

**CITY OF SAN ANTONIO  
PUBLIC WORKS DEPARTMENT  
CITY COUNCIL AGENDA MEMORANDUM**

**CONSENT AGENDA**

**ITEM NO. 13**

**TO:** Mayor and City Council

**FROM:** Thomas G. Wendorf, P.E., Director of Public Works

**SUBJECT:** Amendment to the Agreement for the Installation and Reimbursement for the Operation and Maintenance of Traffic Signals within a Municipality with the Texas Department of Transportation (TxDOT)

**DATE:** October 6, 2005

**SUMMARY AND RECOMMENDATIONS**

This ordinance amends the "Agreement for the Installation and Reimbursement for the Operation and Maintenance of Traffic Signals within a Municipality" between the City of San Antonio and the Texas Department of Transportation, which was previously authorized on March 29, 2001, through Ordinance No. 93650, in order to add the operation and maintenance of four additional traffic signal intersections. This ordinance also amends the total maximum reimbursable amount to be received from TxDOT from \$42,660.89 to \$51,642.13 per year.

Staff recommends approval of this ordinance.

**BACKGROUND INFORMATION**

Since 1974, TxDOT has operated freeway interchange traffic signals within the City of San Antonio. Under special agreement, over this period, the City of San Antonio assumed operating and maintenance (O&M) jurisdiction of 16 TxDOT traffic signals without reimbursement for O&M.

Recognizing the burden this placed on maintenance resources, the City of San Antonio entered into an agreement with the Texas Department of Transportation for the reimbursement for the operation and maintenance of these freeway interchange traffic signals, which was authorized through Ordinance No. 93650, on March 29, 2001. Ordinance No. 93650 also added three additional traffic signals, increasing the number of TxDOT signals maintained by the City to 19.

This ordinance amends EXHIBIT 1 of the "Agreement for the Installation and Reimbursement for the Operation and Maintenance of Traffic Signals within a Municipality" in order to add four additional traffic signals located at the following intersections:

- IH 10 Frontage Roads at Houston St.
- IH 35 Frontage Roads at SBC Center Parkway
- US 281 Frontage Roads at Bitters Rd.
- Loop 1604 Frontage Roads at FM 471 (Culebra Road)

The addition of these four traffic signals will increase the total number of traffic signals being maintained by the City under this agreement to 23. These four traffic signals were recently upgraded to City of San Antonio design standards through various construction projects.

This ordinance also amends the total maximum reimbursable amount to be received from TxDOT from \$42,660.89 to \$51,642.13 per year.

### **POLICY ANALYSIS**

Approval of this ordinance will be a continuation of the City Council's commitment to improve mobility within the San Antonio Metropolitan Area and to collaborate with other agencies in the development and implementation of traffic improvements.

### **FISCAL IMPACT**

The provisions of this agreement require the Texas Department of Transportation to reimburse the City of San Antonio an amount not to exceed \$51,642.13 for the expenses incurred to operate and maintain the 23 traffic signals included in the agreement, which will offset the actual costs incurred in the Traffic Operations operating budget.

### **COORDINATION**

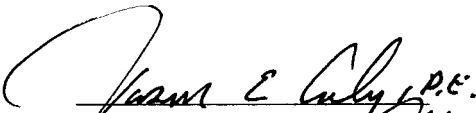
This request for ordinance has been coordinated with the Office of Management and Budget, the Finance Department and TxDOT.

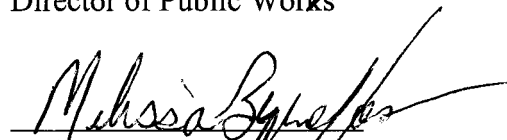
### **SUPPLEMENTARY COMMENTS**

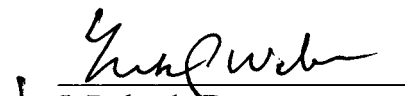
A Discretionary Contracts Disclosure Form is not required.

### **ATTACHMENTS**

1. Supplemental Agreement No. 1
2. Original M&O Reimbursement Agreement with TxDOT

  
Thomas G. Wendorf, P.E.  
Director of Public Works

  
Melissa Byrne Vossmer  
Assistant City Manager

  
J. Rolando Bono  
City Manager

STATE OF TEXAS §

COUNTY OF TRAVIS §

**SUPPLEMENTAL AGREEMENT NO. 1 TO  
AGREEMENT FOR THE INSTALLATION AND REIMBURSEMENT  
FOR THE OPERATION AND MAINTENANCE OF TRAFFIC SIGNALS  
WITHIN A MUNICIPALITY**

**WHEREAS**, on the 10 day of May, 2001, an Agreement for the Installation and Reimbursement for the Operation and Maintenance of Traffic Signals within a Municipality was entered into by and between the Texas Department of Transportation hereinafter called the "State," and the City of San Antonio, hereinafter called the "City," and subsequently identified the agreement as Contract Number 15-3XXH7006; and

**WHEREAS**, the parties to this agreement have mutually determined that it is necessary to amend the original agreement due to the following reason/reasons: \_\_\_\_\_

**NOW, THEREFORE**, Contract No. 15-3XXH7006 is amended as follows:

**EXHIBIT 1**

EXHIBIT 1 is amended to add/delete the traffic signal(s) installation(s) at the intersection(s) of IH 10 Frontage Roads at Houston St., IH 35 Frontage Roads at SBC Center Parkway, US 281 Frontage Roads at Bitters Road and Loop 1604 Frontage Roads at FM 471 (Culebra Road). A copy of the revised EXHIBIT 1 is attached hereto and made a part of this agreement.

**Article 4. Compensation**

The maximum amount payable under this agreement is increased/decreased from \$ 42,660.89 to \$ 51,642.13 per year in accordance with the above changes. Calculations for the increase/decrease to the maximum amount payable are as follows:

AMOUNT OF THIS SUPPLEMENTAL AGREEMENT	\$ <u>8,941.24</u>
ORIGINAL MAXIMUM AMOUNT PAYABLE PER YEAR	\$ <u>42,660.89</u>
TOTAL PREVIOUS SUPPLEMENTAL AGREEMENTS	\$ <u>-0-</u>
REVISED MAXIMUM AMOUNT PAYABLE PER YEAR	\$ <u>51,642.13</u>

**ARTICLE 5. Payment**

The amount of this supplemental agreement shown above shall be a prorated amount based on the cost for the type of installation calculated on EXHIBIT 3 of the original agreement and any increases or decreases caused by any subsequent supplemental agreements. The (~~monthly~~/~~quarterly~~/annual) payment shall be adjusted accordingly.

All other terms or conditions are unchanged and remain in full force and effect.

**IN TESTIMONY WHEREOF**, the parties hereto have caused these presents to be executed in duplicate on the dates shown herein below.

**THE CITY OF** \_\_\_\_\_

Executed on behalf of the City by:

By \_\_\_\_\_ Date \_\_\_\_\_

Typed or Printed Name and Title \_\_\_\_\_

**ATTEST:**

By \_\_\_\_\_ Date \_\_\_\_\_

City Secretary

**THE STATE OF TEXAS**

Executed for the Executive Director and approved for the Texas Transportation Commission for the purpose and effect of activating and/or carrying out the orders, established policies or work programs heretofore approved and authorized by the Texas Transportation Commission.

By \_\_\_\_\_ Date \_\_\_\_\_

District Engineer

**EXHIBIT 1**Signalized intersections on State Highways located in the City of San Antonio.

<b>LOCATION</b>	<b>TYPE OF SIGNAL</b>
IH 10 FRONTAGE ROADS AT WURZBACH ROAD	DIAMOND INTERCHANGE, TRAFFIC SIGNALS WITH ONE CONTROLLER
IH 10 FRONTAGE ROADS AT HUEBNER ROAD	DIAMOND INTERCHANGE, TRAFFIC SIGNALS WITH ONE CONTROLLER
IH 35 FRONTAGE ROADS (QUINCY AND ELMIRA) AT N. ST. MARY'S STREET	DIAMOND INTERCHANGE, TRAFFIC SIGNALS WITH ONE CONTROLLER
US 281 EXIT RAMP AT AVENUE "A" / JOSEPHINE STREET	DIAMOND INTERCHANGE, TRAFFIC SIGNALS WITH ONE CONTROLLER
IH 37 FRONTAGE ROADS AT DURANGO BLVD.	DIAMOND INTERCHANGE, TRAFFIC SIGNALS WITH ONE CONTROLLER
IH 37 EAST FRONTAGE ROAD AT MARKET / MONTANA STREET	DIAMOND INTERCHANGE, TRAFFIC SIGNALS WITH ONE CONTROLLER
IH 37 FRONTAGE ROADS AT COMMERCE STREET	DIAMOND INTERCHANGE, TRAFFIC SIGNALS WITH ONE CONTROLLER
IH 35 SBD. EXIT AT LOOP 353 (NOGALITOS STREET)	DIAMOND INTERCHANGE, TRAFFIC SIGNALS WITH ONE CONTROLLER
US 90 EASTBOUND EXIT AT ZARZAMORA STREET	DIAMOND INTERCHANGE, TRAFFIC SIGNALS WITH ONE CONTROLLER
US 90 EBD. FRONTAGE ROAD AT LOOP 353 (NOGALITOS STREET)	DIAMOND INTERCHANGE, TRAFFIC SIGNALS WITH ONE CONTROLLER
IH 35 SBD. FRONTAGE ROAD AT HOUSTON STREET	DIAMOND INTERCHANGE, TRAFFIC SIGNALS WITH ONE CONTROLLER
IH 35 SBD. FRONTAGE ROAD AT COMMERCE STREET	DIAMOND INTERCHANGE, TRAFFIC SIGNALS WITH ONE CONTROLLER
IH 35 SBD. FRONTAGE ROAD AT BUENA VISTA STREET	DIAMOND INTERCHANGE, TRAFFIC SIGNALS WITH ONE CONTROLLER
IH 35 SBD. FRONTAGE ROAD AT NUEVA STREET	DIAMOND INTERCHANGE, TRAFFIC SIGNALS WITH ONE CONTROLLER
IH 35 SBD. FRONTAGE ROAD AT DURANGO BLVD.	DIAMOND INTERCHANGE, TRAFFIC SIGNALS WITH ONE CONTROLLER

IH 35 SBD. FRONTAGE ROAD AT GUADALUPE STREET	DIAMOND INTERCHANGE, TRAFFIC SIGNALS WITH ONE CONTROLLER
IH 35 FRONTAGE ROAD AT FM 1976 (WALZEM ROAD)	DIAMOND INTERCHANGE, TRAFFIC SIGNALS WITH ONE CONTROLLER
IH 10 FRONTAGE ROADS AT DE ZAVALA ROAD	DIAMOND INTERCHANGE, TRAFFIC SIGNALS WITH ONE CONTROLLER
IH 410 FRONTAGE ROADS AT US 87 (RIGSBY AVENUE)	DIAMOND INTERCHANGE, TRAFFIC SIGNALS WITH ONE CONTROLLER
IH 10 FRONTAGE ROADS AT HOUSTON STREET	DIAMOND INTERCHANGE, TRAFFIC SIGNALS WITH ONE CONTROLLER
IH 35 FRONTAGE ROADS AT SBC CENTER PARKWAY	DIAMOND INTERCHANGE, TRAFFIC SIGNALS WITH ONE CONTROLLER
US 281 FRONTAGE ROADS AT BITTERS ROAD	DIAMOND INTERCHANGE, TRAFFIC SIGNALS WITH ONE CONTROLLER
LOOP 1604 FRONTAGE ROADS AT FM 471 (CULEBRA ROAD)	DIAMOND INTERCHANGE, TRAFFIC SIGNALS WITH ONE CONTROLLER

**EXHIBIT 2****TRAFFIC SIGNAL MAINTENANCE AND OPERATION PROVISIONS**

The maintaining and operating city agrees to:

1. Unless specifically noted elsewhere in this agreement, the signal timing and operational phasing shall be the responsibility of the city.
2. Inspect the highway traffic signal system a minimum of once every 12 months and replace burned out lamps or damaged sockets as may be required. Police, citizen, or other reports of burned out lamps or other damage, which could jeopardize safety, shall be repaired or replaced as soon as possible after the report, depending on the nature of the report. Otherwise, appropriate steps shall be taken to protect the public. The reflector and lens should be cleaned each time a lamp is replaced. All replacement lamps shall equal the wattage and type of the existing lamp.
3. Keep signal poles, controller pedestals, and foundations in alignment.
4. Keep signal poles and controller cabinets tight on their foundation(s) or pedestal(s).
5. Keep traffic and pedestrian signal heads aligned and properly adjusted Repair back plates where needed.
6. Check the controllers, conflict monitors, detector units, relays, pedestrian push buttons, and detectors a minimum of once every 12 months to ascertain that they are functioning properly and make all necessary repairs and replacements.
7. Keep interior of controller cabinets in a neat and clean condition at all times.
8. Clean reflectors, lenses, and lamps a minimum of once every twelve months.
9. Repaint all corrosive susceptible highway traffic signal components exposed to weather with a non-lead based paint as needed in order to maintain a well kept appearance in the opinion of the Texas Department of Transportation's representative. Plastic signal heads and galvanized and aluminum components are excluded.
10. Group relamp and incandescent lamps of all highway traffic signal heads at the expiration of the average rated lamp life or replace the lamps on a burn out basis.
11. Repair or replace any and all equipment that malfunctions or is damaged.
12. Provide alternate traffic control during a period of failure or when the controller must be repaired. This may be accomplished through installation of a spare controller, placing the intersection on flash, manually operating the controller, or manually directing traffic through the use of proper authorities. In addition, barricades and warning signs shall be provided in accordance with the requirements of the latest edition of the *Texas Manual on Uniform Traffic Control Devices*.
13. Provide maintenance personnel trained in the maintenance of traffic signal equipment who will be available to respond to emergency calls from authorized parties 24 hours a day,

including Saturdays, Sundays, and holidays.

14. Provide the State and local law enforcement agencies the location and respective names and telephone numbers of individuals responsible for emergency maintenance.
15. Document routine observations during the year by trained City personnel of the traffic signal operation at each traffic signal during various times of the day to assure fair distribution of time and for all traffic movements (phases) during varying traffic conditions.
16. Check cabinet filter a minimum of once every six months and clean if necessary. Cabinet filter shall be replaced every two years.
17. Document all checks and corrective actions in a separate log book for each intersection.
18. In metropolitan cities where Intelligent Transportation Systems and/or incident management systems are being implemented the signal timing will be the responsibility of the City in cooperation with the Texas Department of Transportation.

Traffic accidents, inclement weather, special events, maintenance, and construction activities are a few of the causes of nonrecurrent congestion. Nonrecurrent congestion often changes the normal traffic demand patterns. Effective and efficient movement of traffic through the transportation network during periods of nonrecurrent congestion must be considered in the design and operation of all traffic management systems, including traffic signal systems. Priority should be given to freeway or expressway frontage roads when nonrecurrent congestion occurs on freeway or expressway mainlanes.

Power costs shall be billed directly to the State.



### EXHIBIT 3

Diamond Interchange Signals with one controller shall be reimbursed at \$ 2,245.31 per intersection per year.

Calculations: 23 Locations x \$2,245.31 = \$ 51,642.13

Contract No. 15-3XXH7006

**AGREEMENT FOR THE  
INSTALLATION AND REIMBURSEMENT FOR THE  
OPERATION AND MAINTENANCE OF  
TRAFFIC SIGNALS WITHIN A MUNICIPALITY**

STATE OF TEXAS           §

COUNTY OF TRAVIS       §

THIS AGREEMENT made by and through the State of Texas, acting by and through the Texas Department of Transportation, hereinafter called the "State," and the City of San Antonio, hereinafter called the "City," acting by and through its duly authorized officers, as evidenced by ~~Resolution~~/Ordinance No. 93650, executed on 10 MAY 2001, hereinafter acknowledged by reference.

**WITNESSETH**

WHEREAS, by virtue of a Municipal Maintenance Agreement entered into by the City and the State on the 8<sup>th</sup> day of AUGUST, 19 74, the State has been authorized to maintain certain highway routes within the City; and

WHEREAS, from time to time the City requests the State to install traffic signals on certain highways within the City; and

WHEREAS, in accordance with Texas Administrative Code: Title 43 Texas Administrative Code Section 25.5, on the 27th day of May, 1987, the State Highway and Public Transportation Commission, now the Texas Transportation Commission, passed Commission Minute Order No. 85777, authorizing the State to install, operate and maintain traffic signals on:

(a) highway routes not designated as full control of access inside the corporate limits of cities,

having a population less than 50,000 (latest Federal Census); and (b) highways designated as full control of access in all cities; and

WHEREAS, the City has a population of (more/less) than 50,000 population according to the latest Federal Census; and

WHEREAS, the City requests the State to assume the installation, operation and maintenance responsibilities of the signalized intersection as shown in EXHIBIT 1, attached hereto and made a part of this Agreement; and

WHEREAS, the City agrees to maintain and operate the signalized intersection with the State reimbursing the City for all maintenance and operations costs at a flat rate per location as shown on EXHIBIT 3.

NOW, THEREFORE, in consideration of the premises and of the mutual covenants and agreements of the parties hereto to be by them respectively kept and performed, as hereinafter set forth, it is agreed as follows:

## **AGREEMENT**

### **ARTICLE 1.        CONTRACT PERIOD**

This Agreement becomes effective when fully executed by the City and the State and shall remain in force for a period of one year from the date of final execution by the State and shall be automatically renewed annually for a one year period, unless modified by mutual agreement of both parties, or terminated as hereinafter provided.

## ARTICLE 2. CONSTRUCTION RESPONSIBILITIES

A. The State shall prepare or cause to be prepared the plans and specifications, advertise for bids, let the construction contract, or otherwise provide for the construction of new traffic signals and/or reconstruction of existing traffic signals (including, at the State's option, any special auxiliary equipment, interconnect and/or communication material and equipment), and will supervise construction, reconstruction or betterment work as required by said plans and specifications. As a project is developed to construction stage, either as a unit or in increments, the State will submit plans and specifications of the proposed work to the City and will secure the City's consent to construct the traffic signal prior to awarding the contract; said City consent to be signified by the signatures of duly authorized City officers in the spaces provided on the title sheet of the plans containing the following notation:

“Attachment No. \_\_\_\_\_ to “Agreement for the Installation and Reimbursement for the Operation and Maintenance of Traffic Signals Within a Municipality,” dated \_\_\_\_\_. The City-State construction, maintenance and operation responsibilities shall be as heretofore agreed to, accepted, and specified in the Agreement to which these plans are made a part.”

B. All costs of construction and/or reconstruction of new and existing traffic signals will be borne by the State, and the traffic signal system will remain the property of the State.

**ARTICLE 3.            MAINTENANCE, OPERATION, AND POWER**  
**RESPONSIBILITIES**

- A.     The State shall be responsible for all electrical power costs for the operation of the traffic signals covered by this Agreement and shown on EXHIBIT 1. Power costs shall be billed as specified in EXHIBIT 2, "Traffic Signal Maintenance and Operations Provisions."
- B.     The City will provide a trained staff to maintain and operate the traffic signals shown on EXHIBIT 1, and the State will reimburse the City at the flat rate shown in EXHIBIT 3 for parts and labor. All repairs shall be prioritized based on public safety and made as soon as possible.
- C.     The City shall maintain and operate the traffic signals in accordance with the minimum requirements specified in EXHIBIT 2.
- D.     The City shall maintain at least one log of all emergency calls and all routine maintenance.
- E.     Routine maintenance will be performed by the City as specified in EXHIBIT 2.
- F.     The State and City agree that nothing contained in this Agreement will be construed to:
- (1) Give either party the power to direct and control day-to-day activities of the other; or
  - (2) Constitute the parties as partners, joint venturers, co-owners or otherwise as participants in a joint or common undertaking; or
  - (3) Allow either party to create or assume any obligation on behalf of the other party for any purpose whatsoever.

**ARTICLE 4.            COMPENSATION**

- A.     The maximum amount payable under this Agreement is \$ 42,660.89 per year.
- B.     Calculations for the above lump sum amount shall be shown in EXHIBIT 3, attached

hereto and made a part of this Agreement for maintaining and operating the traffic signal installations covered under this Agreement.

C. The addition or deletion of traffic signals shall be made by supplemental agreement.

#### **ARTICLE 5. PAYMENT**

A. The State agrees to reimburse the City at the flat rate shown in EXHIBIT 3 for maintenance and operation costs for the traffic signals described in EXHIBIT 1. The City shall submit to the State Form 132, "Billing Statement," or an invoice statement acceptable to the State on a (~~monthly~~/~~quarterly~~/annual) basis. An original Form 132 or acceptable invoice and four copies shall be submitted to the following address:

Texas Department of Transportation  
P. O. Box 29928  
San Antonio, Texas 78229-0928

B. The City shall maintain a system of records necessary to support and establish the eligibility of all claims for payment under the terms of this Agreement. These records may be reviewed at any time to substantiate the payment by the State and/or determine the need for an adjustment in the amount paid by the State.

C. The State shall make payment to the City within 30 days from receipt of the City's request for payment, provided that the request is properly prepared.

D. Knockdowns or damage resulting from an accident or an act of God and which require emergency replacement of major equipment shall not be included in the (~~monthly~~/~~quarterly~~/annual) payments. For eligibility of payment for emergency replacement of major equipment, actual cost shall be submitted to the State for review and determination of reimbursement eligibility.

E. Payment for the addition or deletion of a traffic signal installation shall be made by supplemental agreement.

#### **ARTICLE 6. INDEMNIFICATION**

The City acknowledges that it is not an agent, servant or employee of the State and, thus, is responsible for its own acts and deeds and for those of its agents or employees during the performance of the work defined in this agreement.

#### **ARTICLE 7. TERMINATION**

A. This Agreement may be terminated by any of the following conditions:

(1) By mutual agreement and consent of both parties.

(2) By the State upon thirty (30) days written notice to the City for failure of the City to provide adequate maintenance and operation services for those traffic signal installations which the City has agreed to maintain and operate.

(3) By the State upon sixty (60) days written notice to the City that the State will assume operation and maintenance at the end of the one (1) year period of this contract.

(4) By the City upon one hundred twenty (120) days written notice of the State.

B. In the event this Agreement is terminated by any of the above conditions, the maintenance and operation of the traffic signal systems shall become the responsibility of the State. Any State owned equipment being held by the City shall be promptly returned within 30 calendar days to the State upon termination of this Agreement.

#### **ARTICLE 8. SUBLETTING**

The City shall not sublet or transfer any portion of the work under this Agreement unless specifically approved in writing by the State. All subcontracts shall include the provisions

required in this contract and shall be approved in writing by the State.

#### **ARTICLE 9. AMENDMENTS**

Changes in the character, costs, provisions, in the attached exhibits, responsibilities or obligations authorized herein shall be enacted by written amendment. Any amendment to this Agreement must be executed by both parties.

#### **ARTICLE 10. SUCCESSORS AND ASSIGNS**

The State and the City bind themselves, successors, assigns and legal representatives to the other party to this Agreement and the successors, assigns and legal representatives of such other party to all covenants and provisions provided herein. Furthermore, the City shall not assign, sublet or transfer any interests in this Agreement without the written consent of the State.

#### **ARTICLE 11. LEGAL CONSTRUCTION**

In case any one or more of the provisions contained in this Agreement shall for any reason be held to be invalid, illegal, or unenforceable in any respect, such invalidity, illegality, or unenforceability shall not affect any other provision thereof and this Agreement shall be construed as if such invalid, illegal, or unenforceable provision had never been contained herein.

#### **ARTICLE 12. PRIOR AGREEMENTS SUPERSEDED**

This Agreement constitutes the sole and only agreement of the parties hereto and supersedes any prior understandings or written or oral agreements between the parties respecting the within subject matter.



IN WITNESS WHEREOF, the parties have executed duplicate counterparts to effectuate this Agreement.

CITY OF: SAN ANTONIO

298  
By: Melissa Bynum

(Name)

Asst City Manager

(Title)

4-25-01

(Date)



[Signature]  
City Secretary

THE STATE OF TEXAS

Executed for the Executive Director and approved for the Texas Transportation Commission under the Authority of Minute Order 100002 and Stand Alone Manual Notice 98-3, for the purpose and effect of activating and/or carrying out the orders, established policies or work programs by the Texas Transportation Commission.

APPROVED:

By: [Signature]

District Engineer

San Antonio

District

Date: 5/10/01

## EXHIBIT 1

Signalized intersections on State Highways located with the City of SAN ANTONIO

LOCATION	TYPE OF SIGNAL
IH 10 FRONTAGE ROADS AT WURZBACH ROAD	DIAMOND INTERCHANGE, TRAFFIC SIGNALS WITH ONE CONTROLLER
IH 10 FRONTAGE ROADS AT HUEBNER ROAD	DIAMOND INTERCHANGE, TRAFFIC SIGNALS WITH ONE CONTROLLER
IH 35 FRONTAGE ROADS (QUINCY AND ELMIRA) AT N. ST. MARY'S STREET	DIAMOND INTERCHANGE, TRAFFIC SIGNALS WITH ONE CONTROLLER
US 281 EXIT RAMP AT AVENUE "A" / JOSEPHINE STREET	DIAMOND INTERCHANGE, TRAFFIC SIGNALS WITH ONE CONTROLLER
IH 37 FRONTAGE ROADS AT DURANGO BLVD.	DIAMOND INTERCHANGE, TRAFFIC SIGNALS WITH ONE CONTROLLER
IH 37 EAST FRONTAGE ROAD AT MARKET / MONTANA STREET	DIAMOND INTERCHANGE, TRAFFIC SIGNALS WITH ONE CONTROLLER
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IH 35 SBD. EXIT AT LOOP 353 (NOGALITOS STREET)	DIAMOND INTERCHANGE, TRAFFIC SIGNALS WITH ONE CONTROLLER
US 90 EASTBOUND EXIT AT ZARZMORA STREET	DIAMOND INTERCHANGE, TRAFFIC SIGNALS WITH ONE CONTROLLER
US 90 EBD. FRONTAGE ROAD AT LOOP 353 (NOGALITOS STREET)	DIAMOND INTERCHANGE, TRAFFIC SIGNALS WITH ONE CONTROLLER
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IH 35 SBD. FRONTAGE ROAD AT COMMERCE STREET	DIAMOND INTERCHANGE, TRAFFIC SIGNALS WITH ONE CONTROLLER



## EXHIBIT 2

### TRAFFIC SIGNAL MAINTENANCE AND OPERATIONS PROVISIONS

The maintaining and operating agency agrees to:

1. Lamps shall be replaced as outages are reported or detected in routine maintenance of signal system. All replacement lamps shall equal the wattage and type of the existing lamp.
2. Keep signal posts and controller foundations in alignment.
3. Keep signal posts and controller cabinet tight on foundation(s).
4. Keep signal heads aligned at all times.
5. Check the controllers, conflict monitors, loop amplifiers, relays, and detectors a minimum of once every six months to ascertain that they are functioning properly and make all necessary repairs and/or replacements.
6. Keep interior controller cabinets in a neat and clean condition at all times.
7. Clean cabinet, reflectors, lenses every 12 months. Replace existing 8,000 hour lamps every 12 months and replace existing 10,000 hour lamps every 14 months.
8. Repaint all highway traffic signal components exposed to weather with a non-lead based paint a minimum of once every five years. Plastic signal heads and galvanized and aluminum components are excluded.
9. Repair or replace any and all equipment that malfunctions or is damaged.
10. Provide alternate traffic control equipment during a period when the equipment must be repaired. This may be accomplished through installation of spare equipment, placing the intersection on flash for a minimal duration only, manually operating the controller, setting the timing until permanent repairs can be made, or manually directing traffic through the use of proper authorities and in accordance with the Texas Manual on Uniform Traffic Control Devices.
11. Provide maintenance personnel trained in the maintenance of traffic signal equipment who will be available to respond to emergency calls from authorized parties 24 hours a day, including Saturdays, Sundays and holidays.
12. Provide the State and local law enforcement agencies the location and telephone number for emergency maintenance personnel.

13. Document observations by trained City personnel of traffic signal operation at each traffic signal to assure fair distribution of time for all traffic movements (phases) during varying traffic conditions.
14. Check cabinet filter a minimum of once every six months and clean or replace if necessary. Cabinet filter shall be replaced every 12 months.
15. Document all observations, maintenance performed and corrective actions.
16. Repair or replace any vehicle detector loops that have failed within ten working days of notification. This is contingent that the road surface is suitable for detector to be replaced. It shall be the responsibility of the City to repair the road surface before replacing the detector loops on city thoroughfares. The state will repair the road surface on state maintained routes.
17. In metropolitan cities where Intelligent Transportation Systems and/or incident management systems are being implemented the signal timing will be the responsibility of the city in cooperation with the Texas Department of Transportation.

Traffic Accidents, inclement weather, special events, maintenance and construction activities are a few of the causes of nonrecurrent congestion. Nonrecurrent congestion often changes the normal traffic demand patterns. Effective and efficient movement of traffic through the transportation network during periods of nonrecurrent congestion must be considered in the design and operation of all traffic management systems, including traffic signal systems. Priority should be given to freeway or expressway frontage roads when nonrecurrent congestion occurs on freeway or expressway main lanes.

**NOTE:** Power cost shall be billed directly to the State.

### EXHIBIT 3

Diamond Interchange Signals with one controller shall be reimbursed at \$ 2,245.31 per intersection per year.

Calculations: 19 Locations x \$ 2,245.31 = \$ 42,660.89

# ANNUAL TRAFFIC SIGNAL MAINTENANCE AND OPERATION COSTS

DEPT 23 - PUBLIC WORKS

## CHARACTER CODE 01- PERSONAL SERVICES

OBJ	INDEX (05)	INDEX (06)	INDEX CODE TITLE	ACTIVITY 23-12-05	ACTIVITY 23-12-06
10	410076	411009	Regular Salaries and Wages	\$ 362,430.00	\$ 809,410.00
11	410084	411017	Overtime Salaries and Wages	\$ 17,603.00	\$ 40,600.00
12	404962	411025	Higher Classification Salaries & Wages	\$ -	\$ 1,200.00
13	410381	496448	Shift Differential Pay	\$ -	\$ 1,100.00
19	410308	411355	Langauage Skill Pay	\$ -	\$ 1,200.00
30	410092	411033	Retirement Benefits - Soc Sec	\$ 28,443.00	\$ 64,198.00
40	410100	411041	Retirement Benefits - TMRS	\$ 37,157.00	\$ 83,852.00
50	410118	411058	Flexible Benefits Contribution	\$ 57,684.00	\$ 94,116.00
51	410126	411066	Life Insurance	\$ 848.00	\$ 1,911.00
60	410134	411074	Worker's Disability Comp	\$ 10,600.00	\$ 21,200.00
72	468546	468553	Personal Leave Buy Back Pay	\$ 8,796.00	\$ 19,789.00
				\$ 523,561.00	\$ 1,138,576.00

## CHARACTER CODE 02 - CONTRACTURAL SERVICES

OBJ	INDEX (05)	INDEX (06)	INDEX CODE TITLE	ACTIVITY 23-12-05	ACTIVITY 23-12-06
110	410142	411082	Communications	\$ 55,500.00	\$ -
111	410043	411306	Communications: Radios & PA System	\$ 4,850.00	\$ 2,510.00
112	410324	411330	Pagers	\$ -	\$ 60.00
119	410159	--	Rental of Equipment	\$ 12,000.00	\$ -
121	410167	411090	Rent of City Rolling Equipment	\$ 44,000.00	\$ 45,440.00
140	410928	--	Cleaning Services	\$ 700.00	\$ -
143	230987	231282	Maintenance & Repair - Automotive	\$ 38,600.00	\$ 19,800.00
144	230995	23190	Maintenance & Repair - Commercial	\$ 24,000.00	\$ 6,500.00
151	410365	411249	Clothing Allowance	\$ 2,000.00	\$ 3,000.00
167	231183	231308	Vehicle Management Fee	\$ 720.00	\$ 1,200.00
				\$ 182,370.00	\$ 78,510.00

## CHARACTER CODE 03 - COMMODITIES

OBJ	INDEX (05)	INDEX (06)	INDEX CODE TITLE	ACTIVITY 23-12-05	ACTIVITY 23-12-06
222	410225	411140	Motor Fuel and Lubricants	\$ 13,700.00	\$ 13,400.00
228	410233	411157	Chemicals, Medical and Drugs	\$ -	\$ 200.00
232	410241	411173	Tools, Apparatus & Accessories	\$ 6,700.00	\$ 3,100.00
241	231191	231316	Maint & Rep Mat - Automotive	\$ 14,600.00	\$ 6,000.00
242	410266	411181	Maint & Rep Mat - Mach & Equip	\$ 433,541.00	\$ 96,018.00
				\$ 468,541.00	\$ 118,718.00

## CHARACTER CODE 04 - OTHER EXPENDITURES

OBJ	INDEX (05)	INDEX (06)	INDEX CODE TITLE	ACTIVITY 23-12-05	ACTIVITY 23-12-06
260	410340	411199	Liab, Hazard & Fidelity Insurance	\$ 10,090.00	\$ 19,640.00
				\$ 10,090.00	\$ 19,640.00
			SUMMARY FOR ACTIVITY	\$ 1,184,562.00	\$ 1,355,444.00

<b>TOTAL ANNUAL TRAFFIC SIGNAL MAINTENANCE AND OPERATION COST</b>	<b>\$ 2,540,006.00</b>
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# ANNUAL TRAFFIC SIGNAL MAINTENANCE AND OPERATION COSTS

TRAFFIC SIGNAL TYPE	QUANTITY	% T.S.E.	TOTAL T.S.E.
TRAFFIC SIGNALS	1042	1	1042
ROADSIDE/OVERHEAD FLASHERS	357	0.25	89.25
TOTAL TRAFFIC SIGNAL EQUIVALENT (T.S.E.)			1131.25

TOTAL ANNUAL TRAFFIC SIGNAL  
MAINTENANCE AND OPERATION COSTS \$ 2,540,006.00

ANNUAL M & O COST PER T.S.E.	\$ 2,245.31
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