1. Agenda

   Documents:

   03-08-2018 AGENDA.PDF

2. Meeting Materials

   Documents:

   03-08-2018 COUNCIL PACKET.PDF

NORTHLAKE
TEXAS

Peter Dewing, Mayor
Jean Young, Council Place 1
Mike McBride, Council Place 2, Mayor Pro Tem

Michael Ganz, Council Place 3
Roger Sessions, Council Place 4
Danny Simpson, Council Place 5

Northlake Town Council Agenda
Thursday, March 8, 2018 at 5:30 pm
1400 FM 407 – Chamber Room
Northlake, Texas

Notice is hereby given as required by Title 5, Chapter 551.041 of the Government Code that the Northlake Town Council will meet in a work session and regular meeting on Thursday, March 8, 2018 at 5:30 pm at the Northlake Town Hall in the Chamber Room, 1400 FM 407, Northlake Texas. The items listed below are placed on the agenda for discussion and/or action

1. Call Regular Work Session to Order

2. Briefing Items
   A. Fee Schedule Update
   B. Northlake Strategic Plan Update
   C. MonkeyMoto Concept and Proposed Zoning Change

3. Regular Meeting to Order

   Pledge of Allegiance-Moment of Silence

4. Public Input

   This item is available for citizens to address the Town Council on any issues that are not the subject of a public hearing. No action by law may be taken on the topic. The presiding officer reserves the right to impose a time limit on this portion of the agenda

5. Consent Items

   All items listed below are considered routine by Town Council and will be enacted with one motion. There will be no separate discussion of items unless a Councilmember so requests, in which event the item will be removed and considered separately

   D. Consider for approval the Town Council Meeting Minutes of February 8, 2018
   E. Consider for approval the Town Council Strategic Planning Workshop Notes February 22, 2018
   F. Consider for approval a resolution designating the months of April and September as Beautification Months in Northlake (Resolution No. 18-5)
   G. Consider for approval a resolution declaring certain personal property owned by the Town to be surplus property and authorizing the Town Administrator to dispose of such property (Resolution No. 18-6)
   H. Consider for approval the Management and Improvement Services Agreement Northlake Public Improvement District No. 1 (Harvest Residential) between the Town of Northlake and FirstService Residential

I. Consider for approval an ordinance approving a tariff authorizing an annual rate review mechanism as a substitution for the annual interim rate adjustment process defined by Section 104.301 of the Texas Utilities Code, and as negotiated between Atmos Energy Corp., Mid-Tex Div., and the Steering Committee of Cities served by Atmos; requiring the company to reimburse cities' reasonable ratemaking expenses (Ordinance No. 18-0308A)

6. Regular Items
   J. Consider for approval an ordinance of the Town Council of the Town of Northlake, Texas revising Article 9:03 Division 2 of the Northlake Code of Ordinances; adopting land use assumptions, capital improvements plans, and Impact Fees for Water and Sanitary Sewer Facilities
      i. Public Hearing
      ii. Ordinance No. 18-0308B
   K. Consider for approval a Cooperative Purchasing Agreement between City of North Richland Hills and Town of Northlake for the purchase of goods and services
   L. Consider for approval a Final Plat of Right-of-way Dedication for Cleveland-Gibbs Road, being a 1.333-acre tract of land in the MEP & PRR Survey, Abstract No. 913, located along the Canyon Falls Pennington tracts approximately 1,100 feet north of FM 1171. Nash Canyon Falls, LLC is the owner/applicant. J. Volk Consulting, Inc. is the engineer/surveyor. Case # FP-17-016
   M. Consider for approval a Final Plat of Canyon Falls Village E4, a phase of the Canyon Falls development consisting of 19 single-family residential lots and 2 HOA/Open Space lots on approximately 7.134 acres of land in the W. Love Survey, Abstract No. 728, generally located on the east side of Canyon Falls Drive at Westbridge Drive, and zoned Mixed-Use Planned Development (MPD). Nash Canyon Falls, LLC is the owner/applicant. J. Volk Consulting, Inc. is the engineer/surveyor. Case # FP-18-002
   N. Consider for approval a Final Plat of Canyon Falls Pennington Phase One, a phase of the Canyon Falls development consisting of 151 single-family residential lots and 5 HOA/Open Space lots on approximately 38.434 acres of land in the W. Love Survey, Abstract No. 728, and the MEP & PRR Survey, Abstract No. 913, generally located on the east side of Cleveland-Gibbs Road approximately 1,900 feet north of FM 1171, and zoned Mixed-Use Planned Development (MPD). Nash Canyon Falls, LLC is the owner/applicant. J. Volk Consulting, Inc. is the engineer/surveyor. Case # FP-18-001

7. Convene into Executive Session
   Pursuant to Texas Government Code, annotated, Chapter 551 Subchapter D:
   a. Section 551.071 authorizes a governmental body to consult with its attorney in an executive session to seek his or her advice on a legal matter. It provides as follows: A governmental body may not conduct a private consultation with its attorney except:
      1) When the governmental body seeks the advice of its attorney about:
         (a) Pending or contemplated litigation; or
         (b) A settlement offer; or 'Town of Northlake vs. City of Justin (Cause No. 15-08170-367)
         (c) Appellate Docket No. 06-17-00054-CV - City of Justin vs. Town of Northlake

b. Section 551.072 Deliberation on Real Property authorizes a governmental body to deliberate the purchase, exchange, lease, or value of real property
   (a) Value of real property contemplated for Right-of-Way and/or drainage easement

8. Adjournment

CERTIFICATION

I hereby certify that the above agenda was posted on the front glass doors and bulletin board at Town Hall 1400 FM 407, Northlake, Texas on Friday, March 2, 2018 by 4 pm.

Shirley Rogers

Shirley Rogers, Town Secretary

NOTE: The Town Council reserves the right to adjourn into executive session at any time during the course of this meeting to discuss any of the matters listed above as authorized by Texas Government Code Section 551.071 (Consultation with Attorney); Section 551.072 (Deliberations about Real Property); 551.073 (Deliberations about Gifts and Donations); 551.074 (Personnel Matters); 55.076 (Deliberations about Security Devices): 551.087 (Economic Development Negotiations)

Peter Dewing, Mayor
Jean Young, Council Place 1
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Regular Work Session

Agenda Item 1

NORTHLAKE TEXAS

Briefing Items

Agenda Item 2

A. Fee Schedule Update

B. Northlake Strategic Plan

C. MonkeyMoto Concept and Proposed Zoning Change

1400 FM 407
Northlake, TX 76247
940-648-3290
Fax 940-648-0363

Town of Northlake

Memo

To: Honorable Mayor and Town Council

From: Drew Corn, Town Administrator

CC: Shirley Rogers, Town Secretary

Nathan Reddin, Development Director

Date: March 8, 2018

Re: Fee Schedule Amendments

At the direction of Mayor Dewing, Town staff has been reviewing the Town's fee schedule and would like to bring recommendations to Council for policy direction. Staff has provided a current listing of a majority of the Town's major fees with a history of changes by year. The particular focus this go-around has been on fees that affect Northlake residents directly. The highlighted areas of the spreadsheet are fees Town staff would recommend revising.

Municipalities may collect fees for: issuing permits for building construction, environmental regulation; reviewing applications and plans for property development and infrastructure construction; impacts to Town infrastructure associated with development; and for other services. Because municipalities incur costs to regulate, review and accommodate these areas, fees are tied to the cost of providing the service or additional infrastructure capacity.

Due to the large lot sizes in the Rural Preservation Area, accessory buildings continue to be very popular. The first fee was established in 2006 with buildings over 500 square feet charged a $200 permit fee and smaller buildings paying no fee. In 1998, the permit fee became based on the value of the building following the building inspection fee table (see note). In 2001, fees for buildings less than 120 square feet were waived. In 2010, the Town added a plan review fee for accessory buildings. Staff recommends keeping the review fee but changing the building inspection fee to $150 for a constructed building and $50 for a pre-manufactured building. These amounts should cover the Town's cost for our outsourced building inspection service. A similar philosophy has been applied to swimming pool permits; $100 for the plan review and $150 for the building inspection. The fee will therefore no longer be based on the value of the pool. Based on the still-in-effect 1998 fees, the average inspection fee for a pool or accessory building has been around $500. The proposed fees will be a significant reduction to the homeowner.

The Town had no permit fee category for temporary signs, so these signs paid the same fees as a permanent sign permit which was $100. Temporary signs are removable and do not require any structural or electrical improvements so are relatively simple to review. Staff recommends creating a separate category for temporary signs and charging a $25 flat fee.

Alarm System fees were first adopted in 2003 and have remained unchanged with $50 per installation permit plus an additional annual permit of $50. Many municipalities adopted these fees when home security systems became more prevalent. With the increasing usage of alarm systems, many false alarms would occur. The fees were used to cover costs associated with responding to false alarms. The issue for Northlake and other small towns is tracking addresses of the many alarm system owners and the accompanying number of false alarms. In addition, the technology of security alarms has advanced as has the operational knowledge by residents. In discussing with the Police Chief, staff recommends removing the alarm system fees altogether. If issues arise with false alarms in the future, we can revisit this fee.

The final area of fees that are typically applied to existing residents are septic system and irrigation inspection. Most of these fees were adopted in 2009 when the Texas Commission of Environmental Quality stopped regulating these activities and mandated municipalities start. These fees have remained the same with the exception of an irrigation permit which was reduced the following year from $250 to $150. The recommended revisions are to create a new category for repair or modification to a septic system with a fee of $100. Currently the only fee available to charge for a repair is $500 for a new installation. Also, remove the irrigation inspection which costs are covered by the overall irrigation permit fee.

The other group of fees reviewed are those that affect land developers. The fees for reviewing Planned Development (PD) zoning was established in 1999 and was a flat fee of $1,000 plus $10 per acre. However, there was no category for a Planned Development amendment. Because the PD exists, and staff is aware of the scale of development, there is no justification for charging a per acre fee. Therefore, staff recommends creating a new permit fee category named Planned Development Amendment and charging a $1,000 fee without the per acre charge. Another change is to update the Short-form Plat to the Minor Plat which is the nomenclature established in the UDC. Finally, documents related to platting must be filed with the Denton County Clerk to be included in the County Records. Town staff prefers filing the plats themselves rather than relying on other parties. In the past staff would estimate the filing fee costs and request a check from the developer in that amount which would create logistics issues. Staff recommends charging a flat fee of $100 per page which will cover the county filing costs plus staff travel and time spent filing the plat.

Originally titled Community Facilities Inspection Fees and first established in 1996, the fee, which was 2% of the estimated construction value, went to cover costs associated with reviewing plans and inspecting construction of public infrastructure being built by private developers. The existing rates were instituted in 1999 and include a 1% administrative processing fee, 1% plus $500 plan review fee and a 4% infrastructure inspection fee. In looking at other municipalities, Northlake has the highest fees in this area. In addition, over time, Northlake has built in-house capability to handle processing of plans. Staff recommends, to remain competitive with other communities, removing the 1% administrative processing fee but maintaining the other fees.

The final group of developer-borne fees are impact fees. Impact fees are a means defined by Texas State statute to charge a proportional fee to land developers to offset the impact of development on the Town's infrastructure, be it water, sewer or roadways. Water and sewer impact fees were established in 2012 and have been used legally and successfully to ensure developers pay their fair share. Roadway impact fees were approved by Council in 2016 but need to be made part of the Fee

Schedule and are recommended to be included in a future Fee Ordinance. An important by-product of the Town's impact fees is the prohibitive cost of impact fees in the Town's Rural Preservation Area. Impact fees are anticipated ten-year infrastructure costs divided by the anticipated users in a defined area. Rural areas of Town have a much higher impact fee which disincentivizes dense development.

Based on Council input at the briefing, staff will bring forward an ordinance for your consideration at a later meeting.

Please contact me if you have any questions or comments.

Northlake Fees

Type	Typical Payer	Rate	Unit	Current	2017	2016	2015	2014	2013	2012	2010	2009	2006	2005	2003	2001	2000	1999	1998	1997	1996
Residential Building Permit Fees																					
Plan Review Fee	Building Contractor	$100	Plan	2006									$100		$75						
Permit Fee	Building Contractor	$0.80	sf $1000 min	2006									$0.80						See Note		$0.20
Commercial Building Permit Fees																					
Plan Review Fee	Building Contractor	65%	Permit	2001												65%					
Permit Fee	Building Contractor	See Note	Value	1998															See Note		
Multi-Family	Building Contractor	Included Above		1998															Included Above		$250
Accessory Building Permit Fees																					
Plan Review Fee	Building Contractor	$100	Plan	2010							$100										
Permit Fee																					
Premanufactured	Building Contractor	$50	Unit	2018												>120sf $0			See Note		
Constructed	Building Contractor	$150	Unit	2018												>120sf $0			See Note		
Under 500 sf	Building Contractor	Included Above		1998															Included Above		$0
Over 500 sf	Building Contractor	Included Above		1998															Included Above		$200
Swimming Pool Permit Fees																					
Plan Review Fee	Pool Contractor	$100	Plan	2010							$100										
Permit Fee	Pool Contractor	$150	Unit	2018														See Note			
Electrical, Plumbing and Mechanical Permit Fees																					
Single Inspection	Contractor	$50	Inspection	2010							$50										
Master Building Permit	Homebuilder	Included		1999																	
Miscellaneous Building Fees																					
Energy Code Review	Homebuilder	$400		2006									$400		$300						
Structure demolition permit	Homeowner	$100		2010							$100										
Structure moving permit	Homeowner	$100		2010							$100										
Tree removal permit	Property Owner	$100		2010							$100										
Certificate of occupancy	Homebuilder	$100		2010							$100										
Fence permit	Homebuilder	$100		2010							$100					>6' $0		See Note			
Sign	Business Owner	$100		2010							$100				$75						$50+
Temporary Sign	Business Owner	$25		2018							$100				$75						
Reinspection fee																					
Residential	Homebuilder	$60		2006									$60			$47			$47		
Commercial	Homebuilder	$72		2001												$72			$47		
Contractor Registration																					
Initial	Contractor	$50		2001												$50					
Renewal	Contractor	$25		2001												$25					
Oil and Gas Well Permit																					
Processing Fee	Gas Company	$4,000		2006									$4,000								
Inspection Fee	Gas Company	$1,000		2003											$1,000						
Fire Plan Review	Building Contractor	$250	minimum	2001												$250+					
Temporary Vending Fees																					
Property Owner Permit	Property Owner	$500	per site annual	2016		$500		$250						$100	$50					$100	
Temp. Vendor Permit	Vendor	Remove		2016		Removed		$225			$75			$30/$15	$150					$35	
Temp. Food Permit	Vendor	$75	per event	2010							$75			$40							
Sexually Oriented Business License	Business Owner	$1,000		2014				$1,000							$500						
Alarm System Fees																					
Annual Permit	Home/Business Owner	Remove		2018											$50						
Service Fees																					
Residential	Home Owner	Remove		2018											$50						
Multi-family	Property Owner	Remove		2018											$50						
Alcohol Sales Permit Fee																					
Alcohol Beverage Fee	Restaurant or Store	50%	of State fee	2010							50%				$30						

Northlake Fees

Type	Typical Payer	Rate	Unit	Current	2017	2016	2015	2014	2013	2012	2010	2009	2006	2005	2003	2001	2000	1999	1998	1997	1996
Special Events Fees																					
Regulation Fees																					
75-200 participants	Event Organizer	$30	per day	2005										$30							
200-400	Event Organizer	$50	per day	2005										$50							
400-800	Event Organizer	$75	per day	2005										$75							
Over 800	Event Organizer	$100	per day	2005										$100							
Filming Activity	Event Organizer	$50	per day	2005										$50							
Rental of Town Equipment	Event Organizer	Negotiated		2006									Nego.								
Police Officer Security	Event Organizer	$35	per off per hr	2005										$35							
Cleanup Reimbursement	Event Organizer	Actual cost plus 20%		2006									20%								
Application	Event Organizer	$40		2005										$40							
Security Deposit	Event Organizer	50%	of Town fee	2006									50%								
Water and Wastewater Service Fees																					
Residential Water Rates																					
Base Fee	Homeowner	$19.50	per month	2005										$19.50	$16.50		$15	$15			
1000-3000 gallons	Homeowner	$0.00	per gallon	2009								$0.00			$2.75		$2.50	$9			
3000-15,000 gal.	Homeowner	$2.75	per 1000 gal	1999											$2.75		$2.50	$9			
15,001-30,000	Homeowner	$3.60	per 1000 gal	1999											$3.60		$3.25	$9			
Over 30,001	Homeowner	$4.95	per 1000 gal	1999											$4.95		$4.15	$11.25			
Residential Wastewater Rates																					
Base Fee	Homeowner	$19.50	per month	2005										$19.50	$11		$10	$10			
1000-3000 gallons	Homeowner	$0.00	per 1000 gal	2013					$0						$2.20		$2.00	$5.50			
Over 3,001 gallons	Homeowner	$5.25	per 1000 gal	2013					$5.25						$2.20		$2.75	$6.85			
Commercial Water Rates																					
Base Fee	Business Owner	$60.00	per month	2005										$60.00	$27.50		$25	$15			
1000-15,000 gal	Business Owner	$4.25	per 1000 gal	2013					$4.25						$3.85		$3.50	$9			
15,001-30,000	Business Owner	$5.15	per 1000 gal	2013					$5.15						$4.65		$4.25	$9			
Over 30,001	Business Owner	$6.25	per 1000 gal	2013					$6.25						$5.65		$5.15	$11.25			
Commercial Wastewater Rates																					
Base Fee	Business Owner	$60.00	per month	2005										$60.00	$19.25		$17.50	$10			
Usage	Business Owner	$6.75	per 1000 gal	2013					$6.75						$3.30		$3.00	$5.50			
High Water Usage																					
Stage 2	Home or Business Owner	10%	>45,000 gal	2012						10%											
Stage 3	Home or Business Owner	20%	>45,000 gal	2012						20%											
Stage 4	Home or Business Owner	20%	>30,000 gal	2012						20%											
Miscellaneous Water Fees																					
Fire Hydrant Meter	Contractor	$100	per month	2015			$100														
Fire Hydrant Meter Deposit	Contractor	$3,000	per meter	2015			$3,000							$1,125							
Failure to return meter	Contractor	$250	per reading	2015			$250														
Reconnect Fee	Home or Business Owner	$125		2005										$125							
Reread	Home or Business Owner	$25	after first	2015			$25							$17.50							
Late Payment Fee	Home or Business Owner	10%	of balance	2017	10%									5%							
Water and Sewer Impact Fees																					
North Service Area																					
Residential Water	Building Contractor	$3,361	per meter	2012						$3,361								$650			
Commercial Water	Building Contractor	$8,404	per meter	2012						$26,892								$3,900			
Residential Sewer	Building Contractor	$964	per meter	2012						$964								$120			
Commercial Sewer	Building Contractor	$2,410	per meter	2012						$7,713								$720			

Northlake Fees

Type	Typical Payer	Rate	Unit	Current	2017	2016	2015	2014	2013	2012	2010	2009	2006	2005	2003	2001	2000	1999	1998	1997	1996
South Service Area																					
Residential Water	Building Contractor	$4,350	per meter	2012						$4,350								$650			
FW Impact Fee Res.	Building Contractor	$971	per meter	2017	$971					$469		$1,300	$920	$782				$372			
Commercial Water	Building Contractor	$10,875	per meter	2012						$34,799								$3,900			
FW Impact Fee Comm.	Building Contractor	$7,771	per meter	2017	$7,771					$3,752		$6,936	$4,904	$4,168				$1,983			
Residential Sewer	Building Contractor	$964	per meter	2012						$964								$120			
Commercial Sewer	Building Contractor	$2,410	per meter	2012						$7,713								$720			
Development Application Fees																					
Annexation/Disannexation	Property Owner	Removed		1999														Removed			$300+
Funds in Lieu of Parkland	Developer	$500	per res unit	2003											$500						
Comp Plan Amendment	Developer	$500		2010							$500										
Zoning Change/Amendment	Developer	$500		2010							$500					$350					$350+
Planned Development	Developer	$1,000	+$10 per acre	1999														$1,000+$10			
PD Amendment	Developer	$1,000		2018														$1,000+$10			
Specific Use Permit	Developer	$500		1999														$500			
Variance/ZBA Appeal	Developer	$500		2010							$500							$200			$200+
Site Plan	Developer	$1,500	+$50 per acre	1999														$1500+$50			
Development Plat	Developer	$1,000	+$10 per acre	2010							$1000+$10			$1000+$5							
Preliminary Plat	Developer	$1,000	+$10 per acre	2010							$1000+$10							$1000+$5			$350+
Final Plat (w/ const. plans)	Developer	$1,000	+$10 per acre	2010							$1000+$10							$1000+$5			$350+
Minor Plat (fna Short-form)	Developer	$500	+$5 per acre	1999														$500+$5			$350+
Amended Plat	Developer	$500	+$5 per acre	1999														$500+$5			
Replat	Developer	$500	+$50 per lot	1999														$500+$50			
Plat Vacation	Developer	$500	+$5 per acre	2010							$500+				$300						
Plat Filing Fee	Developer	$100	per page	2018																	
Community Facilities Waiver	Developer	$250		2010							$250							$200			
Temporary Use Permit	Vendor/Contractor	$100		1999														$100			
Zoning Verification Letter	Developer	$50		2010							$50							$100			
Public Works/Engineering Fees																					
Administrative Processing Fee	Construction Contrator	Remove		2018														1%			
Plan Review	Construction Contrator	1%	costs +$500	1999														1%+$500			
Infrastructure Inspection Fee	Construction Contrator	4%	costs	1999														4%		4%	
Community Facilities Insp.	Construction Contrator	Included Above		1999														Included Above			2%
ROW Crossing Permit	Construction Contrator	$250		1999														$200			
ROW Dedication Processing	Construction Contrator	$250		1999														$250			
ROW Abandonment	Construction Contrator	$250		2010							$250+										$400+
Culvert/Approach Permit	Construction Contrator	$250		1999														$150			
FEMA Map Amendment	Construction Contrator	$500	+Fed fee	1999														$500+			
Floodplain Development	Construction Contrator	$250		2003											$250						
Water and Wastewater Fees																					
Water Well Permit	Homebuilder	$250		2006									$250		$150			$100			
Septic System Permit																					
New Installation	Homebuilder	$500		2009								$500						$260			
Repair/Modification	Home Owner	$100		2018																	
OSSF Self Maintenance	Homeowner	$50	annually	2009								$50									
Cross-connect Fee	Homeowner	$50	annually	2009								$50									
Irrigation Permit	Homebuilder	$150		2010							$150	$250									
Irrigation Inspection	Homebuilder	Remove		2018								$100									

Northlake Fees

Type	Typical Payer	Rate	Unit	Current	2017	2016	2015	2014	2013	2012	2010	2009	2006	2005	2003	2001	2000	1999	1998	1997	1996
Roadway Impact Fees																					
Northwest Quadrant																					
Single Family	Developer	$6,094	per unit	2016		$6,094															
Multi-Family	Developer	$1,493	per unit	2016		$1,493															
Commercial	Developer	$22,603	per 1000 sf	2016		$22,603															
Industrial	Developer	$3,233	per 1000 sf	2016		$3,233															
Hotel	Developer	$4,261	per room	2016		$4,261															
Northeast Quadrant																					
Single Family	Developer	$3,845	per unit	2016		$3,845															
Multi-Family	Developer	$2,384	per unit	2016		$2,384															
Commercial	Developer	$14,262	per 1000 sf	2016		$14,262															
Industrial	Developer	$2,040	per 1000 sf	2016		$2,040															
Hotel	Developer	$2,688	per room	2016		$2,688															
Southwest Quadrant																					
Single Family	Developer	$692	per unit	2016		$692															
Multi-Family	Developer	$429	per unit	2016		$429															
Commercial	Developer	$2,566	per 1000 sf	2016		$2,566															
Industrial	Developer	$366	per 1000 sf	2016		$366															
Hotel	Developer	$485	per room	2016		$485															
Southeast Quadrant																					
Single Family	Developer	$711	per unit	2016		$711															
Multi-Family	Developer	$441	per unit	2016		$441															
Commercial	Developer	$2,636	per 1000 sf	2016		$2,636															
Industrial	Developer	$377	per 1000 sf	2016		$377															
Hotel	Developer	$497	per room	2016		$497															
Health and Sanitation Fees																					
Food Service Permit	Building Contractor	$250	annually	2010							$250				$240						
Public Pool and Spa Fee	Building Contractor	$250	annually	2010							$250				$240						
Health Reinspection	Business Owner	$75	occurrence	2010							$75										
Fire and Public Safety Fees																					
New Sprinkler Installation																					
1-10 sprinklers	Building Contractor	$100		2005										$100							
11-20 sprinklers	Building Contractor	$175		2005										$175							
21-100 sprinklers	Building Contractor	$250		2005										$250							
Over 100 sprinklers	Building Contractor	$250	+ $50 per 100	2005										$250+							
Fire Pump	Building Contractor	$200		2005										$200							
Foam	Building Contractor	$50		2005										$50							
Additional	Building Contractor	$40	per floor	2005										$40							
New Fire Alarm Installation																					
1-4 initiation devices	Building Contrator	$100		2005										$100							
5-25 initiation devices	Building Contrator	$175		2005										$175							
Over 25 devices	Building Contrator	$250	+$50 per 100	2005										$250+							
New Suppression Systems																					
1-5 nozzles	Building Contractor	$100		2005										$100							
Over 5 nozzles	Building Contractor	$175	+$20 per nozzl	2005										$175+							

Northlake Fees

Type	Typical Payer	Rate	Unit	Current	2017	2016	2015	2014	2013	2012	2010	2009	2006	2005	2003	2001	2000	1999	1998	1997	1996
NOTE																					
Building Inspection Fees																					
Total Valuation	Fees																				
(1998-Present)																					
$1-$500	$23.50																				
$501-$2,000	$23.50+$3.05 per $100																				
$2,001-$25,000	$69.25+ $14 per $1,000																				
$25,001-$50,000	$391.75+ $10 per $1,000																				
$50,001-$100,000	$643.75+ $7 per $1,000																				
$100,001-$500,000	$993.75+ $5.60 per $1,000																				
$500,001-$1,000,000	$3233.75+ $4.75 per $1,000																				
Over $1,000,000	$5608.75+ $3.65 per $1,000																				
(Prior to 1998)																					
$1-$99,999	$600																				
$100,000-$499,999	$1200																				
$500,000-$999,999	$2500																				
$1,000,000 and over	$2500+$2.50 per $1000																				

1400 FM 407
Northlake, TX 76247
940-648-3290
Fax 940-648-0363

Town of Northlake

Memo

To: Honorable Mayor and Town Council

From: Drew Corn, Town Administrator

CC: Shirley Rogers, Town Secretary

Date: March 8, 2018

Re: Northlake Strategic Plan Update

On February 22nd at the Northwest ISD Outdoor Learning Center, Town Council spent the day developing a Vision, Mission Statement and Goals for the future of Northlake. This strategic planning retreat was the joint effort of Mayor, Council and Town executive staff. The facilitator has been editing and finalizing his report and asked to provide a draft plan for ahead of schedule for discussion at the March 8, 2018 Council Meeting. In the event the facilitator is unable to have the draft by the meeting, Mayor Dewing is prepared to introduce the plan.

Please contact me if you have any questions or comments.

1400 FM 407
Northlake, TX 76247
940-648-3290
Fax 940-648-0363

Town of Northlake

Memo

To: Honorable Mayor and Town Council

From: Nathan Reddin, Development Director

CC: Drew Corn, Town Administrator
Shirley Rogers, Town Secretary

Date: March 8, 2018

Re: MonkeyMoto Concept and Proposed Zoning Change

2912 Realty Raceway Project LLC recently purchased the 2.055-acre Lot 5R2, Block 2 in the Texas Speedway Centre development on Raceway Drive. The site is currently vacant and is located between the new Home2 Suites at 13351 Raceway Drive and the proposed Staybridge Suites to be constructed at 13311 Raceway Drive. The second phase of apartments in Chadwick Farms are also planned to begin soon just east of the site. Lot 5R2 was created when a larger 5+ acre lot was replatted to create a separate lot for the Home2 Suites. As part of the real estate transaction the developer of the Home2 Suites as well as the Staybridge Suites developer each deed restricted Lot 5R2 from being a hotel. Staff and real estate brokers have marketed the site for restaurant use but have received little interest due to it not having direct 35W or 114 frontage.

The new owner plans to build a mixed-use, motorcycle dealership, service facility, and retail center business known as MonkeyMoto on the site. In order to do this, the Mixed-use Planned Development (MPD) zoning for the site must be amended. Although retail use is expressly allowed under the MPD, retail as defined in the Unified Development Code (UDC) does not include motorcycle sales or even related uses such as auto sales which is defined separately in the UDC. The owner has submitted an application to amend the MPD to allow Motorcycle Sales and Service as a permitted use.

A representative of MonkeyMoto will brief the Council on their proposed use of the property and their development plans. A draft ordinance to amend the MPD and a cover letter from the applicant are also attached. A public hearing on the proposed zoning change will be scheduled for the April 12th Town Council meeting, and following the public hearing the Town Council may act on an ordinance to amend the MPD.

Please contact me at 940.242.5703 if you have any questions about this request.

500 Winstead Building
2728 N. Harwood Street
Dallas, Texas 75201

214.745.5400 OFFICE
214.745.5390 FAX
winstead.com

bwilliams@winstead.com
214.745.5264 DIRECT

February 28, 2018

Via email: nreddin@town.northlake.tx.us

Nathan Reddin
Development Director
Northlake Town Hall
1400 FM 407
Northlake, TX 76247

Re: Application of 2912 Realty Raceway Project LLC ("Owner") to amend the Texas Speedway Centre MPD (the "MPD") to allow a motorcycle dealership

Dear Nathan:

Please find enclosed an application (the "Application") by Owner to amend the text of the MPD to allow Motorcycle Sales and Service as a permitted use. Owner owns approximately 2.055 acres within the MPD, known as Lot 5R2, Block 2, Texas Speedway Centre (the "Property"). The Property is a portion of Tract 5, Block 2, as shown on the Site Plan for the MPD (Exhibit B to the Ordinance).

Owner's proposed use of the Property is a mixed-use, motorcycle dealership, service facility, and retail center. In addition to motorcycles, Owner intends to sell all-terrain vehicles, side-by-side vehicles, and personal watercrafts, as well as parts, accessories, and attire related to these vehicles and the sports and activities surrounding them. The use will also include a service center for minor service and repair of similar vehicles. Any vehicle test rides/drives will be accompanied by employees of the dealership to ensure that test rides/drives are conducted in a safe and lawful manner. Although retail is an expressly allowed use under the MPD, this application is being submitted at the recommendation of staff for the purpose of clarifying the permissibility of the proposed use.

Although Owner is still in the early stages of design and site planning for the Property, the Property is envisioned to be developed with a 25,000 s.f., two-story building. The anticipated division of this floor area into the various aspects of the use includes the following:

Use	Floor Area (s.f.)
Repair/Service Shop	5,000
Retail/Showroom	10,000
Inventory Storage/Accessory Warehouse	10,000

Required parking for the motorcycle dealership is proposed at 1 space for each 500 s.f. of floor area, for a total of 50 required parking spaces.

Enclosed with this Application is a draft ordinance reflecting the proposed changes to the MPD. Please review this draft and provide any comments or feedback necessary to permit this Application to move forward. Thank you, and we look forward to working you, staff, and the Council to bring this exciting, new use to Northlake.

Sincerely,

Brad R. Williams

Encls.

Cc: Kevin Martin (via email: kevin.martin@monkeymoto.com)

ORDINANCE NO.18-_______

AN ORDINANCE AMENDING ORDINANCE NO. 00-1214B BY AMENDING ATTACHMENT C, SECTION 10–USE RESTRICTIONS BY ADDING MOTORCYCLE SALES AND SERVICE AS A PERMITTED USE; ADDING SECTION 11–DEFINITIONS; PROVIDING A SAVINGS CLAUSE; PROVIDING A REPEALING CLAUSE; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, Chapter 211, Texas Local Government Code ("Chapter 211"), authorizes and makes provisions for municipalities to adopt regulations that control the height, number of stories, size of buildings and other structures, percentage of lot that may be occupied, size of yards, courts, and other open spaces, population density, location and use of buildings, other structures and land for business, industrial, residential, or other purposes;

WHEREAS, The Town of Northlake (the "Town") has adopted zoning ordinances in accordance with a comprehensive plan; and

WHEREAS, the Local Government Code provides a procedure to adopt and amend zoning ordinances in accordance with the observation of appropriate notice and publication of said notice for the purpose of receiving public input; and

WHEREAS, the Town, in accordance with its zoning ordinances, has adopted a Mixed-Use Planned Development District for the Texas Speedway Centre (the "District"); and

WHEREAS, the owner of property within the District, being Lot 5R2, Block 2, Texas Speedway Centre Addition, Town of Northlake, Denton County, Texas, has requested that the Planned Development Requirements established by Ordinance No. 99-0920A, as amended by Ordinance No. 00-1214B, approved on December 14, 2000, of the Town, be revised; and

WHEREAS, all requirements of Chapter 211 and all other laws dealing with notice, publication, and procedural requirements for zoning of property have been compiled with; and

WHEREAS, a public hearing was held by the Town Council on April 12, 2018, with respect to the zoning changes described herein; and

WHEREAS, the Town Council does hereby deem it advisable and in the public interest to amend Ordinance No. 00-1214B, so that henceforth and hereafter the District shall be governed by the Planned Development Regulations as provided in Attachment C thereof, as amended hereby.

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

SECTION 1

That *Ordinance No. 00-1214B, Section 10. Use Restrictions, Subsection A,* be amended to provide an additional permitted use as follows:

Motorcycle Sales and Service

SECTION 2

That *Ordinance No. 00-1214B*, be amended to add *Section 11. Definitions*, to read in-full as follows:

> Unless otherwise stated, the definitions and interpretations of the Unified Development Code apply to this MPD. For the purposes of this MPD, the following terms, phrases, words, and their derivations shall the meaning given in this section.
>
> *Motorcycle Sales and Service*: The indoor sale and/or service of new and/or used on- and off-road motor vehicles including motorcycles, all-terrain and side-by-side vehicles, personal watercraft, and the like. The use may include the sale of parts and accessories related to the permitted motor vehicles. The use excludes the sale or service of automobiles (i.e., cars and light trucks), recreational vehicles, and boats. Off-street parking for this use shall be provided at a ratio of 1 space for every 500 square feet of floor area.

SECTION 3

This Ordinance shall be and is hereby declared to be cumulative of all other ordinances of the Town of Northlake, and this ordinance shall not operate to repeal or affect the Code of Ordinances of the Town of Northlake or any other ordinances except insofar as the provisions thereof might be inconsistent or in conflict with the provisions of this ordinance, in which event such conflicting provisions, if any, in such Code of Ordinances or any other ordinances are hereby repealed.

SECTION 4

Any person, firm, association of persons, corporation, or other organization violating the provisions of this ordinance shall be deemed to be guilty of a misdemeanor and, upon conviction, shall be fined an amount not to exceed $2,000.00. Each day that a violation continues shall be deemed a separate offense.

SECTION 5

The sections, paragraphs, sentences, clauses, and phrases of this ordinance are severable, and if any phrase, clause, sentence, paragraph, or section of this ordinance shall be declared unconstitutional, such unconstitutionality or invalidity shall not affect any of the remaining phrases, clauses, sentences, paragraphs, or sections of this ordinance, since the same would have been enacted by the town council without the incorporation in this ordinance of any such unconstitutional or invalid phrase, clause, sentence, paragraph, or section.

SECTION 6

This Ordinance shall take effect immediately from and after its passage and publication in accordance with the provisions of the laws of the State of Texas.

PASSED AND APPROVED on this ______ day of ___________, 2018 at a regular meeting of the Town Council of the Town of Northlake, Texas.

____
Peter Dewing, Mayor

ATTEST:

____
Shirley Rogers, Town Secretary

4828-2888-1502v.1 61684-1 2/27/2018

Regular Session

Agenda Item 3

Public Input

Agenda Item 4

Consent Items

Agenda Item 5

D. Consider for approval the Town Council Meeting Minutes of February 8, 2018

E. Consider for approval the Town Council Strategic Planning Workshop Notes February 22, 2018

F. Consider for approval a resolution designating the months of April and September as Beautification Months in Northlake (Resolution No. 18-5)

G. Consider for approval a resolution declaring certain personal property owned by the Town to be surplus property and authorizing the Town Administrator to dispose of such property (Resolution No. 18-6)

H. Consider for approval the Management and Improvement Services Agreement Northlake Public Improvement District No. 1 (Harvest Residential) between the Town of Northlake and FirstService Residential

I. Consider for approval an ordinance approving a tariff authorizing an annual rate review mechanism as a substitution for the annual interim rate adjustment process defined by Section 104.301 of the Texas Utilities Code, and as negotiated between Atmos Energy Corp., Mid-Tex Div., and the Steering Committee of Cities served by Atmos; requiring the company to reimburse cities' reasonable ratemaking expenses (Ordinance No. 18-0308A)

Peter Dewing, Mayor
Jean Young, Council Place 1
Mike McBride, Council Place 2, Mayor Pro Tem

Michael Ganz, Council Place 3
Roger Sessions, Council Place 4
Danny Simpson, Council Place 5

Northlake Town Council Meeting Minutes
Thursday, February 8, 2018
1400 FM 407 – Chamber Room
Northlake, Texas

1. Mayor Peter Dewing called the regular workshop session to order at 5:30 pm and stated a quorum was present

   Councilmembers present: Peter Dewing, Jean Young, Mike McBride, Michael Ganz, Roger Sessions, Danny Simpson

   Staff present: Drew Corn, Town Administrator; Nathan Reddin, Development Director; Robert Crawford, Chief of Police; Karen Bolyard, Finance Director; and Shirley Rogers, Town Secretary

   Consultants present: Ashley Dierker, Legal Counsel; Ben McGahey, PE, Town Engineer

2. Briefing Items
   A. FY 17 Annual Audit Presentation given by Mike Vail, CPA

3. Mayor Dewing called the regular meeting to order at 5:42 pm and all members present
   Pledge of Allegiance and a Moment of Silence was observed

4. Public Input – none

5. Consent Items
   Councilmember Ganz made the motion to approve the consent items. 2nd by Councilmember Sessions

   Vote: motion carried unanimous

   B. Town Council meeting minutes of 1-11-18
   C. Town Council meeting minutes of 1-25-18
   D. Interlocal Cooperation Agreement between Denton County and Town of Northlake, Texas for crossover roadway sections between Dale Earnhardt Way and Cleveland Gibbs Road at SH 114

6. Regular Items
   E. Councilmember Young moved to accept the FY 2017 Financial Audit ending September 30, 2018. 2nd by Councilmember Sessions

      Vote: motion carried unanimous

F. Councilmember Ganz moved to accept the resignation of Tim Wright. 2nd by Councilmember Sessions
Vote: motion carried unanimous

Mayor Pro Tem McBride moved to appoint Linda King to the Northlake Economic Development Corporation as a director. 2nd by Councilmember Simpson

Vote: motion carried unanimous

7. Convene into Executive Session – did not convene into closed session during the meeting

8. Mayor Dewing adjourned the meeting at 5:50 pm

Passed and approved on this the 8th day of March, 2018

Town of Northlake, Texas

____
Peter Dewing, Mayor

Attest:

____
Shirley Rogers, Town Secretary

Peter Dewing, Mayor
Mike McBride, Mayor Pro Tem
Jean Young, Council Place 1

Michael Ganz, Council Place 3
Roger Sessions, Council Place 4
Danny Simpson, Council Place 5

Northlake Town Council Strategic Planning Workshop Notes
Thursday, February 22, 2018
Northwest I.S.D. Outdoor Learning Center in the Great Hall
7773 Mulkey Lane - Northlake, Texas

1. Mayor Peter Dewing called the workshop to order at 8:00 am

   Council present: Peter Dewing, Jean Young, Mike McBride, Michael Ganz, Roger Sessions, Danny Simpson

   Staff present: Drew Corn, Town Administrator; Nathan Reddin, Development Director; Robert Crawford, Police Chief; Leann Oliver, Court Administrator; Eric Tamayo, Public Works Director; Karen Bolyard, Finance Director; and Shirley Rogers, Town Secretary

   Consultant present: David Eisenlohr, Azimuth Group, Managing Partner

2. Drew Corn gave an overview of ongoing Northlake Planning efforts which included Comp Plan, Master Thoroughfare Plan, Water & Sewer Plan, Parks/Open Space Plan, Debt Capacity Analysis, organizational staffing

3. Council & Staff participated in the following discussions/exercises:
   - Environmental scan and context map
   - SWOT (strengths/weaknesses, opportunities/threats) analysis
   - Organizational vision, mission and values
   - Strategic goals & objectives
   - Goal prioritization

4. Mayor Dewing adjourn the workshop at 4:30 pm

Passed and approved on this the 8th day of March, 2018

____
Peter Dewing, Mayor

Attest:

____
Shirley Rogers, Town Secretary

TOWN OF NORTHLAKE, TEXAS

RESOLUTION NO. 18-5

A RESOLUTION AUTHORIZING THE MAYOR TO PROCLAIM THAT THE TOWN OF NORTHLAKE, TEXAS, IS DESIGNATING THE MONTHS OF APRIL AND SEPTEMBER 2018 FOR BEAUTIFICATION PURPOSES

WHEREAS, the Town Council of the Town of Northlake, Texas wishes to proclaim the months of **April and September 2018** for beautification purposes; and

NOW, THEREFORE THE TOWN COUNCIL OF THE TOWN OF NORTHLAKE, TEXAS, HEREBY RESOLVES:

SECTION 1. To designate the months of April and September for all residents and property owners to clean-up, remove trash and debris from around their properties and along the highways and roads throughout the corporate limits of Town; and

SECTION 2. To designate **Saturday, April 21st and Saturday September 22nd** for the collection date and to provide roll-off containers for larger items to be placed at the following location:

Northlake Town Hall 1400 FM 407 Parking Lot

PASSED AND APPROVED ON THIS THE 8th MARCH, 2018

Town of Northlake, Texas

____
Peter Dewing, Mayor

ATTEST:

____
Shirley Rogers, Town Secretary

TOWN OF NORTHLAKE, TEXAS

RESOLUTION NO. 18-6

A RESOLUTION OF THE TOWN COUNCIL OF THE TOWN OF NORTHLAKE, TEXAS, DECLARING CERTAIN PERSONAL PROPERTY OWNED BY THE TOWN TO BE SURPLUS PROPERTY AND AUTHORIZING THE TOWN ADMINISTRATOR TO DISPOSE OF SUCH PROPERTY

WHEREAS, The Town Council of the Town of Northlake, Texas, has determined that certain personal property owned by the Town in the form of certain equipment is no longer needed; has been replaced by other equipment; and is no longer necessary for the Town's current or foreseeable needs; and

WHEREAS, such surplus property, while no longer being of value or benefit to the Town, may be of benefit or value to some other person or entity; and

WHEREAS, the Texas Government Code authorizes the Town to dispose of surplus proper.

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

SECTION 1. The Town Council hereby finds and determines that the property identified on the attached Exhibit "A", which is hereby incorporated and made part of this Resolution as if set forth fully at length is no longer necessary for the operations of the Town of Northlake and is hereby declared to be surplus property in accordance with the Texas Government Code.

SECTION 2. The Town Administrator is hereby directed to take all reasonable steps to dispose of such items of surplus property and the proceeds there from shall be deposited to the General Fund or appropriate fund.

PASSED AND APPROVED THIS THE 8TH DAY OF MARCH, 2018

TOWN OF NORTHLAKE, TEXAS

____

Peter Dewing, Mayor

ATTEST:

____

Shirley Rogers, Town Secretary

Exhibit 'A'

Town of Northlake

Surplus Inventory

Year	Make	Serial No.
2010	Chevrolet Tahoe	1GNMCAE01AR230335
2007	Chevrolet Pick Up	1GCHC29U67E143284
n/a	Carry On Cargo Trailer	n/a
n/a	Bix Tex Utility Trailer	n/a

Management and Improvement Services Agreement

Northlake Public Improvement District No. 1

(Harvest Residential)

This **MANAGEMENT AND IMPROVEMENT SERVICES AGREEMENT ("Agreement")** is made and entered into by and between the **Town of Northlake, Texas** ("the Town"), by and through Drew Corn, its duly authorized Town Administrator, and **First Service Residential Texas, Inc.,** a Texas corporation doing business as **FirstService Residential ("Contractor")** and acting by and through Cindy Huey, its duly authorized President.

RECITALS

The following statements are true and correct and constitute the basis upon which the Town and Contractor have entered into this Agreement:

WHEREAS, pursuant to Chapter 372 of the Texas Local Government Code on May 23, 2013, the Town Council of the Town of Northlake adopted Resolution No. 13-10 creating Northlake Public Improvement District No. 1 (the **"District");** and

WHEREAS, the Town is authorized to utilize the District to undertake improvements and/or services that confer special benefits on the part of the Town within the District; and

WHEREAS, the Town Council is authorized to levy and collect special assessments on property in the District, based on the special services conferred by the improvements and/or services, to pay the cost of such improvements and services; and

WHEREAS, the Town desires to enter into a written agreement with Contractor for the provision of certain improvements and services in the District, as more specifically set forth in this Agreement; and

WHEREAS, such improvements and services constitute a supplement to standard Town services and an added increment of service to provide other special benefits and services which will enhance the vitality and quality of the District; and

WHEREAS, Contractor wishes to assist the Town by providing, furnishing, or performing such improvements and services;

NOW, THEREFORE, for and in consideration of the mutual covenants, promises, and agreements contained herein, the Town and Contractor do hereby covenant and agree as follows:

AGREEMENT

1. ENGAGEMENT OF CONTRACTOR

The Town hereby engages the Contractor, and the Contractor hereby agrees to provide, furnish, oversee or perform in accordance with this Agreement the improvements and/or services set forth in Section 2.

2. IMPROVEMENTS AND SERVICES FOR THE DISTRICT

2.1. Scope of Contractor's Duties

Contractor shall provide or cause to be provided those improvements and services (the "Improvements and Services") set forth in and subject to the Service Plan and Budget for the District approved by the Town Council for the fiscal year covered by this Agreement (the "Service Plan and Budget") (which is attached hereto as Exhibit "C" and hereby made a part of this Agreement for all purposes), as may subsequently be amended, and the ordinance adopted by the Town Council levying assessments on properties in the District for such Improvements and Services (which ordinance is a public document on file in the Town Administrator's Office and is hereby incorporated for all purposes). Contractor shall also comply with the following related duties and responsibilities:

(a) Oversee the bidding and awarding of any third party contracts for the above-referenced Improvements and Services in accordance with the guidelines set forth in the Policy and Guidelines for Public Improvement Districts adopted by the Town Council pursuant to Resolution No. 13-10 (the "PID Policy"), a copy of which Contractor hereby certifies it has received and which is incorporated herein by reference for all purposes;

(b) Monitor work performed by any subcontractors for any of the above referenced Improvements and Services to ascertain that all such work is performed completely, professionally, and with the appropriate level of quality and to make whatever changes are necessary to achieve these objectives;

(c) Obtain, maintain and pay for insurance necessitated by the above referenced Improvements and Services, as may be directed or reviewed by the Town's Administrator or other designee;

(d) In accordance with Section 372.013 of the Texas Local Government Code and the PID Policy, prepare a Service Plan and Budget for the five (5) years following the fiscal year covered by this Agreement, to be adopted by the advisory body for the District or other entity designated by the Town and approved by the Town Council ;

(e) Maintain a full and accurate accounting of disbursements for reimbursement from District revenues and all other financial reporting requirements set forth in the PID Policy;

(f) Comply with all other duties and responsibilities set forth in the guide lines of the PID Policy;

(g) Receive advance written approval by the Town's Administrator or his/her designee prior to any authorized construction or maintenance of capital improvements in any dedicated Town park.

2.2. Contractor Compensation

As full compensation for the provision of all Improvements and Services during the Term of this Agreement, the Town shall pay Contractor as per the schedule below. The budgeted amount for each year shall be reflected in the Service Plan and Budget as "Management Fee," which amount shall be paid in monthly installments in accordance with Section 6 hereof.

The monthly management fee is as follows: $1,000 for homes 51-250; $4.75 per home for homes 251-550; $4.50 per home for homes 551 to 850; $4.25 per home for homes 851-1,150; $4.00 per home for homes 1,151-1,750; $3.75 per home for homes 1,451 to 1,750; $3.50 per home for homes1,751-2,050; $3.15 per home for homes 2,050 and above. The management fee covers fees for routine services, including overhead expenses and salaries of Contractor's employees, general and administrative expenses, financial management, general administration and operations management.

If on-site administrative, maintenance and housekeeping personnel are required, they shall be employees of Contractor. The District shall reimburse for actual wages paid plus a labor burden of 25% for administrative personnel and 35% for all other personnel. Labor burden includes social security tax, federal/state unemployment tax, workers compensation insurance, Contractor's contribution to employee 401(k) benefit, drug testing, Texas criminal background checks, payroll processing and human resource administration. Single PPO medical benefits shall be provided to all eligible on-site staff members who are employees of Contractor at a cost to the District.

The management fee and cost for all personnel will be allocated 50% to the Harvest Residential Association and 50% to the Public Improvement District.

Exhibit A to this Agreement further describes administrative expenses for certain periodic routine services related to mailings, photocopying, sending of registered notices to members and other items, the cost of which shall be billable in accordance with this Agreement. Fee for periodic routine services are due and payable within ten days of billing and shall be billed in accordance with Exhibit A.

2.3. Standard of Care; Nature of Relationship

Contractor shall commence, carry on, and provide the Improvements and Services with all practicable dispatch, in a sound, economical, and efficient manner, in accordance with this contract and its attachments and all applicable laws. Contractor shall ensure that any work on the Improvements and Services is properly coordinated with related work being performed by the Town. Unless otherwise specifically provided herein, all of the Improvements and Services will be performed by the Contractor or under the Contractor's supervision. All personnel engaged by the Contractor shall be fully qualified to perform those Improvements and Services delegated to them.

2.4. Security and Police Services

Nothing in this Agreement shall preclude the Contractor from providing, as part of its Improvements and Services, additional security and police services to the District. Unless otherwise specifically provided herein, all of the Improvements and Services related to Security and Police Services will be performed by the Contractor or under the Contractor's supervision. All personnel engaged by the Contractor shall be fully qualified to perform those Improvements and Services delegated to them.

3. TOWN'S DUTIES AND RESPONSIBILITIES

The Town shall provide the following services in connection with operation of the District and the Contractor's performance under this Agreement:

(a) Levying and collecting, though the Town's agreement with the Denton County Tax Assessor/Collector, assessments and recording the same in a separate revenue account;

(b) Making payments to Contractor from special assessment revenues and other District revenues;

(c) Maintaining the same level of services in the District as that which the Town provides in comparable areas of the Town;

(d) Maintaining complete and detailed records concerning any expenditure of special assessment revenues and other District revenues, which are made through Town departments, boards, or agencies;

(e) Retaining and expending revenues from special assessments, penalties, interest, and investment income thereon solely in the District;

(f) Preparing an annual report of delinquent property assessments and liens thereon to be assigned to the Town's delinquent tax collection attorney;

(g) Making regular reports to Contractor concerning delinquent assessments and making billings thereon as necessary; and,

(h) Producing an annual assessment roll of property owners and property within the District.

The Town shall have no financial obligation to the District other than levying and collecting, through its agreement with the Denton County Tax Assessor/Collector, the assessments levied by the District, except as provided in subsection (c) above, and, pursuant to and in accordance with this

Agreement, paying for Improvements and Services that Contractor performs in the District.

4. AMENDMENTS

This Agreement may not be amended unless executed in writing by both parties.

5. TERM

This Agreement shall commence February 1, 2018, (the **"Effective Date")** and, unless terminated earlier in accordance with this Agreement, expire January 31, 2019 (the **"Term").**

6. RELEASE OF FUNDS TO CONTRACTOR

6.1. Procedure

Periodically, but not more frequently than once per month, Contractor shall present to the individual or individuals designated by the Town to oversee and administer the District (the **"Administrator")** a report of the Improvements and Services provided by Contractor since (i) for the first report under this Agreement, the Effective Date and (ii) for all subsequent reports, the date of the previous report. All such reports must include documentation sufficient demonstrating to the Administrator that any sums paid or incurred by Contractor have been paid or are due. Provided that all such necessary reports and supporting documentation have been provided to the Administrator, the Town shall pay the Contractor for all lawful expenses made or incurred by Contractor within fifteen (15) business days of receipt of all such reports and supporting documentation. Notwithstanding anything to the contrary herein, the Town shall not be required to pay Contractor any amount that exceeds the then-current balance of District revenues or that is not in accordance with the Service Plan and Budget for the then-current fiscal year.

6.2. Work Reports

Contractor shall also submit a periodic work report, no less than quarterly, to the Administrator. This work report shall detail all of the Contractor's significant work activities in the District. The format of the report shall be mutually agreed upon by the Contractor and the Administrator. Notwithstanding anything to the contrary herein, payments to Contractor may be withheld if any such report is not received. The Administrator shall have the right to verify that the report is complete and accurate.

6.3. Insufficient District Funds

In the event that District revenues are not available or are insufficient for the Town to make any payment to Contractor hereunder, the Town will promptly notify Contractor. At Contractor's request, the Town and the Contractor shall meet and attempt to negotiate an amendment to this Agreement so that the scope of Improvements and Services may be reduced to correspond to the amount of District funds that are available or are anticipated to become available. If such an amendment cannot be successfully negotiated, Contractor shall have the right to pay the deficit (on a non-reimbursable basis), in which case this Agreement shall continue in effect. If such an amendment cannot be successfully negotiated and Contractor does not elect to fund the deficit, either party may terminate this Agreement upon thirty (30) days' advance written notice to the other party.

7. CONTRACTOR LIABILITY

Contractor hereby assumes full liability for any damages to any public or private property which is due to the negligence of Contractor, its subcontractors, agents, permitees or assigns.

8. LIABILITY OF TOWN; PERSONAL LIABILITY OF PUBLIC OFFICALS

No employee of the Town, nor any other agent of the Town, shall be personally liable for any damages caused by Contractor, its officers, agents, servants, employees, contractors and subcontractors or any other liabilities of Contractor under this Agreement or otherwise related to this Agreement. It is further expressly agreed that the Town shall not be liable or responsible for any damages caused by Contractor, its officers, agents, servants, employees, contractors and subcontractors or any other liabilities of Contractor under this Agreement or otherwise related to this Agreement, nor shall the Town be liable or responsible to Contractor or any other person for or on account of any stoppage or delay in the work herein provided for by injunction or other legal or equitable proceedings, or from or by or on account of any delay for any cause over which the Town has no control.

9. INDEMNIFICATION

CONTRACTOR COVENANTS AND AGREES TO, AND DOES HEREBY, INDEMNIFY AND HOLD HARMLESS AND DEFEND THE TOWN, ITS OFFICERS AND EMPLOYEES, FROM AND AGAINST ANY AND ALL SUITS OR CLAIMS FOR DAMAGES OR INJURIES, INCLUDING DEATH, TO ANY AND ALL PERSONS OR PROPERTY, WHETHER REAL OR ASSERTED, ARISING OUT OF OR IN CONNECTION WITH ANY NEGLIGENT ACT OR NEGLIGENT OMISSION ON THE PART OF THE CONTRACTOR, ITS OFFICERS, AGENTS, SERVANTS, EMPLOYEES OR SUBCONTRACTORS, AND THE CONTRACTOR DOES HEREBY ASSUME ALL LIABILITY AND RESPONSIBILITY FOR INJURIES, CLAIMS OR SUITS FOR THE DAMAGES TO PERSONS OR PROPERTY, OF WHATSOEVER KIND OR CHARACTER, WHETHER REAL OR ASSERTED, OCCURRING DURING OR ARISING OUT OF THE PERFORMANCE OF THIS CONTRACT AS A RESULT OF ANY NEGLIGENT ACT OR NEGLIGENT OMISSION ON THE PART OF THE CONTRACTOR, ITS OFFICERS, AGENTS, SERVANTS, EMPLOYEES OR SUBCONTRACTORS. SUCH INDEMNIFICATION SHALL INCLUDE WORKERS' COMPENSATION CLAIMS OF OR BY ANYONE WHATSOEVER IN ANY WAY RESULTING FROM OR ARISING OUT OF CONTRACTOR'S WORK, SERVICES AND OPERATIONS IN CONNECTION HEREWITH, INCLUDING OPERATIONS OF SUBCONTRACTORS.

CONTRACTOR SHALL LIKEWISE INDEMNIFY AND HOLD HARMLESS THE TOWN FOR ANY AND ALL INJURY OR DAMAGE TO TOWN PROPERTY ARISING OUT OF OR IN CONNECTION WITH ANY AND ALL NEGLIGENT ACTS OR NEGLIGENT OMISSIONS OF CONTRACTOR, ITS OFFICERS, AGENTS, EMPLOYEES, CONTRACTOR, SUBCONTRACTORS, LICENSEES OR INVITEES.

Insurance coverage specified herein constitutes the minimum requirements and said requirements shall in no way lessen or limit the liability of Contractor under the terms of this contract. Contractor shall procure and maintain, at its own cost and expense, any additional kinds and amounts of insurance that, in its own judgment, may be necessary for proper protection in the prosecution of its work.

10. INDEPENDENT CONTRACTOR

It is expressly understood and agreed that Contractor shall perform all work and services described herein as an independent contractor and not as an officer, agent, servant or employee of the Town; that Contractor shall have exclusive control of the details of the services and work performed hereunder, and all persons performing the same; and shall be solely responsible for the negligent acts and negligent omissions of its officers, agents, employees, contractors and subcontractors; that the doctrine of *respondeat superior* shall not apply as between Town and Contractor, its officers, agents, employees, contractors and subcontractors; and that nothing herein shall be construed as creating a partnership or joint enterprise between Town and Contractor. No person performing any of the work and services described hereunder shall be considered an officer, agent, servant or employee of the Town.

11. INSURANCE

Contractor shall not commence work under this Agreement until it has obtained and received approval from the Town of all insurance coverage required hereunder. Contractor shall be responsible for delivering to the Administrator a certificate or certificates of insurance demonstrating that Contractor has obtained the coverage required under this Agreement, that all insurance policies provided pursuant to this Agreement are endorsed to name the Town as an additional insured, and that all such insurance policies cover not only Contractor, but also Contractor's contractors and subcontractors. The minimum insurance required of Contractor is as follows:

> WORKER'S COMPENSATION INSURANCE: Contractor shall maintain throughout the Term of this Agreement statutory Worker's Compensation Insurance on all of its employees to be engaged in undertaking any Improvements or Services hereunder. In case any class of employees engaged in hazardous work under this Agreement is not protected under the state's Worker's Compensation statutes, Contractor shall provide adequate employer's general liability insurance for the protection of such employees not so protected.
>
> COMPREHENSIVE GENERAL LIABILITY INSURANCE: Contractor shall maintain throughout the Term of this Agreement a commercial general liability insurance policy in an amount of not less than $1,000,000 covering each occurrence with an aggregate limit of not less than $2,000,000.
>
> AUTOMOBILE INSURANCE - BODILY INJURY AND PROPERTY DAMAGE: Contractor shall maintain throughout the Term of this Agreement comprehensive automobile liability coverage in an amount not less than $1,000,000 for each accident. This policy shall cover any automobile used in the provision of Improvements and Services under this Agreement.

The insurance company with whom Contractor's insurance is written shall be represented by an agent or agents having an office located within the Dallas-Fort Worth metropolitan area. Each such agent shall be duly qualified, upon whom service or process may be had, and must have authority and power to act on behalf of the insurance company to negotiate and settle with the Town, or any other claimant, any claims that the Town, or any other claimant, or any property owner who has been damaged may have against the Contractor or insurance company. The name of the agent or agents shall be set forth on all certificates of insurance. All policies must provide that they may not be changed or canceled by the insurer in less than five (5) days after the Town had received written notice of such change or cancellation. Such insurance amounts may be revised upward at Town's request, and Contractor shall revise such amounts within thirty (30) days after receipt of such request.

12. TAXES

Contractor shall pay all federal, state and local taxes that may be chargeable on any Improvements and Services provided hereunder or otherwise in relation to Contractor's duties and obligations hereunder.

13. PERMITS

Contractor shall and shall cause any of its contractors and subcontractors to obtain and pay for any necessary permits and licenses, whether issued by the state, county or Town, before unertaking any work hereunder that requires any such permits.

14. CHARACTER OF WORK AND OPERATIONS

Contractor and Contractor's employees, contractors and subcontractors shall be competent and careful workmen skilled in their respective trades. Contractor shall not employ any person who repeatedly engages in misconduct or is incompetent or negligent in the due and proper performance of his duties or has been convicted of any crime of moral turpitude. The Town shall retain the right to require the Contractor to remove any employee who is guilty of misconduct toward the public or is in any way discourteous to the public. This work is being performed for the public benefit and it is necessary that it be performed in an acceptable manner and at a satisfactory rate of progress. Contractor shall at all times maintain its equipment in a clean, serviceable condition. All equipment shall be properly licensed and inspected and clearly marked with the Contractor's name and telephone number.

15. ASSIGNMENT AND SUBCONTRACTING

Contractor shall have the right to subcontract for the provision of any Improvements and Services authorized hereunder so long as the subcontract is in writing and the Administrator approves such subcontract in writing prior to provision of the subcontracted Improvements and Services, which such approval by the Administrator shall not be unreasonably delayed. The existence of a subcontract shall not relieve Contractor of any responsibility or liability to the Town under this Agreement. Otherwise, Contractor may not assign, transfer or convey any of its duties and responsibilities under this Agreement to another party without the advance written approval of the Town and execution by such party of a written agreement with the Town under which such party agrees to be bound by the duties and obligations of Contractor under this Agreement.

18. DEFAULT

All terms, conditions and provisions of this Agreement shall be considered material, and Contractor's failure to perform any part of this Agreement shall constitute an event of default hereunder. Should the Contractor fail to fully cure any default hereunder within fourteen (14) calendar days after receipt from the Town of written notice of the default (or, provided that Contractor has diligently commenced and continuously attempted cure within such time, such additional time as may be reasonably necessary to fully cure the default), the Town may, at its option and in addition to any other remedies available to it under law or in equity, terminate this Agreement by providing written notice to Contractor. Notwithstanding the foregoing, Town may terminate this Agreement for any reason upon thirty (30) calendar days' prior written notice to Contractor. In the event of any termination, any work in progress will continue to completion unless specified otherwise in the Town's termination notice. The Town shall pay for any such work in progress that is completed by Contractor and accepted by the Town.

19. COOPERATION WITH TOWN

Contractor shall, at such time and in such form as Town may require, furnish periodic information concerning the status of the project and such other statements, certificates and approvals relative to the project as may be requested by the Town. Contractor shall meet with the Administrator or other Town officials as may be requested to discuss any aspect of this Agreement.

20. BOOKS AND RECORDS; AUDITING RIGHTS

Contractor shall maintain complete and accurate records with respect to all expenditures and costs incurred for all Improvements and Services provided hereunder. All such records shall be maintained on a generally accepted accounting basis and shall be clearly identified and readily accessible to the Town. Contractor shall provide representatives of Town or its appointees free access to such books and records, at all proper times, in order that they may examine and audit the same and make copies thereof. Contractor shall further allow the Town and its representatives to make inspections of all work data, documents, proceedings and activities related to this contract. Such right of access and audit shall continue for a period one (1) year from the date of the final payment under this Agreement.

The Town shall also have the right to conduct a performance audit and evaluation of Contractor at such times as the Town deems necessary. Contractor shall fully cooperate with any such performance audit. The Town may employ consultants at the Town's expense to assist the Town in such performance audit. Contractor agrees to give the Town and its consultants access to all reports, data, schedules and other relevant information which may be required to conduct such performance audit.

21. NOTICES

Any notices, bills, invoices or reports required by this Agreement shall be conclusively determined to have been delivered three (3) business days after it is deposited in the United States mail, in a sealed envelope with sufficient postage attached, to the addresses listed below or such other addresses as may from time to time be provided to the other party:

Town:	Contractor:
Town of Northlake	First Service Residential
Attn: Town Administrator	Attn: Cindy Huey, President
1400 FM 407	3102 Oak Lawn Avenue, Suite 202
Northlake, Texas 76247	Dallas, Texas 75219-4241

22. COMPLIANCE WITH LAWS, ORDINANCES, RULES AND REGULATIONS

This Agreement will be subject to all applicable federal, state and local laws, ordinances, rules and regulations, including, but not limited to, all provisions of the Town's Charter and ordinances, as amended.

23. GOVERNMENTAL POWERS

It is understood that by execution of this Agreement, the Town does not waive or surrender any of it governmental powers or immunities.

24. NO WAIVER

The failure of either party to insist upon the performance of any term or provision of this Agreement or to exercise any right granted hereunder shall not constitute a waiver of that party's right to insist upon appropriate performance or to assert any such right on any future occasion.

25. VENUE AND JURISDICTION

If any action, whether real or asserted, at law or in equity, arises on the basis of any provision of this Agreement, venue for such action shall lie in state courts located in Denton County, Texas or the United States District Court for the Northern District of Texas - Fort Worth Division. This Agreement shall be construed in accordance with the laws of the State of Texas.

26. NO THIRD PARTY RIGHTS

The provisions and conditions of this Agreement are solely for the benefit of the Town and Contractor and are not intended to create any rights, contractual or otherwise, to any other person or entity.

27. INTERPRETATION

In the event of any dispute over the meaning or application of any provision of this Agreement, this Agreement shall be interpreted fairly and reasonably, and neither more strongly for or against any party, regardless of the actual drafter of this Agreement.

28. CAPTIONS

Captions and headings used in this Agreement are for reference purposes only and shall not be deemed a part of this Agreement.

29. ENTIRETY OF AGREEMENT

This Agreement, including any exhibits attached hereto and any documents incorporated herein by reference, contains the entire understanding and agreement between the Town and Contractor as to the matters contained herein. Any prior or contemporaneous oral or written agreement is hereby declared null and void to the extent in conflict with any provision of this Agreement.

30. COUNTERPARTS

This Agreement may be executed in multiple counterparts, each of which shall be considered an original, but all of which shall constitute one instrument.

EXECUTED as of the last date indicated below:

TOWN OF NORTHLAKE:

By: ____ Date: ________________________
Drew Corn, Town Administrator

FIRSTSERVICE RESIDENTIAL TEXAS, INC.,
A Texas corporation d/b/a
FIRSTSERVICE RESIDENTIAL:

By: ____ Date: ________________________
Tanya Mendenhall, Vice President

Exhibit "B"
Additional Services to be Provided by Contractor

(a) Participate in meetings of individual departments within the Town of Northlake, as required, to coordinate PID activities;

(b) Participate in all meetings required by the Town for assistance in the preparation of the Service Plan and Budget for the District, and update the Town as to authorized PID projects and other pertinent matters.

(c) Establish means of communication for citizen input to report problems and make suggestions to the PID. Coordinate responses to citizen, with input from the Town, when appropriate.

(d) Maintain a full and accurate accounting of disbursements for reimbursement from PID revenues, providing the Town with a monthly accounting statement;

(e) Monitor recurring expenses and perform comparative analyses to identify emerging trends and real or potential problems. Notify the Town of trends and unusual or excessive expenses;

(f) Maintain a complete set of historical records of all PID activity to include PID charter, minutes of meetings, and agreements/contracts with other entities, grant applications, etc. from the beginning of PID to present; and

The Contractor shall commence, carry on, and provide such improvements and/or services with all practicable dispatch, in a sound, economical, and efficient manner, in accordance with this contract and its attachments and all applicable laws.

Exhibit C – Budget and Five Year Service Plan

	2018	2019	2020	2021	2022
INCOME:	$568,250	$828,403	$956,680	$1,116,705	$1,220,385
EXPENSES:					
Utilities	$145,093	$203,180	$243,180	$266,391	$278,491
Landscape Maintenance	$827,500	$879,459	$919,820	$920,596	$1,035,528
Common Area Maintenance	$90,500	$96,800	$113,430	$120,423	$127,815
General & Administrative	$30,447	$38,208	$42,252	$45,039	$48,374
Insurance and Taxes	$4,718	$4,763	$4,808	$4,853	$4,906
Employees	$76,208	$76,597	$76,991	$77,388	$77,789
TOTAL EXPENSES	$1,174,466	$1,299,007	$1,400,481	$1,434,690	$1,572,903
****Developer Subsidy**	($606,216)	($470,604)	($443,801)	($317,985)	($352,518)

** To be fully repaid by PID

** Current Subsidy Balance through August 2017 **$1,054,498**

TOWN OF NORTHLAKE, TEXAS

ORDINANCE NO. 18-0308A

AN ORDINANCE OF THE TOWN COUNCIL OF THE TOWN OF NORTHLAKE, TEXAS, APPROVING A TARIFF AUTHORIZING AN ANNUAL RATE REVIEW MECHANISM ("RRM") AS A SUBSTITUTION FOR THE ANNUAL INTERIM RATE ADJUSTMENT PROCESS DEFINED BY SECTION 104.301 OF THE TEXAS UTILITIES CODE, AND AS NEGOTIATED BETWEEN ATMOS ENERGY CORP., MID-TEX DIVISION ("ATMOS MID-TEX" OR "COMPANY") AND THE STEERING COMMITTEE OF CITIES SERVED BY ATMOS; REQUIRING THE COMPANY TO REIMBURSE CITIES' REASONABLE RATEMAKING EXPENSES; ADOPTING A SAVINGS CLAUSE; DETERMINING THAT THIS ORDINANCE WAS PASSED IN ACCORDANCE WITH THE REQUIREMENTS OF THE OPEN MEETINGS ACT; DECLARING AN EFFECTIVE DATE; AND REQUIRING DELIVERY OF THIS ORDINANCE TO THE COMPANY AND LEGAL COUNSEL FOR THE STEERING COMMITTEE.

WHEREAS, the Town of Northlake, Texas ("Town") is a gas utility customer of Atmos Energy Corp., Mid-Tex Division ("Atmos Mid-Tex" or "Company"), and a regulatory authority with an interest in the rates and charges of Atmos Mid-Tex; and

WHEREAS, the Town and similarly-situated Mid-Tex municipalities created the Steering Committee of Cities Served by Atmos to efficiently address all rate and service matters associated with delivery of natural gas; and

WHEREAS, the Steering Committee formed an Executive Committee to direct legal counsel and to recommend certain specific actions to all aligned Mid-Tex Cities through resolution or ordinance; and

WHEREAS, pursuant to the terms of a November 2007 agreement between the Steering Committee and Atmos Mid-Tex that settled the Company's interim rate filing under Section 104.301 of the Texas Utilities Code (a "GRIP" rate case), the Steering Committee and the Company collaboratively developed a Rate Review Mechanism ("RRM") Tariff, ultimately authorized by the Town in 2008, that allows for an expedited rate review process as a substitute for the GRIP process; and

WHEREAS, the Town has kept some form of a RRM Tariff in place until 2017 when it adopted an ordinance approving an RRM Tariff filing settlement and specifically calling for termination of the existing RRM Tariff and negotiation of a replacement RRM Tariff following the Railroad Commission's decision in a then-pending Atmos Texas Pipeline case (GUD No. 10580); and

WHEREAS, the Steering Committee's Executive Committee has recently approved a settlement with the Company on the attached RRM Tariff that contains certain notable improvements, from a consumer perspective, over the prior RRM Tariff, including a reduced rate of return on equity, acceptance of certain expense adjustments made by the Railroad Commission in the Order in GUD No. 10580, and the addition of two months to the time for processing a RRM Tariff application; and

WHEREAS, the RRM Tariff contemplates reimbursement of Cities' reasonable expenses associated with RRM Tariff applications; and

WHEREAS, the Steering Committee's Executive Committee recommends that all Steering Committee member cities adopt this ordinance and the attached RRM Tariff; and

WHEREAS, the attached RRM Tariff is just, reasonable and in the public interest,

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

Section 1. That the findings set forth in this Ordinance are hereby in all things approved.

Section 2. That the attached RRM Tariff re-establishing a form of Rate Review Mechanism is just and reasonable and in the public interest and is hereby adopted.

Section 3. That Atmos Mid-Tex shall reimburse the Cities' reasonable expenses associated with adoption of this Ordinance and the attached RRM Tariff and in processing future RRM Tariff applications filed pursuant to the attached tariff.

Section 4. That to the extent any resolution or ordinance previously adopted by the Town is inconsistent with this Ordinance, it is hereby repealed.

Section 5. That the meeting at which this Ordinance was approved was in all things conducted in strict compliance with the Texas Open Meetings Act, Texas Government Code, Chapter 551.

Section 6. That if any one or more sections or clauses of this Ordinance is adjudged to be unconstitutional or invalid, such judgment shall not affect, impair or invalidate the remaining provisions of this Ordinance, and the remaining provisions of this Ordinance shall be interpreted as if the offending section or clause never existed.

Section 7. That this Ordinance shall become effective from and after its passage.

Section 8. That a copy of this Ordinance shall be sent to Atmos Mid-Tex, care of Chris Felan, Vice President of Rates and Regulatory Affairs, Atmos Energy Corporation, Mid-Tex Division, 5420 LBJ Freeway, Suite 1862, Dallas, Texas 75240, and to Geoffrey Gay, General Counsel to Mid-Tex Cities, at Lloyd Gosselink Rochelle & Townsend, P.C., 816 Congress Avenue, Suite 1900, Austin, Texas 78701.

PASSED AND APPROVED this 8th day of March, 2018

Town of Northlake, Texas

____
Peter Dewing, Mayor

ATTEST:

____
Shirley Rogers, Town Secretary

APPROVED AS TO FORM:

____
Ashley Dierker, Town Attorney

Exhibit A

ACSC Cities

Abilene
Addison
Albany
Allen
Alvarado
Angus
Anna
Argyle
Arlington
Aubrey
Azle
Bedford
Bellmead
Benbrook
Beverly Hills
Blossom
Blue Ridge
Bowie
Boyd
Bridgeport
Brownwood
Buffalo
Burkburnett
Burleson
Caddo Mills
Canton
Carrollton
Cedar Hill
Celeste
Celina
Centerville
Cisco
Clarksville
Cleburne
Clyde
College Station
Colleyville
Colorado City
Comanche
Commerce
Coolidge
Coppell
Copperas Cove
Corinth
Crandall
Crowley
Dalworthington Gardens
Denison
Denton
Desoto
Draper
Duncanville
Eastland
Edgecliff Village
Emory
Ennis
Euless
Everman
Fairview
Farmers Branch
Farmersville
Fate
Flower Mound
Forest Hill
Forney
Fort Worth
Frisco
Frost
Gainesville
Garland
Garrett
Grand Prairie
Grapevine
Groesbeck
Gunter
Haltom City
Harker Heights
Haskell
Haslet
Hewitt
Highland Park
Highland Village
Honey Grove
Hurst
Hutto
Iowa Park
Irving
Justin
Kaufman
Keene
Keller
Kemp
Kennedale
Kerens
Kerrville
Killeen
Krum
Lake Worth
Lakeside
Lancaster
Lewisville
Lincoln Park
Little Elm
Lorena
Madisonville
Malakoff
Mansfield
Mckinney
Melissa
Mesquite
Midlothian
Murphy
Newark
Nocona
North Richland Hills
Northlake
Oak Leaf
Ovilla
Palestine
Pantego
Paris
Parker
Pecan Hill
Petrolia
Plano
Ponder
Pottsboro
Prosper
Quitman
Red Oak
Reno (Parker County)
Rhome
Richardson
Richland
Richland Hills

RATE SCHEDULE:	**RRM – Rate Review Mechanism**	
APPLICABLE TO:	**ALL CITIES IN THE MID-TEX DIVISION AS IDENTIFIED IN EXHIBIT A TO THIS RATE SCHEDULE**	
EFFECTIVE DATE:	**Bills Rendered on and after 04/01/2018**	**PAGE: 8**

River Oaks	Temple
Roanoke	Terrell
Robinson	The Colony
Rockwall	Trophy Club
Roscoe	Tyler
Rowlett	University Park
Royse City	Venus
Sachse	Vernon
Saginaw	Waco
Sansom Park	Watauga
Seagoville	Waxahachie
Sherman	Westlake
Snyder	Westover Hills
Southlake	Westworth Village
Springtown	White Settlement
Stamford	Whitesboro
Stephenville	Wichita Falls
Sulphur Springs	Woodway
Sweetwater	Wylie

February 13, 2018

MODEL STAFF REPORT

BACKGROUND AND SUMMARY

The City, along with 171 other Mid-Texas Cities Served by Atmos Energy Corporation, Mid-Tex Division ("Atmos Mid-Tex" or "Company"), is a member of the Steering Committee of Cities Served by Atmos ("Cities"). In 2007, the Cities and Atmos Mid-Tex settled a rate application filed by the Company pursuant to Section 104.301 of the Texas Utilities Code for an interim rate adjustment commonly referred to as a GRIP filing (arising out of the Gas Reliability Infrastructure Program legislation). That settlement created a substitute rate review process, referred to as Rate Review Mechanism ("RRM"), as a substitute for future filings under the GRIP statute.

Since 2007, there have been several modifications to the original RRM Tariff. The Ordinance that resolved the Company's application under the RRM Tariff in 2017 also terminated the existing RRM Tariff and required a renegotiation of the terms of that tariff. Negotiations have taken place over the past several months, and have resulted in a revised RRM Tariff that has been agreed to by the Company. The Cities' Executive Committee has recommended acceptance of the revised RRM Tariff, which is attached to the Ordinance.

CITIES' OBJECTION TO THE SECTION 104.301 GRIP PROCESS

Cities strongly opposed the GRIP process because it constitutes piecemeal ratemaking by ignoring declining expenses and increasing revenues and rewarding the Company for increasing capital investment. The GRIP process does not allow any review of the reasonableness of capital investment and does not allow cities to participate in the Railroad Commission's review of annual GRIP filings or recover their rate case expenses. The Railroad Commission undertakes a mere administrative review of GRIP filings (instead of a full hearing) and rate increases go into effect without any material adjustments. In the Steering Committee's view, the GRIP process unfairly raises customers' rates without any regulatory oversight. In contrast, the RRM process has allowed for a more comprehensive rate review and annual evaluation of expenses and revenues, as well as capital investment.

CHANGES TO THE RRM TARIFF

The RRM Tariff on which the 2017 rates were based allowed a rate of return on equity of 10.50%. The revised RRM Tariff reduces that to 9.8%. The revised RRM Tariff also captures the reduction in federal income tax rates from 35% to 21%, and should result in a rate reduction effective by mid-March, 2018. Prior RRM tariffs allowed Cities only three months to review the Company's filing. The new revised Tariff expands that time period by two months. New applications by the Company should be made on or about April 1 of each year, with new rates effective October 1. A rate order from the Railroad Commission in an Atmos Texas Pipeline rate case adopted the position of Cities with regard to incentive compensation related to Atmos' Shared Services Unit that reduced allowed expenses, and that reduced level of expenses will be applicable under the new RRM Tariff.

EXPLANATION OF "BE IT ORDAINED" PARAGRAPHS

1. This section approves all findings in the Ordinance.

2. This section adopts the attached RRM Tariff and finds the adoption of the Tariff to be just, reasonable, and in the public interest. The prior tariff expired by its own terms.

3. This section requires the Company to reimburse the City for expenses associated with adoption of the Ordinance and RRM Tariff and in processing future applications pursuant to the Ordinance.

4. This section repeals any resolution or ordinance that is inconsistent with this Ordinance.

5. This section finds that the meeting was conducted in compliance with the Texas Open Meetings Act, Texas Government Code, Chapter 551.

6. This section is a savings clause, which provides that if any section is later found to be unconstitutional or invalid, that finding shall not affect, impair, or invalidate the remaining provisions of this Ordinance. This section further directs that the remaining provisions of the Ordinance are to be interpreted as if the offending section or clause never existed.

7. This section provides for an effective date upon passage.

8. This section directs that a copy of the signed Ordinance be sent to a representative of the Company and legal counsel for the Steering Committee.

RATE SCHEDULE:	**RRM – Rate Review Mechanism**	
APPLICABLE TO:	**ALL CITIES IN THE MID-TEX DIVISION AS IDENTIFIED IN EXHIBIT A TO THIS RATE SCHEDULE**	
EFFECTIVE DATE:	**Bills Rendered on and after 04/01/2018**	**PAGE: 1**

I. Applicability

Applicable to Residential, Commercial, Industrial, and Transportation tariff customers within the city limits of cities identified in Exhibit A that receive service from the Mid-Tex Division of Atmos Energy Corporation ("Company"). This Rate Review Mechanism ("RRM") provides for an annual adjustment to the Company's Rate Schedules R, C, I and T ("Applicable Rate Schedules"). Rate calculations and adjustments required by this tariff shall be determined on a System-Wide cost basis.

II. Definitions

"Test Period" is defined as the twelve months ending December 31 of each preceding calendar year.

The "Effective Date" is the date that adjustments required by this tariff are applied to customer bills. The annual Effective Date is October 1.

Unless otherwise provided in this tariff the term Final Order refers to the final order issued by the Railroad Commission of Texas in GUD No. 10170 and elements of GUD No. 10580 as specified in Section III below.

The term "System-Wide" means all incorporated and unincorporated areas served by the Company.

"Review Period" is defined as the period from the Filing Date until the Effective Date.

The "Filing Date" is as early as practicable, but no later than April 1 of each year.

III. Calculation

The RRM shall calculate an annual, System-Wide cost of service ("COS") that will be used to adjust applicable rate schedules prospectively as of the Effective Date. The Company may request recovery of its total cost of service but will include schedules showing the computation of any adjustments. The annual cost of service will be calculated according to the following formula:

$$COS = OM + DEP + RI + TAX + CD$$

Where:

OM = all reasonable and necessary operation and maintenance expenses from the Test Period adjusted for known and measurable items and prepared consistent with the rate making treatments approved in the Final Order. Incentive compensation (Management Incentive Plan, Variable Pay Plan and Long Term Incentive Plan) related to Atmos' Shared Services Unit will be applied consistent with treatment approved in GUD 10580. Additionally, O&M adjustments will be incorporated and applied as modified by a final order, not subject to appeal, issued by the Railroad Commission of Texas in subsequent rate cases involving the Atmos Mid-Tex or West Texas divisions. Known and measurable adjustments shall be limited to those changes that have occurred prior to the Filing Date. OM may be adjusted for atypical and non-recurring items. Shared Services allocation factors shall be recalculated each year based on the latest component factors used during the Test Period, but the methodology used will be that approved in the Final Order in GUD 10580.

DEP = depreciation expense calculated at depreciation rates approved by the Final Order. Additionally, if depreciation rates are approved in a subsequent final order, not subject to appeal, issued by the Railroad Commission of Texas for the Mid-Tex division those rates would be applicable for subsequent RRM filings.

RI = return on prudently incurred investment calculated as the Company's pretax return multiplied by rate base at Test Period end. Rate base is prepared consistent with the rate making treatments approved in the Final Order, and as in GUD 10580 as specifically related to capitalized incentive compensation (Management Incentive Plan, Variable Pay Plan and Long Term Incentive Plan) for Atmos' Shared Services Unit. However, no post Test Period adjustments will be permitted. Additionally, adjustments will be incorporated and applied as modified by a final order, not subject to appeal, issued by the Railroad Commission of Texas in subsequent rate cases involving the Atmos Mid-Tex or West Texas divisions. Pretax return is the Company's weighted average cost of capital before income taxes. The Company's weighted average cost of capital is calculated using the methodology from the Final Order including the Company's actual capital structure and long term cost of debt as of the Test Period end (adjusted for any known and measurable changes that have occurred prior to the filing date) and the return on equity of 9.8%. However, in no event will the percentage of equity exceed 58%. Regulatory adjustments due to prior regulatory rate base adjustment disallowances will be maintained. Cash working capital will be calculated using the lead/lag days approved in the Final Order. With respect to pension and other postemployment benefits, the Company will record a regulatory asset or liability for these costs until the amounts are included in the next annual rate adjustment implemented under this tariff. Each year, the Company's filing under this Rider RRM will clearly state the level of pension and other postemployment benefits recovered in rates.

TAX = income tax and taxes other than income tax from the Test Period adjusted for known and measurable changes occurring after the Test Period and before the Filing Date, and prepared consistent with the rate making treatments approved in the Final Order. Atmos Energy shall comprehensively account for, including establishing a regulatory liability to account for, any statutory change in tax expense that is applicable to months during the Test Period in the calculation to ensure recovery of tax expense under new and old income tax rates.

CD = interest on customer deposits.

IV. Annual Rate Adjustment

The Company shall provide schedules and work papers supporting the Filing’s revenue deficiency/sufficiency calculations using the methodology accepted in the Final Order. The result shall be reflected in the proposed new rates to be established for the effective period. The Revenue Requirement will be apportioned to customer classes in the same manner that Company’s Revenue Requirement was apportioned in the Final Order. For the Residential Class, 50% of the increase may be recovered in the customer charge. However, the increase to the Residential customer charge shall not exceed $0.60 per month in the initial filing and $0.70 per month in any subsequent year. The remainder of the Residential Class increase not collected in the customer charge will be recovered in the usage charge. For all other classes, the change in rates will be apportioned between the customer charge and the usage charge, consistent with the Final Order. Test Period billing determinants shall be adjusted and normalized according to the methodology utilized in the Final Order.

V. Filing

The Company shall file schedules annually with the regulatory authority having original jurisdiction over the Company's rates on or before the Filing Date that support the proposed rate adjustments. The schedules shall be in the same general format as the cost of service model and relied-upon files upon which the Final Order was based. A proof of rates and a copy of current and proposed tariffs shall also be included with the filing. The filing shall be made in electronic form where practical. The Company’s filing shall conform to Minimum Filing Requirements (to be agreed upon by the parties), which will contain a minimum amount of information that will assist the regulatory authority in its review and analysis of the filing. The Company and regulatory authority will endeavor to hold a technical conference regarding the filing within twenty (20) calendar days after the Filing Date.

A sworn statement shall be filed by an Officer of the Company affirming that the filed schedules are in compliance with the provisions of this Rate Review Mechanism and are true and correct to the best of his/her knowledge, information, and belief. No testimony shall be filed, but a brief narrative explanation shall be provided of any changes to corporate structure, accounting methodologies, allocation of common costs, or atypical or non- recurring items included in the filing.

VI. Evaluation Procedures

The regulatory authority having original jurisdiction over the Company's rates shall review and render a decision on the Company's proposed rate adjustment prior to the Effective Date. The Company shall provide all supplemental information requested to ensure an opportunity for adequate review by the relevant regulatory authority. The Company shall not unilaterally impose any limits upon the provision of supplemental information and such information shall be provided within seven (7) working days of the original request. The regulatory authority may propose any adjustments it determines to be required to bring the proposed rate adjustment into compliance with the provisions of this tariff.

The regulatory authority may disallow any net plant investment that is not shown to be prudently incurred. Approval by the regulatory authority of net plant investment pursuant to the provisions of this tariff shall constitute a finding that such net plant investment was prudently incurred. Such finding of prudence shall not be subject to further review in a subsequent RRM or Statement of Intent filing.

During the Review Period, the Company and the regulatory authority will work collaboratively and seek agreement on the level of rate adjustments. If, at the end of the Review Period, the Company and the regulatory authority have not reached agreement, the regulatory authority shall take action to modify or deny the proposed rate adjustments. The Company shall have the right to appeal the regulatory authority's action to the Railroad Commission of Texas. Upon the filing of an appeal of the regulatory authority's order relating to an annual RRM filing with the Railroad Commission of Texas, the regulatory authority having original jurisdiction over the Company's rates shall not oppose the implementation of the Company's proposed rates subject to refund, nor will the regulatory authority advocate for the imposition of a third party surety bond by the Company. Any refund shall be limited to and determined based on the resolution of the disputed adjustment(s) in a final, non-appealable order issued in the appeal filed by the Company at the Railroad Commission of Texas.

RATE SCHEDULE:	**RRM – Rate Review Mechanism**	
APPLICABLE TO:	**ALL CITIES IN THE MID-TEX DIVISION AS IDENTIFIED IN EXHIBIT A TO THIS RATE SCHEDULE**	
EFFECTIVE DATE:	**Bills Rendered on and after 04/01/2018**	**PAGE: 5**

In the event that the regulatory authority and Company agree to a rate adjustment(s) that is different from the adjustment(s) requested in the Company's filing, the Company shall file compliance tariffs consistent with the agreement. No action on the part of the regulatory authority shall be required to allow the rate adjustment(s) to become effective on October 1. To the extent that the regulatory authority does not take action on the Company's RRM filing by September 30, the rates proposed in the Company's filing shall be deemed approved effective October 1. Notwithstanding the preceding sentence, a regulatory authority may choose to take affirmative action to approve a rate adjustment under this tariff. In those instances where such approval cannot reasonably occur by September 30, the rates finally approved by the regulatory authority shall be deemed effective as of October 1.

To defray the cost, if any, of regulatory authorities conducting a review of the Company's annual RRM filing, the Company shall reimburse the regulatory authorities on a monthly basis for their reasonable expenses incurred upon submission of invoices for such review. Any reimbursement contemplated hereunder shall be deemed a reasonable and necessary operating expense of the Company in the year in which the reimbursement is made. A regulatory authority seeking reimbursement under this provision shall submit its request for reimbursement to the Company no later than December 1 of the year in which the RRM filing is made and the Company shall reimburse regulatory authorities in accordance with this provision on or before December 31 of the year the RRM filing is made.

To the extent possible, the provisions of the Final Order shall be applied by the regulatory authority in determining whether to approve or disapprove of Company's proposed rate adjustment.

This Rider RRM does not limit the legal rights and duties of a regulatory authority. Nothing herein shall abrogate the jurisdiction of the regulatory authority to initiate a rate proceeding at any time to review whether rates charged are just and reasonable. Similarly, the Company retains its right to utilize the provisions of Texas Utilities Code, Chapter 104, Subchapter C to request a change in rates. The provisions of this Rider RRM are implemented in harmony with the Gas Utility Regulatory Act (Texas Utilities Code, Chapters 101-105).

The annual rate adjustment process set forth in this tariff shall remain in effect during the pendency of any Statement of Intent rate filing.

RATE SCHEDULE:	**RRM – Rate Review Mechanism**	
APPLICABLE TO:	**ALL CITIES IN THE MID-TEX DIVISION AS IDENTIFIED IN EXHIBIT A TO THIS RATE SCHEDULE**	
EFFECTIVE DATE:	**Bills Rendered on and after 04/01/2018**	**PAGE: 6**

VII. Reconsideration, Appeal and Unresolved Items

Orders issued pursuant to this mechanism are ratemaking orders and shall be subject to appeal under Sections 102.001(b) and 103.021, et seq., of the Texas Utilities Code (Vernon 2007).

VIII. Notice

Notice of each annual RRM filing shall be provided by including the notice, in conspicuous form, in the bill of each directly affected customer no later than forty-five (45) days after the Company makes its annual filing pursuant to this tariff. The notice to customers shall include the following information:

a) a description of the proposed revision of rates and schedules;

b) the effect the proposed revision of rates is expected to have on the rates applicable to each customer class and on an average bill for each affected customer;

c) the service area or areas in which the proposed rates would apply;

d) the date the annual RRM filing was made with the regulatory authority; and

e) the Company's address, telephone number and website where information concerning the proposed rate adjustment can be obtained.

Regular Items

Agenda Item 6

J. Consider for approval an ordinance of the Town Council of the Town of Northlake, Texas revising Article 9:03 Division 2 of the Northlake Code of Ordinances; adopting land use assumptions, capital improvements plans, and Impact Fees for Water and Sanitary Sewer Facilities
   i. Public Hearing
   ii. Ordinance No. 18-0308B

K. Consider for approval a Cooperative Purchasing Agreement between City of North Richland Hills and Town of Northlake for the purchase of goods and services

L. Consider for approval a Final Plat of Right-of-way Dedication for Cleveland-Gibbs Road, being a 1.333-acre tract of land in the MEP & PRR Survey, Abstract No. 913, located along the Canyon Falls Pennington tracts approximately 1,100 feet north of FM 1171. Nash Canyon Falls, LLC is the owner/applicant. J. Volk Consulting, Inc. is the engineer/surveyor. Case # FP-17-016

M. Consider for approval a Final Plat of Canyon Falls Village E4, a phase of the Canyon Falls development consisting of 19 single-family residential lots and 2 HOA/Open Space lots on approximately 7.134 acres of land in the W. Love Survey, Abstract No. 728, generally located on the east side of Canyon Falls Drive at Westbridge Drive, and zoned Mixed-Use Planned Development (MPD). Nash Canyon Falls, LLC is the owner/applicant. J. Volk Consulting, Inc. is the engineer/surveyor. Case # FP-18-002

N. Consider for approval a Final Plat of Canyon Falls Pennington Phase One, a phase of the Canyon Falls development consisting of 151 single-family residential lots and 5 HOA/Open Space lots on approximately 38.434 acres of land in the W. Love Survey, Abstract No. 728, and the MEP & PRR Survey, Abstract No. 913, generally located on the east side of Cleveland-Gibbs Road approximately 1,900 feet north of FM 1171, and zoned Mixed-Use Planned Development (MPD). Nash Canyon Falls, LLC is the owner/applicant. J. Volk Consulting, Inc. is the engineer/surveyor. Case # FP-18-001

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940-648-3290
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Town of Northlake

Memo

To: Honorable Mayor and Town Council

From: Drew Corn, Town Administrator

CC: Shirley Rogers, Town Secretary

Date: March 8, 2018

Re: Water and Sewer Impact Fee Update Public Hearing and Ordinance

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On December 8, 2016, Council adopted the Northlake Comprehensive Plan – Pathway to 2040. The plan updated to the 2009 Comprehensive Plan. The first action step from the 2016 plan is:

> Amend all infrastructure plans – thoroughfare, water and wastewater plans - to require all current and future infrastructure design to meet rural standards in the part of the Town that is proposed for rural development.

A major concept that came from the comp plan process was the need to "right-size" the infrastructure specifically in the Ranch Preservation character area. Smaller water distribution lines, no wastewater collection system (only septic), and asphalt roads with bar ditches are appropriate for these areas. The 2012 water and sewer master plans assumed that rural areas would eventually desire water and sewer services. To ensure these areas remain rural, the proposed water plans have been reduced and sewer plans have been eliminated.

To continue to assess an impact fee State law requires an update be conducted every five years. On March 9, 2017 Council contracted with Halff and Associates to update the impact fees. The original study considered minimal, isolated infrastructure. The update has considered all the additional infrastructure that has been built over the last five years. Although the study is an update, the system is much more complex, and the land use assumptions have drastically changed.

On November 16, 2017, the Capital Improvement Advisory Committee reconvened and reviewed the land use assumptions and water and sanitary sewer master plans and recommended approval. Halff briefed the proposed study to Council at the January 11, 2018 meeting. Council comments were incorporated into the final study and a public hearing was called and legal public notice given for the March 8, 2018 council meeting.

After the public hearing, council may consider an ordinance adopting the land use assumptions, capital improvement plans, and water and sewer impact fees.

Please contact me at 940.242.5701 if you have any questions or comments.

"NOTICE OF PUBLIC HEARING ON AMENDMENT OF IMPACT FEES"

Notice is hereby given that The Town of Northlake, Texas will conduct a public hearing to consider the amendment of land use assumptions and a capital improvements plan and the imposition of an impact fee. The public hearing will be in the Town Hall Chamber Room, 1400 FM 407, Northlake, Texas on March 8, 2018 at 5:30 PM. Any member of the public has the right to appear at the hearing and present evidence for or against the update. Copies of the Impact Fee Study Update, which includes the Land Use Assumptions and Capital Improvements Plans, are available for review at Town Hall.

TOWN OF NORTHLAKE, TEXAS

ORDINANCE NO. 18-0308B

AN ORDINANCE OF THE TOWN COUNCIL OF THE TOWN OF NORTHLAKE, TEXAS, REVISING ARTICLE 9.03, DIVISION 2 OF THE NORTHLAKE CODE OF ORDINANCES; ADOPTING LAND USE ASSUMPTIONS, CAPITAL IMPROVEMENTS PLANS, AND IMPACT FEES FOR WATER AND SANITARY SEWER FACILITIES; PROVIDING A PENALTY CLAUSE; PROVIDING A SAVING CLAUSE; PROVIDING A SEVERABILITY CLAUSE; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, Chapter 395, Tex. Loc. Gov't. Code, provides procedures for establishing land use assumptions, capital improvements plans and impact fees; and

WHEREAS, the Town of Northlake has appointed a Capital Improvements Advisory Committee to advise the Town Council concerning land use assumptions, capital improvements plans, and impact fees for water and sanitary sewer facilities; and

WHEREAS, the Town has retained consultants to update land use assumptions, capital improvements plans, impact fees and ordinance provisions in order to meet adoption requirements; and

WHEREAS, notice has been published, public hearings held, and the written recommendations of the Advisory Committee received concerning land use assumptions and capital improvements plans for water and sanitary sewer facilities, as prepared by qualified professional engineers; and

WHEREAS, the Town Council finds that it is in the best interest of the citizens of the Town to adopt land use assumptions, capital improvements plans, and impact fees for water and sanitary sewer facilities; and

WHEREAS, revisions to the Northlake Town Code, Article 9.03, are necessary in order to effectively administer the impact fees program;

WHEREAS, the Town Council finds that it is in the public interest to make the amendments described herein; now, therefore,

BE IT ORDAINED BY THE TOWN COUNCIL OF THE TOWN OF NORTHLAKE, TEXAS:

Section 1. That the *Water and Sanitary Sewer Impact Fee Update for Northlake, Texas* March 2018, as prepared by Halff Associates, Inc., including its land use assumptions, service areas and capital improvements plans for water and sanitary sewer facilities hereby are adopted as Exhibit A to this ordinance, which is attached hereto and incorporated by reference herein as if fully set forth. The land use assumptions, service areas and capital improvements plans for water and sanitary sewer facilities contained in Exhibit A hereby shall supersede all previously adopted land use assumptions, service areas and capital improvements plans for such facilities.

Section 2. That the Impact Fee Schedule, setting forth the maximum impact fees per service unit to be assessed against new development for water and sanitary sewer facilities, hereby is adopted as Exhibit B to this ordinance, which is attached hereto and incorporated by reference herein as if fully set forth. The Impact Fee Schedule hereby shall supersede all previously adopted impact fee assessment rates.

Section 3. That Article 9.03, "Impact Fees," Division 2 “Water and Sewer Facilities” of the Northlake Code of Ordinances is hereby adopted to read as follows:

Sec. 9.03.031 Capital improvements plan

A plan is contemplated by this division that identifies capital improvements or facility expansions for which impact fees may be assessed. The capital improvements plan is dated March 8, 2018 and entitled “Water and Sanitary Sewer Impact Fee Update for Northlake, Texas” as prepared by Halff Associates, Inc., and on file in the office of the town secretary. The plan, as amended from time to time, identifies water and sanitary sewer capital improvements or facility expansions and their associated costs which are necessitated by and attributable to new development and will be financed in whole or in part through water and sanitary sewer impact fees collected under this division.

Sec. 9.03.032 Title

This division shall be officially known as the water and sanitary sewer impact fee ordinance of the town.

Sec. 9.03.033 Authority

This division is adopted pursuant to the powers granted and limitations imposed by the constitution and laws of the state, specifically V.T.C.A., Local Government Code Ch. 395.

Sec. 9.03.034 Purpose and intent

(a) This division is intended to implement and be consistent with the town’s comprehensive master plan and capital improvements plan.

(b) The purpose of this division is to ensure that adequate water and sanitary sewer facilities are available to serve new growth and development within the town and to regulate the use and development of land so that new growth and development bear a proportionate share of the cost of such new water and sanitary sewer capital improvements needed to serve such new development.

(c) It is not the purpose of this division to collect any money from new development in excess of the actual amount necessary to offset the demand on the town’s water and sanitary sewer facilities generated by such new development activity. It is specifically acknowledged that this division has approached the calculation of proportionate share impact fees in a conservative and reasonable manner.

(d) It is in the interest of the public's health, safety, and general welfare for the town to regulate development and ensure the adequacy of water and sanitary sewer facilities by requiring payment of proportionate share impact fees.

Sec. 9.03.035 Definitions

The following words, terms, and phrases, when used in this division, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

Advisory committee. The members of the committee appointed by the town council as required by the enabling legislation for this division.

Assessment. The determination of the amount of the maximum impact fee which can be imposed on new development pursuant to this division.

Capital improvement. Any water supply, treatment and distribution facilities, or sanitary sewer collection and treatment facilities, that have a life expectancy of three or more years and are owned and operated by or on behalf of the town.

Capital improvements plan. A plan that identifies capital improvements or facility expansions for which impact fees may be assessed, as adopted by the town from time to time.

Connection to water or sewer system. The filing with the town of a written application for a water or sewer tap and the payment of applicable fees, including purchase of a water meter.

Credit. The amount of the reduction of an impact fee for fees, payments or charges for or construction of the same type of facility.

Equivalent residential connection. A service unit of demand for water and sanitary sewer service equivalent to the demand generated by a typical single-family residence.

Facility expansion. The expansion of the capacity of an existing facility that serves the same function as an otherwise necessary new capital improvement, in order that the existing facility may serve new development.

Final plat approval or approval of a final plat. The point at which the applicant has complied with all the conditions of approval and the plat has been released for filing with the county clerk.

Impact fee. A charge or assessment imposed against new development in order to generate revenue for funding or recovering the costs of capital improvements or facility expansions necessitated by and attributable to new development. The term "impact fees" includes amortized charges, lump sum charges, capital recovery fees, contributions in aid of construction, and any other fee that functions as described by this definition. The term "impact fees" does not include:

(1) Required dedications of land for public parks or payments made in lieu thereof;

(2) Dedication of rights-of-way or easements, or the construction or dedication of on-site or off-site water distribution, wastewater collection or drainage facilities, or streets, sidewalks, or curbs, if the dedication or construction is required by a valid ordinance and is necessitated by and attributable to the new development;

(3) Lot or acreage fees or pro-rata fees to be placed in trust funds for the purpose of reimbursing developers for constructing or oversizing water or sewer mains or lines; or

(4) Other pro-rata fees for reimbursement of water or sanitary sewer mains or lines extended by the town.

Land use assumptions. A description of the service area and projections of changes in land uses, densities, intensities, and population in the service area over at least a ten-year period which has been adopted by the town and upon which the capital improvements plan is based.

New development. The subdivision of land, the construction, reconstruction, redevelopment, conversion, structural alteration, relocation, or enlargement of a structure, or any use or extension of the use of land, any of which increases the number of service units.

Off-site. Located entirely on property which is not included within the bounds of the plat being considered for impact fee assessment.

On-site. Located at least partially on the plat which is being considered for impact fee assessment.

Sanitary sewer facility. An improvement for providing wastewater collection, including, but not limited to, land or easements, lift stations, force mains, collection pipes, interceptor mains, and wastewater treatment facilities. “Sanitary sewer facility” excludes lines or mains which are reimbursed from pro-rata charges paid by developers or owners of property in other subdivisions as a condition of connection to or use of such facility.

Sanitary sewer impact fee service area. A geographic area in which sanitary sewer service is provided by the town. For the purposes of this division, all land within the corporate limits of the town shall constitute one single sanitary sewer impact fee service area.

Service unit. A standardized measure of consumption, use, generation, or discharge, attributable to an individual unit of development, calculated in accordance with generally accepted engineering or planning principles for a particular category of capital improvements or facility expansions. For the purpose of water and sanitary sewer impact fees, service units shall be expressed in terms of equivalent residential connections.

Water facility. An improvement for providing water supply, treatment and distribution services, including, but not limited to, land or easements, water treatment facilities, water supply facilities, or water distribution lines. “Water facility” excludes water lines or mains which are constructed by developers, the costs of which are reimbursed from pro-rata charges paid by developers or owners of property in other subdivisions as a condition of connection to or use of such facility.

Water impact fee service area. A geographic area in which water service is provided by the town. There are two water impact fee service areas which are identified as the North Service Area and South Service Area as identified in the March 8, 2018, Water and Sanitary Sewer Impact Fee Update for Northlake, Texas, as prepared by Halff Associates, Inc.

Sec. 9.03.036 Applicability

(a) This division shall apply to all development within the water and sanitary sewer impact fee service areas.

(b) The total water impact fee required by this division shall be paid to the town in full at the time of application for building permit. The town will not furnish a water meter or allow connection to the water system if the applicant for such connection cannot furnish proof that the water impact fee has been paid in full to the town.

(c) The total sanitary sewer impact fee required by this division shall be paid to the town in full at the time of application for building permit. The town will not allow connection to the sanitary sewer system if the applicant for such connection cannot furnish proof that the sanitary sewer impact fee has been paid in full to the town.

Sec. 9.03.037 Timing of fee assessment

(a) Except as provided in subsection (b) below, the water and sanitary sewer impact fees shall be based on the cost per service unit in effect at the time of application for building permit.

(b) The water and sanitary sewer impact fees applicable to a lot or tract of land platted after the effective date of this division originally establishing water and sanitary sewer impact fees for the town shall be based on the water and sanitary sewer impact fees per service unit in effect at the time of such plat recordation, provided that the applicant shall submit evidence of the date of plat recording at the time of connection to the water or sanitary sewer system.

Sec. 9.03.038 Fee calculation

(a) Basis of fees. The water and sanitary sewer impact fees shall be based on the size of the water meter determined by the town engineer to be necessary to serve the development and the number of equivalent residential connections associated with that size of water meter. If the town allows a development to connect to the sanitary sewer system without connecting to the water system, the town engineer shall determine the size of the water meter that would be required if the development did connect to the water system. The number of equivalent residential connections associated with various water meter sizes are as follows:

Water Meter Size (in inches)	Equivalent Residential Connections
5/8	0.67
3/4	1
1	1.67
1-1/2	3.33
2	5.33
3	10
4	20
6	45
8	60
10	80

(b) Water impact fees. Water impact fees shall be calculated by multiplying the number of equivalent residential connections associated with the water meter by the net growth-related capital cost required to provide water service to an equivalent residential connection, less any water impact fee credits applicable to the property pursuant to section 9.03.039. Based on the adopted land use assumptions and capital improvements plan, the net growth-related capital cost required to provide water service to an equivalent residential connection is based upon two service areas as provided in exhibit A to Ordinance 18-0308B on file in the office of the town secretary. Based on this cost per service unit, the water impact fees by water meter size are as provided for in the fee schedule found in appendix A of this code.

(c) Sanitary sewer impact fees. Sanitary sewer impact fees shall be calculated by multiplying the number of equivalent residential connections associated with the water meter by the net growth-related capital cost required to provide sanitary sewer [to an equivalent residential connection, less any sewer impact fee] credits applicable to the property pursuant to section 9.03.039. Based on the adopted land use assumptions and capital improvements plan, the net growth-related capital cost required to provide sanitary sewer service to an equivalent residential connection is based upon a single service area as provided for in exhibit A to Ordinance 18-0308B on file in the office of the town secretary. The cost per service unit for sanitary sewer impact fees by water meter size are as provided for in the fee schedule found in appendix A of this code.

Sec. 9.03.039 Credits

(a) If the town requires as a condition of development approval, or otherwise enters into an agreement with a developer, to have the developer construct, fund or otherwise contribute toward the cost of a capital improvement or facility expansion that is necessary to serve the developer's development and which is included in the adopted water or sanitary sewer capital improvements plan, the town shall provide for reimbursement in the form of credits against impact fees that would otherwise be due from the development. Such credits shall run with the land and shall be used to reduce the amount of the impact fee that would otherwise be owed at the time of collection of impact fees. In determining the amount of such credits, the developer shall submit evidence of the actual fair-market cost of the required improvements. The actual fair-market cost shall then be reduced in the same manner and proportion as the actual assessed impact fee amounts charged by the town are reduced from the projected actual costs of impact fee capital projects of the same type facility (water or sanitary sewer) in the same service area (the "reduced cost values"). Credits shall then be granted to the developer in an amount equal to such reduced cost values. Such credits shall only be applicable against the impact fees for the type of facility (water or sanitary sewer) for which the capital improvement is made.

(b) The town may also enter into an agreement with a developer to have the developer construct, fund or otherwise contribute toward the cost of a capital improvement or facility expansion that is included in the adopted water or sanitary sewer capital improvements plan and which is not necessary to serve the developer's development, such as the oversizing of pipes, pumps or lift stations or the addition of extra facilities beyond the minimum standards required by the town's ordinances to serve the developer's development. The town may provide for reimbursement in the form of credits against impact fees that would otherwise be due from the development. Such credits shall run with the land and shall be used to reduce the amount of the impact fee that would otherwise be owed at the time of collection of impact fees. In determining the amount of such credits, the developer shall submit evidence of the actual fair-market cost of the oversized improvements. If the amount of such credits would be insufficient to reimburse the developer for the cost of such oversized improvements or extra improvements beyond the minimum standards required by the town's ordinances to serve the developer's development, the town may provide for reimbursement to the developer up to the balance of the cost of such oversized required improvements from water or sanitary sewer impact fees collected from other new development within the same service area.

Sec. 9.03.040 Accounting for fees and interest; use of funds

(a) All water and sanitary sewer impact fees collected by the town shall be deposited in interest-bearing accounts clearly identifying the category of capital improvements for which the fees were collected.

(b) Interest earned on water and sanitary sewer impact fees shall be considered funds of the account on which it is earned and shall be subject to all of the restrictions placed on use of impact fees under this division.

(c) Water and sanitary sewer impact fee funds shall only be spent for the purposes for which they were imposed as shown by the capital improvements plan and as authorized by this division.

(d) The records of the water and sanitary sewer impact fee accounts shall be open for public inspection and copying during ordinary business hours.

(e) Water and sanitary sewer impact fee funds shall only be used to pay the costs of constructing water and sanitary sewer capital improvements or facility expansions, including and limited to the following:

(1) Construction contract price;

(2) Interest charges or other finance costs;

(3) Surveying and engineering fees;

(4) Land acquisition costs, including land purchases, court awards and costs, attorney's fees and expert witness fees; and

(5) Fees actually paid or contracted to be paid to an independent qualified engineer or financial consultant preparing or updating the capital improvements plan who is not an employee of the town.

Sec. 9.03.041 Refunds

All or any portion of a water or sanitary sewer impact fee payment that has been collected by the town and has not been spent as authorized by this division within ten years from the date such impact fee was collected shall be refunded by the town, subject to the following:

(1) The determination of whether an impact fee payment made for a particular piece of property has been spent shall be based on the "first-in, first-out" accounting principle.

(2) Any refund shall bear interest calculated from the date of collection to the date of refund at the statutory rate as set forth in V.T.C.A., Finance Code, section 302.002, or its successor statute.

(3) All refunds shall be made to the record owner of the property for which the impact fee payment was made at the time the refund is paid; provided, however, that if the impact fees were paid by another political subdivision or governmental entity, the refund shall be made to the political subdivision or governmental entity.

(4) The town shall provide a refund within 60 days of application for such refund, provided that the applicant provides all documentation necessary for the town to determine that the refund is due to the applicant.

Section 4. That Chapter 14, "Impact Fees," of the Northlake Code of Ordinances is hereby adopted to include Exhibit A and Exhibit B attached thereto in its entirety.

Section 5. That any person, firm, or corporation violating any of the provisions of this ordinance shall be deemed guilty of a misdemeanor and upon conviction be subject to a fine in accordance with the general provisions of the Northlake Code of Ordinances.

Section 6. That Chapter 14 of the Town of Northlake Code of Ordinances shall remain in full force and effect.

Section 7. That the sections, paragraphs, sentences, phrases, clauses and words of this ordinance are severable, and if any section, paragraph, sentence, phrase, clause or word in this ordinance or application thereof to any person, firm or corporation, or to any circumstance is held invalid or unconstitutional by a Court of competent jurisdiction, such holding shall not affect the validity of the remaining portions of this ordinance, and the Town Council hereby declares that it would have adopted such remaining portions of this ordinance despite such invalidity, which remaining portions shall remain in full force and effect.

Section 8. That this ordinance shall take effect upon passage and publication, and it is accordingly so ordained.

PASSED AND APPROVED BY THE TOWN COUNCIL OF THE TOWN OF NORTHLAKE, TEXAS, this 8th day of March 2018.

____

Peter Dewing, Mayor
Town of Northlake

ATTEST:

____

Shirley Rogers, Town Secretary

APPROVED AS TO FORM:

____

Ashley Dierker, Town Attorney

Exhibit A

<u>Water and Sanitary Sewer Impact Fee Update</u>

Exhibit B

Impact Fee Schedule

North Service Area

Meter Size	Equivalency Factor	Sewer Impact Fee	Water Impact Fee	Total Cost Impact Fee
5/8"	0.67	$1,057.00	$2,259.00	$3,316.00
3/4"	1.00	$1,578.00	$3,371.00	$4,949.00
1"	1.67	$2,635.00	$5,630.00	$8,265.00
1.5"	3.33	$5,255.00	$11,225.00	$16,480.00
2"	5.33	$8,411.00	$17,967.00	$26,378.00
3"	10.00	$15,780.00	$33,710.00	$49,490.00
4"	20.00	$31,560.00	$67,420.00	$98,980.00
6"	45.00	$71,010.00	$151,695.00	$222,705.00
8"	60.00	$94,680.00	$202,260.00	$296,940.00
10"	80.00	$126,240.00	$269,680.00	$395,920.00

South Service Area

Meter Size	Equivalency Factor	Sewer Impact Fee	Water Impact Fee	Ft. Worth Impact Fee	Total Cost Impact Fee
5/8"	0.67	$1,057.00	$1,984.00	$971.00	$4,012.00
3/4"	1.00	$1,578.00	$2,961.00	$1,457.00	$5,996.00
1"	1.67	$2,635.00	$4,945.00	$2,428.00	$10,008.00
1.5"	3.33	$5,255.00	$9,860.00	$4,857.00	$19,972.00
2"	5.33	$8,411.00	$15,782.00	$7,771.00	$31,964.00
3"	10.00	$15,780.00	$29,610.00	$21,127.00	$66,517.00
4"	20.00	$31,560.00	$59,220.00	$36,426.00	$127,206.00
6"	45.00	$71,010.00	$133,245.00	$77,709.00	$281,964.00
8"	60.00	$94,680.00	$177,660.00	$135,991.00	$408,331.00
10"	80.00	$126,240.00	$236,880.00	$203,987.00	$567,107.00

Exhibit A

Water and Sanitary Sewer Impact Fee Update

Water & Sanitary Sewer Impact Fee Update

NORTHLAKE
TEXAS

HALFF

HALFF ASSOCIATES, INC.
ENGINEERS - SURVEYORS - SCIENTISTS
PRELIMINARY - FOR INTERIM REVIEW ONLY
These documents are for Interim Review.
They were prepared by or under the supervision of:

Philip Wheat PE #: 113381 Date: 01/05/2018
TBPE Firm #: 312

AVO 32335

January 2018

EXECUTIVE SUMMARY

The Town of Northlake (Town) retained Halff Associates (Halff) to develop land use assumptions, capital improvements plans (CIPs), and maximum impact fees for its water and sanitary sewer systems in 2012. The Texas Local Government Code Chapter 395, Section 052, requires a political subdivision imposing an impact fee to update the land use assumptions and capital improvements plan at least every five years. Therefore, the Town again hired Halff to update the impact fee because of the recent update to the Town's Comprehensive Plan[1] and changes to the future land use assumptions.

The land use assumptions include projections for new service units, which are standardized measures of capacity utilization attributable to individual development units. Table ES-1 shows the projected new service units within the 10-year planning period for each service area.

Table ES.1: New 10-year Service Units by Service Area

Service Area	Water		Sanitary Sewer
	North	South	
New Service Units	5,760	1,140	6,290

A capital improvement plan (CIP) identifies the facilities needed to serve future development within the service area for the planning period. The total 10-year water CIP is estimated to cost approximately $127 million, and the 10-year sanitary sewer CIP cost is estimated to total approximately $34 million. Capital improvements eligible for reimbursement by impact fees include those that must be added or expanded to serve future development. The proportional capacity of the infrastructure utilized by new development is used to determine the CIP costs eligible for inclusion in the impact fees. Table ES.2 shows the eligible CIP costs calculated for each service area.

Table ES.2: CIP Eligible Costs by Service Area

Service Area	Water		Sanitary Sewer
	North	South	
Eligible CIP Costs	$38,830,680	$6,751,230	$19,845,710

The impact fee for each infrastructure system equals the eligible cost of the capital improvements divided by the increase of service units from projected new development during the study period. The impact fee analysis must include a schedule that discounts from the maximum impact fee the amount of utility service revenues or ad valorem taxes that are allocated to capital improvements included in the CIP. Alternately, a credit of 50 percent can be applied to the eligible CIP cost. Table ES.3 shows the maximum adjusted impact fees for different meter sizes assuming the 50 percent credit is applied. Figures ES.1 and ES.2 show the Northlake maximum and adjusted impact fees for the standard service unit (3/4-inch water meter) assuming the 50 percent credit is applied compared to impact fees imposed by surrounding municipalities.

[1] Pathway to 2040: Northlake Comprehensive Plan Update, Adopted December 8, 2016 (Ordinance No. 16-1208E)

Table ES.3: Adjusted Water Maximum Impact Fees by Meter Size

Meter Size	Water Service Areas		Sanitary Sewer Service Area
	North	South	
5/8"	$2,415	$1,984	$1,057
3/4"	$3,604	$2,961	$1,578
1"	$6,019	$4,945	$2,635
1.5"	$12,001	$9,860	$5,255
2"	$19,209	$15,782	$8,411
3"	$36,040	$29,610	$15,780
4"	$72,080	$59,220	$31,560
6"	$162,180	$133,245	$71,010
8"	$216,240	$177,660	$94,680
10"	$288,320	$236,880	$126,240

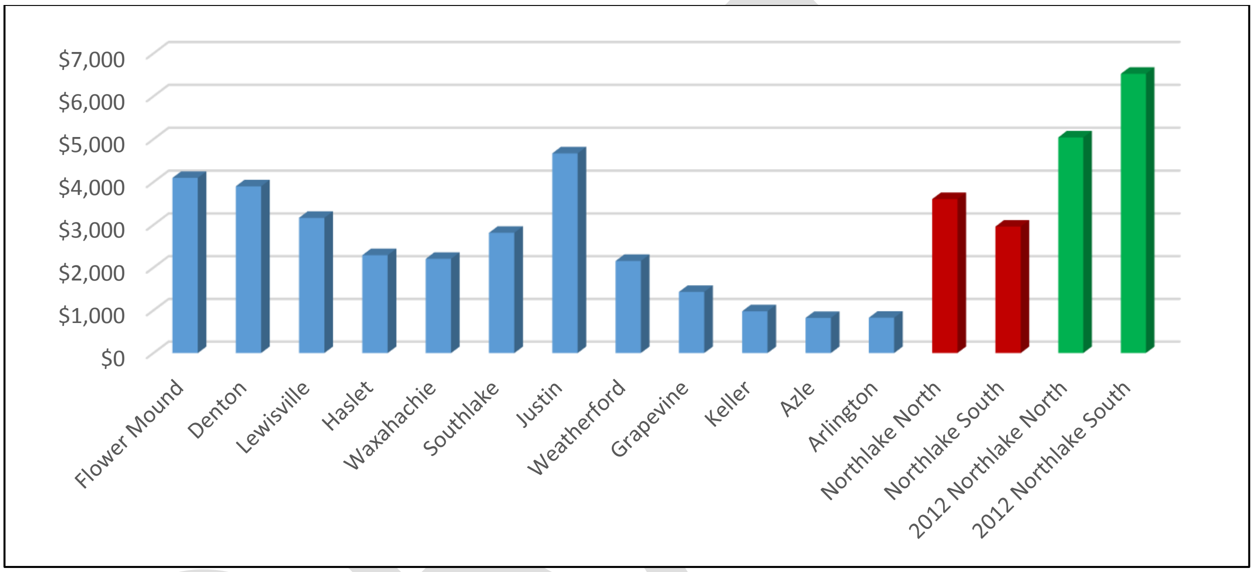


Figure ES.1: Local Water Impact Fee Comparisons

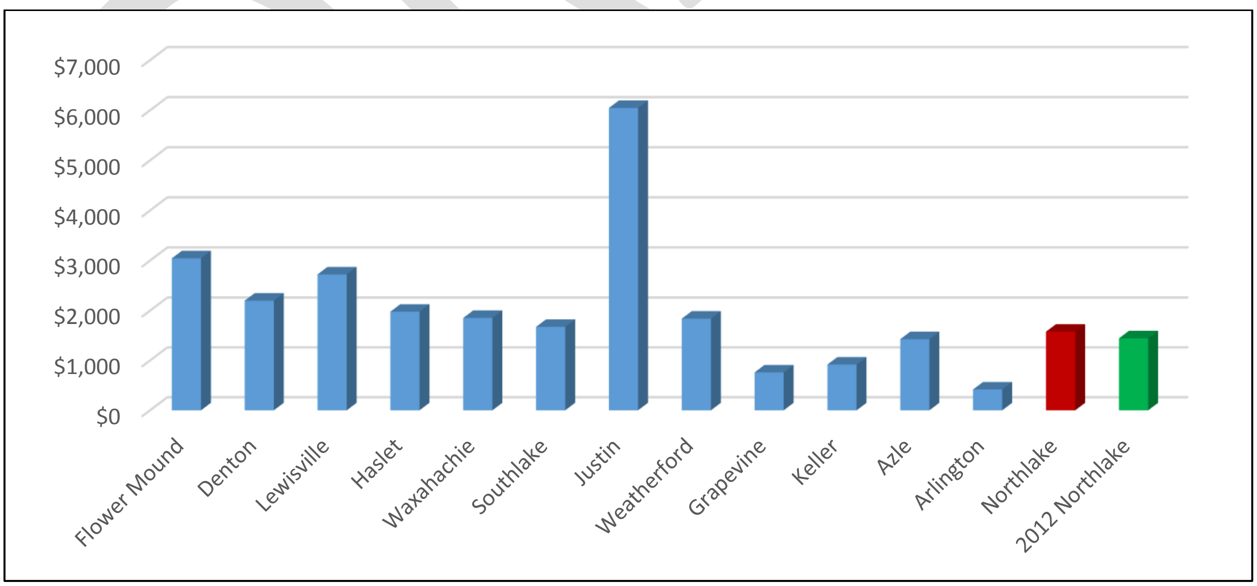


Figure ES.2: Local Sanitary Sewer Impact Fee Comparisons

Contents

LIST OF FIGURES

LIST OF TABLES

1.0 INTRODUCTION

Political subdivisions in the State of Texas may impose impact fees on land within their corporate boundaries in accordance with Chapter 395 of the Texas Local Government Code. An impact fee is defined as "a charge or assessment imposed by a political subdivision against new development in order to generate revenue for funding or recouping the costs of capital improvements or facility expansions necessitated by and attributable to the new development." The Town of Northlake (Town) retained Halff Associates (Halff) to develop land use assumptions, capital improvements plans (CIPs), and maximum impact fees for its water and sanitary sewer systems in 2012.

The Texas Local Government Code Chapter 395, Section 052, requires a political subdivision imposing an impact fee to update the land use assumptions and capital improvements plan at least every five years. This impact fee update is also warranted because of the recent update to the Town's Comprehensive Plan[2] and changes to the future land use assumptions. The planning period for this study is the 10-year period from 2017 to 2027.

This master plan and impact fee report update is intended to provide guidance for the Town to make decisions on water and sanitary sewer sizing, timing, and budgetary costs needed to service the Town as a whole. This report is based on assumptions and engineering judgement in conjunction with the planning documents that the Town has previously produced. As Northlake continues to grow, updating the master plan regularly will be necessary to accurately reflect the ongoing changes with the Town or deviations from the original plan. Each new development should be considered on a case-by-case basis to ensure that the infrastructure is sized to serve both the new development the surrounding area accordingly.

[2] Pathway to 2040: Northlake Comprehensive Plan Update, Adopted December 8, 2016 (Ordinance No. 16-1208E)

2.0 LAND USE ASSUMPTIONS

The capital improvements plans for which the impact fees are developed must be based on approved land use assumptions for the CIP's service area(s). Land use assumptions for the purposes of an impact fee study are defined as descriptions of the service area and projections of changes in land uses, densities, intensities, and population in the service area over at least a 10-year period. This section summarizes Northlake's land use assumptions.

2.1 Service Areas

Land use assumptions forecast changes in land uses, densities, intensities, and population over a 10-year period within an established service area. A service area must first be delineated to define the limits of land use assumptions. The service area also establishes the area to be served by the proposed capital improvements and the boundaries inside which an impact fee may be imposed. Service areas for water and sanitary sewer impact fees may include all or part of the Town's current limits and its extraterritorial jurisdiction (ETJ).

Northlake's water CCN (#12915) comprises 18,800 acres, including undevelopable floodplain, and is shown in Exhibit 1. The water service area deviates partially from the Town ETJ and has been updated from the previous master plan to reflect the current CCN boundary. Northlake is divided into two water service areas, North Water Service Area and South Water Service Area with Denton Creek generally serving as the divide between the two. The City of Fort Worth supplies water to southern Northlake via one existing point of connection, and Upper Trinity Regional Water District (UTRWD) provides water to North and East Northlake at two existing points of connection. The existing connection points are shown in Exhibit 1. The acreages shown below exclude floodplain.

- North Water Service Area – 10,450 acres
- South Water Service Area – 3,320 acres

The water service areas are further subdivided by four proposed pressure planes in order to provide appropriate water pressures to all customers in the system: North Town Hall Pressure Plane, North Ranch Pressure Plane, Denton Creek Pressure Plane, and Southside Pressure Plane. The Denton Creek Pressure Plane falls within both service areas. The North Water Service Area includes all or part of three separate pressure planes (North Town Hall Pressure Plane, North Ranch Pressure Plane, and part of the Denton Creek Pressure Plane). The South Service Area includes the Southside Pressure Plane and part of the Denton Creek Pressure Plane. Water from the higher elevation planes may flow to the lower planes, but water from the lower planes will not flow to the upper plane under normal circumstances. Figure 1 schematically shows how the systems are planned in buildout. Through the limits of this study, only the North Town Hall Pressure Plane and North Ranch Pressure Plane are anticipated to be connected.

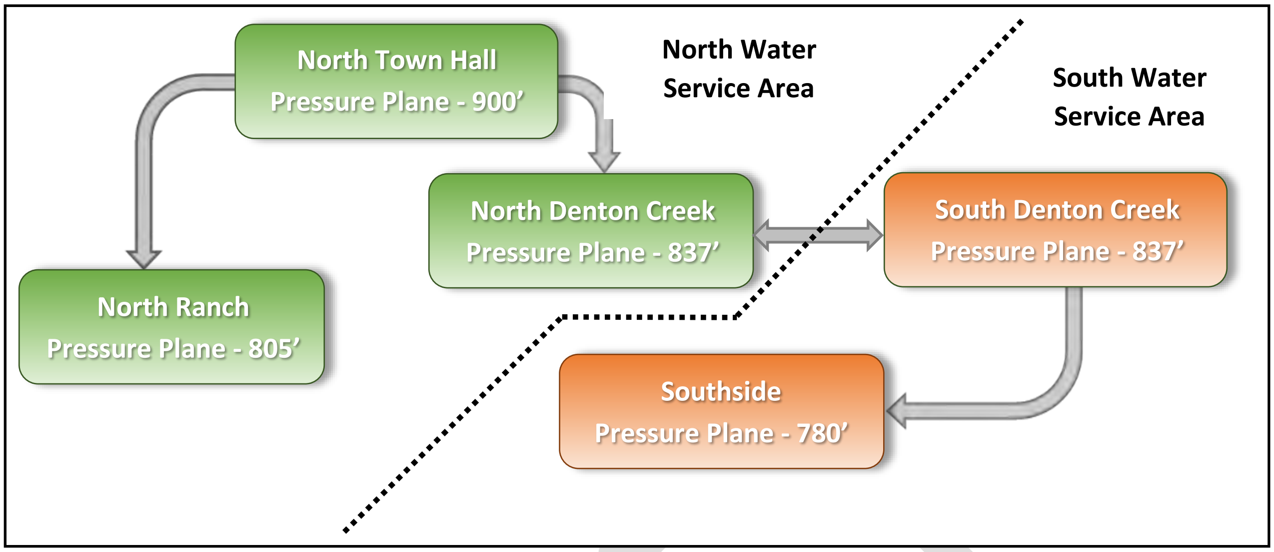


Figure 1: Proposed Water System Hydraulic Connectivity Schematic

The divide between service areas is important because Fort Worth assesses an impact fee in Northlake for water supply. Since the service areas are not anticipated to be linked within the 10-year planning period, this study establishes a clear boundary beyond which Fort Worth water will not be distributed, thereby establishing the area in which the Fort Worth impact fee should be assessed. The existing points of entry are shown in Exhibit 2.

Northlake's Sanitary Sewer Service Area encompasses 13,800 acres and is shown in Exhibit 2. The Sanitary Sewer Service Area includes an additional 1,736 acres of land west of FM 156 S compared to the Water Service Area and coincides with Northlake's sewer CCN (CCN #20866). Northlake is served by the Trinity River Authority's (TRA) Henrietta Creek and Graham Branch sanitary sewer interceptor systems via multiple points of entry. The flow is currently monitored by three metering stations for nine points of entry on Graham Branch and by three metering stations for three points of entry on Henrietta Creek. Flow from both interceptors convey flow to TRA'S Denton Creek sanitary sewer treatment facility for treatement.

On June 8, 2017, the Town of Northlake passed resolution no. 17-16 stating that the Town desired to protect the character of the Ranch Preservation area as identified in the Comprehensive Plan. The Ranch Preservation zone is generally in the northwest portion of Town. The Town intends to preserve this area and large lot development through "the reduction of sewer capacity in this area". Therefore, this area was removed from the Sanitary Sewer Service Area since the previous impact fee study.

2.2 Population and Growth Rate Projections

Northlake has experienced significant growth in the last few years, largely due to the addition of the Harvest and Canyon Falls master planned developments. Historical population estimates and resultant growth rates for Northlake are shown in Table 1.

Table 1: Historical Population and Growth Rates

Year	1990	2000	2010	2011	2012	2013	2014	2015	2016	2017
Population	250	921	1,724	1,867	1,950	2,050	2,150	2,237	2,660	3,010
Annual Population Growth	NA	67*	80*	143	83	100	100	87	423	350
Growth Rate	NA	27%*	8.7%*	8.3%	4.4%	5.1%	4.9%	4.0%	19%	13%

Data Sources: US Census Bureau, North Central Texas Council of Governments, and Texas Water Development Board
**Values are averages over 10-year time period*

The growth rate of Northlake is projected to increase through the duration of this study due to continued building of existing developments along with multiple new developments planned within the Town. Based on the densities established in the Comprehensive Plan and developable area within Northlake, the projected buildout population within Northlake is estimated to be about 50,300 people. This study assumes that developed acreages and utility connection count growth is proportional to the population growth curve. Table 2 and Figure 2 shows the population projections for Northlake through buildout.

Table 2: Northlake Population Projections Based on Land Use Development

Year	2017	2022	2027	2032	2042	2052	2062	2070
Population	3,010	9,000	16,950	24,200	35,900	43,600	50,300	50,300
Average Annual Growth	na	1,198	1,590	1,450	1,170	770	670	0
Annual Growth Rate	na	24.5%	13.5%	7.4%	4.0%	2.0%	1.4%	0.0%

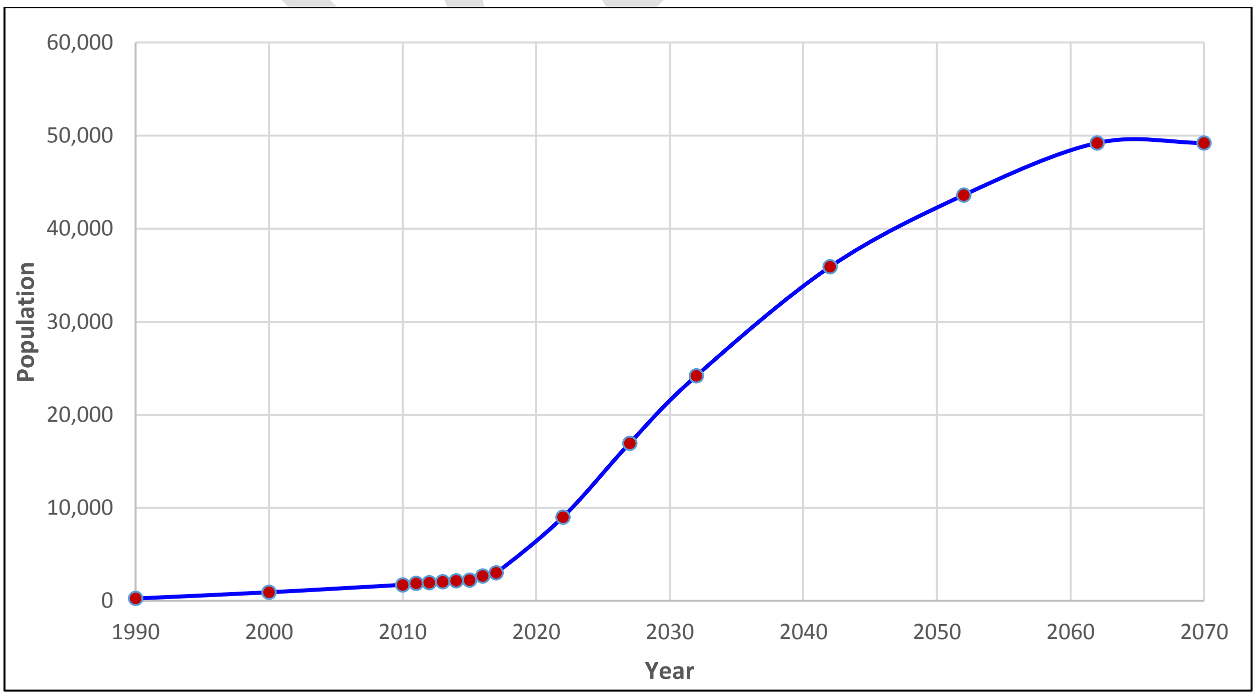


Figure 2: Historical and Projected Population

2.3 Future Land Use

The recent update to the Town's Comprehensive Plan created a future land use map that established geographical regions for seven types of future development and land uses (Appendix A). The seven zones were Neighborhood Residential, Ranch Preservation, Workforce Residential, Mixed Use, Business Park, Transitional Mixed Use, and Transitional Market Dependent. The Comprehensive Plan used broad categories describing each land use, such as residential and non-residential. The non-residential land use types were further subdivided into more detailed categories to reflect the varying types of non-residential usage: hotels, commercial, industrial, and institutional. The detailed breakdown aided in more accurately depicting the water demands and sanitary sewer flow rates in the hydraulic models.

The following list summarizes the assumptions made for usage and density percentages for each development type based on the Comprehensive Plan. The density percentages deviate from the Comprehensive Plan only in areas where an existing development falls within the boundaries of a zone but is not one of the proposed uses detailed in the Comprehensive Plan.

Neighborhood Residential (NR)

Use: Open Space (15%), Single Family Residential (73.4%), Residential Estates/Ranches (0.4%), Commercial (4%), and Institutional (8%)

Density: Average of three Single Family lots per acre and Non-Residential usage with an average Floor Area Ratio of 0.50

Ranch Preservation (RP)

Use: Single Family (41%), Residential Estates/Ranches (50%), Commercial (4%), Industrial (1%), and Institutional (4%)

Density: Average of one Single Family lot per five acres, one Ranch Estate lots per 20 acres, and Non-Residential usage with an average Floor Area Ratio of 0.50

Workforce Residential (WR)

Use: Open Space (5%), Multi-family (30%), Commercial (63%), and Hotel (2%)

Density: Average of 22 Multi-Family units per acre and Non-Residential usage with an average Floor Area Ratio of 0.50

Mixed Use (MU)

Use: Open Space (15%), Single Family Residential (20.5%), Multi-family (6%), Residential Estates/Ranches (1%), Commercial (45%), Industrial (1%), Hotel (6.5%), and Institutional (5%)

Density: Average of six Single Family lots per acre and 22 Multi-Family units per acre and Non-Residential usage with an average Floor Area Ratio of 0.50

Business Park (BP)

Use: Open Space (10%), Single Family Residential (3%), Residential Estates/Ranches (8%), Commercial (37%), Industrial (35%), Hotel (5%), and Manufactured Housing (2%)

Density: Non-Residential usage with an average Floor Area Ratio of 0.50

Transitional Mixed Use (TMU)

Use: Open Space (15%), Single Family Residential (23%), Multi-family (7%), Commercial (50%), and Institutional (5%)

Density: Average of four Single Family lots per acre and 22 Multi-Family units per acre and Non-Residential usage with an average Floor Area Ratio of 0.50

Transitional Market Dependent (TMD) - For the purpose of this study, the Transitional Market Dependent zone was considered the same as Transitional Mixed Use.

Exhibit 3 identifies the locations of existing and planned development within the Town and categorizes developed and undeveloped areas based on the aforementioned zones. With the exception of the Ranch Estates, land with existing development was assumed to retain its current development type and density regardless of the zoning. Table 3 summarizes the existing and future acreages by land use type.

Table 3 also shows estimated 2027 acreages by land use type. Development typically occurs earlier in areas where roads and utilities are easily accessible. The Town's thoroughfare plan is in Appendix B. This study assumes that land along highway and arterial corridors will begin developing first and the remaining undeveloped land will infill afterwards. If other areas develop first, the capital improvements plan would adjust accordingly based on the infrastructure identified in the master plan.

Table 3: Acreages by Land Use Type

Service Area		Land Use Type							Total Developable Area	Floodplain	Undeveloped Area	Total Service Area Acrage
		Neighborhood Residential	Ranch Preservation	Workforce Residential	Mixed Use	Business Park	Transitional Mixed Use	Transitional Market Dependent				
North	*Existing*	1,040	1,000	0	0	40	0	0	2,080	2,600	8,370	13,050
	2027	2,670	2,410	0	780	40	110	0	6,010		4,440	
	Buildout	3,320	4,800	0	1,160	1,000	170	0	10,450		0	
South	*Existing*	0	0	120	0	310	0	0	430	2,400	2,890	5,720
	2027	0	60	170	300	610	30	0	1,170		2,150	
	Buildout	0	230	230	1,710	610	540	0	3,320		0	
Sanitary Sewer	*Existing*	1,040	0	120	0	350	0	400	1,910	3,560	9,100	13,800
	2027	2,670	0	170	1,080	650	140	400	5,110		5,800	
	Buildout	3,320	0	230	2,870	1,610	710	1,500	10,240		0	

2.4 Service Unit Equivalents

The land use assumptions must include estimates for the amount of change in service units over the 10-year planning period. A service unit is a standardized measure of consumption attributable to an individual unit of development. The base service unit for the purposes of water and sanitary sewer impact fee studies is typically a water service connection to a single-family residence. In Northlake, a 3/4-inch water meter is currently used for single-family residences. The consumption attributable to other land use types can be related to a single family residence by a comparison of the water meter size required to serve the particular uses.

Table 4 shows standard water meter sizes and their maximum operating capacities as established in American Water Works Association Standards[3]. The ratio of each meter's capacity to a 3/4-inch meter's capacity establishes the Service Unit Equivalent (SUE) factor. This factor is used to relate the demand attributable to service units with larger water meters to the demand of a single-family residence, which is the base service unit. For instance, an industrial facility with a 2-inch meter has the potential of using 5.33 times as much water as a single-family residence, and thus counts as 5.33 service units. A single-family residence counts as a single service unit. The service unit equivalents in Table 5 are used for both water and sanitary sewer service units since sanitary sewer production is proportional to water demand.

Table 4: Service Unit Equivalents

Meter Size (Inches)	Meter Type	Maximum Capacity (gpm)	Ratio to 3/4" Meter (Service Unit Equivalent)
5/8	Displacement	20	**0.67**
3/4	Displacement	30	**1**
1	Displacement	50	**1.67**
1.5	Displacement	100	**3.33**
2	Displacement	160	**5.33**
3	Propeller	300	**10**
4	Propeller	600	**20**
6	Propeller	1,350	**45**
8	Propeller	1,800	**60**
10	Propeller	2,400	**80**

Table 5 identifies the existing and buildout SUE count for each service area based on the densities and areas established in the Comprehensive Plan. The existing SUEs reflect customers, platted developments, and developed land that may connect to the system in the future since impact fees can only be imposed on new, unplatted development. Existing development was not assumed to redevelop in the future. Appendix C details how the SUE counts were derived based on existing meter sizes and distributed for future development.

[3] AWWA C700-02, *Cold Water Meters – Displacement Type, Bronze Main Case* and AWWA C704-02, *Propeller-Type Meters for Waterworks Applications*

Table 5: SUEs by Land Use Type

Service Area		Neighborhood Residential	Ranch Preservation	Workforce Residential	Mixed Use	Business Park	Transitional Mixed Use	Transitional Market Dependent	Total
		Land Use Type							
North	*Existing*	2,310	580	0	10	40	0	0	2,940
	2027	5,890	1,160	0	1,400	40	210	0	8,700
	Buildout	6,000	4,320	0	2,120	880	350	0	13,670
South	*Existing*	0	0	780	0	190	0	0	970
	2027	0	30	900	560	570	50	0	2,110
	Buildout	0	210	900	3,110	1,090	1,110	0	6,420
Sanitary Sewer	*Existing*	2,310	0	780	10	230	0	370	3,700
	2027	5,890	0	900	1,960	610	260	370	9,990

The impact fee calculation is based on the difference between the total existing and total 2027 SUEs. The 2027 SUEs were determined based on the anticipated growth rates for Northlake and known planned subdivisions. Table 6 shows the anticipated total number of SUEs in 2027 by Service Area and the anticipated number of SUEs eligible to be charged an impact fee.

Table 6: 2027 SUEs Growth by Service Area

Service Area	10-Year SUE Growth
North	5,760
South	1,140
Sanitary Sewer	6,290

2.5 Existing and Future Water Demands

Existing wholesale water and meter data was reviewed to determine the historical daily water demands for Northlake. The historical water demands were used to establish an approximate flow from which future projections could be made. The average annual daily demand was approximately 0.66 MGD; the recorded maximum day water demand of 1.6 million gallons per day (MGD) occurred on August 5, 2016. This equates to an average daily demand of 125 gallons per capita day (gpcd) for the Town of Northlake. Water demand summary tables are located in Appendix D.

Combined with the densities and future land use from the Comprehensive Plan, the historical water demands were used to determine a demand per acre for each of the future land uses. Table 7 shows the average and maximum day water demand unit rates anticipated for Northlake. The ratio of maximum day demand to average day demand is based on historical usage in Northlake. The historical water usage per the various types of existing developments in Northlake are described in Appendix E.

Table 7: Usage Rate Assumptions by Land Use

Land Use Type	Water	
	Average Day	Maximum Day
	gpd/acre	*gpd/acre*
Neighborhood Residential	620	1,500
Ranch Preservation[1]	110	290
Workforce Residential	1,900	3,900
Mixed Use	1,300	2,900
Business Park	800	2,200
Transitional Mixed Use	1,100	2,500
Transitional Market Dependent	0	0

[1] Ranch Preservation usage rate is averaged across the entire land area designated in the Future Land Use plan. Developments with 1 acre lots are anticipated to use a higher demand per acre (approximately 390 gallons per day per acre on average) while ranch estates area anticipated to use a lower demand per acre than shown in the above table depending on the size.

The demand per acre values were applied to the undeveloped areas within Northlake to project the future water demands. The projected average and maximum day water demands for the Town are shown in Table 8. Based on the projected buildout population and demands, the average per capita demand is 200 gpcd including non-residential development. The future per capita demand is projected to be higher than the existing per capita demand because multi-family development represents 40 percent of the existing population and typically uses less water. As the Town grows with smaller lot developments, the per capita demand is anticipated to adjust accordingly.

Table 8: Northlake Water Demand Projections

Year	Average Day	Maximum Day
	mgd	*mgd*
2017	0.66	1.6
2027	3.85	9.26
Buildout	8.80	21.1

Halff accounted for usage variations over a standard 24-hour day and reflected these variances in the hydraulic model. The City of Fort Worth diurnal pattern for its Northside II pressure plane, which serves part of Northlake was used for the water demand patterns within Northlake's system. The diurnal graph shown in Figure 3 displays the multiplier for each hour of the day.

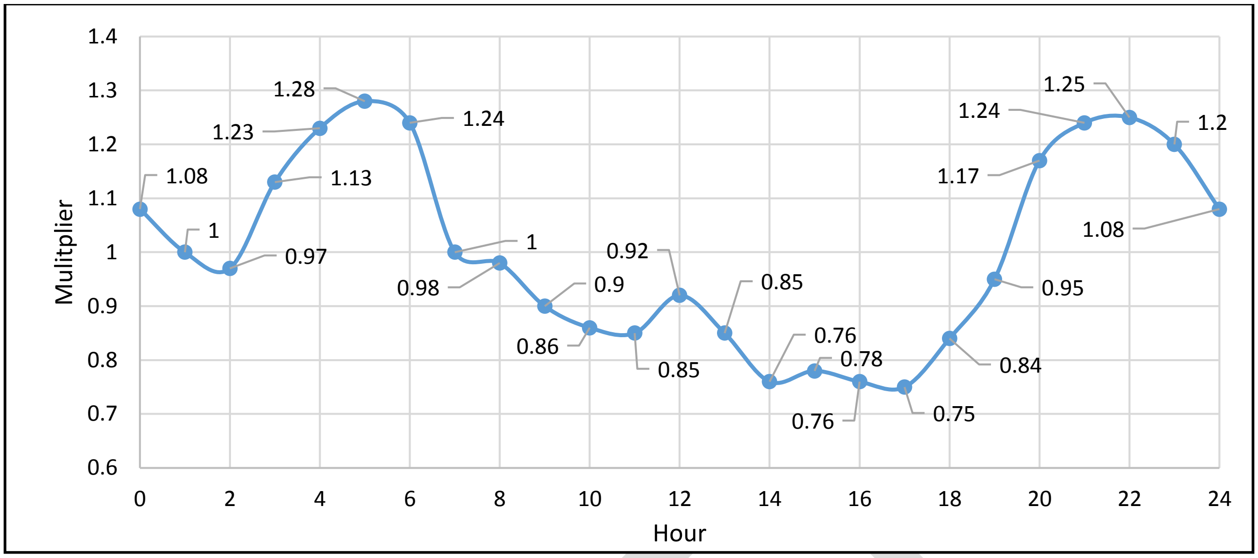


Figure 3: Northlake Assumed Diurnal Pattern

In 2004, the TWDB released a report from their Water Conservation Implementation Task Force recommending municipalities take action to achieve reduced water usage. Per the report, the Task Force recommended that an entity should consider "a minimum annual reduction of 1 percent in total per capita demand based on a five-year rolling average, until such time as the entity achieves a total daily per capita demand of 140 or less." Because Northlake's existing per capita demand is significantly above the recommended goal, this report reflects a reduction of 0.5 percent to occur naturally as development progresses and recommends Northlake strive to further reduce the per capita demand 140 gpcd goal set by the Task Force. Ironically, if Northlake were able to achieve an annual 1 percent reduction in demands, the 140 gpcd water demand goal would occur the same year Northlake was assumed to reach buildout, 2062.

2.6 Existing and Future Sanitary Sewer Flowrates

Northlake does not meter individual sanitary sewer accounts. The available flowrate data consists of monthly flowrates at Northlakes POEs into TRA's interceptor system. Additionally, some of the flows from Northlake to TRA were not being metered at the time of this report because the inline meters were too large for the relatively small amount of flow. Therefore, Halff did a comparison of the available metered sanitary sewer flow data with the same area of metered water data to determine a water to sanitary sewer ratio. By comparison, sanitary sewer flows consist of approximately 75 percent of water demands. Therefore, the assumed average daily flowrate for Northlake is 95 gpcd. Sanitary sewer flowrate summary tables are located in Appendix D.

Similar to water, a sanitary sewer flowrate per acre of land use was developed based on the calculated ratio to water demands. Table 9 also shows the average and peak wet-weather sanitary sewer usage. Per TCEQ 217.32.a.2, "When site-specific data is unavailable, the peak flow must be determined by multiplying the design flow by a factor of at least 4.0." For the purposes of this report, the peak wet-weather flowrate was established at approximately five times the average daily flow.

Table 9: Usage Rate Assumptions by Land Use

Land Use Type	Sanitary Sewer	
	Average	Peak Wet-Weather
	gpd/acre	*gpd/acre*
Neighborhood Residential	465	2,330
Ranch Preservation	0	0
Workforce Residential	1,425	7,130
Mixed Use	975	4,880
Buisness Park	600	3,000
Transitional Mixed Use	825	4,130
Transitional Market Dependent	675	3,380

The flowrate per acre values were applied to the undeveloped areas within Northlake to project the future sanitary sewer flowrates with the exception of Ranch Preservation, which will remain un-sewered. The projected average and peak wet-weather sanitary sewer flowrates for the Town are shown in Table 10. Based on the projected buildout population and flowrates, the average per capita flowrate is 150 gpcd including non-residential development.

Table 10: Northlake Sanitary Sewer Flowrate Projections

Year	Average Day	Peak Wet-Weather
	mgd	*mgd*
2017	0.49	2.49
2027	2.74	14.0
Buildout	6.53	33.5

3.0 WATER CAPITAL IMPROVEMENTS PLANS

The capital improvements plan is a 10-year outlook of water and sanitary sewer infrastructure needs to meet the Town's growing demands. The cost of the portion of the capital improvements used to meet the demands of new development within the 10-year growth period is eligible for reimbursement by the impact fees.

Halff performed hydraulic model analyses of the water distribution system using Innovyze InfoWater software. The primary goals of the analyses were to:

- Reflect the flows, pressures, and infrastructure of the existing system,
- Identify areas of needed improvements, and
- Provide long-term recommendations to accommodate flows through buildout conditions.

The water CIP developed for Northlake is for planning purposes; each CIP project should undergo further evaluation to verify location, materials, etc. prior to design and construction.

3.1 Existing Water System

The existing system was analyzed to evaluate existing deficiencies. Northridge Estates was assessed separately from the rest of the existing UTRWD Service Area since it has its own dedicated pump station. The Harvest distribution system fills the ground storage tank at Northridge Estates. The Canyon Falls and Southside systems both currently operate off of the wholesale provider's pressure. Halff conducted a series of field tests to determine actual field conditions and calibrated the hydraulic model to reflect field results. See Appendix F for the calibration analysis.

3.2 Water Master Plan

Halff updated the Town's water master plan to revise estimates for the ultimate infrastructure needs in Northlake. The Town's ultimate water demands projected in the land use assumptions were input into the hydraulic model to estimate required infrastructure capacities.

The master plan and CIP development considered proposed distribution mains 12-inches in diameter or larger and all existing pipes. The following criteria were used to estimate required distribution system sizes including ground storage tanks, elevated storage tanks, and pipelines.

- Maximum friction headloss = 7 feet per 1,000 feet of pipe length for domestic demand scenarios
- Maximum velocity = 8 feet/second
- Hazen-Williams C-Factor = 130 for new pipe diameters. Existing pipe roughness factors were established as part of the model calibration.
- Minimum domestic demand system pressure = 35 psi
- Minimum fire demand system pressure = 20 psi
- Fire flow demand = 3,000 gpm for three hours in Business Park and 1,500 gpm for three hours elsewhere
- Elevated Storage Tanks = Volume of 40 percent of peak hour demand for 3 hours and enough to retain enough volume in each pressure plane to meet the fire flow demand
- Ground Storage Tanks = Volume of 8 hours of max day demand
- Pump Stations = The ability to meet peak hour demand with the largest pump out of service

In addition to the design criteria listed previously, the water improvements in the master plans were checked against minimum TCEQ capacity requirements. The State of Texas requires the following minimum water system capacities for each pressure plane in community water systems with more than 250 connections (30 TAC §290.45).

- Pressure tank capacity of 20 gallons per connection with maximum capacity of 30,000 gallons if less than 2,500 connections
- Elevated storage volume – 100 gallons per connection, mandatory when 2,500 or more connections are present
- Total storage volume – 200 gallons per connection
- Pump capacity – 2.0 gpm per connection, or the ability to meet peak hour demand with the largest pump out of service, whichever is less.

Table 11 shows the minimum water facility capacity requirements for each pressure plane based on the Town's land use assumptions. The table also shows the estimated facility capacities based on the water model results. The SUE in Table 11 refers to the number of water customers.

Table 11: Current, 10-year, and Buildout Infrastructure Regulatory Requirements Comparison

Water Service Area		SUE	Required Pumping Capacity	Actual Pumping Capacity	Required Elevated Storage	Proposed Elevated Storage	Required Total Storage	Proposed Total Storage
			gpm	*gpm*	*MG*	*MG*	*MG*	*MG*
Existing	Northridge Estates[1]	166	332	360	0.0	0.0	0.03	0.2
	North Town Hall/Ranch	879	1,758	2,277	0.0	0.0	0.18	0.6
	North Denton Creek[2]	418	836	3,114	0.0	0.0	0.08	0.75
2027	North Town Hall/Ranch	4,924	2,954	4,054	0.5	1.3	1.0	1.9
	North Denton Creek	2,359	2,427	3,114	0.0	0.0	0.5	0.75
	Southside	2,028	1,217	2,200	0.0	0.75	0.4	1.25
Buildout	North Town Hall/Ranch	8,671	8,922	9,000	0.9	1.3	1.7	3.9
	North Denton Creek[3]	4,972	2,983	4,671	0.5	0.63	1.0	2.9
	Southside	2,036	1,222	4,200	0.0	0.75	0.4	1.8
	South Denton Creek[3]	4,447	2,668	5,858	0.4	0.63	0.9	2.9

1 NRE assumed to be part of North Town Hall/Ranch in the future.
2 Values based on proposed Canyon Fallos pump station.
3 The Denton Creek Service Area in Buildout shares the elevated storage capacity and requirement because the future elevated storage tank serves both service areas. The sum of the values in the table reflect the required and actual capacities.

The North Ranch Pressure Plane and North Town Hall Pressure Plane are the only pressure planes anticipated to be connected in 2027. Water can flow from the North Town Hall pressure plane into the North Ranch pressure plane but not the reverse. Therefore, the infrastructure in the North Town Hall pressure plane must also be sized to accommodate the connections in the North Ranch pressure plane. Likewise, in buildout conditions, all pressure planes are assumed to be hydraulically connected, but flow will be restricted from higher pressure planes to lower.

3.3 Water 10-Year Capital Improvement Plans

The 10-year (2017-2027) capital improvements plan (CIP) includes master plan infrastructure in the areas of town where development is expected in the next 10 years. As stated previously, development tends to closely follow existing infrastructure. Therefore, the development is anticipated to follow major thoroughfares and currently established development and expand outward from those focal points.

The size of the water capital improvements were determined based on Northlake's demands at build-out. The CIPs were modeled to verify that the infrastructure meets minimum design requirements. Exhibit 4 shows the town's proposed 10-year water capital improvements plan.

Table 12 lists the water projects and estimates for each project's total cost. Detailed cost estimates for each project are provided in Appendix G. Projects are labeled in a manner that identifies the infrastructure type (water or sewer), type of improvement (abbreviated below), and proposed year of construction.

- PL – Pipeline
- PS – Pump Station
- GST – Ground Storage Tank
- EST – Elevated Storage Tank
- N – North Service Area supplied from water from Upper Trinity
- S – South Service Area supplied from water from Fort Worth

The opinions of probable construction costs (OPCC) were developed based on actual construction costs for similar projects in North Texas. The estimates include the following items:

- Construction costs, complete in place.
    - Pavement replacement costs are included where pipe lines cross existing streets.
    - Pipe boring and encasement costs are included for pipe lines crossing TxDOT facilities and other right-of-ways where open cut construction is not feasible.
- Land acquisition costs for facilities not in future Town rights-of-way.
- A 25 percent contingency factor.
- Assumed annual inflation of four percent.
- Engineering and surveying fee estimates.
- Financing costs, equivalent to interest paid on a 20-year bond at five percent annually.

Table 12: Water CIP and Estimated Costs

Project	Description	Total Project
EX CF WL	Existing Canyon Falls waterlines.	$689,000
EX 20" WL	20" waterline connection the Harvest pump station to the NRE pump station.	$200,000
WN18A	12" waterline beginning at the intersection of Faith Lane and Faught Road and extends to the Harvest Development.	$2,315,000
WN18B	New 750,000 gallon ground storage tank and 5.2 MGD pump station for Canyon Falls.	$15,453,000
WS18A	12" waterline along Interstate 35 West Service Road to Ashmore Lane.	$674,000
WS18B	12" waterline along 114 between Chadwick Pkwy and Cleveland Gibbs Road.	$745,000
WN19	12" waterline East of Woodhill Farm extending from FM 407 to FM 335.	$2,650,000

Table 12 Continued: Water CIP and Estimated Costs

Project	Description	Total Project
WS19	16" waterline along Interstate 35 West Service Road from Ashmore Lane to Dale Earnhardt Way.	$2,232,000
WN20A	12" waterlines directly North of Harvestfrom Robson Ranch Road to FM 317 from Northwest to Southeast and from North to South.	$5,094,000
WN20B	New 1 MG elevated storage tank located North of Old Justin Road and East of the existing Brian's Place neighborhood.	$9,979,000
WS20	16" waterline connecting the intersection of E Sam Lee Lane and Cleveland Gibbs Road to Dale Earnhardt Way.	$2,696,000
WN21A	12" waterline that connects Canyon Falls to Cross Timbers Road.	$883,000
WN21B	12" waterline that connects Cross Timbers Road to Airport Road.	$1,963,000
WN21C	16" waterline along FM 338 from FM 335 to FM 407.	$3,187,000
WS21	12" waterline from Dale Earnhardt Way to Denton Creek on the West side of Highway 35W.	$2,541,000
WN22A	12" waterline starting at Yarbrough Way and Robson Ranch Road heading East and continues past FM 334.	$2,210,000
WN22B	16" waterline connecting Canyon Falls to the East side of Highway 35W along Cross Timbers Road.	$2,771,000
WN23A	16" waterline from Cross Timbers Road on the East side of Highway 35W down the Highway until Denton Creek.	$2,753,000
WN23B	12" waterline connecting the southern portion of Pecan Squares along FM 335.	$1,939,000
WN23C	One 1777 gpm Pump at Harvest pump station and a VFD.	$1,939,000
WN24	16" waterline from the intersection of Canyon Falls Drive and Westbridge Drive and extends perpendicular to FM 338.	$3,686,000
WS24A	12" waterline from Highway 35W along Dale Earnhardt Way, north on Harmonson Road, and extends back East towards Highway 35W.	$8,823,000
WS24B	New 500,000 gallon ground storage tank and 3.1 MGD pump station for Southside.	$11,967,000
WN25A	12" waterline along Evelyn Lane from Florance Road to Old Justin Road.	$3,789,000
WN25B	16" waterline heading south from Taglewood Trail and FM 338 down to Cross Timbers Road, then heads west to Highway 35W and crosses over the highway. Before the highway a 12" waterline runs parallel to Highway 35W up to FM 338. To the west a 16" waterline crosses the highway, and to the east a 20" waterline connects back to Canyon Falls.	$7,285,000
WS25	New 0.75 MG elevated storage tank located in the Industrial region of Southside, south of E Sam Lee Lane.	$9,106,000
WN26A	12" waterline on the parallel to Highway 35W on the west side of Highway 35W near the Canyon Falls development.	$2,546,000
WN26B	12" waterline on the West side that loops to connect to project WS26B.	$5,493,000
WN27A	16" waterline that connects the southeast corner of the Airport Road loop to Cleveland Gibbs Road.	$2,494,000
WN27B	12" waterline that connects Cleveland Gibbs Road to the east side of Highway 35W.	$2,395,000
Total		$126,509,000

In addition to the Town CIP projects to distribute water, a cost is associated with the treatment and conveyance of treated water to Northlake by Fort Worth and UTRWD. Fort Worth's costs are recouped via their own impact fee, which will be added to the Northlake impact fee for the South ater Service Area.

UTRWD capital costs attributable to Northlake's demand can be included in the impact fee calculation. Table 13 shows UTRWD's debt service scheduled over the next ten years for their Regional Treated Water System, according to the UTRWD FY 2017-2018 Adopted Budget. The current water treatment capacity in the UTRWD Regional Treated Water System is 70 mgd. The table also shows the portion of the UTRWD debt service assumed to be attributable to Northlake based on Northlake's 10-year water demand projections.

Table 13: 10-year UTRWD Treatment and Conveyance Costs Attributable to Northlake

Year	UTRWD Debt Service	Project Northlake Demand Supplied by UTRWD[1] (MGD)	Capacity Attibuted to Northlake	UTRWD Debt Attributed to Northlake
2018	$20,037,145	1.30	1.85%	$370,973
2019	$18,478,125	1.75	2.50%	$461,610
2020	$18,043,560	2.20	3.14%	$567,444
2021	$16,653,825	2.65	3.79%	$631,442
2022	$16,770,530	3.11	4.44%	$744,324
2023	$18,440,795	3.56	5.09%	$937,714
2024	$18,930,875	4.01	5.73%	$1,085,064
2025	$16,591,790	4.46	6.38%	$1,058,295
2026	$14,142,720	4.92	7.03%	$993,546
2027	$12,919,835	5.37	7.67%	$991,191
			Total	**$7,841,604**

1 Approximately 81% of Northlake's total demand is projected to be supplied by UTRWD in 2027.

3.4 Water Infrastructure Utilization

An impact fee can only include the portion of the capital improvements costs attributable to that portion of capacity utilized by new development within the 10-year planning period. The infrastructure utilization is directly proportional to the buildout percentage of the Town. The difference in connection counts relative to the buildout connection counts was used to determine the the new development SUE utilization percentage as demonstrated in the SUE equation below.

$$New\ Development\ Utilization\ (\%) = \frac{2027\ SUEs - 2017\ SUEs}{Buildout\ SUEs}$$

As an example, assume a one million gallon storage tank is needed to accommodate buildout demands. The pressure plane utilizing the storage tank is only 10 percent built out currently and will be 35 percent built out in 2027. Therefore, 25 percent of the total cost of the storage tank is eligible for impact fee reimbursement by 2027. Table 14 respresents the utilization rate for each service area for 2017, 2027, and buildout based on SUE counts.

Table 14: Utilization by Service Area

Year	Water Service Area and Utilization			
	North		South	
	SUE	% Utilization	SUE	% Utilization
2017	2,920	21%	970	15%
2027	8,670	64%	2,150	33%
Buildout	13,600	100%	6,500	100%
10-year Utilization	43%		18%	

3.5 Water Eligible Project Costs

The cost attributable to new development is the proportional cost eligible for inclusion in the impact fee calculation. Tables 15 and 16 show the eligible costs of the water CIP projects in the UTRWD and Fort Worth Service Areas, respectively. Table 15 includes the eligible cost of UTRWD debt service attributable to new development in Northlake.

Table 15: Eligible Costs for UTRWD Service Area Water Infrastructure

Project	Eligible Utilization	Total Project Costs	Eligible Project Costs
Existing CF WL	43.0%	$689,000	$296,270
EX 20" WL	43.0%	$200,000	$86,000
WN18A	43.0%	$2,077,000	$893,110
WN18B	43.0%	$14,900,000	$6,407,000
WN19	43.0%	$2,650,000	$1,139,500
WN20A	43.0%	$5,094,000	$2,190,420
WN20B	43.0%	$12,474,000	$5,363,820
WN21A	43.0%	$883,000	$379,690
WN21B	43.0%	$1,963,000	$844,090
WN21C	43.0%	$3,187,000	$1,370,410
WN22A	43.0%	$2,210,000	$950,300
WN22B	43.0%	$2,771,000	$1,191,530
WN23A	43.0%	$2,655,000	$1,141,650
WN23B	43.0%	$1,869,000	$803,670
WN23C	43.0%	$1,869,000	$803,670
WN24	43.0%	$3,555,000	$1,528,650
WN25A	43.0%	$3,789,000	$1,629,270
WN25B	43.0%	$7,025,000	$3,020,750
WN26A	43.0%	$2,546,000	$1,094,780
WN26B	43.0%	$5,297,000	$2,277,710
WN27A	43.0%	$2,405,000	$1,034,150
WN27B	43.0%	$2,310,000	$993,300
W IF Study	25.0%	$76,200	$19,050
UTRWD	43.0%	$7,841,604	$3,371,890
		Total	$38,830,680

Table 16: Eligible Costs for Fort Worth Service Area Water Infrastructure

Project	Eligible Utilization	Total Project Costs	Eligible Project Costs
WS18A	18.0%	$650,000	$117,000
WS18B	18.0%	$718,000	$129,240
WS19	18.0%	$2,153,000	$387,540
WS20	18.0%	$2,600,000	$468,000
WS21	18.0%	$2,451,000	$441,180
WS24A	18.0%	$8,508,000	$1,531,440
WS24B	18.0%	$11,539,000	$2,077,020
WS25	18.0%	$8,782,000	$1,580,760
W IF Study	25%	$76,200	$19,050
		Total	$6,751,230

3.6 Water Impact Fees

The impact fee for each infrastructure system is determined by dividing the eligible cost of the capital improvements by the increase of service units from projected new development during the study period. Table 17 shows the calculated maximum unadjusted water and sanitary sewer impact fees for a standard service unit (a 3/4-inch water meter).

Table 17: Adjusted Maximum Impact Fees

Service Area	2017-2027 SUE Increase	Total Eligible Costs	Maximum Impact Fee
Water Service Areas			
North Service Area	5,760	$38,830,680	$3,371
South Service Area	1,140	$6,751,230	$2,961

The impact fee analysis must include a schedule that discounts from the maximum impact fee the amount of utility service revenues or ad valorem taxes that are allocated to capital improvements included in the CIP. Alternately, a credit of 50 percent can be applied to the eligible CIP cost. Table 18 shows the adjusted water impact fees for different meter sizes assuming the 50 percent credit is applied. These values are calculated by multiplying the impact fee for the base service unit by the service unit equivalency factors in Table 4. Table 18 includes the current Fort Worth water impact fees for the South Service Area.

Table 18: Adjusted Water Maximum Impact Fees by Meter Size

Meter Size	Water Service Areas	
	North	South
5/8"	$2,259	$2,955
3/4"	$3,371	$4,418
1"	$5,630	$7,373
1.5"	$11,225	$14,717
2"	$17,967	$23,553
3"	$33,710	$50,737
4"	$67,420	$95,646
6"	$151,695	$910,334
8"	$202,260	$313,651
10"	$269,680	$440,867

4.0 SANITARY SEWER CAPITAL IMPROVEMENTS PLANS

Halff also performed hydraulic model analyses of the sanitary sewer collection systems using Innovyze ICM 6.5. The primary goals of the analyses were the same as water:

- Reflect the conditions and operation of the existing systems,
- Identify areas of needed improvements, and
- Provide long-term recommendations to accommodate flows through buildout conditions.

As with the water CIP, the sanitary sewer CIP developed for Northlake are for planning purposes. Halff recommends that each CIP project undergo further evaluation to verify capacity and location prior to design and construction.

4.1 Existing Sanitary Sewer System

The existing system consists of small collector mains before they connect to TRA interceptors in multiple locations. The existing mains were evaluated as part of the overall system to estimate needed improvements based on exsiting flows and future routing of flows.

4.2 Sanitary Sewer Master Plan

Halff developed a sanitary sewer master plan to estimate the ultimate infrastructure needs in Northlake through buildout. The Town's ultimate sanitary sewer flowrates projected in the land use assumptions were input into a hydraulic model of the sewer collection system to verify the infrastructure capacity.

The sanitary sewer improvements in the master plans were sized to meet TCEQ capacity requirements. The State of Texas requires the following sanitary sewer system capacities (30 TAC §217.53).

- Minimum velocity = 2 feet/second at full flow
- Maximum velocity = 10 feet/second at full flow
- No surcharging of manholes (i.e. the peak flow is fully contained in the pipe)

Additionally, Halff attempted to minimize lift stations and aerial crossings, thereby reducing long-term maintenance requirements. The Northlake topography allows for a sanitary sewer interceptor system that flows entirely by gravity; lift stations will not be necessary if the sanitary sewer infrastructure is appropriately phased. Pipe slopes were estimated based on existing topography, maintaining at least three feet of cover over the top of pipe. Future pipes less than 8-inches in diameter were excluded from the analysis.

4.3 Sanitary Sewer 10-Year Capital Improvement Plans

Exhibit 5 shows the town's proposed 10-year water capital improvements plan. Table 19 lists the sanitary sewer projects and estimates for each project's total cost. Detailed cost estimates for each project are provided in Appendix H. The sanitary sewer capital improvements plan assumes that development will occur in a manner that will prevent the need for lift stations. If a development is planned in an area of town that is geographically separated from the existing collection system, a temporary lift station may be necessary to deliver flow across Town.

Projects are listed sequentially by date of anticipated construction. The first letter, an S, indicates that the project is sanitary sewer infrastructure. The last letter indicates the sequential segments of the same pipe. The OPCCs were developed in the same manner as water. See the *Water 10-Year Capital Improvement Plans* section for a description of the costs attributed to each project's OPCC.

Table 19: Sanitary Sewer CIP and Estimated Costs

Project	Description	Total Project Cost
S18A	54'' SS line along Denton Creek southeast of IH-35W crossing SH 338	$ 8,311,000
S18B	12'' SS line south of IH-35W intercepting to SS line along Denton Creek	$ 685,000
S18C	8'' SS line south of IH-35W intercepting to SS line along Denton Creek	$ 499,000
S20A	48'' SS line along Denton Creek southeast of IH-35W	$ 366,000
S20B	30'' SS line running from IH-35W to Denton Creek along Catherine Branch	$ 1,822,000
S20C	24'' SS line crossing IH-35W along Catherine Branch	$ 2,806,000
S22A	48'' SS line along Denton Creek southeast of IH-35W	$ 1,282,000
S22B	21'' SS line crossing Denton Creek southeast of IH-35W	$ 989,000
S22C	18'' SS line along Cleveland Branch southeast of IH-35W	$ 2,047,000
S22D	12'' SS line along Cleveland Branch southeast of IH-35W	$ 1,201,000
S24A	36'' SS line along Denton Creek crossing IH-35W	$ 6,133,000
S24B	24'' SS line crossing Denton Creek northwest of IH-35W	$ 492,000
S24C	10'' SS line along Cleveland Branch crossing SH 1171 east of IH-35W	$ 1,695,000
S26A	21'' SS line from Denton Creek crossing to SH 1171, west of IH-35W	$ 1,104,000
S26B	18'' SS line from SH 1171, west of IH-35W	$ 3,281,000
S26C	15'' SS line from SH 1171, west of IH-35W	$ 1,717,000
	Total	**$ 34,430,000**

In addition to the Town CIP projects to collect sanitary sewer, a cost is associated with the treatment and disposal of sanitary sewer by the Trinity River Authority. TRA capital costs attributable to Northlake's flowrate can be included in the impact fee calculation. Table 20 shows TRA's debt service for their Denton Creek Regional Wastewater System according to their FY 2018 Budget. The 2018 year end debt service was assumed to be sustained through the timeframe of this report. The current treatment capacity in the Denton Creek Regional Wastewater System is 11.5 mgd. The table shows the portion of the TRA debt service assumed to be attributable to Northlake based on Northlake's 10-year sanitary sewer flowrate projections.

Table 20: 10-year TRA Treatment and Conveyance Costs Attributable to Northlake

Year	TRA Debt Service	Project Northlake Flowrate to TRA (MGD)	Capacity Atributed to Northlake	TRA Debt Attributed to Northlake
2018	$ 11,312,709	0.49	4.3%	$ 482,020
2019	$ 11,104,223	0.74	6.4%	$ 714,533
2020	$ 11,104,223	0.99	8.6%	$ 955,929
2021	$ 11,104,223	1.24	10.8%	$ 1,197,325
2022	$ 11,104,223	1.49	13.0%	$ 1,438,721
2023	$ 11,104,223	1.74	15.1%	$ 1,680,117
2024	$ 11,104,223	1.99	17.3%	$ 1,921,513
2025	$ 11,104,223	2.24	19.5%	$ 2,162,910
2026	$ 11,104,223	2.49	21.7%	$ 2,404,306
2027	$ 11,104,223	2.74	23.8%	$ 2,645,702
			Total	**$ 15,603,075**

4.4 Sanitary Sewer Infrastructure Utilization

An impact fee can only include the portion of the capital improvements costs attributable to that portion of capacity utilized by new development within the 10-year planning period. Table 21 shows the flowrates simulated in the hydraulic model for each infrastructure component in the sanitary sewer CIP. The flowrate values are the total flows passing through each infrastructure project during peak flow. Note that all existing development is assumed to be connected to the sanitary sewer collection system in 2017 pursuant to the land use assumptions. The 10-year sanitary sewer utilization rate is directly proportional to the percentage of each infrastructure's utilized capacity. Table 20 shows the utilization rates of the sanitary sewer capital improvements.

Table 21: 10-Year Utilization of Sanitary Sewer Capital Improvements

Project	2017 Daily Flow (mgd)	2027 Daily Flow (mgd)	Ultimate Daily Flow (mgd)	2017 Utilization	10-Year Utilization
S18A	0.00	9.26	29.36	0.0%	31.5%
S18B	0.00	8.70	28.59	0.0%	30.4%
S18C	0.00	6.63	17.84	0.0%	37.2%
S20A	0.00	3.04	12.53	0.0%	24.3%
S20B	0.00	3.04	4.76	0.0%	63.9%
S20C	0.00	2.39	4.12	0.0%	58.0%
S22A	0.00	1.11	2.84	0.0%	39.1%
S22B	0.00	0.97	2.01	0.0%	48.3%
S22C	0.00	0.41	0.63	0.0%	65.1%
S22D	0.00	0.75	0.75	0.0%	100.0%
S24A	0.00	0.37	0.37	0.0%	100.0%
S24B	0.00	1.84	10.76	0.0%	17.1%
S24C	0.00	1.42	10.34	0.0%	13.7%
S26A	0.00	3.60	5.33	0.0%	67.5%
S26B	0.00	2.82	3.80	0.0%	74.2%
S26C	0.00	2.29	2.59	0.0%	88.4%

4.5 Sanitary Sewer Eligible Project Costs

The cost attributable to new development is the proportional cost eligible for inclusion in the impact fee calculation. The eligible cost for each infrastructure component equals the difference between the 2027 and 2017 utilization percentages multiplied by the total project cost. Table 22 shows the eligible cost of each sanitary sewer CIP project.

Table 22: Eligible Costs for Sanitary Sewer Infrastructure

Project	Eligible Utilization	Total Project Costs	Eligible Project Costs
S18A	32%	$8,311,000	$2,659,520
S18B	100%	$685,000	$685,000
S18C	100%	$499,000	$499,000
S20A	30%	$366,000	$109,800
S20B	17%	$1,822,000	$309,740
S20C	14%	$2,806,000	$392,840
S22A	39%	$1,282,000	$499,980
S22B	65%	$989,000	$642,850
S22C	72%	$2,047,000	$1,473,840
S22D	88%	$1,201,000	$1,056,880
S24A	28%	$6,133,000	$1,717,240
S24B	63%	$492,000	$309,960
S24C	80%	$1,695,000	$1,356,000
S26A	59%	$1,104,000	$651,360
S26B	48%	$3,281,000	$1,574,880
S26C	61%	$1,717,000	$1,047,370
WW IF Study	50%	$76,200	$38,100
TRA	31%	$ 15,603,075	$4,821,350
Total			**$19,845,710**

4.6 Sanitary Sewer Impact Fees

The impact fee for each infrastructure system is determined by dividing the eligible cost of the capital improvements by the increase of service units from projected new development during the study period. Table 23 shows the calculated maximum unadjusted water and sanitary sewer impact fees for a standard service unit (a 3/4-inch water meter).

The impact fee analysis must include a schedule that discounts from the maximum impact fee the amount of utility service revenues or ad valorem taxes that are allocated to capital improvements included in the CIP. Alternately, a credit of 50 percent can be applied to the eligible CIP cost. The tables in this section show the adjusted maximum water and sanitary sewer impact fees assuming the 50 percent credit is applied. The unadjusted impact fees are available in Appendix I.

Table 23: Adjusted Maximum Impact Fees

Service Area	2017-2027 SUE Increase	Total Eligible Costs	Maximum Impact Fee
Sanitary Sewer Service Areas			
Sanitary Sewer	6,290	$19,845,710	$1,578

Table 24 shows the adjusted sanitary sewer impact fees for different meter sizes.

Table 24: Adjusted Sanitary Sewer Maximum Impact Fees by Meter Size

Meter Size	Sanitary Sewer Service Area
5/8"	$1,057
3/4"	$1,578
1"	$2,635
1.5"	$5,255
2"	$8,411
3"	$15,780
4"	$31,560
6"	$71,010
8"	$94,680
10"	$126,240

5.0 COMPARISON OF LOCAL IMPACT FEES

Table 25 and Figures 4 and 5 show the actual impact fees adopted by other local municipalities for their base meter size. The Northlake fees in the table reflect the values with the 50 percent adjustment.

Table 25: Impact Fees of Other Local Municipalities

Municipality	Water Impact Fee	Sanitary Sewer Impact Fee	Base Meter Size
Northlake North[1]	$3,371	$1,578	3/4"
Northlake South[2]	$2,961		3/4"
Flower Mound	$4,098	$3,045	5/8"
Denton	$3,900	$2,200	5/8"
Lewisville	$3,165	$2,724	3/4"
Haslet	$2,292	$1,978	5/8"
Waxahachie	$2,206	$1,854	3/4"
Southlake	$2,815	$1,675	1"
Justin	$4,670	$6,046	3/4"
Weatherford	$2,157	$1,839	3/4"
Grapevine	$1,431	$760	3/4"
Keller	$979	$918	5/8"
Azle	$822	$1,428	3/4"
Arlington	$828.13	$418	3/4"

1 *Northlake Sanitary Sewer Impact Fee in not eligible to be charged to development in the Ranch Preservation land use area.*

2 *Table does not reflect the Fort Worth Impact Fee ($1,457 for a ¾" meter)*

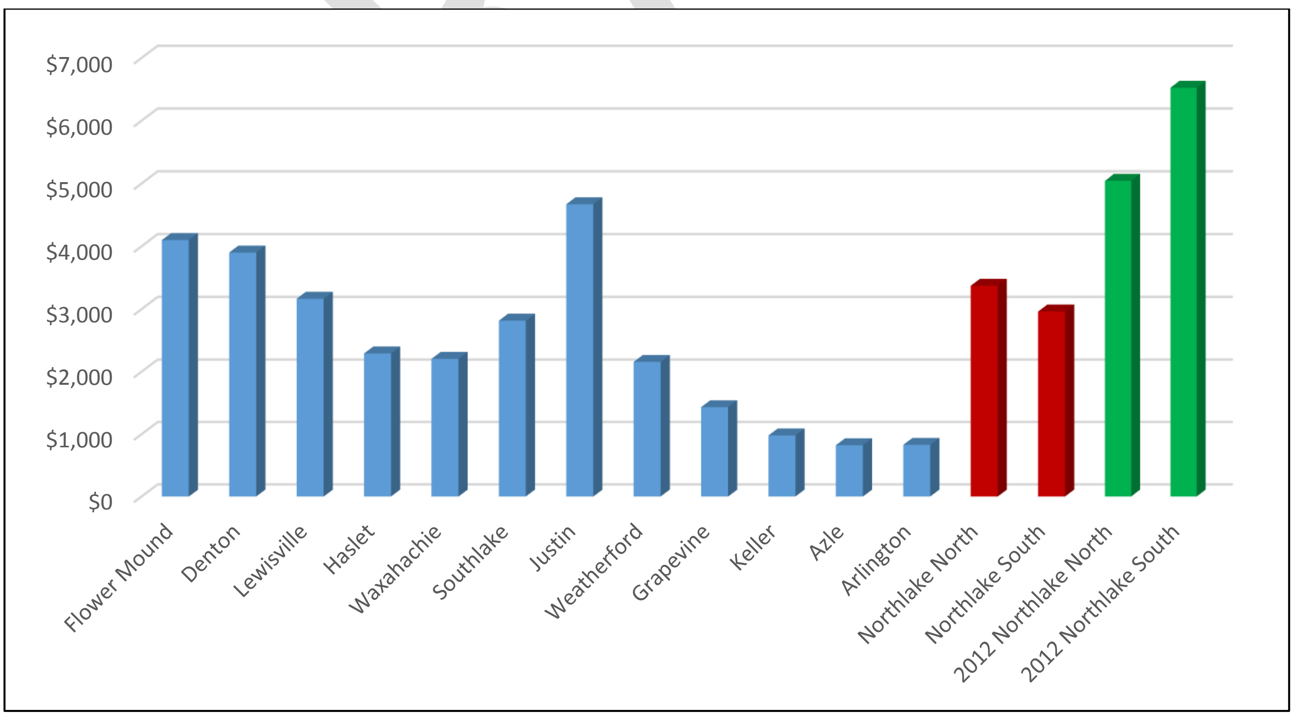


Figure 4: Local Water Impact Fee Comparisons

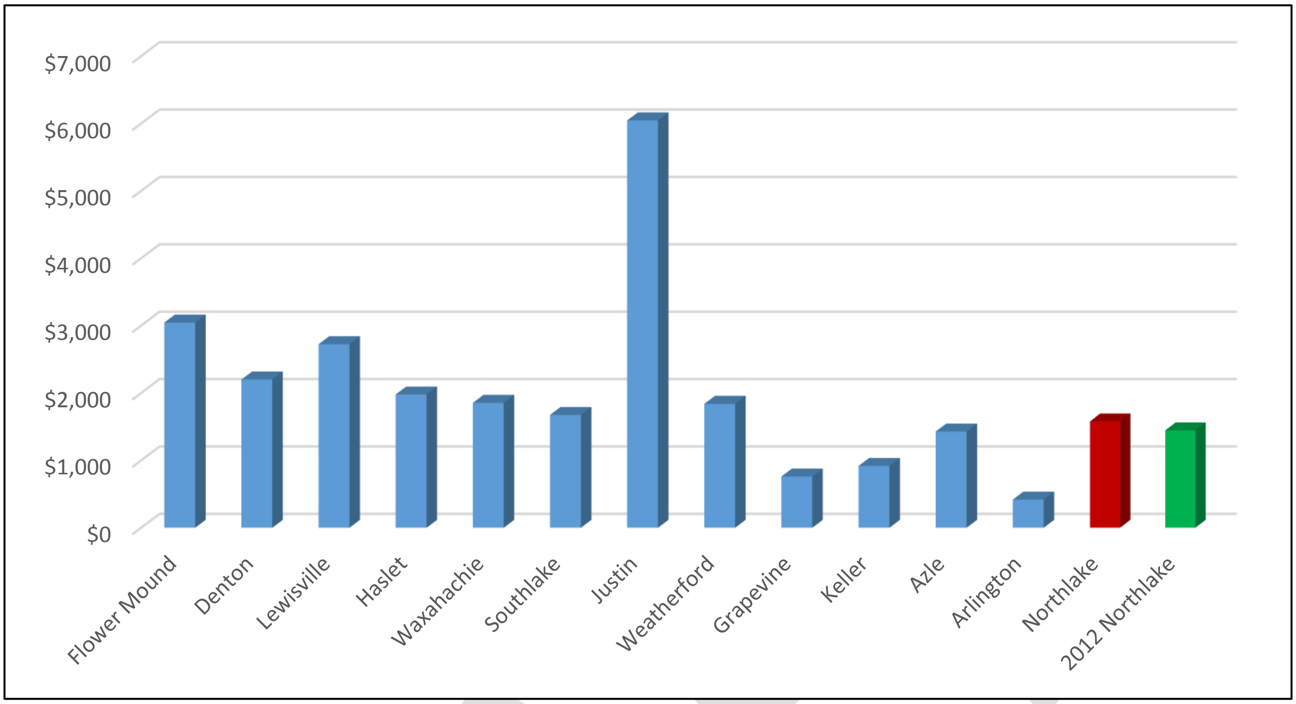
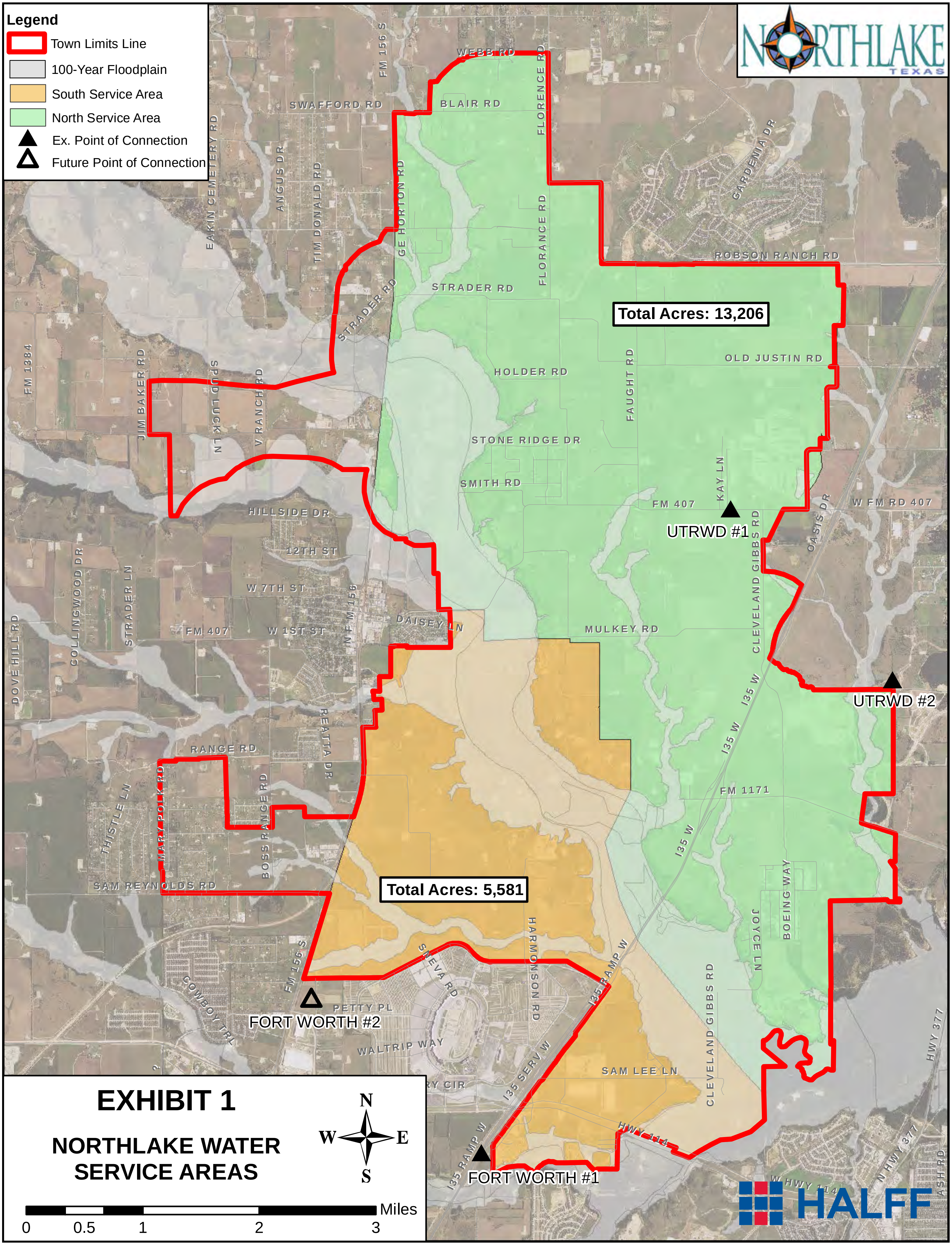
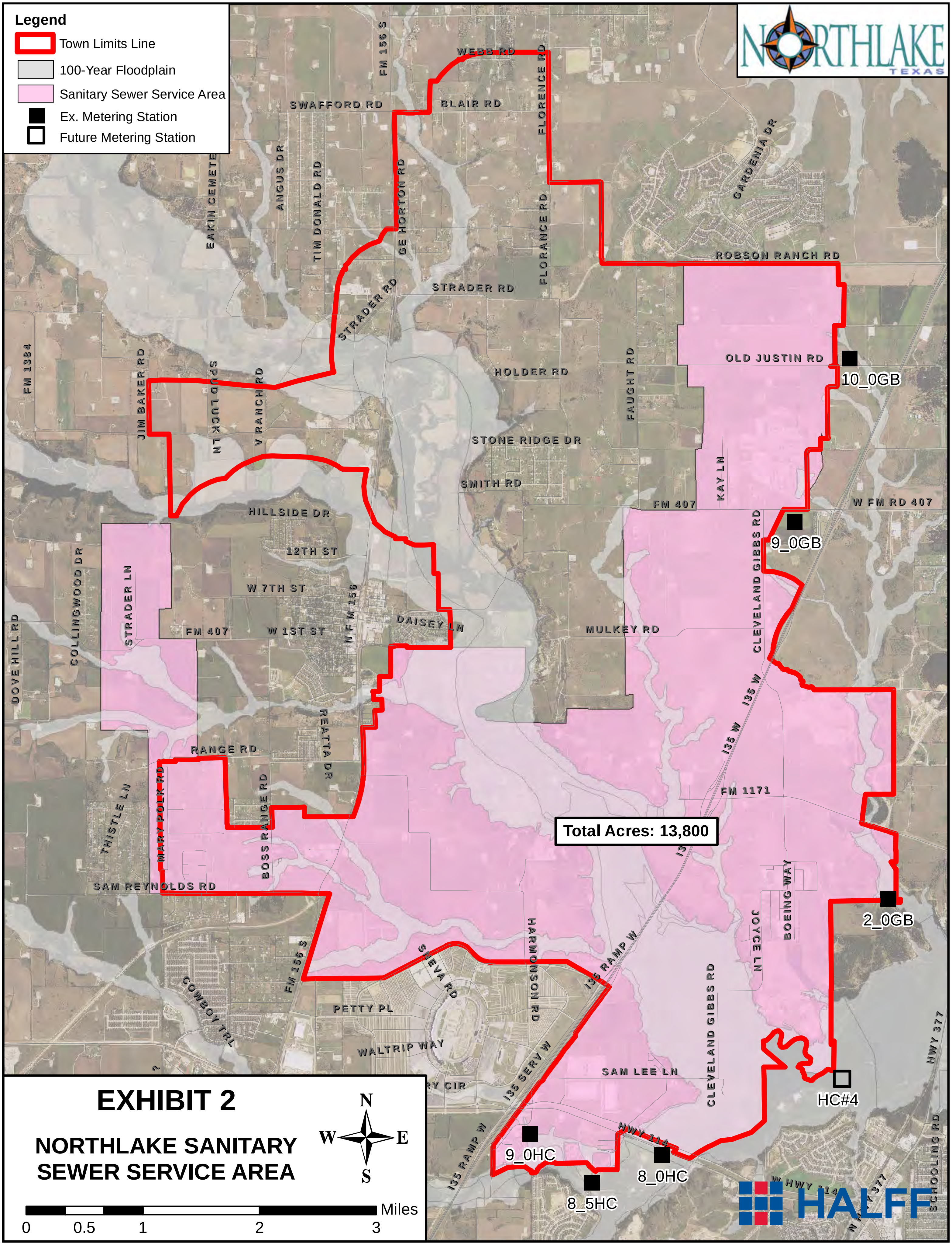


Figure 5: Local Sanitary Sewer Impact Fee Comparisons

EXHIBITS



Legend
Town Limits Line
100-Year Floodplain
South Service Area
North Service Area
Ex. Point of Connection
Future Point of Connection
NORTHLAKE
TEXAS
Total Acres: 13,206
Total Acres: 5,581
UTRWD #1
UTRWD #2
FORT WORTH #1
FORT WORTH #2
WEBB RD
FM 156 S
BLAIR RD
SWAFFORD RD
FLORENCE RD
GARDENIA DR
EAKIN CEMETERY RD
ANGUS DR
TIM DONALD RD
GE HORTON RD
FLORANCE RD
ROBSON RANCH RD
STRADER RD
Total Acres: 13,206
OLD JUSTIN RD
FM 1384
JIM BAKER RD
SPUD LUCK LN
V RANCH RD
HOLDER RD
FAUGHT RD
STONE RIDGE DR
SMITH RD
KAY LN
FM 407
W FM RD 407
HILLSIDE DR
OASIS DR
CLEVELAND GIBBS RD
12TH ST
COLLINGWOOD DR
STRADER LN
W 7TH ST
N FM 156
DAISEY LN
DOVE HILL RD
FM 407
W 1ST ST
MULKEY RD
I35 W
REATTA DR
RANGE RD
FM 1171
THISTLE LN
MARY POLK RD
BOSS RANGE RD
SAM REYNOLDS RD
BOEING WAY
HARMONSON RD
JOYCE LN
FM 156 S
SENEVA RD
I35 RAMP W
COWBOY TRL
PETTY PL
WALTRIP WAY
HWY 377
SAM LEE LN
I35 SERV W
RY CIR
HWY 114
N HWY 377
ASH RD
W HWY 114
EXHIBIT 1
NORTHLAKE WATER SERVICE AREAS
N
W
E
S
0
0.5
1
2
3
Miles
HALFF


Legend
Town Limits Line
100-Year Floodplain
Sanitary Sewer Service Area
Ex. Metering Station
Future Metering Station
NORTHLAKE
TEXAS
WEBB RD
FM 156 S
FLORENCE RD
SWAFFORD RD
BLAIR RD
GARDENIA DR
EAKIN CEMETE
ANGUS DR
TIM DONALD RD
GE HORTON RD
FLORANCE RD
ROBSON RANCH RD
STRADER RD
STRADER RD
FM 1384
JIM BAKER RD
SPUD LUCK LN
V RANCH RD
HOLDER RD
FAUGHT RD
OLD JUSTIN RD
10_0GB
STONE RIDGE DR
SMITH RD
KAY LN
FM 407
W FM RD 407
HILLSIDE DR
9_0GB
CLEVELAND GIBBS RD
12TH ST
COLLINGWOOD DR
STRADER LN
W 7TH ST
N FM 156
DAISEY LN
DOVE HILL RD
FM 407
W 1ST ST
MULKEY RD
I35 W
I35 W
REATTA DR
RANGE RD
FM 1171
THISTLE LN
MARY POLK RD
BOSS RANGE RD
Total Acres: 13,800
BOEING WAY
SAM REYNOLDS RD
2_0GB
JOYCE LN
FM 156 S
SHEVA RD
HARMONSON RD
I35 RAMP W
COWBOY TRL
PETTY PL
CLEVELAND GIBBS RD
WALTRIP WAY
HWY 377
SAM LEE LN
I35 SERV W
HC#4
SCHOOLING RD
I35 RAMP W
HWY 114
9_0HC
8_0HC
8_5HC
W HWY 114
HALFF
EXHIBIT 2
NORTHLAKE SANITARY SEWER SERVICE AREA
N
W
E
S
0
0.5
1
2
3
Miles

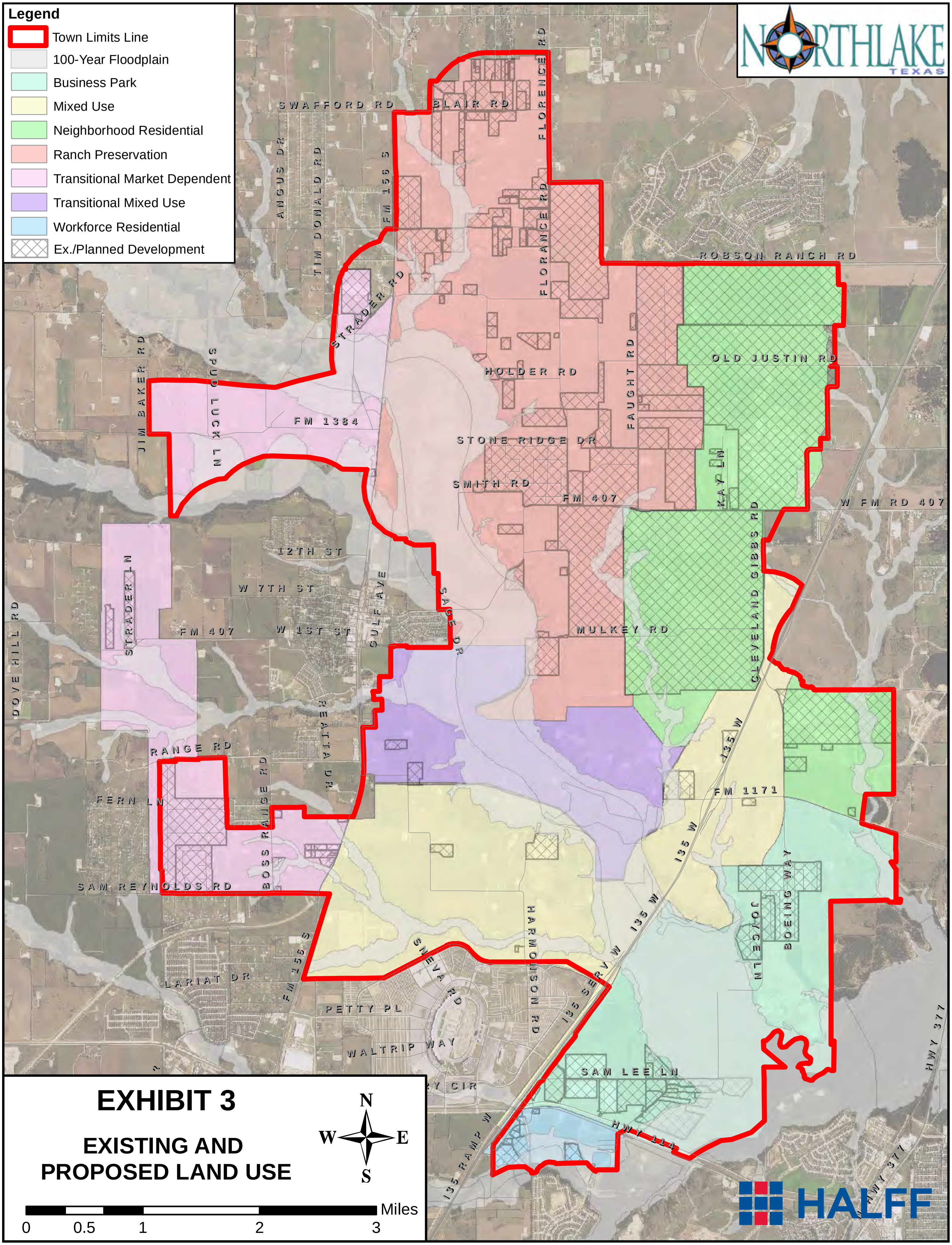
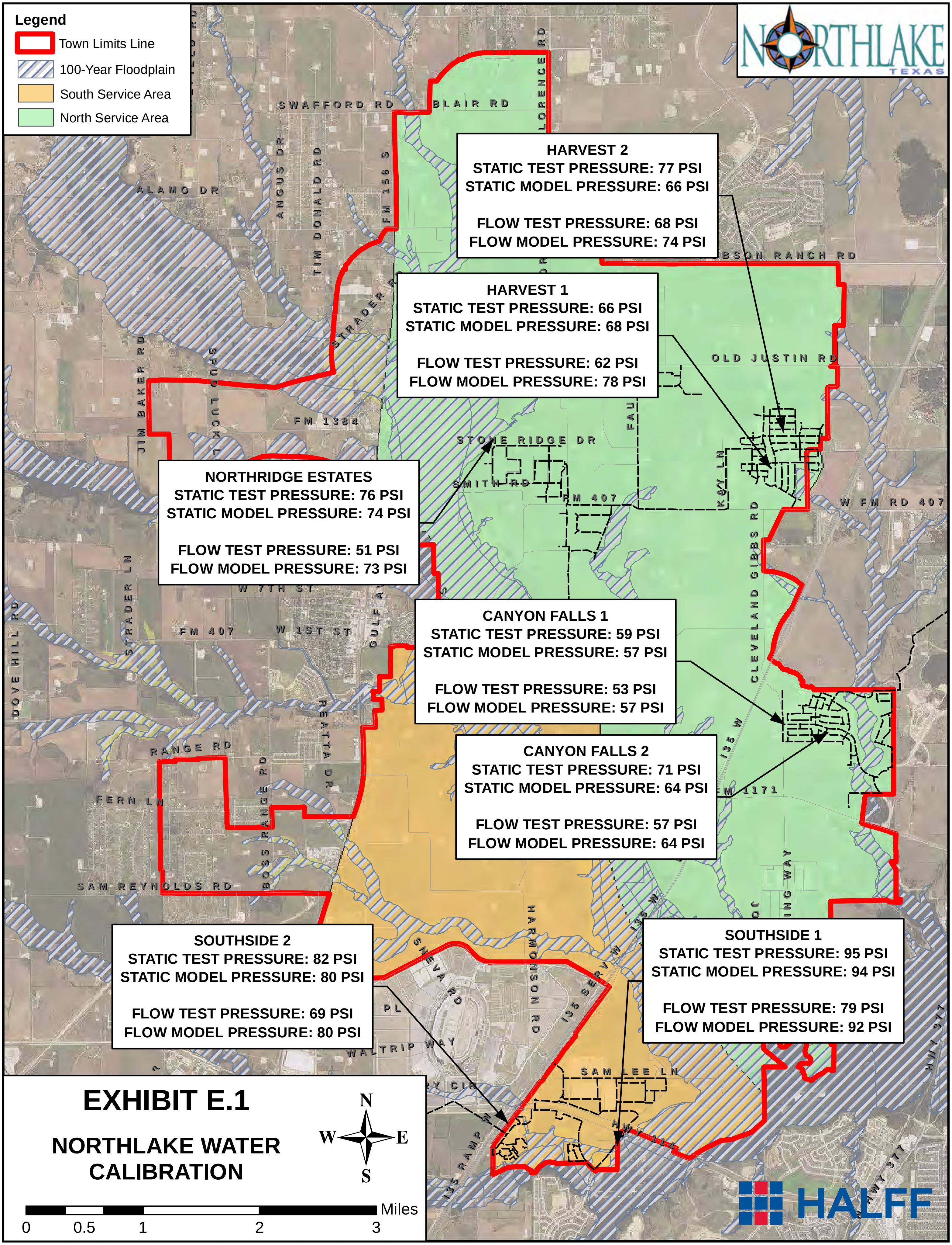


EXHIBIT 3

EXISTING AND PROPOSED LAND USE

Legend
Town Limits Line
100-Year Floodplain
South Service Area
North Service Area
2027 CIP
Ultimate Buildout
Developer Lines
Existing Lines
NORTHLAKE
TEXAS
NORTH RANCH PRESSURE PLANE
OVERFLOW ELEVATION = 805'
NORTH TOWN HALL PRESSURE PLANE
OVERFLOW ELEVATION = 900'
DENTON CREEK PRESSURE PLANE
OVERFLOW ELEVATION = 837'
SOUTH SIDE PRESSURE PLANE
OVERFLOW ELEVATION = 780'
2017-2027 CIP
(WU20B): 1.25 MG EST
2017-2027 CIP
(WN23C)
0.6 MG GST
3.3 MGD PS
Buildout:
2.6 MG GST
13.0 MGD PS
Buildout:
Abandon Ex. NRE
Pump Station
2017-2027 CIP
(WN18B):
0.75 MG GST
4.3 MGD PS
Buildout:
2.25 MG GST
4.3 MGD PS
BUILDOUT:
1.25 MG EST
Buildout: 2.25 MG GST/6.5 MGD PS
2017-2027 CIP
(WS25): 0.75 MG EST
2017-2027 CIP (WS24B): 0.5 MG GST/3.1 MGD PS
Buildout: 1.0 MG GST/3.1 MGD PS
WN22A
WN20A
WN25A
WN18A
WN19
WN21C
WN23B
WN26A
WN26B
WN25B
WN24
WN22B
WN21A
WN23A
WN21B
WN27B
WN27A
WS24A
WS21
WS19
WS20
WS18A
WS18B
EXHIBIT 4
WATER CAPITAL
IMPROVEMENTS PLAN
N
W
E
S
0
0.5
1
2
Miles
HALFF


Legend
Town Limits Line
100-Year Floodplain
Sanitary Sewer Service Area
Sanitary Sewer
2027
Buildout
Existing
NORTHLAKE
TEXAS
S26C
S26B
S26A
S24C
S24B
S24A
S22D
S22C
S22B
S22A
S20C
S20B
S20A
S18A
S18B
S18C
EXHIBIT 5
SEWER CAPITAL
IMPROVEMENTS PLAN
N
W
E
S
Miles
0
0.5
1
2
HALFF

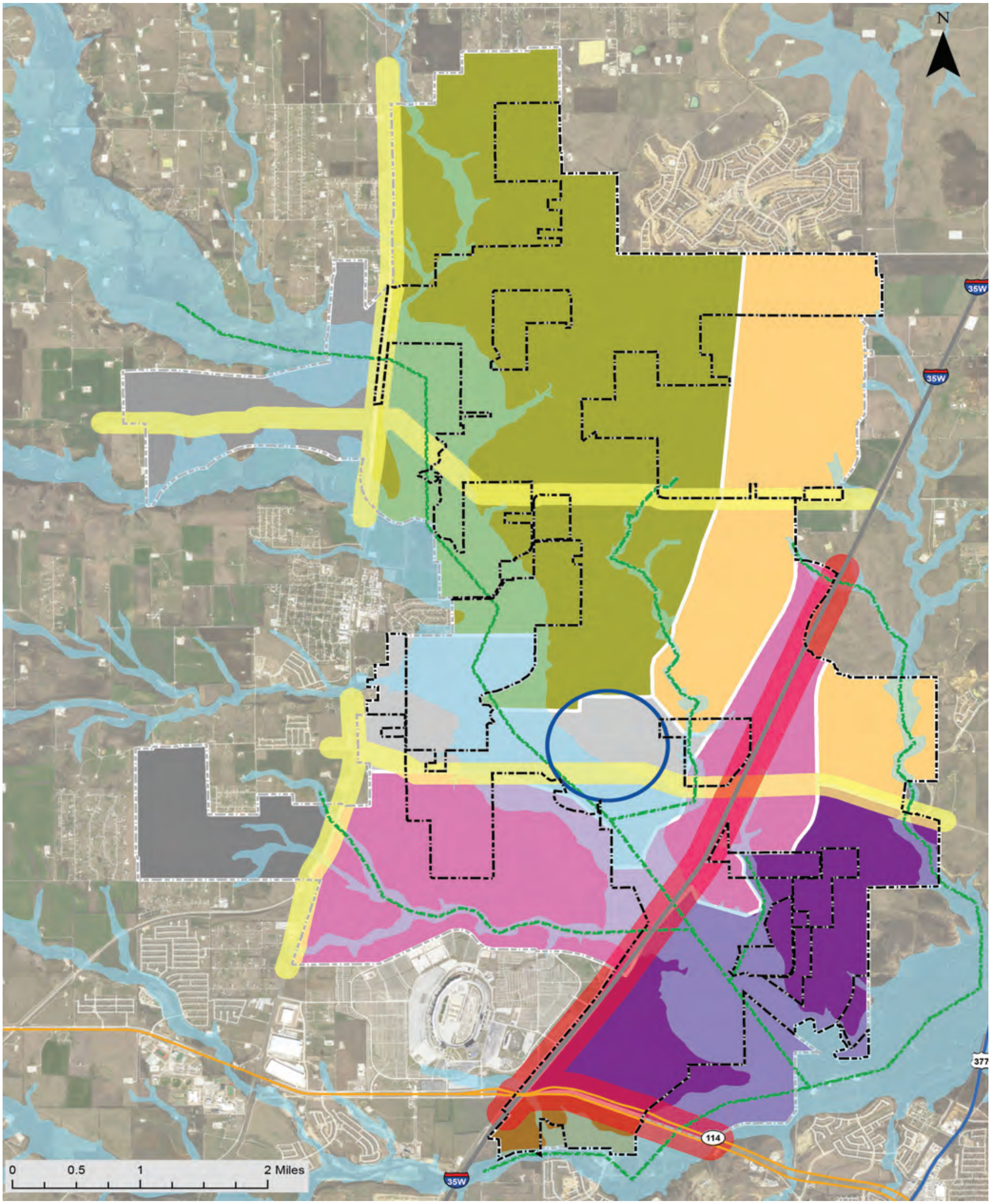

Legend
Town Limits Line
100-Year Floodplain
South Service Area
North Service Area
NORTHLAKE
TEXAS
SWAFFORD RD
BLAIR RD
ALAMO DR
ANGUS DR
TIM DONALD RD
FM 156 S
STRADER RD
JIM BAKER RD
SPUD LUCK L
FM 1384
STONE RIDGE DR
SMITH RD
FM 407
OLD JUSTIN RD
KAY LN
CLEVELAND GIBBS RD
W FM RD 407
W 7TH ST
W 1ST ST
STRADER LN
DOVE HILL RD
REATTA DR
RANGE RD
FERN LN
BOSS RANGE RD
SAM REYNOLDS RD
HARMONSON RD
WALTRIP WAY
SAM LEE LN
HWY 114
HWY 377
135 W
HARVEST 2
STATIC TEST PRESSURE: 77 PSI
STATIC MODEL PRESSURE: 66 PSI
FLOW TEST PRESSURE: 68 PSI
FLOW MODEL PRESSURE: 74 PSI
HARVEST 1
STATIC TEST PRESSURE: 66 PSI
STATIC MODEL PRESSURE: 68 PSI
FLOW TEST PRESSURE: 62 PSI
FLOW MODEL PRESSURE: 78 PSI
NORTHRIDGE ESTATES
STATIC TEST PRESSURE: 76 PSI
STATIC MODEL PRESSURE: 74 PSI
FLOW TEST PRESSURE: 51 PSI
FLOW MODEL PRESSURE: 73 PSI
CANYON FALLS 1
STATIC TEST PRESSURE: 59 PSI
STATIC MODEL PRESSURE: 57 PSI
FLOW TEST PRESSURE: 53 PSI
FLOW MODEL PRESSURE: 57 PSI
CANYON FALLS 2
STATIC TEST PRESSURE: 71 PSI
STATIC MODEL PRESSURE: 64 PSI
FLOW TEST PRESSURE: 57 PSI
FLOW MODEL PRESSURE: 64 PSI
SOUTHSIDE 2
STATIC TEST PRESSURE: 82 PSI
STATIC MODEL PRESSURE: 80 PSI
FLOW TEST PRESSURE: 69 PSI
FLOW MODEL PRESSURE: 80 PSI
SOUTHSIDE 1
STATIC TEST PRESSURE: 95 PSI
STATIC MODEL PRESSURE: 94 PSI
FLOW TEST PRESSURE: 79 PSI
FLOW MODEL PRESSURE: 92 PSI
EXHIBIT E.1
NORTHLAKE WATER
CALIBRATION
N
W
E
S
Miles
0
0.5
1
2
3
HALFF

APPENDIX A: Northlake Future Land Use Map

Northlake Comprehensive Plan - Pathway to 2040

Adopted December 8, 2016

Vision: **Northlake is a town that honors its rural legacy while attracting a multi-generational, family oriented and highly engaged population through policies that promote responsible growth, self-reliance, and a diversified tax base.**



CITY LIMIT

ETJ

SPECIAL AREAS

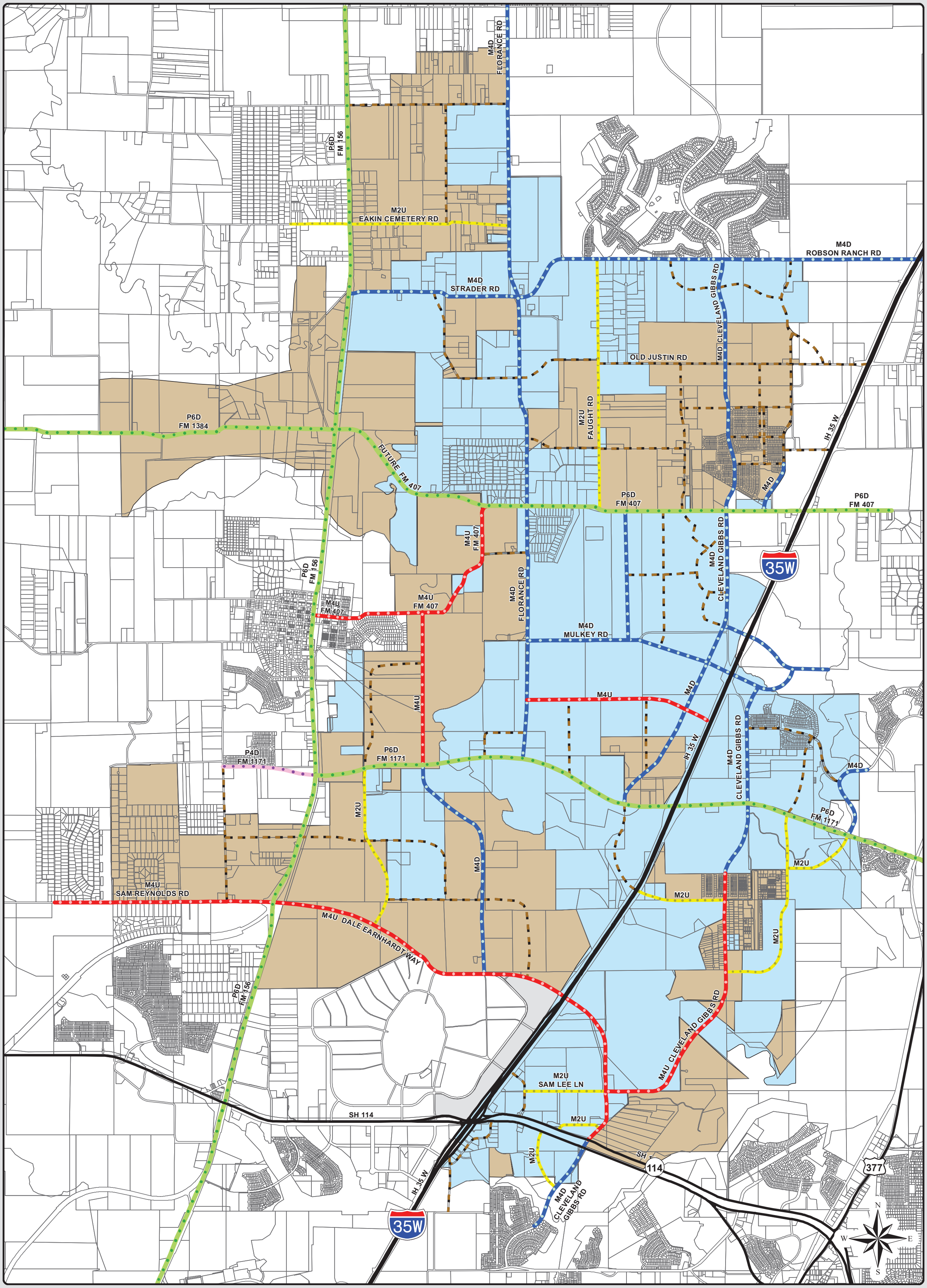
- TRAIL CORRIDORS
- FLOOD PLAIN
- TOWN CENTER
- HWY CORRIDORS
- ARTERIAL CORRIDORS

CHARACTER AREAS

- RANCH PRESERVATION
- NEIGHBORHOOD RESIDENTIAL
- WORKFORCE RESIDENTIAL
- TRANSITIONAL MARKET DEPENDENT
- TRANSITIONAL MIXED USE
- MIXED USE
- BUSINESS PARK

A comprehensive plan shall not constitute zoning regulations or establish zoning district boundaries.

APPENDIX B: Northlake Thoroughfare Plan



Map Features

Thoroughfare Type

- M2U
- M4D
- M4U
- P4D
- P6D
- Collector Road
- Major Roads
- Town of Northlake Incorporated Area
- Town of Northlake Extraterritorial Jurisdiction
- Intergovernmental Agreement Area

NORTHLAKE TEXAS

DENTON COUNTY, TEXAS

MASTER THOROUGHFARE PLAN

MTP Update Adopted by Ordinance 17-0511D on May 11, 2017

The MTP plan identifies existing and future roadways for the Town and its ETJ. It is recognized that classifications and/or locations of arterials may change based on future conditions. In areas, particularly in the ETJ, where the streets are not in place, the street alignments reflect corridors and not exact locations.

0 2,000 4,000

Scale in Feet

HALFF

Last Updated: 5/5/2017

APPENDIX C: Meter Size / SUE Conversions and Customer Only Tables

Existing, unconnected development does not have water meters. Likewise, future development and its corresponding meter size is contingent on an unknown number of fixtures (sinks, lavatories, etc.). To established infrastructure usage currently unserved parts of the Town, Halff established the approximate number of SUEs for each proposed unit of land use by development type. Table C.1 presents the existing number of water meters in Northlake for each type of land use and converts the meter quantities to service units using the service unit equivalents.

Table C.1: Existing Northlake Water Meters and Service Unit Equivalents

Development Type[2]	3/4"		1"		1 1/2"		2"		3"		Total SUEs
	Meters	SUEs	Meters	SUEs	Meters	SUEs	Meters	SUEs	Meters	SUEs	
Commercial	1	1	4	7	5	17	1	5	0	0	**30**
Industrial	2	2	0	0	1	3	20	107	3	30	**142**
Institutional[1]	0	0	3	5	0	0	6	32	0	0	**37**
Hotel	2	2	0	0	1	3	6	32	0	0	**37**
Multi-Family	0	0	2	3	1	3	69	368	24	240	**614**
Single Family	1,366	1,366	6	10	0	0	10	53	0	0	**1,429**
Manufactured Housing	1	1	0	0	0	0	4	21	0	0	**22**
										Total	**2,311**

[1] Assumes 2-2" meters for the Harvest community center and 1-2" meter for the Town Hall and Courthouse.
[2] Ranch Estate is not included in the table because there are currently not existing meters on Ranch Estate properties, however, it is anticipated to have the same meter size as a single family unit.

An average water meter size assumed for the individual types of developments. In some instances, the average meter size is between two common sizes; the corresponding SUE was interpolated and applied to existing unconnected development and future development. Table C.2 shows the average number of SUEs per land use unit used in determining future development usage.

Table C.2: Average SUEs per Existing Development Type Unit

Development Type[1]	Units	SUEs	Development Quantity	SUEs per Unit of Development Type
Commercial	Acre	30	13	2.3
Industrial		142	190	0.7
Institutional		37	21	1.8
Manufactured Housing		22	21	1.0
Hotel		37	4	9.3
Multi-Family	Dwelling Unit	614	93	6.6
Single Family		1429	701	2.0

[1] Ranch Estate is not included in the table because there are currently not existing meters on Ranch Estate properties, however, it is anticipated to have the same meter size as a single family unit.

Since impact fees can only be assessed to new development, the tables in the report (Tables 3 and 5) referencing acreages and SUEs reflect the necessary values for the impact fee calculations. The acreages and SUEs in Tables 3 and 5 include connected customers, platted development, and existing development that is **not** served water by the City of Northlake. Tables C.3 and C.4 are for informational purposes only and reflect the acreages and SUEs of current connected customers. Existing development that is on well or septic is not anticipated to connect to the system within the next 10 years, but is anticipated to be connected before buildout occurs.

Table C.3: Acreages of Customers

Service Area		Land Use							Total Developable Area	Floodplain	Undeveloped Area	Total
		Neighborhood Residential	Ranch Preservation	Workforce Residential	Mixed Use	Business Park	Transitional Mixed Use	Transitional Market Dependent				
North Denton Creek	*Existing*	180	120	0	0	0	0	0	300	1,500	3,290	5,090
	2027	260	350	0	780	0	110	0	1,500		2,090	
	Buildout	720	700	0	1,000	1,000	170	0	3,590		0	
North Ranch	*Existing*	0	230	0	0	0	0	0	230	1,030	1,870	3,130
	2027	0	300	0	0	0	0	0	300		1,800	
	Buildout	0	2,100	0	0	0	0	0	2,100		0	
North Town Hall	*Existing*	400	80	0	0	0	0	0	480	100	4,300	4,880
	2027	2,000	1,100	0	0	0	0	0	3,100		1,680	
	Buildout	2,600	2,000	0	180	0	0	0	4,780		0	
South Southside	*Existing*	0	0	80	0	220	0	0	300	890	550	1,740
	2027	0	0	130	0	610	0	0	740		110	
	Buildout	0	0	230	10	610	0	0	850		0	
South Denton Creek	*Existing*	0	0	0	0	0	0	0	0	1,500	2,470	3,970
	2027	0	60	0	310	0	30	0	400		2,070	
	Buildout	0	230	0	1,700	0	540	0	2,470		0	
Sanitary Sewer	*Existing*	580	0	80	0	220	0	0	880	3,560	9,100	13,820
	2027	2,260	0	130	1,090	610	140	0	4,230		5,800	
	Buildout	3,320	0	230	2,890	1,610	710	1,500	10,260		0	

Table C.4: SUEs of Customers

Service Area		Land Use: Neighborhood Residential	Ranch Preservation	Workforce Residential	Mixed Use	Business Park	Transitional Mixed Use	Transitional Market Dependent	Total
North Denton Creek	*Existing*	400	50	0	10	0	0	0	460
	2027	570	160	0	1,400	0	210	0	2,340
	Buildout	1,300	620	0	1,800	890	350	0	4,960
North Ranch	*Existing*	0	170	0	0	0	0	0	170
	2027	0	130	0	0	0	0	0	130
	Buildout	0	1,900	0	0	0	0	0	1,900
North Town Hall	*Existing*	880	30	0	0	0	0	0	910
	2027	4,290	500	0	0	0	0	0	4,790
	Buildout	4,670	1,800	0	320	0	0	0	6,790
South Southside	*Existing*	0	0	670	0	180	0	0	850
	2027	0	0	830	0	560	0	0	1,390
	Buildout	0	0	940	10	1,080	0	0	2,030
South Denton Creek	*Existing*	0	0	0	0	0	0	0	0
	2027	0	30	0	560	0	50	0	640
	Buildout	0	210	0	3,100	0	1,110	0	4,420
Sanitary Sewer	*Existing*	1,280	0	670	10	180	0	0	2,140
	2027	4,860	0	830	1,960	560	260	0	8,470
	Buildout	5,970	0	940	5,230	1,970	1,460	2,600	18,170

APPENDIX D: Water and Sanitary Sewer Use Summary Tables

The average daily water use data was provided by the Town of Northlake by entry point. Halff combined the flows from each entry point for every month to determine the average, minimum, maximum, and peaking factor for the town as shown in Table D.1.

TableD.1: Northlake Daily Water Use by Entry Point

Average Daily Water Use (MGD)												
	2014			2015			2016			2017		
	Average	Min	Max	Average	Min	Max	Average	Min	Max	Average	Min	Max
January	0.16	0.10	0.25	0.25	0.10	0.38	0.34	0.25	0.48	0.47	0.31	0.82
Feburary	0.17	0.11	0.25	0.25	0.12	0.40	0.41	0.27	0.66	0.55	0.31	0.87
March	0.22	0.11	0.34	0.23	0.12	0.41	0.45	0.27	0.77	0.73	0.47	1.04
April	0.25	0.12	0.38	0.28	0.16	0.43	0.13	0.02	0.34			
May	0.38	0.25	0.57	0.30	0.12	0.85	0.57	0.41	0.92			
June	0.38	0.24	0.59	0.42	0.23	0.71	0.78	0.35	1.33	**Average**		**0.66**
July	0.42	0.29	0.62	0.73	0.43	1.00	1.10	0.64	1.44	**Min**		**0.02**
August	0.46	0.33	0.65	0.87	0.66	1.21	1.11	0.46	1.60	**Max**		**1.60**
September	0.46	0.33	0.62	0.89	0.58	1.18	1.02	0.54	1.28	**PF**		**2.41**
October	0.38	0.24	0.58	0.69	0.30	1.10	0.88	0.47	1.13			
November	0.31	0.18	0.47	0.36	0.25	0.51	0.62	0.87	0.87			
December	0.23		0.30	0.36	0.21	0.51	0.46	0.28	0.63			

Monthly sewer readings were provided by the Trinity River Authority to Northlake as part of their billing requirements. Their metering stations for Northlake measures the flow at the end of each month and is provided as an average. Because there is not daily data, only an average sanitary sewer flow could be determined. Table D.2 shows the average flows from December 2015 to November 2016.

Table D.2: Northlake Monthly Average Sanitary Sewer Flow

Monthly Average SS Flow		
Month	**2015**	**2016**
	Average	Average
January		0.17
Feburary		0.15
March		0.21
April		0.29
May		0.24
June		0.28
July		0.25
August		0.26
September		0.21
October		0.20
November		0.21
December	0.19	

APPENDIX E: Usage Rates per Development Type

Water demands were arranged into nine separate uses: Single family residential, manufactured housing, multifamily residential, hotels, ranch estates (homes on greater than five acres), commercial, industrial, institutional, and open space. The historical usage for each type of development is shown in Table E.1. Based on the available data at the time of this study, the maximum day peaking factor for water usage varied by the development type.

Table E.1: Historical and Existing Usage Rates by Development Type (Approximate)

Development Type	Units[2]	Water			Sanitary Sewer
		Average Day	Maximum Day	Peaking Factor	Average Day
Commercial	gpd/acre	1,200	3,200	2.7	900
Industrial	gpd/acre	310	1,500	4.8	233
Institutional	gpd/acre	40	140	3.5	30
Hotel	gpd/acre	3,900	7,300	1.9	2,925
Multi-Family	gpd/acre	1,880	3,100	1.6	1,410
Single Family	gpd/acre	790	1,900	2.4	593
Ranch Estate[1]	gpd/acre	390	960	2.5	293
Manufactured Housing	gpcd	80	1,880	23.5	60

[1] Ranch Estate demand applies to all residential development with an average lot size 1 acre or larger. For larger estate lots greater than 1 acre, the demand rate does not change. This study assumes that 1 acre of the lot is irrigated, not the full extent.
[2] Flowrates per acre were based on land acreages and do not account for floor area ratios.

APPENDIX F: Water Model Calibration

The hydraulic water model was calibrated to seven fire hydrant tests conducted on at various sites throughout the Town on April 28, 2017. Exhibit E.1 shows the location of the fire hydrant tests, field results and calibration results. Calibration is intended to determine if the assumptions and setup on the hydraulic model correlates to the actual field conditions. The calibration is intended to detect issues related to pipe connectivity, boundary conditions (storage and pump station setup), valve positioning, and pipe roughness.

The model was calibrated for both static and dynamic pressure and flow scenarios. Each test included one flow hydrant and one residual hydrant. The flow from the flow hydrant was tested simultaneously as the pressure at the residual hydrant. Each test was run until the flow and pressure in the hydrants stabilized at which point the leveled values were recorded. The tank level and pump run status were also recorded during each test. The modeled tank level, pump status, and flowrate matched what was recorded during the test. Table E.1 and E.2 lists the test results and calibration results for each location.

Table E.1: Static Hydrant Test Calibration Results

Test Name	Test Pressure	Model Pressure	Difference
	psi	*psi*	
Northridge Estates	76	74	2.6%
Harvest 1	66	68	-3.0%
Harvest 2	77	66	14.3%
Canyon Falls 1	59	57	3.4%
Canyon Falls 2	71	64	9.9%
Southside 1	95	94	1.1%
Southside 2	82	80	2.4%

Table E.2: Dynamic Hydrant Test Calibration Results

Test Name	Test Flowrate	Test Pressure	Model Pressure	Difference
	gpm	*psi*	*psi*	
Northridge Estates	350	51	73	-43.1%
Harvest 1	375	62	78	-25.8%
Harvest 2	380	68	74	-8.8%
Canyon Falls 1	320	53	57	-7.5%
Canyon Falls 2	400	57	64	-12.3%
Southside 1	425	79	92	-16.5%
Southside 2	375	69	80	-15.8%

APPENDIX G: Water Opinions of Probable Construction Costs

Town of Northlake Impact Fee
Water Capital Improvements Plan

Opinion of Probable Construction Cost 17-Sep

Project:				**Existing CF WL**
Anticipated Construction Year:				N/A
Description:				
Existing CF WL.				
Item	Quantity	Unit	Unit Cost	Item Cost
Canyon Falls Waterlines	1	LS	$689,000	$689,000
			Subtotal:	$689,000
			25% Contingency:	$0
			Years Until Construction:	0
			Inflation at 4%:	$0
			Total Construction:	$689,000
			Engineering + Surveying:	$0
			Finance Cost (n=20, i=5%):	$0
			Total Project Cost:	**$689,000**

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Town of Northlake Impact Fee
Water Capital Improvements Plan

Opinion of Probable Construction Cost 17-Sep

Project:				Existing 20" WL
Anticipated Construction Year:				N/A
Description:				
20" waterline connection the Harvest pump station to the NRE pump station.				
Item	Quantity	Unit	Unit Cost	Item Cost
20" Waterline	1	LS	$200,000	$200,000
			Subtotal:	$200,000
			25% Contingency:	$0
			Years Until Construction:	0
			Inflation at 4%:	$0
			Total Construction:	$200,000
			Engineering + Surveying:	$0
			Finance Cost (n=20, i=5%):	$0
			Total Project Cost:	**$200,000**

Project:				WN18A
Anticipated Construction Year:				2018
Description:				
12" waterline beginning at the intersection of Faith Lane and Faught Road and extends to the Harvest Development.				
Item	Quantity	Unit	Unit Cost	Item Cost
12" Waterline	4,497	LF	$200	$899,400
			Subtotal:	$900,000
			25% Contingency:	$225,000
			Years Until Construction:	1
			Inflation at 4%:	$45,000
			Total Construction:	$1,170,000
			Engineering + Surveying:	$141,000
			Finance Cost (n=20, i=5%):	$766,000
			Total Project Cost:	**$2,077,000**

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Town of Northlake Impact Fee
Water Capital Improvements Plan

Opinion of Probable Construction Cost 17-Sep

Project:				**WN18B**
Anticipated Construction Year:				2018
Description:				
New 750,000 gallon ground storage tank and 5.2 MGD pump station for Canyon Falls.				
Item	Quantity	Unit	Unit Cost	Item Cost
Canyon Falls Pump Station	5,200,000	GPD	$1	$5,200,000
Canyon Falls GST	750,000	GAL	$2	$1,500,000
			Subtotal:	$6,700,000
			25% Contingency:	$1,675,000
			Years Until Construction:	1
			Inflation at 4%:	$335,000
			Total Construction:	$8,710,000
			Engineering + Surveying:	$1,046,000
			Finance Cost (n=20, i=5%):	$5,697,000
			Total Project Cost:	**$15,453,000**

Project:				**WS18A**
Anticipated Construction Year:				2018
Description:				
12" waterline along Interstate 35 West Service Road to Ashmore Lane.				
Item	Quantity	Unit	Unit Cost	Item Cost
12" Waterline	1,430	LF	$200	$286,000
Pavement Repair	50	LF	$100	$5,000
			Subtotal:	$291,000
			25% Contingency:	$73,000
			Years Until Construction:	1
			Inflation at 4%:	$15,000
			Total Construction:	$379,000
			Engineering + Surveying:	$46,000
			Finance Cost (n=20, i=5%):	$249,000
			Total Project Cost:	**$674,000**

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Town of Northlake Impact Fee
Water Capital Improvements Plan

Opinion of Probable Construction Cost 17-Sep

Project:				**WS18B**
Anticipated Construction Year:				2018
Description:				
12" waterline along 114 between Chadwick Pkwy and Cleveland Gibbs Road.				
Item	Quantity	Unit	Unit Cost	Item Cost
12" Waterline	1,603	LF	$200	$320,600
			Subtotal:	$321,000
			25% Contingency:	$81,000
			Years Until Construction:	1
			Inflation at 4%:	$17,000
			Total Construction:	$419,000
			Engineering + Surveying:	$51,000
			Finance Cost (n=20, i=5%):	$275,000
			Total Project Cost:	**$745,000**

Project:				**WN19**
Anticipated Construction Year:				2019
Description:				
16" waterline East of Woodhill Farm extending from FM 407 to FM 335.				
Item	Quantity	Unit	Unit Cost	Item Cost
16" Waterline	5,501	LF	$200	$1,100,200
Pavement Repair	30	LF	$100	$3,000
			Subtotal:	$1,104,000
			25% Contingency:	$276,000
			Years Until Construction:	2
			Inflation at 4%:	$113,000
			Total Construction:	$1,493,000
			Engineering + Surveying:	$180,000
			Finance Cost (n=20, i=5%):	$977,000
			Total Project Cost:	**$2,650,000**

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Town of Northlake Impact Fee
Water Capital Improvements Plan

Opinion of Probable Construction Cost 17-Sep

Project:				**WS19**
Anticipated Construction Year:				2019
Description:				
16" waterline along Interstate 35 West Service Road from Ashmore Lane to Dale Earnhardt Way.				
Item	Quantity	Unit	Unit Cost	Item Cost
16" Waterline	4,104	LF	$225	$923,400
Pavement Repair	60	LF	$100	$6,000
			Subtotal:	$930,000
			25% Contingency:	$233,000
			Years Until Construction:	2
			Inflation at 4%:	$95,000
			Total Construction:	$1,258,000
			Engineering + Surveying:	$151,000
			Finance Cost (n=20, i=5%):	$823,000
			Total Project Cost:	**$2,232,000**

Project:				**WN20A**
Anticipated Construction Year:				2020
Description:				
12" waterline North of Harvest extending to Robson Ranch Road.				
Item	Quantity	Unit	Unit Cost	Item Cost
12" Waterline	10,203	LF	$200	$2,040,600
			Subtotal:	$2,041,000
			25% Contingency:	$511,000
			Years Until Construction:	3
			Inflation at 4%:	$319,000
			Total Construction:	$2,871,000
			Engineering + Surveying:	$345,000
			Finance Cost (n=20, i=5%):	$1,878,000
			Total Project Cost:	**$5,094,000**

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Town of Northlake Impact Fee
Water Capital Improvements Plan

Opinion of Probable Construction Cost 17-Sep

Project:				**WN20B**
Anticipated Construction Year:				2020
Description:				
New 1.25 MGD elevated storage tank located North of Old Justin Road and East of the existing Brian's Place neighborhood.				
Item	Quantity	Unit	Unit Cost	Item Cost
Harvest EST	1,250,000	GAL	$4	$5,000,000
			Subtotal:	$5,000,000
			25% Contingency:	$1,250,000
			Years Until Construction:	3
			Inflation at 4%:	$781,000
			Total Construction:	$7,031,000
			Engineering + Surveying:	$844,000
			Finance Cost (n=20, i=5%):	$4,599,000
			Total Project Cost:	**$12,474,000**

Project:				**WS20**
Anticipated Construction Year:				2020
Description:				
16" waterline connecting the intersection of E Sam Lee Lane and Cleveland Gibbs Road to Dale Earnhardt Way.				
Item	Quantity	Unit	Unit Cost	Item Cost
16" Waterline	4,781	LF	$225	$1,075,725
Pavement Repair	40	LF	$100	$4,000
			Subtotal:	$1,080,000
			25% Contingency:	$270,000
			Years Until Construction:	3
			Inflation at 4%:	$169,000
			Total Construction:	$1,519,000
			Engineering + Surveying:	$183,000
			Finance Cost (n=20, i=5%):	$994,000
			Total Project Cost:	**$2,696,000**

Town of Northlake Impact Fee
Water Capital Improvements Plan

Opinion of Probable Construction Cost 17-Sep

Project:				**WN21A**
Anticipated Construction Year:				2021
Description:				
12" waterline that connects Canyon Falls to Cross Timbers Road.				
Item	Quantity	Unit	Unit Cost	Item Cost
12" Waterline	1,662	LF	$200	$332,400
Pavement Repair	60	LF	$100	$6,000
			Subtotal:	$339,000
			25% Contingency:	$85,000
			Years Until Construction:	4
			Inflation at 4%:	$73,000
			Total Construction:	$497,000
			Engineering + Surveying:	$60,000
			Finance Cost (n=20, i=5%):	$326,000
			Total Project Cost:	**$883,000**

Project:				**WN21B**
Anticipated Construction Year:				2021
Description:				
12" waterline that connects Cross Timbers Road to Airport Road.				
Item	Quantity	Unit	Unit Cost	Item Cost
12" Waterline	3,778	LF	$200	$755,600
			Subtotal:	$756,000
			25% Contingency:	$189,000
			Years Until Construction:	4
			Inflation at 4%:	$161,000
			Total Construction:	$1,106,000
			Engineering + Surveying:	$133,000
			Finance Cost (n=20, i=5%):	$724,000
			Total Project Cost:	**$1,963,000**

Town of Northlake Impact Fee
Water Capital Improvements Plan

Opinion of Probable Construction Cost 17-Sep

Project:				**WN21C**
Anticipated Construction Year:				2021
Description:				
16" waterline along FM 338 from FM 335 to FM 407.				
Item	Quantity	Unit	Unit Cost	Item Cost
16" Waterline	5,455	LF	$225	$1,227,375
			Subtotal:	$1,228,000
			25% Contingency:	$307,000
			Years Until Construction:	4
			Inflation at 4%:	$261,000
			Total Construction:	$1,796,000
			Engineering + Surveying:	$216,000
			Finance Cost (n=20, i=5%):	$1,175,000
			Total Project Cost:	**$3,187,000**

Project:				**WS21**
Anticipated Construction Year:				2021
Description:				
12" waterline from Dale Earnhardt Way to Denton Creek on the West side of Highway 35W.				
Item	Quantity	Unit	Unit Cost	Item Cost
12" Waterline	4,894	LF	$200	$978,800
			Subtotal:	$979,000
			25% Contingency:	$245,000
			Years Until Construction:	4
			Inflation at 4%:	$208,000
			Total Construction:	$1,432,000
			Engineering + Surveying:	$172,000
			Finance Cost (n=20, i=5%):	$937,000
			Total Project Cost:	**$2,541,000**

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Town of Northlake Impact Fee
Water Capital Improvements Plan

Opinion of Probable Construction Cost 17-Sep

Project:				**WN22A**
Anticipated Construction Year:				2022
Description:				
12" waterline starting at Yarbrough Way and Robson Ranch Road heading East and continues past FM 334.				
Item	Quantity	Unit	Unit Cost	Item Cost
12" Waterline	4,050	LF	$200	$810,000
Pavement Repair	80	LF	$100	$8,000
			Subtotal:	$818,000
			25% Contingency:	$205,000
			Years Until Construction:	5
			Inflation at 4%:	$222,000
			Total Construction:	$1,245,000
			Engineering + Surveying:	$150,000
			Finance Cost (n=20, i=5%):	$815,000
			Total Project Cost:	**$2,210,000**

Project:				**WN22B**
Anticipated Construction Year:				2022
Description:				
16" waterline connecting Canyon Falls to the East side of Highway 35W along Cross Timbers Road.				
Item	Quantity	Unit	Unit Cost	Item Cost
16" Waterline	4,471	LF	$225	$1,005,975
Pavement Repair	200	LF	$100	$20,000
			Subtotal:	$1,026,000
			25% Contingency:	$257,000
			Years Until Construction:	5
			Inflation at 4%:	$278,000
			Total Construction:	$1,561,000
			Engineering + Surveying:	$188,000
			Finance Cost (n=20, i=5%):	$1,022,000
			Total Project Cost:	**$2,771,000**

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Town of Northlake Impact Fee
Water Capital Improvements Plan

Opinion of Probable Construction Cost 17-Sep

Project:				**WN23A**
Anticipated Construction Year:				2023
Description:				
16" waterline from Cross Timbers Road on the East side of Highway 35W down the Highway until Denton Creek.				
Item	Quantity	Unit	Unit Cost	Item Cost
16" Waterline	4,332	LF	$225	$974,700
Pavement Repair	50	LF	$100	$5,000
			Subtotal:	$980,000
			25% Contingency:	$245,000
			Years Until Construction:	6
			Inflation at 4%:	$326,000
			Total Construction:	$1,551,000
			Engineering + Surveying:	$187,000
			Finance Cost (n=20, i=5%):	$1,015,000
			Total Project Cost:	**$2,753,000**

Project:				**WN23B**
Anticipated Construction Year:				2023
Description:				
12" waterline connecting the southern portion of Pecan Squares along FM 335.				
Item	Quantity	Unit	Unit Cost	Item Cost
12" Waterline	3,448	LF	$200	$689,600
			Subtotal:	$690,000
			25% Contingency:	$173,000
			Years Until Construction:	6
			Inflation at 4%:	$229,000
			Total Construction:	$1,092,000
			Engineering + Surveying:	$132,000
			Finance Cost (n=20, i=5%):	$715,000
			Total Project Cost:	**$1,939,000**

Town of Northlake Impact Fee
Water Capital Improvements Plan

Opinion of Probable Construction Cost 17-Sep

Project:				**WN23C**
Anticipated Construction Year:				2023
Description:				
One 1777 gpm Pump at Harvest pump station and a VFD.				
Item	Quantity	Unit	Unit Cost	Item Cost
1777 gpm Pump	2,558,880	GPD	$0.25	$639,720
VFD	1	LS	$50,000	$50,000
			Subtotal:	$690,000
			25% Contingency:	$173,000
			Years Until Construction:	6
			Inflation at 4%:	$229,000
			Total Construction:	$1,092,000
			Engineering + Surveying:	$132,000
			Finance Cost (n=20, i=5%):	$715,000
			Total Project Cost:	**$1,939,000**

Project:				**WN24**
Anticipated Construction Year:				2024
Description:				
16" waterline from the intersection of Canyon Falls Drive and Westbridge Drive and extends perpendicular to FM 338.				
Item	Quantity	Unit	Unit Cost	Item Cost
16" Waterline	5,582	LF	$225	$1,255,950
Pavement Repair	60	LF	$100	$6,000
			Subtotal:	$1,262,000
			25% Contingency:	$316,000
			Years Until Construction:	7
			Inflation at 4%:	$499,000
			Total Construction:	$2,077,000
			Engineering + Surveying:	$250,000
			Finance Cost (n=20, i=5%):	$1,359,000
			Total Project Cost:	**$3,686,000**

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Town of Northlake Impact Fee
Water Capital Improvements Plan

Opinion of Probable Construction Cost 17-Sep

Project:				**WS24A**
Anticipated Construction Year:				2024
Description:				
12" waterline from Highway 35W along Dale Earnhardt Way, north on Harmonson Road, and extends back East towards Highway 35W.				
Item	Quantity	Unit	Unit Cost	Item Cost
12" Waterline	12,598	LF	$200	$2,519,600
12" Waterline (by other than open cut)	690	LF	$700	$483,000
Pavement Repair	200	LF	$100	$20,000
			Subtotal:	$3,023,000
			25% Contingency:	$756,000
			Years Until Construction:	7
			Inflation at 4%:	$1,194,000
			Total Construction:	$4,973,000
			Engineering + Surveying:	$597,000
			Finance Cost (n=20, i=5%):	$3,253,000
			Total Project Cost:	**$8,823,000**

Project:				**WS24B**
Anticipated Construction Year:				2024
Description:				
New 500,000 gallon ground storage tank and 3.1 MGD pump station for Southside.				
Item	Quantity	Unit	Unit Cost	Item Cost
Southside Pump Station	3,100,000	GPD	$1	$3,100,000
Southside GST	500,000	GAL	$2	$1,000,000
			Subtotal:	$4,100,000
			25% Contingency:	$1,025,000
			Years Until Construction:	7
			Inflation at 4%:	$1,620,000
			Total Construction:	$6,745,000
			Engineering + Surveying:	$810,000
			Finance Cost (n=20, i=5%):	$4,412,000
			Total Project Cost:	**$11,967,000**

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Town of Northlake Impact Fee
Water Capital Improvements Plan

Opinion of Probable Construction Cost 17-Sep

Project:				**WN25A**
Anticipated Construction Year:				2025
Description:				
12" waterline along Evelyn Lane from Florance Road to Old Justin Road.				
Item	Quantity	Unit	Unit Cost	Item Cost
12" Waterline	6,190	LF	$200	$1,238,000
Pavement Repair	100	LF	$100	$10,000
			Subtotal:	$1,248,000
			25% Contingency:	$312,000
			Years Until Construction:	8
			Inflation at 4%:	$575,000
			Total Construction:	$2,135,000
			Engineering + Surveying:	$257,000
			Finance Cost (n=20, i=5%):	$1,397,000
			Total Project Cost:	**$3,789,000**

Town of Northlake Impact Fee
Water Capital Improvements Plan

Opinion of Probable Construction Cost 17-Sep

Project:				**WN25B**
Anticipated Construction Year:				2025
Description:				
16" waterline heading south from Taglewood Trail and FM 338 down to Cross Timbers Road, then heads west to Highway 35W and crosses over the highway. Before the highway a 12" waterline runs parallel to Highway 35W up to FM 338. To the west a 16" waterline crosses the highway, and to the east a 20" waterline connects back to Canyon Falls.				
Item	Quantity	Unit	Unit Cost	Item Cost
12" Waterline	4,001	LF	$200	$800,200
16" Waterline	2,977	LF	$225	$669,825
20" Waterline	870	LF	$300	$261,000
16" Waterline (by other than open cut)	850	LF	$775	$658,750
Pavement Repair	100	LF	$100	$10,000
			Subtotal:	$2,400,000
			25% Contingency:	$600,000
			Years Until Construction:	8
			Inflation at 4%:	$1,106,000
			Total Construction:	$4,106,000
			Engineering + Surveying:	$493,000
			Finance Cost (n=20, i=5%):	$2,686,000
			Total Project Cost:	**$7,285,000**

Project:				**WN25**
Anticipated Construction Year:				2025
Description:				
New 0.75 MG elevated storage tank located in the Industrial region of Southside, south of E Sam Lee Lane.				
Item	Quantity	Unit	Unit Cost	Item Cost
Southside EST	750,000	GAL	$4	$3,000,000
			Subtotal:	$3,000,000
			25% Contingency:	$750,000
			Years Until Construction:	8
			Inflation at 4%:	$1,383,000
			Total Construction:	$5,133,000
			Engineering + Surveying:	$616,000
			Finance Cost (n=20, i=5%):	$3,357,000
			Total Project Cost:	**$9,106,000**

Town of Northlake Impact Fee
Water Capital Improvements Plan

Opinion of Probable Construction Cost 17-Sep

Project:				**WN26A**
Anticipated Construction Year:				2026
Description:				
12" waterline on the parallel to Highway 35W on the west side of Highway 35W near the Canyon Falls development.				
Item	Quantity	Unit	Unit Cost	Item Cost
12" Waterline	4,022	LF	$200	$804,400
			Subtotal:	$805,000
			25% Contingency:	$202,000
			Years Until Construction:	9
			Inflation at 4%:	$427,000
			Total Construction:	$1,434,000
			Engineering + Surveying:	$173,000
			Finance Cost (n=20, i=5%):	$939,000
			Total Project Cost:	**$2,546,000**

Project:				**WN26B**
Anticipated Construction Year:				2026
Description:				
16" waterline that begins at intersection of Yarbrough Way and Robson Ranch Road and heads East, then heads South on FM 334 until FM 317.				
Item	Quantity	Unit	Unit Cost	Item Cost
12" Waterline	8,636	LF	$200	$1,727,200
Pavement Repair	120	LF	$100	$12,000
			Subtotal:	$1,740,000
			25% Contingency:	$435,000
			Years Until Construction:	9
			Inflation at 4%:	$921,000
			Total Construction:	$3,096,000
			Engineering + Surveying:	$372,000
			Finance Cost (n=20, i=5%):	$2,025,000
			Total Project Cost:	**$5,493,000**

Town of Northlake Impact Fee
Water Capital Improvements Plan

Opinion of Probable Construction Cost 17-Sep

Project:				**WN27A**
Anticipated Construction Year:				2027
Description:				
16" waterline that connects the southeast corner of the Airport Road loop to Cleveland Gibbs Road.				
Item	Quantity	Unit	Unit Cost	Item Cost
16" Waterline	2,836	LF	$225	$638,100
Pavement Repair	1,200	LF	$100	$120,000
			Subtotal:	$759,000
			25% Contingency:	$190,000
			Years Until Construction:	10
			Inflation at 4%:	$456,000
			Total Construction:	$1,405,000
			Engineering + Surveying:	$169,000
			Finance Cost (n=20, i=5%):	$920,000
			Total Project Cost:	**$2,494,000**

Project:				**WN27B**
Anticipated Construction Year:				2027
Description:				
12" waterline that connects Cleveland Gibbs Road to the east side of Highway 35W.				
Item	Quantity	Unit	Unit Cost	Item Cost
12" Waterline	3,644	LF	$200	$728,800
			Subtotal:	$729,000
			25% Contingency:	$183,000
			Years Until Construction:	10
			Inflation at 4%:	$438,000
			Total Construction:	$1,350,000
			Engineering + Surveying:	$162,000
			Finance Cost (n=20, i=5%):	$883,000
			Total Project Cost:	**$2,395,000**

APPENDIX H: Sanitary Sewer Opinions of Probable Construction Costs

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Town of Northlake Impact Fee
Sanitary Sewer Capital Improvements

Opinion of Probable Construction Cost 17-Sep

Project:				**S18A**
Anticipated Construction Year:				2018
Description:				
54'' SS line along Denton Creek southeast of IH-35W crossing SH 338				
Item	Quantity	Unit	Unit Cost	Item Cost
54" RCP Sewer line	9565	LF	$362	$3,462,530
72" Manhole	10	LF	$12,000	$120,000
Easement Acquisition	9565	LF	$2	$19,130
			Subtotal:	$3,602,000
			25% Contingency:	$901,000
			Years Until Construction:	1
			Inflation at 4%:	$181,000
			Total Construction:	$4,684,000
			Engineering + Surveying:	$563,000
			Finance Cost (n=20, i=5%):	$3,064,000
			Total Project Cost:	**$8,311,000**

Project:				**S18B**
Anticipated Construction Year:				2018
Description:				
12'' SS line south of IH-35W intercepting to SS line along Denton Creek				
Item	Quantity	Unit	Unit Cost	Item Cost
12" RCP Sewer line	2000	LF	$122	$244,000
72" Manhole	4	LF	$12,000	$48,000
Easement Acquisition	2000	LF	$2	$4,000
Pavement Replacement	0	LF	$50	$0
			Subtotal:	$296,000
			25% Contingency:	$74,000
			Years Until Construction:	1
			Inflation at 4%:	$15,000
			Total Construction:	$385,000
			Engineering + Surveying:	$47,000
			Finance Cost (n=20, i=5%):	$253,000
			Total Project Cost:	**$685,000**

HALFF

Town of Northlake Impact Fee
Sanitary Sewer Capital Improvements

Opinion of Probable Construction Cost 17-Sep

Project:				**S18C**
Anticipated Construction Year:				2018
Description:				
8'' SS line south of IH-35W intercepting to SS line along Denton Creek				
Item	Quantity	Unit	Unit Cost	Item Cost
8" RCP Sewer line, Open Cut	1509	LF	$92	$138,810
8" RCP Sewer line, BOTOC	34	LF	$342	$11,628
72" Manhole	5	LF	$12,000	$60,000
Easement Acquisition	1509	LF	$2	$3,018
Pavement Replacement	34	LF	$50	$1,700
			Subtotal:	$216,000
			25% Contingency:	$54,000
			Years Until Construction:	1
			Inflation at 4%:	$11,000
			Total Construction:	$281,000
			Engineering + Surveying:	$34,000
			Finance Cost (n=20, i=5%):	$184,000
			Total Project Cost:	**$499,000**

Project:				**S20A**
Anticipated Construction Year:				2018
Description:				
48'' SS line along Denton Creek southeast of IH-35W				
Item	Quantity	Unit	Unit Cost	Item Cost
48" RCP Sewer line	481	LF	$276	$132,756
72" Manhole	1	LF	$12,000	$12,000
Easement Acquisition	481	LF	$2	$962
			Subtotal:	$146,000
			25% Contingency:	$37,000
			Years Until Construction:	3
			Inflation at 4%:	$23,000
			Total Construction:	$206,000
			Engineering + Surveying:	$25,000
			Finance Cost (n=20, i=5%):	$135,000
			Total Project Cost:	**$366,000**

Town of Northlake Impact Fee
Sanitary Sewer Capital Improvements

Opinion of Probable Construction Cost 17-Sep

Project:				**S20B**
Anticipated Construction Year:				2020
Description:				
36'' SS line running from IH-35W to Denton Creek along Catherine Branch				
Item	Quantity	Unit	Unit Cost	Item Cost
36" RCP Sewer line	3000	LF	$225	$675,000
72" Manhole	4	LF	$12,000	$48,000
Easement Acquisition	3000	LF	$2	$6,000
			Subtotal:	$729,000
			25% Contingency:	$183,000
			Years Until Construction:	3
			Inflation at 4%:	$114,000
			Total Construction:	$1,026,000
			Engineering + Surveying:	$124,000
			Finance Cost (n=20, i=5%):	$672,000
			Total Project Cost:	**$1,822,000**

Project:				**S20C**
Anticipated Construction Year:				2020
Description:				
24'' SS line crossing IH-35W along Catherine Branch				
Item	Quantity	Unit	Unit Cost	Item Cost
24" RCP Sewer line, Open Cut	2715	LF	$267	$724,852
24" RCP Sewer line, BOTOC	441	LF	$705	$310,905
72" Manhole	5	LF	$12,000	$60,000
Easement Acquisition	2715	LF	$2	$5,430
Pavement Replacement	441	LF	$50	$22,050
			Subtotal:	$1,124,000
			25% Contingency:	$281,000
			Years Until Construction:	3
			Inflation at 4%:	$176,000
			Total Construction:	$1,581,000
			Engineering + Surveying:	$190,000
			Finance Cost (n=20, i=5%):	$1,035,000
			Total Project Cost:	**$2,806,000**

Town of Northlake Impact Fee
Sanitary Sewer Capital Improvements

Opinion of Probable Construction Cost | 17-Sep

Project:				**S22A**
Anticipated Construction Year:				2022
Description:				
48'' SS line along Denton Creek southeast of IH-35W				
Item	Quantity	Unit	Unit Cost	Item Cost
48" RCP Sewer line	1617	LF	$276	$446,292
72" Manhole	2	LF	$12,000	$24,000
Easement Acquisition	1617	LF	$2	$3,234
			Subtotal:	$474,000
			25% Contingency:	$119,000
			Years Until Construction:	5
			Inflation at 4%:	$129,000
			Total Construction:	$722,000
			Engineering + Surveying:	$87,000
			Finance Cost (n=20, i=5%):	$473,000
			Total Project Cost:	**$1,282,000**

Project:				**S22B**
Anticipated Construction Year:				2022
Description:				
21'' SS line crossing Denton Creek southeast of IH-35W				
Item	Quantity	Unit	Unit Cost	Item Cost
21" RCP Sewer line, Open Cut	1300	LF	$260	$338,000
72" Manhole	2	LF	$12,000	$24,000
Easement Acquisition	1300	LF	$2	$2,600
			Subtotal:	$365,000
			25% Contingency:	$92,000
			Years Until Construction:	5
			Inflation at 4%:	$100,000
			Total Construction:	$557,000
			Engineering + Surveying:	$67,000
			Finance Cost (n=20, i=5%):	$365,000
			Total Project Cost:	**$989,000**

HALFF

Town of Northlake Impact Fee
Sanitary Sewer Capital Improvements

Opinion of Probable Construction Cost 17-Sep

Project:				**S22C**
Anticipated Construction Year:				2022
Description:				
18'' SS line along Cleveland Branch southeast of IH-35W				
Item	Quantity	Unit	Unit Cost	Item Cost
18" RCP Sewer line	3179	LF	$221	$702,559
72" Manhole	4	LF	$12,000	$48,000
Easement Acquisition	3179	LF	$2	$6,358
Pavement Replacement	0	LF	$50	$0
			Subtotal:	$757,000
			25% Contingency:	$190,000
			Years Until Construction:	5
			Inflation at 4%:	$206,000
			Total Construction:	$1,153,000
			Engineering + Surveying:	$139,000
			Finance Cost (n=20, i=5%):	$755,000
			Total Project Cost:	**$2,047,000**

Project:				**S22D**
Anticipated Construction Year:				2022
Description:				
12'' SS line along Cleveland Branch southeast of IH-35W				
Item	Quantity	Unit	Unit Cost	Item Cost
12" RCP Sewer line, Open Cut	2324	LF	$163	$378,812
72" Manhole	5	LF	$12,000	$60,000
Easement Acquisition	2324	LF	$2	$4,648
			Subtotal:	$444,000
			25% Contingency:	$111,000
			Years Until Construction:	5
			Inflation at 4%:	$121,000
			Total Construction:	$676,000
			Engineering + Surveying:	$82,000
			Finance Cost (n=20, i=5%):	$443,000
			Total Project Cost:	**$1,201,000**

Town of Northlake Impact Fee
Sanitary Sewer Capital Improvements

Opinion of Probable Construction Cost 17-Sep

Project:				**S24A**
Anticipated Construction Year:				2024
Description:				
36'' SS line along Denton Creek crossing IH-35W				
Item	Quantity	Unit	Unit Cost	Item Cost
36" RCP Sewer line, Open Cut	5663	LF	$302	$1,710,317
36" RCP Sewer line, BOTOC	423	LF	$647	$273,681
72" Manhole	7	LF	$12,000	$84,000
Easement Acquisition	5663	LF	$2	$11,327
Pavement Replacement	423	LF	$50	$21,150
			Subtotal:	$2,101,000
			25% Contingency:	$526,000
			Years Until Construction:	7
			Inflation at 4%:	$830,000
			Total Construction:	$3,457,000
			Engineering + Surveying:	$415,000
			Finance Cost (n=20, i=5%):	$2,261,000
			Total Project Cost:	**$6,133,000**

Project:				**S24B**
Anticipated Construction Year:				2024
Description:				
24'' SS line crossing Denton Creek northwest of IH-35W				
Item	Quantity	Unit	Unit Cost	Item Cost
24" RCP Sewer line, Open Cut	763	LF	$201	$153,363
72" Manhole	1	LF	$12,000	$12,000
Easement Acquisition	763	LF	$2	$1,526
			Subtotal:	$167,000
			25% Contingency:	$42,000
			Years Until Construction:	7
			Inflation at 4%:	$67,000
			Total Construction:	$276,000
			Engineering + Surveying:	$34,000
			Finance Cost (n=20, i=5%):	$182,000
			Total Project Cost:	**$492,000**

HALFF

Town of Northlake Impact Fee
Sanitary Sewer Capital Improvements

Opinion of Probable Construction Cost 17-Sep

Project:				**S24C**
Anticipated Construction Year:				2024
Description:				
10'' SS line along Cleveland Branch crossing SH 1171 east of IH-35W				
Item	Quantity	Unit	Unit Cost	Item Cost
10" RCP Sewer line, Open Cut	3105	LF	$143	$444,058
10" RCP Sewer line, BOTOC	73	LF	$401	$29,273
72" Manhole	8	LF	$12,000	$96,000
Easement Acquisition	3105	LF	$2	$6,211
Pavement Replacement	73	LF	$50	$3,650
			Subtotal:	$580,000
			25% Contingency:	$145,000
			Years Until Construction:	7
			Inflation at 4%:	$230,000
			Total Construction:	$955,000
			Engineering + Surveying:	$115,000
			Finance Cost (n=20, i=5%):	$625,000
			Total Project Cost:	**$1,695,000**

Project:				**S26A**
Anticipated Construction Year:				2026
Description:				
21'' SS line from Denton Creek crossing to SH 1171, west of IH-35W				
Item	Quantity	Unit	Unit Cost	Item Cost
21" RCP Sewer line, Open Cut	1604	LF	$193	$309,591
72" Manhole	3	LF	$12,000	$36,000
Easement Acquisition	1604	LF	$2	$3,208
Pavement Replacement	0	LF	$50	$0
			Subtotal:	$349,000
			25% Contingency:	$88,000
			Years Until Construction:	9
			Inflation at 4%:	$185,000
			Total Construction:	$622,000
			Engineering + Surveying:	$75,000
			Finance Cost (n=20, i=5%):	$407,000
			Total Project Cost:	**$1,104,000**

Town of Northlake Impact Fee
Sanitary Sewer Capital Improvements

Opinion of Probable Construction Cost 17-Sep

Project:				**S26B**
Anticipated Construction Year:				2026
Description:				
18'' SS line from SH 1171, west of IH-35W				
Item	Quantity	Unit	Unit Cost	Item Cost
18" RCP Sewer line, Open Cut	4333	LF	$221	$957,681
72" Manhole	6	LF	$12,000	$72,000
Easement Acquisition	4333	LF	$2	$8,667
			Subtotal:	$1,039,000
			25% Contingency:	$260,000
			Years Until Construction:	9
			Inflation at 4%:	$550,000
			Total Construction:	$1,849,000
			Engineering + Surveying:	$222,000
			Finance Cost (n=20, i=5%):	$1,210,000
			Total Project Cost:	**$3,281,000**

Project:				**S26C**
Anticipated Construction Year:				2026
Description:				
15'' SS line from SH 1171, west of IH-35W				
Item	Quantity	Unit	Unit Cost	Item Cost
15" RCP Sewer line, Open Cut	2500	LF	$191	$477,500
72" Manhole	5	LF	$12,000	$60,000
Easement Acquisition	2500	LF	$2	$5,000
			Subtotal:	$543,000
			25% Contingency:	$136,000
			Years Until Construction:	9
			Inflation at 4%:	$288,000
			Total Construction:	$967,000
			Engineering + Surveying:	$117,000
			Finance Cost (n=20, i=5%):	$633,000
			Total Project Cost:	**$1,717,000**

APPENDIX I: Maximum Impact Fee Values

The impact fee for each infrastructure system is determined by dividing the eligible cost of the capital improvements by the increase of service units from projected new development during the study period. The tables in the report identify the the assessable impact fees assuming a 50 percent reductions to account for utility service revenues or ad valoren taxes. Alternatively, per Texas Local Govnerment Code §395.014 the Town may participate in the accounting exercise of determining "a credit for the portion of ad valorem tax and utility service revenues generated by new service units during the program period that is used for the payment of improvements, including the payment of debt, that are included in the capital improvements plan". In the event that the Town agrees to determine an Impact Fee other than the 50 percent reduction, Table H.1 identifies the unadjusted maximum impact fees for each service area for a ¾-inch meter. The Water South Service Area includes the additional impact fee that Fort Worth assesses for wholesale water service.

Table H.1: Maximum Impact Fees

Service Area	2017-2027 SUE Increase	Total Eligible Costs	Maximum Impact Fee
Water Service Areas			
North	5,760	$38,830,680	$6,741
South	1,140	$6,751,230	$5,922
Sanitary Sewer Service Areas			
Sanitary Sewer	6,290	$19,438,116	$3,090

Tables H.2 and H.3 show the unadjusted impact fees for different meter sizes.

Table H.2: Water Maximum Impact Fees by Meter Size

Meter Size	Water	
	North	South
5/8"	$4,516	$10,612
3/4"	$6,741	$15,847
1"	$11,257	$26,459
1.5"	$22,448	$52,776
2"	$35,930	$84,470
3"	$67,410	$165,027
4"	$134,820	$324,226
6"	$303,345	$1,424,639
8"	$404,460	$999,391
10"	$539,280	$1,355,187

Table H.3: Sanitary Sewer Maximum Impact Fees by Meter Size

Meter Size	Sanitary Sewer Service Area
5/8"	$2,070
3/4"	$3,090
1"	$5,160
1.5"	$10,290
2"	$16,470
3"	$30,900
4"	$61,800
6"	$139,050
8"	$185,400
10"	$247,200

Exhibit B

Impact Fee Schedule

North Service Area

Meter Size	Equivalency Factor	Sewer Impact Fee	Water Impact Fee	Total Cost Impact Fee
5/8"	0.67	$1,057.00	$2,259.00	$3,316.00
3/4"	1.00	$1,578.00	$3,371.00	$4,949.00
1"	1.67	$2,635.00	$5,630.00	$8,265.00
1.5"	3.33	$5,255.00	$11,225.00	$16,480.00
2"	5.33	$8,411.00	$17,967.00	$26,378.00
3"	10.00	$15,780.00	$33,710.00	$49,490.00
4"	20.00	$31,560.00	$67,420.00	$98,980.00
6"	45.00	$71,010.00	$151,695.00	$222,705.00
8"	60.00	$94,680.00	$202,260.00	$296,940.00
10"	80.00	$126,240.00	$269,680.00	$395,920.00

South Service Area

Meter Size	Equivalency Factor	Sewer Impact Fee	Water Impact Fee	Ft. Worth Impact Fee	Total Cost Impact Fee
5/8"	0.67	$1,057.00	$1,984.00	$971.00	$4,012.00
3/4"	1.00	$1,578.00	$2,961.00	$1,457.00	$5,996.00
1"	1.67	$2,635.00	$4,945.00	$2,428.00	$10,008.00
1.5"	3.33	$5,255.00	$9,860.00	$4,857.00	$19,972.00
2"	5.33	$8,411.00	$15,782.00	$7,771.00	$31,964.00
3"	10.00	$15,780.00	$29,610.00	$21,127.00	$66,517.00
4"	20.00	$31,560.00	$59,220.00	$36,426.00	$127,206.00
6"	45.00	$71,010.00	$133,245.00	$77,709.00	$281,964.00
8"	60.00	$94,680.00	$177,660.00	$135,991.00	$408,331.00
10"	80.00	$126,240.00	$236,880.00	$203,987.00	$567,107.00

1400 FM 407
Northlake, TX 76247
940-648-3290
Fax 940-648-0363

Town of Northlake

Memo

To: Honorable Mayor and Town Council

From: Drew Corn, Town Administrator

CC: Eric Tamayo, Public Works Director

Shirley Rogers, Town Secretary

Date: March 8, 2018

Re: Interlocal Cooperative Purchasing Agreement with City of North Richland Hills for Microsurfacing of Schober Road and Bingham Road

---

When Brian's Place and Northlake Country Estates were developed in the late 1980s and early 1990s, respectively, there were minimal Town infrastructure standards. Subsequently, both Schober Road and Bingham Road were originally gravel roads. In addition, the homeowners were responsible for drilling a water well and building their on-site septic system. At relatively little costs, a developer could subdivide former ranch property creating smaller tracts of land for affordable residential estate lots.

Subsequently, the Town has used public resources to upgrade these roads from tax revenues generated from development outside these two subdivisions. First, in 2004, the roads were chip-sealed. (Also in the 2004, significant culvert renovations were made to Schober). Second, in 2008, using 2005 Series Certificates of Obligation, the roads were overlaid with asphalt. Public Works crews have continued to maintain Schober Road and Bingham Road with crack-seal and other spot repairs.

The latest proposed effort to extend the life of these roads is a process known as microsurfacing. A thin, tough layer of asphalt emulsion blended with finely crushed stone for traction is applied to the road. This cost-effective method renews the road surface and seals minor cracks and irregularities.

The City of North Richland Hills recently bid for microsurfacing services with Intermountain Slurry Seal, Inc. The attached Interlocal Cooperative Purchasing Agreement, if approved, will allow Northlake to use their bid. As part of the FY 2018 Budget, $50,000 was budgeted for this project. The contract the Town will use is based on a per square foot cost and will cost $55,313 which is over the budget estimate. However, there is available funding in road maintenance and due to the microsurfacing, we should realize savings in maintenance costs on these roads to offset the overage.

Please contact me at 940.242.5701 if you have any questions.

COOPERATIVE PURCHASING AGREEMENT
BETWEEN
CITY OF NORTH RICHLAND HILLS AND TOWN OF NORTHLAKE

This Agreement made and entered into by and between the City of North Richland Hills, hereinafter referred to as "NRH", and the Town of Northlake, hereinafter referred to as "TOWN".

Pursuant to the authority granted by Chapter 271 of the Texas Local Government Code providing for the cooperation between local governmental bodies, the parties hereto, in consideration of the premises and mutual promises contained herein, agree as follows:

NRH and TOWN desire to enter into an Agreement for the purchase of goods and services from vendors selected through the competitive bidding process. Specifications for said items should be determined in cooperation with the final approval of the entity processing the bid.

The responsibility of each entity shall be as follows:

I.

NORTH RICHLAND HILLS

1. NRH shall be allowed to purchase goods and services from vendors who have been selected by TOWN through the competitive bidding process. NRH will place orders directly with and pay directly to the selected vendor for goods and services purchased through a contract.

2. All purchases will be within the specifications and under the terms and conditions that have been agreed to by the parties. NRH shall be responsible for the Vendors compliance with all conditions of delivery, price and quality of the purchased goods or services.

3. NRH shall give a 30-day written notification to all participating agencies of any change or cancellation of participation.

4. The Purchasing Agent, shall be designated as the official representative to act for NRH in all matters relating to this cooperative purchasing agreement.

II.

TOWN

1. TOWN shall be allowed to purchase goods and services from vendors who have been selected by NRH through the competitive bidding process of NRH. TOWN will place orders directly with and pay directly to the selected vendor for goods and services purchased through a contract.

2. All purchases will be within the specifications and under the terms and conditions that have been agreed to by the parties. TOWN shall be responsible for the Vendors compliance with all conditions of delivery, price and quality of the purchased goods or services.

3. TOWN shall give a 30-day written notification to a participating agency of any change or cancellation of participation.

4. PUBLIC WORKS DIRECTOR, shall be designated as the official representative to act for TOWN in all matters relating to this cooperative purchasing agreement.

This Agreement shall take effect upon execution by the signatories and shall be in effect from date of execution until terminated by either party with thirty (30) written notice.

IN WITNESS WHEREOF, the parties hereto have caused this agreement to be executed by their authorized officers.

CITY OF NORTH RICHLAND HILLS	TOWN OF NORTHLAKE
BY: ____________________________	BY: ______________________________
City Manager	Drew Corn, Town Administrator
DATE: ________________________	DATE: _________________________
ATTEST:	ATTEST:
______________________________	______________________________
City Secretary	Shirley Rogers, Town Secretary
APPROVED AS TO FORM:	APPROVED AS TO FORM:
__________________________	______________________________
Attorney for the City	Ashley Dierker, Attorney

1400 FM 407
Northlake, TX 76247
940-648-3290
Fax 940-648-0363

Town of Northlake

Memo

To: Honorable Mayor and Town Council

From: Nathan Reddin, Development Director

CC: Drew Corn, Town Administrator
Shirley Rogers, Town Secretary

Date: March 8, 2018

Re: Final Plat of Right-of-way Dedication for Cleveland-Gibbs Road (FP-17-016)

Purpose: To consider approval of a Final Plat of Right-of-way Dedication for Cleveland-Gibbs Road, being a 1.333-acre tract of land in the MEP & PRR Survey, Abstract No. 913, located along the Canyon Falls Pennington tracts approximately 1,100 feet north of FM 1171.

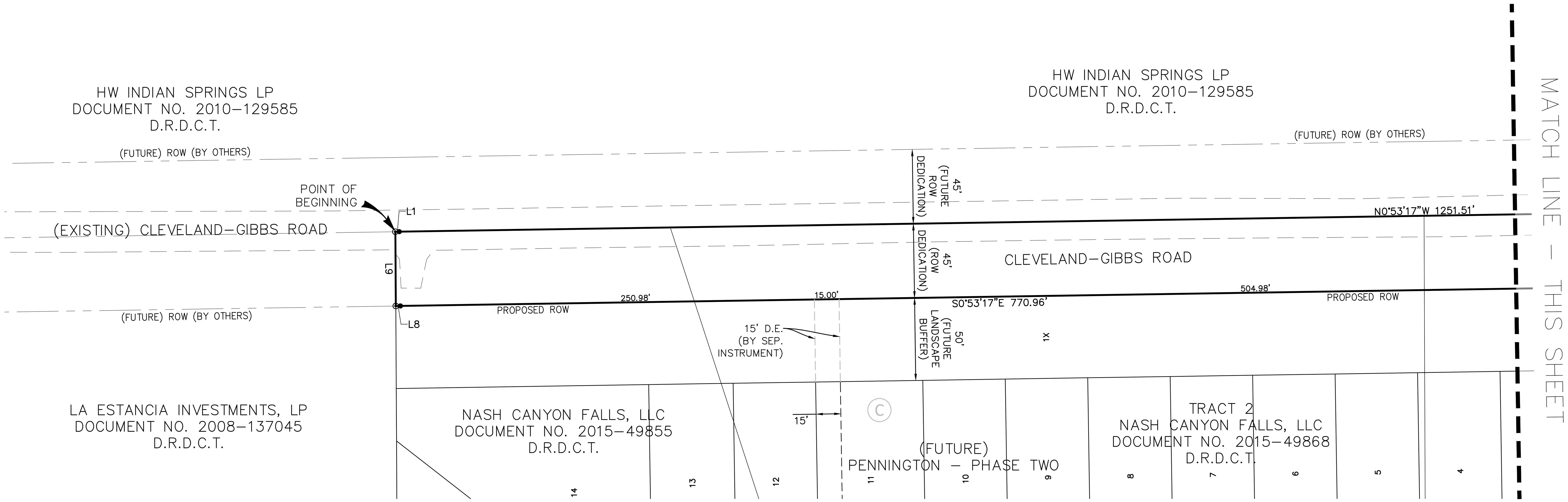
Owner/Applicant: Nash Canyon Falls, LLC

Engineer/Surveyor: J. Volk Consulting, Inc.

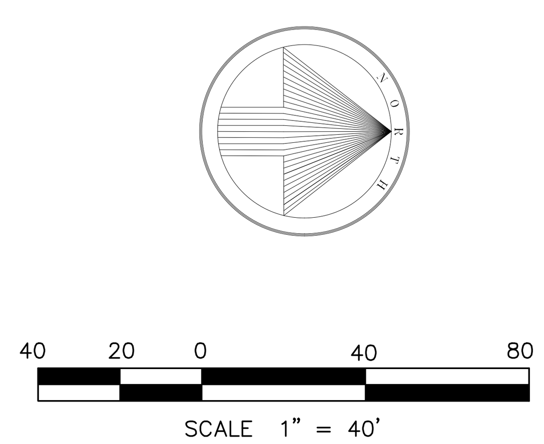
Background: This plat dedicates right-of-way for the western half of Cleveland-Gibbs Road adjacent to the Pennington Tracts. This will provide right-of-way for two of the ultimate four lanes of Cleveland-Gibbs Road. The right-of-way would typically be dedicated and the road improved along with adjacent development of the Pennington Tracts, but since the Pennington Tracts are being developed in two phases, the entire right-of-way dedication and road construction have been accelerated to match the timing of the Town's improvements to Cleveland-Gibbs. This plat dedicates the right-of-way necessary for the two ultimate northbound lanes to be constructed.

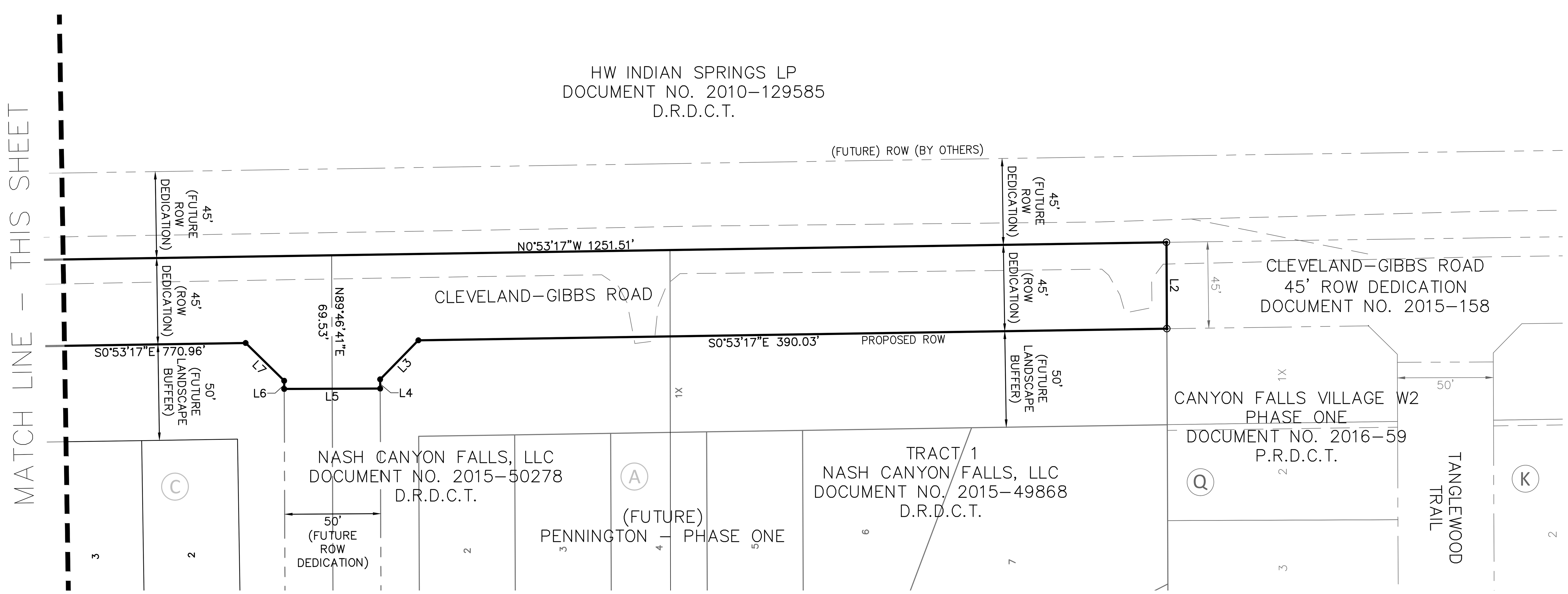
Staff Analysis: The applicant has provided a final plat application in accordance with the Town's subdivision regulations. The final plat contains only right-of-way dedication and no lots. Construction plans for two lanes of Cleveland-Gibbs Road to be constructed within the right-of-way to be dedicated on this plat have been reviewed and approved by Town staff.

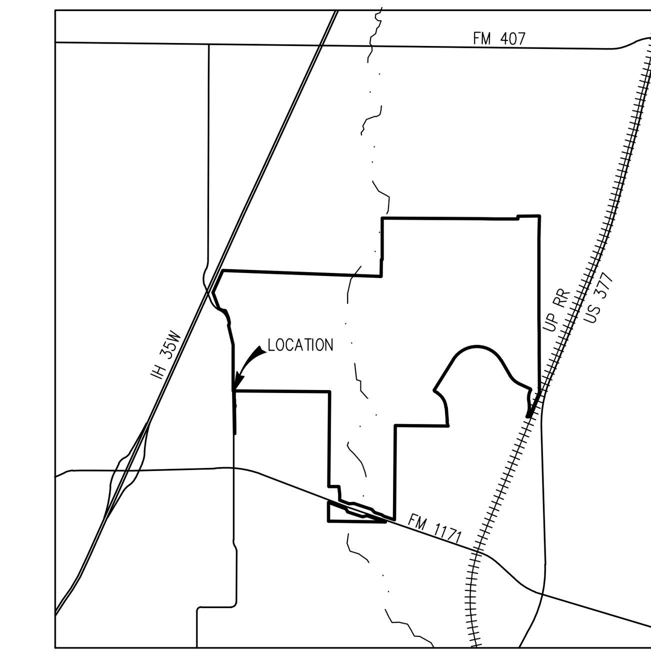
Staff Findings: The final plat meets the requirements of the Town including the provisions of the master facilities agreement and the mixed-use planned development (MPD) for Canyon Falls. Staff finds the final plat meets all applicable Town requirements.



BEARINGS ARE BASED FROM GPS OBSERVATIONS, BY USING THE TOPCON NETWORK SURROUNDING THE DALLAS-FORT WORTH METROPLEX, ALONG WITH A HIGH PRECISION GEOID MODEL. NAD83, NAVD88 TEXAS STATE PLANE COORDINATE SYSTEM, NORTH CENTRAL ZONE 4202. VERIFIED BY THE TOWN OF FLOWER MOUND CONTROL NETWORK, MONUMENT NO. 39. A COMBINED SCALE FACTOR OF 1.0001596 SHALL BE USED TO TRANSLATE TO GRID COORDINATES.







VICINITY MAP
N.T.S.

LEGEND

◎	1/2" IRON ROD FOUND W/ YELLOW PLASTIC CAP STAMPED "JVC" (UNLESS OTHERWISE NOTED)
●	1/2" IRON ROD SET W/ YELLOW PLASTIC CAP STAMPED "JVC" (UNLESS OTHERWISE NOTED)
<CM>	CONTROL MONUMENT
D.R.D.C.T.	DEED RECORDS, DENTON COUNTY, TEXAS
P.R.D.C.T.	PLAT RECORDS, DENTON COUNTY, TEXAS
D.E.	DRAINAGE EASEMENT

LINE TABLE

LINE	BEARING	LENGTH
L1	N0°59'21"W	2.33'
L2	N89°46'40"E	45.00'
L3	S45°33'18"E	28.45'
L4	N89°46'41"E	4.82'
L5	S0°13'19"E	50.00'
L6	S89°46'41"W	4.23'
L7	S44°26'42"W	28.12'
L8	S0°59'27"E	2.79'
L9	S89°41'51"W	45.00'

FINAL PLAT
OF
RIGHT-OF-WAY DEDICATION FOR CLEVELAND-GIBBS ROAD

BEING 1.333 ACRES LOCATED
IN THE M.E.P. & P.R.R. SURVEY
ABSTRACT NO. 913
AN ADDITION IN THE
TOWN OF NORTHLAKE,
DENTON COUNTY, TEXAS

Date: January 14, 2018

SHEET 1 OF 2

ENGINEER/SURVEYOR:
J. VOLK CONSULTING, INC.
830 CENTRAL PARKWAY EAST, SUITE 300
PLANO, TX 75074
972-201-3100
RYAN.REYNOLDS@JVOLKCONSULTING.COM
TBPLS FIRM NO. 10194033

OWNER:
NASH CANYON FALLS, LLC
10940 WEST SAM HOUSTON PARKWAY
SUITE 300
HOUSTON, TX 77064
972-992-3159
BCRAMER@NEWLANDCO.COM

RECORDING INFORMATION

LEGAL DESCRIPTION:

BEING a tract of land situated in the M.E.P. & P.R.R. SURVEY, ABSTRACT NO. 913, Town of Northlake, Denton County, Texas and being part of those tracts of land described in Deed to NASH Canyon Falls, LLC, as recorded in Document No. 2015–49855 and Document No. 2015–50278, Deed Records, Denton County, Texas and being part of those tracts of land described as Tract 1 and Tract 2 in Deed to NASH Canyon Falls, LLC, as recorded in Document No. 2015–49868, Deed Records, Denton County, Texas and being more particularly described as follows:

BEGINNING at a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" found in the approximate centerline of Cleveland–Gibbs Road, an asphalt road, for the southwest corner of said NASH Canyon Falls, LLC tract recorded in Document No. 2015–49855;

THENCE North 00 degrees 59 minutes 21 seconds West, with said approximate centerline, a distance of 2.33 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner;

THENCE North 00 degrees 53 minutes 17 seconds West, continuing with said approximate centerline, a distance of 1,251.51 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" found for the northwest corner of the above mentioned Tract 1;

THENCE North 89 degrees 46 minutes 40 seconds East, leaving said approximate centerline and with the north line of said Tract 1, a distance of 45.00 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" found for the southwest corner of Lot 1X, Block Q of CANYON FALLS VILLAGE W2 PHASE ONE, an Addition to the Town of Northlake, Denton County, Texas according to the Plat thereof recorded in Document No. 2016–59, Plat Records, Denton County, Texas;

THENCE South 00 degrees 53 minutes 17 seconds East, leaving said north line, a distance of 390.03 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner;

THENCE South 45 degrees 33 minutes 18 seconds East, a distance of 28.45 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner;

THENCE North 89 degrees 46 minutes 41 seconds East, a distance of 4.82 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner;

THENCE South 00 degrees 13 minutes 19 seconds East, a distance of 50.00 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner;

THENCE South 89 degrees 46 minutes 41 seconds West, a distance of 4.23 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner;

THENCE South 44 degrees 26 minutes 42 seconds West, a distance of 28.12 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner;

THENCE South 00 degrees 53 minutes 17 seconds East, a distance of 770.96 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner;

THENCE South 00 degrees 59 minutes 27 seconds East, a distance of 2.79 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner in the south line of the above mentioned NASH Canyon Falls, LLC tract recorded in Document No. 2015–49855;

THENCE South 89 degrees 41 minutes 51 seconds West, with said south line, a distance of 45.00 feet to the POINT OF BEGINNING and containing 1.333 acres of land, more or less.

OWNER'S DEDICATION:

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS:

THAT, NASH CANYON FALLS, LLC, acting herein by and through its duly authorized officers, does hereby adopt this plat designated herein as RIGHT–OF–WAY DEDICATION FOR CLEVELAND GIBBS ROAD, an addition to the Town of Northlake, Denton County, Texas.

The easements shown hereon are hereby reserved for the purposes as indicated. All streets, alleys and rights–of–way are hereby dedicated in fee simple to the Town of Northlake for municipal purposes. The utility and fire lane easements (streets, alleys, and common areas) shall be open to the public, fire and police units, garbage and rubbish collection agencies and all public and private utilities for each particular use. No buildings, trees, shrubs or other improvements or growths shall be constructed, reconstructed or placed upon, over or across the utility easements as shown. Said utility easements being hereby reserved for the mutual use and accommodation of all public utilities using or desiring to use same.

All and any public utility shall have the right to remove and keep removed all or parts of any buildings, fences, trees, shrubs, or other improvements or growths which in any way endanger or interfere with the construction, maintenance or efficiency of its respective system on the utility easements and all public utilities shall at all times have the full right of ingress and egress to and from and upon the said utility easements for the purpose of construction, reconstructing, inspecting, patrolling, maintaining and adding to or removing all or parts of its respective systems without the necessity at any time of procuring the permission of anyone. Any public utility shall have the right of ingress and egress to private property for the purposes of reading meters and any maintenance and service required or ordinarily performed by that utility.

This plat approved subject to all platting ordinances, rules, regulations and resolutions of the Town of Northlake.

BY: NASH CANYON FALLS, LLC
A DELAWARE LIMITED LIABILITY COMPANY

BY: NEWLAND REAL ESTATE GROUP, LLC
A DELAWARE LIMITED LIABILITY COMPANY
ITS DEVELOPMENT MANAGER

BY: ________________________________
BRIAN CRAMER, VICE PRESIDENT

STATE OF TEXAS §
COUNTY OF __________ §

BEFORE ME, the undersigned authority, on this day personally appeared BRIAN CRAMER, known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he executed the same for the purpose and consideration therein expressed, in the capacity therein stated, and as the act and deed of said company.

GIVEN UNDER MY HAND AND SEAL OF OFFICE on the _____ day of _____________________, 2018.

____
Notary Public in and for the State of Texas

My Commission Expires: ____________________

SURVEYOR'S CERTIFICATE:

KNOW ALL MEN BY THESE PRESENTS: That I, Ryan S. Reynolds, do hereby certify that I have prepared this plat from an actual survey of the land, and that the corner monuments shown thereon were found or placed under my personal supervision in accordance with the platting rules and regulations of Town of Northlake, Denton County, Texas.

____
RYAN S. REYNOLDS, R.P.L.S.
Registered Professional Land Surveyor No. 6385

STATE OF TEXAS §
COUNTY OF COLLIN §

BEFORE ME, the undersigned authority, on this day personally appeared RYAN S. REYNOLDS, known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he executed the same for the purpose and consideration therein expressed, in the capacity therein stated, and as the act and deed of said partnership.

GIVEN UNDER MY HAND AND SEAL OF OFFICE on the _____ day of _____________________, 2018.

____
Notary Public in and for the State of Texas

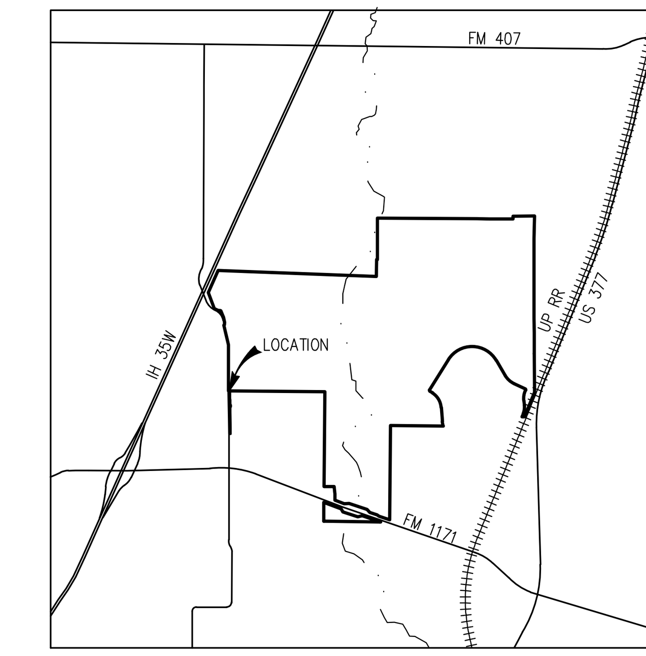
My Commission Expires: ____________________

APPROVED BY THE TOWN COUNCIL ON:

____
Date

____
Mayor, Town of Northlake

____
Town Secretary, Town of Northake



VICINITY MAP
N.T.S.

FINAL PLAT
OF

RIGHT-OF-WAY DEDICATION FOR CLEVELAND-GIBBS ROAD

BEING 1.333 ACRES LOCATED
IN THE M.E.P. & P.R.R. SURVEY
ABSTRACT NO. 913
AN ADDITION IN THE
TOWN OF NORTHLAKE,
DENTON COUNTY, TEXAS

Date: January 14, 2018

SHEET 2 OF 2

ENGINEER/SURVEYOR:
J. VOLK CONSULTING, INC.
830 CENTRAL PARKWAY EAST, SUITE 300
PLANO, TX 75074
972-201-3100
RYAN.REYNOLDS@JVOLKCONSULTING.COM
TBPLS FIRM NO. 10194033

OWNER:
NASH CANYON FALLS, LLC
10940 WEST SAM HOUSTON PARKWAY
SUITE 300
HOUSTON, TX 77064
972-992-3159
BCRAMER@NEWLANDCO.COM

RECORDING INFORMATION

1400 FM 407
Northlake, TX 76247
940-648-3290
Fax 940-648-0363

Town of Northlake

Memo

To: Honorable Mayor and Town Council

From: Nathan Reddin, Development Director

CC: Drew Corn, Town Administrator
Shirley Rogers, Town Secretary

Date: March 8, 2018

Re: Final Plat of Canyon Falls Village E4 (FP-18-002)

Purpose: To consider approval of a Final Plat of Canyon Falls Village E4, a phase of the Canyon Falls development consisting of 19 single-family residential lots and 2 HOA/Open Space lots on approximately 7.134 acres of land in the W. Love Survey, Abstract No. 728, generally located on the east side of Canyon Falls Drive at Westbridge Drive, and zoned Mixed-Use Planned Development (MPD).

Owner/Applicant: Nash Canyon Falls, LLC

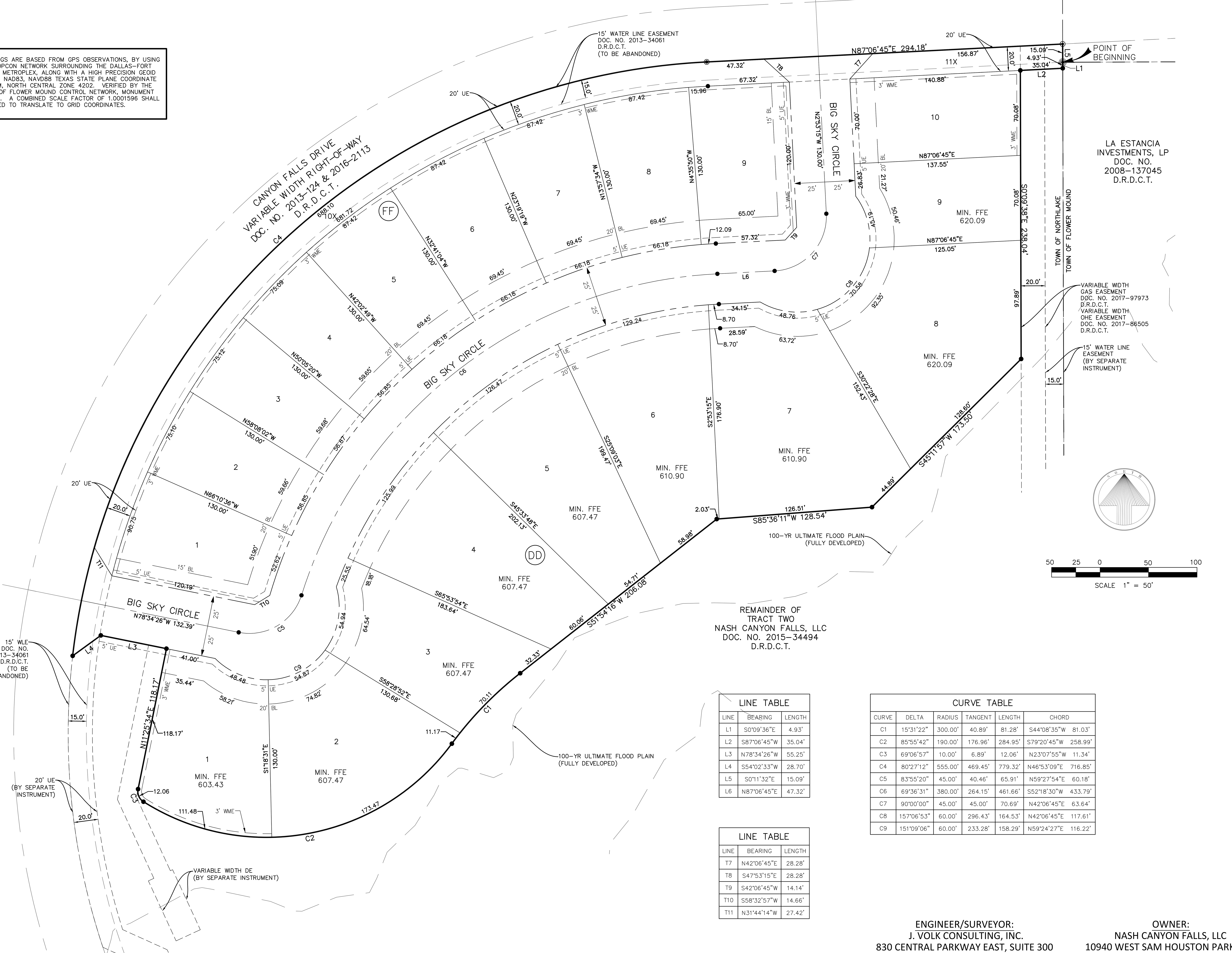
Engineer/Surveyor: J. Volk Consulting, Inc.

Background: Canyon Falls is a 1,200+ acre mixed-use, master planned community within multiple jurisdictions including the Town of Northlake, the Town of Flower Mound and the Town of Argyle's extraterritorial jurisdiction (ETJ). Zoning for the Northlake portion of the development was established as Mixed-Use Planned Development (MPD) with the approval of Ordinance No. 07-0111A on January 11, 2007. Subsequent amendments to the MPD have been approved with the latest being approved March 26, 2015. The preliminary plat for the portion of Canyon Falls including Village E1 was approved on November 8, 2012.

Staff Analysis: The applicant has submitted this final plat application in accordance with the requirements of the Unified Development Code (UDC), and it includes 19 single-family residential lots meeting and exceeding the Medium Density Residential SF-60 (4 lots) and SF-70 (15 lots) development standards outlined in the MPD. While the layout of Village E4 approved with the preliminary plat is similar, it proposed 22 total lots at the SF-60 standard. The developer has proposed larger lots because most of Block DD will initially serve as a model home village for areas of Canyon Falls with larger lot sizes. Construction of homes on Block FF as well as the planned screening wall adjacent to Canyon Falls Drive will be delayed while the model homes are in use. Accompanying construction plans for Village E4 have been reviewed and approved by Town Staff.

Staff Findings: The final plat is consistent with the approved preliminary plat and construction plans and appears to meet all applicable zoning and development requirements. Staff finds the final plat meets all applicable Town requirements.

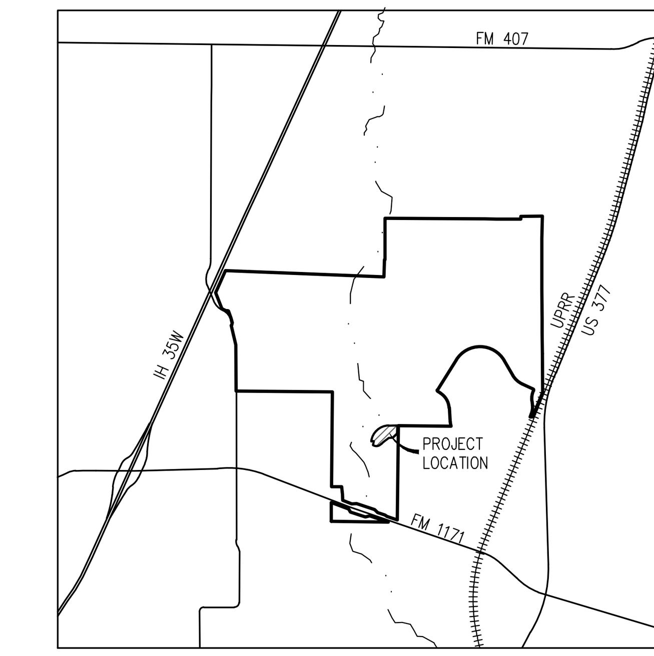
BEARINGS ARE BASED FROM GPS OBSERVATIONS, BY USING THE TOPCON NETWORK SURROUNDING THE DALLAS–FORT WORTH METROPLEX, ALONG WITH A HIGH PRECISION GEOID MODEL. NAD83, NAVD88 TEXAS STATE PLANE COORDINATE SYSTEM, NORTH CENTRAL ZONE 4202. VERIFIED BY THE TOWN OF FLOWER MOUND CONTROL NETWORK, MONUMENT NO. 39. A COMBINED SCALE FACTOR OF 1.0001596 SHALL BE USED TO TRANSLATE TO GRID COORDINATES.



LINE TABLE		
LINE	BEARING	LENGTH
L1	S0°09'36"E	4.93'
L2	S87°06'45"W	35.04'
L3	N78°34'26"W	55.25'
L4	S54°02'33"W	28.70'
L5	S0°11'32"E	15.09'
L6	N87°06'45"E	47.32'

LINE TABLE		
LINE	BEARING	LENGTH
T7	N42°06'45"E	28.28'
T8	S47°53'15"E	28.28'
T9	S42°06'45"W	14.14'
T10	S58°32'57"W	14.66'
T11	N31°44'14"W	27.42'

CURVE TABLE					
CURVE	DELTA	RADIUS	TANGENT	LENGTH	CHORD
C1	15°31'22"	300.00'	40.89'	81.28'	S44°08'35"W 81.03'
C2	85°55'42"	190.00'	176.96'	284.95'	S79°20'45"W 258.99'
C3	69°06'57"	10.00'	6.89'	12.06'	N23°07'55"W 11.34'
C4	80°27'12"	555.00'	469.45'	779.32'	N46°53'09"E 716.85'
C5	83°55'20"	45.00'	40.46'	65.91'	N59°27'54"E 60.18'
C6	69°36'31"	380.00'	264.15'	461.66'	S52°18'30"W 433.79'
C7	90°00'00"	45.00'	45.00'	70.69'	N42°06'45"E 63.64'
C8	157°06'53"	60.00'	296.43'	164.53'	N42°06'45"E 117.61'
C9	151°09'06"	60.00'	233.28'	158.29'	N59°24'27"E 116.22'



VICINITY MAP
N.T.S.

LEGEND

⊙	1/2" IRON ROD FOUND WITH YELLOW PLASTIC CAP STAMPED "JVC" (UNLESS OTHERWISE NOTED)
•	1/2" IRON ROD SET WITH YELLOW PLASTIC CAP STAMPED "JVC" (UNLESS OTHERWISE NOTED)
<CM>	CONTROL MONUMENT
D.R.D.C.T.	DEED RECORDS, DENTON COUNTY, TEXAS
P.R.D.C.T.	PLAT RECORDS, DENTON COUNTY, TEXAS
UE	UTILITY EASEMENT
OHE	OVERHEAD ELECTRIC
WME	WALL MAINTENANCE EASEMENT
DE	DRAINAGE EASEMENT
BL	BUILDING LINE

50 25 0 50 100

SCALE 1" = 50'

FINAL PLAT
OF

CANYON FALLS VILLAGE E4

LOTS 1-10, 11X BLOCK DD;
LOTS 1-9, 10X BLOCK FF;

BEING 7.134 ACRES LOCATED IN THE
W. LOVE SURVEY - ABSTRACT NO. 728
AN ADDITION IN THE TOWN OF NORTHLAKE,
DENTON COUNTY, TEXAS
CONTAINING 19 SINGLE-FAMILY
RESIDENTIAL LOTS &
2 HOA/OPEN SPACE LOTS
ZONED MIXED-USE PLANNED
DEVELOPMENT (MPD)

Date: February 12, 2018

SHEET 1 OF 2

ENGINEER/SURVEYOR:
J. VOLK CONSULTING, INC.
830 CENTRAL PARKWAY EAST, SUITE 300
PLANO, TX 75074
972-201-3100
RYAN.REYNOLDS@JVOLKCONSULTING.COM
TBPLS FIRM NO. 10194033

OWNER:
NASH CANYON FALLS, LLC
10940 WEST SAM HOUSTON PARKWAY
SUITE 300
HOUSTON, TX 77064
972-992-3159
BCRAMER@NEWLANDCO.COM

RECORDING INFORMATION

STATE OF TEXAS §
COUNTY OF DENTON §

BEING a tract of land situated in the W. LOVE SURVEY, ABSTRACT NO. 728, Town of Northlake, Denton County, Texas and being part of those tracts of land described as Tract 2 in Deed to NASH Canyon Falls, LLC, as recorded in Document No. 2015-34494, Deed Records, Denton County, Texas and being more particularly described as follows:

BEGINNING at a ½ inch I.R.F., being the most Northwest corner of that certain tract of land as conveyed to LA ESTANCIA INVESTMENTS, LP, as recorded in Document Number 2008-137045, said Deed Records, also being in the South right-of-way line of Canyon Falls Drive, a variable width right-of-way;

THENCE South 00 degrees 09 minutes 36 seconds East a distance of 4.93 feet to a ½ inch iron rod with a yellow plastic cap stamped "JVC" set for corner;

THENCE South 87 degrees 06 minutes 45 seconds West a distance of 35.04 feet to a ½ inch iron rod with a yellow plastic cap stamped "JVC" set for corner;

THENCE South 00 degrees 09 minutes 38 seconds East a distance of 238.04 feet to a ½ inch iron rod with a yellow plastic cap stamped "JVC" set for corner;

THENCE South 45 degrees 11 minutes 57 seconds West a distance of 173.50 feet to a ½ inch iron rod with a yellow plastic cap stamped "JVC" set for corner;

THENCE South 85 degrees 36 minutes 11 seconds West a distance of 128.54 feet to a ½ inch iron rod with a yellow plastic cap stamped "JVC" set for corner;

THENCE South 51 degrees 54 minutes 16 seconds West a distance of 206.08 feet to a ½ inch iron rod with a yellow plastic cap stamped "JVC" set for corner, said point being at the beginning of a curve to the left having a central angle of 15 degrees 31 minutes 22 seconds, a radius of 300.00 feet and a chord bearing and distance of South 44 degrees 08 minutes 35 seconds West, 81.03 feet;

THENCE Southwesterly, with said curve to the left, an arc distance of 81.28 feet to a ½ inch iron rod with a yellow plastic cap stamped "JVC" set for corner, said point being at the beginning of a curve to the right having a central angle of 85 degrees 55 minutes 42 seconds, a radius of 190.00 feet and a chord bearing and distance of South 79 degrees 20 minutes 45 seconds West, 258.99 feet;

THENCE Westerly, with said curve to the right, an arc distance of 284.95 feet to a ½ inch iron rod with a yellow plastic cap stamped "JVC" set for corner, said point being at the beginning of a curve to the right having a central angle of 69 degrees 06 minutes 57 seconds, a radius of 10.00 feet and a chord bearing and distance of North 23 degrees 07 minutes 55 seconds West, 11.34 feet;

THENCE Northwesterly, with said curve to the right, an arc distance of 12.06 feet to a ½ inch iron rod with a yellow plastic cap stamped "JVC" set for corner;

THENCE North 11 degrees 25 minutes 34 seconds East a distance of 118.17 feet to a ½ inch iron rod with a yellow plastic cap stamped "JVC" set for corner;

THENCE North 78 degrees 34 minutes 26 seconds West a distance of 55.25 feet to a ½ inch iron rod with a yellow plastic cap stamped "JVC" set for corner;

THENCE South 54 degrees 02 minutes 33 seconds West a distance of 28.70 feet to a ½ inch iron rod with a yellow plastic cap stamped "JVC" set for corner, said point being at the beginning of a non-tangent curve to the right having a central angle of 80 degrees 27 minutes 12 seconds, a radius of 555.00 feet and a chord bearing and distance of North 46 degrees 53 minutes 09 seconds East, 716.85 feet;

THENCE Northeasterly, with said curve to the right, an arc distance of 779.32 feet to a ½ inch iron rod found for corner;

THENCE North 87 degrees 06 minutes 45 seconds East a distance of 294.18 feet to a ½ inch iron rod with a yellow plastic cap stamped "JVC" set for corner;

THENCE South 00 degrees 11 minutes 32 seconds East a distance of 15.09 feet to the **POINT OF BEGINNING**, and containing 7.134 acres of land, more or less.

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS:

THAT, NASH CANYON FALLS, LLC, acting herein by and through its duly authorized officers, does hereby adopt this plat designated herein as CANYON FALLS - VILLAGE E4, an addition to the Town of Northlake, Denton County, Texas.

The easements shown hereon are hereby reserved for the purposes as indicated. All streets, alleys and rights-of-way are hereby dedicated in fee simple to the Town of Northlake for municipal purposes. The utility and fire lane easements (streets, alleys, and common areas) shall be open to the public, fire and police units, garbage and rubbish collection agencies and all public and private utilities for each particular use. No buildings, trees, shrubs or other improvements or growths shall be constructed, reconstructed or placed upon, over or across the utility easements as shown. Said utility easements being hereby reserved for the mutual use and accommodation of all public utilities using or desiring to use same.

All and any public utility shall have the right to remove and keep removed all or parts of any buildings, fences, trees, shrubs, or other improvements or growths which in any way endanger or interfere with the construction, maintenance or efficiency of its respective system on the utility easements and all public utilities shall at all times have the full right of ingress and egress to and from and upon the said utility easements for the purpose of construction, reconstructing, inspecting, patrolling, maintaining and adding to or removing all or parts of its respective systems without the necessity at any time of procuring the permission of anyone. Any public utility shall have the right of ingress and egress to private property for the purposes of reading meters and any maintenance and service required or ordinarily performed by that utility.

This plat approved subject to all platting ordinances, rules, regulations and resolutions of the Town of Northlake.

BY: NASH CANYON FALLS, LLC
A DELAWARE LIMITED LIABILITY COMPANY

BY: NEWLAND REAL ESTATE GROUP, LLC
A DELAWARE LIMITED LIABILITY COMPANY
ITS DEVELOPMENT MANAGER

BY: ________________________________
BRIAN CRAMER, VICE PRESIDENT

STATE OF TEXAS §
COUNTY OF ______________ §

BEFORE ME, the undersigned authority, on this day personally appeared BRIAN CRAMER, known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he executed the same for the purpose and consideration therein expressed, in the capacity therein stated, and as the act and deed of said company.

GIVEN UNDER MY HAND AND SEAL OF OFFICE on the _____ day of ______________________, 2018.

____
Notary Public in and for the State of Texas

NOTARY SEAL
(Ink Stamp Only)

My Commission Expires: ____________________

SURVEYORS CERTIFICATE:

KNOW ALL MEN BY THESE PRESENTS: That I, Ryan S. Reynolds, do hereby certify that I have prepared this plat from an actual survey of the land, and that the corner monuments shown thereon were found or placed under my personal supervision in accordance with the platting rules and regulations of Town of Northlake, Denton County, Texas.

____
RYAN S. REYNOLDS, R.P.L.S.
Registered Professional Land Surveyor No. 6385

STATE OF TEXAS §
COUNTY OF ______________ §

BEFORE ME, the undersigned authority, on this day personally appeared Ryan S. Reynolds, known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he executed the same for the purpose and consideration therein expressed, in the capacity therein stated, and as the act and deed of said partnership.

GIVEN UNDER MY HAND AND SEAL OF OFFICE on the _____ day of ______________________, 2018.

____
Notary Public in and for the State of Texas

My Commission Expires: ____________________

APPROVED BY THE TOWN COUNCIL ON:

____
Date

____
Mayor, Town of Northlake

____
Town Secretary, Town of Northake

LOT AREA TABLE

LOT NO.	BLOCK	AREA
1	BLOCK DD–E4	13395
2	BLOCK DD–E4	15567
3	BLOCK DD–E4	13186
4	BLOCK DD–E4	17812
5	BLOCK DD–E4	18303
6	BLOCK DD–E4	17519
7	BLOCK DD–E4	21771
8	BLOCK DD–E4	20299
9	BLOCK DD–E4	9189
10	BLOCK DD–E4	9745
11X	BLOCK DD–E4	3328

LOT AREA TABLE

LOT NO.	BLOCK	AREA
1	BLOCK FF–E4	9919
2	BLOCK FF–E4	8577
3	BLOCK FF–E4	8579
4	BLOCK FF–E4	8576
5	BLOCK FF–E4	9984
6	BLOCK FF–E4	9984
7	BLOCK FF–E4	9984
8	BLOCK FF–E4	9984
9	BLOCK FF–E4	10524
10X	BLOCK FF–E4	14843

ACREAGE TABLE

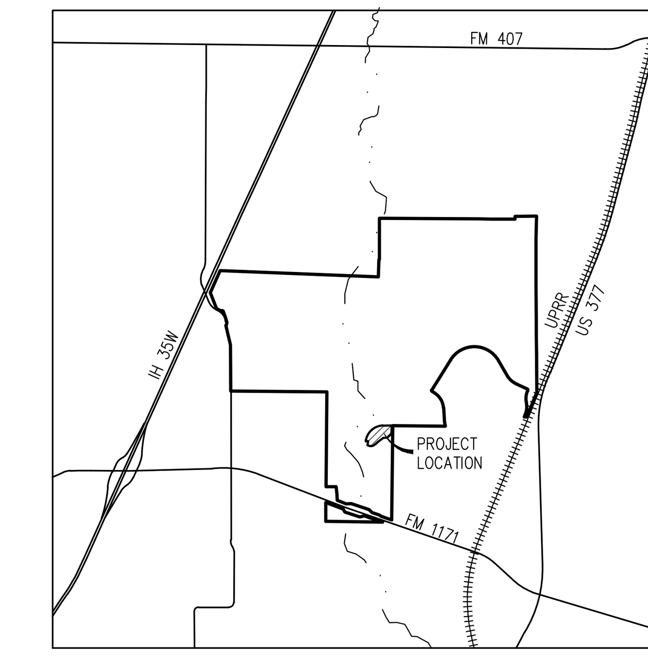
TYPE	ACREAGE (AC)
LOTS	5.576
ROW DEDICATION	1.141
OPEN SPACE/HOA LOTS	0.417
TOTAL	7.134

LOT/BLOCK ANALYSIS
VILLAGE E4

SMALLEST LOT SIZE (SF)	8,576
LARGEST LOT SIZE (SF)	21,771
AVERAGE LOT SIZE (SF)	12,784
TOTAL NO. OF LOTS	19

PARCEL TABLE - CANYON FALLS - TOWN OF NORTHLAKE

VILLAGE	SF-50	SF-60	SF-70
VILLAGE E4	0	4	15
VILLAGE E1	0	0	44
VILLAGE E2	37	0	0
VILLAGE E3	57	0	0
VILLAGE W1	0	84	0
VILLAGE W2 - PH 1	99	0	0
VILLAGE W2 - PH 2	51	0	0
VILLAGE W3 - PH 1	0	40	0
VILLAGE W3 - PH 2	0	16	0
VILLAGE W4 - PH 1	46	0	0
VILLAGE W4 - PH 2	63	0	0
VILLAGE W7	0	0	62
PENNINGTON - PHASE ONE	98	53	0
TOTAL	**451**	**197**	**121**
MAXIMUM NUMBER OF DWELLING UNITS	600	400	200



VICINITY MAP
N.T.S.

NOTES:

1. ALL PROPOSED LOTS SITUATED IN WHOLE OR IN PART WITHIN THE TOWN'S CORPORATE LIMITS COMPLY WITH THE MINIMUM SIZE REQUIREMENTS OF THE GOVERNING ZONING DISTRICT.
2. ALL "X" LOTS & COMMON AREAS SHALL BE PEDESTRIAN AND BICYCLE ACCESS EASEMENTS.
3. ALL "X" LOTS & COMMON AREAS SHALL BE OWNED AND MAINTAINED BY THE HOMEOWNERS ASSOCIATION
4. NO STRUCTURES SHALL BE PERMITTED TO BE CONSTRUCTED WITHIN ANY PUBLIC EASEMENTS SHOWN ON THIS PLAT; THE TOWN SHALL HAVE THE RIGHT TO REMOVE ANY STRUCTURE PLACED WITHIN A PUBLIC EASEMENT
5. ALL LOT CORNERS TO BE MONUMENTED WITH 1/2" IRON ROD WITH YELLOW PLASTIC CAP STAMPED "JVC" UNLESS OTHERWISE NOTED.

FINAL PLAT
OF

CANYON FALLS VILLAGE E4

LOTS 1-10, 11X BLOCK DD;
LOTS 1-9, 10X BLOCK FF;

BEING 7.134 ACRES LOCATED IN THE
W. LOVE SURVEY - ABSTRACT NO. 728
AN ADDITION IN THE TOWN OF NORTHLAKE,
DENTON COUNTY, TEXAS
CONTAINING 19 SINGLE-FAMILY
RESIDENTIAL LOTS &
2 HOA/OPEN SPACE LOTS
ZONED MIXED-USE PLANNED
DEVELOPMENT (MPD)

Date: February 12, 2018

SHEET 2 OF 2

ENGINEER/SURVEYOR:
J. VOLK CONSULTING, INC.
830 CENTRAL PARKWAY EAST, SUITE 300
PLANO, TX 75074
972-201-3100
RYAN.REYNOLDS@JVOLKCONSULTING.COM
TBPLS FIRM NO. 10194033

OWNER:
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SUITE 300
HOUSTON, TX 77064
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RECORDING INFORMATION

1400 FM 407
Northlake, TX 76247
940-648-3290
Fax 940-648-0363

Town of Northlake

Memo

To: Honorable Mayor and Town Council

From: Nathan Reddin, Development Director

CC: Drew Corn, Town Administrator
Shirley Rogers, Town Secretary

Date: March 8, 2018

Re: Final Plat of Canyon Falls Pennington Phase One (FP-18-001)

Purpose: To consider approval of a Final Plat of Canyon Falls Pennington Phase One, a phase of the Canyon Falls development consisting of 151 single-family residential lots and 5 HOA/Open Space lots on approximately 38.434 acres of land in the W. Love Survey, Abstract No. 728, and the MEP & PRR Survey, Abstract No. 913, generally located on the east side of Cleveland-Gibbs Road approximately 1,900 feet north of FM 1171, and zoned Mixed-Use Planned Development (MPD).

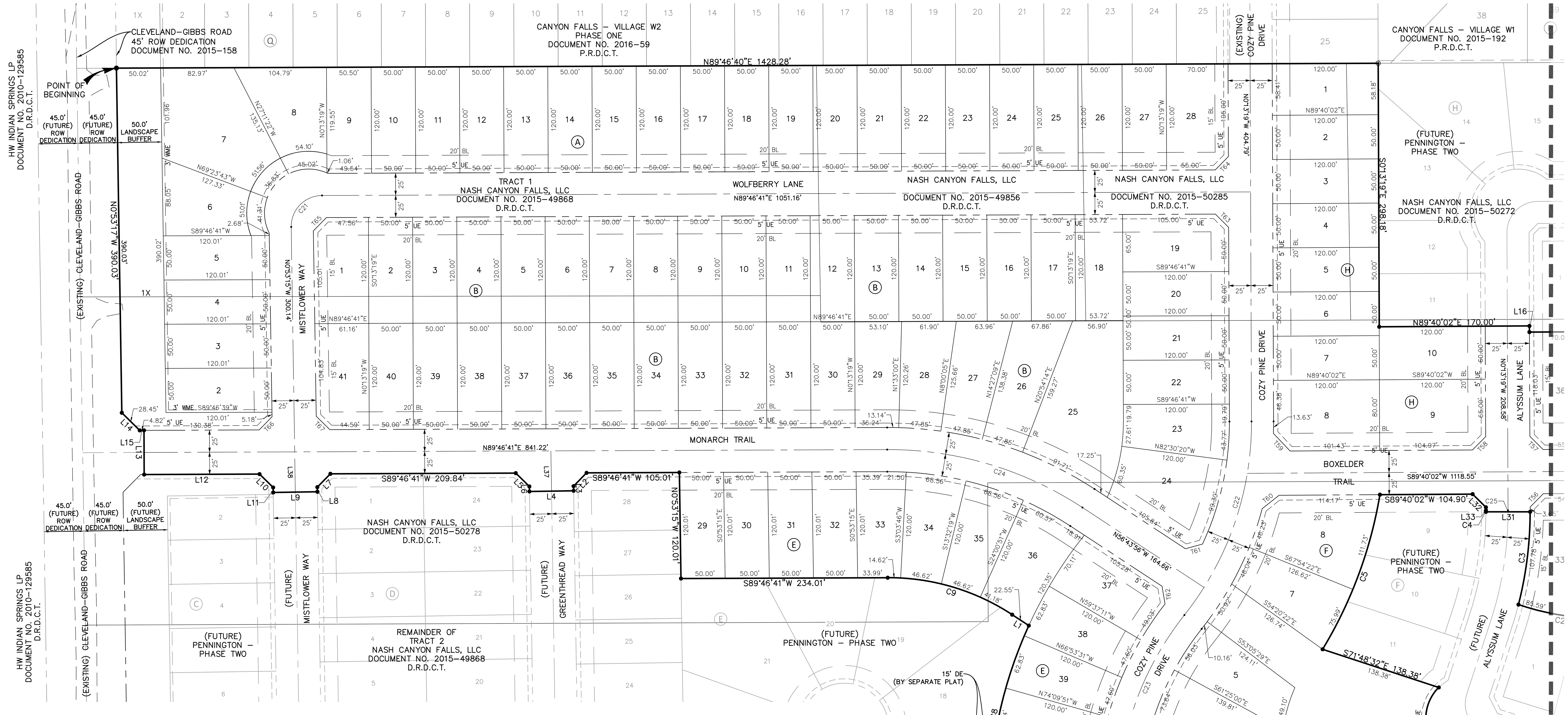
Owner/Applicant: Nash Canyon Falls, LLC

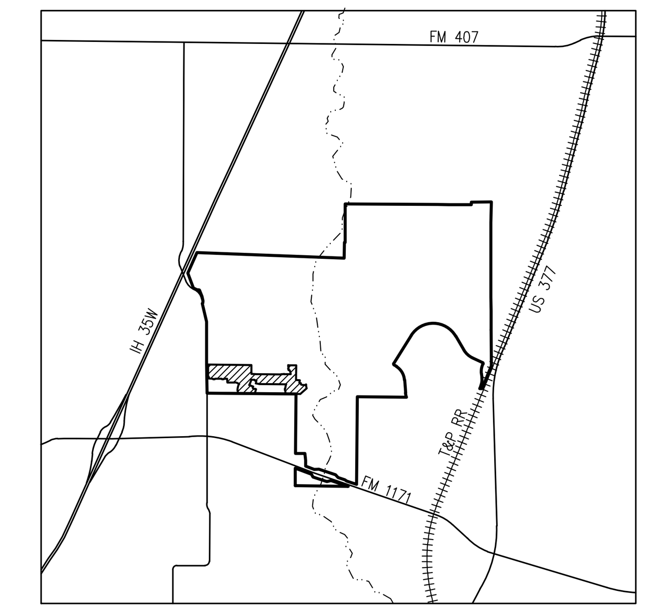
Engineer/Surveyor: J. Volk Consulting, Inc.

Background: Canyon Falls is a 1,200+ acre mixed-use, master planned community within multiple jurisdictions including the Town of Northlake, the Town of Flower Mound and the Town of Argyle's extraterritorial jurisdiction (ETJ). Zoning for the Northlake portion of the development was established as Mixed-Use Planned Development (MPD) with the approval of Ordinance No. 07-0111A on January 11, 2007. Since then several minor MPD amendments have been approved, including the latest amendment, Ordinance No. 15-0326, to add approximately 70 acres of adjacent property known as the Pennington Tracts into the MPD boundary and to update accordingly the concept plans for development of the property. A preliminary plat for the portion of Canyon Falls including the Pennington Tracts was approved on April 9, 2015.

Staff Analysis: The applicant has submitted this final plat application in accordance with the requirements of the Unified Development Code (UDC), and it covers areas of Canyon Falls designated to be developed as single-family residential, being comprised of 151 single-family residential lots and 5 open space lots to be owned and maintained by the HOA. Of the total residential lots, 98 lots on the western side of the plat meet the SF-50 standards (minimum 50-foot width and 6,000 square-foot area) and 53 lots on the eastern side of the plat meet the SF-60 standards (minimum 60-foot width and 7,200 square-foot area). Accompanying construction plans for Pennington Phase One have been reviewed and approved by Town Staff.

Staff Findings: The final plat is consistent with the approved preliminary plat and construction plans and appears to meet all applicable zoning and development requirements. Staff finds the final plat meets all applicable Town requirements.





VICINITY MAP
N.T.S.

SCALE 1" = 60'

LOT AREA TABLE		
LOT #	BLOCK	S.F.
1X	BLOCK A	22596
2	BLOCK A	6000
3	BLOCK A	6000
4	BLOCK A	6000
5	BLOCK A	6000
6	BLOCK A	7672
7	BLOCK A	14336
8	BLOCK A	8765
9	BLOCK A	6060
10	BLOCK A	6000
11	BLOCK A	6000
12	BLOCK A	6000
13	BLOCK A	6000
14	BLOCK A	6000
15	BLOCK A	6000
16	BLOCK A	6000
17	BLOCK A	6000
18	BLOCK A	6000
19	BLOCK A	6000
20	BLOCK A	6000
21	BLOCK A	6000
22	BLOCK A	6000
23	BLOCK A	6000
24	BLOCK A	6000
25	BLOCK A	6000
26	BLOCK A	6000
27	BLOCK A	6000
28	BLOCK A	8287

LOT AREA TABLE		
LOT #	BLOCK	S.F.
1	BLOCK B	7311
2	BLOCK B	6000
3	BLOCK B	6000
4	BLOCK B	6000
5	BLOCK B	6000
6	BLOCK B	6000
7	BLOCK B	6000
8	BLOCK B	6000
9	BLOCK B	6000
10	BLOCK B	6000
11	BLOCK B	6000
12	BLOCK B	6000
13	BLOCK B	6000
14	BLOCK B	6000
15	BLOCK B	6000
16	BLOCK B	6000
17	BLOCK B	6000
18	BLOCK B	6446
19	BLOCK B	7687
20	BLOCK B	6000
21	BLOCK B	6000
22	BLOCK B	6000
23	BLOCK B	6657
24	BLOCK B	10373
25	BLOCK B	15385
26	BLOCK B	8323
27	BLOCK B	7260
28	BLOCK B	6699

LOT AREA TABLE		
LOT #	BLOCK	S.F.
29	BLOCK B	6150
30	BLOCK B	6000
31	BLOCK B	6000
32	BLOCK B	6000
33	BLOCK B	6000
34	BLOCK B	6000
35	BLOCK B	6000
36	BLOCK B	6000
37	BLOCK B	6000
38	BLOCK B	6000
39	BLOCK B	6000
40	BLOCK B	6000
41	BLOCK B	7141

LOT AREA TABLE		
LOT #	BLOCK	S.F.
1	BLOCK H	6995
2	BLOCK H	6000
3	BLOCK H	6000
4	BLOCK H	6000
5	BLOCK H	6000
6	BLOCK H	6000
7	BLOCK H	6000
8	BLOCK H	9418
9	BLOCK H	9487
10	BLOCK H	7200

LOT AREA TABLE		
LOT #	BLOCK	S.F.
29	BLOCK E	6000
30	BLOCK E	6000
31	BLOCK E	6000
32	BLOCK E	6000
33	BLOCK E	6330
34	BLOCK E	6911
35	BLOCK E	6911
36	BLOCK E	8300
37	BLOCK E	7938
38	BLOCK E	6625
39	BLOCK E	6625
40	BLOCK E	7956
41	BLOCK E	6608
42	BLOCK E	6031
43	BLOCK E	6333

LOT AREA TABLE		
LOT #	BLOCK	S.F.
1	BLOCK F	7587
2	BLOCK F	6688
3	BLOCK F	9026
4	BLOCK F	8373
5	BLOCK F	7457
6X	BLOCK F	62283
7	BLOCK F	7713
8	BLOCK F	10889

LINE TABLE		
LINE	BEARING	LENGTH
L1	N56°43'56"W	22.55'
L2	S44°26'43"W	21.09'
L3	S0°53'15"E	5.23'
L4	S89°06'45"W	50.00'
L5	N45°33'17"W	21.59'
L6	N0°53'15"W	5.64'
L7	S44°26'43"W	21.09'
L8	S0°53'15"E	5.23'
L9	S89°06'45"W	50.00'
L10	N45°33'17"W	21.59'
L11	N0°53'15"W	5.64'
L12	S89°46'41"W	130.61'
L13	N0°13'19"W	50.00'
L14	N45°33'18"W	28.45'
L15	S89°46'41"W	4.82'
L16	S0°13'19"E	7.00'
L17	N65°42'20"W	19.51'
L18	N13°00'35"W	50.09'
L19	N29°12'15"E	20.78'
L20	S0°11'50"E	24.62'
L21	S77°46'13"E	50.00'
L22	S28°07'29"E	28.29'

LINE TABLE		
LINE	BEARING	LENGTH
L23	N81°33'02"E	21.33'
L24	N37°40'24"E	21.62'
L25	S89°11'08"W	66.97'
L26	S89°40'02"W	3.00'
L27	N45°19'58"W	21.21'
L28	N0°19'58"W	50.00'
L29	N89°40'02"E	3.00'
L30	N45°11'59"E	21.41'
L31	N89°59'11"W	50.00'
L32	N45°19'58"W	21.17'
L33	N0°13'19"W	3.61'
L34	S72°33'38"E	31.86'
L35	N89°40'02"E	20.00'
L36	S0°08'58"E	50.00'
L37	N0°53'15"W	45.53'
L38	N0°53'15"W	300.14'
L39	N81°33'02"E	21.91'
L40	S0°19'58"E	25.00'
L41	N39°21'31"W	0.26'
L42	S39°21'31"E	15.60'
L43	N47°25'12"E	14.87'
L45	N89°40'02"E	34.51'

LINE TABLE		
LINE	BEARING	LENGTH
T46	N81°33'02"E	11.07'
T47	S55°03'27"E	21.83'
T48	S47°30'39"E	26.54'
T49	S30°20'11"E	20.00'
T50	N44°40'03"E	21.21'
T51	N44°41'36"W	20.98'
T52	N68°44'03"E	13.89'
T53	S32°50'13"E	26.61'
T54	S60°26'21"W	23.23'
T55	N23°28'28"W	21.31'
T56	N44°43'22"E	21.27'
T57	N45°16'38"W	21.15'
T58	S44°46'40"W	21.25'
T59	N43°31'42"W	27.43'
T60	N51°37'25"E	24.34'
T61	S74°43'30"W	20.01'
T62	S9°30'01"E	20.43'
T63	S45°13'19"E	21.21'
T64	S44°46'41"W	21.21'
T65	N44°26'43"E	21.09'
T66	S44°26'43"W	20.85'
T67	N45°33'17"W	21.59'

NOTES:

1. ALL PROPOSED LOTS SITUATED IN WHOLE OR IN PART WITHIN THE TOWN'S CORPORATE LIMITS COMPLY WITH THE MINIMUM SIZE REQUIREMENTS OF THE GOVERNING ZONING DISTRICT.
2. ALL "X" LOTS & COMMON AREAS SHALL BE PEDESTRIAN AND BICYCLE ACCESS EASEMENTS.
3. ALL "X" LOTS & COMMON AREAS SHALL BE OWNED AND MAINTAINED BY THE HOMEOWNERS ASSOCIATION
4. NO STRUCTURES SHALL BE PERMITTED TO BE CONSTRUCTED WITHIN ANY PUBLIC EASEMENTS SHOWN ON THIS PLAT; THE TOWN SHALL HAVE THE RIGHT TO REMOVE ANY STRUCTURE PLACED WITHIN A PUBLIC EASEMENT
5. ALL LOT CORNERS TO BE MONUMENTED WITH 1/2" IRON ROD WITH YELLOW PLASTIC CAP STAMPED "JVC" UNLESS OTHERWISE NOTED.

LEGEND

⦿	1/2" IRON ROD FOUND WITH YELLOW PLASTIC CAP STAMPED "JVC" (UNLESS OTHERWISE NOTED)
●	1/2" IRON ROD SET WITH YELLOW PLASTIC CAP STAMPED "JVC" (UNLESS OTHERWISE NOTED)
<CM>	CONTROL MONUMENT
D.R.D.C.T.	DEED RECORDS, DENTON COUNTY, TEXAS
P.R.D.C.T.	PLAT RECORDS, DENTON COUNTY, TEXAS
UE	UTILITY EASEMENT
WME	WALL MAINTENANCE EASEMENT
DE	DRAINAGE EASEMENT
BL	BUILDING LINE

BEARINGS ARE BASED FROM GPS OBSERVATIONS, BY USING THE TOPCON NETWORK SURROUNDING THE DALLAS-FORT WORTH METROPLEX, ALONG WITH A HIGH PRECISION GEOID MODEL. NAD83, NAVD88 TEXAS STATE PLANE COORDINATE SYSTEM, NORTH CENTRAL ZONE 4202. VERIFIED BY THE TOWN OF FLOWER MOUND CONTROL NETWORK, MONUMENT NO. 39. A COMBINED SCALE FACTOR OF 1.0001596 SHALL BE USED TO TRANSLATE TO GRID COORDINATES.

ENGINEER/SURVEYOR:
J. VOLK CONSULTING, INC.
830 CENTRAL PARKWAY EAST, SUITE 300
PLANO, TX 75074
972-201-3100
RYAN.REYNOLDS@JVOLKCONSULTING.COM
TBPLS FIRM NO. 10194033

OWNER:
NASH CANYON FALLS, LLC
10940 WEST SAM HOUSTON PARKWAY
SUITE 300
HOUSTON, TX 77064
972-992-3159
BCRAMER@NEWLANDCO.COM

FINAL PLAT
OF

CANYON FALLS PENNINGTON PHASE ONE

LOTS 1X, 2-28, BLOCK A;
LOTS 1-41, BLOCK B;
LOTS 29-43, BLOCK E;
LOTS 1-5, 6X, 7-8, BLOCK F;
LOTS 17X, 18-33, BLOCK G;
LOTS 1-10, BLOCK H;
LOTS 19-36, BLOCK I;
LOTS 1-7, 8X, BLOCK J;
LOTS 1-3, 4X, BLOCK K;
LOTS 1-7, BLOCK L

BEING 38.434 ACRES
LOCATED IN THE
W. LOVE SURVEY -
ABSTRACT NO. 728 &
MEP & PRR SURVEY -
ABSTRACT NO. 913
AN ADDITION IN THE
TOWN OF NORTHLAKE,
DENTON COUNTY, TEXAS
CONTAINING
151 SINGLE-FAMILY
RESIDENTIAL LOTS AND
5 OPEN SPACE/HOA LOTS
ZONED MIXED-USE
PLANNED DEVELOPMENT (MPD)
HIGH DENSITY
RESIDENTIAL (SF-50) &
MEDIUM DENSITY
RESIDENTIAL (SF-60)

Date: February 28, 2018

SHEET 1 OF 3

RECORDING INFORMATION

LOT AREA TABLE		
LOT #	BLOCK	S.F.
17X	BLOCK G	7740
18	BLOCK G	9376
19	BLOCK G	8827
20	BLOCK G	8529
21	BLOCK G	8493
22	BLOCK G	8493
23	BLOCK G	8493
24	BLOCK G	8493
25	BLOCK G	8493
26	BLOCK G	8493
27	BLOCK G	8493
28	BLOCK G	8493
29	BLOCK G	8493
30	BLOCK G	8493
31	BLOCK G	8493
32	BLOCK G	8492
33	BLOCK G	9989

LOT AREA TABLE		
LOT #	BLOCK	S.F.
1	BLOCK J	11703
2	BLOCK J	10945
3	BLOCK J	9410
4	BLOCK J	7989
5	BLOCK J	7255
6	BLOCK J	7150
7	BLOCK J	7662
8X	BLOCK J	19366

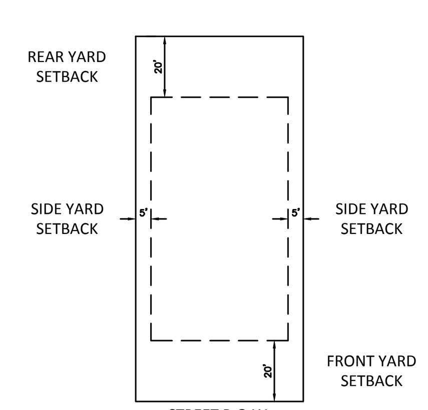
LOT AREA TABLE		
LOT #	BLOCK	S.F.
19	BLOCK I	11333
20	BLOCK I	7583
21	BLOCK I	7681
22	BLOCK I	7806
23	BLOCK I	7947
24	BLOCK I	7980
25	BLOCK I	7980
26	BLOCK I	7980
27	BLOCK I	7980
28	BLOCK I	7980
29	BLOCK I	7980
30	BLOCK I	7980
31	BLOCK I	7980
32	BLOCK I	7980
33	BLOCK I	7980
34	BLOCK I	7980
35	BLOCK I	7996
36	BLOCK I	9198

LOT AREA TABLE		
LOT #	BLOCK	S.F.
1	BLOCK K	9315
2	BLOCK K	7200
3	BLOCK K	12875
4X	BLOCK K	73908

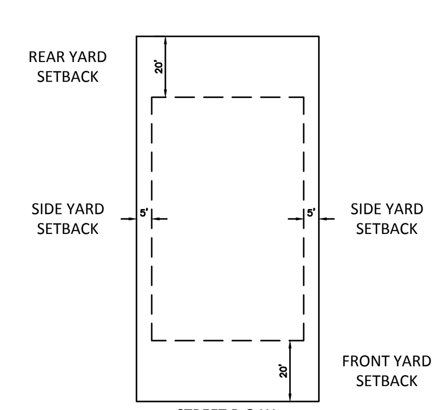
LOT AREA TABLE		
LOT #	BLOCK	S.F.
1	BLOCK L	8551
2	BLOCK L	7434
3	BLOCK L	7441
4	BLOCK L	7449
5	BLOCK L	7456
6	BLOCK L	7498
7	BLOCK L	10111

CURVE TABLE					
CURVE	DELTA	RADIUS	TANGENT	LENGTH	CHORD
C1	18°34'31"	400.00'	65.41'	129.68'	N11°06'15"E 129.11'
C2	18°57'25"	300.00'	50.09'	99.26'	N80°51'15"W 98.81'
C3	14°17'41"	425.00'	53.29'	106.03'	N7°09'39"E 105.76'
C4	0°14'08"	375.00'	0.77'	1.54'	N0°06'15"W 1.54'
C5	21°43'41"	495.00'	95.00'	187.72'	S20°20'33"W 186.59'
C6	163°06'31"	50.00'	336.74'	142.34'	S36°34'11"E 98.92'
C7	0°29'56"	525.00'	2.29'	4.57'	S72°48'36"E 4.57'
C8	24°42'52"	495.00'	108.45'	213.52'	N12°12'28"E 211.87'
C9	33°29'24"	255.00'	76.72'	149.05'	N73°28'37"W 146.94'
C10	9°19'13"	600.00'	48.91'	97.60'	N85°00'26"E 97.50'
C11	9°39'11"	300.00'	25.33'	50.54'	N85°10'25"E 50.48'
C12	24°54'43"	295.00'	65.16'	128.26'	N16°16'12"W 127.26'
C13	0°44'42"	355.00'	2.31'	4.62'	N28°21'12"W 4.62'
C14	2°11'59"	375.00'	7.20'	14.40'	S75°53'25"W 14.40'
C15	0°46'43"	309.04'	2.10'	4.20'	N76°11'56"E 4.20'
C16	15°08'56"	354.99'	47.20'	93.86'	N7°47'49"W 93.58'
C17	12°25'37"	325.00'	35.38'	70.49'	S6°00'58"W 70.35'
C18	2°44'14"	375.00'	8.96'	17.91'	S13°35'54"W 17.91'
C19	28°12'52"	265.50'	66.72'	130.74'	S84°20'32"E 129.42'
C20	7°52'14"	931.03'	64.05'	127.89'	S9°40'55"E 127.79'

CURVE TABLE					
CURVE	DELTA	RADIUS	TANGENT	LENGTH	CHORD
C21	90°39'56"	35.00'	35.41'	55.38'	S44°26'43"W 49.78'
C22	38°41'01"	350.00'	122.86'	236.31'	N19°07'11"E 231.84'
C23	38°36'39"	350.00'	122.61'	235.86'	S19°09'22"W 231.42'
C24	33°29'24"	400.00'	120.35'	233.80'	N73°28'37"W 230.49'
C25	0°14'08"	400.00'	0.82'	1.64'	N0°06'15"W 1.64'
C26	10°57'40"	600.00'	57.57'	114.78'	N84°11'13"E 114.61'
C27	46°44'00"	425.00'	183.62'	346.65'	N77°55'37"W 337.12'
C28	43°53'21"	325.00'	130.94'	248.95'	S76°30'17"E 242.91'
C29	10°16'02"	350.00'	31.44'	62.72'	N17°21'48"E 62.64'
C30	41°21'04"	370.00'	139.63'	267.03'	S20°20'35"W 261.28'
C31	69°44'40"	325.00'	226.49'	395.61'	N6°08'47"E 371.64'
C32	28°30'14"	325.00'	82.55'	161.68'	S14°28'26"E 160.02'
C33	8°31'59"	350.00'	26.11'	52.13'	N72°43'25"E 52.08'
C34	9°13'17"	200.00'	16.13'	32.19'	S4°28'07"W 32.15'
C35	101°43'14"	50.00'	61.44'	88.77'	N38°59'25"E 77.56'
C36	258°27'40"	50.00'	61.24'	225.55'	S39°33'51"E 77.46'
C37	16°28'19"	350.00'	50.66'	100.62'	S62°47'46"E 100.27'
C38	18°10'51"	259.50'	41.52'	82.34'	S80°07'21"E 82.00'
C39	9°14'11"	365.00'	29.48'	58.84'	N86°10'08"E 58.78'
C40	1°46'36"	300.00'	4.65'	9.30'	N55°26'55"W 9.30'



TYPICAL SF-50 LOT
SETBACK DETAIL



TYPICAL SF-60 LOT
SETBACK DETAIL

LEGEND

◉	1/2" IRON ROD FOUND WITH YELLOW PLASTIC CAP STAMPED "JVC" (UNLESS OTHERWISE NOTED)
●	1/2" IRON ROD SET WITH YELLOW PLASTIC CAP STAMPED "JVC" (UNLESS OTHERWISE NOTED)
<CM>	CONTROL MONUMENT
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P.R.D.C.T.	PLAT RECORDS, DENTON COUNTY, TEXAS
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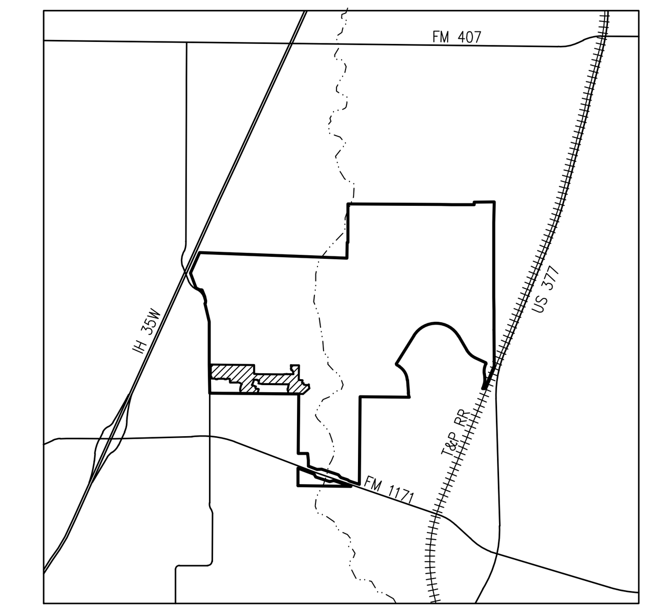

VICINITY MAP
N.T.S.

NOTES:

1. ALL PROPOSED LOTS SITUATED IN WHOLE OR IN PART WITHIN THE TOWN'S CORPORATE LIMITS COMPLY WITH THE MINIMUM SIZE REQUIREMENTS OF THE GOVERNING ZONING DISTRICT.
2. ALL "X" LOTS & COMMON AREAS SHALL BE PEDESTRIAN AND BICYCLE ACCESS EASEMENTS.
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4. NO STRUCTURES SHALL BE PERMITTED TO BE CONSTRUCTED WITHIN ANY PUBLIC EASEMENTS SHOWN ON THIS PLAT; THE TOWN SHALL HAVE THE RIGHT TO REMOVE ANY STRUCTURE PLACED WITHIN A PUBLIC EASEMENT
5. ALL LOT CORNERS TO BE MONUMENTED WITH 1/2" IRON ROD WITH YELLOW PLASTIC CAP STAMPED "JVC" UNLESS OTHERWISE NOTED.

FINAL PLAT
OF

CANYON FALLS PENNINGTON PHASE ONE

LOTS 1X, 2-28, BLOCK A;
LOTS 1-41, BLOCK B;
LOTS 29-43, BLOCK E;
LOTS 1-5, 6X, 7-8, BLOCK F;
LOTS 17X, 18-33, BLOCK G;
LOTS 1-10, BLOCK H;
LOTS 19-36, BLOCK I;
LOTS 1-7, 8X, BLOCK J;
LOTS 1-3, 4X, BLOCK K;
LOTS 1-7, BLOCK L

BEING 38.434 ACRES
LOCATED IN THE
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ABSTRACT NO. 728 &
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151 SINGLE-FAMILY
RESIDENTIAL LOTS AND
5 OPEN SPACE/HOA LOTS
ZONED MIXED-USE
PLANNED DEVELOPMENT (MPD)
HIGH DENSITY
RESIDENTIAL (SF-50) &
MEDIUM DENSITY
RESIDENTIAL (SF-60)

Date: February 28, 2018

BEARINGS ARE BASED FROM GPS OBSERVATIONS, BY USING THE TOPCON NETWORK SURROUNDING THE DALLAS-FORT WORTH METROPLEX, ALONG WITH A HIGH PRECISION GEOID MODEL. NAD83, NAVD88 TEXAS STATE PLANE COORDINATE SYSTEM, NORTH CENTRAL ZONE 4202. VERIFIED BY THE TOWN OF FLOWER MOUND CONTROL NETWORK, MONUMENT NO. 39. A COMBINED SCALE FACTOR OF 1.0001596 SHALL BE USED TO TRANSLATE TO GRID COORDINATES.

ENGINEER/SURVEYOR:
J. VOLK CONSULTING, INC.
830 CENTRAL PARKWAY EAST, SUITE 300
PLANO, TX 75074
972-201-3100
RYAN.REYNOLDS@JVOLKCONSULTING.COM
TBPLS FIRM NO. 10194033

OWNER:
NASH CANYON FALLS, LLC
10940 WEST SAM HOUSTON PARKWAY
SUITE 300
HOUSTON, TX 77064
972-992-3159
BCRAMER@NEWLANDCO.COM

RECORDING INFORMATION

STATE OF TEXAS §
COUNTY OF DENTON §

BEING a tract of land situated in the W. LOVE SURVEY, ABSTRACT NO. 728 and the M.E.P. & P.R.R. SURVEY, ABSTRACT NO. 913, Town of Northlake, Denton County, Texas and being part of that tract of land described as Tract One in Deed to NASH Canyon Falls, LLC, as recorded in Document No. 2015–34494, Deed Records, Denton County, Texas and being all of those tracts of land described in Deed to NASH Canyon Falls, LLC, as recorded in Document No. 2015–49856 and Document No. 2015–50285, Deed Records, Denton County, Texas and being part of those tracts of land described as Tract 1 and Tract 2 in Deed to NASH Canyon Falls, LLC, as recorded in Document No. 2015–49868, Deed Records, Denton County, Texas and being part of that tract of land described in Deed to NASH Canyon Falls, LLC, as recorded in Document No. 2015–50278, Deed Records, Denton County, Texas and being part of that tract of land described in Deed to NASH Canyon Falls, LLC, as recorded in Document No. 2015–50272, Deed Records, Denton County, Texas and being more particularly described as follows:

BEGINNING at a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" found in the east line of Cleveland–Gibbs Road, a 45 foot right–of–way, for the southwest corner of Lot 1X, Block Q of CANYON FALLS VILLAGE W2 PHASE ONE, an Addition to the Town of Northlake, Denton County, Texas according to the Plat thereof recorded in Document No. 2016–59, Plat Records, Denton County, Texas;

THENCE North 89 degrees 46 minutes 40 seconds East, leaving said east line and with the south line of said Addition, a distance of 1,428.28 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" found for the common southeast corner of said Addition and the southwest corner of CANYON FALLS VILLAGE W1, an Addition to the Town of Northlake, Denton County, Texas according to the Plat thereof recorded in Document No. 2015–192, Plat Records, Denton County, Texas;

THENCE South 00 degrees 13 minutes 19 seconds East, leaving said south line, a distance of 298.18 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner;

THENCE North 89 degrees 40 minutes 02 seconds East, a distance of 170.00 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner;

THENCE South 00 degrees 13 minutes 19 seconds East, a distance of 7.00 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner;

THENCE North 89 degrees 40 minutes 02 seconds East, a distance of 820.75 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner at the beginning of a curve to the left having a central angle of 09 degrees 19 minutes 13 seconds, a radius of 600.00 feet and a chord bearing and distance of North 85 degrees 00 minutes 26 seconds East, 97.50 feet;

THENCE Easterly, with said curve to the left, an arc distance of 97.60 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner at the beginning of a reverse curve to the right having a central angle of 09 degrees 39 minutes 11 seconds, a radius of 300.00 feet and a chord bearing and distance of North 85 degrees 10 minutes 25 seconds East, 50.48 feet;

THENCE Easterly, with said curve to the right, an arc distance of 50.54 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner;

THENCE North 90 degrees 00 minutes 00 seconds East, a distance of 154.57 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner at the beginning of a non–tangent curve to the left having a central angle of 24 degrees 54 minutes 43 seconds, a radius of 295.00 feet and a chord bearing and distance of North 16 degrees 16 minutes 12 seconds West, 127.26 feet;

THENCE Northerly, with said curve to the left, an arc distance of 128.26 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner at the beginning of a reverse curve to the right having a central angle of 00 degrees 44 minutes 42 seconds, a radius of 355.00 feet and a chord bearing and distance of North 28 degrees 21 minutes 12 seconds West, 4.62 feet;

THENCE Northerly, with said curve to the right, an arc distance of 4.62 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner;

THENCE North 65 degrees 42 minutes 20 seconds West, a distance of 19.51 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner at the beginning of a non–tangent curve to the right having a central angle of 02 degrees 11 minutes 59 seconds, a radius of 375.00 feet and a chord bearing and distance of South 75 degrees 53 minutes 25 seconds West, 14.40 feet;

THENCE Westerly, with said curve to the right, an arc distance of 14.40 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner;

THENCE North 13 degrees 00 minutes 35 seconds West, a distance of 50.09 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner at the beginning of a non–tangent curve to the left having a central angle of 00 degrees 46 minutes 43 seconds, a radius of 309.04 feet and a chord bearing and distance of North 76 degrees 11 minutes 56 seconds East, 4.20 feet;

THENCE Easterly, with said curve to the left, an arc distance of 4.20 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner;

THENCE North 29 degrees 12 minutes 15 seconds East, a distance of 20.78 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner at the beginning of a non–tangent curve to the right having a central angle of 15 degrees 08 minutes 56 seconds, a radius of 355.00 feet and a chord bearing and distance of North 07 degrees 47 minutes 49 seconds West, 93.58 feet;

THENCE Northerly, with said curve to the right, an arc distance of 93.86 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" found in the south line of the above mentioned CANYON FALLS VILLAGE W1 Addition for the southeast corner of Lot 56X, Block P of said Addition;

THENCE North 89 degrees 46 minutes 41 seconds East, with said south line, a distance of 257.12 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" found for the common southeast corner of said Addition and northeast corner of the above mentioned NASH Canyon Falls, LLC tract recorded in Document No. 2015–50278;

THENCE South 00 degrees 11 minutes 50 seconds East, leaving said south line and with the east line of said NASH Canyon Falls, LLC tract recorded in Document No. 2015–50278, a distance of 485.40 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner in the east line of the above mentioned Tract 2;

THENCE North 89 degrees 48 minutes 10 seconds East, leaving said east line, a distance of 120.00 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner;

THENCE South 00 degrees 11 minutes 50 seconds East, a distance of 24.62 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner at the beginning of a curve to the right having a central angle of 12 degrees 25 minutes 37 seconds, a radius of 325.00 feet and a chord bearing and distance of South 06 degrees 00 minutes 58 seconds West, 70.35 feet;

THENCE Southerly, with said curve to the right, an arc distance of 70.49 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner;

THENCE South 77 degrees 46 minutes 13 seconds East, a distance of 50.00 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner at the beginning of a non–tangent curve to the right having a central angle of 02 degrees 44 minutes 14 seconds, a radius of 375.00 feet and a chord bearing and distance of South 13 degrees 35 minutes 54 seconds West, 17.91 feet;

THENCE Southerly, with said curve to the right, an arc distance of 17.91 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner;

THENCE South 28 degrees 07 minutes 29 seconds East, 28.29 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner at the beginning of a non–tangent curve to the left having a central angle of 28 degrees 12 minutes 52 seconds, a radius of 265.50 feet and a chord bearing and distance of South 84 degrees 20 minutes 32 seconds East, 129.42 feet;

THENCE Easterly, with said curve to the left an arc distance of 130.74 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner;

THENCE North 81 degrees 33 minutes 02 seconds East, a distance of 21.33 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner;

THENCE North 37 degrees 40 minutes 24 seconds East, a distance of 21.62 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner in the west line of West Bridge Drive, a 60 foot right–of–way, at the beginning of a non–tangent curve to the left having a central angle of 07 degrees 52 minutes 46 seconds, a radius of 930.00 feet and a chord bearing and distance of South 09 degrees 40 minutes 55 seconds East, 127.79 feet;

THENCE Southerly, with said west line and with said curve to the left, an arc distance of 127.89 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner;

THENCE South 47 degrees 20 minutes 56 seconds West, leaving said west line, a distance of 281.10 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner;

THENCE South 89 degrees 11 minutes 08 seconds West, a distance of 66.97 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner;

THENCE South 89 degrees 47 minutes 00 seconds West, a distance of 430.00 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner;

THENCE North 00 degrees 19 minutes 57 seconds West, a distance of 108.58 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner;

THENCE North 45 degrees 19 minutes 58 seconds West, a distance of 21.21 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner;

THENCE South 89 degrees 40 minutes 02 seconds West, a distance of 3.00 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner;

THENCE North 00 degrees 19 minutes 58 seconds West, a distance of 50.00 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner;

THENCE North 89 degrees 40 minutes 02 seconds East, a distance of 3.00 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner;

THENCE North 45 degrees 11 minutes 59 seconds East, a distance of 21.41 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner at the beginning of a non–tangent curve to the right having a central angle of 18 degrees 34 minutes 31 seconds, a radius of 400.00 feet and a chord bearing and distance of North 11 degrees 06 minutes 15 seconds East, 129.11 feet;

THENCE Northerly, with said curve to the right, an arc distance of 129.68 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner;

THENCE South 89 degrees 40 minutes 02 seconds West, a distance of 892.70 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner at the beginning of a curve to the right having a central angle of 18 degrees 57 minutes 25 seconds, a radius of 300.00 feet and a chord bearing and distance of North 80 degrees 51 minutes 15 seconds West, 98.81 feet;

THENCE Westerly, with said curve to the right, an arc distance of 99.26 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner at the beginning of a non–tangent curve to the left having a central angle of 14 degrees 31 minutes 50 seconds, a radius of 425.00 feet and a chord bearing and distance of North 07 degrees 02 minutes 35 seconds East, 107.49 feet;

THENCE Northerly, with said curve to the left, an arc distance of 107.78 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner;

THENCE South 89 degrees 46 minutes 41 seconds West, a distance of 50.00 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner;

THENCE North 00 degrees 13 minutes 19 seconds West, a distance of 3.61 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner;

THENCE North 45 degrees 19 minutes 58 seconds West, a distance of 21.17 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner;

THENCE South 89 degrees 40 minutes 02 seconds West, a distance of 104.90 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner at the beginning of a non–tangent curve to the right having a central angle of 21 degrees 43 minutes 41 seconds, a radius of 495.00 feet and a chord bearing and distance of South 20 degrees 20 minutes 33 seconds West, 186.59 feet;

THENCE Southerly, with said curve to the right, an arc distance of 187.72 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner;

THENCE South 71 degrees 48 minutes 32 seconds East, a distance of 138.38 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner at the beginning of a non–tangent curve to the left having a central angle of 163 degrees 06 minutes 31 seconds, a radius of 50.00 feet and a chord bearing and distance of South 36 degrees 34 minutes 11 seconds East, 98.92 feet;

THENCE Easterly, with said curve to the left, an arc distance of 142.34 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner;

THENCE South 72 degrees 33 minutes 38 seconds East, a distance of 31.86 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner at the beginning of a curve to the left having a central angle of 00 degrees 29 minutes 56 seconds, a radius of 525.00 feet and a chord bearing and distance of South 72 degrees 48 minutes 36 seconds East, 4.57 feet;

THENCE Easterly, with said curve to the left, an arc distance of 4.57 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner;

THENCE South 16 degrees 56 minutes 26 seconds West, a distance of 152.08 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner in the south line of the above mentioned Tract 2;

THENCE South 89 degrees 47 minutes 00 seconds West, with said south line, a distance of 558.22 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" found for the northeast corner of that tract of land described in Deed to NASH Canyon Falls, LLC, as recorded in Document No. 2015–49855, Deed Records, Denton County, Texas;

THENCE North 00 degrees 01 minutes 52 seconds West, leaving said south line, a distance of 100.88 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner at the beginning of a curve to the left having a central angle of 24 degrees 42 minutes 52 seconds, a radius of 495.00 feet and a chord bearing and distance of North 12 degrees 12 minutes 28 seconds East, 211.87 feet;

THENCE Northerly, with said curve to the right, an arc distance of 213.52 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner;

THENCE North 56 degrees 43 minutes 56 seconds West, a distance of 22.55 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner at the beginning of a curve to the left having a central angle of 33 degrees 29 minutes 24 seconds, a radius of 255.00 feet and a chord bearing and distance of North 73 degrees 28 minutes 37 seconds West, 146.94 feet;

THENCE Westerly, with said curve to the left, an arc distance of 149.05 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner;

THENCE South 89 degrees 46 minutes 41 seconds West, a distance of 234.01 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner;

THENCE North 00 degrees 53 minutes 15 seconds West, a distance of 120.01 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner;

THENCE South 89 degrees 46 minutes 41 seconds West, a distance of 105.01 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner;

THENCE South 44 degrees 26 minutes 43 seconds West, a distance of 21.09 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner;

THENCE South 00 degrees 53 minutes 15 seconds East, a distance of 5.23 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner;

THENCE South 89 degrees 06 minutes 45 seconds West, a distance of 50.00 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner;

THENCE North 00 degrees 53 minutes 15 seconds West, a distance of 5.64 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner;

THENCE North 45 degrees 33 minutes 17 seconds West, a distance of 21.59 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner;

THENCE South 89 degrees 46 minutes 41 seconds West, a distance of 209.84 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner;

THENCE South 44 degrees 26 minutes 43 seconds West, a distance of 21.09 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner;

THENCE South 00 degrees 53 minutes 15 seconds East, a distance of 5.23 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner;

THENCE South 89 degrees 06 minutes 45 seconds West, a distance of 50.00 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner;

THENCE North 00 degrees 53 minutes 15 seconds West, a distance of 5.64 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner;

THENCE North 45 degrees 33 minutes 17 seconds West, a distance of 21.59 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner;

THENCE South 89 degrees 46 minutes 41 seconds West, a distance of 130.61 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner in the proposed east line of Cleveland–Gibbs Road;

THENCE Northerly, with said proposed east line, the following four (4) courses and distances:

North 00 degrees 13 minutes 19 seconds West, a distance of 50.00 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner;

South 89 degrees 46 minutes 41 seconds West, a distance of 4.82 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner;

North 45 degrees 33 minutes 18 seconds West, a distance of 28.45 feet to a 1/2 inch iron rod with a yellow plastic cap stamped "JVC" set for corner;

North 00 degrees 53 minutes 17 seconds West, a distance of 390.03 feet to the POINT OF BEGINNING and containing 38.434 acres of land, more or less.

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS:

THAT, NASH CANYON FALLS, LLC, acting herein by and through its duly authorized officers, does hereby adopt this plat designated herein as CANYON FALLS – PENNINGTON – PHASE ONE, an addition to the Town of Northlake, Denton County, Texas.

The easements shown hereon are hereby reserved for the purposes as indicated. All streets, alleys and rights–of–way are hereby dedicated in fee simple to the Town of Northlake for municipal purposes. The utility and fire lane easements (streets, alleys, and common areas) shall be open to the public, fire and police units, garbage and rubbish collection agencies and all public and private utilities for each particular use. No buildings, trees, shrubs or other improvements or growths shall be constructed, reconstructed or placed upon, over or across the utility easements as shown. Said utility easements being hereby reserved for the mutual use and accommodation of all public utilities using or desiring to use same.

All and any public utility shall have the right to remove and keep removed all or parts of any buildings, fences, trees, shrubs, or other improvements or growths which in any way endanger or interfere with the construction, maintenance or efficiency of its respective system on the utility easements and all public utilities shall at all times have the full right of ingress and egress to and from and upon the said utility easements for the purpose of construction, reconstructing, inspecting, patrolling, maintaining and adding to or removing all or parts of its respective systems without the necessity at any time of procuring the permission of anyone. Any public utility shall have the right of ingress and egress to private property for the purposes of reading meters and any maintenance and service required or ordinarily performed by that utility.

This plat approved subject to all platting ordinances, rules, regulations and resolutions of the Town of Northlake.

BY: NASH CANYON FALLS, LLC
A DELAWARE LIMITED LIABILITY COMPANY

BY: NEWLAND REAL ESTATE GROUP, LLC
A DELAWARE LIMITED LIABILITY COMPANY
ITS DEVELOPMENT MANAGER

BY: ____________________________________
BRIAN CRAMER, VICE PRESIDENT

STATE OF TEXAS §
COUNTY OF ______________ §

BEFORE ME, the undersigned authority, on this day personally appeared BRIAN CRAMER, known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he executed the same for the purpose and consideration therein expressed, in the capacity therein stated, and as the act and deed of said company.

GIVEN UNDER MY HAND AND SEAL OF OFFICE on the _____ day of ______________________, 2018.

____
Notary Public in and for the State of Texas

NOTARY SEAL
(Ink Stamp Only)

My Commission Expires: ___________________

SURVEYORS CERTIFICATE:

KNOW ALL MEN BY THESE PRESENTS: That I, Ryan S. Reynolds, do hereby certify that I have prepared this plat from an actual survey of the land, and that the corner monuments shown thereon were found or placed under my personal supervision in accordance with the platting rules and regulations of Town of Northlake, Denton County, Texas.

____
RYAN S. REYNOLDS, R.P.L.S.
Registered Professional Land Surveyor No. 6385

STATE OF TEXAS §
COUNTY OF ______________ §

BEFORE ME, the undersigned authority, on this day personally appeared Ryan S. Reynolds, known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he executed the same for the purpose and consideration therein expressed, in the capacity therein stated, and as the act and deed of said partnership.

GIVEN UNDER MY HAND AND SEAL OF OFFICE on the _____ day of ______________________, 2018.

____
Notary Public in and for the State of Texas

My Commission Expires: ___________________

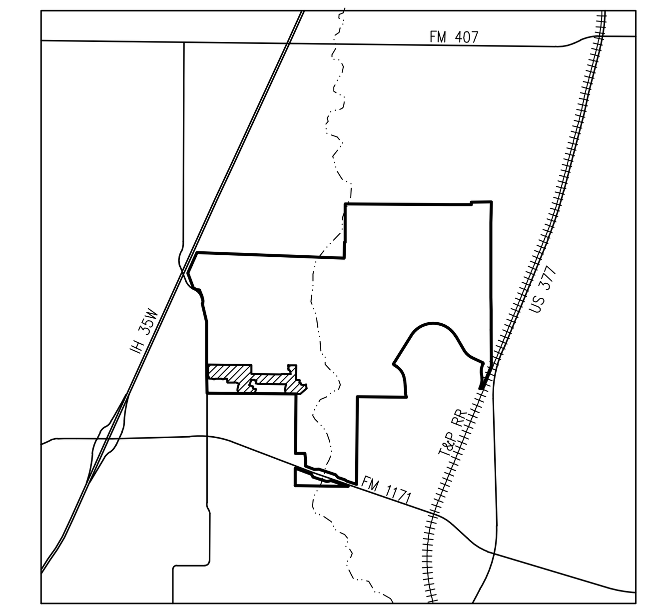
NOTES:

1. ALL PROPOSED LOTS SITUATED IN WHOLE OR IN PART WITHIN THE TOWN'S CORPORATE LIMITS COMPLY WITH THE MINIMUM SIZE REQUIREMENTS OF THE GOVERNING ZONING DISTRICT.
2. ALL "X" LOTS & COMMON AREAS SHALL BE PEDESTRIAN AND BICYCLE ACCESS EASEMENTS.
3. ALL "X" LOTS & COMMON AREAS SHALL BE OWNED AND MAINTAINED BY THE HOMEOWNERS ASSOCIATION
4. NO STRUCTURES SHALL BE PERMITTED TO BE CONSTRUCTED WITHIN ANY PUBLIC EASEMENTS SHOWN ON THIS PLAT; THE TOWN SHALL HAVE THE RIGHT TO REMOVE ANY STRUCTURE PLACED WITHIN A PUBLIC EASEMENT
5. ALL LOT CORNERS TO BE MONUMENTED WITH 1/2" IRON ROD WITH YELLOW PLASTIC CAP STAMPED "JVC" UNLESS OTHERWISE NOTED.

BEARINGS ARE BASED FROM GPS OBSERVATIONS, BY USING THE TOPCON NETWORK SURROUNDING THE DALLAS–FORT WORTH METROPLEX, ALONG WITH A HIGH PRECISION GEOID MODEL. NAD83, NAVD88 TEXAS STATE PLANE COORDINATE SYSTEM, NORTH CENTRAL ZONE 4202. VERIFIED BY THE TOWN OF FLOWER MOUND CONTROL NETWORK, MONUMENT NO. 39. A COMBINED SCALE FACTOR OF 1.0001596 SHALL BE USED TO TRANSLATE TO GRID COORDINATES.

ENGINEER/SURVEYOR:
J. VOLK CONSULTING, INC.
830 CENTRAL PARKWAY EAST, SUITE 300
PLANO, TX 75074
972-201-3100
RYAN.REYNOLDS@JVOLKCONSULTING.COM
TBPLS FIRM NO. 10194033

OWNER:
NASH CANYON FALLS, LLC
10940 WEST SAM HOUSTON PARKWAY
SUITE 300
HOUSTON, TX 77064
972-992-3159
BCRAMER@NEWLANDCO.COM



VICINITY MAP
N.T.S.

APPROVED BY THE TOWN COUNCIL ON:

____
Date

____
Mayor, Town of Northlake

____
Town Secretary, Town of Northake

FINAL PLAT
OF
CANYON FALLS PENNINGTON PHASE ONE

LOTS 1X, 2-28, BLOCK A;
LOTS 1-41, BLOCK B;
LOTS 29-43, BLOCK E;
LOTS 1-5, 6X, 7-8, BLOCK F;
LOTS 17X, 18-33, BLOCK G;
LOTS 1-10, BLOCK H;
LOTS 19-36, BLOCK I;
LOTS 1-7, 8X, BLOCK J;
LOTS 1-3, 4X, BLOCK K;
LOTS 1-7, BLOCK L

BEING 38.434 ACRES
LOCATED IN THE
W. LOVE SURVEY -
ABSTRACT NO. 728 &
MEP & PRR SURVEY -
ABSTRACT NO. 913
AN ADDITION IN THE
TOWN OF NORTHLAKE,
DENTON COUNTY, TEXAS
CONTAINING
151 SINGLE-FAMILY
RESIDENTIAL LOTS AND
5 OPEN SPACE/HOA LOTS
ZONED MIXED-USE
PLANNED DEVELOPMENT (MPD)
HIGH DENSITY
RESIDENTIAL (SF-50) &
MEDIUM DENSITY
RESIDENTIAL (SF-60)

Date: February 28, 2018

SHEET 3 OF 3

RECORDING INFORMATION

NORTHLAKE TEXAS

Executive Session

Agenda Item 7

Pursuant to Texas Government Code, annotated, Chapter 551 Subchapter D:

a. Section 551.071 authorizes a governmental body to consult with its attorney in an executive session to seek his or her advice on a legal matter. It provides as follows: A governmental body may not conduct a private consultation with its attorney except:
   When the governmental body seeks the advice of its attorney about:
   (a) Pending or contemplated litigation; or
   (b) A settlement offer; or
       'Town of Northlake vs. City of Justin (Cause No. 15-08170-367)
   (c) Appellate Docket No. 06-17-00054-CV
       City of Justin vs. Town of Northlake

b. Section 551.072 Deliberation on Real Property authorizes a governmental body to deliberate the purchase, exchange, lease, or value of real property
   (a) Value of real property contemplated for Right-of-Way drainage easement