of the way as possible	
353	0636229		Light Twr, W-B Chf NS1.8-3000 MAG, 4-KR-36 120VAC Lts Cld 6'	1
			Color, Tower, Wlb - White Paint	
354	0664474		Location, Light Tower, Cab Roof	1
355	0617750		Controller, Light Tower, W-B, Wired Handheld, E-STOP Chf, Chf Pr, Pow Pr	1
356	0664791		Location, Light Tower Controller, Driver's Side Front Body Compartment	1
357	0526994		Reel, Elect Cable, Akron, (4) Wire	1
			Qty, Cord Reels - 1	
			Reel Guide - a) Nylatron guide	
			Finish, Reel - Powder Coated Silver	
			Location, Electric Cord Reel - Above Pump With Generator, 1 Reel	
358	0086632		Cord, Electric, 10/4 Yellow, 4 Wire	1
			Lengths of Elect Cord - 1	
			Feet of Yellow Cord - e)200	
			Connection, Cord - Direct connection	
359	0016794		Receptacle Strip, 15A 120V 6-Place, Shoreline	1
			Location, Receptacles - in crew cab to be determined	
			Qty, - 01	
360	0519934		Not Required, Brand, Hydraulic Tool System	1
361	0007150		Bag of Nuts and Bolts	1
			Qty, Bag Nuts and Bolts - 1	
362	0532883		NFPA Required Loose Equipment, Pumper, Provided by Fire Department	1
363	0540114		Soft Suction Hose, Provided by Fire Department, Pumper NFPA Classification	1
364	0027023		No Strainer Required	1
365	0533269		Extinguisher, Dry Chemical, Pumper NFPA Class, Provided by Fire Department	1
366	0533278		Extinguisher, 2.5 Gal. Pressurized Water, Pumper NFPA, Provided by Fire Dept	1
367	0532921		Axe, Flathead, Pumper NFPA Classification, Provided by Fire Department	1
368	0532924		Axe, Pickhead, Pumper NFPA Classification, Provided by Fire Department	1
369	0559690		Paint, Two Tone, Cab and Body, w/shield, Custom Cab	1
			Paint, Color - red #90	
			Paint Color, Upper Area - black	
370	0646897		Paint Chassis Frame Assy, E-Coat, Standard	1
			Paint Color, Frame Assembly, Predefined - Black	
371	0645644		No Pick Required	1
372	0693797		No Paint Required, Aluminum Front Wheels	1
373	0693792		No Paint Required, Aluminum Rear Wheels	1
374	0007230		Compartment, Painted, Spatter gray	1
375	0544129		Reflective Band, 1"-6"-1"	1
			Color, Reflect Band - A - a) white	
			Color, Reflect Band - B - l) white	
			Color, Reflect Band - C - w) white	
376	0547618		Stripe, Diamond Grade, Chevron, Front Bumper	1
			Size, Chevron Striping - 06	
			Color, Chevron DG - Yellow Green, Fluorescent	
377	0536954		Stripe, Chevron, Rear, Diamond Grade, Pumper	1
			Color, Rear Chevron DG - fluorescent yellow green	
378	0593225		Stripe, Reflective, Cab Doors Interior, Diamond Grade	1
			Color, Reflect Band - A - p) fluorescent yellow green diamond grade	
379	0033179		Lettering Specifications, Reflective	1
380	0686160		Lettering, Reflective, 3.00", (21-40)	1
			Outline, Lettering - Outline	

Line	Option	Type	Option Description	Qty
381	0686002		Lettering, Reflective, 8.00", Each	4
			Qty, Lettering - 04	
			Outline, Lettering - Outline	
382	0686018		Lettering, Reflective, 5.00", Each	10
			Qty, Lettering - 10	
			Outline, Lettering - Outline	
383	0516701		Emblem, American Flag Painted on Cab Grille, All Custom Chassis	1
384	0529225		Manuals, Two (2) CD, Fire Apparatus Parts, Custom Chassis	1
385	0543577		Manuals, One (1) Chassis Service & (1) CD, Custom	1
386	0531638		Manual, Two (2) CD, Chassis Operation, Custom	1
387	0030008		Warranty, Basic, 1 Year, Apparatus, WA0008	1
388	0611136		Warranty, Chassis, 3 Year, Velocity/Impel, WA0284	1
389	0696698		Warranty, Engine, Cummins, 5 Year, WA0181	1
390	0684953		Warranty, Steering Gear, Sheppard M110, 3 Year WA0201	1
391	0595767		Warranty, Frame, 50 Year, Velocity/Impel, Dash CF, WA0038	1
392	0595698		Warranty, Axle, 3 Year, TAK-4, WA0050	1
393	0530524		Warranty, Axle, 2 Year, Meritor, General Service, WA0046	1
394	0652758		Warranty, ABS Brake System, 3 Year, Meritor Wabco, WA0232	1
395	0019914		Warranty, Structure, 10 Year, Custom Cab, WA0012	1
396	0595813		Warranty, Paint, 10 Year, Cab, Pro-Rate, WA0055	1
397	0524627		Warranty, Electronics, 5 Year, MUX, WA0014	1
398	0695416		Warranty, Pierce Camera System, WA0188	1
399	0647720		Warranty, Pierce LED Strip Lights, WA0203	1
400	0046369		Warranty, 5-year EVS Transmission, Standard Custom, WA0187	1
401	0685945		Warranty, Transmission Cooler, WA0216	1
402	0688798		Warranty, Water Tank, Lifetime, UPF, Poly Tank, WA0195	1
403	0596025		Warranty, Structure, 10 Year, Body, WA0009	1
404	0693127		Warranty, Gortite, Roll-up Door, 6 Year, WA0190	1
405	0063510		Warranty, Pump, Waterous, 5 Year Parts, WA0225	1
406	0648675		Warranty, 10 Year S/S Pumbing, WA0035	1
407	0657990		Warranty, Foam System, Husky 3, WA0231	1
408	0595588		Warranty, Harrison Generator, 2 Year, WA0051	1
409	0595820		Warranty, Paint, 10 Year, Body, Pro-Rate, WA0057	1
410	0595412		Warranty, Graphics Lamination, 1 Year, Apparatus, WA0168	1
411	0596346		Warranty, Extended, 2 Year, Custom Chassis, Class M, WA0060	1
412	0683627		Certification, Vehicle Stability, CD0089	1
413	0610739		Certification, Engine Installation, Imp/Vel, Cummins ISL9, 2016, CD0112	1
414	0686786		Certification, Power Steering, CD0098	1
415	0667418		Certification, Cab Integrity, Impel FR, CD0009	1
416	0548950		Certification, Cab Door Durability, Velocity/Impel, CD0001	1
417	0548967		Certification, Windshield Wiper Durability, Impel/Velocity, CD0005	1
418	0667411		Certification, Electric Window Durability, Velocity/Impel FR, CD0004	1
419	0549273		Certification, Seat Belt Anchors and Mounting, Imp/Vel/Vel SLT, CD0018	1
420	0667416		Certification, Cab Heater and Defroster, Velocity/Impel FR, CD0015	1
421	0667415		Certification, Cab Air Conditioning Performance, Velocity/Impel FR, CD0016	1
422	0545073		Amp Draw Report, NFPA Current Edition	1
423	0002758		Amp Draw, NFPA/ULC Radio Allowance	1
424	0000018		PUMPER, 2ND GEN	1
425	0000012		PIERCE CHASSIS	1
426	0004713		ENGINE, OTHER	1
427	0046395		EVS 3000 Series TRANSMISSION	1
428	0020011		WATEROUS PUMP	1
429	0020009		POLY TANK	1
430	0028048		FOAM SYSTEM	1
431	0020006		SIDE CONTROL	1
432	0020007		AKRON VALVES	1
433	0020015		ABS SYSTEM	1
434	0658751		Manufacturing Attribute	1

EXHIBIT 2

Lessee's Counsel's Opinion

[To be provided on letterhead of Lessee's counsel.]

October 12, 2015

Leasing 2, Inc.
1720 West Cass Street
Tampa, FL 33606

City Of Colleyville
100 Main Street
Colleyville, TX 76034

RE: Property Schedule No.1 to Master Tax-Exempt Lease/Purchase Agreement between Leasing 2, Inc. and City Of Colleyville.

Ladies and Gentlemen:

We have acted as special counsel to City Of Colleyville ("Lessee"), in connection with the Master Tax-Exempt Lease/Purchase Agreement, dated as of October 12, 2015 (the "Master Agreement"), between City Of Colleyville, as Lessee, and Leasing 2, Inc. as Lessor ("Lessor"), and the execution of Property Schedule No.1 (the "Property Schedule") pursuant to the Master Agreement. We have examined the law and such certified proceedings and other papers as we deem necessary to render this opinion.

All capitalized terms not otherwise defined herein shall have the meanings provided in the Master Agreement and Property Schedule.

As to questions of fact material to our opinion, we have relied upon the representations of Lessee in the Master Agreement and the Property Schedule and in the certified proceedings and other certifications of public officials furnished to us without undertaking to verify the same by independent investigation.

Based upon the foregoing, we are of the opinion that, under existing law:

1. Lessee is a public body corporate and politic, duly organized and existing under the laws of the State, and has a substantial amount of one or more of the following sovereign powers: (a) the power to tax, (b) the power of eminent domain, and (c) the police power.

2. Lessee has all requisite power and authority to enter into the Master Agreement and the Property Schedule and to perform its obligations thereunder.

3. The execution, delivery and performance of the Master Agreement and the Property Schedule by Lessee has been duly authorized by all necessary action on the part of Lessee.

4. All proceedings of Lessee and its governing body relating to the authorization and approval of the Master Agreement and the Property Schedule, the execution thereof and the transactions contemplated thereby have been conducted in accordance with all applicable open meeting laws and all other applicable state and federal laws.

5. Lessee has acquired or has arranged for the acquisition of the Property subject to the Property Schedule, and has entered into the Master Agreement and the Property Schedule, in compliance with all applicable public bidding laws.

6. Lessee has obtained all consents and approvals of other governmental authorities or agencies which may be required for the execution, delivery and performance by Lessee of the Master Agreement and the Property Schedule.

7. The Master Agreement and the Property Schedule have been duly executed and delivered by Lessee and constitute legal, valid and binding obligations of Lessee, enforceable against Lessee in accordance with the terms thereof, except insofar as the enforcement thereof may be limited by any applicable bankruptcy, insolvency, moratorium, reorganization or

other laws of equitable principles of general application, or of application to municipalities or political subdivisions such as the Lessee, affecting remedies or creditors' rights generally, and to the exercise of judicial discretion in appropriate cases.

8. As of the date hereof, based on such inquiry and investigation as we have deemed sufficient, no litigation is pending, (or, to our knowledge, threatened) against Lessee in any court (a) seeking to restrain or enjoin the delivery of the Master Agreement or the Property Schedule or of other agreements similar to the Master Agreement; (b) questioning the authority of Lessee to execute the Master Agreement or the Property Schedule, or the validity of the Master Agreement or the Property Schedule, or the payment of principal of or interest on, the Property Schedule; (c) questioning the constitutionality of any statute, or the validity of any proceedings, authorizing the execution of the Master Agreement and the Property Schedule; or (d) affecting the provisions made for the payment of or security for the Master Agreement and the Property Schedule.

This opinion may be relied upon by Lessor, its successors and assigns, and any other legal counsel who provides an opinion with respect to the Property Schedule.

Very truly yours,

By: _____

Dated: _____

EXHIBIT 3

Lessee's General and Incumbency Certificate

GENERAL CERTIFICATE

Re: **Property Schedule No.1** to Master Tax-Exempt Lease/Purchase Agreement between Leasing 2, Inc. and City Of Colleyville.

The undersigned, being the duly elected, qualified and acting Mayor of City Of Colleyville ("Lessee") does hereby certify, as of , as follows:

1. Lessee did, at a meeting of the governing body of the Lessee, by resolution or ordinance duly enacted, in accordance with all requirements of law, approve and authorize the execution and delivery of the above-referenced Property Schedule (the "Property Schedule") and the Master Tax-Exempt Lease/Purchase Agreement (the "Master Agreement") by the undersigned.

2. The meeting(s) of the governing body of the Lessee at which the Master Agreement and the Property Schedule were approved and authorized to be executed was duly called, regularly convened and attended throughout by the requisite quorum of the members thereof, and the enactment approving the Master Agreement and the Property Schedule and authorizing the execution thereof has not been altered or rescinded. All meetings of the governing body of Lessee relating to the authorization and delivery of Master Agreement and the Property Schedule have been: (a) held within the geographic boundaries of the Lessee; (b) open to the public, allowing all people to attend; (c) conducted in accordance with internal procedures of the governing body; and (d) conducted in accordance with the charter of the Lessee, if any, and the laws of the State.

3. No event or condition that constitutes, or with the giving of notice or the lapse of time or both would constitute, an Event of Default or a Nonappropriation Event (as such terms are defined in the Master Agreement) exists at the date hereof with respect to this Property Schedule or any other Property Schedules under the Master Agreement.

4. The acquisition of all of the Property under the Property Schedule has been duly authorized by the governing body of Lessee.

5. Lessee has, in accordance with the requirements of law, fully budgeted and appropriated sufficient funds for the current budget year to make the Lease Payments scheduled to come due during the current budget year under the Property Schedule and to meet its other obligations for the current budget year and such funds have not been expended for other purposes.

6. As of the date hereof, no litigation is pending, (or, to my knowledge, threatened) against Lessee in any court (a) seeking to restrain or enjoin the delivery of the Master Agreement or the Property Schedule or of other agreements similar to the Master Agreement; (b) questioning the authority of Lessee to execute the Master Agreement or the Property Schedule, or the validity of the Master Agreement or the Property Schedule, or the payment of principal of or interest on, the Property Schedule; (c) questioning the constitutionality of any statute, or the validity of any proceedings, authorizing the execution of the Master Agreement and the Property Schedule; or (d) affecting the provisions made for the payment of or security for the Master Agreement and the Property Schedule.

IN WITNESS WHEREOF, the undersigned has executed this Certificate as of October 12, 2015.

City Of Colleyville

By: _____

Print Name: David Kelly

Print Title: Mayor

SIGNER MUST BE THE AUTHORIZED INDIVIDUAL EXECUTING THE DOCUMENTS.

INCUMBENCY CERTIFICATE

Re: **Property Schedule No.1** to Master Tax-Exempt Lease/Purchase Agreement between Leasing 2, Inc. and City Of Colleyville.

The undersigned, being the duly elected, qualified and acting Secretary or Clerk of City Of Colleyville ("Lessee") does hereby certify, as of , as follows:

As of the date of the meeting(s) of the governing body of the Lessee at which the above-referenced Master Agreement and the Property Schedule were approved and authorized to be executed, and as of the date hereof, the below-named representative of the Lessee held and holds the office set forth below, and the signature set forth below is his/her true and correct signature.

NAME OF EXECUTING OFFICIAL	TITLE OF EXECUTING OFFICIAL	SIGNATURE OF EXECUTING OFFICIAL
David Kelly	Mayor	

IN WITNESS WHEREOF, the undersigned has executed this Certificate as of October 12, 2015.

City Of Colleyville

By: _____

Print Name: Amy Shelley

Print Title: City Secretary

SIGNER MUST NOT BE THE SAME AS THE EXECUTING OFFICIAL SHOWN ABOVE.

EXHIBIT 4

Payment of Proceeds Instructions

Leasing 2, Inc.
1720 West Cass Street
Tampa, FL 33606

Re: Property Schedule No.1 (the "Property Schedule") to Master Tax-Exempt Lease/Purchase Agreement between Leasing 2, Inc. ("Lessor") and City Of Colleyville ("Lessee").

Ladies and Gentlemen:

The undersigned, an Authorized Representative of the Lessee hereby requests and authorizes Lessor to disburse the net proceeds of the Property Schedule as follows:

Name of Payee: _____

By check _____ By wire transfer _____

If by check, Payee's address: _____

_____

_____

If by wire transfer, instructions as follows:

Pay to Bank Name: _____

Bank Address: _____

Bank Phone #: _____

For Account of: _____

Account No.: _____

ABA No.: _____

Lessee: City Of Colleyville
By:
Name:
Title:

EXHIBIT 5

Acceptance Certificate

Leasing 2, Inc.
1720 West Cass Street
Tampa, FL 33606

Re: **Property Schedule No.1** to Master Tax-Exempt Lease/Purchase Agreement between Leasing 2, Inc. and City Of Colleyville

Ladies and Gentlemen:

In accordance with the above-referenced Master Tax-Exempt Lease/Purchase Agreement (the "Master Agreement"), the undersigned ("Lessee") hereby certifies and represents to, and agrees with, Leasing 2, Inc. ("Lessor"), as follows:

(1) The Property, as such terms are defined in the above-referenced Property Schedule, has been acquired, made, delivered, installed and accepted on the date indicated below.

(2) Lessee has conducted such inspection and/or testing of the Property as it deems necessary and appropriate and hereby acknowledges that it accepts the Property for all purposes.

(3) No event or condition that constitutes, or with notice or lapse of time, or both, would constitute, an Event of Default or a Nonappropriation Event (as such terms are defined in the Master Agreement) exists at the date hereof.

Acceptance Date: _____

Lessee: City Of Colleyville
By:
Name:
Title:

EXHIBIT 6

Bank Qualification And Arbitrage Rebate

Leasing 2, Inc.
1720 West Cass Street
Tampa, FL 33606

Re: **Property Schedule No. 1** to Master Tax-Exempt Lease/Purchase Agreement between Leasing 2, Inc. and City Of Colleyville

Bank Qualified Tax-Exempt Obligation under Section 265

Check One:

__X__ Lessee hereby designates this Property Schedule as a "qualified tax-exempt obligation" as defined in Section 265(b)(3)(B) of the Code. Lessee reasonably anticipates issuing tax-exempt obligations (excluding private activity bonds other than qualified 501(c)(3) bonds and including all tax-exempt obligations of subordinate entities of the Lessee) during the calendar year in which the Commencement Date of this Property Schedule falls, in an amount not exceeding $10,000,000.

or

_____ Not applicable.

Arbitrage Rebate

Eighteen Month Exception: Pursuant to Treasury Regulations Section 1.148-7(d), the gross proceeds of this Property Schedule will be expended for the governmental purposes for which this Property Schedule was entered into, as follows: at least 15% within six months after the Commencement Date, at least 60% within 12 months after the Commencement Date, and 100% within 18 months after the Commencement Date. If Lessee is unable to comply with Section 1.148-7(d) of the Treasury Regulations, Lessee shall compute rebatable arbitrage on this Agreement and pay rebatable arbitrage to the United States at least once every five years, and within 60 days after payment of the final Lease Payment due under this Agreement.

Consult tax counsel if there is any chance that the Eighteen Month Exception will not be met.

Lessee: City Of Colleyville
By:
Name: David Kelly
Title: Mayor

Language for UCC Financing Statements

Schedule 1

SECURED PARTY: U.S. Bancorp Government Leasing and Finance, Inc.

DEBTOR: City Of Colleyville

This financing statement covers all of Debtor's right, title and interest, whether now owned or hereafter acquired, in and to the equipment leased to Debtor under Property Schedule No.1 dated October 12, 2015 to that certain Master Tax-Exempt Lease/Purchase Agreement dated as of October 12, 2015, in each case between Debtor, as Lessee, and Secured Party, as Lessor, together with all accessions, substitutions and replacements thereto and therefor, and proceeds (cash and non-cash), including, without limitation, insurance proceeds, thereof, including without limiting, all equipment described on Exhibit A attached hereto and made a part hereof.

Debtor has no right to dispose of the equipment.

INSURANCE AUTHORIZATION AND VERIFICATION

Date: October 12, 2015 **Property Schedule No: 1**

To: City Of Colleyville (the "Lessee")

From: Leasing 2, Inc. (the "Lessor")
1720 West Cass Street
Tampa, FL 33606
Attn: Brad Meyers

TO THE LESSEE: In connection with the above-referenced Property Schedule, Creditor requires proof in the form of this document, executed by both Lessee* and Lessee's agent, that Lessee's insurable interest in the financed property (the "Property") meets Lessor's requirements as follows, with coverage including, but not limited to, fire, extended coverage, vandalism, and theft:

LESSOR, AND ITS SUCCESSORS AND ASSIGNS, shall be covered as both ADDITIONAL INSURED and LENDER'S LOSS PAYEE with regard to all equipment financed or leased by policy holder through or from Lessor. All such insurance shall contain a provision to the effect that such insurance shall not be canceled or modified without first giving written notice thereof to Lessor and Lessee at least thirty (30) days in advance of such cancellation or modification.

Lessee must carry GENERAL LIABILITY (and/or, for vehicles, Automobile Liability) in the amount of no less than $1,000,000.00 (one million dollars).

Lessee must carry PROPERTY Insurance (or, for vehicles, Physical Damage Insurance) in an amount no less than the $416,073.00, with deductibles no more than $10,000.00.

**Lessee: Please execute this form and return with your document package.* Lessor will fax this form to your insurance agency for endorsement. In lieu of agent endorsement, Lessee's agency may submit insurance certificates demonstrating compliance with all requirements. If fully executed form (or Lessee-executed form plus certificates) is not provided within 15 days, we have the right to purchase such insurance at your expense. Should you have any questions, please contact at (813)258-9888x12.

By signing, Lessee authorizes the Agent named below: 1) to complete and return this form as indicated; and 2) to endorse the policy and subsequent renewals to reflect the required coverage as outlined above.

Agency/Agent: Texas Municipal League Intergovernmental Risk Pool
Address: Kris Reim, Underwriter
P. O. Box 149194, Austin, TX 78714-9194
512-491-2300 /
Phone/Fax:
E-Mail

City Of Colleyville

By: _____
Print Name: David Kelly
Title: Mayor

TO THE AGENT: ***In lieu of providing a certificate, please execute this form in the space below and promptly fax it to Lessor at (813)258-9333. This fully endorsed form shall serve as proof that Lessee's insurance meets the above requirements.***

Agent hereby verifies that the above requirements have been met in regard to the Property listed below.

Print Name Of Agency:
X_____

By: **X**_____
(Agent's Signature)
Print Name: **X**_____ Date: **X**_____

Insurable Value: $416,073.00

ATTACHED: PROPERTY DESCRIPTION FOR PROPERTY SCHEDULE NO.: 1

Notification of Tax Treatment to Master Tax-Exempt Lease/Purchase Agreement

This **Notification of Tax Treatment** is pursuant to the Master Tax-Exempt Lease/Purchase Agreement dated as of October 12, 2015 and the related Property Schedule No. 1 dated October 12, 2015, between Lessor and Lessee (the "Agreement").

_____ Lessee agrees that this Property Schedule SHOULD be subject to sales/use taxes

_____ Lessee agrees that this Property Schedule should NOT be subject to sales/use taxes and Lessee has included our tax-exemption certificate with this document package

___X___ Lessee agrees that this Property Schedule should NOT be subject to sales/use taxes and no tax-exemption certificate is issued to us by the State

_____ Lessee agrees that this Property Schedule is a taxable transaction and subject to any/all taxes

_____ Lessee agrees that this Property Schedule is subject to sales/use taxes and will pay those taxes directly to the State or Vendor

IN WITNESS WHEREOF, Lessee has caused this Notification of Tax Treatment to be executed by their duly authorized representative.

Lessee: City Of Colleyville
By:
Name: David Kelly
Title: Mayor

NOTICE AND ACKNOWLEDGMENT OF SALE OF RENTAL PAYMENTS AND ASSIGNMENT OF LEASE

Leasing 2, Inc. and City of Colleyville ("Lessee") have entered into a Master Tax-Exempt Lease/Purchase Agreement, dated October 12, 2015 and related Property Schedule No. 1 dated October 12, 2015 (together, the "Agreement") under which Lessee has, or will have prior to its execution hereof, leased Property (the "Property") described in Exhibit A to the Agreement.

Lessee is hereby notified that Leasing 2, Inc. has assigned its interest in the Agreement, in the leased Property, and in the Rental Payments and all other amounts provided for under the Agreement.

Lessee is hereby directed to pay any and all rental payments and other amounts due with respect to which Leasing 2, Inc.s' Purchaser ("Purchaser") renders an invoice, at the address set out immediately below or as otherwise directed in said invoice:

"PURCHASER"

U.S. Bancorp Government Leasing and Finance, Inc.
PO Box 959067
St. Louis, MO 63179-9067

By signing this Notice and Acknowledgment, Lessee agrees that it will pay all amounts due under the Agreement as directed in the invoice without any set-off or deduction whatsoever notwithstanding any defect in, damage to, or requisition of any property leased under the Agreement, any other similar or dissimilar event, any defense, set-off, counterclaim or recoupment arising out of any claim against Leasing 2, Inc. or Purchaser.

Lessee further agrees that Purchaser has not assumed any duties under the Agreement or made any warranties whatsoever as to the Agreement or the Property. Lessee agrees that no change may be made to the Agreement without the prior written consent of the Purchaser.

In signing this, Lessee warrants that its representations and warranties under the Agreement are true and correct on the date hereof.

Lessor: Leasing 2, Inc.	**Lessee: City of Colleyville**
By:	**By:**
Printed Name:	**Printed Name:** David Kelly
Title:	**Title:** Mayor
Date:	**Date:**

VEHICLE TITLING ADDENDUM

Master Tax-Exempt Lease/Purchase Agreement dated October 12, 2015 and related Property Schedule No.1 dated October 12, 2015, between City of Colleyville as Lessee and U.S. Bancorp Government Leasing and Finance, Inc. as Assignee.

1. Assignee and Lessee hereby agree to amend the above referenced Agreement to add additional terms and conditions as set forth below:

> Lessee agrees that it will provide to Assignee the original title documentation to the Equipment. Lessee shall provide such title documentation to Assignee within 15 days of Lessee's receipt of such title documentation from the appropriate titling authority. Lessee's failure to provide Assignee with title documentation to the Equipment in a timely fashion shall be deemed a condition of Default as defined in the default paragraph herein subject to remedies available to Assignee pursuant to the remedies paragraph.

2. Location: Assignee agrees that in regard to the location of the equipment, Lessee must be responsible for maintaining records showing the location of each piece of Leased equipment. Lessee will report this location to Assignee upon written request by Assignee. Failure to do so shall constitute a breach of the Agreement, which default shall be governed by the terms and conditions specified in the default and/or remedies paragraph of the Agreement.

3. Lessee will complete the physical titling of the vehicle as required by the state of Lessee's residence and guarantee U.S. Bancorp Government Leasing and Finance, Inc. that U.S. Bancorp Government Leasing and Finance, Inc. will receive the original title to the leased vehicle in a timely manner. Lessee agrees to indemnify U.S. Bancorp Government Leasing and Finance, Inc. from any damage or loss it incurs, including legal fees, due to its failure to complete its agreement herein.

THE APPLICATION FOR TITLE MUST INCLUDE THE FOLLOWING AS 1ST LIEN HOLDER:

U.S. BANCORP GOVERNMENT LEASING AND FINANCE, INC.
1310 MADRID STREET
MARSHALL, MN 56258

By signing this Addendum, Lessee acknowledges the above changes to the Agreement and authorizes Assignee to make such changes. In all other respects the terms and conditions of the Agreement remain in full force and effect.

Assignee: U.S. Bancorp Government Leasing and Finance, Inc.	**Lessee: City of Collyville**
By:	By:
Name:	Name: David Kelly
Title:	Title: Mayor
Date:	Date:

RESOLUTION R-15-3923

A RESOLUTION AUTHORIZING THE EXECUTION AND DELIVERY OF A MASTER TAX-EXEMPT LEASE/PURCHASE AGREEMENT WITH LEASING 2, INC.

WHEREAS, the City of Colleyville City Council desires to obtain certain equipment (the Equipment) described in Exhibit A – Property Description to the Master Tax-Exempt Lease/Purchase Agreement (collectively, the "Lease") with Leasing 2, Inc. (Lessor), the form of which has been available for review by the governing body of Lessee prior to the meeting; and

WHEREAS, the Equipment is essential for the City of Colleyville to perform its governmental functions; and

WHEREAS, the funds made available under the Lease will be applied to the acquisition of the Equipment in accordance with such Lease; and

WHEREAS, Lessee has taken the necessary steps, including those relating to any applicable legal bidding requirements, to arrange for the acquisition of the Equipment; and

WHEREAS, Lessee proposes to enter into the Lease with Lessor substantially in the form presented at a duly called meeting of the governing body of Lessee held in accordance with all applicable legal requirements, including open meeting laws, on the 20th day of October 2015; and

WHEREAS, all legal prerequisites for the approval of this Resolution have been met, including but not limited to the Open Meetings Act.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF COLLEYVILLE, TEXAS:

Sec. 1. THAT all matters stated above are found to be true and correct and are incorporated herein by reference as if copied in their entirety.

Sec. 2. THAT it is hereby found and determined that the terms of the Lease in the form presented to this meeting and incorporated in this resolution are in the best interests of Lessee for the acquisition of the Equipment.

Sec. 3. THAT the Lease and the acquisition and financing of the Equipment under the terms and conditions as described in the Lease are hereby approved. The Mayor of the City of Colleyville, shall have power to execute contracts on behalf of the City of Colleyville, is authorized to execute, acknowledge and deliver the Lease with any changes, insertions and omissions therein as may be approved by the officers who execute the Lease, such approval to be conclusively evidenced by such execution and delivery of the Lease.

Sec. 4. THAT the Mayor of the City of Colleyville is authorized and directed to execute and deliver any and all papers, instruments, opinions, certificates, affidavits and other document and to do or cause to be done any and all other acts and things, necessary or proper for carrying out this resolution and the Lease.

Sec. 5. THAT pursuant to Section 265(b) of the Internal Revenue Code of 1986, as amended (the Code), Lessee hereby specifically designates the Lease as a qualified tax-exempt obligation for purposes of Section 265(b)(3)(B) of the Code.

Sec. 6. THAT the undersigned further certifies that the above resolution has not been repealed or amended and remains in full force and effect and further certifies that the Lease executed on behalf of Lessee is the same as presented at such meeting of the governing body of Lessee, excepting only such changes; insertions and omissions as shall have been approved by the officers who executed them.

AND IT IS SO RESOLVED.

APPROVED BY A VOTE OF AYES __, NAYS __, AND __ ABSTENTIONS, THIS 20TH DAY OF OCTOBER 2015.

ATTEST: CITY OF COLLEYVILLE

Amy Shelley, TRMC
City Secretary

David Kelly
Mayor

City of Colleyville
City Council
Agenda Briefing

City Hall
100 Main Street
Colleyville, Texas 76034
www.colleyville.com

Agenda Number 8 **Agenda Date** 10/20/2015
Type Report
Department City Secretary

Title
Park Land Dedication Committee Meeting Minutes - October 1, 2014
Parks and Recreation Advisory Board Meeting Minutes - July 6, 2015
Library Board Meeting Minutes - August 10, 2015

Attachments
1. Park Land Dedication Committee - October 1, 2014
2. Parks and Recreation Advisory Board - July 6, 2015
3. Library Board - August 10, 2015

City of Colleyville

Park Land Dedication Committee Minutes

City Hall
100 Main Street
Colleyville, Texas 76034
817.503.1000
www.colleyville.com

Wednesday, October 1, 2014 — Colleyville Public Library
6:00 p.m. — 110 Main Street - 2nd Floor

1. CALL TO ORDER

Assistant City Manager/Chief Financial Officer Terry Leake called the meeting of the Park Land Dedication Committee to order at 6:55 p.m.

Roll Call

Present: Suzanne Hughes, Carel Tornes, and David Wheelwright; Staff present: Assistant City Manager/Chief Financial Officer Terry Leake, Parks Manager James Hubbard, and Administrative Assistant Kathy Moore

Absent: Leti Carson

2. APPROVAL OF MINUTES
July 28, 2014

A motion was made by Carel Tornes and seconded by Suzanne Hughes to approve the July 28, 2014 meeting minutes as presented. The motion carried with a unanimous vote.

3. REGULAR AGENDA ITEMS

3a Discussion and consideration of approval to use Park Land Dedication Fund monies for the acquisition of park land and amenities to be included in the Cotton Belt Trail Phase III project

Assistant City Manager/Chief Financial Officer Terry Leake gave a brief overview on the Cotton Belt Trail project; stating that as part of the SH 26 Phase I reconstruction project, a portion of the Longwood property was acquired by TxDOT as right-of-way for the project. Additionally, she added that in order to meet the provisions of the grant for the land acquired by TxDOT, the City is seeking to acquire property to enhance the Cotton Belt Trail Phase III project, which is being built in conjunction with the SH 26 Phase I reconstruction project.

Terry Leake stated that staff is seeking approval from the Board to use up to $150,000 from Park Land Dedication Fund monies for the acquisition of park land and amenities to be included in the Cotton Belt Trail Phase III project.

Discussion ensued concerning the location of the property to be acquired for the Cotton Belt Trail project and the types of amenities to be included in the project. Carel Tornes made a motion to approve the use of up to $150,000 from the Park Land Dedication Fund monies for the acquisition of park land and amenities for the Cotton Belt Trail Phase III project. Suzanne Hughes seconded the motion. The motion carried with a unanimous vote.

4. REPORTS

No Reports were presented.

5. CITIZEN COMMENTS/PRESENTATIONS REGARDING ITEMS NOT ON THE AGENDA

There were no citizen's comments/presentations regarding items not on the agenda.

6. ADJOURNMENT

Suzanne Hughes moved to adjourn the meeting, and Carel Tornes seconded the motion. The meeting of the Park Land Dedication Committee was adjourned at 7:01 p.m.

APPROVED BY A VOTE OF 3 AYES, 0 NAYS, AND 0 ABSTENTIONS ON THIS THE 12TH DAY OF OCTOBER, 2015.

Minutes taken and prepared by:

Kathy E. Moore

Kathy Moore
Administrative Secretary

City of Colleyville

Parks and Recreation Advisory Board MINUTES

City Hall
100 Main Street
Colleyville, Texas
76034
817.503.1000
www.colleyville.com

Monday, July 6, 2015
6:00 p.m.

Colleyville Public Library
110 Main Street - 2nd Floor

1. CALL TO ORDER

Chairperson Michelle McGarry called the meeting of the Parks and Recreation Advisory Board to order on July 6, 2015 at 6:06 p.m. and called the roll.

Present: Chair Michelle McGarry, Board Members Ajit Purandare, Charles Bethards, Hillary Schwanbeck.

Absent: Board Members Ken Llewellyn, Leti Carson, and David Hays

City Staff: Library and Recreation Director Mary Rodne, Assistant City Manager/ Director of Public Safety Chief Mike Holder, Parks Manager James Hubbard, Recreation and City Events Manager Lisa Escobedo, and Administrative Support Specialist Rylee Truckenmiller were also present.

2. APPROVAL OF MINUTES
March 30, 2015

Hillary Schwanbeck moved to approve the March 30, 2015 meeting minutes as written. Ajit Purandare seconded the motion. The motion carried unanimously.

3. REGULAR AGENDA ITEMS

3a Presentation and discussion on shade structures

Parks Manager James Hubbard gave a brief overview on an upcoming project whereby shade structures throughout various parks will be replaced. Manager Hubbard stated the 2014 Citizen Survey indicated citizens are in favor of shade structures, and went onto explain the advantages and disadvantages of shade structures. Advantages include providing shelter from the sun, prolonging equipment life, increased useable park hours; disadvantages are the structures are large, increased fabric replacement expense, and the structures can be unsightly.

Manager Hubbard explained there are two types of shade structures: integrated and non-integrated. The integrated structures are built within the equipment and are part of the playground design, though they only cover some of the structure and offer limited time usage. The non-integrated structures are free standing and can cover everything underneath, which sometimes causes the cover to be rather large, as it must meet minimum safety clearances.

Manager Hubbard listed parks that could use the shade structures. The Board reviewed the parks and types of shade structures and recommended nothing be done at Kimzey Park until the playground structure is replaced. The Board believes there is not a current need at Sparger Park or the Nature Center, but would like the non-integrated structure at McPherson Park.

Hillary Schwanbeck asked if the Nature Center should be reconsidered. Manager Hubbard stated they would have to modify the structure to put in a non-integrated structure, and will have to call the manufacturer regarding modifying materials. Hillary Schwanbeck asked the Board if they have any preference on color. Manager Hubbard stated the sails being considered are green or tan. Charles Bethards asked if there are funds for this project. Manager Hubbard responded yes, in the Park Land Dedication and Voluntary Parks Funds. Charles Bethards asked how much money was available. Manager Hubbard stated the Voluntary Park Fund has approximately $700,000 and the Parks Tomorrow Fund has just over $1 million. Charles Bethards asked what the cost is for the shade structure, moving forward. Manager Hubbard stated the purchase would be made from the Voluntary Parks Fund, which sees about $140,000 a year in donations.

3b Approval to use Voluntary Park Funds for the purchase and installation of three new scoreboards at City Park

Parks Manger James Hubbard provided information regarding approval to use Voluntary Parks Funds for the purchase and installation of three new scoreboards at City Park. Manager Hubbard stated the girls' softball association would like to replace three scoreboards at City Park, though the scoreboards are working well, they are old and have to have their bulbs checked once a month. The new scoreboards have LED's and a timer, which the Association is looking for. The Colleyville Softball Association is willing to partner with the Parks Department in the purchase of the three new scoreboards. The current softball games have an inning and time limit, which poses the necessity for the timer on the softball scoreboard.

Manager Hubbard informed the Board the total cost of the boards is approximately $14,000, Colleyville Softball Association is willing to provide $5,000 for funding for this project with the City to cover the remaining $9,000. Manager Hubbard had also discussed updating the Colleyville Baseball Association

scoreboards, but they were not interested. Charles Bethards asked if these boards last for ten years. Manager Hubbard stated the current boards are 17 years old. Charles Bethards questioned if they would be installing the boards immediately if approved. Manager Hubbard responded they were hopeful to have them installed before the fall season, which starts in early September.

Charles Bethards asked if there was anyone using these new boards. Manager Hubbard stated White Settlement is using the boards, and their report was they work fantastically for them. Hillary Schwanbeck asked for clarification on the cost to the City. Manager Hubbard responded $9,000. Michelle McGarry asked if the Board waited a year, would the Colleyville Softball Association still contribute. Manager Hubbard stated he didn't know, but doesn't see why they wouldn't. He also stated he could go back to the Colleyville Softball Association with a different number, if it makes the Board more comfortable. Ajit Purandare asked if there was a standalone timer available for the scoreboards. Manager Hubbard responded the standalone timers cost around $1,000, which is why the new scoreboard for $3,000 was being reviewed. He also said the Board could approve a monetary value they were comfortable with and see if the Colleyville Softball Association matches it. Hillary Schwanbeck stated if we waited a year and the Colleyville Baseball Association is willing to contribute, they may want to purchase their nine scoreboards and there could be a price break. Hillary Schwanbeck questioned if there was concern the current scoreboards would go out in the middle of the season. Manager Hubbard stated the only problem they have had is the connection at the score stand.

Hillary Schwanbeck made a motion to table the approval of the purchase and installation of three new scoreboards at City Park for a year. Ajit Purandare seconded the motion. The motion carried unanimously.

3c Discuss the use of Parks Tomorrow Funds for the L.D. Lockett Park Cotton Belt Trailhead Enhancement Project

Parks Manger James Hubbard discussed the use of Parks Tomorrow Funds for the L.D. Lockett Park Cotton Belt Trailhead Enhancement Project. This project included male and female restrooms, pavilion, adult fitness equipment, children's playground and bicycle repair station. The City went out for bids for three weeks, and received no bids, a second bid cycle resulted in the receipt of three sealed bids, and the lowest bid came in from C. Green Scaping at $555,514.58 for the base bid for the alternate one, with a five-percent contingency. It does not include the adult fitness equipment or children's playground, as it was held from the sealed bid.

Staff is seeking the Board's approval of expending $140,000 to cover some of the contract, adult fitness equipment, and children's playground. As of April 30, 2015 the Parks Tomorrow Fund had an available monetary valuable of just over $1

million dollars. Ajit Purandare asked if the branding of this equipment would be in line with the branding discussed earlier. Manager Hubbard it would be consistent with the continuous branding Colleyville is trying to market across its parks. Michelle McGarry asked if it was correct, if the Board does not approve the expenditure, there is no playground. Manager Hubbard responded at this time we would not have the funding for the adult fitness equipment or the children's playground and $55,000 of the $140,000 is being requested to cover the base bid. He stated the Board could approve an amount less than the $140,000 but at minimum would need to approve $55,000 for the contact. Ajit Purandare asked if this included a shade structure. Manager Hubbard stated it does not, but there are a lot of trees. Charles Bethards asked if this was in line with the direction from the last two or three years. Manager Hubbard responded the bid did come in about $55,000 over the engineer's estimate with the initial equipment removed.

Charles Bethards made a motion to approve the use of $140,000 from the Parks Tomorrow Fund as necessary to execute the contract with C. Green Scaping, LP for purchase and installation of adult fitness equipment and children's playground for the L.D. Lockett Park Cotton Belt Trailhead Enhancement Project. Hillary Schwanbeck seconded the motion. The motion carried unanimously.

4. REPORTS

4a Recreation, Athletics, Tennis, and Senior Center reports

Lisa Escobedo, Recreation and City Events Manager, updated the Board on Recreation and Special Events activities for the months of June, July, and August and upcoming events for fall 2015. Recreation summer classes kicked off in June and runs through August. Manager Escobedo stated the Recreation department was starting a new Fit for Baby class, which is a prenatal fitness program.

Manager Escobedo indicated all youth associations (baseball, softball, soccer, and lacrosse) finished their spring season, as did the spring volleyball. This summer marks the first summer volleyball league, which has 11 teams participating, with 113 girls playing and fall volleyball league will be kicking off in September. Manager Escobedo stated summer tennis leagues have also begun with five teams playing and generating $1,207. Summer tennis classes and camps have been playing since June and will continue to early August.

Additionally, Manager Escobedo explained the Senior Center AARP tax help had finished up with 180 participants. The annual Senior Prom was held in collaboration with Colleyville Heritage Leadership Class at Colleyville Compass Church, with approximately 30 participants making it out for a night of dancing, snacks and pictures. Manager Escobedo stated in late April the Senior Center received a grant from the Colleyville Women's Club in the amount of $3,317, which was used to purchase and install window shades and blackout shades for

the Center, which were installed the end June.
Manager Escobedo the trips are very popular; the seniors traveled to Winstar Casino, which is a monthly trip, and upcoming trips are: Canton on July 30, Grand Prairie Farmers Market August 15, and Reunion Tower August 24. Manager Escobedo highlighted future events, the Summer Reading Finale Friday July 31, and the Senior Health Fair to be held Friday, September 11.

4b Overview of ongoing and upcoming Parks projects

Parks Manager James Hubbard updated the Board regarding weather event impacts stating, there was very little damage due to the rainfall however, the Sparger Park playground had flooded and was useable for approximately three weeks. The installation of benches and trash receptacles at Sparger Park began in early July. Manager Hubbard also stated the recirculation of the McPherson Splash Pad installation will begin at the end of the season, which allows use next season.

Staff has been working with Growing Innovations to help improve the turf conditions, and there is already a significant difference. Manager Hubbard added tennis courts 5 and 6 at City Park are scheduled to be resurfaced in August, after the end of the summer tennis season. Manager Hubbard stated the bird netting at the City Park Concession was very successful, and netting will be installed at the City Park pavilion also.

5. CITIZEN COMMENTS/PRESENTATIONS REGARDING ITEMS NOT ON THE AGENDA

There were no citizen comments/presentations regarding items not on agenda.

6. ADJOURNMENT

A motion was made by Charles Bethards and seconded by Ajit Purandare to adjourn the meeting. The motion carried with a unanimous vote. Chair McGarry adjourned the meeting at 7:02 p.m.

APPROVED BY A VOTE OF 5 AYES, 0 NAYS, AND 0 ABSTENTIONS ON THIS THE 12TH DAY OF OCTOBER 2015.

Minutes taken and prepared by:

Rylee Truckenmiller
Administrative Secretary

City of Colleyville

Colleyville Library Board
MINUTES

City Hall
100 Main Street
Colleyville, Texas 76034
817. 503.1000
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Monday, August 10, 2015
6:00 p.m.

Colleyville Public Library
110 Main Street

1. CALL TO ORDER

Chair Thad Bolline called the meeting of the Colleyville Public Library Board to order at 6:06 p.m.

Roll Call

Present Chairperson Thad Bolline, Board members Kay Newton, Victoria Kennedy-Ziegler, Molly Skinner, Billie Tuttle, Vernon, Noronha, Nancy Andrews, Ex-Officio member Nancy Tuuling; Staff: Library and Recreation Director Mary Rodne, Deputy Assistant Manager Chris Fuller, Administrative Assistant Kristi Isbell; Consultants: Bill Hidell and Aaron Babcock with Hidell Associates Architects

Absent Members Charna Logan-Gray, Sue Anne Martinez, Ex-Officio member Cecilia Monacelli

2. APPROVAL OF MINUTES
June 8, 2015

A motion was made by Molly Skinner and seconded by Nancy Andrews to approve the June 8, 2015 minutes as presented. **The motion carried with a unanimous vote.**

3. REGULAR AGENDA ITEMS

3a Library Board appointments update

Director Rodne explained that City Council would be approving appointments to the Library Board at their September 15, 2015 meeting. Rodne noted that Library Board applications were being accepted from July 1 through August 28, 2015. The service terms for members Thad Bolline, Kay Newton, Billie Tuttle, Sue Anne Martinez, and Nancy Andrews end September 2015 and these members would, therefore, need to re-apply.

3b City of Colleyville Fiscal Year 2016 (FY 2016) budget update

Director Rodne presented an update on the proposed Colleyville Public Library FY2016 budget and noted that the City Council would be adopting the FY2016 budget at the

September 15, 2015 City Council meeting. Rodne stated that the Library budget would remain approximately the same as the FY2015 budget, but with allowances for increased maintenance costs related to library specific technology.

3c Approval of the use of the Voluntary Library Fund for purchase of library materials, materials processing supplies, and library programs

Director Rodne presented an overview of the Voluntary Library Fund report, which gave projections through September 2015. Rodne stated that the anticipated available funds were about $151,000 and requested $145,000 be used for the purchase of library materials, materials processing supplies, and programs. The board discussed the proposed expenditures of $145,000 for the purchase of collection materials, materials processing supplies, and library programs. A motion was made by Kay Newton and seconded by Molly Skinner to make a recommendation to City Council to proceed with the expenditure of these funds for the purchase of library materials, materials processing supplies, and library programs, in an amount not to exceed $145,000 for the FY2016 budget year. **Motion approved unanimously.** Rodne noted that this recommendation would be included as a consent agenda item at the September 15, 2015, City Council meeting.

3d Update on the Colleyville Public Library Long-Range Plan

Aaron Babcock, with Hidell Associates Architects, provided an update on the Long-Range Plan and explained that understanding community needs would be accomplished through two methods: feedback gained through the online survey and evaluation of general use statistics.

Babcock stated that the online survey would target the user (satisfaction and trends) and non-user (library awareness) of the library. Babcock provided information regarding the user profile, according to national studies and polling, and stated Colleyville Library usage is in line with this data. Babcock provided information regarding study room usage, digital materials usage/website visits, computer usage, self-check use, reference and circulation desk visits and indicated these areas would be analyzed further after obtaining data from the online survey. Babcock presented statistics regarding circulation versus space allocation and gave recommendations for possible space configurations.

Director Rodne stated that Aaron Babcock would present an update on the Long-Range Plan and online survey to City Council at the Pre Council meeting on September 15, 2015.

3e Discussion of items for future agendas

Board members did not present additional items for future agendas. The next regularly scheduled meeting is Monday, October 12, 2015.

4. REPORTS

4a Librarian's Report

Monthly Statistics:
Director Mary Rodne provided an overview of the statistics for the months of June and July. Rodne noted that volunteers logged 348 hours for June and 335 hours for July.

Donations:

Rodne stated that the Library received a total of $87 in donations, made by one of the library sponsored book clubs, in honor of Librarian Erica Gill and her service to the library.

Library Programs:

Rodne provided a summary of all of the Summer Reading Programs explaining that the library has had over $13,000 children participate and presented over 1,000 programs since the library opened. There were 987 children, 34 teens, and 50 adults enrolled in the 2015 Summer Reading Program and the library presented 152 programs with over 8,000 attendance.

Rodne described changes in library supervisory staff and explained that, in general, programming will remain the same for fall. Rodne stated that this would allow the new staff time to get familiar with patrons and programming needs before implementing new ideas. Rodne stated this would also allow consideration of survey results before making program changes.

4b Friends of the Colleyville Public Library Report

President Nancy Tuuling reported that the Friends provided support to the library by participating in the Summer Reading Finale selling children's books and snacks. Tuuling noted that the Friends also worked with the Dinosaur George program and received a percentage of the sale of items sold at the program.

4c Colleyville Public Library Foundation Report

Mary Rodne reported on behalf of the Library Foundation. Rodne stated that the Foundation did not meet over the summer but intend to plan a meeting for the fall.

5. CITIZEN COMMENTS/PRESENTATIONS REGARDING ITEMS NOT ON THE AGENDA

There were no citizen comments/presentations regarding items not on the agenda.

6. ADJOURNMENT

A motion was made by Kay Newton and seconded by Victoria Kennedy-Ziegler to adjourn the meeting of the Colleyville Public Library Board at 7:11 p.m. **The motion was approved unanimously.**

APPROVED BY A VOTE OF _8_ AYES, _0_ NAYS, AND _0_ ABSTENTIONS ON THIS THE _12th__ DAY OF _October__ _2015__.

Minutes taken and prepared by:

Kristi Isbell

Kristi Isbell
Administrative Assistant

City of Colleyville
City Council
Agenda Briefing

City Hall
100 Main Street
Colleyville, Texas 76034
www.colleyville.com

Agenda Number 8 **Agenda Date** 10/20/2015
Type Report
Department Finance

Title
Monthly Financial Report - September 2015

Explanation
General Fund

The Monthly Financial Report for September reflects year-to-date revenues and expenses through the end of September, however, the financial statements will not be final until all year-end entries and adjustments have been made and reviewed by the auditors.

The percentage of current year taxes collected for Fiscal Year 2015 was 99.55%, a 0.13% decrease when compared to the same time period last year. Sales tax revenue received in September was up 8.6% ($21,467) from revenues reported for the same time period last year. Year to date General Fund sales tax was up 3.43% ($93,543). Per governmental accounting rules, sales tax revenue received in October 2015 and November 2015 is recorded as FY 2015 revenue, as the sales occurred in August 2015 and September 2015, respectively. In the attached report, October 2015 sales tax is included, but November sales tax is not. From the sales tax revenues reported for October 2015, General Fund sales tax is down 2.60% ($7,156) from revenues reported for the same time period last year. Year to date General Fund sales tax is up 2.88% ($86,386).

Total revenues received from franchise payments are up 6.76% from amounts received for the same time period last year. The annual electric franchise payment received from Oncor and Tri-County both came in above the budgeted projections, as did the annual payment received by Atmos Gas. Year to date revenues received for cable TV franchise also exceeded last year's collections by 6.38%.

Year to date receipts for the quarterly mixed beverage allocations have increased 10% when compared to last fiscal year. This increase is mostly attributable to a legislation change requiring customers to pay sales tax of 8.25% on mixed drinks, effective January 1, 2014.

Compared to last year's revenues in the License and Permits category, revenues are up over 19%. Building permit revenues are more than 27% ahead of revenues from last year and include an additional 73 new residential building permits compared to the

same time period last year.

Fine revenue exceeds the amount budgeted for the year and also exceeds last year's year to date collections by 16.48%. Included in this revenue are 984 outstanding warrants, totaling $148,438 that have been collected in part with the help of using a third party collection agency.

Ambulance collections came in ahead of budget by 7.29%. Engineering and Inspection revenues exceeded budget due to the development plan review and inspection fees received for development projects such as Creekside, The Legacy, and The Reserve.

Colleyville Center revenues came in under budget and also slightly behind the amount collected last fiscal year. Cost recovery for Colleyville Center is currently at 75%.

The average amount expended by the General Fund departments at the end of September is 96.73% of the total appropriation versus 97.67%, which was projected to be spent.

Utility Fund

To provide a summary of the Utility Fund Revenues, water usage has decreased 4.64% through September 30, 2015. This is predominantly due to the increase in rainfall (20 inches more during this fiscal year compared to the same time period last fiscal year). While water usage has decreased overall for the fiscal year, water sales is slightly higher than that of last fiscal year's sales. Outdoor watering restrictions were lifted in May 2015 and during the summer months of July and August, rainfall totals were less than an inch and a half, so water usage has increased significantly when compared to the same time period last year. The average amount expended by the Utility Fund departments at the end of September was 93.5% of the total appropriation, versus 93.21%, which was projected to be spent.

Attachments

1. September 2015 Monthly Financial Report

MONTHLY FINANCIAL REPORT - SEPTEMBER 2015

GENERAL FUND REVENUE SOURCE	FY 2015 BUDGET	RECEIVED AS OF 9/30/2015	PROJECTED AS OF 9/30/2015	RECEIPT VS PROJECTED INCR (DECR)	RECEIVED AS OF 9/30/2014	PERCENT CHANGE OVER PRIOR YEAR
Current Taxes	$12,441,254	$12,575,427	$12,560,429	0.12%	$11,712,582	7.37%
Delinquent Taxes	70,000	27,703	70,000	-60.42%	59,789	-53.67%
Penalty & Interest	55,000	71,435	55,000	29.88%	76,839	-7.03%
TOTAL AD VALOREM TAXES	$12,566,254	$12,674,564	$12,685,429	-0.09%	$11,849,209	6.97%
Oncor Electric	$860,000	$903,390	$860,000	5.05%	$893,973	1.05%
Tri-County Electric	105,000	126,855	105,000	20.81%	105,326	20.44%
Atmos Gas	305,000	449,640	305,000	47.42%	354,663	26.78%
AT&T	78,000	71,354	78,000	-8.52%	76,147	-6.30%
Verizon/Others	70,000	75,198	70,000	7.43%	88,013	-14.56%
Refuse/Recycling	146,000	166,291	146,000	13.90%	159,285	4.40%
Cable TV	430,000	526,995	430,000	22.56%	495,394	6.38%
TOTAL FRANCHISE TAXES	$1,994,000	$2,319,724	$1,994,000	16.34%	$2,172,802	6.76%
Sales Tax	$3,200,000	$3,084,960	$3,070,540	0.47%	$2,998,574	2.88%
Mixed Beverage Tax	70,000	107,977	70,000	54.25%	98,160	10.00%
TOTAL SALES TAX	$3,270,000	$3,192,937	$3,140,540	1.67%	$3,096,734	3.11%
Building	$558,000	$850,326	$558,000	52.39%	$667,583	27.37%
Plumbing	50,000	75,655	50,000	51.31%	64,991	16.41%
Mechanical	30,000	43,163	30,000	43.88%	43,421	-0.60%
Electrical	45,000	64,800	45,000	44.00%	58,064	11.60%
City License	40,000	43,315	40,000	8.29%	47,620	-9.04%
Building Plan Review Fee	100,000	166,976	100,000	66.98%	155,636	7.29%
New Business	4,000	5,076	4,000	26.90%	5,123	-0.92%
Sign Permit	6,000	9,275	6,000	54.58%	12,355	-24.93%
Fence Permit	4,000	10,800	4,000	170.00%	11,850	-8.86%
Fire Permits	6,500	15,265	6,500	134.85%	9,300	64.14%
Irrigation Permit	13,000	16,559	13,000	27.37%	14,069	17.70%
Gas & Oil Well Permit Fee	0	2,500	0	100.00%	0	100.00%
TOTAL LICENSES & PERMITS	$856,500	$1,303,710	$856,500	52.21%	$1,090,011	19.61%
Fines	$735,000	$996,440	$735,000	35.57%	$844,369	18.01%
Alarm Fees	52,788	57,031	52,788	8.04%	54,966	3.76%
Library Fines	22,500	24,975	22,500	11.00%	26,534	-5.87%
TOTAL FINES	$810,288	$1,078,446	$810,288	33.09%	$925,869	16.48%

MONTHLY FINANCIAL REPORT - SEPTEMBER 2015

REVENUE SOURCE	FY 2015 BUDGET	RECEIVED AS OF 9/30/2015	PROJECTED AS OF 9/30/2015	RECEIPT VS PROJECTED INCR (DECR)	RECEIVED AS OF 9/30/2014	PERCENT CHANGE OVER PRIOR YEAR
Re-zoning	$7,500	$10,794	$7,500	43.91%	$13,092	-17.56%
Plat Fee/Site Plan	5,000	11,410	5,000	128.20%	18,360	-37.85%
Board of Adjustment	1,250	2,450	1,250	96.00%	2,225	10.11%
Sale of Material	100	71	100	-28.90%	2,042	-96.52%
Weed Mowing	6,500	5,246	6,500	-19.30%	29,985	-82.51%
Ambulance	300,000	321,871	300,000	7.29%	358,948	-10.33%
Recreation Program	160,000	186,644	160,000	16.65%	193,856	-3.72%
Non-Resident Fee Parks	35,000	48,355	35,000	38.16%	34,150	41.60%
Field Use Charge	21,000	27,980	21,000	33.24%	26,485	5.64%
Engineering & Inspection	100,000	264,252	100,000	164.25%	243,024	8.73%
Colleyville Center Rental	257,250	227,901	257,250	-11.41%	230,793	-1.25%
Lot Drainage Insp Fee	13,000	23,500	13,000	80.77%	14,000	67.86%
TOTAL CHARGES FOR SERVICE	$906,600	$1,130,472	$906,600	24.69%	$1,166,960	-3.13%
SRO Officer Reimb	$94,282	$94,282	$94,282	0.00%	$94,282	0.00%
Keller Court	217,697	231,409	217,697	6.30%	225,915	2.43%
TOTAL INTERGOVERNMENTAL	$311,979	$325,691	$311,979	0.00%	$320,197	1.72%
Sale of Surplus Property	$5,000	$3,798	$5,000	-24.05%	$13,801	-72.48%
Interest Income	35,000	32,343	35,000	-7.59%	23,824	35.76%
Miscellaneous	55,000	80,535	55,000	46.43%	59,600	35.13%
Use of Available Cash	1,000,000	0	0	0.00%	0	0.00%
Other Financing Source	0	0	0	0.00%	831,155	-100.00%
Antenna Lease	70,040	75,415	70,040	7.67%	71,022	6.19%
TOTAL MISCELLANEOUS	$1,165,040	$192,090	$165,040	16.39%	$999,402	-80.78%
Transfers-In	$1,182,919	$1,115,272	$1,182,919	-5.72%	$1,116,974	-0.15%
TOTAL TRANSFERS	$1,182,919	$1,115,272	$1,182,919	-5.72%	$1,116,974	-0.15%
TOTAL GENERAL FUND REVENUES	$23,063,580	$23,332,906	$22,053,295	5.80%	$22,738,158	2.62%

MONTHLY FINANCIAL REPORT - SEPTEMBER 2015

	FY 2015 BUDGET	THROUGH 9/30/2015	THROUGH 9/30/2014	TOTAL INCREASE (DECREASE)	PERCENT INCREASE (DECREASE)
% OF CURRENT TAX ROLL COLLECTED	99.5%	99.55%	99.68%	-0.13%	-0.13%
RESIDENTIAL BLDG PERMITS	118	181	108	73	67.59%
COMMERCIAL BLDG PERMITS	6	13	7	6	85.71%
CITATIONS ISSUED	11,500	10,626	11,329	(703)	-6.21%

GENERAL FUND EXPENSES

	FY 2015 BUDGET	EXPENDED THROUGH 9/30/2015	YEAR-TO-DATE PROJECTED EXPENDITURES	% OF BUDGET EXPENDED	BUDGET REMAINING
City Council	$188,506	$167,449	$188,506	88.83%	$21,057
City Manager	606,286	605,410	606,286	99.86%	876
City Secretary	209,919	207,137	209,919	98.67%	2,782
Finance	407,827	399,410	407,827	97.94%	8,417
Legal	130,460	212,420	130,460	162.82%	(81,960)
Engineering	380,608	375,880	380,608	98.76%	4,728
Economic Development	302,995	294,138	302,995	97.08%	8,857
Building Inspection	281,134	280,835	281,134	99.89%	299
Community Development	349,709	348,352	349,709	99.61%	1,357
Fire	4,568,006	4,567,965	4,568,006	100.00%	41
Police	4,408,293	4,352,932	4,408,293	98.74%	55,361
Parks	1,300,258	1,229,853	1,300,258	94.59%	70,405
Recreation	357,823	265,294	357,823	74.14%	92,529
Street Maintenance	4,283,178	4,171,338	4,283,178	97.39%	111,840
Library	724,124	670,539	724,124	92.60%	53,585
Communications	168,267	150,630	168,267	89.52%	17,637
Colleyville Center	358,155	305,140	358,155	85.20%	53,015
Human Resources	274,930	207,053	274,930	75.31%	67,877
Municipal Court	399,733	364,020	399,733	91.07%	35,713
Fleet Services	232,003	204,493	232,003	88.14%	27,510
Facility Services	518,004	497,485	518,004	96.04%	20,519
Information Services	1,126,415	1,087,261	1,126,415	96.52%	39,154
Non Departmental	925,160	781,513	925,160	84.47%	143,647
Capital Equipment Reserve	542,000	542,000	0	100.00%	0
Compensation Adjustment	184,425	181,000	184,425	98.14%	3,425
TOTAL EXPENSES	$23,228,218	$22,469,548	$22,686,218	96.73%	$758,670

MONTHLY FINANCIAL REPORT - SEPTEMBER 2015

UTILITY FUND

REVENUE SOURCE	FY 2015 BUDGET	RECEIVED AS OF 9/30/2015	PROJECTED AS OF 9/30/2015	RECEIPT VS PROJECTED INCR (DECR)	RECEIVED AS OF 9/30/2014	PERCENT CHANGE OVER PRIOR YEAR
Water Sales	$11,014,359	$9,549,632	$9,912,923	-3.66%	$9,462,144	0.92%
Sewer Sales	3,745,247	3,217,174	3,745,247	-14.10%	3,251,516	-1.06%
Sewer Installation	7,000	18,700	7,000	167.14%	10,500	78.10%
Water Installation	21,000	46,471	21,000	121.29%	31,299	48.47%
Sewer Tie-on Charges	5,000	0	0	0.00%	4,500	-100.00%
Engineering Charges	5,000	118,113	5,000	2262.26%	116,579	1.32%
Penalties	218,543	199,965	218,543	-8.50%	205,923	-2.89%
Miscellaneous	13,000	21,662	13,000	66.63%	15,173	42.76%
TOTAL OPERATING INCOME	$15,029,149	$13,171,718	$13,922,713	-5.39%	$13,097,636	0.57%
Interest Income	$20,300	$28,382	$20,300	39.81%	$22,194	27.88%
TOTAL NON-OPERATING INCOME	$20,300	$28,382	$20,300	39.81%	$22,194	27.88%
TOTAL INCOME	$15,049,449	$13,200,100	$13,943,013	-5.33%	$13,119,829	0.61%

	THROUGH 9/30/2015	THROUGH 9/30/2014	TOTAL INCREASE (DECREASE)	PERCENT INCREASE (DECREASE)
GALLONS OF WATER SOLD	2,175,794,100	2,281,664,400	(105,870,300)	-4.64%
NUMBER OF WATER CUSTOMERS	9,631	9,507	124	1.30%

UTILITY FUND EXPENSES

	FY 2015 BUDGET	EXPENDED THROUGH 9/30/2015	YEAR-TO-DATE PROJECTED EXPENSES	% OF BUDGET EXPENDED	BUDGET REMAINING
Billing	$381,081	$340,077	$381,081	89.24%	$41,004
Operations	10,546,206	9,896,640	9,696,206	93.84%	649,566
Utility Support	1,101,132	1,013,148	1,101,132	92.01%	87,984
Non-Departmental	305,133	175,232	205,133	57.43%	129,901
Debt Service	490,100	488,550	488,550	99.68%	1,550
Compensation Adjustment	21,733	21,733	21,733	100.00%	0
Transfer to General Fund	1,160,255	1,159,558	1,160,255	99.94%	697
TOTAL EXPENSES	$14,005,640	$13,094,937	$13,054,090	93.50%	$910,703

RESOLUTION R-15-3924

A RESOLUTION APPROVING CITY COUNCIL ACTION
UNDER BUSINESS AT THE REGULAR CITY COUNCIL MEETING OF
OCTOBER 20, 2015

WHEREAS, City Council has taken action on certain items on the agenda under Business.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF COLLEYVILLE, TEXAS:

Sec. 1. THAT

AND IT IS SO RESOLVED.

APPROVED BY A VOTE OF ___ AYES, ___ NAYS, AND ___ ABSTENTIONS ON THIS THE 20TH DAY OF OCTOBER 2015.

ATTEST: CITY OF COLLEYVILLE

Amy Shelley, TRMC
City Secretary

David Kelly
Mayor