

**ORDINANCE NO. 11-12-15-27**

**AN ORDINANCE OF THE CITY OF CORINTH, TEXAS AMENDING CHAPTER 36 OF THE CORINTH CODE OF ORDINANCES BY ADOPTING AMENDMENTS TO THE ROADWAY IMPACT FEES AND THE METHOD OF CALCULATION OF IMPACT FEES; PROVIDING A CREDIT OF FIFTY PERCENT AGAINST THE MAXIMUM IMPACT FEES; ADOPTING UPDATED LAND USE ASSUMPTIONS; ADOPTING AN IMPACT FEE ROADWAY CAPITAL IMPROVEMENTS PLAN FOR 2011 THROUGH 2021; PROVIDING FOR THE REPEAL OF ALL ORDINANCES IN CONFLICT; PROVIDING A SEVERABILITY CLAUSE; AND PROVIDING AN EFFECTIVE DATE.**

**WHEREAS**, the City of Corinth, Texas is a home rule municipality located in Denton County, Texas created in accordance with the provisions of the Texas Local Government Code and operating pursuant to the enabling legislation of the State of Texas; and

**WHEREAS**, Chapter 395 of the Texas Local Government Code sets forth certain procedures to be followed by municipalities in imposing, collecting, updating and expending impact fees; and

**WHEREAS**, the City Council has directed City staff to prepare updated land use assumptions to be used in preparation of updated capital improvement plans for roadway facilities and impact fees based thereon; and

**WHEREAS**, the City Council of the City of Corinth, Texas, has given the notices and conducted the public hearings required by Chapter 395 of the Local Government Code for amendment of the land use assumptions, capital improvements plan, and impact fees; and

**WHEREAS**, the Capital Improvement Advisory Committee has filed its written comments on the proposed amendments to the land use assumptions, capital improvements plan, and impact fees as required by law; and

**WHEREAS**, the City Council finds that the roadway improvements proposed in the updated roadway capital improvement plan will best address the infrastructure requirements imposed upon the City by new development; and

**WHEREAS**, the City Council finds that the revised impact fees set forth below provide the appropriate level of cost recovery to the City attributable to new development; and

**WHEREAS**, on November 17, 2011 the City Council conducted a public hearing, after compliance with all legal prerequisites, to consider imposing roadway impact fees within the designated service area; and

**WHEREAS**, the Roadway Capital Improvements Plan was developed by qualified professionals using generally accepted engineering and planning practices in accordance with Section 395.014 of the Texas Local Government Code; and

**WHEREAS**, the report dated September 2011, prepared by Kimley-Horn and Associates, Inc., entitled Land Use Assumptions, Roadway Impact Fee, Water and Wastewater Impact Fee Reports, therein set forth reasonable methodologies and analyses for the determination of the impact of new development on the need for costs for additional roadway facilities in the City of Corinth, and are in accordance with the provisions of Chapter 395, TEX. LOC. GOV'T CODE; **NOW, THEREFORE**,

**BE IT ORDAINED BY THE COUNCIL OF THE CITY OF CORINTH, TEXAS:**

**SECTION 1.**

That all the above premises are found to be true and correct and are incorporated into the body of this ordinance as if copied in their entirety.

**SECTION 2.**

That subsections (A) and (B) of Section 36.102 (Land Use Assumptions and Capital Improvements Plan) of the Code of Ordinances, City of Corinth, Texas are hereby amended to read as follows:

**“§ 36.102 LAND USE ASSUMPTIONS AND CAPITAL IMPROVEMENTS PLAN.**

(A) The land use assumptions used in the development of the roadway impact fees are those assumptions attached as Exhibit A to this Ordinance and adopted by reference herein.

(B) The roadway capital improvements plan used in the development of the roadway impact fees is attached as Exhibit A to this Ordinance (Ordinance No. **11-12-15-27**) and adopted by reference herein.”

**SECTION 3.**

That subsection (B) of Section 36.103 (Service Units) of the Code of Ordinances, City of Corinth, Texas is hereby amended to read as follows:

**“§ 36.103 SERVICE UNITS.**

...  
(B) Service units for roadway impact fees are established based upon estimated vehicle miles of demand generated by the development. A single family detached residential dwelling unit will generate 4.04 vehicle miles of demand. Other developments will generate demand based upon size and type of development and the

service area where the development is located. The vehicle mile demand factors used for the calculation of roadway impact fees are set forth in the Land Use/Vehicle-Mile Equivalency Table, attached as Exhibit B to this Ordinance and incorporated herein.”

#### **SECTION 4.**

That subsections (A) and (C) of Section 36.104 (Roadway Impact Fees) of the Code of Ordinances, City of Corinth, Texas is hereby amended to read as follows:

#### **“§ 36.104 ROADWAY IMPACT FEES.**

(A) The maximum roadway impact fee per service unit for each service area shall be computed by dividing the growth-related costs in the service area identified in the roadway capital improvements plan by the total number of projected service units anticipated within the service area which are necessitated by and attributable to new development, based on the land use assumptions for that service area. A credit must be applied against the maximum impact fee credit equal to 50 percent of the total projected cost of implementing the roadway capital improvements plan. With the credit, the maximum roadway impact fee is \$794.00 per service unit.

(C) Current collected roadway impact fees shall be the maximum fee per service unit or \$495.00 per service unit. Current collected fees may be amended by the City Council from time to time, provided they do not exceed the maximum assessable fees.”

#### **SECTION 5.**

That Section 36.106 (Calculation of Roadway Impact Fees) of the Code of Ordinances of the City of Corinth, Texas, is amended to read as follows:

#### **“§ 36.106 CALCULATION OF ROADWAY IMPACT FEES.**

(A) The City is comprised of one roadway service area. The service unit measurement is stated in vehicle miles and the development units are set forth in Exhibit C. The amount of the roadway impact fee shall be determined by multiplying the number of service units to be generated by the development by the capital cost per service unit set forth in Section 36.104 less any applicable credits pursuant to Section 36.114.

(B) Following a request for new development, the City shall identify the service area in which the development is located and then classify the development in one of the land use categories depicted in Exhibit B, Land Use/ Vehicle Mile Equivalency Table, attached hereto and incorporated by reference herein, then in effect. Then the current collected roadway impact fee per service unit for the corresponding service area and land use category is multiplied by the total service units of development.

(C) The number of service units (vehicle-miles of travel during the p.m. peak hour) generated by a development shall be determined from Exhibit B of this Ordinance, subject to the following:

(1) When a change of use, redevelopment, or modification of an existing use or building requires the issuance of a building permit or certificate of occupancy, the number of service units generated by the development shall be based on the difference between the service units calculated for the previous use and the service units calculated for the proposed use. However, should the change of use, redevelopment or modification of an existing use or building result in a net decrease, no refund or credits for past roadway impact fees paid shall be made or created.

(2) In the event of a disagreement between the applicant and the City over the land use category applicable to a development, the applicant may present evidence supporting the appropriateness of a particular land use category, and the final decision shall be made by the city engineer.

(D) Based on the adopted land use assumptions and capital improvements plan, the roadway impact fees assessed for the service areas are tabulated such that the net growth-related capital costs required to improve the road system to accommodate an additional service unit is dispersed uniformly within the service area.

(E) If the roadway impact fee has been calculated and paid based on error or misrepresentation, it shall be recalculated. If the original calculation resulted in a fee that was too high, the difference shall be refunded to the original fee payer. If additional roadway impact fees are owed, no permits of any type shall be issued by the city for the building or use in question, or for any other part of a development project of which the building or use in question is a part, while the fees remain unpaid, and the building official may bring any action permitted by law or equity to collect unpaid fees.

(F) For purposes of calculations of the roadway impact fee, the gross floor area (GFA) of a building is the sum (in square feet) of the area of each floor level, including cellars, basements, mezzanines, penthouses, corridors, lobbies, stores and offices that are within the principal outside faces of exterior walls, not including architectural setbacks or projections. Included are all areas that have floor surfaces with clear head room (6 feet, 6 inches minimum), regardless of their use. If a ground-level area or part thereof within the principal outside faces of the exterior walls is not enclosed, this GFA is considered part of the overall square footage of the building. However, unroofed areas and unenclosed roofed-over spaces, except those contained within the principal outside faces of exterior walls, should be excluded from the area calculations.”

## SECTION 6.

That Section 36.114 of the Code of Ordinances of the City of Corinth, Texas is amended by the designation of the current Section 36.114 as Subsection (A) and the addition of subsections (B) through (E) which shall be and read as follows:

### “§ 36.114 AGREEMENT FOR CAPITAL IMPROVEMENTS

...

(B) If the city 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 roadway facility that is necessary to serve the developer's development and which is included in the adopted road capital improvements plan, the city 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.

(C) 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 city are reduced from the projected actual costs of impact fee capital projects of the roadway facility 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.

(D) The city may also enter into an agreement with a developer to have the developer construct, fund or otherwise contribute toward the cost of a roadway improvement or roadway expansion that is included in the adopted roadway capital improvements plan and which is not necessary to serve the developer's development such as additional lanes, appurtenances and warranted signalization beyond the minimum standards required by the city's ordinances to serve the developer's development. The city 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.

(E) In determining the amount of such credits, the developer shall submit evidence of the actual, fair-market cost of the roadway improvements. If the amount of such credits would be insufficient to reimburse the developer for the cost of such extra improvements beyond the minimum standards required by the city's ordinances to serve the developer's development, the city may provide for reimbursement to the developer up to the balance of the cost of such oversized required improvements from road impact fees collected from other new development within the same service area.”

**SECTION 7.**

Impact fees to be collected from development on lots within a subdivision that has final plat approval from the City before the effective date of this Ordinance shall be at the current collected Roadway Impact Fee previously adopted via Ordinance No. 04-11-18-26.

**SECTION 8.**

This ordinance shall be and is hereby declared to be cumulative of all other ordinances of the City and shall not operate to repeal or affect any such other ordinances except insofar as the provisions thereof are inconsistent or in conflict with the provisions hereof, and to the extent of such conflict, if any, such other ordinances are hereby repealed. Any other ordinance of the City requiring dedication of land for public parks, requiring dedication of right-of-way or easements, or construction or dedication of on-site water distribution, wastewater collection or drainage facilities, or streets, sidewalks, or curbs necessitated by and attributable to new development, or fees to be placed in trust for the purpose of reimbursing the City or developers for oversizing or constructing water or sewer mains or lines shall remain in full force and effect and not be repealed by the terms of this ordinance.

**SECTION 9.**

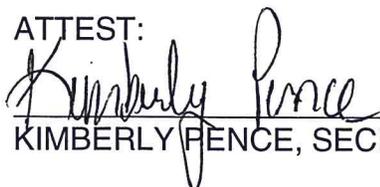
Should any paragraph, sentence, subdivision, clause, phrase or section of this ordinance be adjudged or held to be unconstitutional, illegal or invalid, the same shall not affect the validity of this ordinance as a whole or any part or provision thereof, other than the part so declared to be invalid, illegal or unconstitutional.

**SECTION 10.**

This ordinance shall be in full force and effect from and after its passage, and it is so ordained.

ADOPTED THE 15 DAY OF December, 2011.

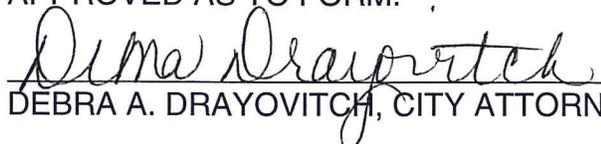
ATTEST:

  
KIMBERLY PENCE, SECRETARY



  
PAUL RUGGIERE, MAYOR

APPROVED AS TO FORM:

  
DEBRA A. DRAYOVITCH, CITY ATTORNEY

**EXHIBIT A- KIMLEY HORN REPORT DATED SEPTEMBER 2011  
LAND USE ASSUMPTIONS AND CAPITAL IMPROVEMENTS PLAN.**

# 2011 Roadway Impact Fee Update

**Prepared for:**

**City of Corinth, Texas**



**Prepared by:**

Kimley-Horn and Associates, Inc.  
801 Cherry Street, Unit 11, Suite 950  
Fort Worth, TX 76102  
817.335.6511  
Firm Registration No. F-928

**September 2011**



# Table of Contents

**Table of Contents ..... i**

**2.1 Introduction ..... 1**

**2.2 Roadway Impact Fee Calculation Inputs ..... 2**

    A. Land Use Assumptions ..... 2

    B. Capital Improvements Plan ..... 2

**2.3 Methodology For Roadway Impact Fees..... 5**

    A. Service Area ..... 5

    B. Service Units ..... 5

    C. Cost Per Service Unit..... 6

    D. Cost of the CIP ..... 6

    E. Service Unit Calculation ..... 8

**2.4 Impact Fee Calculation ..... 13**

    A. Maximum Assessable Impact Fee Per Service Unit..... 13

    B. Plan For Awarding the Roadway Impact Fee Credit..... 15

    C. Service Unit Demand Per Unit of Development..... 17

**2.5 Sample Calculations..... 19**

**2.6 Conclusion..... 20**

**APPENDICES**

    A. Conceptual Level Project Cost Projections

    B. CIP Service Units of Supply

    C. Existing Roadway Facilities Inventory



## List of Exhibits

2.1 Capital Improvements Plan for Roadway Impact Fees ..... 4

## List of Tables

2.1 10-Year Capital Improvements Plan for Roadway Service Area ..... 3

2.2 Level of Use for Proposed Facilities ..... 5

2.3 Level of Use for Existing Facilities..... 6

2.4 10-Year Roadway Capital Improvements Plan with Conceptual Level Cost Opinions ..... 8

2.5 Transportation Demand Factor Calculations ..... 11

2.6 10-Year Growth Projections ..... 12

2.7 Maximum Assessable Roadway Impact Fee ..... 16

2.8 Land Use/Vehicle-Mile Equivalency Table (LUVMET) ..... 18



## 2.1 INTRODUCTION

Chapter 395 of the Texas Local Government Code describes the procedure Texas cities must follow in order to create and implement impact fees. Senate Bill 243 (SB 243) amended Chapter 395 in September 2001, to define an impact fee 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.”

Chapter 395 mandates that impact fees be reviewed and updated at least every five (5) years. Accordingly, the City of Corinth has developed its Land Use Assumptions and Capital Improvements Plan (CIP) with which to update the City’s Roadway Impact Fees. The City has retained Kimley-Horn and Associates, Inc. to provide professional transportation engineering services for the Roadway Impact Fee Update. This report includes details of the impact fee calculation methodology in accordance with Chapter 395, the applicable Land Use Assumptions, development of the CIP, and the refinement of the Land Use Equivalency Table.

This report introduces and references two of the basic inputs to the Roadway Impact Fee: the **Land Use Assumptions** and the **Capital Improvements Plan (CIP)**. Information from these two components is used extensively in the remainder of the report. This report consists of a detailed discussion of the methodology for the computation of impact fees. This discussion - **Methodology for Roadway Impact Fees and Impact Fee Calculation** addresses each of the components of the computation and modifications required for the study. The components include:

- Service Areas;
- Service Units;
- Cost Per Service Unit;
- Cost of the CIP;
- Service Unit Calculation;
- Maximum Assessable Impact Fee Per Service Unit; and
- Service Unit Demand Per Unit of Development.

The report also includes a section concerning the **Plan for Awarding the Roadway Impact Fee Credit**. In the case of the City of Corinth, the credit calculation was based on awarding a 50 percent credit.

## 2.2 ROADWAY IMPACT FEE CALCULATION INPUTS

### A. LAND USE ASSUMPTIONS

The land use assumptions used in this report are presented in a separate report titled *Land Use Assumptions for Impact Fees*, dated August 2011.

### B. CAPITAL IMPROVEMENTS PLAN

The City has identified the City-funded transportation projects needed to accommodate the projected growth within the City. The CIP for Roadway Impact Fees is made up of:

- Recently completed projects with excess capacity available to serve new growth;
- Projects currently under construction; and
- Remaining projects needed to complete the City's Master Thoroughfare Plan (MTP).

The CIP includes arterial and collector facilities. All of the arterial and collector facilities are part of the currently adopted Master Thoroughfare Plan.

The CIP for Roadway Impact Fees that is proposed for the Roadway Impact Fee Update is listed in **Table 2.1**, and mapped in **Exhibit 2.1**. The table shows the length of each project as well as the facility's classification. The CIP was developed in conjunction with input from City of Corinth staff and represents those projects that will be needed to accommodate the growth projected in the *Land Use Assumptions for Impact Fees* report.



**Table 2.1 10-Year Capital Improvements Plan for Roadway Service Area**

Service Area	Proj. #	Class	Roadway	Limits	Length (mi)	% In Service Area
Corinth	1	Greenway	Lake Sharon Drive (1)	FM 2499 to Oakmont	0.58	100%
	2	Greenway	Lake Sharon Drive (2)	Blue Holley to Parkridge Drive	0.90	100%
	3	Greenway	Meadow Oak Drive (1)	Parkridge Drive to Tower Ridge Drive	0.63	100%
	4	Greenway	Dobbs Road (1)	IH-35E NBFR to Quail Run	0.35	100%
	5	Greenway	Dobbs Road (2)	Quail Run to 300' east of Corinth Parkway	0.35	100%
	6	Collector	Creekside Drive (1)	Post Oak Drive to Future N/S Collector	0.52	100%
	7	Collector	Church Drive	Post Oak Drive to IH-35E SBFR	0.90	100%
	8	Collector	Walton Drive	North Corinth to Shady Rest	0.52	100%
	9	Collector	Shady Shores Road	Railroad to 205' east of Dalton	1.21	50%
	10	Collector	Parkridge Drive (1)	Lake Sharon Drive to Tori Oak Trail	0.14	100%
	11	Collector	Parkridge Drive (2)	Warwick Drive to FM 2181	0.76	100%
	12	Collector	Parkridge Drive (3)	FM 2181 to South City Limits	0.53	100%
	13	Collector	Tower Ridge Drive	Meadow Oaks Drive to Cliff Oak Drive	0.85	100%
	14	Collector	Garrison Road	IH 35E SBFR to Cliff Oak Drive	0.33	100%
	15	Collector	Quail Run Drive	Dobbs Road to Energy Drive	0.30	100%
	16	Greenway (1/2)	Post Oak Drive	Robinson Road to Lake Sharon Drive	0.80	100%
	17	Collector	N/S Collector	Church Drive to Lake Sharon Drive	0.79	100%
	18	Greenway	S. Corinth Street	IH-35E SBFR to Meadow Oak Drive	0.41	100%
	19	Collector	Shady Rest Lane	Fritz Lane to Walton	0.32	100%
	20	Major	FM 2181	West City Limits to IH-35E SBFR	3.30	100%
	21	Collector	Cliff Oak Drive	Tower Ridge Drive to Garrison Road	0.50	100%

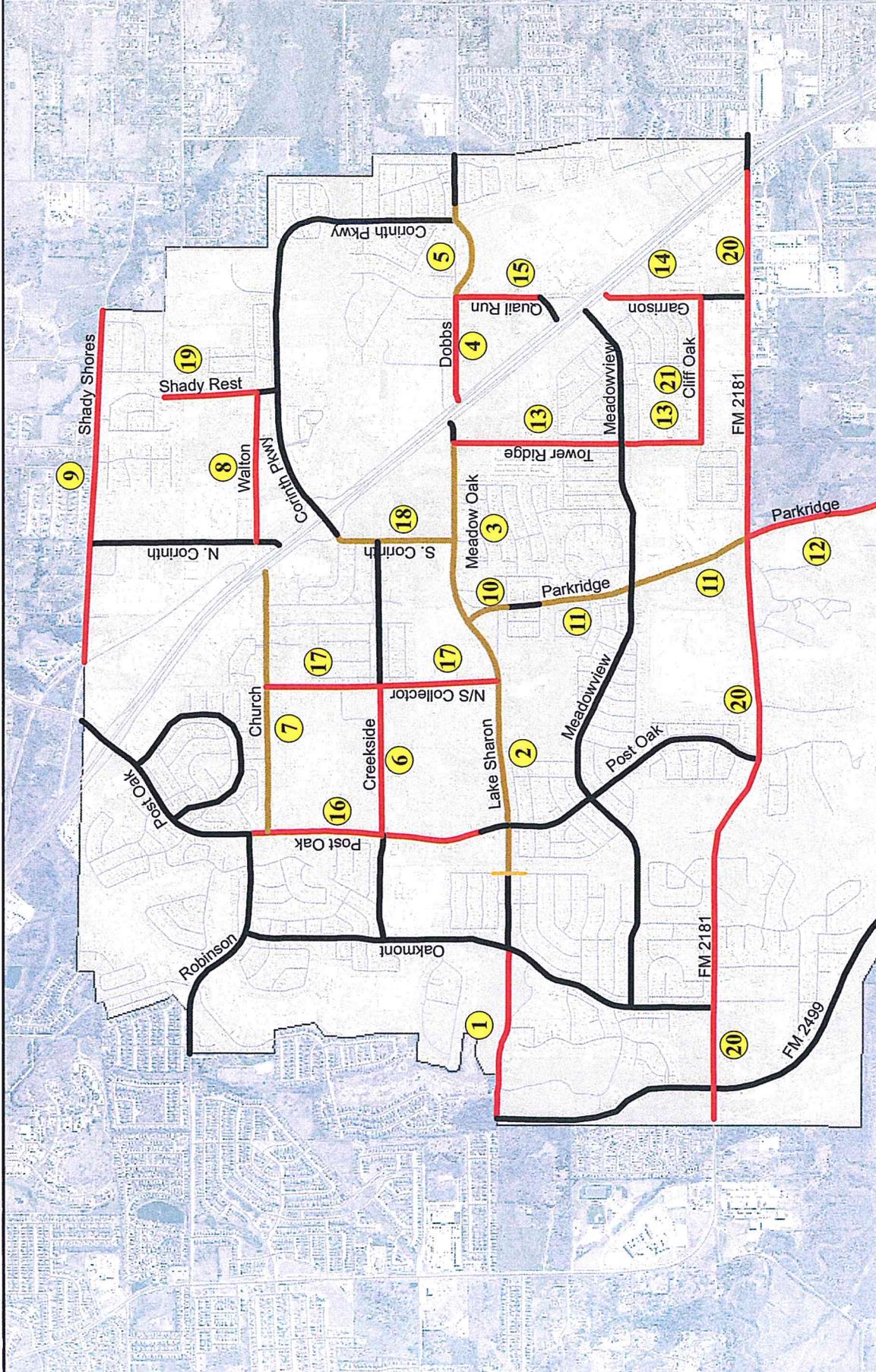


## 2011 Impact Fee Update Roadway CIP Exhibit 2.1




Miles

Kimley-Horn  
and Associates, Inc. **September 2011**



### Legend

- Impact Fee Eligible
- Impact Fee Eligible (Completed)
- Non Impact Fee Eligible
- Local Roads
- Project Number
- Project Limits
- Corinth City Limits

Lake Lewisville

## 2.3 METHODOLOGY FOR ROADWAY IMPACT FEES

### A. SERVICE AREA

The service area used in the 2011 Roadway Impact Fee Update is shown in the previously referenced **Exhibit 2.1**. Chapter 395 of the Texas Local Government Code specifies that “the service area is limited to an area within the corporate boundaries of the political subdivision and shall not exceed six (6) miles.” Based on the guidance in Chapter 395 and examination of the City of Corinth one roadway service area was deemed appropriate. This service area covers the entire corporate boundary of the City of Corinth which is approximately four (4) miles.

### B. SERVICE UNITS

The “service unit” is a measure of consumption or use of the roadway facilities by new development. In other words, it is the measure of supply and demand for roads in the City. For transportation purposes, the service unit is defined as a vehicle-mile. On the supply side, this is a lane-mile of an arterial street. On the demand side, this is a vehicle-trip of one-mile in length. The application of this unit as an estimate of either supply or demand is based on travel during the afternoon peak hour of traffic. This time period is commonly used as the basis for transportation planning and the estimation of trips created by new development.

Another aspect of the service unit is the service volume that is provided (supplied) by a lane-mile of roadway facility. This number, also referred to as capacity, is a function of the facility type, facility configuration, number of lanes, and level of service.

The hourly service volumes used in the Roadway Impact Fee Update are based upon Thoroughfare Capacity Criteria published by the North Central Texas Council of Governments (NCTCOG). **Table 2.2** and **2.3** shows the service volumes as a function of the facility type.

**Table 2.2 Level of Use for Proposed Facilities  
(used in Appendix B – CIP Units of Supply)**

Roadway Type (MTP Classifications)	Median Configuration	Hourly Vehicle-Mile Capacity per Lane-Mile of Roadway Facility
Major Arterial	Divided	700
Minor Arterial/Greenway	Divided	650
Collector	Undivided	425

**Table 2.3 Level of Use for Existing Facilities  
(used in Appendix C – Existing Facilities Inventory)**

<b>Roadway Type</b>	<b>Description</b>	<b>Hourly Vehicle-Mile Capacity per Lane-Mile of Roadway Facility</b>
<b>2U-R</b>	Rural Cross-Section (i.e. gravel, dirt, etc.)	150
<b>2U-H</b>	Two lane undivided – Arterial Type	625
<b>2U</b>	Two lane undivided	350
<b>3U</b>	Three lane undivided (TWLTL)	425
<b>3U-H</b>	Three lane undivided (TWLTL) – Arterial Type	700
<b>4U</b>	Four lane undivided (TWLTL)	550
<b>4D</b>	Four lane divided	650
<b>5U</b>	Five lane undivided (TWLTL)	625
<b>6D</b>	Six lane divided	700

### **C. COST PER SERVICE UNIT**

A fundamental step in the impact fee process is to establish the cost for each service unit. In the case of the roadway impact fee, this is the cost for each vehicle-mile of travel. This cost per service unit is the cost to construct a roadway (lane-mile) needed to accommodate a vehicle-mile of travel at a level of service corresponding to the City’s standards. The cost per service unit is calculated for each service area based on a specific list of projects within that service area.

The second component of the cost per service unit is the number of service units in each service area. This number is the measure of the growth in transportation demand that is projected to occur in the ten-year period. Chapter 395 requires that Impact Fees be assessed only to pay for growth projected to occur in the city limits within the next ten-years, a concept that will be covered in a later section of this report (see **Section 2.3.E**). As noted earlier, the units of demand are vehicle-miles of travel.

### **D. COST OF THE CIP**

The costs that may be included in the cost per service unit are all of the implementation costs for the Roadway Impact Fee Update, as well as project costs for thoroughfare system elements within the Capital Improvements Plan. Chapter 395 of the Texas Local Government Code specifies that the allowable costs are “...including and limited to the:

1. Construction contract price;
2. Surveying and engineering fees;
3. Land acquisition costs, including land purchases, court awards and costs, attorney’s fees, and expert witness fees; and
4. Fees actually paid or contracted to be paid to an independent qualified engineer or financial consultant preparing or updating the Capital Improvement Plan who is not an employee of the political subdivision.”

The engineer's opinion of the probable costs of the projects in the CIP is based, in part, on the calculation of a unit cost of construction. This means that a cost per linear foot of roadway is calculated based on an average price for the various components of roadway construction. This allows the probable cost to be determined by the type of facility being constructed, the number of lanes, and the length of the project. The costs for location-specific items such as bridges, highway ramps, drainage structures, and any other special components are added to each project as appropriate. In addition, based upon discussions with City of Corinth staff, State, County, and developer driven projects in which the City has contributed a portion of the total project cost have been included in the CIP as lump sum costs.

A typical roadway project consists of a number of costs, including the following: construction, design engineering, survey, and right-of way acquisition. While the construction cost component of a project may actually consist of approximately 100 various pay items, a simplified approach was used for developing the conceptual level project costs. Each new project's construction cost was divided into two cost components: roadway construction cost and major construction component allowances. The roadway construction components consist of the following pay items: (1) street excavation, (2) lime stabilization, (3) concrete pavement, (4) topsoil, (5) sidewalk, and (6) concrete driveways.

Based on the paving construction cost subtotal, a percentage of this total is calculated to allot for major construction component allowances. These allowances include preparation of ROW, traffic control, pavement markings, roadway drainage, illumination, special drainage structures, minor utility relocations, turf/erosion control, and basic landscaping. These allowance percentages are also based on historical data. The paving and major construction component allowance subtotal is given a twenty percent (20%) contingency to determine the construction cost total. To determine the total Impact Fee Project Cost, a percentage of the construction cost total is added for engineering, surveying, testing, and mobilization. ROW acquisition costs are included in the cost on a percentage basis.

The construction costs are variable based on the proposed Master Thoroughfare Plan classification of the roadway. Additional classifications are utilized in cases where a portion of the facility currently exists. The following indication is used for in the City of Corinth's CIP: (1/2) for facilities where half the facility still needs to be constructed.

**Table 2.4** is the list of CIP projects for the City of Corinth with conceptual level project cost projections. Detailed cost projections and methodology used for each individual project can be seen in **Appendix A**, Conceptual Level Project Cost Projections. It should be noted that these tables reflect only conceptual-level opinions or assumptions regarding the portions of future project costs that are potentially recoverable through impact fees. Actual costs of construction are likely to change with time and are dependent on market and economic conditions that cannot be precisely predicted at this time.

This CIP establishes the list of projects for which impact fees may be utilized. Essentially, it establishes a list of projects for which an impact fee funding program can be established. This is different from a City's construction CIP, which provides a broad list of capital projects for which the City is committed to building. The cost projections utilized in this study should not be utilized for the City's building program or construction CIP.



**Table 2.4 10-Year Roadway Capital Improvements Plan with Conceptual Level Cost Opinions**

Service Area	Proj. #	Class	Roadway	Limits	Length (mi)	% In Service Area	Total Project Cost	Cost in Service Area
Corinth	1	Greenway	Lake Sharon Drive (1)	FM 2499 to Oakmont	0.58	100%	\$ 2,463,350	\$ 2,463,350
	2	Greenway	Lake Sharon Drive (2)	Blue Holley to Parkridge Drive	0.90	100%	\$ 3,995,715	\$ 3,995,715
	3	Greenway	Meadow Oak Drive (1)	Parkridge Drive to Tower Ridge Drive	0.63	100%	\$ 2,683,426	\$ 2,683,426
	4	Greenway	Dobbs Road (1)	IH-35E NBFR to Quail Run	0.35	100%	\$ 1,689,000	\$ 1,689,000
	5	Greenway	Dobbs Road (2)	Quail Run to 300' east of Corinth Parkway	0.35	100%	\$ 738,725	\$ 738,725
	6	Collector	Creekside Drive (1)	Post Oak Drive to Future N/S Collector	0.52	100%	\$ 1,723,000	\$ 1,723,000
	7	Collector	Church Drive	Post Oak Drive to IH-35E SBFR	0.90	100%	\$ 2,202,047	\$ 2,202,047
	8	Collector	Walton Drive	North Corinth to Shady Rest	0.52	100%	\$ 1,555,000	\$ 1,555,000
	9	Collector	Shady Shores Road	Railroad to 205' east of Dalton	1.21	50%	\$ 3,644,000	\$ 1,822,000
	10	Collector	Parkridge Drive (1)	Lake Sharon Drive to Tori Oak Trail	0.14	100%	\$ 596,698	\$ 596,698
	11	Collector	Parkridge Drive (2)	Warwick Drive to FM 2181	0.76	100%	\$ 1,004,487	\$ 1,004,487
	12	Collector	Parkridge Drive (3)	FM 2181 to South City Limits	0.53	100%	\$ 606,000	\$ 606,000
	13	Collector	Tower Ridge Drive	Meadow Oaks Drive to Cliff Oak Drive	0.85	100%	\$ 2,707,000	\$ 2,707,000
	14	Collector	Garrison Road	IH 35E SBFR to Cliff Oak Drive	0.33	100%	\$ 926,000	\$ 926,000
	15	Collector	Quail Run Drive	Dobbs Road to Energy Drive	0.30	100%	\$ 968,000	\$ 968,000
	16	Greenway (1/2)	Post Oak Drive	Robinson Road to Lake Sharon Drive	0.80	100%	\$ 2,040,000	\$ 2,040,000
	17	Collector	N/S Collector	Church Drive to Lake Sharon Drive	0.79	100%	\$ 2,625,000	\$ 2,625,000
	18	Greenway	S. Corinth Street	IH-35E SBFR to Meadow Oak Drive	0.41	100%	\$ 1,866,622	\$ 1,866,622
	19	Collector	Shady Rest Lane	Fritz Lane to Walton	0.32	100%	\$ 966,000	\$ 966,000
	20	Major	FM 2181	West City Limits to IH-35E SBFR	3.30	100%	\$ 242,000	\$ 242,000
	21	Collector	Cliff Oak Drive	Tower Ridge Drive to Garrison Road	0.50	100%	\$ 1,622,000	\$ 1,622,000
							Service Area Project Cost Subtotal	\$ 35,042,070
							2011 Roadway Impact Fee Update	\$ 32,333
							<b>Total Cost in Corinth</b>	<b>\$ 35,074,403</b>

**Notes:**

- a. The planning level cost projections have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Corinth.
- b. The planning level cost projections shall not supersede the City's design standards contained within the Subdivision Ordinance or the determination of the City Engineer for a specific project.
- c. The project cost total within each Service Area may differ from the total shown in the Summary sheets provided to the City due to some projects that are split between multiple jurisdictions.

**E. SERVICE UNIT CALCULATION**

The basic service unit for the computation of Corinth's roadway impact fees is the vehicle-mile of travel during the afternoon peak-hour. To determine the cost per service unit, it is necessary to project the growth in vehicle-miles of travel for the service area for the ten-year study period.

The growth in vehicle-miles from 2011 to 2021 is based upon projected changes in residential and non-residential growth for the period. In order to determine this growth, baseline estimates of population, basic square feet, service square feet, and retail square feet for 2011 were made along with projections for each of these demographic statistics through 2021. The *Land Use Assumptions for Impact Fees* details the growth estimates used for the impact fee determination.

The residential and non-residential statistics in the *Land Use Assumptions for Impact Fees* provide the "independent variables" that are used to calculate the existing (2011) and projected (2021) transportation service units used to establish the roadway impact fee maximum rates within each service area. The roadway demand service units (vehicle-miles) for each service area are the sum of the vehicle-miles "generated" by each category of land use in the service area.

For the purpose of impact fees, all developed and developable land is categorized as either residential or non-residential. For residential land uses, the existing and projected population is



converted to dwelling units. The number of dwelling units in each service area is multiplied by a *transportation demand factor* to compute the vehicle-miles of travel that occur during the afternoon peak hour. This factor computes the average amount of demand caused by the residential land uses in the service area. The *transportation demand factor* is discussed in more detail below.

For non-residential land uses, the process is similar. The *Land Use Assumptions for Impact Fees* provide existing and projected number of building square footages for three (3) categories of non-residential land uses – basic, service, and retail. These categories correspond to an aggregation of other specific land use categories based on the North American Industrial Classification System (NAICS).

Building square footage is the most common independent variable for the estimation of non-residential trips in the *Institute of Transportation Engineers' (ITE), Trip Generation Manual, 8<sup>th</sup> Edition*. This independent variable is more appropriate than the number of employees because building square footage is tied more closely to trip generation and is known at the time of application for any development or development modification that would require the assessment of an impact fee.

The existing and projected land use assumptions for the dwelling units and the square footage of basic, service, and retail land uses provide the basis for the projected increase in vehicle-miles of travel. As noted earlier, a *transportation demand factor* is applied to these values and then summed to calculate the total peak-hour vehicle-miles of demand for each service area.

The *transportation demand factors* are aggregate rates derived from two sources – the *ITE, Trip Generation Manual, 8<sup>th</sup> Edition*, and the regional Origin-Destination Travel Survey performed by North Central Texas Council of Governments (NCTCOG) and the National Household Travel Survey (NHTS). The *ITE, Trip Generation Manual, 8<sup>th</sup> Edition*, provides the number of trips that are produced or attracted to the land use for each dwelling unit, square foot of building, or other corresponding unit. For the retail category of land uses, the rate is adjusted to account for the fact that a percentage of retail trips are made by people who would otherwise be traveling past that particular establishment anyway, such as a trip between work and home. These trips are called pass-by trips, and since the travel demand is accounted for in the land use calculations relative to the primary trip, it is necessary to discount the retail rate to avoid double counting trips.

The next component of the *transportation demand factor* accounts for the length of each trip. The average trip length for each category is based on the region-wide travel characteristics survey conducted by the NCTCOG and the NHTS.

The computation of the *transportation demand factor* is detailed in the following equation:

$$TDF = T * (1 - P_b) * L_{max}$$

where...  $L_{max} = \min(L * OD \text{ or } SA_L)$

Variables:

- TDF = Transportation Demand Factor;
- T = Trip Rate (peak hour trips / unit);
- $P_b$  = Pass-By Discount (% of trips);
- $L_{max}$  = Maximum Trip Length (miles);
- L = Average Trip Length (miles);
- OD = Origin-Destination Reduction (50%); and
- $SA_L$  = Max Service Area Trip Length (see **Table 2.5**).

For land uses which are characterized by longer average trip lengths (primarily residential uses), the maximum trip length has been limited to six (6) miles based on the maximum trip length within each service area. Chapter 395 of the Texas Local Government Code allows for a service area of six (6) miles; however the service area within Corinth is approximated to be a four (4) mile distance.

The adjustment made to the average trip length statistic in the computation of the maximum trip length is the origin-destination reduction. This adjustment is made because the roadway impact fee is charged to both the origin and destination end of the trip. For example, impact fee methodology will account for a trip from home to work within Corinth to both residential and non-residential land uses. To avoid counting these trips as both residential and non-residential trips, a 50% origin-destination (OD) reduction factor is applied. Therefore, only half of the trip length is assessed to each land use.

**Table 2.5** shows the derivation of the *Transportation Demand Factor* for the residential land uses and the three (3) non-residential land uses. The values utilized for all variables shown in the *Transportation Demand Factor* equation are also shown in the table.

**Table 2.5 Transportation Demand Factor Calculations**

<b>Variable</b>	<b>Residential</b>	<b>Basic</b>	<b>Service</b>	<b>Retail</b>
<b>T</b>	1.01	0.97	1.49	3.73
<b>P<sub>b</sub></b>	0%	0%	0%	34%
<b>L</b> (miles)	17.21	10.02	10.92	6.43
<b>L<sub>max</sub>*</b> (miles)	4.00	4.00	4.00	3.22
<b>TDF</b>	<b>4.04</b>	<b>3.88</b>	<b>5.96</b>	<b>7.91</b>
* L <sub>max</sub> is less than 4 miles for retail land uses; therefore this lower trip length is used for calculating the TDF for retail land uses				

The application of the demographic projections and the *transportation demand factors* are presented in the 10-Year Growth Projections in **Table 2.6**. This table shows the total vehicle-miles by service area for the years 2011 and 2021. These estimates and projections lead to the Vehicle Miles of Travel for both 2011 and 2021.



**Table 2.6 10-Year Growth Projections**

SERVICE AREA	RESIDENTIAL VEHICLE-MILES		SQUARE FEET <sup>4</sup>			TRANS. DEMAND FACTOR (TDF) <sup>5</sup>			NON-RESIDENTIAL VEHICLE-MILES <sup>9</sup>			TOTAL VEHICLE-MILES <sup>10</sup>	
	DWELLING UNITS <sup>1</sup>	Trip Rate TDF <sup>2</sup>	BASIC	SERVICE	RETAIL	BASIC <sup>6</sup>	SERVICE <sup>7</sup>	RETAIL <sup>8</sup>	BASIC	SERVICE	RETAIL	TOTAL	
Corinth	7,062	1.01 4.04	758,076	920,034	603,989	0.97 3.88	1.49 5.96	3.73 7.91	2,941	5,483	4,780	13,204	41,734

SERVICE AREA	RESIDENTIAL VEHICLE-MILES		SQUARE FEET <sup>4</sup>			TRANS. DEMAND FACTOR (TDF) <sup>5</sup>			NON-RESIDENTIAL VEHICLE-MILES <sup>9</sup>			TOTAL VEHICLE-MILES <sup>10</sup>	
	DWELLING UNITS <sup>1</sup>	Trip Rate TDF <sup>2</sup>	BASIC	SERVICE	RETAIL	BASIC <sup>6</sup>	SERVICE <sup>7</sup>	RETAIL <sup>8</sup>	BASIC	SERVICE	RETAIL	TOTAL	
Corinth	8,498	1.01 4.04	1,403,937	1,277,288	1,993,648	0.97 3.88	1.49 5.96	3.73 7.91	5,447	7,613	15,779	28,839	63,170

**VEHICLE-MILES OF INCREASE<sup>11</sup> (2011 - 2021)**

SERVICE AREA	VEH-MILES
Corinth	21,435

**Notes:**

- <sup>1</sup> From Land Use Assumptions for Impact Fees, dated August 2011
- <sup>2</sup> Transportation Demand Factor for each Service Area (from LUVMET) using Single Family Detached Housing land use and trip generation rate
- <sup>3</sup> Calculated by multiplying TDF by the number of dwelling units
- <sup>4</sup> From Land Use Assumptions for Impact Fees, dated August 2011
- <sup>5</sup> Trip generation rate and Transportation Demand Factors from LUVMET for each land use
- <sup>6</sup> 'Basic' corresponds to General Light Industrial land use and trip generation rate
- <sup>7</sup> 'Service' corresponds to General Office land use and trip generation rate
- <sup>8</sup> 'Retail' corresponds to Shopping Center land use and trip generation rate
- <sup>9</sup> Calculated by multiplying Transportation Demand Factor by the number of thousand square feet for each land use
- <sup>10</sup> Residential plus non-residential vehicle-mile totals for each Service Area
- <sup>11</sup> Total Vehicle-Miles (2011) subtracted from Total Vehicle-Miles (2021)



## 2.4 IMPACT FEE CALCULATION

### A. MAXIMUM ASSESSABLE IMPACT FEE PER SERVICE UNIT

This section presents the maximum assessable impact fee rate calculated for each service area. The maximum assessable impact fee is the sum of the eligible Impact Fee CIP costs for the service area divided by the growth in travel attributable to new development projected to occur within the 10-year period. A majority of the components of this calculation have been described and presented in previous sections of this report. The purpose of this section is to document the computation for each service area and to demonstrate that the guidelines provided by Chapter 395 of the Texas Local Government Code have been addressed. **Table 2.7** illustrates the computation of the maximum assessable impact fee computed for the service area. Each row in the table is numbered to simplify explanation of the calculation.

Line	Title	Description
1	<i>Total Vehicle-Miles of Capacity Added by the CIP</i>	The total number of vehicle-miles added to the service area based on the capacity, length, and number of lanes in each project. (from <b>Appendix B – CIP Service Units of Supply</b> )

Each project identified in the Roadway Impact Fee CIP will add a certain amount of capacity to the City's roadway network based on its length and classification. This line displays the total amount added within the service area.

2	<i>Total Vehicle-Miles of Existing Demand</i>	A measure of the amount of traffic currently using the roadway facilities upon which capacity is being added. (from <b>Appendix B – CIP Service Units of Supply</b> )
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A number of facilities identified in the Roadway Impact Fee CIP have traffic currently utilizing a portion of their existing capacity. This line displays the total amount of capacity along these facilities currently being used by existing traffic.

3	<i>Total Vehicle-Miles of Existing Deficiencies</i>	Number of vehicle-miles of travel that are not accommodated by the existing roadway system. (from <b>Appendix C – Existing Roadway Facilities Inventory</b> )
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In order to ensure that existing deficiencies on the City's roadway network are not recoverable through impact fees, this line is based on the entire roadway network within the service area. Any roadway within the service area that is deficient – even those not identified on the Roadway Impact Fee CIP – will have these additional trips removed from the calculation.

4	<i>Net Amount of Vehicle-Miles of Capacity Added</i>	A measurement of the amount of vehicle-miles added by the CIP that will not be utilized by existing demand. ( <b>Line 1 – Line 2 – Line 3</b> )
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5	<i>Total Cost of the CIP within the Service Area</i>	The total cost of the projects within the service area (from <b>Table 2.4 - 10-Year Roadway Capital Improvements Plan with Conceptual Level Cost Opinions</b> )
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This line simply identifies the total cost of all of the projects identified in the service area.



<b>6</b>	<i>Cost of Net Capacity Supplied</i>	The total CIP cost ( <b>Line 5</b> ) prorated by the ratio of Net Capacity Added ( <b>Line 4</b> ) to Total Capacity Added ( <b>Line 1</b> ). [( <b>Line 4</b> / <b>Line 1</b> ) * ( <b>Line 5</b> )]
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Using the ratio of vehicle-miles added by the Roadway Impact Fee CIP available to serve future growth to the total vehicle-miles added, the total cost of the Impact Fee CIP is reduced to the amount available for future growth (i.e., excluding existing usage and deficiencies).

<b>7</b>	<i>Cost to Meet Existing Needs and Usage</i>	The difference between the Total Cost of the CIP ( <b>Line 5</b> ) and the Cost of the Net Capacity supplied ( <b>Line 6</b> ). ( <b>Line 5 – Line 6</b> )
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This line is provided for information purposes only – it is to present the portion of the total cost of the Roadway Impact Fee CIP that is required to meet existing demand.

<b>8</b>	<i>Total Vehicle-Miles of New Demand over Ten Years</i>	Based upon the growth projection provided in the <i>Land Use Assumptions for Impact Fees</i> , an estimate of the number of new vehicle-miles within the service area over the next ten years. (from <b>Table 2.6</b> )
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This line presents the amount of growth (in vehicle-miles) projected to occur within each service area over the next ten years.

<b>9</b>	<i>Percent of Capacity Added Attributable to New Growth</i>	The result of dividing Total Vehicle-Miles of New Demand ( <b>Line 8</b> ) by the Net Amount of Capacity Added ( <b>Line 4</b> ), limited to 100% ( <b>Line 10</b> ). This calculation is required by Chapter 395 to ensure capacity added is attributable to new growth.
<b>10</b>	<i>Chapter 395 Check</i>	

In order to ensure that the vehicle-miles added by the Roadway Impact Fee CIP do not exceed the amount needed to accommodate growth beyond the ten-year window, a comparison of the two values is performed. If the amount of vehicle-miles added by the Roadway Impact Fee CIP exceeds the growth projected to occur in the next ten years, the Roadway Impact Fee CIP cost is reduced accordingly.

<b>11</b>	<i>Cost of Capacity Added Attributable to New Growth</i>	The result of multiplying the Cost of Net Capacity Added ( <b>Line 6</b> ) by the Percent of Capacity Added Attributable to New Growth, limited to 100% ( <b>Line 9</b> ).
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The value of the total Roadway Impact Fee CIP project costs (excluding financial costs) that may be recovered through impact fees. This line is determined considering the limitations to impact fees required by the Texas legislature.



## B. PLAN FOR AWARDING THE ROADWAY IMPACT FEE CREDIT

Chapter 395 of the Texas Local Government Code requires the Capital Improvements Plan for Roadway Impact Fees to contain specific enumeration of a plan for awarding the impact fee credit. Section 395.014 of the Code states:

- “(7) A plan for awarding:
- (A) 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; or
  - (B) In the alternative, a credit equal to 50 percent of the total projected cost of implementing the capital improvements plan...”

The following table summarizes the portions of **Table 2.7** that utilize this credit calculation, based on awarding a 50 percent credit.

<b>Line</b>	<b>Title</b>	<b>Description</b>
<b>12</b>	<i>Net Financing Costs</i>	Using 5.5% Interest Rate for Bond Debt Service.
<b>13</b>	<i>Existing Impact Fee Fund Balance</i>	Existing Roadway Impact Fees in fund balance as of August 2011
<b>14</b>	<i>Cost of the CIP and Financing Attributable to New Growth</i>	The sum of the Cost of Capacity Added Attributable to New Growth, Financing Costs, and Interest Earnings. <b>(Line 11 + Line 12 - Line 13)</b>
<b>15</b>	<i>Pre-Credit Maximum Fee Per Service Unit</i>	Found by dividing the Cost of the CIP and Financing Attributable to New Growth <b>(Line 14)</b> by the Total Vehicle-Miles of New Demand Over Ten Years <b>(Line 8)</b> . <b>(Line 14 / Line 8)</b>
<b>16</b>	<i>Credit</i>	A credit equal to 50% of the total projected cost, as per section 395.014 of the Texas Local Government Code.
<b>17</b>	<i>Recoverable Cost of CIP and Financing</i>	The difference between the Cost of the CIP and Financing Attributable to New Growth <b>(Line 14)</b> and the Credit for Ad Valorem Taxes <b>(Line 16)</b> . <b>(Line 14 - Line 16)</b>
<b>18</b>	<i>Maximum Assessable Fee Per Service Unit</i>	Found by dividing the Recoverable Cost of the CIP and Financing <b>(Line 17)</b> by the Total Vehicle-Miles of New Demand Over Ten Years <b>(Line 8)</b> . <b>(Line 17 / Line 8)</b>



**Table 2.7 Maximum Assessable Roadway Impact Fee**

SERVICE AREA:		Corinth
1	TOTAL VEH-MI OF CAPACITY ADDED BY THE CIP (FROM CIP SERVICE UNITS OF SUPPLY, APPENDIX B)	30,317
2	TOTAL VEH-MI OF EXISTING DEMAND (FROM CIP SERVICE UNITS OF SUPPLY, APPENDIX B)	7,022
3	TOTAL VEH-MI OF EXISTING DEFICIENCIES (FROM EXISTING FACILITIES INVENTORY, APPENDIX C)	600
4	NET AMOUNT OF VEH-MI OF CAPACITY ADDED (LINE 1 - LINE 2 - LINE 3)	22,695
5	TOTAL COST OF THE CIP WITHIN SERVICE AREA (FROM TABLE 2.4)	\$ 35,074,403
6	COST OF NET CAPACITY SUPPLIED (LINE 4 / LINE 1) * (LINE 5)	\$ 26,256,061
7	COST TO MEET EXISTING NEEDS AND USAGE (LINE 5 - LINE 6)	\$ 8,818,342
8	TOTAL VEH-MI OF NEW DEMAND OVER TEN YEARS (FROM TABLE 2.6 and <i>Land Use Assumptions for Impact Fees</i> )	21,435
9	PERCENT OF CAPACITY ADDED ATTRIBUTABLE TO GROWTH (LINE 8 / LINE 4)	94.4%
10	IF LINE 8 > LINE 4, REDUCE LINE 9 TO 100%, OTHERWISE NO CHANGE	94.4%
11	COST OF CAPACITY ADDED ATTRIBUTABLE TO GROWTH (LINE 6 * LINE 10)	\$ 24,785,722
12	FINANCING COSTS	\$ 9,720,960
13	EXISTING IMPACT FEE FUND BALANCE	\$ 445,594
14	COST OF CIP AND FINANCING ATTRIBUTABLE TO GROWTH (LINE 11 + LINE 12 - LINE 13)	\$ 34,061,088
15	PRE-CREDIT MAX FEE PER SERVICE UNIT (\$ PER VEH-MI) (LINE 14 / LINE 8)	\$ 1,589
16	CREDIT (50% OF LINE 14)	\$ 17,030,544
17	RECOVERABLE COST OF CIP AND FINANCING (LINE 14 - LINE 16)	\$ 17,030,544
18	MAX ASSESSABLE FEE PER SERVICE UNIT (\$ PER VEH-MI) (LINE 17 / LINE 8)	\$ 794



### C. SERVICE UNIT DEMAND PER UNIT OF DEVELOPMENT

The roadway impact fee is determined by multiplying the impact fee rate by the number of service units projected for the proposed development. For this purpose, the City utilizes the Land Use/Vehicle-Mile Equivalency Table (LUVMET), presented in **Table 2.8**. This table lists the predominant land uses that may occur within the City of Corinth. For each land use, the development unit that defines the development's magnitude with respect to transportation demand is shown. Although every possible use cannot be anticipated, the majority of uses are found in this table. If the exact use is not listed, one similar in trip-making characteristics can serve as a reasonable proxy. The individual land uses are grouped into categories, such as residential, office, commercial, industrial, and institutional.

The trip rates presented for each land use is a fundamental component of the LUVMET. The trip rate is the average number of trips generated during the afternoon peak hour by each land use per development unit. The next column, if applicable to the land use, presents the number of trips to and from certain land uses reduced by pass-by trips, as previously discussed.

The source of the trip generation and pass-by statistics is the *ITE Trip Generation Manual, 8<sup>th</sup> Edition*, the latest edition for trip generation data. This manual utilizes trip generation studies for a variety of land uses throughout the United States, and is the standard used by traffic engineers and transportation planners for traffic impact analysis, site design, and transportation planning.

To convert vehicle trips to vehicle-miles, it is necessary to multiply trips by trip length. The adjusted trip length values are based on the *Regional Origin-Destination Travel Survey* performed by the NCTCOG and the NHTS. The other adjustment to trip length is the 50% origin-destination reduction to avoid double counting of trips. At this stage, another important aspect of the state law is applied – the limit on transportation service unit demand. If the adjusted trip length is above the maximum trip length within the service area, the maximum trip length used for calculation is reduced to the corresponding value. This reduction, as discussed previously, limits the maximum trip length to the approximate size of the service areas.

The remaining column in the LUVMET shows the vehicle-miles per development unit. This number is the product of the trip rate and the maximum trip length. This number, previously referred to as the *Transportation Demand Factor*, is used in the impact fee estimate to compute the number of service units consumed by each land use application. The number of service units is multiplied by the impact fee rate (established by City ordinance) in order to determine the impact fee for a development.



**Table 2.8 Land Use / Vehicle-Mile Equivalency Table (LUMMET)**

Land Use Category	ITE Land Use Code	Development Unit	Trip Gen Rate (PM)	Pass-by Rate	Pass-by Source	Trip Rate	NCTCOG Trip Length (mi)	Adj. For O-D	Adj. Trip Length (mi)	Max Trip Length (mi)	Veh-Mi Per Dev. Unit
<b>PORT AND TERMINAL</b>											
Truck Terminal	030	Acre	6.55			6.55	10.02	50%	5.01	4.00	26.20
<b>INDUSTRIAL</b>											
General Light Industrial	110	1,000 SF GFA	0.97			0.97	10.02	50%	5.01	4.00	3.88
General Heavy Industrial	120	1,000 SF GFA	0.68			0.68	10.02	50%	5.01	4.00	2.72
Industrial Park	130	1,000 SF GFA	0.86			0.86	10.02	50%	5.01	4.00	3.44
Warehousing	150	1,000 SF GFA	0.32			0.32	10.83	50%	5.42	4.00	1.28
Mini-Warehouse	151	1,000 SF GFA	0.26			0.26	10.83	50%	5.42	4.00	1.04
<b>RESIDENTIAL</b>											
Single-Family Detached Housing	210	Dwelling Unit	1.01			1.01	17.21	50%	8.61	4.00	4.04
Apartment/Multi-family	220	Dwelling Unit	0.62			0.62	17.21	50%	8.61	4.00	2.48
Residential Condominium/Townhome	230	Dwelling Unit	0.52			0.52	17.21	50%	8.61	4.00	2.08
Mobile Home Park / Manufactured Housing	240	Dwelling Unit	0.59			0.59	17.21	50%	8.61	4.00	2.36
Senior Adult Housing-Detached	251	Dwelling Unit	0.27			0.27	17.21	50%	8.61	4.00	1.08
Senior Adult Housing-Attached	252	Dwelling Unit	0.16			0.16	17.21	50%	8.61	4.00	0.64
Assisted Living	254	Beds	0.22			0.22	17.21	50%	8.61	4.00	0.88
<b>LODGING</b>											
Hotel	310	Room	0.59			0.59	6.43	50%	3.22	3.22	1.90
Motel/ Other Lodging Facilities	320	Room	0.47			0.47	6.43	50%	3.22	3.22	1.51
<b>RECREATIONAL</b>											
Golf Driving Range	432	Tee	1.25			1.25	6.43	50%	3.22	3.22	4.02
Golf Course	430	Acre	0.30			0.30	6.43	50%	3.22	3.22	0.96
Recreational Community Center	495	1,000 SF GFA	1.45			1.45	6.43	50%	3.22	3.22	4.66
Ice Skating Rink	465	1,000 SF GFA	2.36			2.36	6.43	50%	3.22	3.22	7.59
Miniature Golf Course	431	Hole	0.33			0.33	6.43	50%	3.22	3.22	1.06
Multiplex Movie Theater	445	Screens	13.64			13.64	6.43	50%	3.22	3.22	43.85
Racquet / Tennis Club	491	Court	3.35			3.35	6.43	50%	3.22	3.22	10.77
<b>INSTITUTIONAL</b>											
Church	560	1,000 SF GFA	0.55			0.55	4.20	50%	2.10	2.10	1.16
Day Care Center	565	1,000 SF GFA	12.46	30%	B	8.72	4.20	50%	2.10	2.10	18.31
Primary/Middle School (1-8)	522	Students	0.16			0.16	4.20	50%	2.10	2.10	0.34
High School	530	Students	0.13			0.13	4.20	50%	2.10	2.10	0.27
Junior / Community College	540	Students	0.12			0.12	4.20	50%	2.10	2.10	0.25
University / College	550	Students	0.21			0.21	4.20	50%	2.10	2.10	0.44
<b>MEDICAL</b>											
Clinic	630	1,000 SF GFA	5.18			5.18	7.55	50%	3.78	3.78	19.55
Hospital	610	Beds	1.31			1.31	7.55	50%	3.78	3.78	4.95
Nursing Home	620	Beds	0.22			0.22	7.55	50%	3.78	3.78	0.83
Animal Hospital/Veterinary Clinic	640	1,000 SF GFA	4.72	30%	B	3.30	7.55	50%	3.78	3.78	12.46
<b>OFFICE</b>											
Corporate Headquarters Building	714	1,000 SF GFA	1.40			1.40	10.92	50%	5.46	4.00	5.60
General Office Building	710	1,000 SF GFA	1.49			1.49	10.92	50%	5.46	4.00	5.96
Medical-Dental Office Building	720	1,000 SF GFA	3.46			3.46	10.92	50%	5.46	4.00	13.84
Single Tenant Office Building	715	1,000 SF GFA	1.73			1.73	10.92	50%	5.46	4.00	6.92
Office Park	750	1,000 SF GFA	1.48			1.48	10.92	50%	5.46	4.00	5.92
<b>COMMERCIAL</b>											
<b>Automobile Related</b>											
Automobile Care Center	942	1,000 SF Occ. GLA	3.38	40%	B	2.03	6.43	50%	3.22	3.22	6.52
Automobile Parts Sales	843	1,000 SF GFA	5.98	43%	A	3.41	6.43	50%	3.22	3.22	10.96
Gasoline/Service Station	944	Vehicle Fueling Position	13.87	42%	A	8.04	1.20	50%	0.60	0.60	4.83
Gasoline/Service Station w/ Conv Market	945	Vehicle Fueling Position	13.38	56%	B	5.89	1.20	50%	0.60	0.60	3.53
Gasoline/Service Station w/ Conv Market and C	946	Vehicle Fueling Position	13.94	56%	A	6.13	1.20	50%	0.60	0.60	3.68
New Car Sales	841	1,000 SF GFA	2.59	20%	B	2.07	6.43	50%	3.22	3.22	6.66
Quick Lubrication Vehicle Shop	941	Servicing Positions	5.19	40%	B	3.11	6.43	50%	3.22	3.22	10.01
Self-Service Car Wash	947	Stall	5.54	40%	B	3.32	1.20	50%	0.60	0.60	1.99
Tire Store	848	1,000 SF GFA	4.15	28%	A	2.99	6.43	50%	3.22	3.22	9.61
<b>Dining</b>											
Fast Food Restaurant with Drive-Thru Window	934	1,000 SF GFA	33.84	50%	A	16.92	4.79	50%	2.40	2.40	40.52
Fast Food Restaurant without Drive-Thru Window	933	1,000 SF GFA	26.15	50%	B	13.08	4.79	50%	2.40	2.40	31.31
High Turnover (Sit-Down) Restaurant	932	1,000 SF GFA	11.15	43%	A	6.36	4.79	50%	2.40	2.40	15.22
Quality Restaurant	931	1,000 SF GFA	7.49	44%	A	4.19	4.79	50%	2.40	2.40	10.05
Coffee/Donut Shop with Drive-Thru Window	937	1,000 SF GFA	42.93	70%	A	12.88	4.79	50%	2.40	2.40	30.85
<b>Other Retail</b>											
Free-Standing Discount Store	815	1,000 SF GFA	5.00	30%	C	3.50	6.43	50%	3.22	3.22	11.25
Nursery (Garden Center)	817	1,000 SF GFA	3.80	30%	B	2.66	6.43	50%	3.22	3.22	8.55
Home Improvement Superstore	862	1,000 SF GFA	2.37	48%	A	1.23	6.43	50%	3.22	3.22	3.96
Pharmacy/Drugstore w/o Drive-Thru Window	880	1,000 SF GFA	8.42	53%	A	3.96	6.43	50%	3.22	3.22	12.72
Pharmacy/Drugstore w/ Drive-Thru Window	881	1,000 SF GFA	10.35	49%	A	5.28	6.43	50%	3.22	3.22	16.97
Shopping Center	820	1,000 SF GFA	3.73	34%	A	2.46	6.43	50%	3.22	3.22	7.91
Supermarket	850	1,000 SF GFA	10.50	36%	A	6.72	6.43	50%	3.22	3.22	21.60
Toy/Children's Superstore	864	1,000 SF GFA	4.99	30%	B	3.49	6.43	50%	3.22	3.22	11.23
Department Store	875	1,000 SF GFA	1.78	30%	B	1.25	6.43	50%	3.22	3.22	4.01
Video Rental Store	896	1,000 SF GFA	13.60	50%	B	6.80	6.43	50%	3.22	3.22	21.86
<b>SERVICES</b>											
Walk-In Bank	911	1,000 SF GFA	12.13	40%	B	7.28	3.39	50%	1.70	1.70	12.34
Drive-In Bank	912	Drive-in Lanes	27.41	47%	A	14.53	3.39	50%	1.70	1.70	24.62
Hair Salon	918	1,000 SF GLA	1.45	30%	B	1.02	3.39	50%	1.70	1.70	1.72

Key to Sources of Pass-by Rates:

A: ITE Trip Generation Handbook 2nd Edition (June 2004)

B: Estimated by Kimley-Horn based on ITE rates for similar categories

C: ITE rate adjusted upward by KHA based on logical relationship to other categories



## 2.5 SAMPLE CALCULATIONS

The following section details four (4) examples of maximum assessable roadway impact fee calculations.

### Example 1:

- **Development Type - One (1) Unit of Single-Family Housing**

<b>Roadway Impact Fee Calculation Steps – Example 1</b>	
<b>Step 1</b>	<b>Determine Development Unit and Vehicle-Miles Per Development Unit</b>
	<i>From Table 2.7 [Land Use – Vehicle Mile Equivalency Table]</i> Development Type: 1 Dwelling Unit of Single-Family Detached Housing Number of Development Units: 1 Dwelling Unit Veh-Mi Per Development Unit: 4.04
<b>Step 2</b>	<b>Determine Maximum Assessable Impact Fee Per Service Unit</b>
	<i>From Table 2.7, Line 18 [Maximum Assessable Fee Per Service Unit]</i> Maximum Fee for City of Corinth: \$794 / vehicle-mile
<b>Step 3</b>	<b>Determine Maximum Assessable Impact Fee</b>
	Impact Fee = # of Development Units * Veh-Mi Per Dev Unit * Max. Fee Per Service Unit
	Impact Fee = 1 * 4.04 * \$794  Maximum Assessable Impact Fee = \$3,207.76

### Example 2:

- **Development Type – 125,000 square foot Home Improvement Superstore**

<b>Roadway Impact Fee Calculation Steps – Example 2</b>	
<b>Step 1</b>	<b>Determine Development Unit and Vehicle-Miles Per Development Unit</b>
	<i>From Table 2.7 [Land Use – Vehicle Mile Equivalency Table]</i> Development Type: 125,000 square feet of Home Improvement Superstore Development Unit: 1,000 square feet of Gross Floor Area Veh-Mi Per Development Unit: 3.96
<b>Step 2</b>	<b>Determine Maximum Assessable Impact Fee Per Service Unit</b>
	<i>From Table 2.13, Line 19 [Maximum Assessable Fee Per Service Unit]</i> Maximum Fee for City of Corinth: \$794 / vehicle-mile
<b>Step 3</b>	<b>Determine Maximum Assessable Impact Fee</b>
	Impact Fee = # of Development Units * Veh-Mi Per Dev Unit * Max. Fee Per Service Unit
	Impact Fee = 125 * 3.96 * \$794  Maximum Assessable Impact Fee = \$393,030

## 2.6 CONCLUSION

The City of Corinth has established a process to implement the assessment and collection of roadway impact fees through the adoption of an impact fee ordinance that is consistent with Chapter 395 of the Texas Local Government Code.

This report establishes the maximum allowable roadway impact fee that could be assessed by the City of Corinth. The maximum assessable roadway impact fee calculated in this report is \$794 (from **Table 2.7**):

This document serves as a guide to the assessment of roadway impact fees pertaining to future development and the City's need for roadway improvements to accommodate that growth. Following the public hearing process, the City Council may establish an amount to be assessed (if any) up to the maximum established within this report and update the Roadway Impact Fee Ordinance accordingly.

In conclusion, it is our opinion that the data and methodology used in this update are appropriate and consistent with Chapter 395 of the Texas Local Government Code. Furthermore, the Land Use Assumptions and the proposed Capital Improvements Plan are appropriately incorporated into the process.

## **APPENDICES**

- A. CONCEPTUAL LEVEL PROJECT COST PROJECTIONS**
- B. CIP SERVICE UNITS OF SUPPLY**
- C. EXISTING ROADWAY FACILITIES INVENTORY**



Kimley-Horn  
and Associates, Inc.



## Appendix A – Conceptual Level Project Cost Projections

City of Corinth - 2011 Roadway Impact Fee Update  
 Capital Improvement Plan for Roadway Impact Fees  
 Summary of Conceptual Level Project Cost Projections

**Roadway Improvements - Corinth**

#	Class	Project	Limits	Project Cost
1	Greenway	Lake Sharon Drive (1)	FM 2499 to Oakmont	\$ 2,463,350
2	Greenway	Lake Sharon Drive (2)	Blue Holley to Parkridge Drive	\$ 3,995,715
3	Greenway	Meadow Oak Drive (1)	Parkridge Drive to Tower Ridge Drive	\$ 2,683,426
4	Greenway	Dobbs Road (1)	IH-35E NBFR to Quail Run	\$ 1,689,000
5	Greenway	Dobbs Road (2)	Quail Run to 300' east of Corinth Parkway	\$ 738,725
6	Collector	Creekside Drive (1)	Post Oak Drive to Future N/S Collector	\$ 1,723,000
7	Collector	Church Drive	Post Oak Drive to IH-35E SBFR	\$ 2,202,047
8	Collector	Walton Drive	North Corinth to Shady Rest	\$ 1,555,000
9	Collector	Shady Shores Road	Railroad to 205' east of Dalton	\$ 3,644,000
10	Collector	Parkridge Drive (1)	Lake Sharon Drive to Tori Oak Trail	\$ 596,698
11	Collector	Parkridge Drive (2)	Warwick Drive to FM 2181	\$ 1,004,487
12	Collector	Parkridge Drive (3)	FM 2181 to South City Limits	\$ 606,000
13	Collector	Tower Ridge Drive	Meadow Oaks Drive to Cliff Oak Drive	\$ 2,707,000
14	Collector	Garrison Road	IH 35E SBFR to Cliff Oak Drive	\$ 926,000
15	Collector	Quail Run Drive	Dobbs Road to Energy Drive	\$ 968,000
16	Greenway (1/2)	Post Oak Drive	Robinson Road to Lake Sharon Drive	\$ 2,040,000
17	Collector	N/S Collector	Church Drive to Lake Sharon Drive	\$ 2,625,000
18	Greenway	S. Corinth Street	IH-35E SBFR to Meadow Oak Drive	\$ 1,866,622
19	Collector	Shady Rest Lane	Fritz Lane to Walton	\$ 966,000
20	Major	FM 2181	West City Limits to IH-35E SBFR	\$ 242,000
21	Collector	Cliff Oak Drive	Tower Ridge Drive to Garrison Road	\$ 1,622,000

**TOTAL \$ 36,864,070**

\*Total may be higher than presented in Table 2.4 (10-Year Roadway Improvement Plan for Roadway Impact Fees with Conceptual Level Cost Opinions) because the cost of some projects are shared between jurisdictions.

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Corinth.

The planning level cost projections shall not supersede the City's design standards or the determination of the City Engineer for a specific project.

**City of Corinth**  
**2011 Roadway Impact Fee Update**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.  
 updated: 8/16/2011

Project Information:		Description:	Project No.
<b>Name:</b>	Lake Sharon Drive (1)	<b>This project consists of the construction of a new greenway minor arterial. The cost estimate of \$2,793,350 was provided by the City of Corinth. \$330,000 has been removed from the cost due to a County of Denton ICA Agreement.</b>	1
<b>Limits:</b>	FM 2499 to Oakmont		
<b>Impact Fee Class:</b>	Greenway		
<b>Ultimate Class:</b>	Greenway		
<b>Length (lf):</b>	3,085		
<b>Service Area(s):</b>	Corinth (All City)		

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>	Cost Estimate Provided By Corinth	-	\$ 2,111,950
<b>Engineering/Survey/Testing:</b>			\$ 241,400
<b>Mobilization</b>			\$ -
<b>Previous City contribution</b>			
<b>Other</b>	County of Denton ICA Agreement		\$ (330,000)
<b>ROW/Easement Acquisition:</b>	Cost Estimate Provided By Corinth		\$ 440,000
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 2,463,350</b>

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**City of Corinth**  
**2011 Roadway Impact Fee Update**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 8/16/2011

Project Information:		Description:	Project No.
<b>Name:</b>	Lake Sharon Drive (2)	<b>This project consisted of the construction of a greenway minor arterial. This City project was a combination of Impact Fee Project Number 2, 3, and 10. The construction cost for these three projects was \$7,458,731. \$4,027,715 (54%) is contributed to Lake Sharon Drive from Blue Holley to Parkridge Drive. \$32,000 has been removed from the cost for escrow funds.</b>	<b>2</b>
<b>Limits:</b>	Blue Holley to Parkridge Drive		
<b>Impact Fee Class:</b>	Greenway		
<b>Ultimate Class:</b>	Greenway		
<b>Length (lf):</b>	4,752		
<b>Service Area(s):</b>	Corinth		

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>	Actual Cost Provided By Corinth	-	\$ 3,298,857
<b>Engineering/Survey/Testing:</b>			\$ 308,062
<b>Mobilization</b>			
<b>Previous City contribution</b>			
<b>Other</b>	Escrow Funds		\$ (32,000)
<b>ROW/Easement Acquisition:</b>	Actual Cost Provided By Corinth		\$ 420,796
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 3,995,715</b>

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**City of Corinth**  
**2011 Roadway Impact Fee Update**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 8/16/2011

Project Information:		Description:	Project No.
<b>Name:</b>	Meadow Oak Drive (1)	<b>This project consisted of the construction of a greenway minor arterial. This City project was a combination of Impact Fee Project Number 2, 3, and 10, The construction cost for these three projects was \$7,458,731. \$2,834,318 (38%) is contributed to Meadow Oaks Drive from Parkridge Drive to Tower Ridge Drive. \$150,892 has been removed from the cost for escrow funds.</b>	<b>3</b>
<b>Limits:</b>	Parkridge Drive to Tower Ridge Drive		
<b>Impact Fee Class:</b>	Greenway		
<b>Ultimate Class:</b>	Greenway		
<b>Length (lf):</b>	3,316		
<b>Service Area(s):</b>	Corinth		

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>	Actual Cost Provided By Corinth	-	\$ 2,321,418
<b>Engineering/Survey/Testing:</b>			\$ 216,784
<b>Mobilization</b>			
<b>Previous City contribution</b>			
<b>Other</b>	Escrow Funds		\$ (150,892)
<b>ROW/Easement Acquisition:</b>	Actual Cost Provided By Corinth		\$ 296,116
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 2,683,426</b>

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**City of Corinth**  
**2011 Roadway Impact Fee Update**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 8/16/2011

Project Information:		Description:	Project No.
Name:	Dobbs Road (1)	<b>This project consists of the reconstruction of a two-lane rural asphalt facility to a greenway minor arterial.</b>	<b>4</b>
Limits:	IH-35E NBFR to Quail Run		
Impact Fee Class:	Greenway		
Ultimate Class:	Greenway		
Length (lf):	1,872		
Service Area(s):	Corinth		

Roadway Construction Cost Projection				
No.	Item Description	Quantity	Unit	Item Cost
104	Unclassified Street Excavation	5,824	cy	\$ 52,416
204	6" Lime Stabilization (with Lime @ 27#/sy)	11,232	sy	\$ 39,312
304	8" Concrete Pavement w/ 6" Curb	10,400	sy	\$ 395,200
404	4" Topsoil	7,904	sy	\$ 39,520
504	4' Concrete Sidewalk / Trail	22,464	sf	\$ 84,240
604	Concrete Driveway Approach	2	ea	\$ 5,000
<b>Paving Construction Cost Subtotal:</b>				<b>\$ 615,688</b>
Major Construction Component Allowances**				
Item Description	Notes	Allowance	Item Cost	
√ Prep ROW		8%	\$	49,255
√ Traffic Control	Construction Phase Traffic Control	7%	\$	43,098
√ Pavement Markings/Markers		3%	\$	18,471
√ Roadway Drainage	Standard Internal System	30%	\$	184,706
√ Illumination		6%	\$	36,941
Special Drainage Structures	None Anticipated	0%	\$	-
√ Water	Minor Adjustments	6%	\$	36,941
√ Sewer	Minor Adjustments	4%	\$	24,628
√ Establish Turf / Erosion Control		2%	\$	12,314
√ Basic Landscaping		2%	\$	12,314
Other:		\$0	\$	-
<b>**Allowances based on % of Paving Construction Cost Subtotal</b>			<b>Allowance Subtotal:</b>	<b>\$ 418,668</b>
<b>Paving and Allowance Subtotal:</b>				<b>\$ 1,034,356</b>
<b>Construction Contingency:</b>				<b>20% \$ 206,871</b>
<b>Construction Cost TOTAL:</b>				<b>\$ 1,242,000</b>

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	\$ 1,242,000
<b>Engineering/Survey/Testing:</b>		20%	\$ 248,400
<b>Mobilization</b>		6%	\$ 74,520
<b>Previous City contribution</b>			
<b>Other</b>			
<b>ROW/Easement Acquisition:</b>	Existing Alignment	10%	\$ 124,200
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 1,689,000</b>

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**City of Corinth**  
**2011 Roadway Impact Fee Update**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.  
 updated: 8/16/2011

Project Information:		Description:	Project No.
Name:	Dobbs Road (2)	<b>This project consisted of the construction of a  greenway minor arterial. The construction cost for  this facility was \$1,351,749. \$400,000 has been  removed from the cost due to a Developer  contribution. \$213,024 has been removed from the  cost for escrow funds.</b>	<b>5</b>
Limits:	Quail Run to 300' east of Corinth Park		
Impact Fee Class:	Greenway		
Ultimate Class:	Greenway		
Length (lf):	1,874		
Service Area(s):	Corinth		

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:	Actual Cost Provided By Corinth	-	\$ 993,017
Engineering/Survey/Testing:			\$ 50,000
Mobilization			
Developer Contribution			\$ (400,000)
Other	Escrow Funds		\$ (213,024)
ROW/Easement Acquisition:	Actual Cost Provided By Corinth		\$ 308,732
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 738,725</b>

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**City of Corinth**  
**2011 Roadway Impact Fee Update**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.  
 updated: 8/16/2011

Project Information:		Description:	Project No.	6
<b>Name:</b>	Creekside Drive (1)	<b>This project consists of the construction of a new collector.</b>		
<b>Limits:</b>	Post Oak Drive to Future N/S Collector			
<b>Impact Fee Class:</b>	Collector			
<b>Ultimate Class:</b>	Collector			
<b>Length (lf):</b>	2,721			
<b>Service Area(s):</b>	Corinth			

Roadway Construction Cost Projection				
No.	Item Description	Quantity	Unit	Item Cost
103	Unclassified Street Excavation	6,198	cy	\$ 55,781
203	6" Lime Stabilization (with Lime @ 27#/sy)	12,093	sy	\$ 42,327
303	8" Concrete Pavement w/ 6" Curb	11,489	sy	\$ 402,103
403	4" Topsoil	4,233	sy	\$ 21,163
503	4' Concrete Sidewalk	21,768	sf	\$ 81,630
603	Concrete Driveway Approach	3	ea	\$ 7,500
<b>Paving Construction Cost Subtotal:</b>				<b>\$ 610,504</b>
Major Construction Component Allowances**:				
Item Description	Notes	Allowance	Item Cost	
√ Prep ROW		8%	\$	48,840
Traffic Control	None Anticipated	0%	\$	-
√ Pavement Markings/Markers		3%	\$	18,315
√ Roadway Drainage	Standard Internal System	30%	\$	183,151
√ Illumination		6%	\$	36,630
Special Drainage Structures	None Anticipated	0%	\$	-
√ Water	Minor Adjustments	6%	\$	36,630
√ Sewer	Minor Adjustments	4%	\$	24,420
√ Establish Turf / Erosion Control		2%	\$	12,210
√ Basic Landscaping		2%	\$	12,210
Other:		\$0	\$	-
			<b>Allowance Subtotal:</b>	<b>\$ 372,407</b>
<b>Paving and Allowance Subtotal:</b>				<b>\$ 982,911</b>
<b>Construction Contingency:</b>				<b>20% \$ 196,582</b>
<b>Construction Cost TOTAL:</b>				<b>\$ 1,180,000</b>

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	\$ 1,180,000
<b>Engineering/Survey/Testing:</b>		20%	\$ 236,000
<b>Mobilization</b>		6%	\$ 70,800
<b>Previous City contribution</b>			
<b>Other</b>			
<b>ROW/Easement Acquisition:</b>	New Roadway Alignment	20%	\$ 236,000
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 1,723,000</b>

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**City of Corinth**  
**2011 Roadway Impact Fee Update**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.  
 updated: 8/16/2011

Project Information:		Description:	Project No.
Name:	Church Drive	<b>This project consisted of the construction of a collector facility. The construction cost for this facility was \$2,389,274. \$187,227 has been removed from the cost for escrow funds.</b>	<b>7</b>
Limits:	Post Oak Drive to IH-35E SBFR		
Impact Fee Class:	Collector		
Ultimate Class:	Collector		
Length (lf):	4,757		
Service Area(s):	Corinth		

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:	Actual Cost Provided By Corinth	-	\$ 1,966,618
Engineering/Survey/Testing:			\$ 221,290
Mobilization			\$ -
Previous City contribution			
Other	Escrow Funds		\$ (187,227)
ROW/Easement Acquisition:	Actual Cost Provided By Corinth		\$ 201,366
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 2,202,047</b>

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**City of Corinth**  
**2011 Roadway Impact Fee Update**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.  
 updated: 8/16/2011

Project Information:		Description:	Project No.
Name:	Walton Drive	<b>This project consists of the reconstruction of a two-lane rural asphalt facility to a collector.</b>	<b>8</b>
Limits:	North Corinth to Shady Rest		
Impact Fee Class:	Collector		
Ultimate Class:	Collector		
Length (lf):	2,727		
Service Area(s):	Corinth		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
103	Unclassified Street Excavation	6,212	cy	\$ 9.00	\$ 55,904
203	6" Lime Stabilization (with Lime @ 27#/sy)	12,120	sy	\$ 3.50	\$ 42,420
303	8" Concrete Pavement w/ 6" Curb	11,514	sy	\$ 35.00	\$ 402,990
403	4" Topsoil	4,242	sy	\$ 5.00	\$ 21,210
503	4' Concrete Sidewalk	21,816	sf	\$ 3.75	\$ 81,810
603	Concrete Driveway Approach	3	ea	\$ 2,500.00	\$ 7,500
<b>Paving Construction Cost Subtotal:</b>					<b>\$ 611,834</b>
Major Construction Component Allowances**:					
Item Description	Notes	Allowance	Item Cost		
√ Prep ROW		8%	\$	48,947	
√ Traffic Control	Construction Phase Traffic Control	7%	\$	42,828	
√ Pavement Markings/Markers		3%	\$	18,355	
√ Roadway Drainage	Standard Internal System	30%	\$	183,550	
√ Illumination		6%	\$	36,710	
Special Drainage Structures	None Anticipated	0%	\$	-	
√ Water	Minor Adjustments	6%	\$	36,710	
√ Sewer	Minor Adjustments	4%	\$	24,473	
√ Establish Turf / Erosion Control		2%	\$	12,237	
√ Basic Landscaping		2%	\$	12,237	
Other:		\$0	\$	-	
<b>Allowance Subtotal:</b>					<b>\$ 416,047</b>
<b>Paving and Allowance Subtotal:</b>					<b>\$ 1,027,880</b>
<b>Construction Contingency:</b> 20%					<b>\$ 205,576</b>
<b>Construction Cost TOTAL:</b>					<b>\$ 1,234,000</b>

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,234,000
Engineering/Survey/Testing:		20%	\$ 246,800
Mobilization		6%	\$ 74,040
Previous City contribution			
Other			
ROW/Easement Acquisition:	NO ROW INCLUDED	0%	\$ -
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 1,555,000</b>

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**City of Corinth**  
**2011 Roadway Impact Fee Update**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.  
 updated: 8/16/2011

Project Information:		Description:	Project No.
Name:	Shady Shores Road	<b>This project consists of the reconstruction of a two-lane asphalt facility to a collector.</b>	<b>9</b>
Limits:	Railroad to 205' east of Dalton		
Impact Fee Class:	Collector		
Ultimate Class:	Collector		
Length (lf):	6,404		
Service Area(s):	Corinth (Other)		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
103	Unclassified Street Excavation	14,587	cy	\$ 9.00	\$ 131,282
203	6" Lime Stabilization (with Lime @ 27#/sy)	28,462	sy	\$ 3.50	\$ 99,618
303	8" Concrete Pavement w/ 6" Curb	27,039	sy	\$ 35.00	\$ 946,369
403	4" Topsoil	9,962	sy	\$ 5.00	\$ 49,809
503	4' Concrete Sidewalk	51,232	sf	\$ 3.75	\$ 192,120
603	Concrete Driveway Approach	6	ea	\$ 2,500.00	\$ 15,000
<b>Paving Construction Cost Subtotal:</b>					<b>\$ 1,434,198</b>
Major Construction Component Allowances**					
Item Description	Notes	Allowance	Item Cost		
√ Prep ROW		8%	\$	114,736	
√ Traffic Control	Construction Phase Traffic Control	7%	\$	100,394	
√ Pavement Markings/Markers		3%	\$	43,026	
√ Roadway Drainage	Standard Internal System	30%	\$	430,259	
√ Illumination		6%	\$	86,052	
Special Drainage Structures	None Anticipated	0%	\$	-	
√ Water	Minor Adjustments	6%	\$	86,052	
√ Sewer	Minor Adjustments	4%	\$	57,368	
√ Establish Turf / Erosion Control		2%	\$	28,684	
√ Basic Landscaping		2%	\$	28,684	
Other:		\$0	\$	-	
			<b>Allowance Subtotal:</b>	<b>\$ 975,254</b>	
			<b>Paving and Allowance Subtotal:</b>	<b>\$ 2,409,452</b>	
			<b>Construction Contingency:</b>	<b>20%</b>	<b>\$ 481,890</b>
			<b>Construction Cost TOTAL:</b>	<b>\$ 2,892,000</b>	

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	<b>\$ 2,892,000</b>
<b>Engineering/Survey/Testing:</b>		20%	<b>\$ 578,400</b>
<b>Mobilization</b>		6%	<b>\$ 173,520</b>
<b>Previous City contribution</b>			
<b>Other</b>			
<b>ROW/Easement Acquisition:</b>	NO ROW INCLUDED	0%	<b>\$ -</b>
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 3,644,000</b>

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**City of Corinth**  
**2011 Roadway Impact Fee Update**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.  
 updated: 8/16/2011

Project Information:		Description:	Project No. 10
Name:	Parkridge Drive (1)	<b>This project consisted of the construction of a collector. This City project was a combination of Project Number 2, 3, and 10, The construction cost for these three projects was \$7,458,731. \$596,698 (8%) is contributed to Parkridge Drive from Lake Sharon Drive to Tori Oak Trail.</b>	
Limits:	Lake Sharon Drive to Tori Oak Trail		
Impact Fee Class:	Collector		
Ultimate Class:	Collector		
Length (lf):	765		

Service Area(s): Corinth

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:	Actual Cost Provided By Corinth	-	\$ 488,720
Engineering/Survey/Testing:			\$ 45,638
Mobilization			
Previous City contribution			
Other			
ROW/Easement Acquisition:	Actual Cost Provided By Corinth		\$ 62,340
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 596,698</b>

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**City of Corinth**  
**2011 Roadway Impact Fee Update**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.  
 updated: 8/16/2011

Project Information:		Description:	Project No.
<b>Name:</b>	Parkridge Drive (2)	<b>This project consisted of the construction of a collector facility. The construction cost for this facility was \$1,795,772. \$41,285 has been removed from the cost for escrow funds. \$750,000 has been removed from the cost due to a County of Denton ICA Agreement.</b>	<b>11</b>
<b>Limits:</b>	Warwick Drive to FM 2181		
<b>Impact Fee Class:</b>	Collector		
<b>Ultimate Class:</b>	Collector		
<b>Length (lf):</b>	4,000		
<b>Service Area(s):</b>	Corinth		

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	\$ 1,477,184
<b>Engineering/Survey/Testing:</b>		20%	\$ 266,150
<b>Mobilization</b>			\$ -
<b>County contribution</b>	County of Denton ICA Agreement		\$ (750,000)
<b>Other</b>	Escrow		\$ (41,285)
<b>ROW/Easement Acquisition:</b>	Existing Alignment		\$ 52,439
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 1,004,487</b>

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**City of Corinth**  
**2011 Roadway Impact Fee Update**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.  
 updated: 8/16/2011

Project Information:		Description:	Project No. 12
Name:	Parkridge Drive (3)	<b>This project consists of the reconstruction of a two-lane rural asphalt facility to a collector. \$1,000,000 has been removed from the cost due to a County of Denton ICA Agreement.</b>	
Limits:	FM 2181 to South City Limits		
Impact Fee Class:	Collector		
Ultimate Class:	Collector		
Length (lf):	2,779		
Service Area(s):	Corinth		

Roadway Construction Cost Projection				
No.	Item Description	Quantity	Unit	Item Cost
103	Unclassified Street Excavation	6,330	cy	\$ 56,970
203	6" Lime Stabilization (with Lime @ 27#/sy)	12,351	sy	\$ 43,229
303	8" Concrete Pavement w/ 6" Curb	11,734	sy	\$ 410,674
403	4" Topsoil	4,323	sy	\$ 21,614
503	4' Concrete Sidewalk	22,232	sf	\$ 83,370
603	Concrete Driveway Approach	3	ea	\$ 7,500
<b>Paving Construction Cost Subtotal:</b>				<b>\$ 623,357</b>
Major Construction Component Allowances**:				
Item Description	Notes	Allowance	Item Cost	
√ Prep ROW		8%	\$	49,869
√ Traffic Control	Construction Phase Traffic Control	7%	\$	43,635
√ Pavement Markings/Markers		3%	\$	18,701
√ Roadway Drainage	Standard Internal System	30%	\$	187,007
√ Illumination		6%	\$	37,401
Special Drainage Structures	None Anticipated	0%	\$	-
√ Water	Minor Adjustments	6%	\$	37,401
√ Sewer	Minor Adjustments	4%	\$	24,934
√ Establish Turf / Erosion Control		2%	\$	12,467
√ Basic Landscaping		2%	\$	12,467
Other:		\$0	\$	-
		<b>Allowance Subtotal:</b>	<b>\$</b>	<b>423,883</b>
<b>Paving and Allowance Subtotal:</b>				<b>\$ 1,047,240</b>
<b>Construction Contingency:</b> 20%				<b>\$ 209,448</b>
<b>Construction Cost TOTAL:</b>				<b>\$ 1,257,000</b>

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,257,000
Engineering/Survey/Testing:	Actual Cost Provided by City		\$ 148,000
Mobilization		6%	\$ 75,420
Previous City contribution			
Other	County of Denton ICA Agreement		\$ (1,000,000)
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 125,700
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 606,000</b>

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**City of Corinth**  
**2011 Roadway Impact Fee Update**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.  
 updated: 8/16/2011

Project Information:		Description:	Project No. 13
<b>Name:</b>	Tower Ridge Drive	<b>This project consists of the reconstruction of a two-lane rural asphalt facility to a collector. \$40,528 has been removed from the cost for escrow funds.</b>	
<b>Limits:</b>	Meadow Oaks Drive to Cliff Oak Drive		
<b>Impact Fee Class:</b>	Collector		
<b>Ultimate Class:</b>	Collector		
<b>Length (lf):</b>	4,476		
<b>Service Area(s):</b>	Corinth		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
103	Unclassified Street Excavation	10,195	cy	\$ 9.00	\$ 91,758
203	6" Lime Stabilization (with Lime @ 27#/sy)	19,893	sy	\$ 3.50	\$ 69,627
303	8" Concrete Pavement w/ 6" Curb	18,899	sy	\$ 35.00	\$ 661,453
403	4" Topsoil	6,963	sy	\$ 5.00	\$ 34,813
503	4' Concrete Sidewalk	35,808	sf	\$ 3.75	\$ 134,280
603	Concrete Driveway Approach	4	ea	\$ 2,500.00	\$ 10,000
<b>Paving Construction Cost Subtotal:</b>					<b>\$ 1,001,931</b>
Major Construction Component Allowances**:					
Item Description	Notes	Allowance	Item Cost		
√ Prep ROW		8%	\$	80,155	
√ Traffic Control	Construction Phase Traffic Control	7%	\$	70,135	
√ Pavement Markings/Markers		3%	\$	30,058	
√ Roadway Drainage	Standard Internal System	30%	\$	300,579	
√ Illumination		6%	\$	60,116	
Special Drainage Structures	None Anticipated	0%	\$	-	
√ Water	Minor Adjustments	6%	\$	60,116	
√ Sewer	Minor Adjustments	4%	\$	40,077	
√ Establish Turf / Erosion Control		2%	\$	20,039	
√ Basic Landscaping		2%	\$	20,039	
Other:		\$0	\$	-	
<b>**Allowances based on % of Paving Construction Cost Subtotal</b>					<b>Allowance Subtotal: \$ 681,313</b>
<b>Paving and Allowance Subtotal:</b>					<b>\$ 1,683,245</b>
<b>Construction Contingency:</b> 20%					<b>\$ 336,649</b>
<b>Construction Cost TOTAL:</b>					<b>\$ 2,020,000</b>

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	\$ 2,020,000
<b>Engineering/Survey/Testing:</b>		20%	\$ 404,000
<b>Mobilization</b>		6%	\$ 121,200
<b>Previous City contribution</b>			
<b>Other</b>	Escrow		\$ (40,528)
<b>ROW/Easement Acquisition:</b>	Existing Alignment	10%	\$ 202,000
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 2,707,000</b>

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**City of Corinth**  
**2011 Roadway Impact Fee Update**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.  
 updated: 8/16/2011

Project Information:		Description:	Project No.
Name:	Garrison Road	<b>This project consists of the reconstruction of a two-lane rural asphalt facility to a collector. \$145,982 has been removed from the cost for escrow funds.</b>	<b>14</b>
Limits:	IH 35E SBFR to Cliff Oak Drive		
Impact Fee Class:	Collector		
Ultimate Class:	Collector		
Length (lf):	1,739		
Service Area(s):	Corinth		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
103	Unclassified Street Excavation	3,961	cy	\$ 9.00	\$ 35,650
203	6" Lime Stabilization (with Lime @ 27#/sy)	7,729	sy	\$ 3.50	\$ 27,051
303	8" Concrete Pavement w/ 6" Curb	7,342	sy	\$ 35.00	\$ 256,986
403	4" Topsoil	2,705	sy	\$ 5.00	\$ 13,526
503	4' Concrete Sidewalk	13,912	sf	\$ 3.75	\$ 52,170
603	Concrete Driveway Approach	2	ea	\$ 2,500.00	\$ 5,000
<b>Paving Construction Cost Subtotal:</b>					<b>\$ 390,382</b>
Major Construction Component Allowances**					
Item Description	Notes	Allowance	Item Cost		
√ Prep ROW		8%	\$	31,231	
√ Traffic Control	Construction Phase Traffic Control	7%	\$	27,327	
√ Pavement Markings/Markers		3%	\$	11,711	
√ Roadway Drainage	Standard Internal System	30%	\$	117,115	
√ Illumination		6%	\$	23,423	
Special Drainage Structures	None Anticipated	0%	\$	-	
√ Water	Minor Adjustments	6%	\$	23,423	
√ Sewer	Minor Adjustments	4%	\$	15,615	
√ Establish Turf / Erosion Control		2%	\$	7,808	
√ Basic Landscaping		2%	\$	7,808	
Other:		\$0	\$	-	
		<b>Allowance Subtotal:</b>	<b>\$</b>	<b>265,460</b>	
<b>Paving and Allowance Subtotal:</b>					<b>\$ 655,841</b>
<b>Construction Contingency:</b>					<b>20% \$ 131,168</b>
<b>Construction Cost TOTAL:</b>					<b>\$ 788,000</b>

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	\$ 788,000
<b>Engineering/Survey/Testing:</b>		20%	\$ 157,600
<b>Mobilization</b>		6%	\$ 47,280
<b>Previous City contribution</b>			
<b>Other</b>	Escrow		\$ (145,982)
<b>ROW/Easement Acquisition:</b>	Existing Alignment	10%	\$ 78,800
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 926,000</b>

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**City of Corinth**  
**2011 Roadway Impact Fee Update**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.  
 updated: 8/16/2011

Project Information:		Description:	Project No.
Name:	Quail Run Drive	<b>This project consists of the reconstruction of a two-lane rural asphalt facility to a collector. Note a part of this facility is realigned to the IH-35E NBFR.</b>	<b>15</b>
Limits:	Dobbs Road to Energy Drive		
Impact Fee Class:	Collector		
Ultimate Class:	Collector		
Length (If):	1,569		
Service Area(s):	Corinth		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
103	Unclassified Street Excavation	3,574	cy	\$ 9.00	\$ 32,165
203	6" Lime Stabilization (with Lime @ 27#/sy)	6,973	sy	\$ 3.50	\$ 24,407
303	8" Concrete Pavement w/ 6" Curb	6,625	sy	\$ 35.00	\$ 231,863
403	4" Topsoil	2,441	sy	\$ 5.00	\$ 12,203
503	4' Concrete Sidewalk	12,552	sf	\$ 3.75	\$ 47,070
603	Concrete Driveway Approach	2	ea	\$ 2,500.00	\$ 5,000
<b>Paving Construction Cost Subtotal:</b>					<b>\$ 352,708</b>
Major Construction Component Allowances**					
Item Description	Notes	Allowance	Item Cost		
√ Prep ROW		8%	\$	28,217	
√ Traffic Control	Construction Phase Traffic Control	7%	\$	24,690	
√ Pavement Markings/Markers		3%	\$	10,581	
√ Roadway Drainage	Standard Internal System	30%	\$	105,812	
√ Illumination		6%	\$	21,162	
Special Drainage Structures	None Anticipated	0%	\$	-	
√ Water	Minor Adjustments	6%	\$	21,162	
√ Sewer	Minor Adjustments	4%	\$	14,108	
√ Establish Turf / Erosion Control		2%	\$	7,054	
√ Basic Landscaping		2%	\$	7,054	
Other:		\$0	\$	-	
<b>**Allowances based on % of Paving Construction Cost Subtotal</b>					<b>Allowance Subtotal: \$ 239,841</b>
<b>Paving and Allowance Subtotal:</b>					<b>\$ 592,549</b>
<b>Construction Contingency:</b>					<b>20% \$ 118,510</b>
<b>Construction Cost TOTAL:</b>					<b>\$ 712,000</b>

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 712,000
Engineering/Survey/Testing:		20%	\$ 142,400
Mobilization		6%	\$ 42,720
Previous City contribution			
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 71,200
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 968,000</b>

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**City of Corinth**  
**2011 Roadway Impact Fee Update**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.  
 updated: 8/16/2011

Project Information:		Description:	Project No. 16
Name:	Post Oak Drive	This project consists of the widening of a two-lane facility to a greenway minor arterial.	
Limits:	Robinson Road to Lake Sharon Drive		
Impact Fee Class:	Greenway (1/2)		
Ultimate Class:	Greenway		
Length (lf):	4,234		
Service Area(s):	Corinth		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
107	Unclassified Street Excavation	6,116	cy	\$ 9.00	\$ 55,042
207	6" Lime Stabilization (with Lime @ 27#/sy)	11,996	sy	\$ 3.50	\$ 41,987
307	8" Concrete Pavement w/ 6" Curb	11,526	sy	\$ 38.00	\$ 437,984
407	4" Topsoil	14,349	sy	\$ 5.00	\$ 71,743
507	4' Concrete Sidewalk / Trail	33,872	sf	\$ 3.75	\$ 127,020
607	Concrete Driveway Approach	4	ea	\$ 2,500.00	\$ 10,000
<b>Paving Construction Cost Subtotal:</b>					<b>\$ 743,776</b>
Major Construction Component Allowances**					
Item Description	Notes	Allowance	Item Cost		
√ Prep ROW		8%	\$	59,502	
√ Traffic Control	Construction Phase Traffic Control	7%	\$	52,064	
√ Pavement Markings/Markers		3%	\$	22,313	
√ Roadway Drainage	Standard Internal System	30%	\$	223,133	
√ Illumination		6%	\$	44,627	
Special Drainage Structures	None Anticipated	0%	\$	-	
√ Water	Minor Adjustments	6%	\$	44,627	
√ Sewer	Minor Adjustments	4%	\$	29,751	
√ Establish Turf / Erosion Control		2%	\$	14,876	
√ Basic Landscaping		2%	\$	14,876	
Other:		\$0	\$	-	
<b>**Allowances based on % of Paving Construction Cost Subtotal</b>					<b>Allowance Subtotal: \$ 505,767</b>
<b>Paving and Allowance Subtotal:</b>					<b>\$ 1,249,543</b>
<b>Construction Contingency:</b>					<b>20% \$ 249,909</b>
<b>Construction Cost TOTAL:</b>					<b>\$ 1,500,000</b>

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,500,000
Engineering/Survey/Testing:		20%	\$ 300,000
Mobilization		6%	\$ 90,000
Previous City contribution			
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 150,000
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 2,040,000</b>

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**City of Corinth**  
**2011 Roadway Impact Fee Update**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.  
 updated: 8/16/2011

Project Information:		Description:	Project No. 17
Name:	N/S Collector	<b>This project consists of the construction of a new collector.</b>	
Limits:	Church Drive to Lake Sharon Drive		
Impact Fee Class:	Collector		
Ultimate Class:	Collector		
Length (lf):	4,152		
Service Area(s):	Corinth		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
103	Unclassified Street Excavation	9,457	cy	\$ 9.00	\$ 85,116
203	6" Lime Stabilization (with Lime @ 27#/sy)	18,453	sy	\$ 3.50	\$ 64,587
303	8" Concrete Pavement w/ 6" Curb	17,531	sy	\$ 35.00	\$ 613,573
403	4" Topsoil	6,459	sy	\$ 5.00	\$ 32,293
503	4' Concrete Sidewalk	33,216	sf	\$ 3.75	\$ 124,560
603	Concrete Driveway Approach	4	ea	\$ 2,500.00	\$ 10,000
<b>Paving Construction Cost Subtotal:</b>					<b>\$ 930,129</b>
Major Construction Component Allowances**					
Item Description	Notes	Allowance	Item Cost		
√ Prep ROW		8%	\$	74,410	
Traffic Control	None Anticipated	0%	\$	-	
√ Pavement Markings/Markers		3%	\$	27,904	
√ Roadway Drainage	Standard Internal System	30%	\$	279,039	
√ Illumination		6%	\$	55,808	
Special Drainage Structures	None Anticipated	0%	\$	-	
√ Water	Minor Adjustments	6%	\$	55,808	
√ Sewer	Minor Adjustments	4%	\$	37,205	
√ Establish Turf / Erosion Control		2%	\$	18,603	
√ Basic Landscaping		2%	\$	18,603	
Other:		\$0	\$	-	
<b>**Allowances based on % of Paving Construction Cost Subtotal</b>					<b>Allowance Subtotal: \$ 567,379</b>
<b>Paving and Allowance Subtotal:</b>					<b>\$ 1,497,508</b>
<b>Construction Contingency:</b>					<b>20% \$ 299,502</b>
<b>Construction Cost TOTAL:</b>					<b>\$ 1,798,000</b>

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	\$ 1,798,000
<b>Engineering/Survey/Testing:</b>		20%	\$ 359,600
<b>Mobilization</b>		6%	\$ 107,880
<b>Previous City contribution</b>			
<b>Other</b>			
<b>ROW/Easement Acquisition:</b>	New Roadway Alignment	20%	\$ 359,600
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 2,625,000</b>

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**City of Corinth**  
**2011 Roadway Impact Fee Update**  
**Conceptual Level Project Cost Projection**

*Kimley-Horn and Associates, Inc.*  
 updated: 8/16/2011

Project Information:		Description:	Project No. 18
Name:	S. Corinth Street	<b>This project consisted of the construction of a greenway minor arterial. The construction cost for this facility was \$1,866,622.</b>	
Limits:	IH-35E SBFR to Meadow Oak Drive		
Impact Fee Class:	Greenway		
Ultimate Class:	Greenway		
Length (lf):	2,187		
Service Area(s):	Corinth		

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:	Actual Cost Provided By Corinth	-	\$ 1,638,847
Engineering/Survey/Testing:			\$ 199,838
Mobilization			
Previous City contribution			
Other			
ROW/Easement Acquisition:	Actual Cost Provided By Corinth		\$ 27,936
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 1,866,622</b>

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Corinth.

The planning level cost projections shall not supersede the City's design or the determination of the City Engineer for a specific project.

**City of Corinth**  
**2011 Roadway Impact Fee Update**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.  
 updated: 8/16/2011

Project Information:		Description:	Project No. 19
Name:	Shady Rest Lane	<b>This project consists of the reconstruction of an asphalt facility to a collector. \$75,720 has been removed from the cost for escrow funds.</b>	
Limits:	Fritz Lane to Walton		
Impact Fee Class:	Collector		
Ultimate Class:	Collector		
Length (If):	1,690		
Service Area(s):	Corinth		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
103	Unclassified Street Excavation	3,849	cy	\$ 9.00	\$ 34,645
203	6" Lime Stabilization (with Lime @ 27#/sy)	7,511	sy	\$ 3.50	\$ 26,289
303	8" Concrete Pavement w/ 6" Curb	7,136	sy	\$ 35.00	\$ 249,744
403	4" Topsoil	2,629	sy	\$ 5.00	\$ 13,144
503	4' Concrete Sidewalk	13,520	sf	\$ 3.75	\$ 50,700
603	Concrete Driveway Approach	2	ea	\$ 2,500.00	\$ 5,000
<b>Paving Construction Cost Subtotal:</b>					<b>\$ 379,523</b>
Major Construction Component Allowances***					
Item Description	Notes	Allowance	Item Cost		
√ Prep ROW		8%	\$	30,362	
√ Traffic Control	Construction Phase Traffic Control	7%	\$	26,567	
√ Pavement Markings/Markers		3%	\$	11,386	
√ Roadway Drainage	Standard Internal System	30%	\$	113,857	
√ Illumination		6%	\$	22,771	
Special Drainage Structures	None Anticipated	0%	\$	-	
√ Water	Minor Adjustments	6%	\$	22,771	
√ Sewer	Minor Adjustments	4%	\$	15,181	
√ Establish Turf / Erosion Control		2%	\$	7,590	
√ Basic Landscaping		2%	\$	7,590	
Other:		\$0	\$	-	
<b>**Allowances based on % of Paving Construction Cost Subtotal</b>					<b>Allowance Subtotal: \$ 258,075</b>
<b>Paving and Allowance Subtotal:</b>					<b>\$ 637,598</b>
<b>Construction Contingency:</b> 20%					<b>\$ 127,520</b>
<b>Construction Cost TOTAL:</b>					<b>\$ 766,000</b>

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	\$ 766,000
<b>Engineering/Survey/Testing:</b>		20%	\$ 153,200
<b>Mobilization</b>		6%	\$ 45,960
<b>Previous City contribution</b>			
<b>Other</b>	Escrow		\$ (75,720)
<b>ROW/Easement Acquisition:</b>	Existing Alignment	10%	\$ 76,600
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 966,000</b>

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Corinth.

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**City of Corinth**  
**2011 Roadway Impact Fee Update**  
**Conceptual Level Project Cost Projection**

*Kimley-Horn and Associates, Inc.*  
 updated: 8/16/2011

Project Information:		Description:	Project No. 20
Name:	FM 2181	<b>This project consists of the widening of a two-lane TxDOT facility to a six-lane major arterial. The City contributed \$242,000 to the design and environmental testing of this facility.</b>	
Limits:	West City Limits to IH-35E SBFR		
Impact Fee Class:	Major		
Ultimate Class:	Major		
Length (lf):	17,439		
Service Area(s):	Corinth		

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	
Engineering/Survey/Testing:			\$ 242,000
Mobilization			\$ -
Previous City contribution			
Other			
ROW/Easement Acquisition:			\$ -
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 242,000</b>

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Corinth.

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**City of Corinth**  
**2011 Roadway Impact Fee Update**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.  
 updated: 8/16/2011

Project Information:		Description:	Project No.
Name:	Cliff Oak Drive	<b>This project consists of the reconstruction of a two-lane asphalt facility to a collector.</b>	<b>21</b>
Limits:	Tower Ridge Drive to Garrison Road		
Impact Fee Class:	Collector		
Ultimate Class:	Collector		
Length (lf):	2,636		
Service Area(s):	Corinth		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
103	Unclassified Street Excavation	6,004	cy	\$ 9.00	\$ 54,038
203	6" Lime Stabilization (with Lime @ 27#/sy)	11,716	sy	\$ 3.50	\$ 41,004
303	8" Concrete Pavement w/ 6" Curb	11,130	sy	\$ 35.00	\$ 389,542
403	4" Topsoil	4,100	sy	\$ 5.00	\$ 20,502
503	4' Concrete Sidewalk	21,088	sf	\$ 3.75	\$ 79,080
603	Concrete Driveway Approach	3	ea	\$ 2,500.00	\$ 7,500
<b>Paving Construction Cost Subtotal:</b>					<b>\$ 591,667</b>
Major Construction Component Allowances**					
Item Description	Notes	Allowance	Item Cost		
√ Prep ROW		8%	\$	47,333	
√ Traffic Control	Construction Phase Traffic Control	7%	\$	41,417	
√ Pavement Markings/Markers		3%	\$	17,750	
√ Roadway Drainage	Standard Internal System	30%	\$	177,500	
√ Illumination		6%	\$	35,500	
Special Drainage Structures	None Anticipated	0%	\$	-	
√ Water	Minor Adjustments	6%	\$	35,500	
√ Sewer	Minor Adjustments	4%	\$	23,667	
√ Establish Turf / Erosion Control		2%	\$	11,833	
√ Basic Landscaping		2%	\$	11,833	
Other:		\$0	\$	-	
<b>**Allowances based on % of Paving Construction Cost Subtotal</b>					<b>Allowance Subtotal: \$ 402,333</b>
<b>Paving and Allowance Subtotal:</b>					<b>\$ 994,000</b>
<b>Construction Contingency:</b>					<b>\$ 198,800</b>
<b>Construction Cost TOTAL:</b>					<b>\$ 1,193,000</b>

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	\$ <b>1,193,000</b>
<b>Engineering/Survey/Testing:</b>		20%	\$ 238,600
<b>Mobilization</b>		6%	\$ 71,580
<b>Previous City contribution</b>			
<b>Other</b>			
<b>ROW/Easement Acquisition:</b>	Existing Alignment	10%	\$ 119,300
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 1,622,000</b>

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Corinth.

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Kimley-Horn  
and Associates, Inc.



## Appendix B – CIP Service Units of Supply

City of Corinth - 2011 Roadway Impact Fee Update

CIP Service Units of Supply

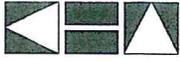
8/5/2011

City of Corinth

Project ID #	ROADWAY	LIMITS	LENGTH (MI)	LANES	IMPACT FEE CLASSIFICATION	PEAK HOUR VOLUME	% IN SERVICE AREA	VEH-MI CAPACITY PER LN	VEH-MI SUPPLY PK-HR TOTAL	VEH-MI TOTAL DEMAND PK-HR	EXCESS CAPACITY PK-HR VEH-MI	TOTAL PROJECT COST	TOTAL PROJECT COST IN SERVICE AREA
1	Lake Sharon Drive (1)	FM 2499 to Oakmont	0.58	4	Greenway	0	100%	650	1,508	0	1,508	\$ 2,463,350	\$ 2,463,350
2	Lake Sharon Drive (2)	Blue Holly to Parkridge Drive	0.90	4	Greenway	219	100%	650	2,340	197	2,143	\$ 3,995,715	\$ 3,995,715
3	Meadow Oak Drive (1)	Parkridge Drive to Tower Ridge Drive	0.63	4	Greenway	219	100%	650	1,638	138	1,500	\$ 2,683,426	\$ 2,683,426
4	Dobbs Road (1)	IH-35E NBFR to Quail Run	0.35	4	Greenway	50	100%	650	910	18	893	\$ 1,689,000	\$ 1,689,000
5	Dobbs Road (2)	Quail Run to 300' east of Corinth Parkway	0.35	4	Greenway	200	100%	650	910	70	840	\$ 1,738,725	\$ 1,738,725
6	Creekside Drive (1)	Post Oak Drive to Future NIS Collector	0.52	2	Collector	0	100%	425	442	0	442	\$ 1,723,000	\$ 1,723,000
7	Church Drive	Post Oak Drive to IH-35E SBFR	0.90	2	Collector	172	100%	425	765	155	610	\$ 2,202,047	\$ 2,202,047
8	Walton Drive	North Corinth to Shady Rest	0.52	2	Collector	80	100%	425	442	42	400	\$ 1,595,000	\$ 1,595,000
9	Shady Shores Road	Railroad to 205' east of Dalton	1.21	2	Collector	364	50%	425	514	220	294	\$ 3,644,000	\$ 1,822,000
10	Parkridge Drive (1)	Lake Sharon Drive to Tori Oak Trail	0.14	2	Collector	111	100%	425	119	16	103	\$ 596,698	\$ 596,698
11	Parkridge Drive (2)	Warwick Drive to FM 2181	0.76	2	Collector	153	100%	425	646	116	530	\$ 1,004,487	\$ 1,004,487
12	Parkridge Drive (3)	FM 2181 to South City Limits	0.53	2	Collector	50	100%	425	451	27	424	\$ 606,000	\$ 606,000
13	Tower Ridge Drive	Meadow Oaks Drive to Cliff Oak Drive	0.85	2	Collector	220	100%	425	723	187	536	\$ 2,707,000	\$ 2,707,000
14	Garrison Road	IH 35E SBFR to Cliff Oak Drive	0.33	2	Collector	581	100%	425	281	192	89	\$ 926,000	\$ 926,000
15	Quail Run Drive	Dobbs Road to Energy Drive	0.30	2	Collector	100	100%	425	265	30	235	\$ 968,000	\$ 968,000
16	Post Oak Drive	Robinson Road to Lake Sharon Drive	0.80	4	Greenway (1/2)	100	100%	650	2,080	80	2,000	\$ 2,040,000	\$ 2,040,000
17	NIS Collector	Church Drive to Lake Sharon Drive	0.79	2	Collector	0	100%	425	672	0	672	\$ 2,625,000	\$ 2,625,000
18	S. Corinth Street	IH-35E SBFR to Meadow Oak Drive	0.41	4	Greenway	284	100%	650	1,066	116	950	\$ 1,866,622	\$ 1,866,622
19	Shady Rest Lane	Fritz Lane to Walton	0.32	2	Collector	278	100%	425	272	89	183	\$ 966,000	\$ 966,000
20	FM 2181	West City Limits to IH-35E SBFR	3.30	6	Major	1,582	100%	700	13,860	5,221	8,639	\$ 242,000	\$ 242,000
21	Cliff Oak Drive	Tower Ridge Drive to Garrison Road	0.50	2	Collector	220	100%	425	425	110	315	\$ 1,622,000	\$ 1,622,000
<b>SUBTOTAL</b>									<b>30,317</b>	<b>7,022</b>	<b>23,295</b>	<b>\$ 36,864,070</b>	<b>\$ 35,042,070</b>

2011 Roadway Impact Fee Update \$ 32,333

TOTAL COST IN SERVICE AREA \$ 35,074,403



Kimley-Horn  
and Associates, Inc.



## Appendix C – Existing Roadway Facilities Inventory

City of Corinth - 2011 Roadway Impact Fee Update  
Existing Roadway Facilities Inventory

City of Corinth - Service Area

ROADWAY	FROM	TO	LENGTH (ft)	LENGTH (mi)	EXIST LANES		EXIST SECT	TYPE	PM PEAK HOUR VOL		% IN SERVICE AREA	VEH-MI CAPACITY PER LN		VEH-MI SUPPLY		VEH-MI DEMAND		EXCESS CAPACITY		EXISTING DEFICIENCIES	
					NB/EB	SB/WB			NB/EB	SB/WB		NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB
FM 2181	West City Limits	FM 2499	680	0.13	1	1	2U-H	Major	530	810		625	625	0	0	0	0	0	0	0	0
FM 2181	FM 2499	Oakmont Drive	1,461	0.28	1	1	2U-H	Major	530	810	100%	625	625	0	0	0	0	0	0	0	0
FM 2181	Oakmont Drive	Post Oak Drive	4,788	0.91	1	1	2U-H	Major	530	810	100%	625	625	567	567	481	735	86	-168	168	168
FM 2181	Post Oak Drive	Parkridge Drive	4,015	0.76	1	1	2U-H	Major	543	1,039	100%	625	625	475	475	413	790	62	-315	315	315
FM 2181	Parkridge Drive	Garrison Street	4,378	0.83	1	1	2U-H	Major	561	838	50%	625	625	259	259	233	347	27	-88	88	88
FM 2181	Garrison Street	Interstate 35E SBFR	2,247	0.43	1	1	3U-H	Major	561	838	50%	700	700	149	149	119	178	30	-29	29	29
FM 2181	Interstate 35E SBFR	Interstate 35E NBFR	299	0.06	2	2	4U	Major	561	838	50%	550	550	31	31	16	24	15	7	7	7
FM 2181	Interstate 35E NBFR	East City Limits	386	0.07	2	2	4D	Major	561	838	50%	650	650	48	48	21	31	27	17	17	17
Post Oak Drive	North City Limits	Interstate 35E NBFR	338	0.06	1	1	2U	Minor	326	226	100%	350	350	22	22	21	14	2	8	8	8
Post Oak Drive	Interstate 35E NBFR	Interstate 35E SBFR	3,112	0.59	2	2	4D	Minor	326	226	100%	650	650	766	766	192	133	574	633	633	633
Post Oak Drive	Robinson Road	Church Drive	335	0.06	1	1	2U	Minor	268	263	100%	350	350	22	22	17	17	5	6	6	6
Post Oak Drive	Church Drive	Creekside Drive	2,085	0.39	1	1	2U	Minor	228	231	100%	350	350	138	138	90	91	48	47	47	47
Post Oak Drive	Creekside Drive	200' N of Lake Sharon	1,813	0.34	1	1	2U	Minor	228	231	100%	350	350	120	120	78	79	42	41	41	41
Post Oak Drive	200' N of Lake Sharon	Lake Sharon Drive	491	0.09	2	2	4D	Minor	228	231	100%	650	650	121	121	21	21	100	99	99	99
Post Oak Drive	Lake Sharon Drive	Meadowview Drive	1,653	0.31	2	2	4D	Minor	269	106	100%	650	650	407	407	84	33	323	374	374	374
Post Oak Drive	Meadowview Drive	FM 2181	3,512	0.67	2	2	4D	Minor	269	106	100%	650	650	865	865	179	71	686	794	794	794
Post Oak Drive	FM 2181	Post Oak Drive	4,709	0.89	1	1	2U	Collector	50	50	100%	350	350	312	312	45	45	268	268	268	268
Post Oak Drive	Post Oak Drive	Shady Shores Road	2,052	0.39	1	1	2U	Collector	105	38	100%	350	350	136	136	41	15	95	121	121	121
North Corinth Street	1,350' N of Walton Drive	Walton Drive	969	0.18	1	1	3U	Collector	105	38	100%	425	425	78	78	19	7	59	71	71	71
North Corinth Street	Walton Drive	Interstate 35E NBFR	423	0.08	1	1	3U	Collector	105	38	100%	425	425	34	34	3	26	31	31	31	31
South Corinth Street	Interstate 35E SBFR	Meadow Oak Drive	2,187	0.41	2	2	4D	Minor	156	128	100%	650	650	538	538	65	53	474	485	485	485
South Corinth Street	Interstate 35E SBFR	Interstate 35E NBFR	789	0.15	1	1	2U	Minor	240	213	100%	350	350	52	52	36	32	16	20	20	20
Corinth Parkway	Interstate 35E NBFR	Shady Rest Lane	2,147	0.41	2	2	4D	Minor	240	213	100%	650	650	529	529	98	87	431	442	442	442
Corinth Parkway	Shady Rest Lane	Creek Falls Drive	3,119	0.59	2	2	4D	Minor	152	123	100%	650	650	768	768	90	73	678	695	695	695
Corinth Parkway	Creek Falls Drive	Dobbs Road	2,836	0.54	2	2	4D	Minor	152	123	100%	650	650	698	698	82	66	617	632	632	632
Robinson Road	West City Limits	Oakmont Drive	2,600	0.49	2	2	4D	Minor	320	425	100%	650	650	640	640	158	209	483	431	431	431
Robinson Road	Oakmont Drive	Post Oak Drive	1,812	0.34	2	2	4D	Minor	320	425	100%	650	650	446	446	110	146	336	300	300	300
Lake Sharon Drive	Oakmont Drive	Post Oak Drive	2,232	0.42	2	2	4D	Minor	96	81	100%	650	650	550	550	41	34	509	515	515	515
Lake Sharon Drive	Post Oak Drive	Parkridge Drive	3,861	0.74	2	2	4D	Minor	119	100	100%	650	650	956	956	87	74	868	882	882	882
Meadow Oak Drive	Parkridge Drive	South Corinth Street	1,805	0.34	2	2	4D	Minor	119	100	100%	650	650	444	444	41	34	404	410	410	410
Meadow Oak Drive	South Corinth Street	Tower Ridge Road	1,770	0.34	2	2	4D	Minor	96	88	100%	650	650	436	436	32	30	404	406	406	406
Meadow Oak Drive	Tower Ridge Road	Interstate 35E SBFR	390	0.07	1	1	2U	Minor	96	88	100%	350	350	26	26	7	7	19	19	19	19
Dobbs Road	Interstate 35E NBFR	Quail Run Drive	1,872	0.35	1	1	2U-R	Minor	25	25	100%	150	150	53	53	9	9	44	44	44	44
Dobbs Road	Quail Run Drive	Corinth Parkway	1,574	0.30	2	2	4D	Minor	100	100	100%	650	650	388	388	30	30	358	358	358	358
Dobbs Road	Corinth Parkway	East City Limits	1,179	0.22	1	1	3U	Minor	100	100	100%	425	425	95	95	22	22	73	73	73	73
Oakmont Drive	Robinson Road	Creekside Drive	2,499	0.47	1	1	2U	Collector	202	186	100%	350	350	166	166	86	88	70	78	78	78
Oakmont Drive	Creekside Drive	Lake Sharon Drive	2,292	0.43	1	1	2U	Collector	202	186	100%	350	350	152	152	86	81	64	71	71	71
Oakmont Drive	Lake Sharon Drive	Meadowview Drive	2,518	0.48	1	1	2U	Collector	116	185	100%	350	350	167	167	55	55	112	79	79	79
Oakmont Drive	Meadowview Drive	FM 2181	1,501	0.28	1	1	2U	Collector	116	185	100%	350	350	99	99	33	33	67	47	47	47
Parkridge Drive	Lake Sharon Drive	Meadowview Drive	2,472	0.47	1	1	3U	Collector	83	28	100%	425	425	199	199	39	13	160	166	166	166
Parkridge Drive	Meadowview Drive	FM 2181	2,281	0.43	1	1	3U	Collector	89	64	100%	425	425	184	184	38	28	145	156	156	156
Parkridge Drive	FM 2181	South City Limits	2,779	0.53	1	1	2U-R	Collector	25	25	50%	150	150	39	39	7	7	33	33	33	33
Tower Ridge Drive	Meadow Oak Drive	Meadowview Drive	3,035	0.57	1	1	2U-R	Collector	110	110	100%	150	150	86	86	63	63	23	23	23	23
Tower Ridge Drive	Meadowview Drive	Cliff Oaks Drive	1,441	0.27	1	1	2U-R	Collector	110	110	100%	150	150	41	41	30	30	11	11	11	11
Quail Run Drive	Dobbs Road	Interstate 35E NBFR	2,241	0.42	1	1	2U-R	Collector	50	50	100%	150	150	64	64	21	21	42	42	42	42
Garrison Street	Interstate 35E SBFR	Cliff Oaks Drive	1,739	0.33	1	1	2U	Collector	50	50	100%	350	350	115	115	16	16	99	99	99	99
Garrison Street	Cliff Oaks Drive	FM 2181	855	0.16	1	1	2U	Collector	283	288	100%	350	350	57	57	46	46	11	8	8	8
Church Drive	Post Oak Drive	Interstate 35E SBFR	4,757	0.90	1	1	3U	Collector	82	90	100%	425	425	383	383	74	81	309	302	302	302
Walton Drive	North Corinth Street	Shady Rest Lane	2,727	0.52	1	1	2U-R	Collector	40	40	100%	150	150	77	77	21	21	57	57	57	57
Shady Rest	Corinth Parkway	Fritz Lane	2,063	0.39	1	1	2U-R	Collector	138	140	100%	150	150	59	59	54	55	5	4	4	4
Meadowview Drive	Oakmont Drive	Post Oak Drive	4,174	0.79	1	1	2U	Collector	83	168	100%	350	350	277	277	66	133	211	144	144	144
Meadowview Drive	Post Oak Drive	Parkridge Drive	4,127	0.78	1	1	2U	Collector	83	168	100%	350	350	274	274	65	131	209	142	142	142
Meadowview Drive	Parkridge Drive	Tower Ridge Road	2,627	0.50	1	1	2U	Collector	69	184	100%	350	350	174	174	34	92	140	83	83	83
Meadowview Drive	Tower Ridge Road	Interstate 35E SBFR	2,618	0.50	1	1	2U	Collector	69	184	100%	350	350	174	174	34	91	139	82	82	82
Cliff Oaks Drive	Tower Ridge Road	Garrison Street	2,636	0.50	1	1	2U	Collector	110	110	100%	350	350	175	175	55	55	120	120	120	120
Creekside Drive	Oakmont Drive	Post Oak Drive	1,921	0.36	1	1	2U	Collector	48	47	100%	350	350	127	127	17	17	110	110	110	110
<b>SUBTOTAL</b>			<b>123,722</b>	<b>23</b>										<b>14,375</b>	<b>14,375</b>	<b>3,965</b>	<b>4,770</b>	<b>10,410</b>	<b>9,605</b>	<b>20,015</b>	<b>600</b>
														<b>28,751</b>	<b>28,751</b>	<b>8,736</b>	<b>8,736</b>	<b>0</b>	<b>0</b>	<b>20,015</b>	<b>600</b>

**EXHIBIT B- LAND USE VEHICLE MILE EQUIVALENCY TABLE**

# **Land Use Assumptions for Impact Fees (2011 – 2021)**

**Prepared for:**

**City of Corinth, Texas**



**Prepared by:**

Kimley-Horn and Associates, Inc.  
801 Cherry Street, Unit 11, Suite 950  
Fort Worth, TX 76102  
817.335.6511  
Firm Registration No. F-928

**September 2011**



## Table of Contents

<b>Table of Contents</b> .....	<b>i</b>
<b>1.1 Introduction</b> .....	<b>1</b>
<b>1.2 Methodology</b> .....	<b>2</b>
A. Overview.....	2
B. Impact Fee Service Areas.....	2
C. Population and Employment .....	3
D. Summary.....	7

## List of Exhibits

1.1 Water and Roadway Service Area .....	4
1.2 Wastewater Service Areas .....	5
1.3 Citywide Land Use Map.....	6

## List of Tables

1.1 Population and Employment Projections for the Water and Roadway Service Area.....	7
1.2 Population and Employment Projections for the Wastewater Service Areas .....	7

## 1.1 INTRODUCTION

Chapter 395 of the Texas Local Government Code describes the procedure Texas cities must follow in order to create and implement impact fees. Senate Bill 243 (SB 243) amended Chapter 395 to define an Impact Fee 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.”

Chapter 395 mandates that impact fees be reviewed and updated at least every five (5) years. Accordingly, the City of Corinth has initiated a review of its Land Use Assumptions, Capital Improvements Plan, and Impact Fees. The City has retained Kimley-Horn and Associates, Inc., to provide professional services for the update of their Land Use Assumptions. These Land Use Assumptions, which include both population and employment projections, form the basis for the development of the impact fee Capital Improvements Plans for water, wastewater, and roadway facilities.

In order to assess an impact fee, Land Use Assumptions must be developed to provide the basis for population and employment growth projections within a political subdivision. As defined by Chapter 395 of the Texas Local Government Code, these assumptions include a description of changes in land uses, densities, intensities, and population in the service area. In addition, these assumptions are useful in assisting the City of Corinth in determining the need and timing of capital improvements to serve future development.

In accordance with Chapter 395, information from the following sources was compiled: the City’s Comprehensive Plan, Existing Zoning Ordinances, and Future Land Use Plan, and consultation with City staff.

The components of the Land Use Assumptions include the following:

- **Methodology** – An overview of the general methodology used to generate the land use assumptions;
- **Impact Fee Service Areas** – Explanation of the division of Corinth into service areas for wastewater facilities;
- **Population and Employment**– Data on population and employment within the service area for the base year (2011), the completely developed (Build Out) scenario, and growth projections by service area over the next ten years (2011 – 2021); and
- **Land Use Assumptions Summary** – a synopsis of the land use assumptions.

## 1.2 METHODOLOGY

### A. OVERVIEW

The population and employment growth projections formulated in this report were done using reasonable and generally accepted planning principles. The following factors were considered in developing these projections:

- Comprehensive Plan
- Character, type, density, and quantity of existing development;
- Current zoning plans;
- Future Land Use Plan (as currently adopted);
- Growth trends;
- Location of vacant land;
- Physical holding capacity of Corinth; and
- Development projects, known or anticipated

The general methodology used in developing the land use assumptions include:

1. Establishing impact fee service areas for roadway, wastewater, and water facilities. (Exhibit 1.1 and 1.2)
2. Collection/determination of population and employment data for the base year 2011.
3. Projection of the ten year (2011-2021) population and employment by Service Area.

Demographics from the recent Comprehensive Plan served as the basis for establishing the year 2011 and ten year (2011-2021) demographic estimates and projections.

### B. IMPACT FEE SERVICE AREAS

#### *Water and Roadway Service Areas*

The geographic boundary of the proposed impact fee service areas for roadway and water facilities is shown in **Exhibit 1.1**. The roadway and water impact fee service area is one service area that covers the entire Corinth City limits.

#### *Wastewater Service Areas*

The geographic boundaries of the three (3) impact fee service areas for wastewater facilities are shown in **Exhibit 1.2**. The three (3) smaller wastewater service areas cover the same area as the roadway and water service area, but have been subdivided. This subdivision is to appropriately account for the three (3) basins that are within the City of Corinth: Upper Trinity East, Upper Trinity West, and Denton.

## C. POPULATION AND EMPLOYMENT

Population and employment estimates for the base year (2011) were performed based upon a survey of the existing land uses. Build out projections were prepared based upon combining the existing land uses within the service area with reasonable assumptions for undeveloped land based upon the currently adopted Future Land Use Plan. Ten year growth projections were prepared based upon consultation with City staff regarding the approximate portions of currently vacant property that will be developed by 2021. **Exhibit 1.3** presents the Future Land Use Plan that is part of the City of Corinth's Comprehensive Plan. **Table 1.1** summarizes the population and employment projections within the Roadway and Water Service Area for 2011 and 2021. **Table 1.2** summarizes the population and employment projections within the Wastewater Service Areas for 2011 and 2021.

The population and employment estimates and projections were all compiled in accordance with the following categories:

*Units:* Number of dwelling units, both single and multi-family.

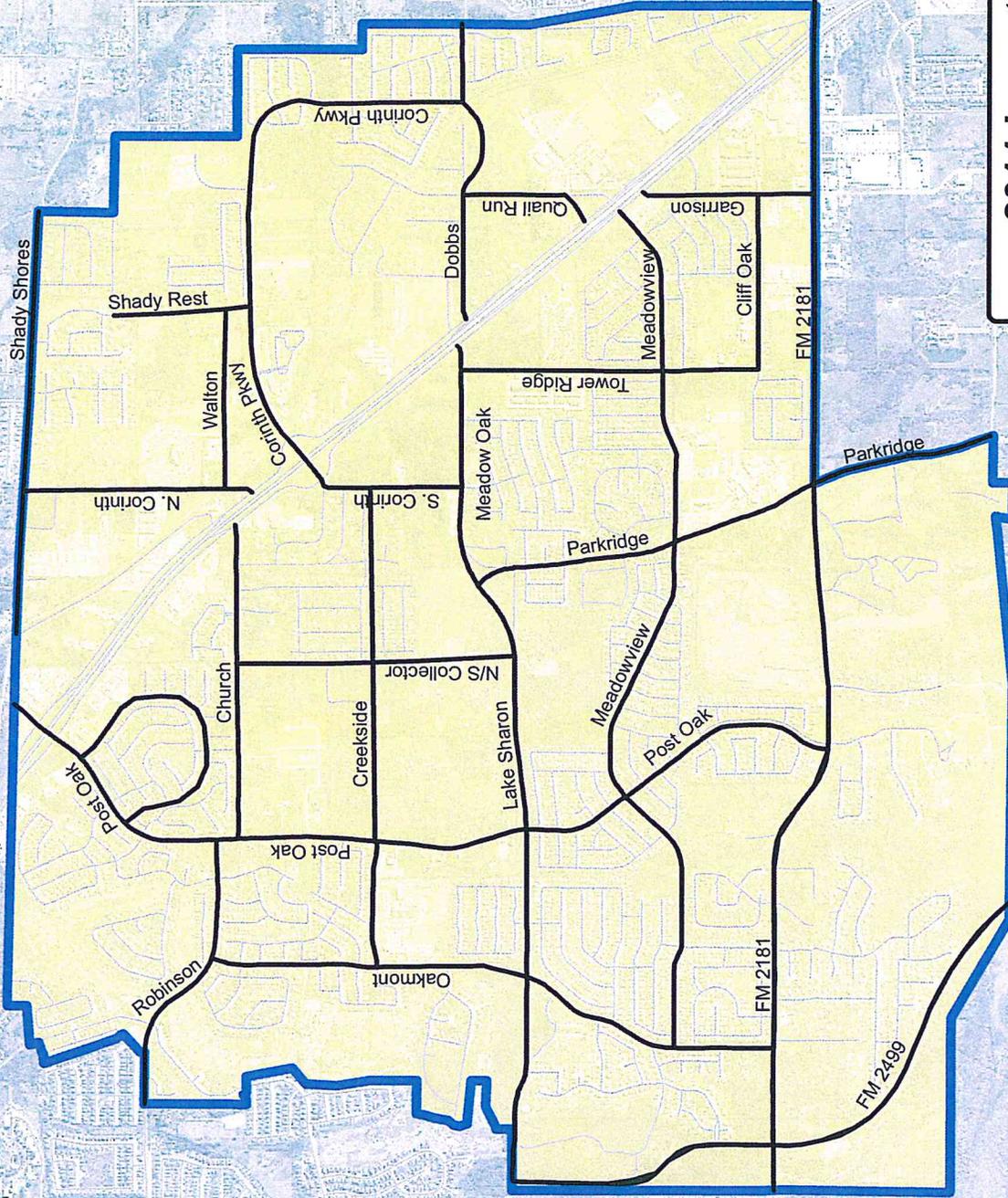
*Population:* Number of people, based on person per dwelling unit factors.

*Employment:* Square feet of building area based on three (3) different classifications. Each classification has unique trip making characteristics.

Retail: Land use activities which provide for the retail sale of goods that primarily serve households and whose locations choice is oriented toward the household sector, such as grocery stores and restaurants.

Service: Land use activities which provide personal and professional services such as government and other professional administrative offices.

Basic: Land use activities that produce goods and services such as those that export outside of the local economy, such as manufacturing, construction, transportation, wholesale, trade, warehousing, and other industrial uses.



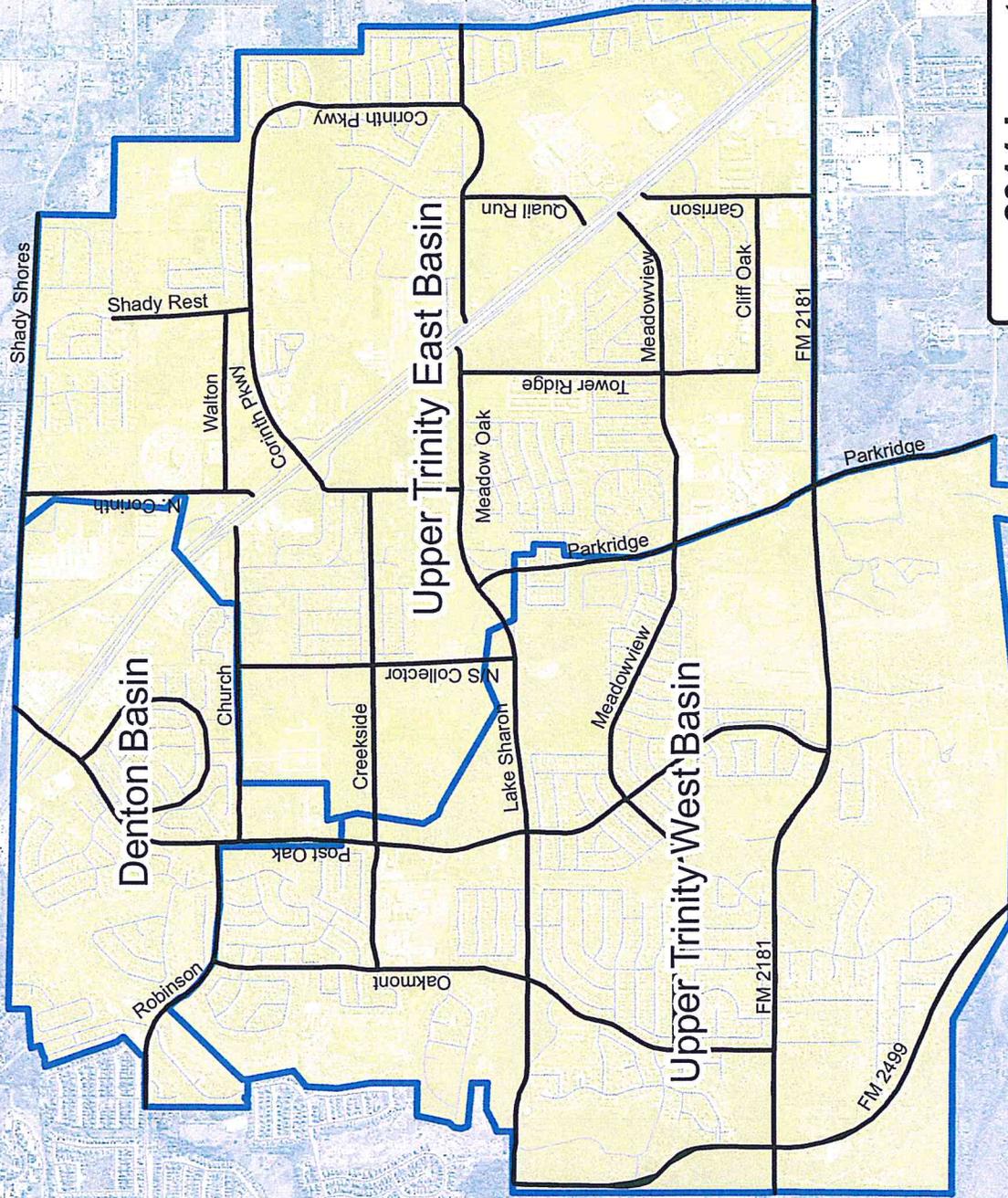
### 2011 Impact Fee Update Water and Roadway Service Area Exhibit 1.1

0 0.5 1 Miles

September 2011

#### Legend

- Water and Roadway Service Area
- Corinth City Limits
- Thoroughfare Facilities
- Local Roads



### 2011 Impact Fee Update Wastewater Service Areas Exhibit 1.2

0 0.5 1 Miles

September 2011

#### Legend

- Wastewater Service Areas
- Corinth City Limits
- Thoroughfare Facilities
- Local Roads

**Table 1.1. Population and Employment Projections  
for the Water and Roadway Service Area**

SA	Year	Population	Units	Employment (Square Feet)			
				Basic	Service	Retail	Total
Water and Roadway	2011	19,990	7,062	758,076	920,034	603,989	2,282,099
	2021	24,054	8,498	1,403,937	1,277,288	1,993,648	4,674,873

**Table 1.2. Population and Employment Projections  
for the Wastewater Service Areas**

SA	Year	Population	Units	Employment (Square Feet)* [Acres]			
				Basic	Service	Retail	Total
Upper Trinity West	2011	8,359	2,953	0	265,685	15,300	280,985
	2021	10,301	3,639	0	265,685	197,292	462,977
Upper Trinity East	2011	8,849	3,126	456,576	579,749	424,764	1,461,089
	2021	10,956	3,871	959,397	937,003	1,530,300	3,426,700
Denton	2011	2,782	983	301,500	74,600	163,925	540,025
	2021	2,797	988	444,540	74,600	266,056	785,196
<b>TOTALS</b>	<b>2011</b>	<b>19,990</b>	<b>7,062</b>	<b>758,076</b> [87]	<b>920,034</b> [106]	<b>603,989</b> [70]	<b>2,282,099</b> [263]
	<b>2021</b>	<b>24,054</b>	<b>8,498</b>	<b>1,403,937</b> [161]	<b>1,277,288</b> [147]	<b>1,993,648</b> [229]	<b>4,674,873</b> [537]

#### D. SUMMARY

The City of Corinth is projected to experience a reasonable amount of growth in both population and employment over the next ten years. As a result of this analysis, the following summary statistics were compiled for the City of Corinth based on the ultimate City Limits:

- The existing (2011) population is approximately 19,990.
- The existing (2011) employment area is approximately 2,282,099 square feet (263 acres).
- The ten year (2021) population projection is approximately 24,054.
- The ten year (2021) employment area projection is approximately 4,674,873 square feet (537 acres).

Land Use Category	ITE Land Use Code	Development Unit	Veh-Mi Per Dev-Unit		2011 Impact Fee Per Development Unit (Adopted)	
<b>PORT AND TERMINAL</b>						
Truck Terminal	030	Acre	26.20		\$ 12,969.00	62.34%
<b>INDUSTRIAL</b>						
General Light Industrial	110	1,000 SF GFA	3.88		\$ 1,920.60	62.34%
General Heavy Industrial	120	1,000 SF GFA	2.72		\$ 1,346.40	62.34%
Industrial Park	130	1,000 SF GFA	3.44		\$ 1,702.80	62.34%
Warehousing	150	1,000 SF GFA	1.28		\$ 633.60	62.34%
Mini-Warehouse	151	1,000 SF GFA	1.04		\$ 514.80	62.34%
<b>RESIDENTIAL</b>						
Single-Family Detached Housing	210	Dwelling Unit	4.04		\$ 1,999.80	62.34%
Apartment/Multi-family	220	Dwelling Unit	2.48		\$ 1,227.60	62.34%
Residential Condominium/Townhome	230	Dwelling Unit	2.08		\$ 1,029.60	62.34%
Mobile Home Park / Manufactured Housing	240	Dwelling Unit	2.36		\$ 1,168.20	62.34%
Senior Adult Housing-Detached	251	Dwelling Unit	1.08		\$ 534.60	62.34%
Senior Adult Housing-Attached	252	Dwelling Unit	0.64		\$ 316.80	62.34%
Assisted Living	254	Beds	0.88		\$ 435.60	62.34%
<b>LODGING</b>						
Hotel	310	Room	1.90		\$ 940.50	62.34%
Motel / Other Lodging Facilities	320	Room	1.51		\$ 747.45	62.34%
<b>RECREATIONAL</b>						
Golf Driving Range	432	Tee	4.02		\$ 1,989.90	62.34%
Golf Course	430	Acre	0.96		\$ 475.20	62.34%
Recreational Community Center	495	1,000 SF GFA	4.66		\$ 2,306.70	62.34%
Ice Skating Rink	465	1,000 SF GFA	7.59		\$ 3,757.05	62.34%
Miniature Golf Course	431	Hole	1.06		\$ 524.70	62.34%
Multiplex Movie Theater	445	Screens	43.85		\$ 21,705.75	62.34%
Racquet / Tennis Club	491	Court	10.77		\$ 5,331.15	62.34%
<b>INSTITUTIONAL</b>						
Church	560	1,000 SF GFA	1.16		\$ 574.20	62.34%
Day Care Center	565	1,000 SF GFA	18.31		\$ 9,063.45	62.34%
Primary/Middle School (1-8)	522	Students	0.34		\$ 168.30	62.34%
High School	530	Students	0.27		\$ 133.65	62.34%
Junior / Community College	540	Students	0.25		\$ 123.75	62.34%
University / College	550	Students	0.44		\$ 217.80	62.34%
<b>MEDICAL</b>						
Clinic	630	1,000 SF GFA	19.55		\$ 9,677.25	62.34%
Hospital	610	Beds	4.95		\$ 2,450.25	62.34%
Nursing Home	620	Beds	0.83		\$ 410.85	62.34%
Animal Hospital/Veterinary Clinic	640	1,000 SF GFA	12.46		\$ 6,167.70	62.34%
<b>OFFICE</b>						
Corporate Headquarters Building	714	1,000 SF GFA	5.60		\$ 2,772.00	62.34%
General Office Building	710	1,000 SF GFA	5.96		\$ 2,950.20	62.34%
Medical-Dental Office Building	720	1,000 SF GFA	13.84		\$ 6,850.80	62.34%
Single Tenant Office Building	715	1,000 SF GFA	6.92		\$ 3,425.40	62.34%
Office Park	750	1,000 SF GFA	5.92		\$ 2,930.40	62.34%
<b>COMMERCIAL</b>						
<b>Automobile Related</b>						
Automobile Care Center	942	1,000 SF Occ. GLA	6.52		\$ 3,227.40	62.34%
Automobile Parts Sales	843	1,000 SF GFA	10.96		\$ 5,425.20	62.34%
Gasoline/Service Station	944	Vehicle Fueling Position	4.83		\$ 2,390.85	62.34%
Gasoline/Service Station w/ Conv Market	945	Vehicle Fueling Position	3.53		\$ 1,747.35	62.34%
Gasoline/Service Station w/ Conv Market and Car Wash	946	Vehicle Fueling Position	3.68		\$ 1,821.60	62.34%
New Car Sales	841	1,000 SF GFA	6.66		\$ 3,296.70	62.34%
Quick Lubrication Vehicle Shop	941	Servicing Positions	10.01		\$ 4,954.95	62.34%
Self-Service Car Wash	947	Stall	1.99		\$ 985.05	62.34%
Tire Store	848	1,000 SF GFA	9.61		\$ 4,756.95	62.34%
<b>Dining</b>						
Fast Food Restaurant with Drive-Thru Window	934	1,000 SF GFA	40.52		\$ 20,057.40	62.34%
Fast Food Restaurant without Drive-Thru Window	933	1,000 SF GFA	31.31		\$ 15,498.45	62.34%
High Turnover (Sit-Down) Restaurant	932	1,000 SF GFA	15.22		\$ 7,533.90	62.34%
Quality Restaurant	931	1,000 SF GFA	10.05		\$ 4,974.75	62.34%
Coffee/Donut Shop with Drive-Thru Window	937	1,000 SF GFA	30.85		\$ 15,270.75	62.34%
<b>Other Retail</b>						
Free-Standing Discount Store	815	1,000 SF GFA	11.25		\$ 5,568.75	62.34%
Nursery (Garden Center)	817	1,000 SF GFA	8.55		\$ 4,232.25	62.34%
Home Improvement Superstore	862	1,000 SF GFA	3.96		\$ 1,960.20	62.34%
Pharmacy/Drugstore w/o Drive-Thru Window	880	1,000 SF GFA	12.72		\$ 6,296.40	62.34%
Pharmacy/Drugstore w/ Drive-Thru Window	881	1,000 SF GFA	16.97		\$ 8,400.15	62.34%
Shopping Center	820	1,000 SF GFA	7.91		\$ 3,915.45	62.34%
Supermarket	850	1,000 SF GFA	21.60		\$ 10,692.00	62.34%
Toy/Children's Superstore	864	1,000 SF GFA	11.23		\$ 5,558.85	62.34%
Department Store	875	1,000 SF GFA	4.01		\$ 1,984.95	62.34%
Video Rental Store	896	1,000 SF GFA	21.86		\$ 10,820.70	62.34%
<b>SERVICES</b>						
Walk-In Bank	911	1,000 SF GFA	12.34		\$ 6,108.30	62.34%
Drive-In Bank	912	Drive-in Lanes	24.62		\$ 12,186.90	62.34%
Hair Salon	918	1,000 SF GLA	1.72		\$ 851.40	62.34%

# Future Land Use Plan

- Future Land Use**
- Low Density Residential
  - Medium Density Residential
  - High Density Residential
  - Mixed Residential
  - Mixed Use with Residential
  - Parks and Open Space
  - Public/Semi-Public
  - Mixed Use Non-Residential
  - Office/Business Park
  - Retail
  - Commercial
  - Industrial
  - Multi-Modal Transit Center
  - Transit Oriented Development
  - Corinth City Center
- Road Types**
- Major Arterial
  - Minor Arterial
  - Collector
  - Corinth City Limits
  - FEMA 100 Year Floodplain

## Plate 4-1

Note: A Comprehensive Plan shall not constitute zoning district regulations or establish zoning district boundaries.

