

MURPHY CITY COUNCIL AGENDA  
REGULAR CITY COUNCIL MEETING  
NOVEMBER 18, 2014 AT 6:00 P.M.  
206 NORTH MURPHY ROAD  
MURPHY, TEXAS 75094



Eric Barna  
Mayor

Scott Bradley  
Mayor Pro Tem

Owais Siddiqui  
Deputy Mayor Pro Tem

Ben St. Clair  
Councilmember

Betty Spraggins  
Council

Sarah Fincanon  
Councilmember

Rob Thomas  
Councilmember

James Fisher  
City Manager

NOTICE is hereby given of a meeting of the City Council of the City of Murphy, Collin County, State of Texas, to be held on November 18, 2014 at Murphy City Hall for the purpose of considering the following items. The City Council of the City of Murphy, Texas, reserves the right to meet in closed session on any of the items listed below should the need arise and if applicable pursuant to authorization by Title 5, Chapter 551, of the Texas Government Code.

**1. CALL TO ORDER**

**2. INVOCATION & PLEDGE OF ALLEGIANCE**

**3. ROLL CALL & CERTIFICATION OF A QUORUM**

**4. PUBLIC COMMENTS**

**5. PRESENTATION ITEMS**

A. Presentation of financial report as of October 31, 2014.

**6. CONSENT AGENDA**

All consent agenda items are considered to be routine by the City Council and will be enacted by one motion. There will be no separate discussion of these items unless a Councilmember so requests, in which event the item will be removed from the Consent Agenda and voted on separately.

A. Consider and/or act upon the November 4, 2014 Regular City Council Meeting minutes.

**7. INDIVIDUAL CONSIDERATION**

A. Discuss Murphy Road Traffic Study.

B. Consider and/or act upon all matters incident and related to approving an ordinance authorizing the issuance of "City of Murphy, Texas Tax and Waterworks and Sewer System (Limited Pledge) Revenue Certificates of Obligation, Series 2014, in the maximum par amount of \$3,000,000.

C. Consider and/or act upon the Murphy Municipal Development District to authorize the City Manager to execute an Incentive Agreement between the City of Murphy, Murphy Municipal Development District and Calloway's Nursery, Inc.

D. Consider and/or act upon the authorization for the City Engineer to solicit bids for the construction of the South Maxwell Creek Parallel Trunk Sewer Line Project.

E. Consider and/or act upon ratification of Resolution No. 14-R-810 regarding the use of the power of eminent domain to acquire the necessary portions of properties listed in Exhibit "A" specifically for additional Right-of-Way Easement.

**8. CITY MANAGER/STAFF REPORTS**

- A. North Murphy Road Construction Update
- B. Christmas in the Park – December 4<sup>th</sup>
- C. Boards and Commission Celebration Dinner – December 11<sup>th</sup>
- D. Employee Luncheon – December 18<sup>th</sup>

**9. EXECUTIVE SESSION**

The City Council will hold a closed Executive Session pursuant to the provisions of Chapter 551, Subchapter D, Texas Government Code, in accordance with the authority contained in:

- A. § 551.087 Deliberation regarding economic development negotiations (1) to discuss or deliberate regarding commercial or financial information that the governmental body has received from a business prospect that the governmental body seeks to have locate, stay, or expand in or near the territory of the governmental body and with which the governmental body is conducting economic development negotiations; (2) to deliberate the offer of a financial or other incentive to a business prospect described by Subdivision (1).

**10. RECONVENTE INTO REGULAR SESSION**

The City Council will reconvene into Regular Session, pursuant to the provisions of Chapter 551, Subchapter D, Texas Government Code, to take any action necessary regarding:

- A. § 551.087 Deliberation regarding economic development negotiations (1) to discuss or deliberate regarding commercial or financial information that the governmental body has received from a business prospect that the governmental body seeks to have locate, stay, or expand in or near the territory of the governmental body and with which the governmental body is conducting economic development negotiations; (2) to deliberate the offer of a financial or other incentive to a business prospect described by Subdivision (1).
- B. Take Action on any Executive Session Items.

**11. ADJOURNMENT**

I certify that this is a true and correct copy of the Murphy City Council Meeting Agenda and that this notice was posted on the designated bulletin board at Murphy City Hall, 206 North Murphy Road, Murphy, Texas 75094; a place convenient and readily accessible to the public at all times, and said notice was posted on November 14, 2014 by 4:30 p.m. and will remain posted continuously for 72 hours prior to the scheduled meeting pursuant to Chapter 551 of the Texas Government Code.

  
Susie Quinn, TRMC  
City Secretary

In compliance with the American with Disabilities Act, the City of Murphy will provide for reasonable accommodations for persons attending public meetings at City Hall. Requests for accommodations or interpretive services must be received at least 48 hours prior to the meeting. Please contact the City Secretary at 972.468.4011 or squinn@murphytx.org.

Notice of Possible Quorum: There may be a quorum of the 4B Community Development Corporation, the Animal Shelter Advisory Committee, the Board of Adjustment, the Building and Fire Code Appeals Board, the Ethics Review Commission the Murphy Municipal Development District Board, the Park and Recreation Board and/or the Planning and Zoning Commission may be present at the meeting, but they will not deliberate on any city business.

COUNCIL MINUTES  
NOVEMBER 4, 2014 CITY COUNCIL MEETING

ITEM 6.B.

Mislabeled, should be Item 6.A.

**1. CALL TO ORDER**

Mayor Barna called the meeting to order at 6:00 pm.

**2. INVOCATION & PLEDGE OF ALLEGIANCE**

Mayor Barna gave the invocation and led the Pledge of Allegiance to the United States flag.

**3. ROLL CALL & CERTIFICATION OF A QUORUM**

Susie Quinn, City Secretary, certified a quorum with the following Councilmembers present:

Mayor Eric Barna

Mayor Pro Tem Scott Bradley

Deputy Mayor Pro Tem Owais Siddiqui

Councilmember Ben St. Clair

Councilmember Betty Nichols Spraggins

Councilmember Sarah Fincanon

Councilmember Rob Thomas

**4. PUBLIC COMMENTS**

*Ray Shahan*, resident, stated that his open records request is taking too long to process, as almost two months should be plenty of time to know if a record exists or not. His second public comment relates to the Deed Restrictions not being properly filed by the home builder (D R Horton) with Collin County. He wants to Council to stop allowing the selling of homes until the deeds have been properly recorded.

*Marv Williams*, resident, Exchange Club member, Chamber of Commerce Chair, is seeking volunteers to assist with placing of 100 flags around town for Veteran's Day to be displayed from 7 am until 5 pm. He also invited all Veterans to attend the Chamber of Commerce luncheon on November 18, 2014. The first 75 Veterans to register will have their lunch paid for by the City.

**5. PRESENTATION ITEMS**

**A. Presentation of CERT Graduation Certificates**

Graduates who were present to receive their certificates from Chief Mark Lee and Course Coordinator Ron Hill: Adam Lippman, Diane Weyandt and a special appreciation certificate to Instructor Ken Pietrasiks. Other CERT graduates who were not able to attend: Chris and Dennis Koleber and David Grice.

**6. CONSENT AGENDA**

All consent agenda items are considered to be routine by the City Council and will be enacted by one motion. There will be no separate discussion of these items unless a Councilmember so requests, in which event the item will be removed from the Consent Agenda and voted on separately.

Mayor Pro Tem Bradley requested Item 7.B. be removed from the consent agenda.

**A. Consider and/or act upon the October 21, 2014 Regular City Council Meeting.**

**COUNCIL ACTION (6.A.):**

**APPROVED**

**Mayor Pro Tem Bradley moved to approve the October 21, 2014 as presented on the consent agenda. Councilmember Spraggins seconded the motion. For: Unanimous. The motion carried by a vote of 7 to 0.**

- B. Consider and/or act on the application of Bent Trail, LTD requesting approval of a Final Plat for approximately 11 acres located at the northeast corner of Murphy Road and McMillen Drive.

**COUNCIL ACTION (6.B.):**

**APPROVED**

**Mayor Pro Tem Bradley moved to approve the application of Bent Trail, LTD requesting approval of a Final Plat for approximately 11 acres located at the northeast corner of Murphy Road and McMillen Drive. Councilmember St. Clair seconded the motion. For: Unanimous. The motion carried by a vote of 7 to 0.**

**7. INDIVIDUAL CONSIDERATION**

- A. Hold a public hearing and consider and/or act on the application of Bent Trail, LTD requesting a zoning change for Murphy Manors; approximately 10 acres of property located at 900 N. Murphy Road; northeast corner of Murphy Road and McMillen Road.

Staff explained the zoning change and the vote at the Planning and Zoning meeting.

Mayor Barna opened the Public Hearing at 6:28 pm.

Ray Shahan, resident, discussed the possibility of the fence being built in sections will result in the fence not matching and need replacing in sections.

Charles Thorpe, property owner, stated he has had open fields to view for years and he does not want the fence to be eight feet (8') in height, he prefers the fences be six feet (6') in height.

Curt Welwood, Hawkins-Welwood Homes, L.P., discussed the planned development with Council.

Mayor Barna closed the public hearing at 6:30 pm.

Council discussed the comments as well as the fence height requirements.

**COUNCIL ACTION (7.A.):**

**APPROVED**

**Mayor Pro Tem Bradley moved to approve the application of Bent Trail, LTD requesting a zoning change for Murphy Manors; approximately 10 acres located at the 900 N. Murphy Road; northeast corner of Murphy Road and McMillen Drive, changing in part Section 2.06 F., replacing the 8' fence height requirement to read, "The height shall be 6 feet." (all other requirements in the section remain the same). Deputy Mayor Pro Tem Siddiqui seconded the motion. For: Unanimous. The motion carried by a vote of 7 to 0.**

- B. Consider and/or act on a resolution of the City of Murphy opposing the construction of the private toll road project known as the Northeast Gateway.

Staff explained the resolution.

**COUNCIL ACTION (7.B.):**

**APPROVED**

**Councilmember Fincanon moved to approve the resolution opposing the construction of the private toll road project known as the Northeast Gateway. Deputy Mayor Pro Tem Siddiqui seconded the motion. For: Unanimous. The motion carried by a vote of 7 to 0. (Resolution No. 14-809)**

- C. Consider and/or act on the License Agreement between the City of Murphy and the City of Wylie and the License Agreement between the City of Murphy and the City of Sachse regarding the construction of the South Maxwell Creek Parallel Trunk Sewer Line and authorize the City Manager to execute said Agreements.

Staff explained the need for the License Agreement.

**COUNCIL ACTION (7.C.):**

**APPROVED**

**Deputy Mayor Pro Tem Siddiqui moved to approve the License Agreement between the City of Murphy and the City of Wylie and the License Agreement between the City of Murphy and the City of Sachse regarding the construction of the South Maxwell Creek Parallel Trunk Sewer Line and authorize the City Manager to execute said Agreements. Councilmember Thomas seconded the motion. For: Unanimous. The motion carried by a vote of 7 to 0.**

- D. Consider and/or act on Resolution No. 14-R-808 regarding the use of the power of eminent domain to acquire the necessary portions of properties listed in Exhibit "A" specifically for sanitary sewer line easements to facilitate sewage collection, drainage, treatment, disposal, or emptying.

Staff explained the need to ratify the actions approving Resolution No. 14-R-808 following Executive Session on October 21, 2014.

**COUNCIL ACTION (7.D.):**

**APPROVED**

**Mayor Pro Tem Bradley moved to ratify Resolution No. 14-R-808 regarding the use of the power of eminent domain to acquire the necessary portions of properties listed in Exhibit "A" specifically for sanitary sewer line easements to facilitate sewage collection, drainage, treatment, disposal, or emptying. Councilmember Thomas seconded the motion. For: Unanimous. The motion carried by a vote of 7 to 0.**

**8. CITY MANAGER/STAFF REPORTS**

- A. North Murphy Road Construction Update  
City Manager Fisher explained that the asphalt is down and the project is moving along.
- B. Christmas in the Park – December 4<sup>th</sup>  
City Manager Fisher explained that plans are almost complete regarding Christmas in the Park.
- C. Boards and Commission Celebration Dinner – December 11<sup>th</sup>  
City Manager Fisher explained that the Boards and Commissions have been invited to the upcoming event.
- D. Employee Luncheon – December 18<sup>th</sup>
- E. City Hall Closing early – December 24<sup>th</sup> and Closed – December 25<sup>th</sup> & 26<sup>th</sup>  
City Manager Fisher explained that since Christmas Eve is on a Wednesday, City Hall will close early that day and be closed Thursday and Friday of that week.

City Manager Fisher introduced Public Service Director Bernie Parker.

**9. EXECUTIVE SESSION**

The City Council convened into close Executive Session at 6:51 pm pursuant to the provisions of Chapter 551, Subchapter D, Texas Government Code, in accordance with the authority contained in:

- A. § 551. 072 Deliberation regarding real property to purchase, exchange, lease, or value of real property if deliberation in an open meeting would have a detrimental effect on the position of the governmental body in negotiations with a third person.
- B. § 551. 071 Consultation with Attorney on a matter in which the duty of the attorney to the governmental body under the Texas Disciplinary Rules of Professional Conduct of the State Bar of Texas clearly conflicts with this chapter in regard to open record requests and retention policy.

**10. RECONVENTE INTO REGULAR SESSION**

The City Council reconvened into open session at 7:43 pm with the Mayor’s announcement that no action was taken in Executive Session, pursuant to the provisions of Chapter 551, Subchapter D, Texas Government Code, in accordance with the authority contained in:

- A. § 551. 072 Deliberation regarding real property to purchase, exchange, lease, or value of real property if deliberation in an open meeting would have a detrimental effect on the position of the governmental body in negotiations with a third person.

**COUNCIL ACTION (10.A.):**

**APPROVED**

**Motion by Mayor Pro Tem Bradley to approve a Resolution authorizing the use of the power of eminent domain to acquire the necessary portions of the property listed in Exhibit “A” specifically for permanent sidewalk easements to enlarge, improve, widen, or extend a public street, alley, other right-of-way, or public roadway . Councilmember St. Clair seconded the motion. For: Unanimous. The motion carried by a vote of 7 to 0. (Resolution No. 14-R-810)**

- B. § 551. 071 Consultation with Attorney on a matter in which the duty of the attorney to the governmental body under the Texas Disciplinary Rules of Professional Conduct of the State Bar of Texas clearly conflicts with this chapter in regard to open record requests and retention policy.

**COUNCIL ACTION (10.B.)**

**NO ACTION**

- C. Take Action on any Executive Session Items.

**11. ADJOURNMENT**

With no further business, the meeting was adjourned at 7:43 pm.

APPROVED BY:

\_\_\_\_\_  
Eric Barna, Mayor

ATTEST:

\_\_\_\_\_  
Susie Quinn, City Secretary

**City Council Meeting  
November 18, 2014**

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**Issue**

Discuss Murphy Road Traffic Study.

**Staff Resource/Department**

James Fisher, City Manager

**Summary**

This study was commissioned by the MDD on December 9, 2013. The Conclusions and Recommendations of the Study can be found on page 30 of the attachment.

**Background/History**

The Murphy Municipal Development District Board authorized a Traffic Study last year. They asked that the study focus on the area surrounding the intersection of FM 544 and Murphy Road. The parameters were FM 544 from the light at Walmart east to Hawthorn and Murphy Road from the railroad tracks south to the commercial area near Taco Bell. The reason for the study was to address traffic concerns that may become an issue with the improvements on North Murphy Road and to minimize traffic accidents in this area.

**Board Discussion/Action**

The Murphy Municipal Development District discussed the study at their meeting on Monday, November 10, 2014.

**Attachments**

Murphy Road Traffic Study received October 2014



3030 LBJ FWY  
Suite 1660  
Dallas, TX 75234  
972/248-3006 FAX 972/248-3855

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October 7, 2014

Mr. Gary Hendricks, P.E.  
Birkhoff, Hendricks & Carter, L.L.P.  
11910 Greenville Avenue, Suite 600  
Dallas, TX 75243

Re: *Murphy Road (FM 2551) Traffic Study in Murphy, Texas*

Dear Mr. Hendricks:

Lee Engineering is pleased to submit this letter report documenting the results of a Traffic Study of Murphy Road (FM 2551) in Murphy, Texas. The purpose of this study was to evaluate and develop recommendations to address pavement marking, signing, and operation issues on Murphy Road resulting from the Murphy Road reconstruction north of FM 544. The study area included the reconstructed section of Murphy Road north of FM 544 and approximately 800 feet of Murphy Road south of FM 544.

#### Site Visit and Background Information

Lee Engineering conducted a site visit to observe traffic operations, roadway conditions, posted speed limits, and surrounding land uses. In addition, the two median openings south of the intersection of Murphy Road with FM 544 were observed to identify any operational constraints or issues. The intersection approaches were photographed and lane configurations documented for use in capacity analysis. An aerial view of the study area is shown in **Figure 1**. An illustration of the existing lane configuration is shown in **Figure 2**.

South of FM 544, Murphy Road (FM 2551) is a six lane divided arterial roadway that runs north-south. At the intersection with FM 544, Murphy Road is constructed as a six lane divided roadway but is not striped as such. Approximately 250 feet north of the intersection, Murphy Road begins transitioning from the constructed six-lane section to a two-lane undivided section.

The northern leg of the intersection of Murphy Road at FM 544 (southbound approach, northbound departure) is currently striped with the following lane configuration:



- Southbound approach
  - Left turn only lane
  - Two thru only lanes
  - Right turn only lane
- Northbound departure
  - Left lane is striped off with channelizing stripes to prohibit use
  - Center lane is a northbound thru lane
  - The formerly accessible right turn deceleration lane for the adjoining commercial development is currently closed with the roadway construction project

The southern leg of the intersection of Murphy Road at FM 544 (northbound approach, southbound departure) is currently striped with the following lane configuration:

- Northbound Approach
  - Left turn bay is striped off with channelizing stripes to prohibit use
  - Left turn only lane
  - Thru only lane
  - Right turn only lane
- Southbound departure
  - Three thru lanes

FM 544 is a six lane divided roadway in the vicinity of Murphy Road. There are four approach lanes on each FM 544 approach at the intersection with Murphy Road consisting of the following lane configuration:

- Eastbound and westbound approaches
  - Left turn only lane
  - Two thru only lanes
  - Shared thru/right turn lane
- Eastbound and westbound departures
  - Three thru lanes

Murphy Road has a posted speed limit of 35 mph north of the intersection with FM 544 and a posted speed limit of 30 mph just south of the intersection with FM 544. The posted speed limit on Murphy Road increases to 40 mph approximately 700 feet south of FM 544. The posted speed limit of FM 544 is 40 mph.

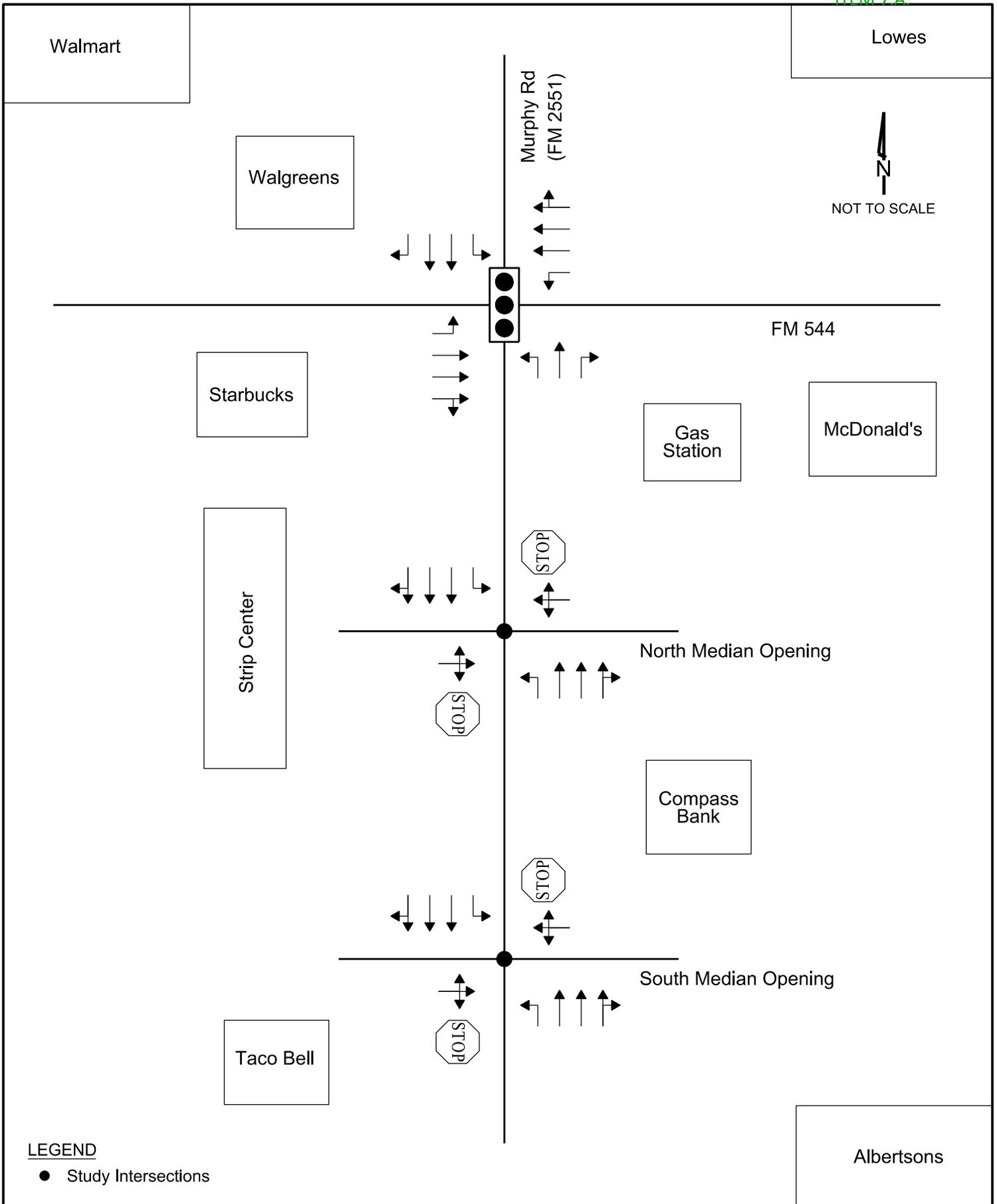
Murphy Road is currently under construction to be expanded to a six lane divided roadway north of FM 544.

Left turn deceleration lanes are provided on Murphy Road at the two median opening south of FM 544, in both the northbound and southbound directions. The first median opening (North Median Opening) is located approximately 270 feet south of FM 544 along Murphy Road. The second median opening (South Median Opening) is located approximately 240 feet south of North Median Opening along Murphy Road.

Figure 1: Study Area



The first median opening along FM 544 east of Murphy Road (approximately 430 feet east of Murphy Road) should be noted as a potential area of concern. The median opening is approximately 100 feet wide, with the median nose on the west side set-back 45 feet from the driveway entrances. This median nose should be extended to help eliminate confusion for vehicles turning left into the driveways. In addition, narrowing the median noses may improve sight distance for vehicles turning left. Sight distance for eastbound vehicles attempting to turn left may be negatively affected by the westbound left turn queue along FM 544 at Murphy Road, which frequently backs up past the median opening during the AM peak hour.



**LEGEND**

- Study Intersections



3030 LBJ FREEWAY  
 SUITE 1660  
 DALLAS, TEXAS 75234  
 972-248-3006 FAX 972-248-3855

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Existing Lane Configuration

Figure 2

**Traffic Volume Data Collection**

Lee Engineering collected AM and PM peak hour turning movement volumes at the following intersections on Thursday, January 9, 2014:

- Murphy Road and FM 544
- Murphy Road and 1<sup>st</sup> median opening approximately 270 feet south of FM 544 ('North Median Opening')
- Murphy Road and 2<sup>nd</sup> median opening approximately 510 feet south of FM 544 ('South Median Opening')

These counts were performed between the hours of 7:00 AM and 9:00 AM and between 4:30 PM and 6:30 PM. The AM and PM peak hour volumes are shown in **Figure 3**. Raw data sheets are included as attachments.

Historic traffic volumes were also obtained, including volumes previously collected by Lee Engineering on Murphy Road in 2009. The 2009 volumes appear in **Table 1**. The 24 hour traffic volumes along Murphy Road were gathered on Wednesday, September 9, 2009. The FM 544 volumes were gathered on Wednesday, September 23, 2009. Historic traffic volumes obtained from TxDOT count maps are shown in **Table 2**. AM and PM Peak hour turning movement counts collected by Lee Engineering on Wednesday, September 9, 2009, are shown in **Figure 4**.

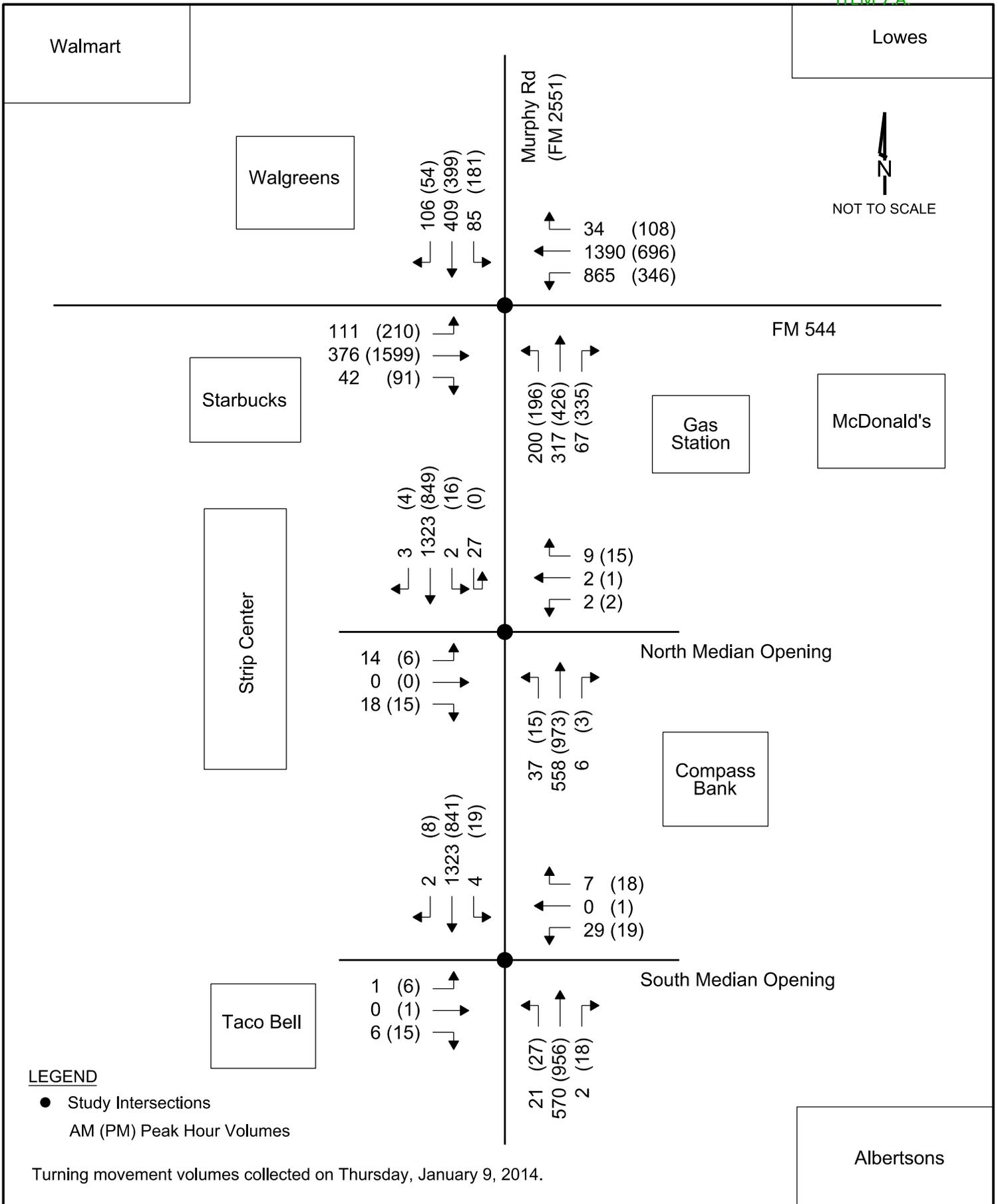
**Table 1: 24 Hour Traffic Volumes Collected in 2009**

FM 544 Location	Eastbound	Westbound	Total Volume
East of Murphy Road	21,513	21,426	42,939
West of Murphy Road	18,333	18,225	36,558
Murphy Road Location	Northbound	Southbound	Total Volume
South of FM 544	10,886	10,326	21,212

**Table 2: Historic TxDOT 24 Hour Traffic Volumes**

Year	Total 24-Hour Volume		
	FM 544 West of Murphy Road	FM 544 East of Murphy Road	Murphy Road North of FM 544
2007	29,000	38,000	13,100
2008	32,000	37,000	13,600
2009	33,000	44,000	14,600
2010	32,000	42,000	14,700
2011	33,000	42,000	17,200
2012	35,000	44,000	16,200
<b>Average Growth Rate</b>	<b>4%</b>	<b>3%</b>	<b>4%</b>

Compared to the 2009 turning movement volumes at the intersection of FM 544 and Murphy Road, some movements have increased while some have decreased. However, several new roadways have been built since 2009, including an extension of the President George Bush Turnpike, which likely contributed to a redistribution of some traffic.



**LEGEND**

- Study Intersections
- AM (PM) Peak Hour Volumes

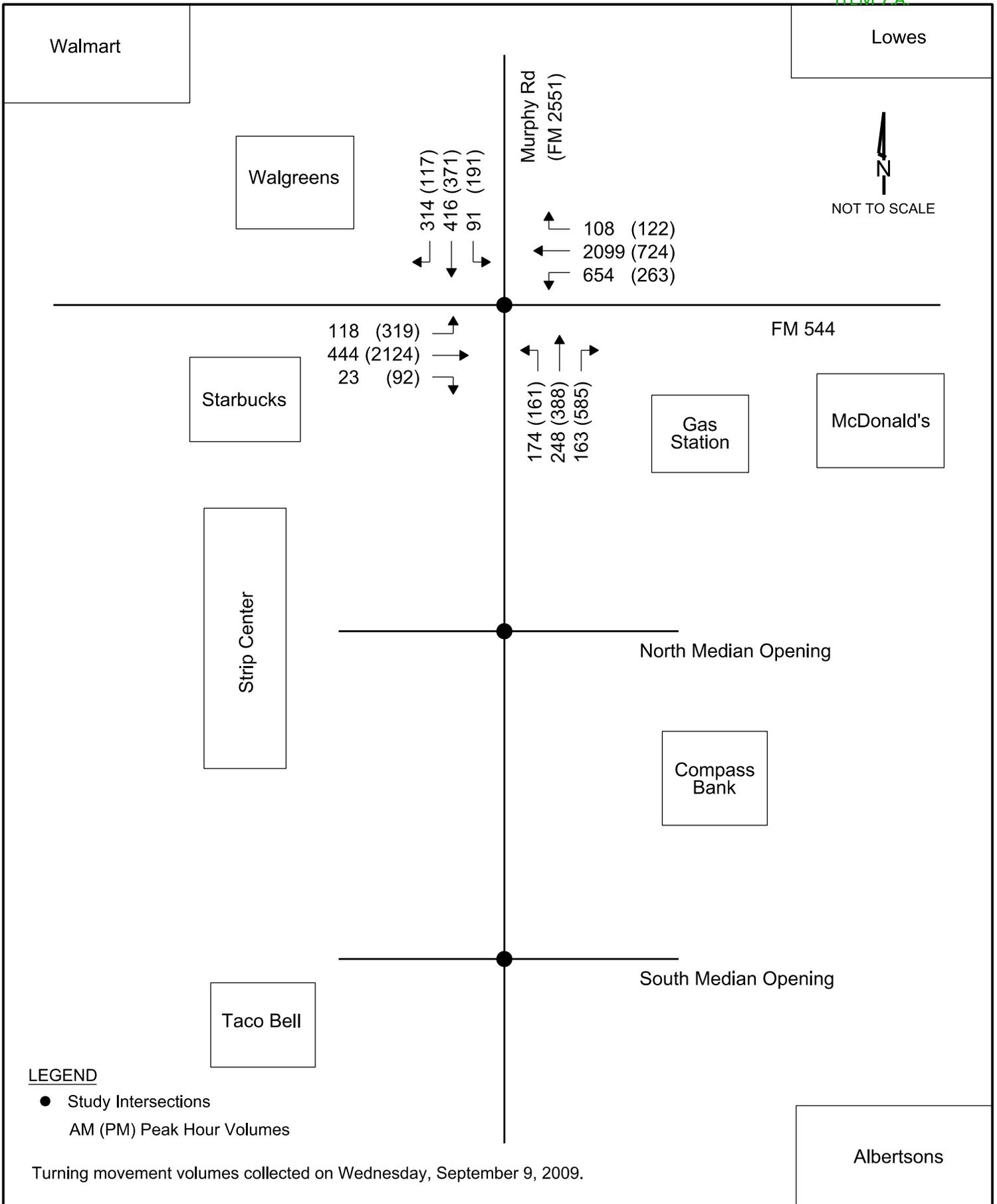
Turning movement volumes collected on Thursday, January 9, 2014.



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OKLAHOMA CITY - SAN ANTONIO

Existing (2014) Traffic Volumes

Figure 3



**LEGEND**

- Study Intersections
- AM (PM) Peak Hour Volumes

Turning movement volumes collected on Wednesday, September 9, 2009.



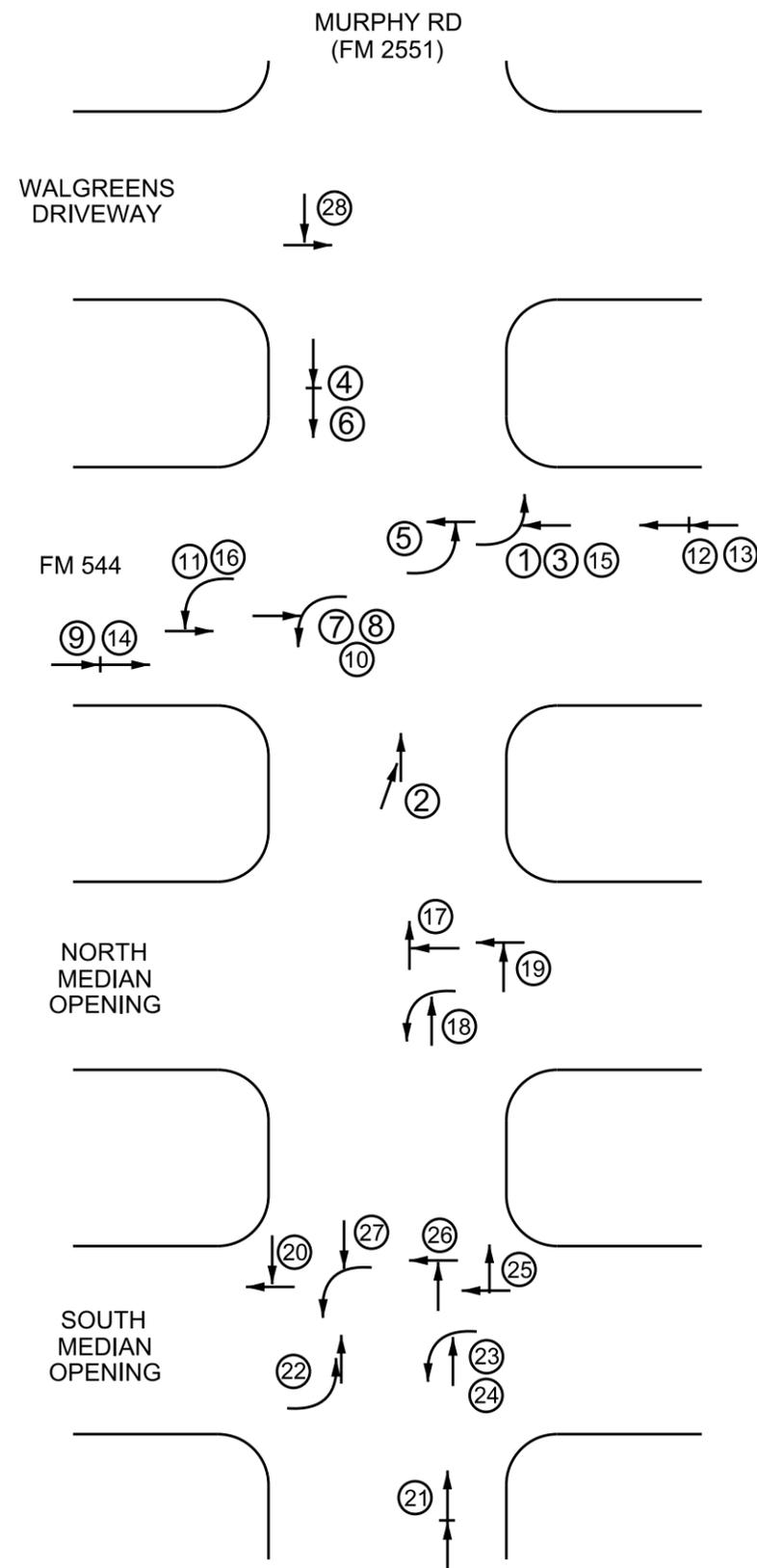
DALLAS - PHOENIX - ALBUQUERQUE  
OKLAHOMA CITY - SAN ANTONIO

Historic (2009) Traffic Volumes

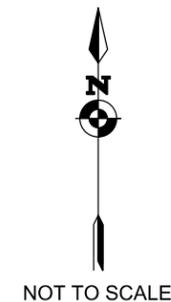
Figure 4

### Crash Data Review

The City of Murphy provided Lee Engineering with peace officer crash reports for Murphy Road at the study locations for 2010 through 2013. The crash data provided by the City of Murphy was reviewed to determine the types of crashes occurring at the study intersections to determine if any correctible patterns are present at the intersection. The driveways on Murphy Road north of the intersection with FM 544 were included in the investigation. Collision diagrams of the data were prepared on a yearly basis, and are shown in **Figure 5**, **Figure 6**, **Figure 7**, and **Figure 8**. A summary of the total number of crashes at the study intersections between 2010 and 2013 is shown in **Figure 9**.



CRASH #	CROSS STREET	DATE	PAVEMENT	INJURIES	LIGHT	NOTES
1	FM 544	1/18/2010	DRY	N	NIGHT, LIT	FTYROWTL
2		2/20/2010	DRY	N	DAY	CLWU, DTMAI
3		2/23/2010	DRY	C x 1	DAY	FTYROWTL
4		3/24/2010	DRY	N	NIGHT, LIT	REAR END
5		3/31/2010	DRY	N	DAY	FTYROWTL
6		4/5/2010	DRY	A x 1	DAY	REAR END
7		5/15/2010	DRY	N	NIGHT	FTYROWTL
8		5/16/2010	DRY	C x 1	DAY	FTYROWTL
9		5/29/2010	DRY	N	DAY	REAR END
10		6/9/2010	DRY	B x 2	DAY	REAR END
11		6/10/2010	DRY	N	NIGHT, LIT	FTYROWTL
12		6/15/2010	DRY	N	NIGHT, LIT	FTYROWTL
13		8/20/2010	DRY	C x 1	DAY	REAR END
14		9/11/2010	?	C x 4	?	REAR END
15		12/19/2010	DRY	C x 1	DAY	FTYROWTL
16		12/20/2010	DRY	N	NIGHT	FTYROWTL
17	NORTH MEDIAN OPENING	4/7/2010	DRY	N	DAY	FTYROWPD
18	NORTH MEDIAN OPENING	5/21/2010	DRY	N	DAY	FTYROWPD
19		6/9/2010	DRY	N	DAY	FTYROWPD
20	SOUTH MEDIAN OPENING	3/25/2010	DRY	N	DAY	FTYROWPD
21		4/6/2010	DRY	N	DAY	REAR END
22		4/14/2010	DRY	N	DAY	FTYROWPD
23		6/28/2010	DRY	N	DAY	FTYROWPD
24		7/21/2010	?	C x 2	?	FTYROWPD
25		8/26/2010	DRY	N	DAY	*
26		9/3/2010	DRY	N	DAY	FTYROWPD
27		12/18/2010	?	B x 1	?	FTYROWPD
28	WALGREENS DRIVEWAY	7/9/2010	WET	C x 1	DAY	FTYROWPD



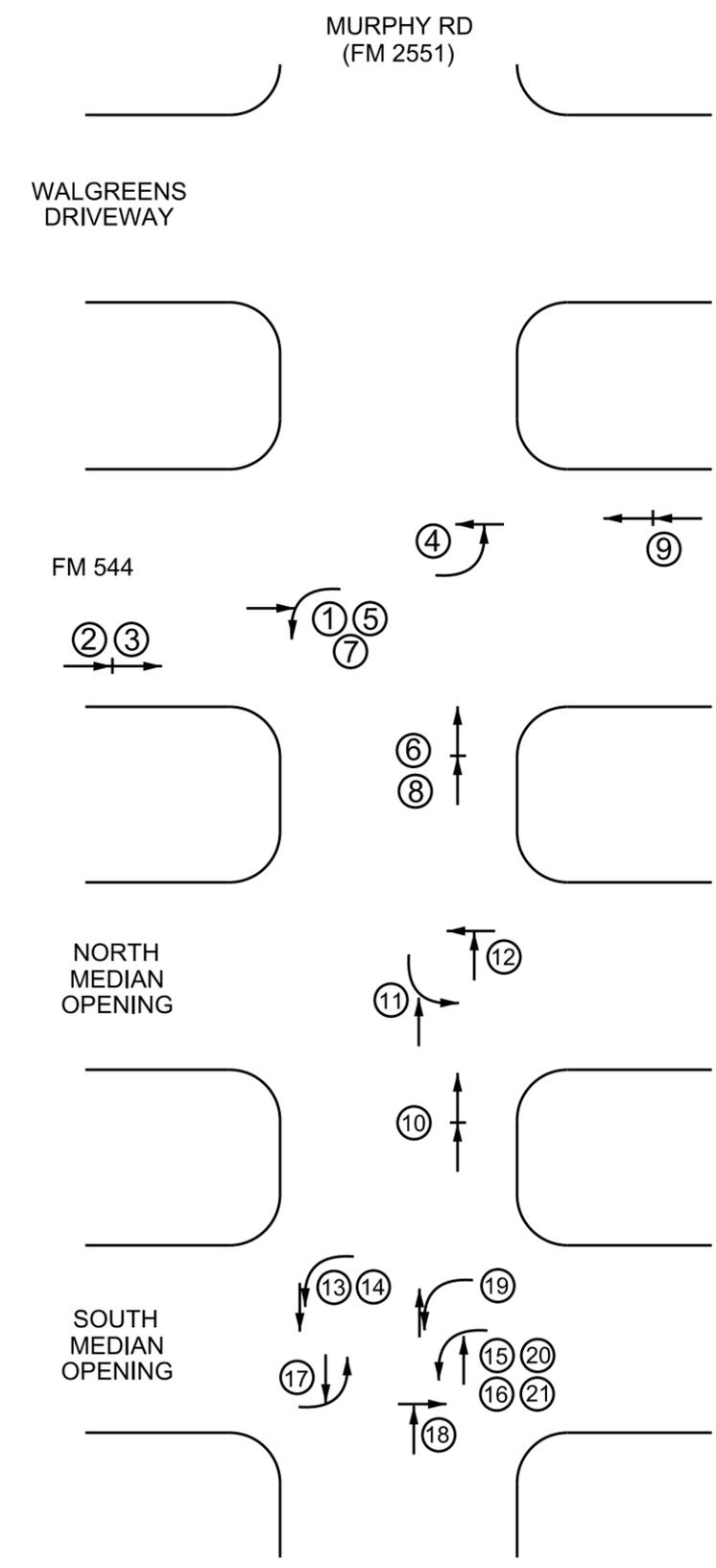
Injury Codes: N = None; A = Incapacitating Injury; B = Non Incapacitating Injury; C = Possible Injury  
 FTYROWTL = Failure to yield right of way turning left  
 CLWU = Changed lanes when unsafe  
 DTMAI = Disregard turn marks at intersection  
 FTYROWPD = Failure to yield right of way, private drive  
 \* = Struck vehicle attempting to cut through queued traffic without enough clearance

2010 Crash Diagram Along Murphy Road (FM 2551)

Figure 5



NOT TO SCALE

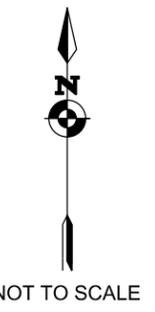
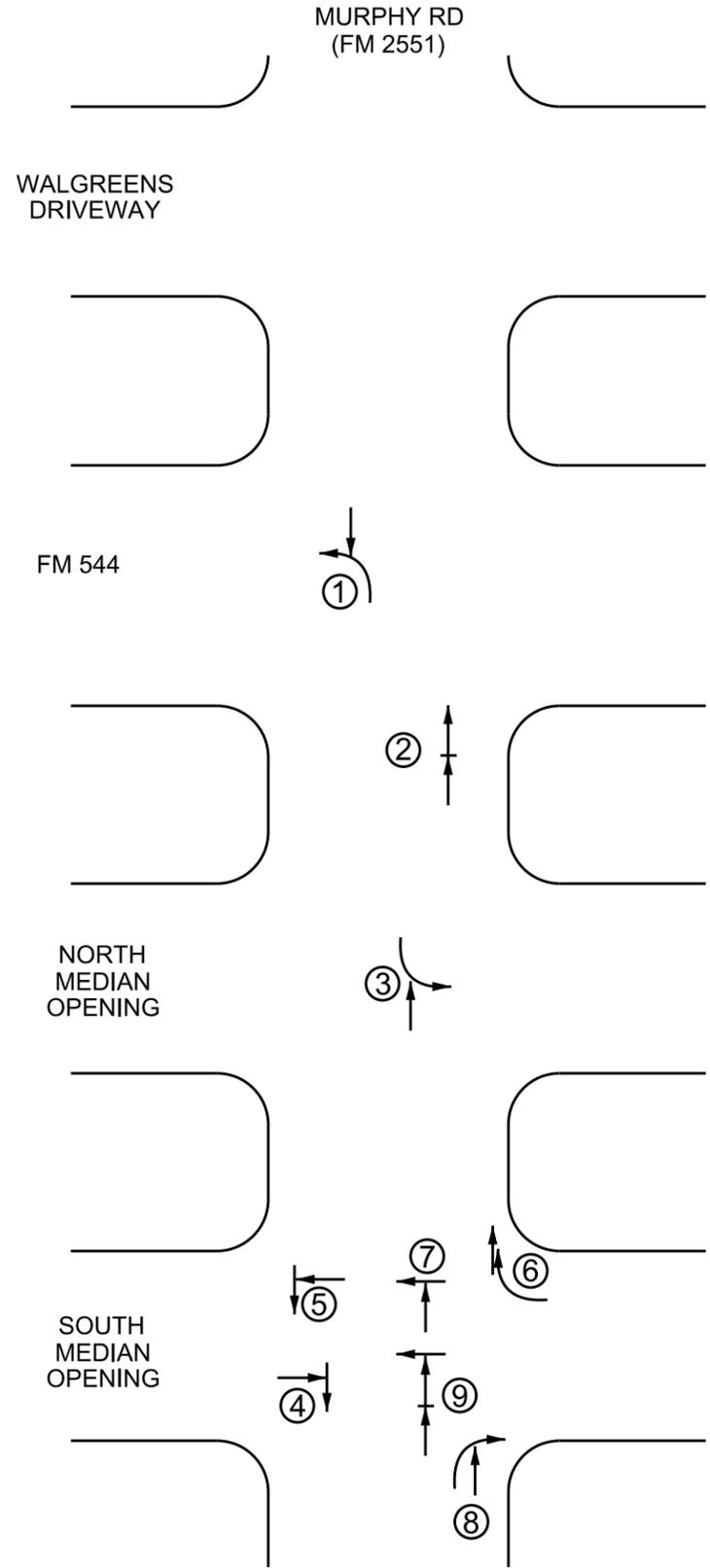


CRASH #	CROSS STREET	DATE	PAVEMENT	INJURIES	LIGHT	NOTES
1	FM 544	1/18/2011	DRY	C x 1	DAY	FTYROWTL
2		2/17/2011	DRY	N	DAWN	REAR END
3		3/26/2011	DRY	N	DAY	REAR END
4		3/31/2011	DRY	N	DAY	FTYROWTL
5		4/28/2011	DRY	C x 2	NIGHT, LIT	FTYROWTL
6		5/11/2011	WET	N	DAY	REAR END
7		8/23/2011	DRY	B x 2	DAY	FTYROWTL
8		12/1/2011	DRY	N	DAY	REAR END
9		12/9/2011	DRY	N	DAY	REAR END
10	NORTH MEDIAN OPENING	3/21/2011	DRY	N	DAY	REAR END
11		5/19/2011	DRY	N	DAY	FTYROWTL
12	SOUTH MEDIAN OPENING	8/3/2011	DRY	N	DAY	FTYROWPD
13		1/4/2011	DRY	N	DAY	FTYROWPD
14		1/7/2011	DRY	C x 1	NIGHT, LIT	FTYROWPD
15		5/10/2011	DRY	N	DAY	FTYROWPD
16		6/6/2011	DRY	B x 1	DAY	FTYROWPD
17		6/12/2011	DRY	C x 3	DAY	FTYROWPD
18		6/23/2011	DRY	B x 1	NIGHT, LIT	FTYROWPD
19		9/13/2011	DRY	N	DAY	FTYROWPD
20		9/22/2011	DRY	N	DAY	FTYROWPD
21	11/8/2011	DRY	DRY	C x 1	DAY	FTYROWPD

Injury Codes: N = None; B = Non Incapacitating Injury; C = Possible Injury  
 FTYROWTL = Failure to yield right of way turning left  
 FTYROWPD = Failure to yield right of way, private drive

2011 Crash Diagram Along Murphy Road (FM 2551)

Figure 6



CRASH #	CROSS STREET	DATE	PAVEMENT	INJURIES	LIGHT	NOTES
1	FM 544	8/5/2012	DRY	B x 3	DAY	FTYROWOI
2		8/25/2012	DRY	N	DAY	REAR END
3	NORTH MEDIAN OPENING	5/10/2012	DRY	C x 1	DAY	FTYROWTL
4	SOUTH MEDIAN OPENING	1/20/2012	DRY	C x 1	DAY	FTYROWPD
5		2/15/2012	DRY	C x 1	DAY	FTYROWPD
6		4/12/2012	DRY	N	DAY	FTYROWPD
7		9/10/2012	DRY	C x 1	DAY	FTYROWPD
8		12/7/2012	DRY	N	DAY	TI-WL
9		12/24/2012	DRY	B x 2	DAY	FTYROWPD, FTC

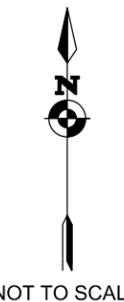
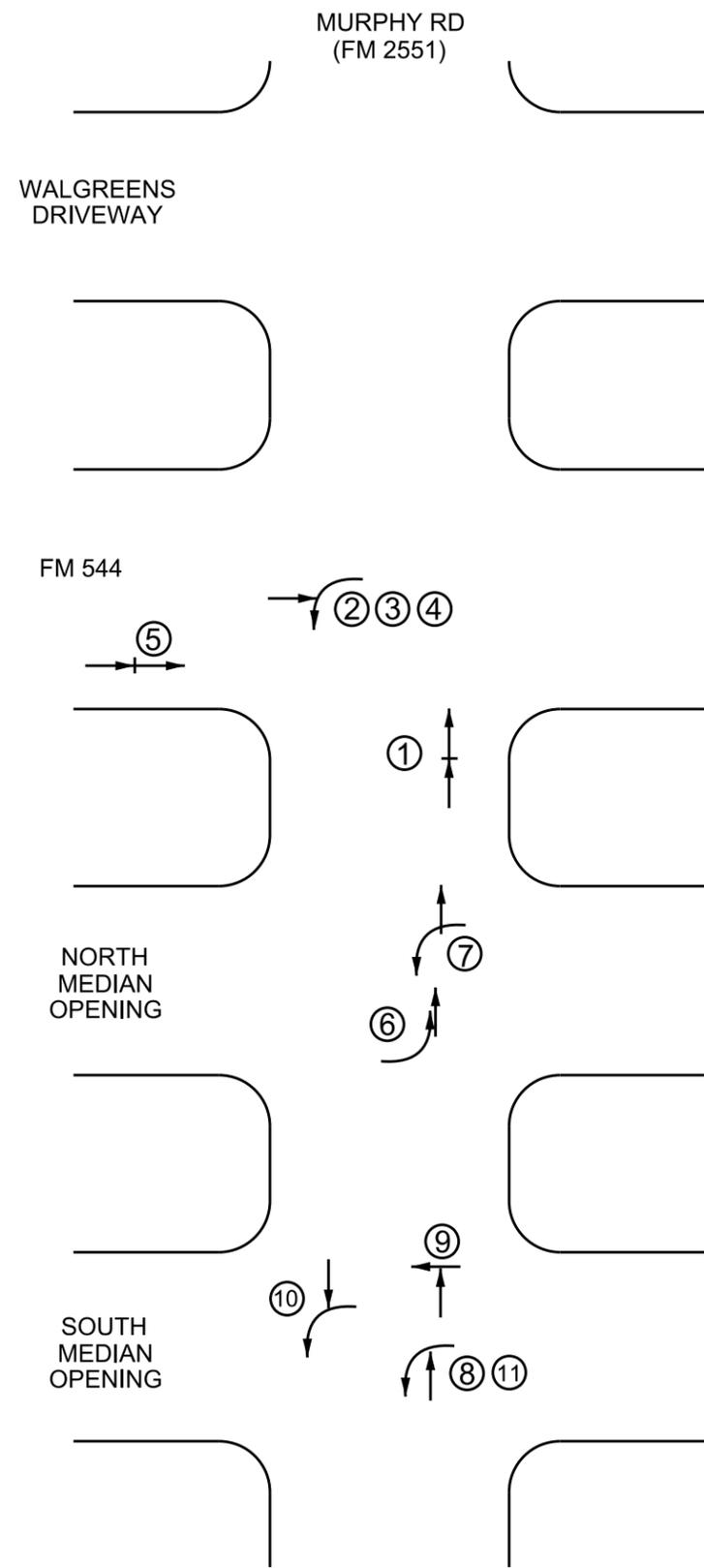
Injury Codes: N = None; B = Non Incapacitating Injury; C = Possible Injury  
 FTYROWOI = Failure to yield right of way, open intersection  
 FTYROWTL = Failure to yield right of way turning left  
 FTYROWPD = Failure to yield right of way, private drive  
 TI-WL = Turned improperly - wrong lane  
 FTC = Followed too closely



DALLAS - PHOENIX - ALBUQUERQUE  
 OKLAHOMA CITY - SAN ANTONIO

2012 Crash Diagram Along Murphy Road (FM 2551)

Figure 7



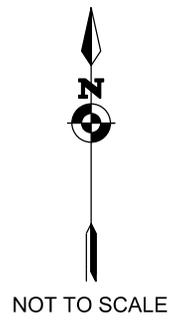
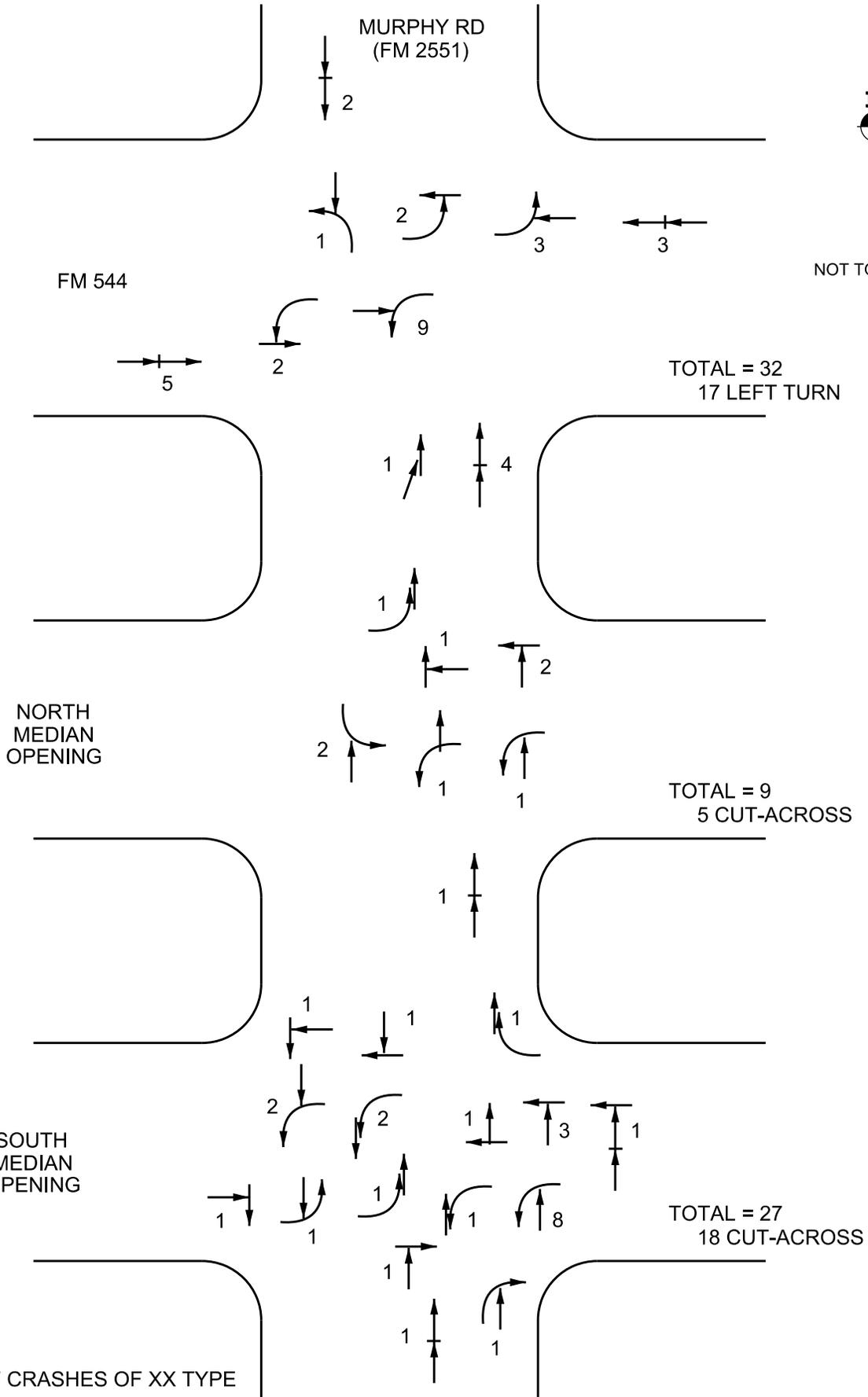
CRASH #	CROSS STREET	DATE	PAVEMENT	INJURIES	LIGHT	NOTES
1	FM 544	3/28/2013	DRY	C x 1	DAY	REAR END
2		6/6/2013	DRY	N	DAY	FTYROWTL
3		8/6/2013	DRY	C x 1	DAY	FTYROWTL
4		11/28/2013	DRY	N	DAY	FTYROWTL
5		12/14/2013	DRY	N	DAY	REAR END
6	NORTH MEDIAN OPENING	1/10/2013	WET	N	DAY	FTYROWPD
7		6/17/2013	DRY	N	DAY	*
8	SOUTH MEDIAN OPENING	3/5/2013	DRY	C x 1	DAY	FTYROWPD
9		9/27/2013	DRY	N	DAY	FTYROWPD
10		10/12/2013	DRY	N	DAY	FTYROWPD
11		11/18/2013	DRY	N	DAY	FTYROWPD

Injury Codes: N = None; A = Incapacitating Injury; B = Non Incapacitating Injury; C = Possible Injury

FTYROWTL = Failure to yield right of way turning left

FTYROWPD = Failure to yield right of way, private drive

\* = Struck vehicle attempting to cut through queued traffic without enough clearance



**LEGEND**  
1 NUMBER OF CRASHES OF XX TYPE

3030 LBJ FREEWAY  
SUITE 1660  
DALLAS, TEXAS 75234  
972-248-3006 FAX 972-248-3855

**LEE ENGINEERING**

**Crash Diagram Along Murphy Road (FM 2551) -  
Total Crashes From 2010 to 2013**

**Figure 9**

As can be seen in the collision diagrams, the predominant type of crash at the intersection of FM 544 and Murphy Road is a failure to yield right of way turning left for the eastbound and westbound approaches. The predominant type of crash at the two median openings on Murphy Road south of FM 544 is a failure to yield right of way when attempting to exit the private driveways.

However, the number of crashes at these three intersections has decreased over time. A total of 27 crashes occurred at the three intersections combined in 2010. The total number of crashes in the following years was 21, 9, and 11, for 2011, 2012, and 2013, respectively.

Many of the crashes at the median openings occurred during peak hours. Multiple vehicles were observed attempting to exit the driveways through queued traffic on Murphy Road during the PM peak hour when the site visit was conducted. The added capacity resulting from the expansion of Murphy Road north of FM 544 is expected to decrease vehicles queues near the North and South Median Openings, which may make exiting the private driveways easier.

### **Traffic Operations Review**

The Level of Service (LOS) of an intersection or a movement is a qualitative measure of capacity and operating conditions and is directly related to vehicle delay. The LOS criteria for a signalized intersection are shown in **Table 3**. LOS is given a letter designation from A to F, with LOS A representing very short delays (less than 10 seconds of average control delay per vehicle) and LOS F representing very long delays (more than 80 seconds of average control delay per vehicle). As a practical consideration, LOS D, ranging from 35 to 55 seconds of average control delay per vehicle, is frequently considered the limit of acceptable operation in an urban environment. LOS C is the desirable condition.

For unsignalized intersections, the levels of service, as shown in **Table 4**, are defined by average control delay in seconds per vehicle. For unsignalized analyses, LOS D is also the minimum acceptable condition.

**Table 3. Level of Service Criteria for Signalized Intersections**

Level-of-Service (LOS)	Average Control Delay (seconds/vehicle)	Description
A	≤ 10.0	Very low vehicle delays, free flow, signal progression extremely favorable, most vehicles arrive during given signal phase.
B	10.1 to 20.0	Good signal progression, more vehicles stop and experience higher delays than for LOS A.
C	20.1 to 35.0	Stable flow, fair signal progression, significant number of vehicles stop at signals.
D	35.1 to 55.0	Congestion noticeable, longer delays and unfavorable signal progression, many vehicles stop at signals.
E	55.1 to 80.0	Limit of acceptable delay, unstable flow, poor signal progression, traffic near roadway capacity, frequent cycle failures.
F	> 80.0	Unacceptable delays, extremely unstable flow and congestion, traffic exceeds roadway capacity, stop-and-go conditions.

SOURCE: *Highway Capacity Manual, HCM 2010*, Transportation Research Board, 2010.

**Table 4. Level of Service Criteria for Unsignalized Intersections**

Level-of-Service (LOS)	Average Control Delay (seconds/vehicle)	Description
A	≤ 10.0	No delays at intersections with continuous flow of traffic. Uncongested operations: high frequency of long gaps available for all left and right turning traffic. No observable queues.
B	10.1 to 15.0	No delays at intersections with continuous flow of traffic. Uncongested operations: high frequency of long gaps available for all left and right turning traffic. No observable queues.
C	15.1 to 25.0	Moderate delays at intersections with satisfactory to good traffic flow. Light congestion; infrequent backups on critical approaches.
D	25.1 to 35.0	Increased probability of delays along every approach. Significant congestion on critical approaches, but intersection functional. No standing long lines formed.
E	35.1 to 50.0	Heavy traffic flow condition. Heavy delays probable. No available gaps for cross-street traffic or main street turning traffic. Limit of stable flow.
F	> 50.0	Unstable traffic flow. Heavy congestion. Traffic moves in forced flow condition. Average delays greater than one minute highly probable. Total breakdown.

SOURCE: *Highway Capacity Manual, HCM 2010*, Transportation Research Board, 2010.

Intersection delay, level of service, and 95<sup>th</sup> percentile queue lengths were investigated using *Synchro 7*, a traffic analysis software package.

*FM 544 and Murphy Road Intersection*

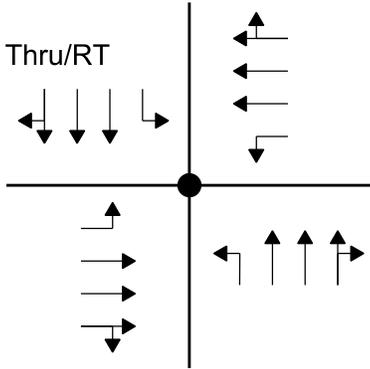
**Figure 10** shows the different lane configurations investigated at the intersection of FM 544 and Murphy Road. The investigated scenarios are described as follows:

- Existing Optimized – includes existing (2014) volumes and lane configurations before construction, as well as optimized signal splits;
- Scenario 1 – includes existing volumes and assumes the NB and SB approaches will each have two thru lanes and a shared thru/right lane after construction;
- Scenario 2 – includes existing volumes and assumes the NB and SB approaches will each have two thru lanes and a right-turn only lane after construction;
- Scenario 3 – includes existing volumes and assumes the NB and SB approaches will each have three thru lanes and an additional right turn auxiliary lane constructed;
- Scenario 4 – includes existing volumes and assumes the NB and SB approaches will each have two thru lanes and a right-turn only lane after construction, along with dual left-turn lanes constructed;
- Scenario 5 – includes existing volumes and assumes the NB and SB approaches will each have three thru lanes and an additional right-turn only auxiliary lane after construction, along with dual left-turn lanes constructed; and
- Hybrid - includes existing volumes and assumes Scenario 3 on the NB approach and Scenario 1 on the SB approach.

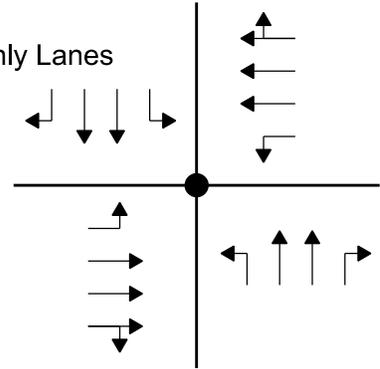
For each alternative, *Synchro* was used to conduct capacity analysis. Due to the significant changes in operation presented by each alternative compared to the existing conditions, *Synchro* was used to optimize the signal timing splits at the intersection for the alternative analyses. It is unlikely any alternative would be implemented without some changes to the signal timing being implemented at the same time. In order to maintain an apples-to-apples comparison between the existing and optimized alternative analyses, *Synchro* was used to optimize the splits for the existing conditions creating the “Existing Optimized” condition strictly for comparison purposes. The resulting delay and level of service for the intersection of FM 544 and Murphy Road are shown in **Table 5**. The estimated 95<sup>th</sup> percentile queue lengths are shown in **Table 6**.

It should be noted that Scenario 2 may serve as an interim treatment that may not be viable when through volumes on Murphy Road grow and that Scenario 5 would not be possible with the current available right-of-way (ROW). This scenario could be considered a long-term option, as ROW may be obtained if the surrounding retail is ever redeveloped.

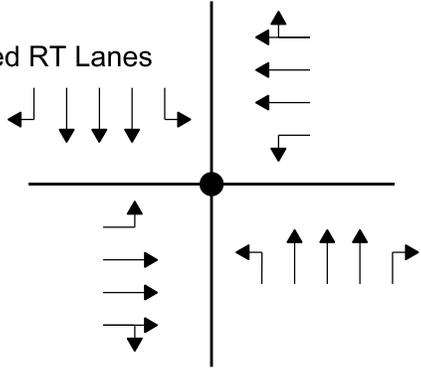
SCENARIO 1:  
Rebuilt - Shared Thru/RT



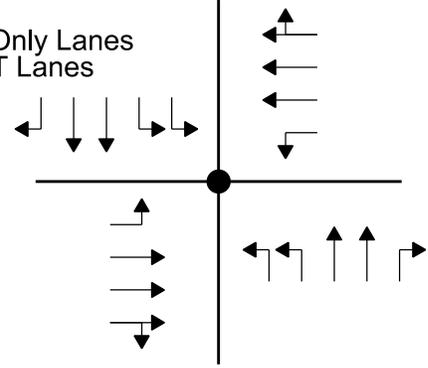
SCENARIO 2:  
Rebuilt - RT Only Lanes



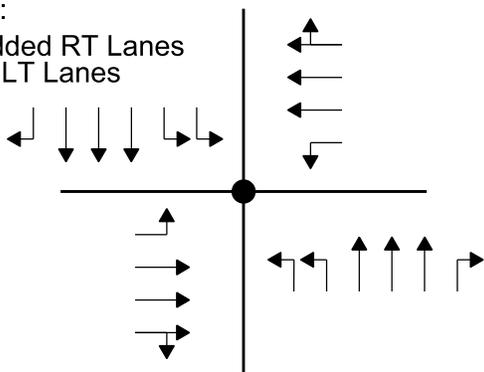
SCENARIO 3:  
Rebuilt - Added RT Lanes



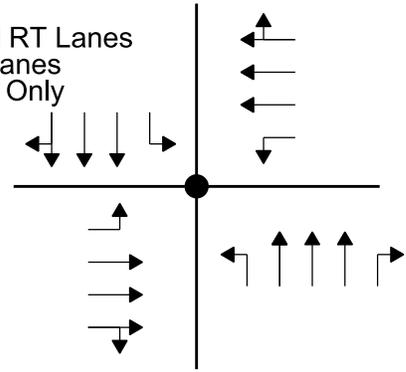
SCENARIO 4:  
Rebuilt - RT Only Lanes and Dual LT Lanes



SCENARIO 5:  
Rebuilt - Added RT Lanes and Dual LT Lanes



HYBRID:  
Rebuilt - Added RT Lanes and Dual LT Lanes NB Approach Only



NOT TO SCALE

**Table 5: Intersection Capacity Analyses – FM 544 and Murphy Road**

AM Peak Hour									
Scenario	Intersection	EB	WB	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right
Existing Optimized	73.4 (E)	60.5 (E)	71.0 (E)	90.9 (F)	127.3 (F)	24.3 (C)	70.9 (E)	72.0 (E)	21.6 (C)
1 - Shared Thru/Right	63.0 (E)	64.9 (E)	54.4 (D)	108.3 (F)	69.0 (E)	---	57.4 (E)	75.8 (E)	---
2 - RT Only Lanes	63.6 (E)	64.7 (E)	60.3 (E)	97.6 (F)	73.2 (E)	11.9 (B)	55.1 (E)	82.4 (F)	11.4 (B)
3 - Added RT Lanes	56.4 (E)	65.2 (E)	45.5 (D)	104.0 (F)	75.1 (E)	13.8 (B)	60.6 (E)	81.8 (F)	13.7 (B)
4 - RT Only Lanes and Dual LT Lanes	56.7 (E)	64.9 (E)	51.9 (D)	55.6 (E)	71.5 (E)	11.0 (B)	50.0 (D)	81.8 (F)	11.3 (B)
5 - Added RT Lanes and Dual LT Lanes	50.8 (D)	65.4 (E)	39.9 (D)	60.3 (E)	72.8 (E)	12.8 (B)	55.1 (E)	81.8 (F)	13.7 (B)
Hybrid - Added RT Lane Only on NB Approach	61.9 (E)	64.9 (E)	54.4 (D)	108.3 (F)	69.6 (E)	12.5 (B)	55.4 (E)	75.8 (E)	---
PM Peak Hour									
Scenario	Intersection	EB	WB	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right
Existing Optimized	66.2 (E)	67.0 (E)	55.6 (E)	52.2 (D)	106.2 (F)	28.5 (C)	141.6 (F)	61.8 (E)	18.4 (B)
1 - Shared Thru/Right	57.7 (E)	49.1 (D)	51.9 (D)	62.0 (E)	70.4 (E)	---	100.9 (F)	66.8 (E)	---
2 - RT Only Lanes	54.7 (D)	49.0 (D)	43.5 (D)	75.7 (E)	78.4(E)	40.4 (D)	87.2 (F)	81.6 (F)	13.3 (B)
3 - Added RT Lanes	52.6 (D)	51.8 (D)	36.3 (D)	71.9 (E)	72.6 (E)	41.8 (D)	78.9 (E)	75.8 (E)	13.6 (B)
4 - RT Only Lanes and Dual LT Lanes	50.7 (D)	49.1 (D)	38.5 (D)	52.3 (D)	78.8 (E)	40.9 (D)	52.8 (D)	75.6 (E)	12.5 (B)
5 - Added RT Lanes and Dual LT Lanes	49.8 (D)	51.8 (D)	33.6 (C)	53.7 (D)	72.2 (E)	42.4 (D)	53.9 (D)	71.9 (E)	12.7 (B)
Hybrid - Added RT Lane Only on NB Approach	52.9 (D)	49.1 (D)	38.7 (D)	75.9 (E)	71.6 (E)	42.3 (D)	76.5 (E)	75.6 (E)	---

<sup>1</sup> Delay in seconds/vehicle (Level of Service)

**Table 6: Queuing Analyses – FM 544 and Murphy Road**

<b>AM Peak Hour 95<sup>th</sup> Percentile Queues (feet)</b>								
<b>Scenario</b>	<b>EB Thru</b>	<b>WB Left</b>	<b>NB Left</b>	<b>NB Thru</b>	<b>NB Right</b>	<b>SB Left</b>	<b>SB Thru</b>	<b>SB Right</b>
Existing Optimized	206	1456	305	556	57	127	327	79
1 - Shared Thru/Right	212	1462	371	193	---	127	269	---
2 - RT Only Lanes	212	1495	348	247	27	124	327	42
3 - Added RT Lanes	212	1403	347	174	28	133	227	44
4 - RT Only Lanes and Dual LT Lanes	212	1495	133	236	25	61	324	41
5 - Added RT Lanes and Dual LT Lanes	212	1401	142	167	27	65	227	44
Hybrid - Added RT Lane Only on NB Approach	212	1462	371	168	27	127	269	---
<b>PM Peak Hour 95<sup>th</sup> Percentile Queues (feet)</b>								
<b>Scenario</b>	<b>EB Thru</b>	<b>WB Left</b>	<b>NB Left</b>	<b>NB Thru</b>	<b>NB Right</b>	<b>SB Left</b>	<b>SB Thru</b>	<b>SB Right</b>
Existing Optimized	901	654	261	777	261	389	303	46
1 - Shared Thru/Right	788	690	276	361	---	346	238	---
2 - RT Only Lanes	724	690	292	332	275	286	321	34
3 - Added RT Lanes	804	691	271	215	254	249	209	33
4 - RT Only Lanes and Dual LT Lanes	788	690	129	332	276	120	312	33
5 - Added RT Lanes and Dual LT Lanes	804	687	127	212	255	118	203	32
Hybrid - Added RT Lane Only on NB Approach	788	690	278	218	265	253	214	---

**Table 7** shows the percent change in total intersection delay for each scenario compared to the “Optimized Existing” condition.

**Table 7: Intersection Delay Percent Change – FM 544 and Murphy Road**

Percent Change in Total Intersection Delay Compared to “Optimized Existing” Conditions		
Scenario	AM Peak Hour	PM Peak Hour
1 - Shared Thru/Right	-14%	-13%
2 - RT Only Lanes	-13%	-17%
3 - Added RT Lanes	-23%	-21%
4 - RT Only Lanes and Dual LT Lanes	-23%	-23%
5 - Added RT Lanes and Dual LT Lanes	-31%	-25%
Hybrid - Added RT Lanes and Dual LT Lanes Only on NB Approach	-16%	-20%

As shown, the greatest improvement in total intersection delay was obtained through addition of an auxiliary right turn lane and of dual left turn lanes on both the northbound and southbound approaches at FM 544 and Murphy Road (Scenario 5). While the addition of right turn and left turn lanes improves operations, the improvements are not dramatic and may not justify the cost at this time. This is primarily due to the relatively low NB and SB through movement volumes. These volumes will likely grow with the expansion of the northern section of Murphy Road. When they do grow, the additional lanes will offer more significant benefits. However, as previously noted, Scenario 5 should be considered a long-term option, as ROW would need to be obtained with future redevelopment of the surrounding commercial sites.

As an interim measure, it is recommended to designate two thru lanes and one right turn only lane on the northbound and southbound approaches (Scenario 2). Scenario 2 offers the least cost and least disruption to adjacent properties along with improved operations. A right turn only lane is needed on the northbound approach at least, based on the PM peak hour volumes.

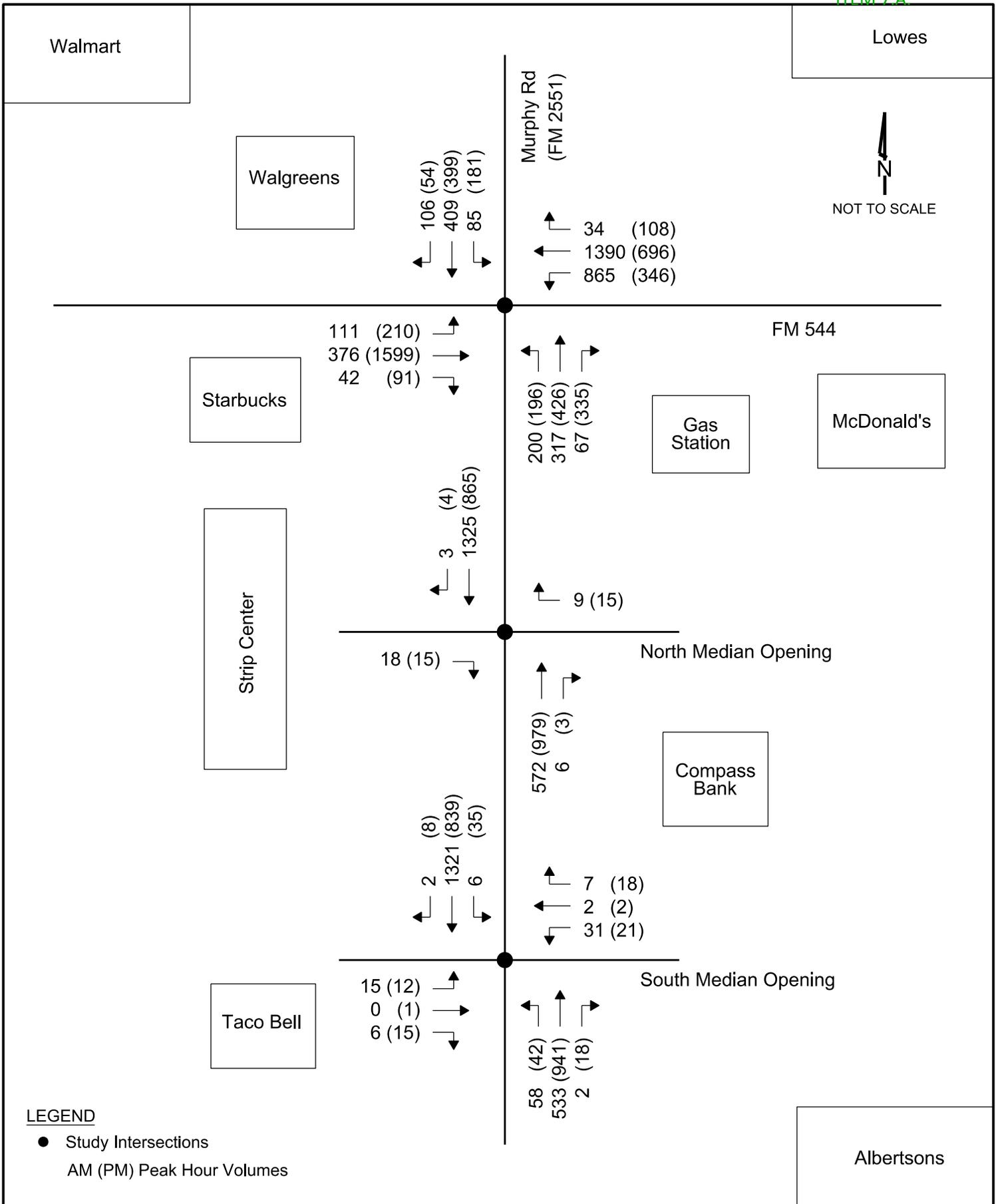
The recommended intersection design is Scenario 3, with three thru lanes on the Murphy Road approaches, and added right turn only auxiliary lanes. Addition of right turn auxiliary lanes on the northbound and southbound approaches would be dependent on available ROW. If adequate ROW is not available on the southbound approach, the Hybrid scenario could be used.

In addition, right turn overlap phases are recommended. This would require additional signal heads for the northbound and southbound right turn movements. These signal heads would display a protected green right turn arrow during the westbound and eastbound left-turn phases, respectively, allowing a free flowing right turn during an additional portion of the signal cycle.

### *Median Openings on Murphy Road South of FM 544*

Operation of the two median openings on Murphy Road south of FM 544 was also investigated using Synchro. **Table 8** shows the delay and level of service at the North and South Median Openings under the following conditions:

- Existing – includes existing (2014) volumes and lane configurations before construction.
- Scenario 2 – includes existing volumes and the above Scenario 2 lane configuration at the intersection of FM 544 and Murphy Road after construction.
- Closed N Median Opening – assumes the North Median Opening is closed, so that the eastbound and westbound driveways become right-in/right-out only. Traffic volumes were redistributed, as shown in **Figure 11**.



**LEGEND**

- Study Intersections
- AM (PM) Peak Hour Volumes

**Table 8: Intersection Capacity Analyses – Median Openings**

<b>North Median Opening and Murphy Road (TWSC)</b>					
<b>Time Period</b>	<b>Scenario</b>	<b>EB</b>	<b>WB</b>	<b>NB Left</b>	<b>SB Left</b>
AM Peak Hour	Existing	73.4 (F)	39.4 (E)	12.3 (B)	9.4 (A)
	2 - RT Only Lanes	67.0 (F)	37.8 (E)	12.1 (B)	9.4 (A)
	Closed N Median Opening	9.1 (A)	0.0 (A)	---	---
PM Peak Hour	Existing	15.5 (C)	24.9 (C)	9.1 (A)	10.9 (B)
	2 - RT Only Lanes	14.9 (B)	24.0 (C)	9.0 (A)	10.9 (B)
	Closed N Median Opening	8.8 (A)	10.9 (B)	---	---
<b>South Median Opening and Murphy Road (TWSC)</b>					
<b>Time Period</b>	<b>Scenario</b>	<b>EB</b>	<b>WB</b>	<b>NB Left</b>	<b>SB Left</b>
AM Peak Hour	Existing	32.1 (D)	33.1 (D)	12.8 (B)	9.1 (A)
	2 - RT Only Lanes	29.7 (D)	29.7 (D)	12.5 (B)	9.1 (A)
	Closed N Median Opening	394.8 (F)	47.2 (E)	13.3 (B)	9.0 (A)
PM Peak Hour	Existing	30.7 (D)	58.1 (F)	9.7 (A)	10.9 (B)
	2 - RT Only Lanes	27.7 (D)	49.8 (E)	9.4 (A)	10.9 (B)
	Closed N Median Opening	45.6 (E)	92.0 (F)	9.5 (A)	11.1 (B)

<sup>1</sup> Delay in seconds/vehicle (Level of Service)

As shown, closing the North Median Opening is anticipated to improve level of service at the North Median Opening, as all left turn movements are eliminated. However, delay increases significantly at the South Median Opening with redistributed traffic volumes.

In spite of the added delay, it is recommended to close the North Median Opening, and lengthen the existing northbound left turn lane on Murphy Road at FM 544. Based on queuing analysis previously presented in Table 6, northbound left turn queue lengths are anticipated to be approximately 270 feet for most scenarios during the AM peak hour, which exceeds the existing turn lane storage length of approximately 100 feet. With closure of the North Median Opening, the left turn lane could be lengthened to include storage of approximately 300 feet, which is anticipated to accommodate left turn queues.

#### *Preliminary Signal Warrant Analysis*

Due to expected delay at the South Median Opening, a preliminary signal warrant analysis was undertaken. Warrant 7, the Crash Experience Warrant, was analyzed. The warrant is satisfied when:

1. Adequate trial of less restrictive remedies with satisfactory observance and enforcement has failed to reduce the crash frequency; and
2. Five or more reported crashes, of types susceptible to correction by traffic signal control, have occurred within a 12-month period, each crash involving personal injury or property damage apparently exceeding the applicable requirements for a reportable crash; and

3. For each of any 8 hours of an average day, the vehicles per hour (vph) given in both of the 80 percent columns of Condition A in Table 4C-1, or the vph in both of the 80 percent columns of Condition B in Table 4C-1 exists on the major-street and the higher-volume minor-street approach, respectively, to the intersection, or the volume of pedestrian traffic is not less than 80 percent of the requirements specified in the Pedestrian Volume warrant. These major-street and minor-street volumes shall be for the same 8 hours. On the minor street, the higher volume shall not be required to be on the same approach during each of the 8 hours. If the posted or statutory speed limit or the 85th-percentile speed on the major street exceeds 40 mph, or if the intersection lies within the built-up area of an isolated community having a population of less than 10,000, the traffic volumes in the 56 percent columns in Table 4C-1 may be used in place of the 80 percent columns.

There were a total of eight (8) crashes in the vicinity of this intersection in 2010, nine (9) in 2011, six (6) in 2012, and four (4) in 2013. Thus, the number of crashes at the intersection exceeded five for three of the past four years.

For Condition A of the volume portion of the warrant, the warranting threshold for a three lane approach on the major street and a one lane approach on the minor street is:

Major Street: 480 vph (total for both directions)

Minor Street: 120 vph (higher volume approach)

For Condition B of the volume portion of the warrant, the warranting threshold for a three lane approach on the major street and a one lane approach on the minor street is:

Major Street: 720 vph (total for both directions)

Minor Street: 60 vph (higher volume approach)

Existing peak hour volumes on the minor street currently do not meet the volume thresholds, even with the addition of traffic from the North Median Opening. However, additional traffic is expected to use the driveway at the South Median Opening with the opening of a Hobby Lobby craft store and a Raising Cane's fast food restaurant west of the intersection. Additional traffic may also be present at the intersection with completion of construction on Murphy Road north of FM 544.

Warrant 7 is not currently met at this intersection based on volumes. However, it is recommended to collect additional volume data once Hobby Lobby and Raising Cane's open, and Murphy Road construction is completed, to re-evaluate signal warrants.

### **Commercial Development Cross-Access**

In order to better accommodate commercial traffic along Murphy Road south of FM 544, improvements in site cross-access are recommended. If the North Median Opening is closed, it will be necessary to allow traffic from Starbucks, Jack in the Box, and the small strip center on the west side of Murphy Road south of FM 544 to access the South Median Opening. With

cross-access improvements, more vehicles will also be able to access the signalized intersection on FM 544 at the Walmart Driveway.

One new cross-access driveway is proposed with construction of a Raising Cane's fast food restaurant on the southwest corner of FM 544 and Murphy Road. An additional cross-access driveway is recommended, near the South Median Opening, as shown in **Figure 12**. It is also recommended to close the existing driveway on FM 544 approximately 50 feet west of the intersection with Murphy Road.

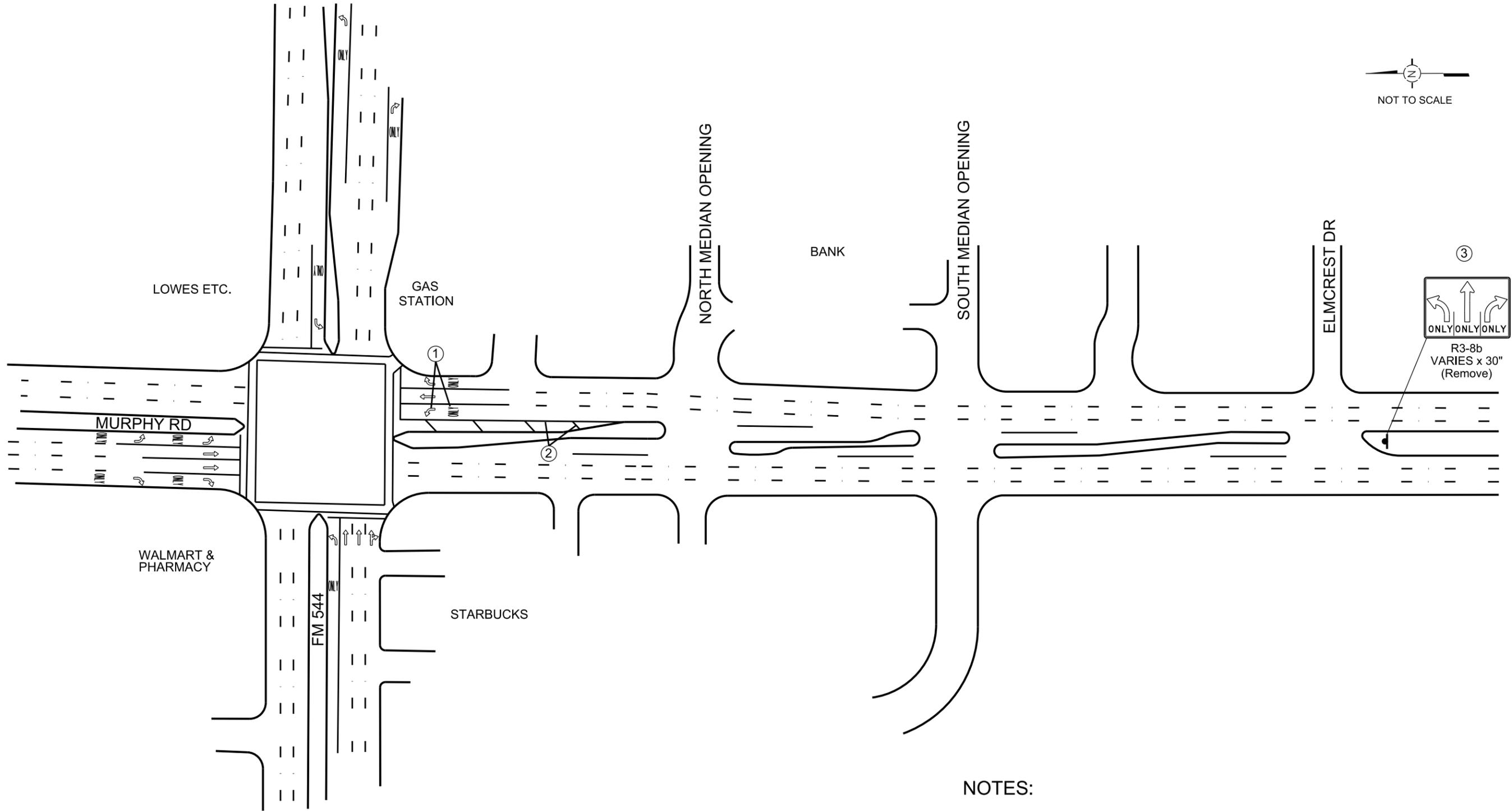
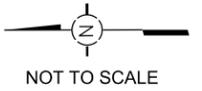
### **Recommended Lane Configurations, Pavement Markings, and Signs**

Existing pavement marking and sign placement was reviewed on the northbound movement (southern leg) of the intersection of FM 544 and Murphy Road. **Figure 13** shows the existing pavement markings, and indicates existing markings and signs to be removed.

Recommended pavement markings and signs are based on the proposed lane configurations for Scenario 2, as previously discussed. Proposed sign and pavement marking installation is shown in **Figure 14**.

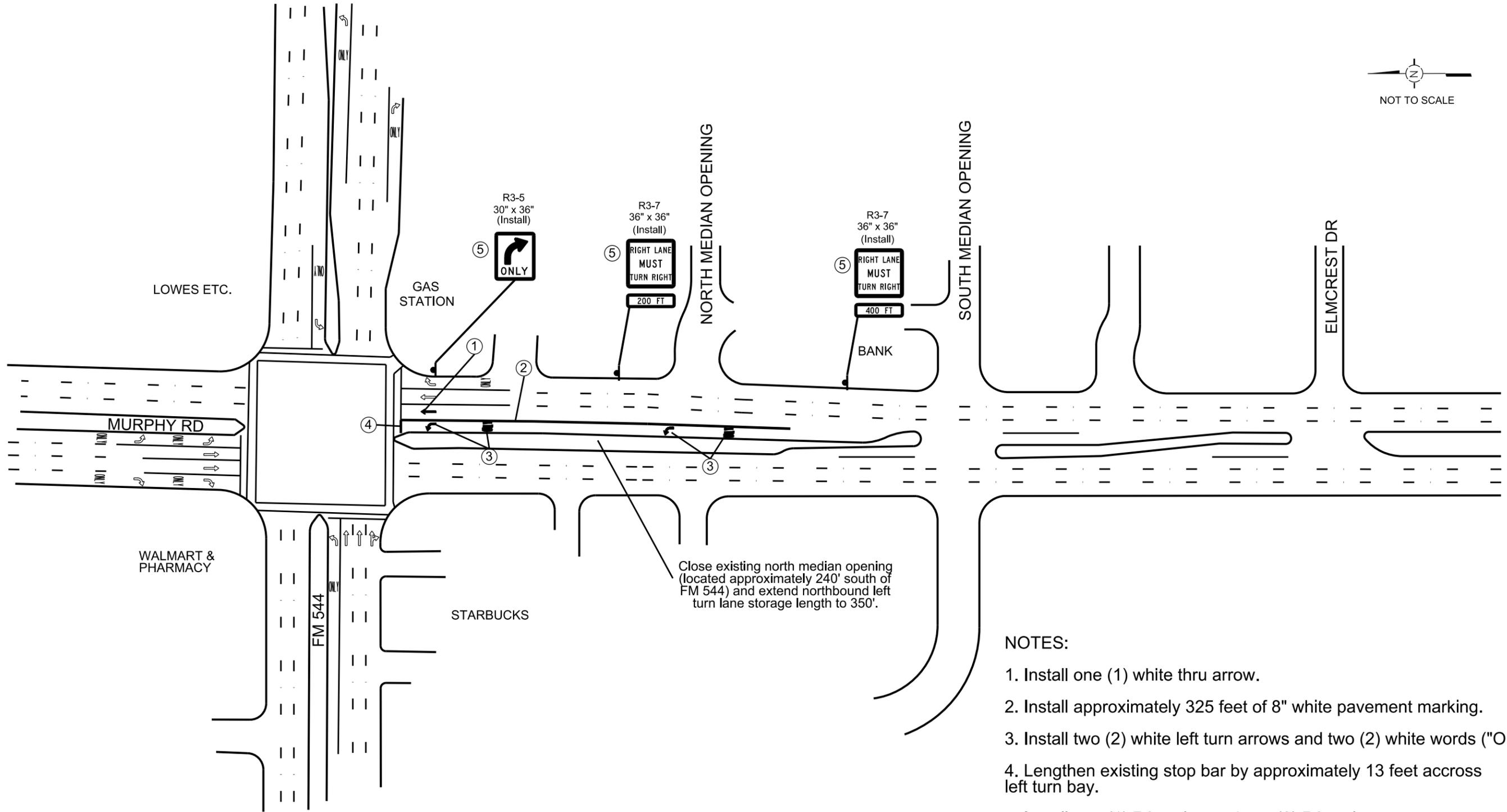
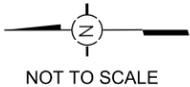
Based on the Murphy Road improvement plans and the site visit, no necessary changes to signs and pavement markings were identified on the adjacent private property driveways along Murphy Road south of FM 544. For driveways on Murphy Road north of FM 544, pavement marking arrows should be changed to a right turn arrow where construction will result in a closed median. In addition, it is recommended that property owners install "Right Turn Only" Signs (R3-5) on driveways where construction will result in a closed median for all driveways along Murphy Road.





NOTES:

- 1. Eliminate one (1) arrow and one (1) word.
- 2. Eliminate approximately 285 feet of yellow 4" pavement marking.
- 3. Remove R3-8b sign.



- NOTES:
1. Install one (1) white thru arrow.
  2. Install approximately 325 feet of 8" white pavement marking.
  3. Install two (2) white left turn arrows and two (2) white words ("ONLY").
  4. Lengthen existing stop bar by approximately 13 feet across left turn bay.
  5. Install one (1) R3-5 sign and two (2) R3-7 signs.
- See Standard Highway Sign Designs for Texas (2012 Edition) for layout and design of signs and pavement arrows.

## Recommended Changes to TxDOT Signing and Marking Plan

The TxDOT Signing and Marking plan sheets for the expansion of Murphy Road north of FM 544 were reviewed. **Table 9** shows the recommended changes. The plan sheets with recommended changes are included as an attachment.

**Table 9: TxDOT Signing and Marking Plan Recommendations**

Sheet No.	Approximate Station	Recommendation
371	13+00	Modify existing pavement markings on WB driveway for right-turn only
371	15+00	Add NB left turn lane for Walmart driveway
371	16+00	Add EB Walmart driveway
371	16+50	Move stop sign shown in front of crosswalk on WB driveway to behind crosswalk
371	20+00	Modify existing pavement markings on WB driveway for right-turn only
371	20+00	Move stop sign shown in front of crosswalk on WB driveway to behind crosswalk
372	27+50	Remove non-existing EB driveway on plan
372	29+00	Widen EB driveway to match existing conditions
372	33+50	Extend median nose and pavement markings on NB left turn lane 50 feet to match narrowed fire station driveway
373	37+00	The WB drive should be identified as the new Tom Clevenger Drive location
373	38+00	Lengthen SB left turn lane to accommodate approximately 300 feet of storage
373	40+00	Remove NB left turn lane from plans
373	42+00	Remove old Tom Clevenger Drive and close median opening
373	42+50	Remove SB left turn lane from plans
374	49+00	Add new Murphy park WB driveway across from Shirehurst Drive
374	50+00	Add SB left turn lane for Murphy park driveway
374	58+00	Widen WB driveway to match existing conditions
374	58+00	Add S1-1 and SW16-7p(L) signs to crosswalks on all approaches
375	61+00	Check school zone start/end location on plans compared to existing
375	66+00	Add pavement markings to SB dual left to identify turn path. Is this planned to be signalized?
376	76+00	Add pavement markings (arrows and words) to NB left turn lane
376	77+00	Check school zone start/end location on plans compared to existing

## Conclusions and Recommendations

Based on our field visits to the site, our review of intersection operations, crash data, and traffic volumes, Lee Engineering offers the following conclusions and recommendations.

### Conclusions:

1. The following crashes have occurred within the last three years:
  - Sixteen (15) at FM 544 and Murphy Road
  - Six (6) at the North Median Opening and Murphy Road
  - Nineteen (19) at the South Median Opening and Murphy Road
2. The westbound left turn and westbound through movements during the AM peak period are the predominant movements at the intersection.
3. The eastbound through and northbound right turn movements are the predominant movements at the intersection during the PM peak period.
4. Intersection delay is expected to improve in general at FM 544 and Murphy Road with the roadway expansion of Murphy Road.

### Recommendations:

1. Interim measure: Scenario 2 is recommended as an interim lane configuration at the intersection of FM 544 and Murphy Road at completion of the roadway expansion. This configuration includes a left-turn only auxiliary lane, two thru lanes, and one right-turn only lane on both the northbound and southbound approaches. Recommended changes in signs and pavement markings were shown in Figures 13 and 14.
2. Short term: Scenario 3 is the recommended intersection design, with three thru lanes on the Murphy Road approaches, and added right turn only auxiliary lanes. Addition of right turn auxiliary lanes on the northbound and southbound approaches would be dependent on available ROW. If adequate ROW is not available on the southbound approach, the Hybrid scenario could be used.
3. Long term: Scenario 5 could be considered as a long-term option, as ROW may be obtained with future redevelopment of the surrounding commercial sites. This scenario includes addition of an auxiliary right turn lane and of dual left turn lanes on both the northbound and southbound approaches at FM 544 and Murphy Road.
4. Install a signal head for a northbound right turn overlap phase as soon as possible. This improvement is relatively low cost and would have significant benefits.
5. Monitor updated signal timings that have been implemented by TxDOT. These timings may need to be modified to efficiently utilize proposed lane configurations, and to insure coordination between the adjacent signals.

6. Close the existing median opening on Murphy Road at the North Median Opening (approximately 300 feet south of FM 544). Extend the northbound left-turn lane at the intersection of FM 544 and Murphy Road, as shown in Figure 14.
7. Increase cross-access in the commercial development on the southwest corner of FM 544 and Murphy Road, as shown in Figure 12.
8. Monitor operation of the intersection of the South Median Opening and Murphy Road. It is recommended to conduct a signal warrant analysis with the addition of Hobby Lobby and Raising Cane's in the development west of the intersection. Alternatives to improve operation at the intersection of the South Median Opening and Murphy Road include:
  - o Signalization of the median opening intersection.
  - o Creation of northbound and southbound hooded left turn lanes on Murphy Road to allow left-turning traffic into the developments but not outbound.
  - o Full closure of the South Median Opening, resulting in right-in/right-out operation at the eastbound and westbound site driveways.
9. Implement recommended changes to the TxDOT Signing and Marking plan sheets for the expansion of Murphy Road north of FM 544, as shown in Table 9.
10. The first median opening along FM 544 east of Murphy Road (approximately 430 feet east of Murphy Road) was noted as a potential area of concern. The median nose on the west side could be extended to help eliminate confusion for vehicles turning left into the driveways. In addition, narrowing the median noses may improve sight distance for vehicles turning left.

Lee Engineering appreciates the opportunity to provide traffic engineering services to Birkhoff, Hendricks & Carter. If you have any questions about this project, please do not hesitate to contact me at 972.248.3006.

Sincerely



Joseph T. Short, P.E., PTOE  
 President  
 Lee Engineering  
 TBPE Firm F-450

Attachments

Accurate Counts  
Traffic Data Collection Services  
214-681-6468

ITEM 7.A.

Location: FM 544 @ Murphy Rd  
Weather: Cool  
Counted By: CT

File Name : fm 544 at murphy  
Site Code : 00000113  
Start Date : 01/09/2014  
Page No : 1

Groups Printed- Unshifted

Start Time	Murphy Rd Southbound					FM 544 Westbound					Murphy Rd Northbound					FM 544 Eastbound					Int. Total
	Left	Thru	Right	Utrn	App. Total	Left	Thru	Right	Utrn	App. Total	Left	Thru	Right	Utrn	App. Total	Left	Thru	Right	Utrn	App. Total	
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		
07:00	30	111	20	0	161	230	342	15	0	587	28	55	14	0	97	5	61	7	0	73	918
07:15	14	112	32	0	158	250	370	7	0	627	38	61	17	0	116	11	62	11	0	84	985
07:30	21	100	33	2	156	223	363	7	0	593	56	87	23	0	166	36	113	7	0	156	1071
07:45	20	95	21	0	136	191	382	11	0	584	47	61	13	1	122	30	123	10	0	163	1005
Total	85	418	106	2	611	894	1457	40	0	2391	169	264	67	1	501	82	359	35	0	476	3979
08:00	30	102	20	0	152	201	275	9	0	485	59	108	14	0	181	34	78	14	0	126	944
08:15	36	107	12	0	155	160	294	16	0	470	36	81	15	0	132	23	100	10	2	135	892
08:30	36	61	23	0	120	154	289	16	0	459	41	56	16	0	113	32	82	9	0	123	815
08:45	34	97	14	1	146	142	242	17	0	401	38	46	18	0	102	24	102	6	0	132	781
Total	136	367	69	1	573	657	1100	58	0	1815	174	291	63	0	528	113	362	39	2	516	3432
16:00	53	51	21	0	125	69	145	18	0	232	54	79	94	0	227	59	306	17	1	383	967
16:15	48	85	21	0	154	77	182	22	0	281	34	101	104	0	239	34	401	37	0	472	1146
16:30	50	104	19	0	173	96	161	21	0	278	49	109	120	0	278	45	329	24	0	398	1127
16:45	62	87	20	0	169	98	142	12	1	253	54	77	87	0	218	54	381	31	0	466	1106
Total	213	327	81	0	621	340	630	73	1	1044	191	366	405	0	962	192	1417	109	1	1719	4346
17:00	44	70	17	0	131	86	207	27	1	321	44	99	99	1	243	49	410	32	0	491	1186
17:15	52	111	16	0	179	75	171	25	0	271	49	125	80	0	254	49	432	20	0	501	1205
17:30	39	104	10	0	153	96	154	26	1	277	48	89	59	0	196	49	349	18	0	416	1042
17:45	46	114	11	0	171	89	164	30	0	283	55	113	97	0	265	63	408	21	0	492	1211
Total	181	399	54	0	634	346	696	108	2	1152	196	426	335	1	958	210	1599	91	0	1900	4644
Grand Total	615	1511	310	3	2439	2237	3883	279	3	6402	730	1347	870	2	2949	597	3737	274	3	4611	16401
Apprch %	25.2	62.0	12.7	0.1		34.9	60.7	4.4	0.0		24.8	45.7	29.5	0.1		12.9	81.0	5.9	0.1		
Total %	3.7	9.2	1.9	0.0	14.9	13.6	23.7	1.7	0.0	39.0	4.5	8.2	5.3	0.0	18.0	3.6	22.8	1.7	0.0	28.1	

Accurate Counts  
Traffic Data Collection Services  
214-681-6468

ITEM 7.A.

Location: FM 544 @ Murphy Rd  
Weather: Cool  
Counted By: CT

File Name : fm 544 at murphy  
Site Code : 00000113  
Start Date : 01/09/2014  
Page No : 2

Start Time	Murphy Rd Southbound					FM 544 Westbound					Murphy Rd Northbound					FM 544 Eastbound					Int. Total
	Left	Thru	Right	Utrn	App. Total	Left	Thru	Right	Utrn	App. Total	Left	Thru	Right	Utrn	App. Total	Left	Thru	Right	Utrn	App. Total	
Peak Hour From 07:00 to 11:45 - Peak 1 of 1																					
Intersection 07:15																					
Volume	85	409	106	2	602	865	1390	34	0	2289	200	317	67	1	585	111	376	42	0	529	4005
Percent	14.1	67.9	17.6	0.3		37.8	60.7	1.5	0.0		34.2	54.2	11.5	0.2		21.0	71.1	7.9	0.0		
Volume	85	409	106	2	602	865	1390	34	0	2289	200	317	67	1	585	111	376	42	0	529	4005
Volume	21	100	33	2	156	223	363	7	0	593	56	87	23	0	166	36	113	7	0	156	1071
Peak Factor																					0.935
High Int. 07:15																					
Volume	14	112	32	0	158	250	370	7	0	627	59	108	14	0	181	30	123	10	0	163	
Peak Factor	0.953										0.808					0.811					
Peak Hour From 12:00 to 17:45 - Peak 1 of 1																					
Intersection 17:00																					
Volume	181	399	54	0	634	346	696	108	2	1152	196	426	335	1	958	210	1599	91	0	1900	4644
Percent	28.5	62.9	8.5	0.0		30.0	60.4	9.4	0.2		20.5	44.5	35.0	0.1		11.1	84.2	4.8	0.0		
Volume	181	399	54	0	634	346	696	108	2	1152	196	426	335	1	958	210	1599	91	0	1900	4644
Volume	46	114	11	0	171	89	164	30	0	283	55	113	97	0	265	63	408	21	0	492	1211
Peak Factor																					0.959
High Int. 17:15																					
Volume	52	111	16	0	179	86	207	27	1	321	55	113	97	0	265	49	432	20	0	501	
Peak Factor	0.885					0.897					0.904					0.948					

Accurate Counts  
Traffic Data Collection Services

ITEM 7.A.

Location:Murphy @ 1st Med Open S of 544

214-681-6468

File Name : murphy at first med open s of fm 544

Weather:Cool

Site Code : 00000114

Counted By:GT

Start Date : 01/09/2014

Page No : 1

Groups Printed- Unshifted

Start Time	Murphy Rd Southbound					1st Median Opening Westbound					Murphy Rd Northbound					1st Median Opening Eastbound					Int. Total
	Left	Thru	Right	Utrn	App. Total	Left	Thru	Right	Utrn	App. Total	Left	Thru	Right	Utrn	App. Total	Left	Thru	Right	Utrn	App. Total	
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		
07:00	1	342	0	6	349	0	1	3	0	4	7	95	0	0	102	4	0	6	0	10	465
07:15	0	368	0	11	379	1	1	3	0	5	10	106	3	0	119	5	0	4	0	9	512
07:30	0	335	1	4	340	1	1	1	0	3	8	161	2	0	171	3	0	6	0	9	523
07:45	1	301	1	8	311	0	0	3	0	3	10	115	0	1	126	2	0	6	0	8	448
Total	2	1346	2	29	1379	2	3	10	0	15	35	477	5	1	518	14	0	22	0	36	1948
08:00	1	319	1	4	325	0	0	2	0	2	9	176	1	0	186	4	0	2	0	6	519
08:15	2	290	0	5	297	1	0	2	0	3	9	127	0	0	136	2	0	6	0	8	444
08:30	2	228	0	2	232	1	0	2	0	3	4	109	0	0	113	2	1	2	0	5	353
08:45	2	245	1	4	252	0	0	5	0	5	6	95	1	0	102	1	1	3	0	5	364
Total	7	1082	2	15	1106	2	0	11	0	13	28	507	2	0	537	9	2	13	0	24	1680
16:00	2	140	0	0	142	1	0	7	0	8	4	220	1	0	225	2	0	2	0	4	379
16:15	4	201	0	0	205	0	0	2	0	2	2	238	0	0	240	0	0	2	0	2	449
16:30	6	221	0	0	227	1	1	5	0	7	2	270	0	0	272	2	0	1	0	3	509
16:45	3	222	2	0	227	0	0	4	0	4	2	216	1	0	219	2	0	4	0	6	456
Total	15	784	2	0	801	2	1	18	0	21	10	944	2	0	956	6	0	9	0	15	1793
17:00	4	191	2	0	197	0	0	1	0	1	7	244	2	0	253	1	0	6	0	7	458
17:15	3	215	0	0	218	1	0	5	0	6	4	243	0	0	247	1	0	4	0	5	476
17:30	6	221	1	0	228	1	1	2	0	4	5	195	0	0	200	0	0	3	1	4	436
17:45	10	224	2	0	236	1	0	6	0	7	4	258	0	0	262	1	0	2	0	3	508
Total	23	851	5	0	879	3	1	14	0	18	20	940	2	0	962	3	0	15	1	19	1878
Grand Total	47	4063	11	44	4165	9	5	53	0	67	93	2868	11	1	2973	32	2	59	1	94	7299
Apprch %	1.1	97.6	0.3	1.1		13.4	7.5	79.1	0.0		3.1	96.5	0.4	0.0		34.0	2.1	62.8	1.1		
Total %	0.6	55.7	0.2	0.6	57.1	0.1	0.1	0.7	0.0	0.9	1.3	39.3	0.2	0.0	40.7	0.4	0.0	0.8	0.0	1.3	

Traffic Data Collection Services

Location:Murphy @ 1st Med Open S of 544

214-681-6468

File Name : murphy at first med open s of fm 544

Weather:Cool

Site Code : 00000114

Counted By:GT

Start Date : 01/09/2014

Page No : 2

Start Time	Murphy Rd Southbound					1st Median Opening Westbound					Murphy Rd Northbound					1st Median Opening Eastbound					Int. Total
	Left	Thru	Right	Utrn	App. Total	Left	Thru	Right	Utrn	App. Total	Left	Thru	Right	Utrn	App. Total	Left	Thru	Right	Utrn	App. Total	
Peak Hour From 07:00 to 11:45 - Peak 1 of 1																					
Intersection 07:15																					
Volume	2	132	3	27	1355	2	2	9	0	13	37	558	6	1	602	14	0	18	0	32	2002
Percent	0.1	97.6	0.2	2.0		15.4	15.4	69.2	0.0		6.1	92.7	1.0	0.2		43.8	0.0	56.3	0.0		
Volume	2	132	3	27	1355	2	2	9	0	13	37	558	6	1	602	14	0	18	0	32	2002
Volume	0	335	1	4	340	1	1	1	0	3	8	161	2	0	171	3	0	6	0	9	523
Peak Factor																					0.957
High Int.	07:15					07:15					08:00					07:15					
Volume	0	368	0	11	379	1	1	3	0	5	9	176	1	0	186	5	0	4	0	9	
Peak Factor	0.894										0.650					0.809					0.889
Peak Hour From 12:00 to 17:45 - Peak 1 of 1																					
Intersection 16:30																					
Volume	16	849	4	0	869	2	1	15	0	18	15	973	3	0	991	6	0	15	0	21	1899
Percent	1.8	97.7	0.5	0.0		11.1	5.6	83.3	0.0		1.5	98.2	0.3	0.0		28.6	0.0	71.4	0.0		
Volume	16	849	4	0	869	2	1	15	0	18	15	973	3	0	991	6	0	15	0	21	1899
Volume	6	221	0	0	227	1	1	5	0	7	2	270	0	0	272	2	0	1	0	3	509
Peak Factor																					0.933
High Int.	16:30					16:30					16:30					17:00					
Volume	6	221	0	0	227	1	1	5	0	7	2	270	0	0	272	1	0	6	0	7	
Peak Factor	0.957					0.643					0.911					0.750					

Accurate Counts  
Traffic Data Collection Services

ITEM 7.A.

Location:Murphy @ 2nd Med Open S of 544

214-681-6468

File Name : murphy at sec med open s of fm 544

Weather:Cool

Site Code : 00000115

Counted By:KP

Start Date : 01/09/2014

Page No : 1

Groups Printed- Unshifted

Start Time	Murphy Rd Southbound					2nd Median Opening Westbound					Murphy Rd Northbound					2nd Median Opening Eastbound					Int. Total
	Left	Thru	Right	Utrn	App. Total	Left	Thru	Right	Utrn	App. Total	Left	Thru	Right	Utrn	App. Total	Left	Thru	Right	Utrn	App. Total	
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		
07:00	0	346	0	0	346	5	0	1	0	6	1	98	1	0	100	0	0	1	0	1	453
07:15	0	370	0	1	371	10	0	2	0	12	0	105	0	0	105	0	0	1	0	1	489
07:30	1	336	0	1	338	8	0	0	0	8	8	167	1	1	177	1	0	1	0	2	525
07:45	0	302	0	0	302	10	0	3	0	13	7	120	0	0	127	0	0	2	0	2	444
Total	1	1354	0	2	1357	33	0	6	0	39	16	490	2	1	509	1	0	5	0	6	1911
08:00	3	315	2	0	320	1	0	2	0	3	6	178	1	0	185	0	0	2	0	2	510
08:15	2	296	0	0	298	5	0	3	0	8	2	131	1	0	134	1	0	3	0	4	444
08:30	2	226	0	1	229	6	0	3	0	9	5	106	2	1	114	0	0	3	0	3	355
08:45	3	242	2	0	247	1	0	1	0	2	1	92	4	0	97	0	0	0	0	0	346
Total	10	1079	4	1	1094	13	0	9	0	22	14	507	8	1	530	1	0	8	0	9	1655
16:00	1	141	1	1	144	8	0	4	0	12	7	222	6	0	235	1	0	1	0	2	393
16:15	4	197	3	0	204	5	1	6	0	12	6	234	4	0	244	2	0	2	0	4	464
16:30	6	215	3	0	224	7	1	6	0	14	9	261	5	0	275	1	0	4	0	5	518
16:45	3	221	2	0	226	6	0	6	0	12	8	220	10	0	238	2	0	4	0	6	482
Total	14	774	9	1	798	26	2	22	0	50	30	937	25	0	992	6	0	11	0	17	1857
17:00	8	189	3	0	200	4	0	6	0	10	4	235	0	0	239	2	1	5	0	8	457
17:15	2	216	0	0	218	2	0	0	0	2	6	240	3	0	249	1	0	2	0	3	472
17:30	4	216	3	0	223	12	2	2	0	16	15	189	1	0	205	4	1	18	0	23	467
17:45	6	214	4	0	224	5	0	0	0	5	1	251	1	0	253	2	1	14	0	17	499
Total	20	835	10	0	865	23	2	8	0	33	26	915	5	0	946	9	3	39	0	51	1895
Grand Total	45	4042	23	4	4114	95	4	45	0	144	86	2849	40	2	2977	17	3	63	0	83	7318
Apprch %	1.1	98.2	0.6	0.1		66.0	2.8	31.3	0.0		2.9	95.7	1.3	0.1		20.5	3.6	75.9	0.0		
Total %	0.6	55.2	0.3	0.1	56.2	1.3	0.1	0.6	0.0	2.0	1.2	38.9	0.5	0.0	40.7	0.2	0.0	0.9	0.0	1.1	

Accurate Counts  
Traffic Data Collection Services

ITEM 7.A.

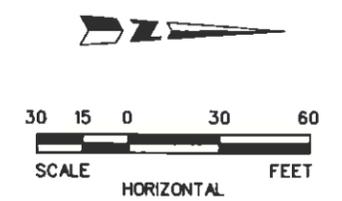
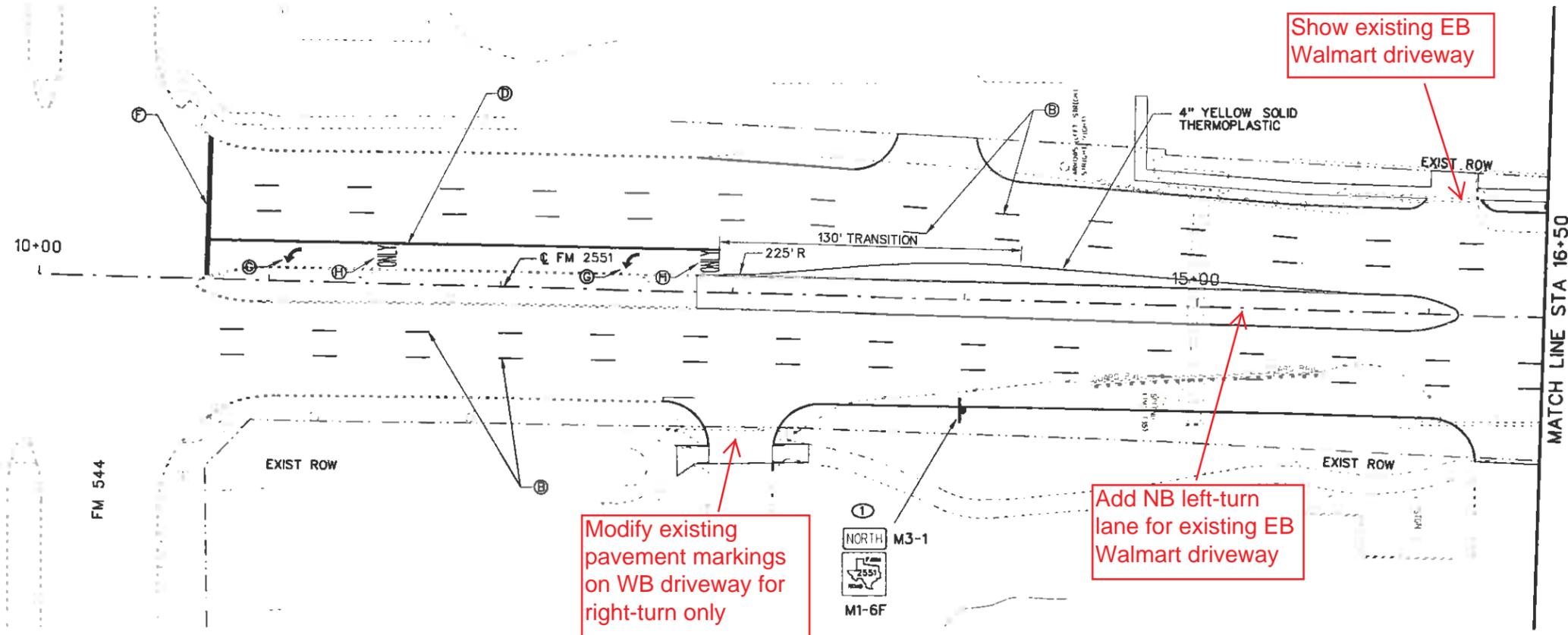
Location:Murphy @ 2nd Med Open S of 544  
Weather:Cool  
Counted By:KP

214-681-6468

File Name : murphy at sec med open s of fm 544  
Site Code : 00000115  
Start Date : 01/09/2014  
Page No : 2

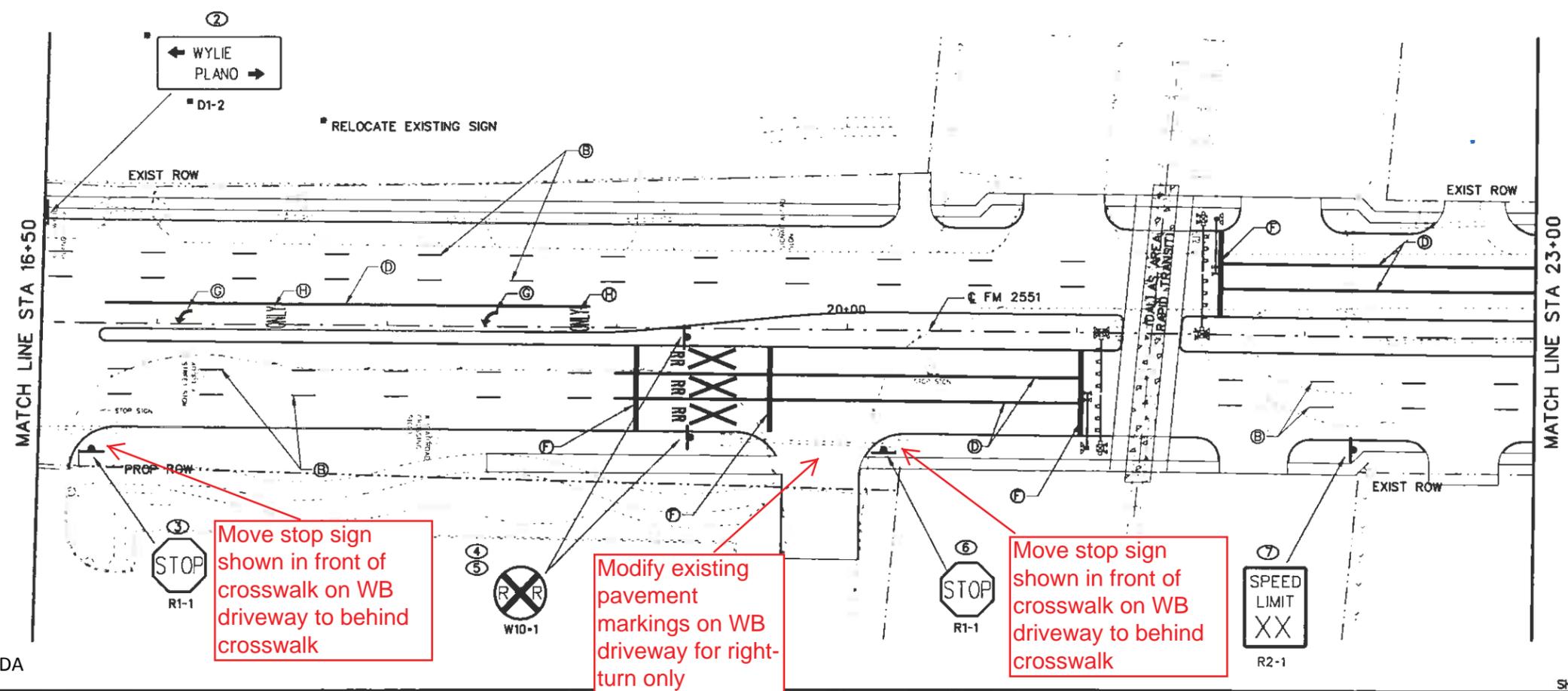
Start Time	Murphy Rd Southbound					2nd Median Opening Westbound					Murphy Rd Northbound					2nd Median Opening Eastbound					Int. Total
	Left	Thru	Right	Utrn	App. Total	Left	Thru	Right	Utrn	App. Total	Left	Thru	Right	Utrn	App. Total	Left	Thru	Right	Utrn	App. Total	
Peak Hour From 07:00 to 11:45 - Peak 1 of 1																					
Intersection 07:15																					
Volume	4	132	2	2	1331	29	0	7	0	36	21	570	2	1	594	1	0	6	0	7	1968
Percent	0.3	99.4	0.2	0.2		80.6	0.0	19.4	0.0		3.5	96.0	0.3	0.2		14.3	0.0	85.7	0.0		
Volume	4	132	2	2	1331	29	0	7	0	36	21	570	2	1	594	1	0	6	0	7	1968
Volume	1	336	0	1	338	8	0	0	0	8	8	167	1	1	177	1	0	1	0	2	525
Peak Factor	0.897					0.692					0.803					0.875					0.937
High Int.	07:15					07:45					08:00					07:30					
Volume	0	370	0	1	371	10	0	3	0	13	6	178	1	0	185	1	0	1	0	2	
Peak Factor	0.897					0.692					0.803					0.875					
Peak Hour From 12:00 to 17:45 - Peak 1 of 1																					
Intersection 16:30																					
Volume	19	841	8	0	868	19	1	18	0	38	27	956	18	0	1001	6	1	15	0	22	1929
Percent	2.2	96.9	0.9	0.0		50.0	2.6	47.4	0.0		2.7	95.5	1.8	0.0		27.3	4.5	68.2	0.0		
Volume	19	841	8	0	868	19	1	18	0	38	27	956	18	0	1001	6	1	15	0	22	1929
Volume	6	215	3	0	224	7	1	6	0	14	9	261	5	0	275	1	0	4	0	5	518
Peak Factor	0.960					0.679					0.910					0.688					0.931
High Int.	16:45					16:30					16:30					17:00					
Volume	3	221	2	0	226	7	1	6	0	14	9	261	5	0	275	2	1	5	0	8	
Peak Factor	0.960					0.679					0.910					0.688					

pm/Active Projects/CCT0134 N. Murphy Road - Collin County/SCDWENT 1/CADD/CUT SHEETS/Signing & Marking/0134SM01.030  
 3/7/2011 12:16:46 PM



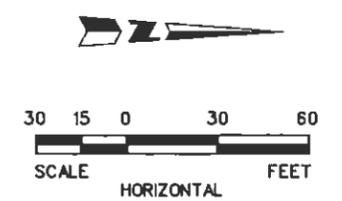
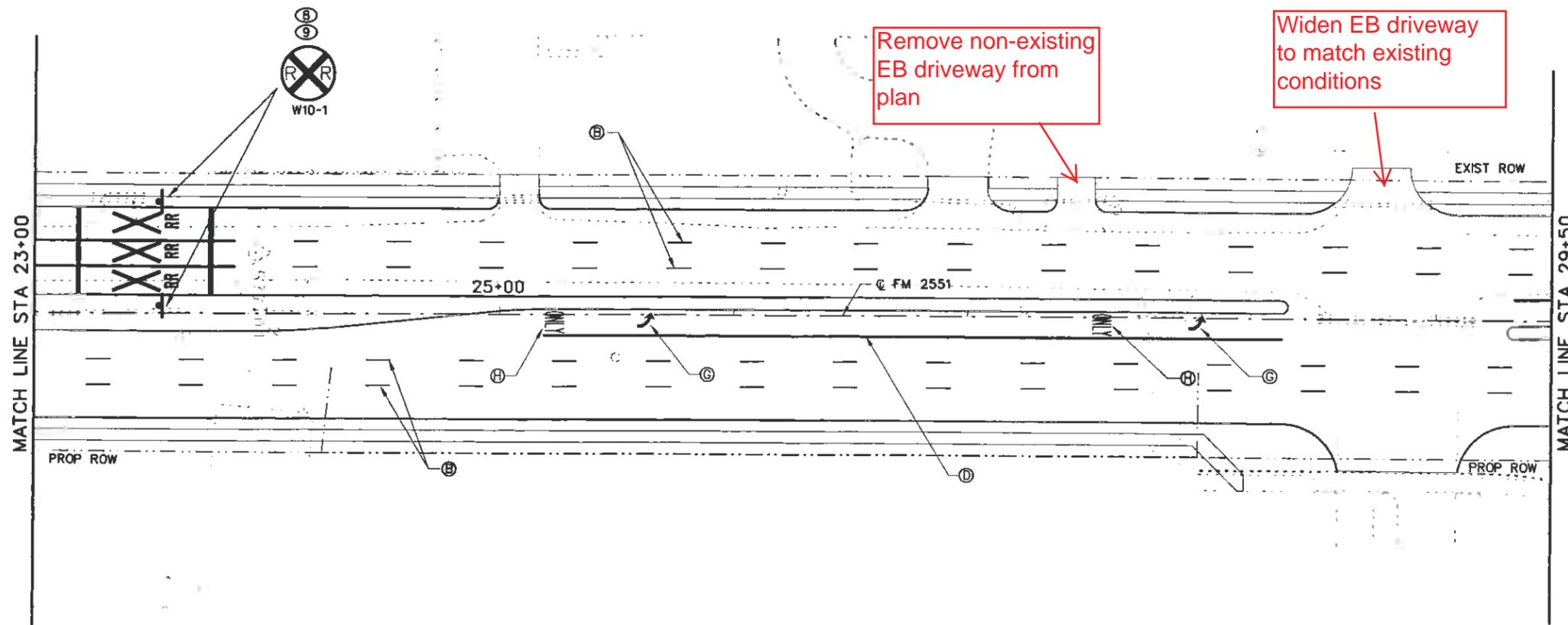
**LEGEND**

- Ⓐ 4" WHITE SOLID THERMOPLASTIC
- Ⓑ 4" WHITE BRK THERMOPLASTIC
- Ⓒ 8" WHITE DOT THERMOPLASTIC
- Ⓓ 8" WHITE SOLID THERMOPLASTIC
- Ⓔ 12" WHITE SOLID THERMOPLASTIC
- Ⓕ 24" WHITE SOLID THERMOPLASTIC
- Ⓖ WHITE SOLID THERMOPLASTIC ARROW
- Ⓗ WHITE SOLID THERMOPLASTIC WORD
- Ⓧ SIGN NO. (SEE SUMMARY OF SMALL SIGNS)



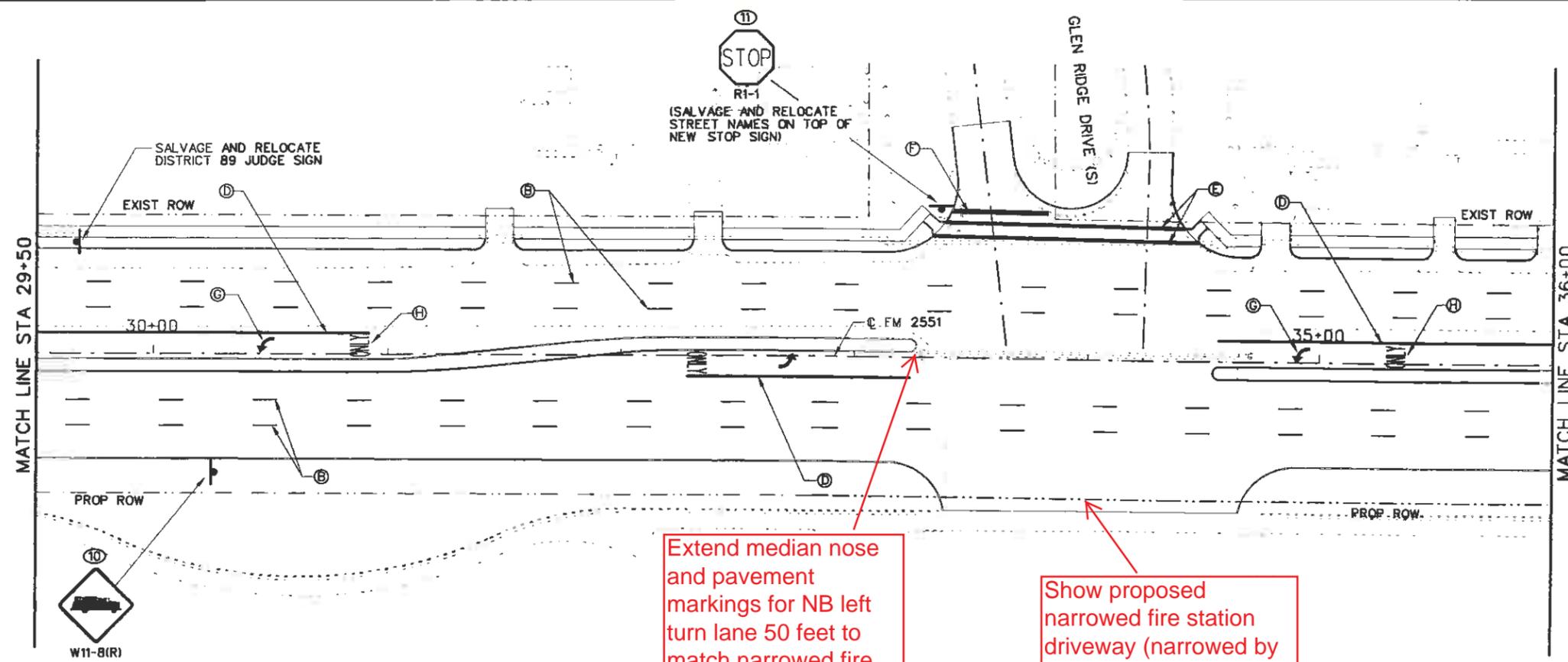
NO.	REVISION	BY	DATE
CP&Y, Inc. T.B.P.E. FIRM * F-1741			
Texas Department of Transportation © 2011			
<b>FM 2551</b> <b>SIGNING &amp; MARKING PLAN</b> BEGIN PROJECT TO STA 23+00			
DESIGN	FED. RD. DIV. NO.	STATE PROJECT NO.	
GRAPHICS		HIGHWAY NO.	
CHECK	STATE	DISTRICT	COUNTY
JX	TEXAS	DALLAS	COLLIN
CHECK	CONTROL	SECTION	JOB
JX	2056	01	045
			371

p:\active\_projects\cct\034 N. Murphy Road - Collin County\SEGMENT 1\CADD\CUT SHEETS/Signing & Marking\034SM02.030  
 3/8/2011 12:16:52 PM

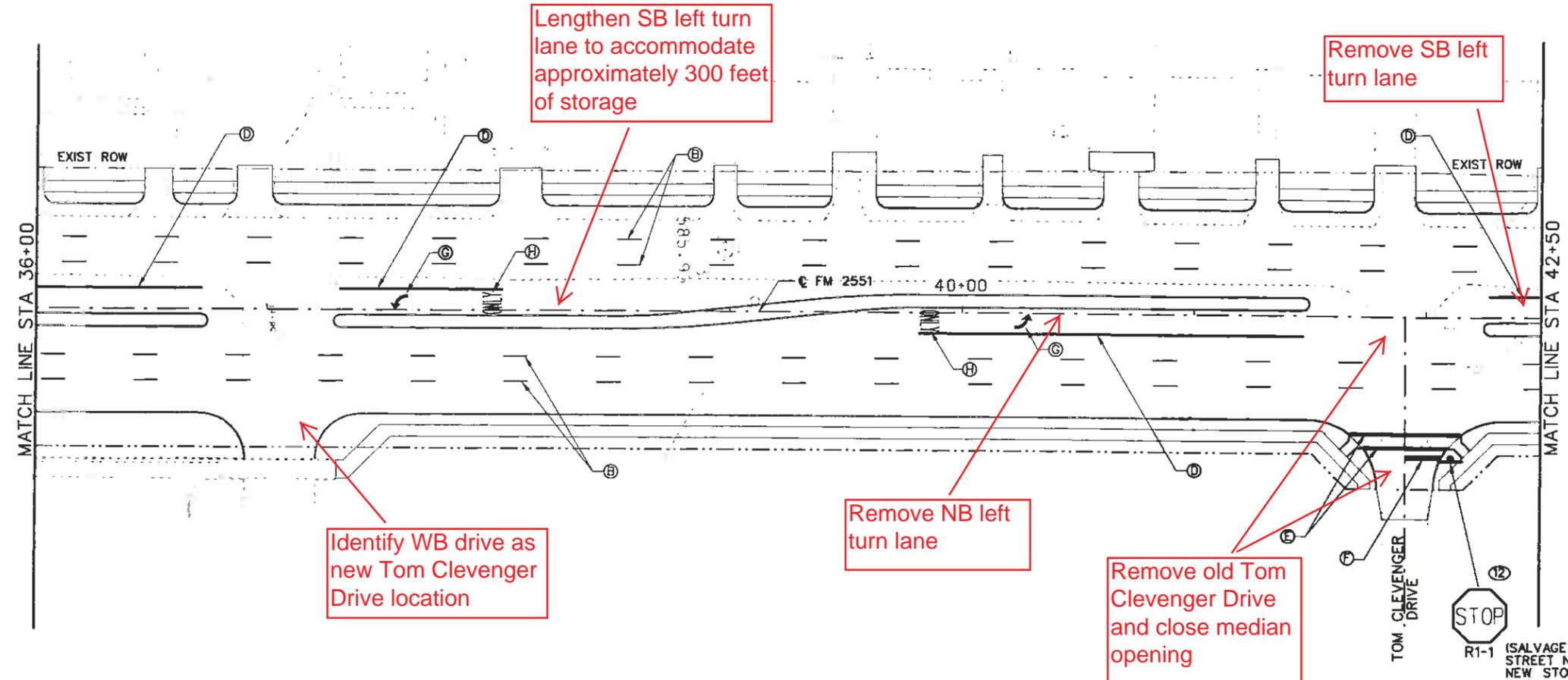


**LEGEND**

- Ⓐ 4" WHITE SOLID THERMOPLASTIC
- Ⓑ 4" WHITE BRK THERMOPLASTIC
- Ⓒ 8" WHITE DOT THERMOPLASTIC
- Ⓓ 8" WHITE SOLID THERMOPLASTIC
- Ⓔ 12" WHITE SOLID THERMOPLASTIC
- Ⓕ 24" WHITE SOLID THERMOPLASTIC
- Ⓖ WHITE SOLID THERMOPLASTIC ARROW
- Ⓗ WHITE SOLID THERMOPLASTIC WORD
- Ⓧ SIGN NO. (SEE SUMMARY OF SMALL SIGNS)

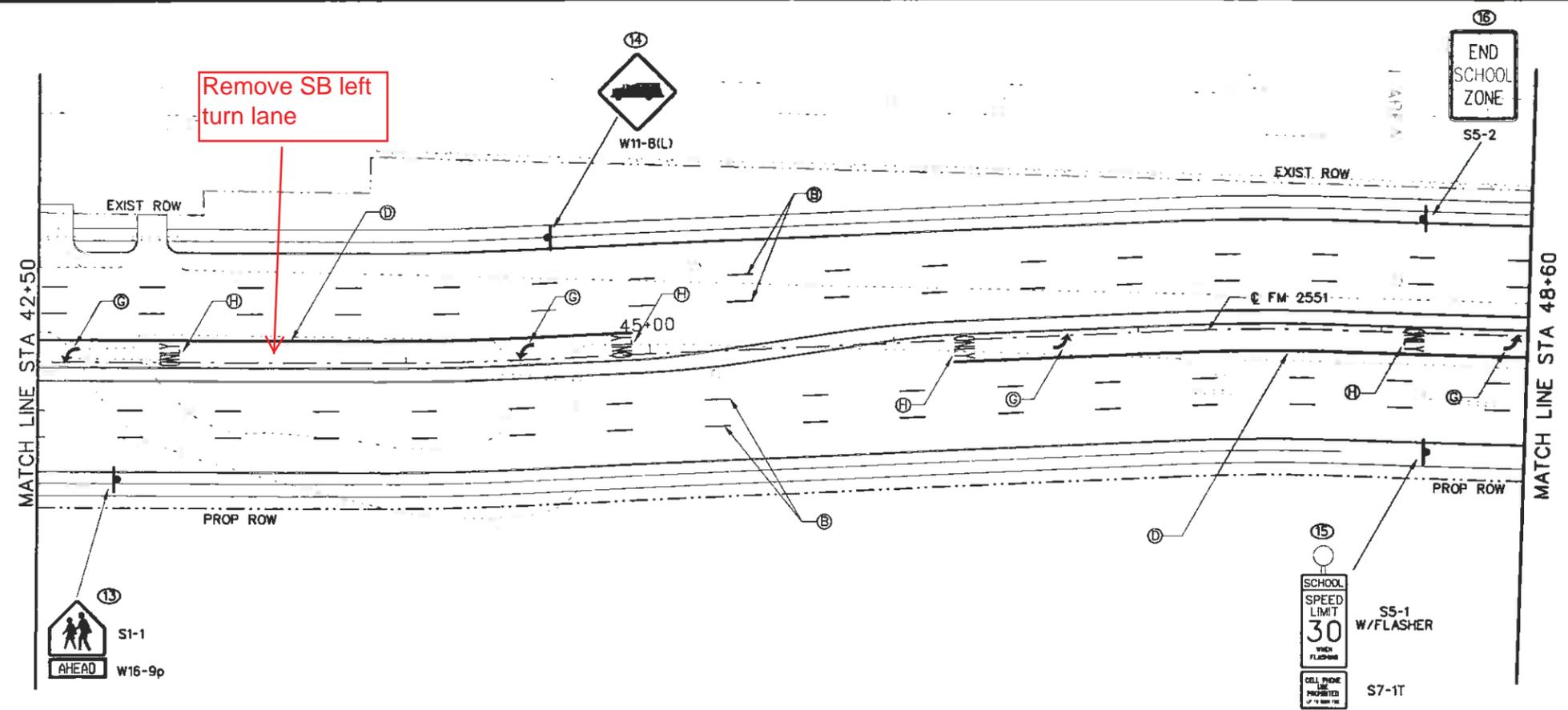


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Texas Department of Transportation © 2011			
<b>FM 2551</b> <b>SIGNING &amp; MARKING PLAN</b> STA 23+00 TO STA 36+00			
DESIGN GRB	FED. RD. DIV. NO.	STATE PROJECT NO.	HIGHWAY NO.
GRAPHICS GRB	STATE	DISTRICT	COUNTY
CHECK JX	TEXAS	DALLAS	COLLIN
CHECK JX	CONTROL	SECTION	JOB
	2056	01	045
			<b>372</b>



**LEGEND**

- (A) 4" WHITE SOLID THERMOPLASTIC
- (B) 4" WHITE BRK THERMOPLASTIC
- (C) 8" WHITE DOT THERMOPLASTIC
- (D) 8" WHITE SOLID THERMOPLASTIC
- (E) 12" WHITE SOLID THERMOPLASTIC
- (F) 24" WHITE SOLID THERMOPLASTIC
- (G) WHITE SOLID THERMOPLASTIC ARROW
- (H) WHITE SOLID THERMOPLASTIC WORD
- (X) SIGN NO. (SEE SUMMARY OF SMALL SIGNS)

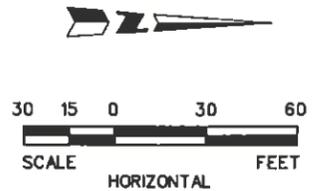
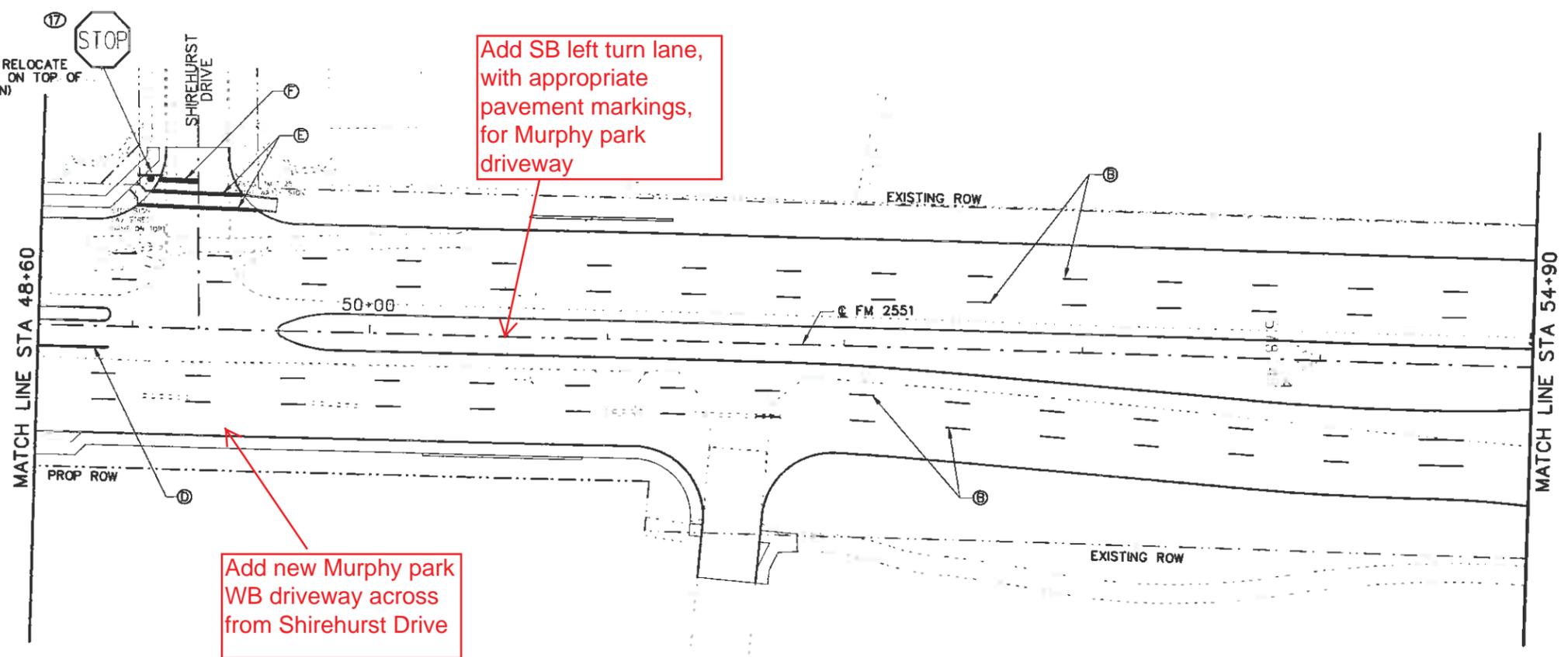


Professional Engineer Seal for J.E. Xia, License No. 92073, State of Texas. Signature: J.E. Xia, Date: 3/21/11.

NO.	REVISION	BY	DATE
CP&Y, Inc. T.B.P.E. FIRM # F-1741			
Texas Department of Transportation © 2011			
<b>FM 2551</b> <b>PHASE 1</b> <b>SIGNING &amp; MARKING PLAN</b> STA 36+00 TO STA 48+60			
DESIGN	FED.RD. DIV.NO.	STATE PROJECT NO.	HIGHWAY NO.
BAK			FM 2551
GRAPHICS	STATE	DISTRICT	COUNTY
VAW	TEXAS	DALLAS	COLLIN
CHECK	CONTROL	SECTION	JOB
TETC	2056	01	045
CHECK			373

3/9/2011 12:16:58 PM kls  
 p:\Active Projects\CCT0134 N. Murphy Road - Collin County\SEGMENT 1\CADD\CUT SHEETS/Signing & Marking\0134SM03.030

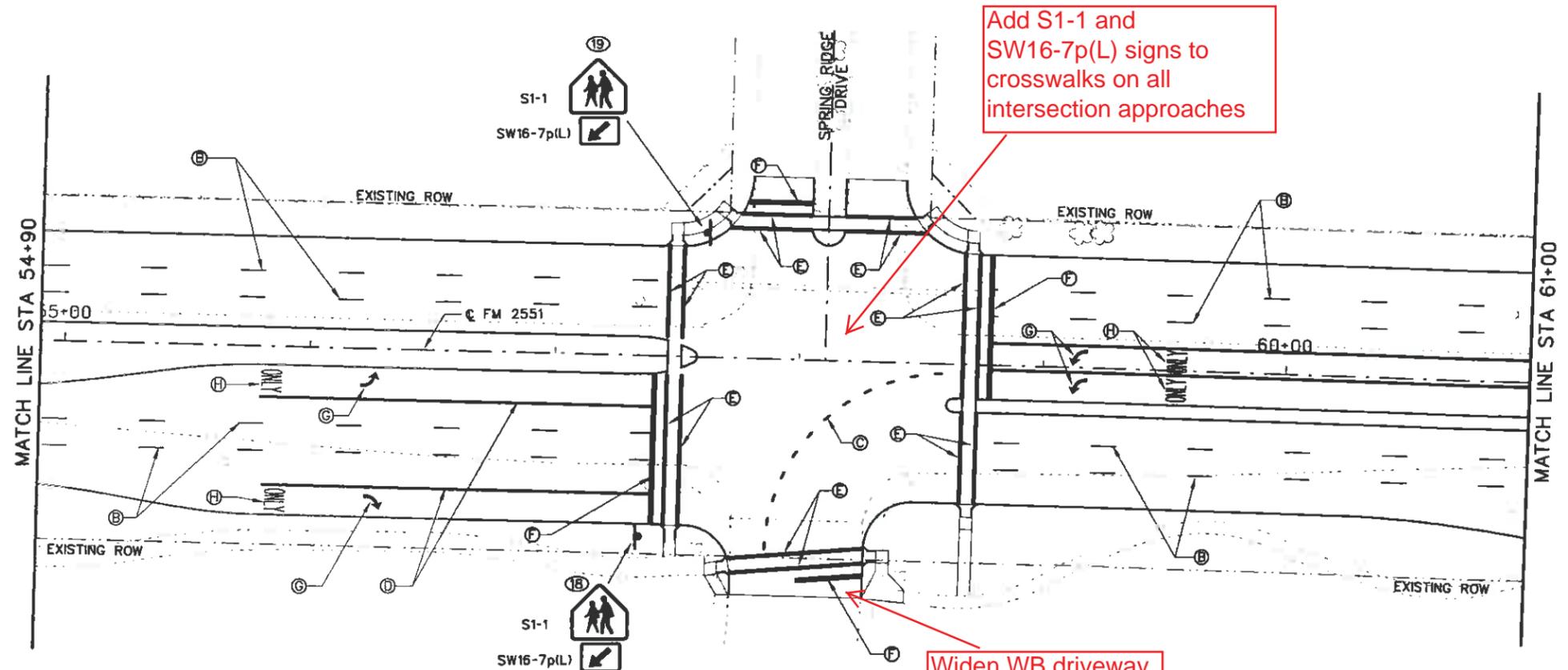
(SALVAGE AND RELOCATE STREET NAMES ON TOP OF NEW STOP SIGN)



**LEGEND**

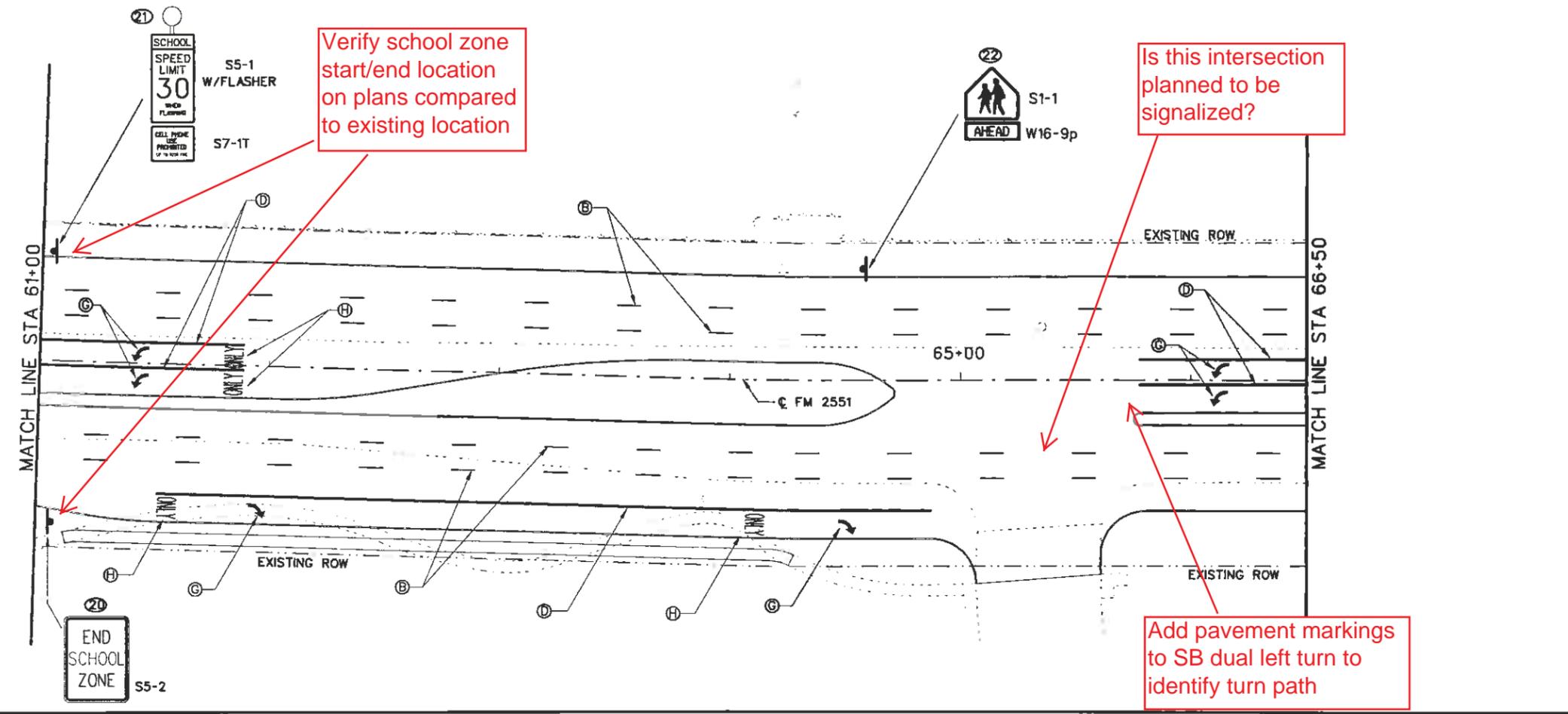
- (A) 4" WHITE SOLID THERMOPLASTIC
- (B) 4" WHITE BRK THERMOPLASTIC
- (C) 8" WHITE DOT THERMOPLASTIC
- (D) 8" WHITE SOLID THERMOPLASTIC
- (E) 12" WHITE SOLID THERMOPLASTIC
- (F) 24" WHITE SOLID THERMOPLASTIC
- (G) WHITE SOLID THERMOPLASTIC ARROW
- (H) WHITE SOLID THERMOPLASTIC WORD
- (X) SIGN NO. (SEE SUMMARY OF SMALL SIGNS)

3/18/2011 12:17:03 PM ixi a ps:\Active Projects\CCT0134 N. Murphy Road - Collin County\SEGMENT 1\CADD\CUT SHEETS/Signing & Marking\0134SM04.030



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Texas Department of Transportation © 2011			
<b>FM 2551</b> <b>SIGNING &amp; MARKING PLAN</b> STA 48+60 TO STA 61+00			
DESIGN GRB	FED RD. DIV. NO.	STATE PROJECT NO.	HIGHWAY NO.
GRAPHICS GRB			FM 2551
CHECK JX	STATE	DISTRICT	COUNTY
CHECK JX	TEXAS	DALLAS	COLLIN
	CONTROL	SECTION	JOB
	2056	01	045
			<b>374</b>

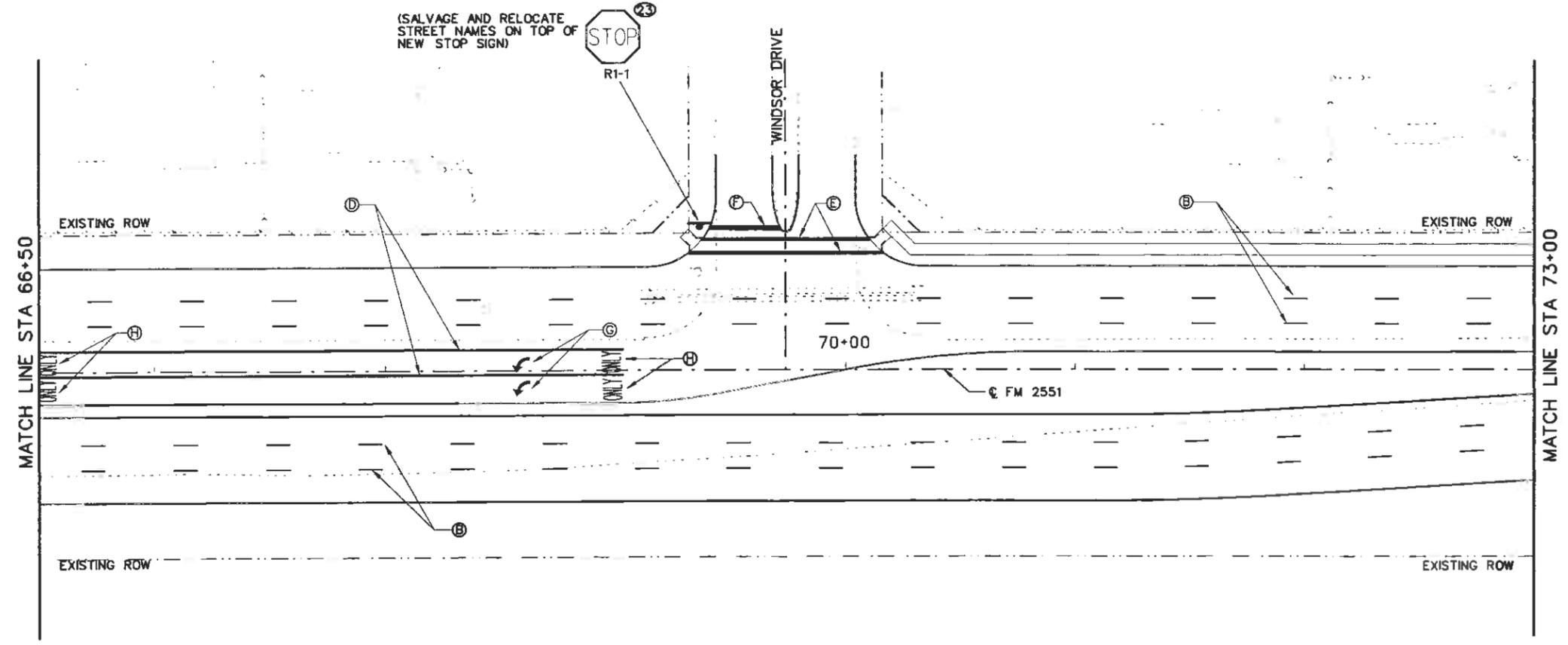
pm/Active Projects/CCT0134 N. Murphy Road - Collin County/SEGMENT 1/LOAD/CUT SHEETS/Signing & Marking/0134SM05.030



Verify school zone start/end location on plans compared to existing location

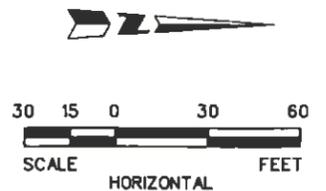
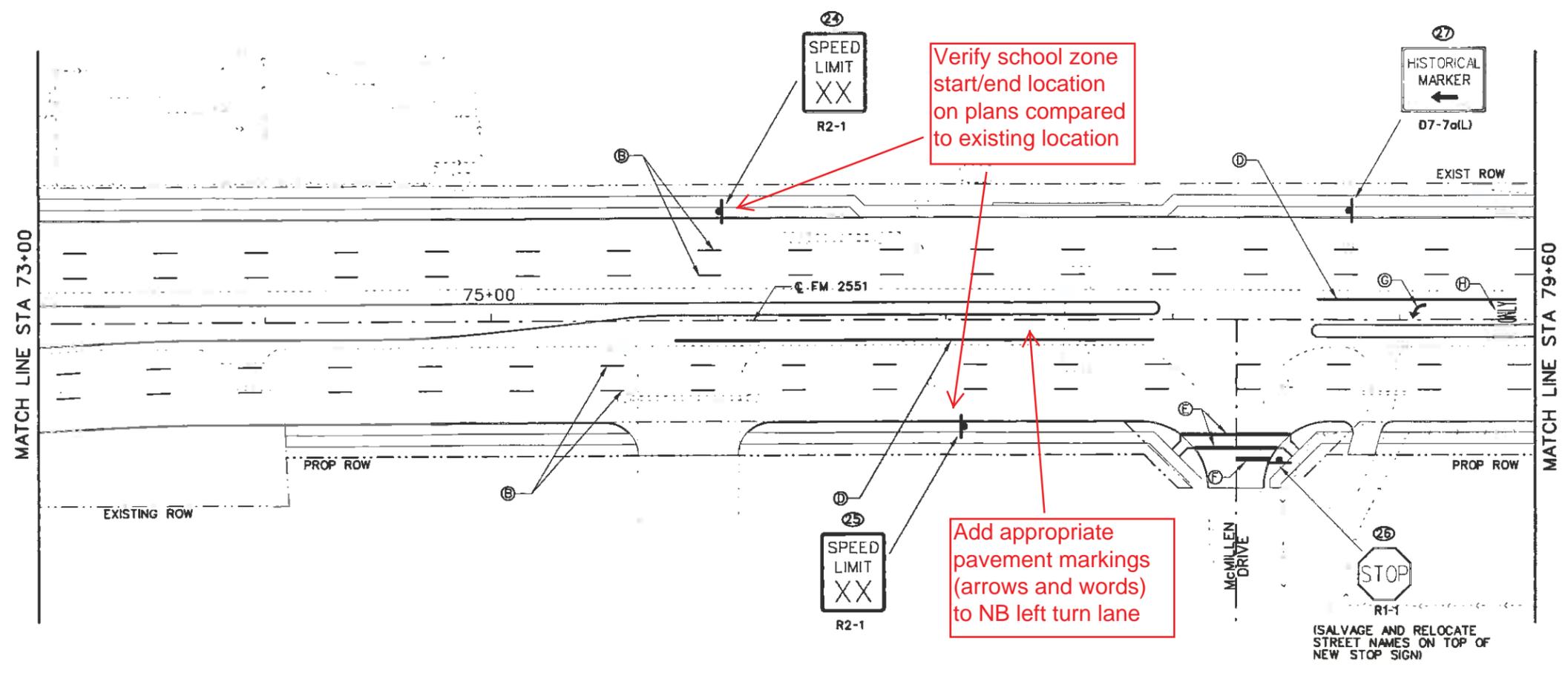
Is this intersection planned to be signaled?

Add pavement markings to SB dual left turn to identify turn path



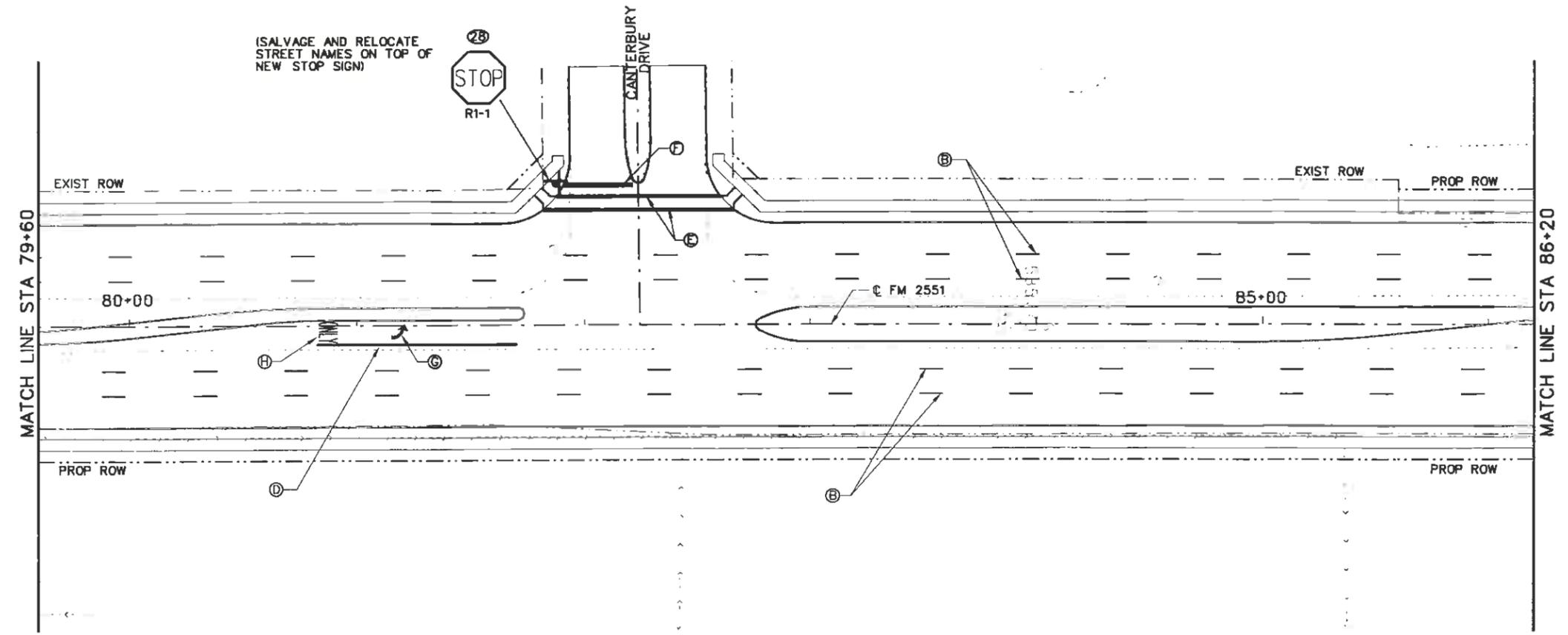
STATE OF TEXAS  
 JIE XIA  
 92073  
 LICENSED PROFESSIONAL ENGINEER  
*Jie Xia 3/21/11*

NO	REVISION	BY	DATE
CP&Y, Inc. T.B.P.E. FIRM • F-1741			
Texas Department of Transportation © 2011			
<b>FM 2551</b> <b>SIGNING &amp; MARKING PLAN</b> STA 61+00 TO STA 73+00			
DESIGN GRB	FED. RD DIV. NO.	STATE PROJECT NO.	HIGHWAY NO.
GRAPHICS GRB	STATE	DISTRICT	COUNTY
CHECK JX	TEXAS	DALLAS	COLLIN
CHECK JX	CONTROL	SECTION	JOB
	2056	01	045
			<b>375</b>



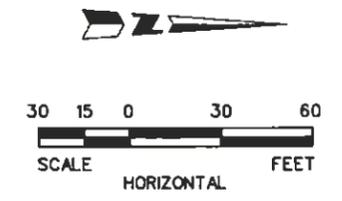
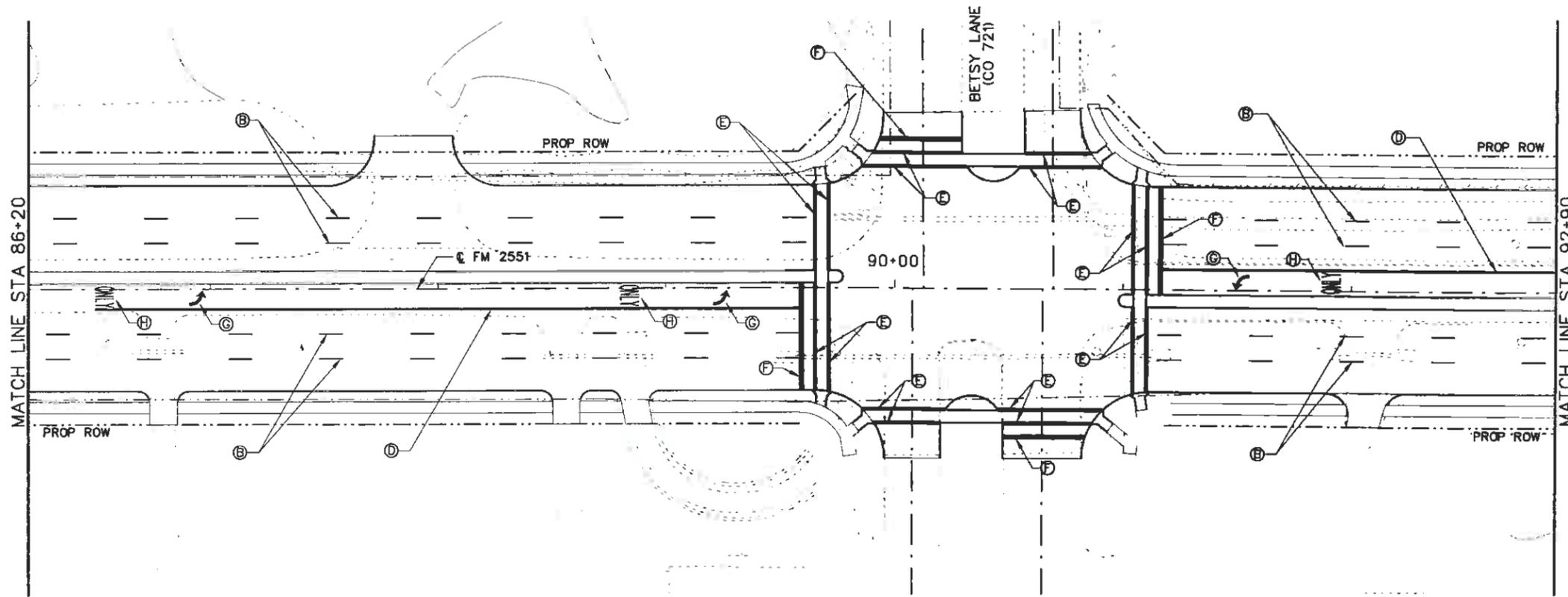
**LEGEND**

- (A) 4" WHITE SOLID THERMOPLASTIC
- (B) 4" WHITE BRK THERMOPLASTIC
- (C) 8" WHITE DOT THERMOPLASTIC
- (D) 8" WHITE SOLID THERMOPLASTIC
- (E) 12" WHITE SOLID THERMOPLASTIC
- (F) 24" WHITE SOLID THERMOPLASTIC
- (G) WHITE SOLID THERMOPLASTIC ARROW
- (H) WHITE SOLID THERMOPLASTIC WORD
- (XX) SIGN NO. (SEE SUMMARY OF SMALL SIGNS)

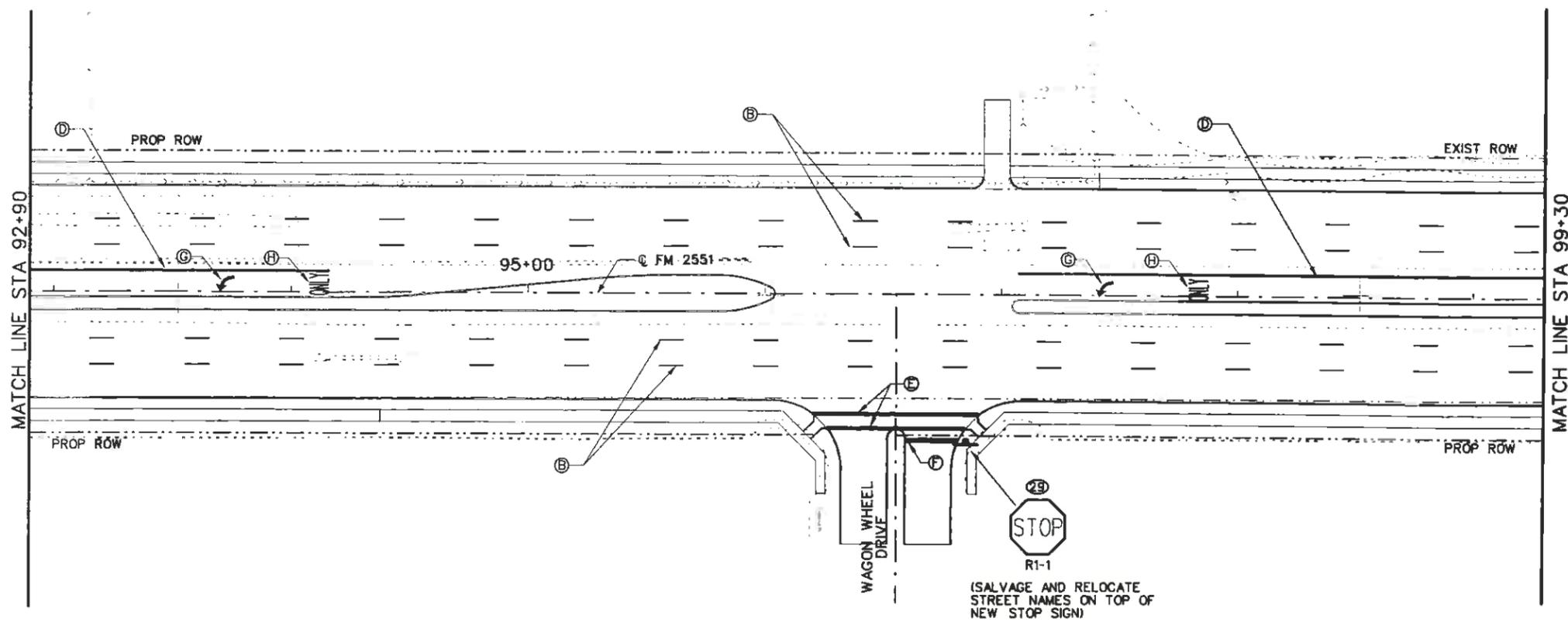


NO.	REVISION	BY	DATE
CP&Y, Inc. T.B.P.E. FIRM # F-1741			
Texas Department of Transportation © 2011			
<b>FM 2551</b> <b>SIGNING &amp; MARKING PLAN</b> STA 73+00 TO STA 86+20			
DESIGN GRB	FED. RD. DIV. NO.	STATE PROJECT NO.	HIGHWAY NO.
GRAPHICS GRB	STATE	DISTRICT	COUNTY
CHECK JX	TEXAS	DALLAS	COLLIN
CHECK JX	CONTROL	SECTION	JOB
	2058	01	045
			<b>376</b>

3/9/2011 12:17:13 PM j110 pat/Active Projects/CCT0134 N. Murphy Road - Collin County/SEGMENT 1/CADD/CUT SHEETS/Signing & Marking/0134SM05.030



- LEGEND**
- (A) 4" WHITE SOLID THERMOPLASTIC
  - (B) 4" WHITE BRK THERMOPLASTIC
  - (C) 8" WHITE DOT THERMOPLASTIC
  - (D) 8" WHITE SOLID THERMOPLASTIC
  - (E) 12" WHITE SOLID THERMOPLASTIC
  - (F) 24" WHITE SOLID THERMOPLASTIC
  - (G) WHITE SOLID THERMOPLASTIC ARROW
  - (H) WHITE SOLID THERMOPLASTIC WORD
  - (X) SIGN NO. (SEE SUMMARY OF SMALL SIGNS)



*JIE XIA 3/21/11*

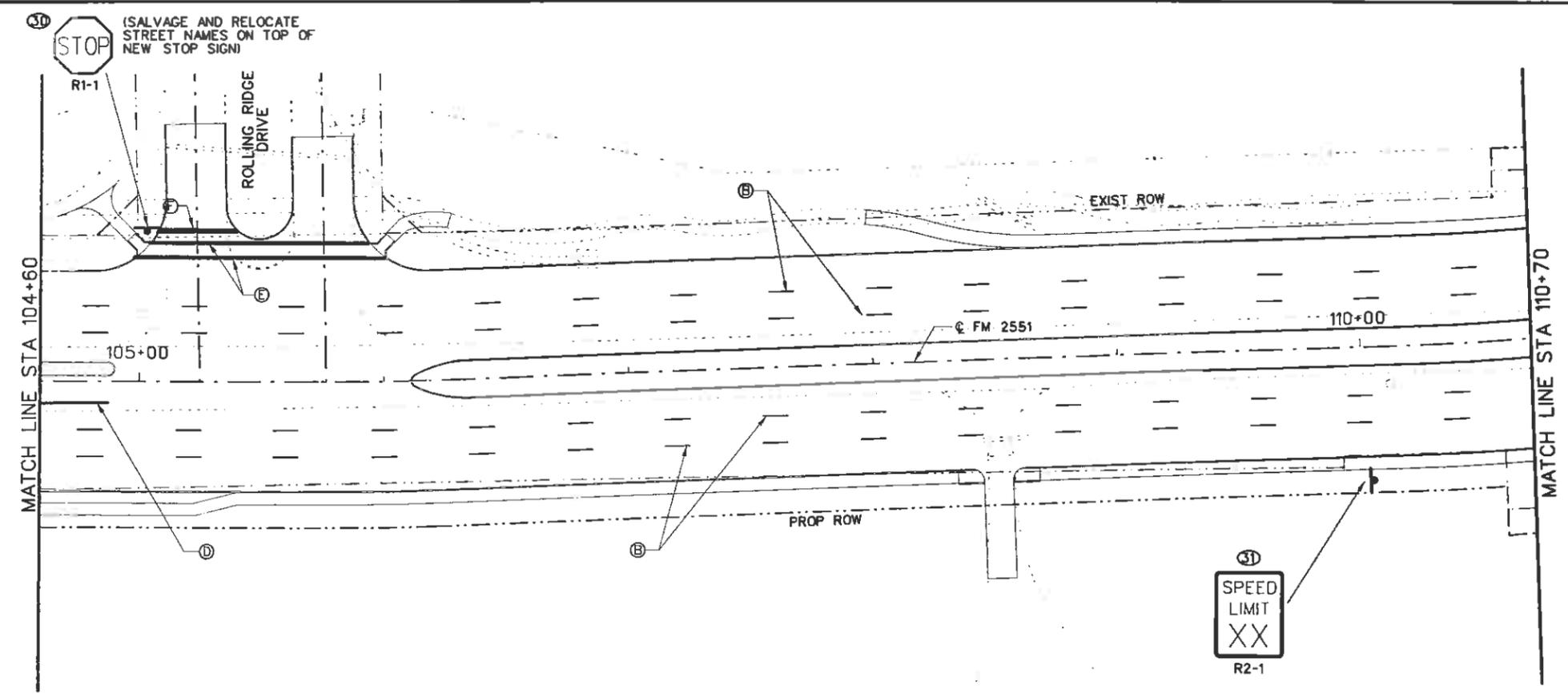
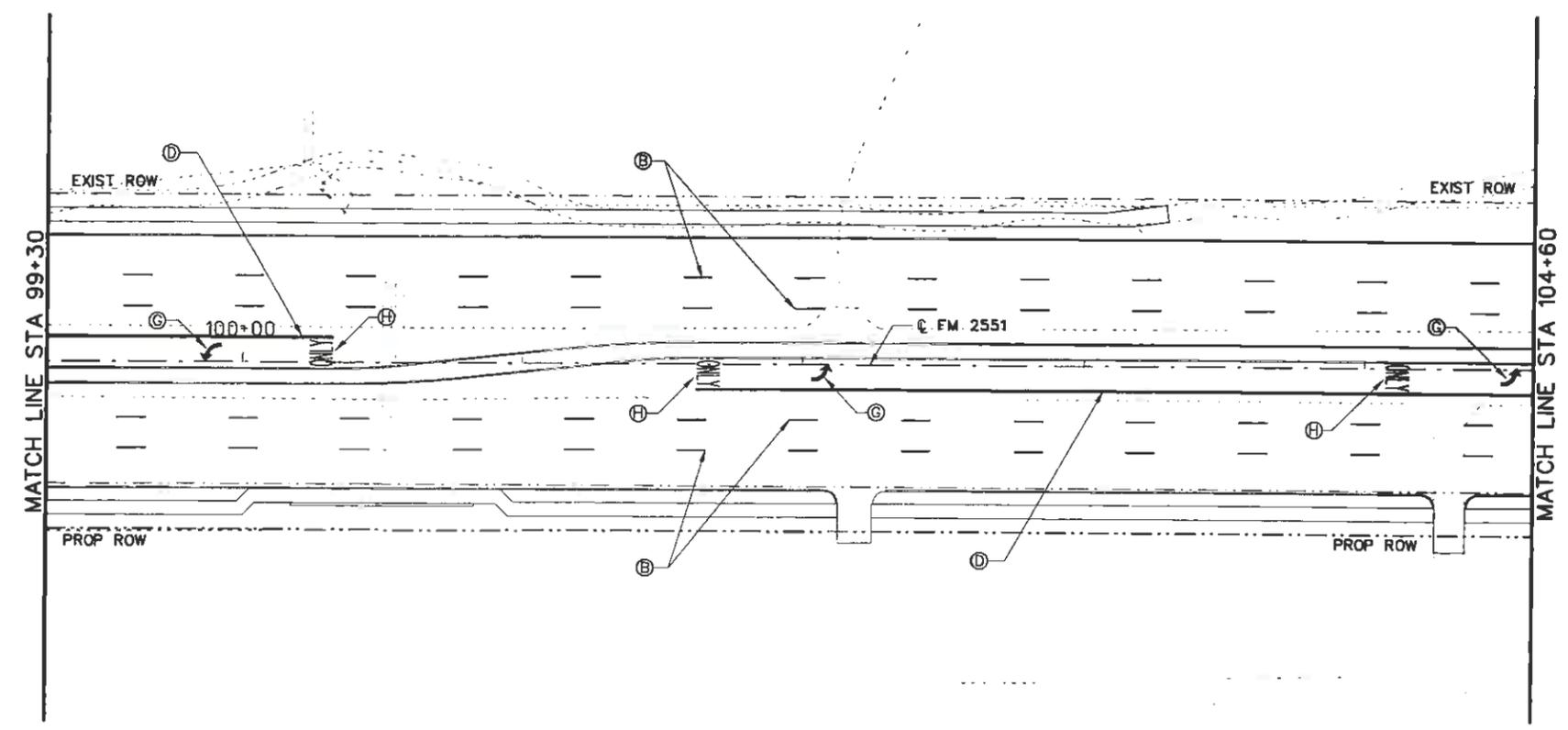
NO.	REVISION	BY	DATE
 <b>CP&amp;Y, Inc.</b> T.B.P.E. FIRM # F-1741			
 <b>Texas Department of Transportation</b> © 2011			
<b>FM 2551</b> <b>SIGNING &amp; MARKING PLAN</b> STA 86+20 TO STA 99+30			
DESIGN GRB	FED. RD. DIV. NO.	STATE PROJECT NO.	HIGHWAY NO.
GRAPHICS GRB	STATE	DISTRICT	COUNTY
CHECK JX	TEXAS	DALLAS	COLLIN
CHECK JX	CONTROL	SECTION	JOB
	2056	01	045
			<b>377</b>

3/3/2011 12:17:19 PM kld paz/Active Projects/CE0134 N. Murphy Road - Collin County/SEGMENT 1/CADD/CUT SHEETS/Signing & Marking/0134SM07.030



**LEGEND**

- (A) 4" WHITE SOLID THERMOPLASTIC
- (B) 4" WHITE BRK THERMOPLASTIC
- (C) 8" WHITE DOT THERMOPLASTIC
- (D) 8" WHITE SOLID THERMOPLASTIC
- (E) 12" WHITE SOLID THERMOPLASTIC
- (F) 24" WHITE SOLID THERMOPLASTIC
- (G) WHITE SOLID THERMOPLASTIC ARROW
- (H) WHITE SOLID THERMOPLASTIC WORD
- (XX) SIGN NO. (SEE SUMMARY OF SMALL SIGNS)



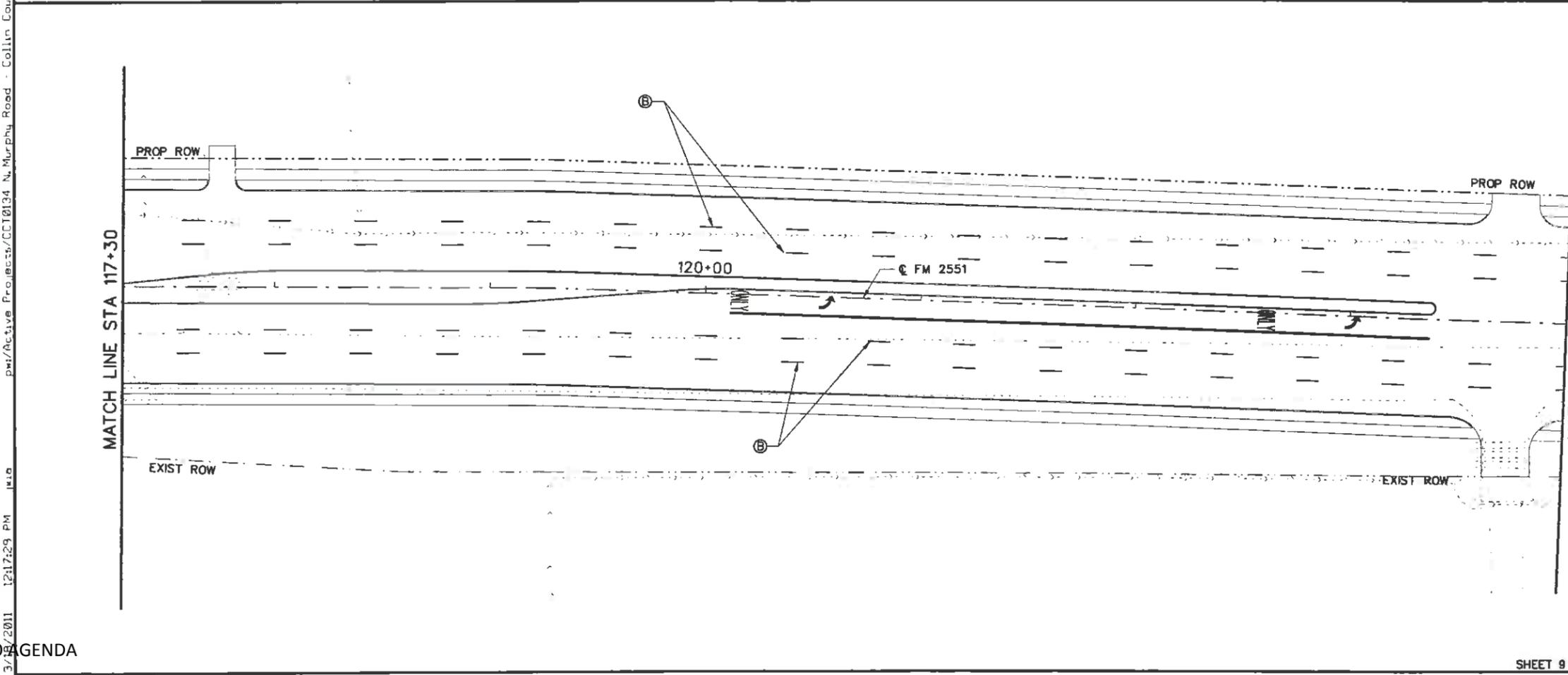
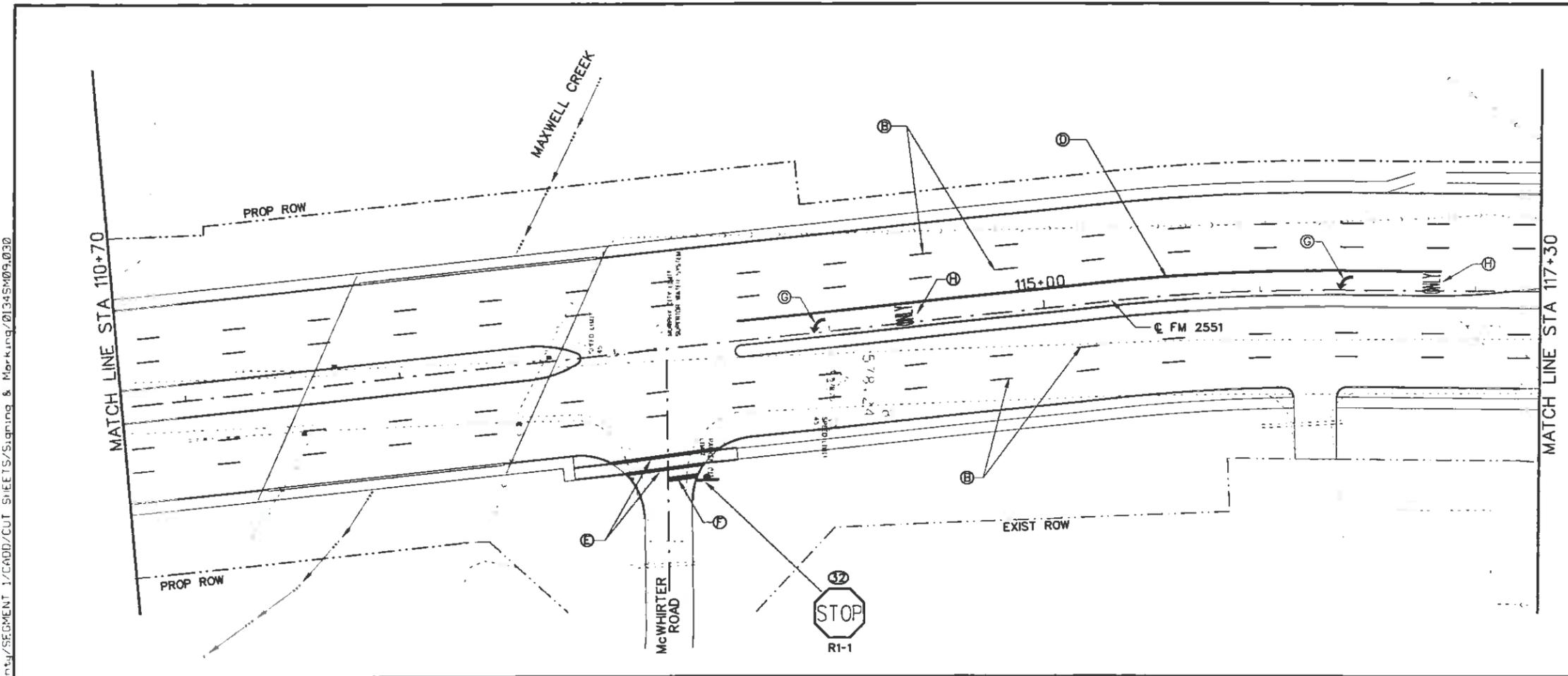
NO.	REVISION	BY	DATE
 CP&Y, Inc. T.B.P.E. FIRM # F-1741			
 Texas Department of Transportation © 2011			
<b>FM 2551</b> <b>SIGNING &amp; MARKING PLAN</b> STA 99+30 TO STA 110+70			
DESIGN GRB	FED. RD. DIV. NO.	STATE PROJECT NO.	HIGHWAY NO.
GRAPHICS GRB	STATE	DISTRICT	COUNTY
CHECK JX	TEXAS	DALLAS	COLLIN
CHECK JX	CONTROL	SECTION	JOB
	2056	01	045
			378

3/2/2011 12:17:24 PM info pas/Active Projects/CC10134 N. Murphy Road - Collin County/SEGMENT 1/CADD/Cut SHEETS/Signing & Marking/0134SM08.030



**LEGEND**

- (A) 4" WHITE SOLID THERMOPLASTIC
- (B) 4" WHITE BRK THERMOPLASTIC
- (C) 8" WHITE DOT THERMOPLASTIC
- (D) 8" WHITE SOLID THERMOPLASTIC
- (E) 12" WHITE SOLID THERMOPLASTIC
- (F) 24" WHITE SOLID THERMOPLASTIC
- (G) WHITE SOLID THERMOPLASTIC ARROW
- (H) WHITE SOLID THERMOPLASTIC WORD
- (XX) SIGN NO. (SEE SUMMARY OF SMALL SIGNS)



*Jie Xia 3/2/11*

NO.	REVISION	BY	DATE
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T.B.P.E. FIRM \* F-1741

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**FM 2551  
SIGNING & MARKING PLAN**

STA 110+70 TO STA 124+00

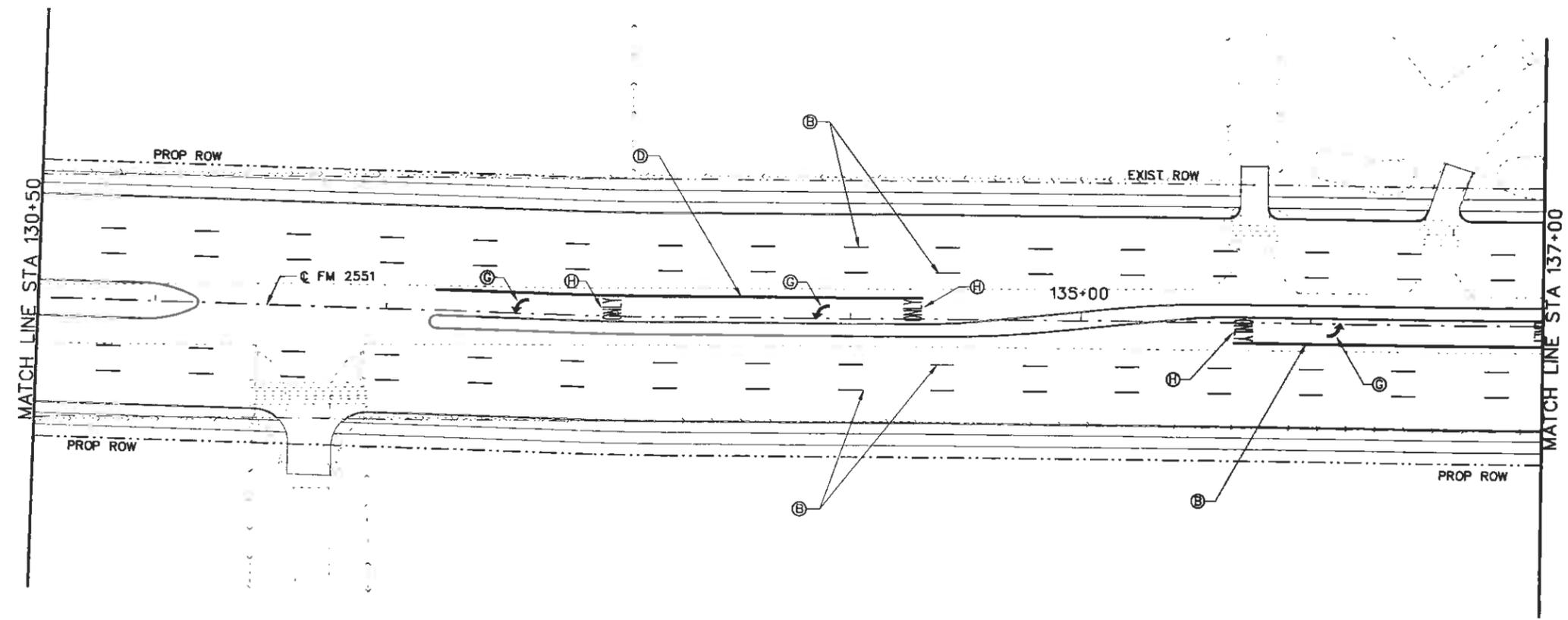
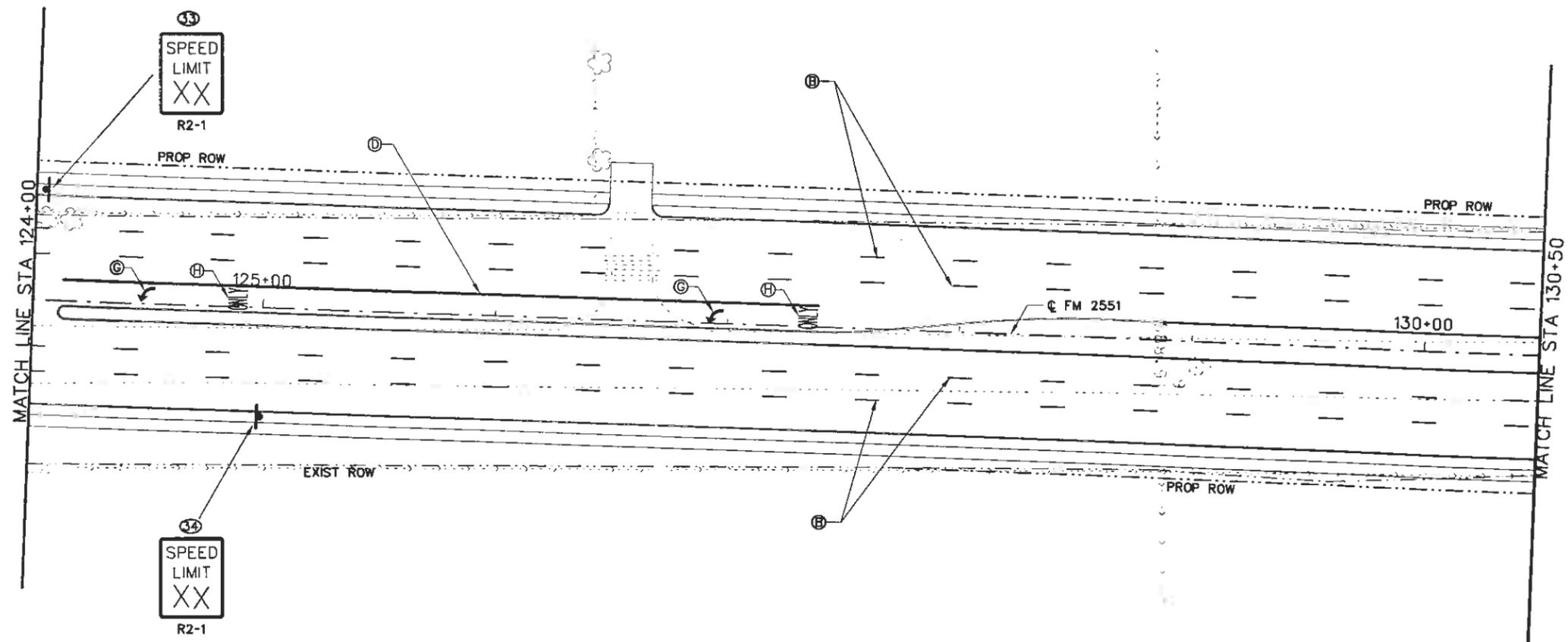
DESIGN GRB	FED. RD. DIV. NO.	STATE PROJECT NO.		HIGHWAY NO.
GRAPHICS GRB	STATE	DISTRICT	COUNTY	FM 2551
CHECK JX	TEXAS	DALLAS	COLLIN	SHEET NO.
CHECK JX	CONTROL	SECTION	JOB	379
	2056	01	045	

p:\Active Projects\CD10134 N. Murphy Road - Collin County\SEGMENT 1\CADD\CUT SHEETS\Signing & Marking\0134S009\_030  
 3/2/2011 12:17:29 PM M.S.



**LEGEND**

- (A) 4" WHITE SOLID THERMOPLASTIC
- (B) 4" WHITE BRK THERMOPLASTIC
- (C) 8" WHITE DOT THERMOPLASTIC
- (D) 8" WHITE SOLID THERMOPLASTIC
- (E) 12" WHITE SOLID THERMOPLASTIC
- (F) 24" WHITE SOLID THERMOPLASTIC
- (G) WHITE SOLID THERMOPLASTIC ARROW
- (H) WHITE SOLID THERMOPLASTIC WORD
- (XX) SIGN NO. (SEE SUMMARY OF SMALL SIGNS)

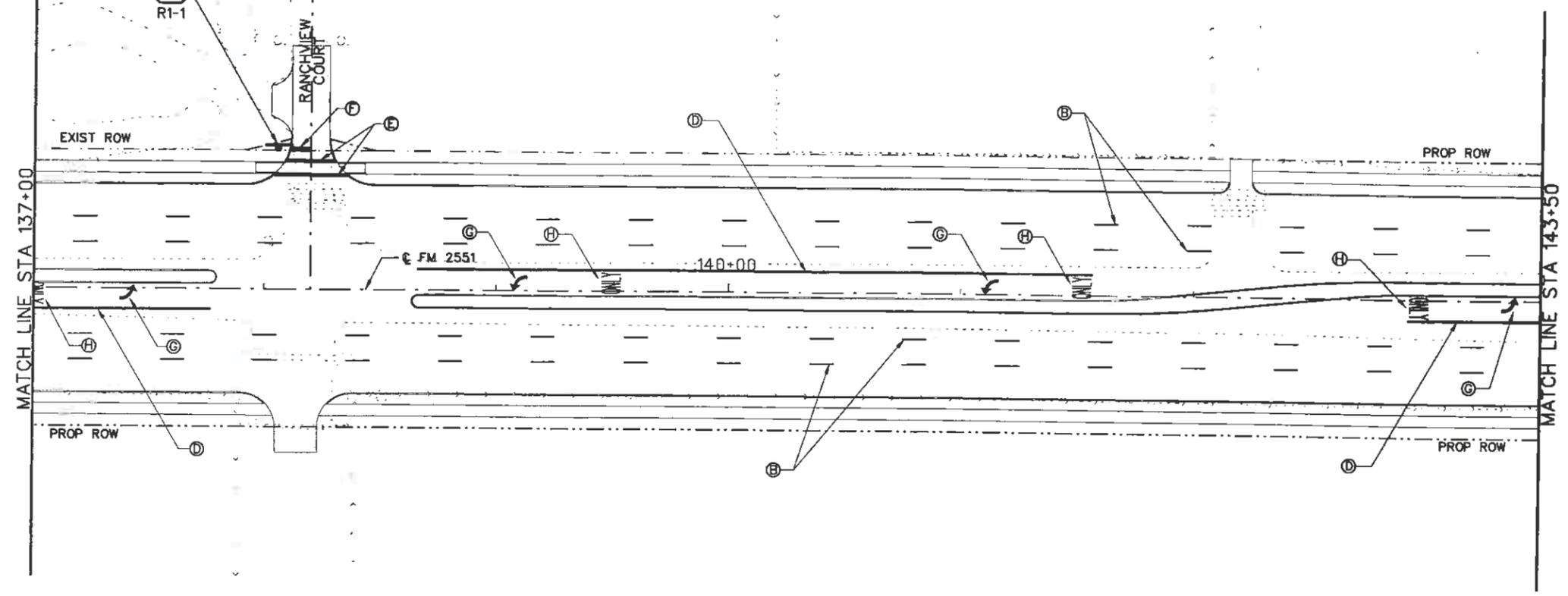


*Jie Xia* 3/21/11

NO.	REVISION	BY	DATE
CP&Y, Inc. T.B.P.E. FIRM # F-1741			
Texas Department of Transportation © 2011			
<b>FM 2551</b> <b>SIGNING &amp; MARKING PLAN</b> STA 124+00 TO STA 137+00			
DESIGN GRB	FED. RD. DIV. NO.	STATE PROJECT NO.	HIGHWAY NO.
GRAPHICS GRB	STATE	DISTRICT	COUNTY
CHECK JX	TEXAS	DALLAS	COLLIN
CHECK JX	CONTROL	SECTION	JOB
	2056	01	045
			380

D:\Active Projects\CCT0134 N. Murphy Road - Collin County\SEGMENT 1\CADD\CUT SHEETS/Signing & Marking\0134SM10.030  
 3/21/2011 12:17:34 PM JELG

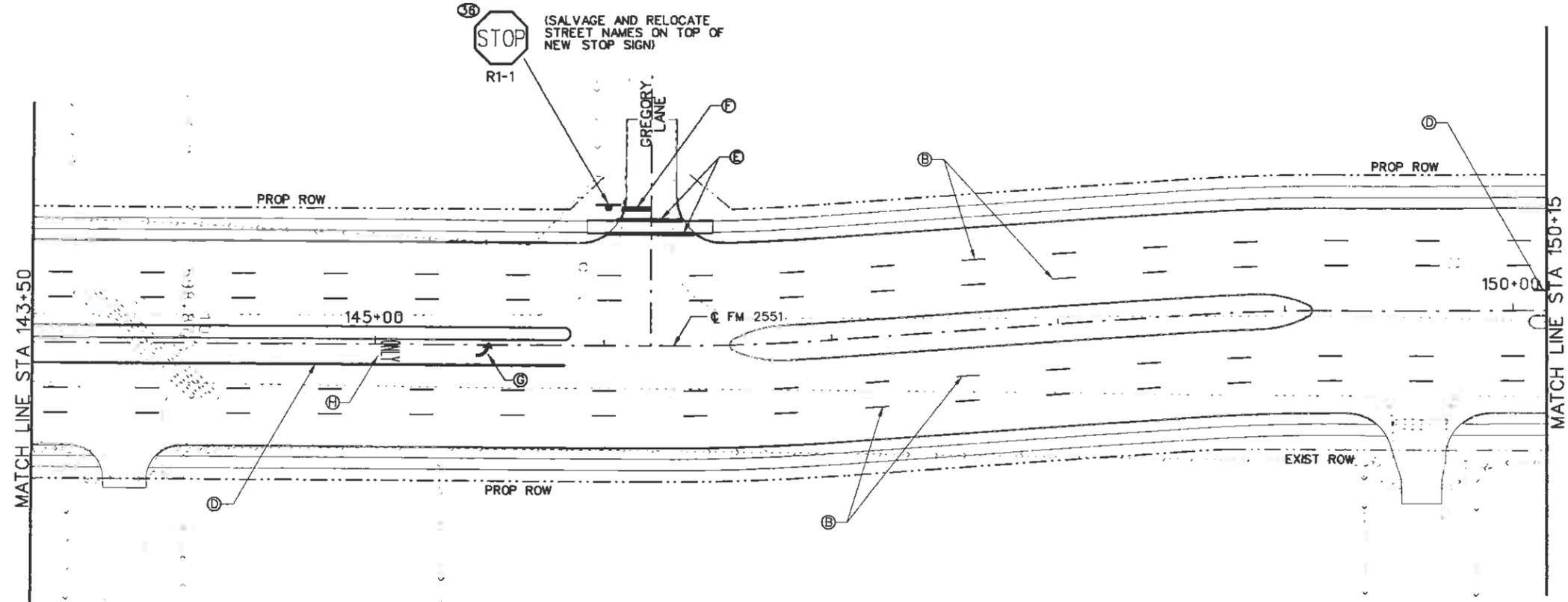
(SALVAGE AND RELOCATE STREET NAMES ON TOP OF NEW STOP SIGN)



**LEGEND**

- (A) 4" WHITE SOLID THERMOPLASTIC
- (B) 4" WHITE BRK THERMOPLASTIC
- (C) 8" WHITE DOT THERMOPLASTIC
- (D) 8" WHITE SOLID THERMOPLASTIC
- (E) 12" WHITE SOLID THERMOPLASTIC
- (F) 24" WHITE SOLID THERMOPLASTIC
- (G) WHITE SOLID THERMOPLASTIC ARROW
- (H) WHITE SOLID THERMOPLASTIC WORD
- (XX) SIGN NO. (SEE SUMMARY OF SMALL SIGNS)

(SALVAGE AND RELOCATE STREET NAMES ON TOP OF NEW STOP SIGN)



*Jie Xia 3/21/11*

NO.	REVISION	BY	DATE

**CP&Y** CP&Y, Inc.  
T.B.P.E. FIRM # F-1741

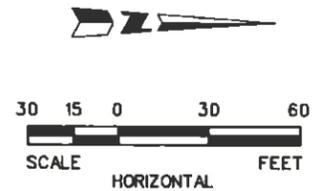
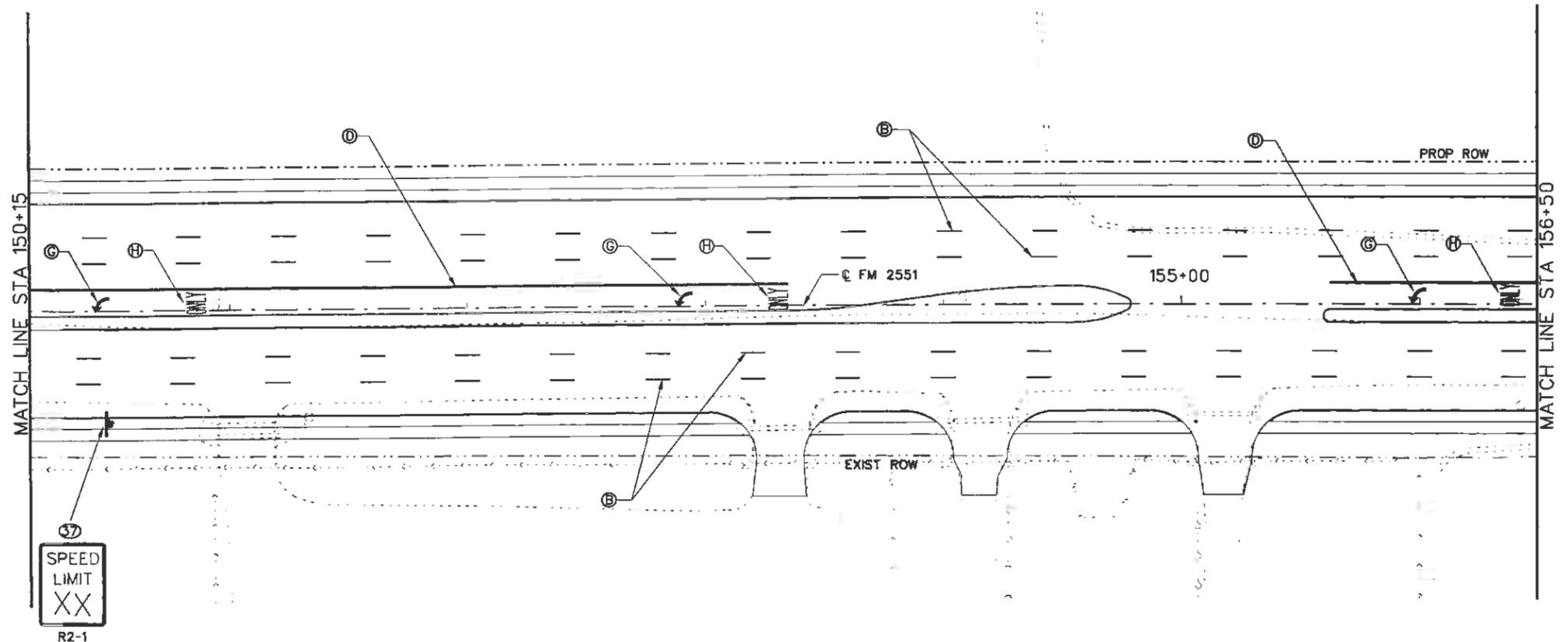
Texas Department of Transportation  
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**FM 2551  
SIGNING & MARKING PLAN**

STA 137+00 TO STA 150+15

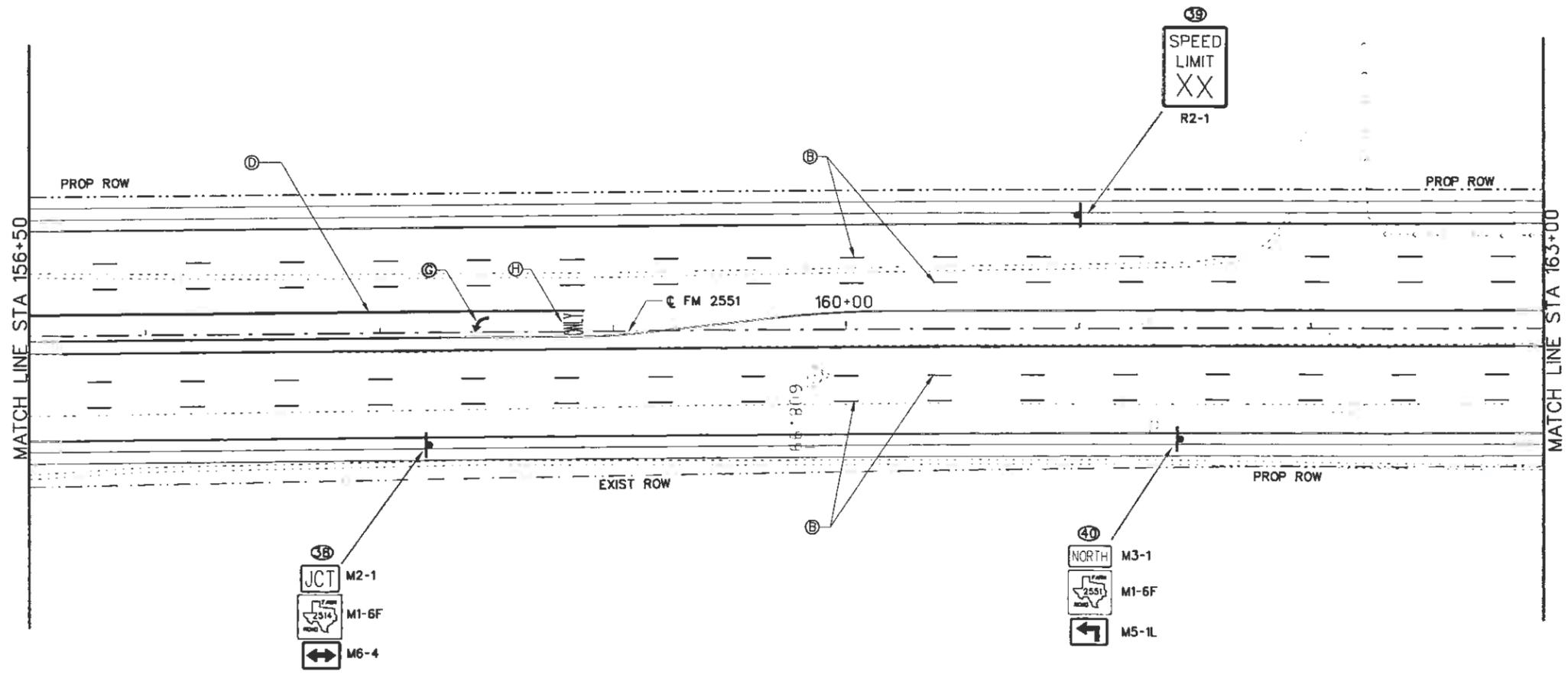
DESIGN	FED. RD. DIV. NO.	STATE PROJECT NO.			HIGHWAY NO.
GRB					FM 2551
GRAPHICS					SHEET NO.
CHECK	STATE	DISTRICT	COUNTY		
JX	TEXAS	DALLAS	COLLIN		381
CHECK	CONTROL	SECTION	JOB		
JX	2056	01	045		

3/21/2011 12:17:39 PM jxia pmt/Active Projects/CCT10134 N. Murphy Road - Collin County/SEGMENT 1/CADD/CUT SHEETS/Signing & Marking/0134SM11.030



**LEGEND**

- (A) 4" WHITE SOLID THERMOPLASTIC
- (B) 4" WHITE BRK THERMOPLASTIC
- (C) 8" WHITE DOT THERMOPLASTIC
- (D) 8" WHITE SOLID THERMOPLASTIC
- (E) 12" WHITE SOLID THERMOPLASTIC
- (F) 24" WHITE SOLID THERMOPLASTIC
- (G) WHITE SOLID THERMOPLASTIC ARROW
- (H) WHITE SOLID THERMOPLASTIC WORD
- (XX) SIGN NO. (SEE SUMMARY OF SMALL SIGNS)



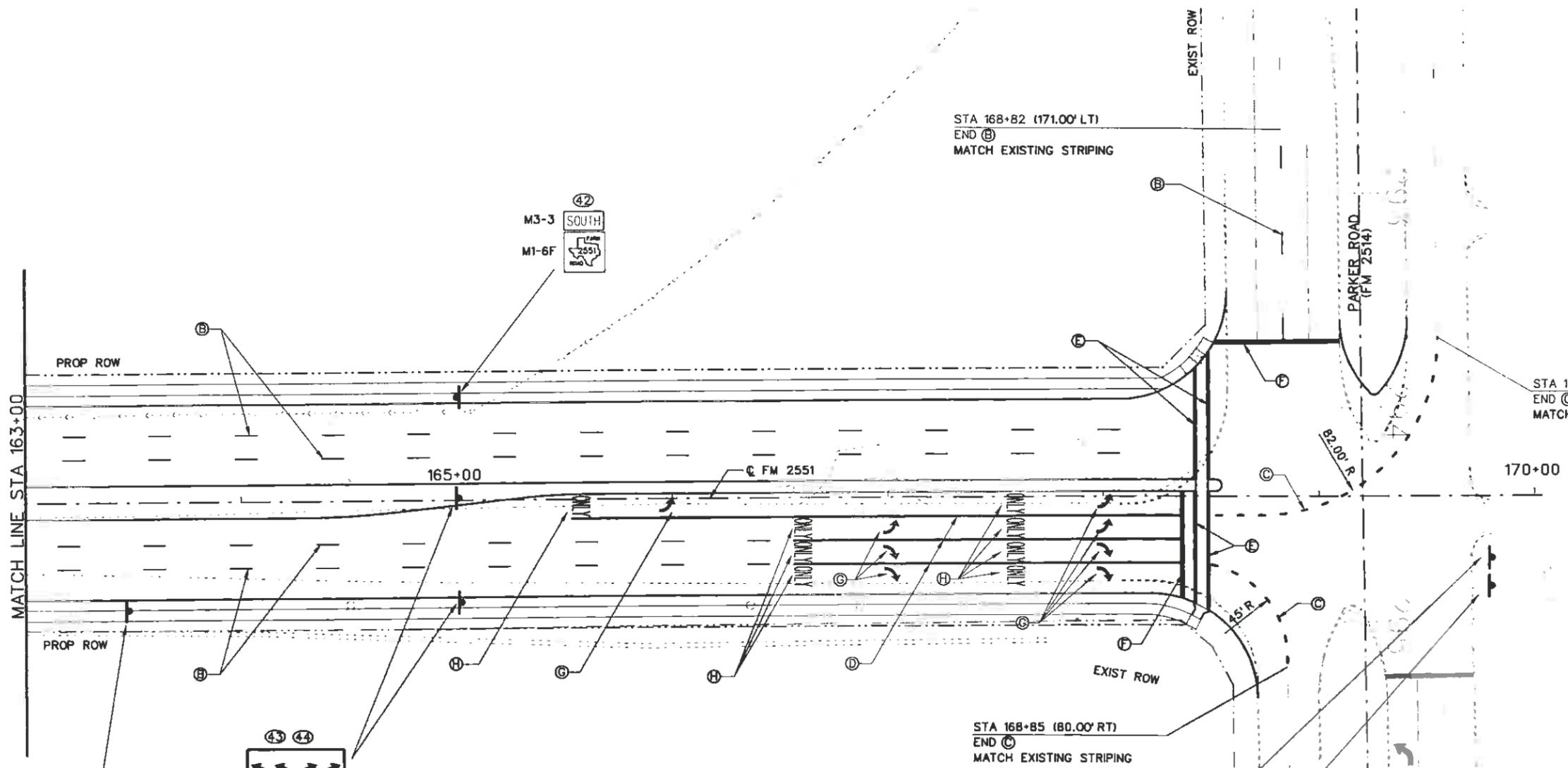
NO.	REVISION	BY	DATE
 <b>CP&amp;Y, Inc.</b> T.B.P.E. FIRM • F-1741			
 <b>Texas Department of Transportation</b> © 2011			
<b>FM 2551</b> <b>SIGNING &amp; MARKING PLAN</b> STA 150+15 TO STA 163+00			
DESIGN GRB	FED. RD. DIV. NO.	STATE PROJECT NO.	HIGHWAY NO.
GRAPHICS GRB	STATE	DISTRICT	COUNTY
CHECK JX	TEXAS	DALLAS	COLLIN
CHECK JX	CONTROL	SECTION	JOB
	2056	01	045
			382

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 pas/Active Projects/CC 10134 N. Murphy Road - Collin County/SEGMENT 1/CADD/CUT SHEETS/Signing & Marking/0134SM12.030

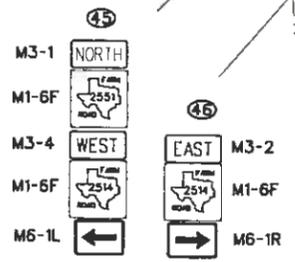
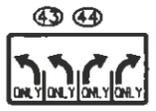


**LEGEND**

- (A) 4" WHITE SOLID THERMOPLASTIC
- (B) 4" WHITE BRK THERMOPLASTIC
- (C) 8" WHITE DOT THERMOPLASTIC
- (D) 8" WHITE SOLID THERMOPLASTIC
- (E) 12" WHITE SOLID THERMOPLASTIC
- (F) 24" WHITE SOLID THERMOPLASTIC
- (G) WHITE SOLID THERMOPLASTIC ARROW
- (H) WHITE SOLID THERMOPLASTIC WORD
- (XX) SIGN NO. (SEE SUMMARY OF SMALL SIGNS)



EXISTING SIGN TO BE RELOCATED FROM STA 164+50±



*J.E. Xia 3/21/11*

NO.	REVISION	BY	DATE

**CP&Y** CP&Y, Inc.  
T.B.P.E. FIRM • F-1741

Texas Department of Transportation  
© 2011

**FM 2551  
SIGNING & MARKING PLAN**

STA 163+00 TO END

DESIGN GRB	FED RD DIV. NO.	STATE PROJECT NO.			HIGHWAY NO.
GRAPHICS GRB					FM 2551
CHECK JX	STATE	DISTRICT	COUNTY		SHEET NO.
CHECK JX	TEXAS	DALLAS	COLLIN		383
CHECK JX	CONTROL	SECTION	JOB		
	2056	01	045		

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**City Council Meeting  
November 18, 2014**

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**Issue**

Consider and/or act upon all matters incident and related to approving an ordinance authorizing the issuance of "City of Murphy, Texas Tax and Waterworks and Sewer System (Limited Pledge) Revenue Certificates of Obligation, Series 2014, in the maximum par amount of \$3,000,000.

**Staff Resource/Department**

Linda Truitt, Finance Director

**Background/History**

As discussed during the Water and Sewer Rate Study and the FY 2015 budget preparation, additional funding will be required to complete the construction of the Maxwell Creek Parallel Trunk Sewer line. The design/engineering and right of way acquisition will be funded by the balance of the Series 2009 Certificate of Obligation. Staff is requesting the issuance of \$3,000,000 to ensure the construction and issuance costs are covered.

If there are funds available after the bid award of the Maxwell Creek Trunk Sewer line, the following additional projects may be funded:

- Windy Hills Lift Station mixer installation - \$100,000
- Replace 3" water main with an 8" water main from Moonlight to Ridgeview - \$328,000
- Bunny Run Drive water line loop - \$66,000
- South Maxwell Creek Road to Ridgeview Drive water loop - \$150,000

City Council approved a resolution authorizing the publication of notice of intention to issue certificates of obligation on October 7, 2014. The notices of intention were published in the Murphy Monitor on October 16 and October 23, 2014.

**Financial Considerations**

Payment of the \$3,000,000 Utility Fund certificates of obligation will be funded from the water and sewer revenues which were included in the rate study recommendations made by NewGen and included in the new water and sewer rates which went into effect on October 1, 2014. The estimated annual debt payment as prepared by FirstSouthwest is approximately \$225,000 a year for the 20 year repayment of the Certificates of Obligation. These numbers are subject to change depending upon the interest rate at the time of sale. The projected True Interest Cost (TIC) is 4.2237543%

Issuance costs are projected at approximately \$70,000 leaving a balance of \$2,930,000 for construction. The current estimated of \$2,500,000 for the project is a couple of years old and the final bids could be greater or less.

**Action Requested**

Approval of an ordinance authorizing the issuance of "City of Murphy, Texas Tax and Waterworks and Sewer System (Limited Pledge) Revenue Certificates of Obligation, Series 2014, in the maximum par amount of \$3,000,000.

**Attachments**

- 1) Ordinance
- 2) Affidavit of Publication and Notice of Intention to issue City of Murphy, Texas Certificates of Obligation
- 3) Schedule of Events
- 4) Debt Service Schedule
- 5) Rating Letter – Standard & Poor’s
- 6) Rating Rationale – Standard & Poor’s

**ORDINANCE  
AUTHORIZING THE ISSUANCE OF**

**\$3,000,000  
CITY OF MURPHY, TEXAS  
TAX AND WATERWORKS AND SEWER SYSTEM (LIMITED PLEDGE) REVENUE  
CERTIFICATES OF OBLIGATION,  
SERIES 2014**

**ADOPTED: November 18, 2014**

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## ORDINANCE NO. \_\_\_\_\_

AN ORDINANCE authorizing the issuance of “CITY OF MURPHY, TEXAS TAX AND WATERWORKS AND SEWER SYSTEM (LIMITED PLEDGE) REVENUE CERTIFICATES OF OBLIGATION, SERIES 2014”; providing for the payment of said certificates of obligation by the levy of an ad valorem tax upon all taxable property within the City and a limited pledge of the net revenues from the operation of the City’s Waterworks and Sewer System; and resolving other matters incident and relating to the issuance, payment, security, sale and delivery of said certificates, including the approval and execution of a Paying Agent/Registrar Agreement and the approval and distribution of a Preliminary Official Statement and an Official Statement; and providing an effective date.

WHEREAS, notice of the intention of the City of Murphy, Texas (the “City”) to issue certificates of obligation in the maximum principal amount of \$3,000,000 for the purpose of paying contractual obligations to be incurred for (i) improvements and extensions to the City’s combined Waterworks and Sewer System, including the acquisition of land and rights-of-way therefor, and (ii) professional services rendered in connection with such projects and the financing thereof, has been duly published in the *Murphy Monitor*, a newspaper hereby found and determined to be of general circulation in the City, on October 16, 2014 and October 23, 2014, the date of the first publication of such notice being not less than thirty-one (31) days prior to the tentative date stated therein for the passage of the ordinance authorizing the issuance of such certificates; and

WHEREAS, the *Murphy Monitor* is a newspaper which devotes not less than twenty-five percent (25%) of its total column lineage to items of general interest, is published not less frequently than once each week, entered as second-class postal matter in the county where it is published and has been published regularly and continuously for not less than twelve (12) months prior to the date of the publication of said “NOTICE OF INTENTION TO ISSUE CITY OF MURPHY, TEXAS, CERTIFICATES OF OBLIGATION, SERIES 2014”; and

WHEREAS, no petition protesting the issuance of such certificates and bearing valid petition signatures of at least five percent (5%) of the qualified voters of the City has been presented to or filed with the City Secretary, any member of the City Council or any other official of the City on or prior to the date of the passage of this Ordinance; and

WHEREAS, the City Council hereby finds and determines that the certificates of obligation described in such notice should be issued and sold at this time in the amount and manner as hereinafter provided; now, therefore,

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF MURPHY, TEXAS:

SECTION 1. Authorization - Designation - Principal Amount - Purpose. Certificates of obligation of the City shall be and are hereby authorized to be issued in the aggregate principal amount of \$\_\_\_\_\_, to be designated and bear the title “CITY OF MURPHY, TEXAS TAX AND WATERWORKS AND SEWER SYSTEM (LIMITED PLEDGE) REVENUE CERTIFICATES OF OBLIGATION, SERIES 2014” (the “Certificates”), for the purpose of paying contractual obligations to be incurred for (i) improvements and extensions to the City’s combined Waterworks and Sewer System, including the acquisition of land and rights-of-way therefor, and (ii) professional services rendered in connection with such projects and the financing thereof;

and, pursuant to authority conferred by and in conformity with the Constitution and laws of the State of Texas, including Texas Local Government Code, Subchapter C of Chapter 271, as amended.

**SECTION 2. Fully Registered Obligations - Authorized Denominations - Stated Maturities - Date.** The Certificates are issuable in fully registered form only; shall be dated November 15, 2014 (the "Certificate Date"), and shall be in denominations of \$5,000 or any integral multiple thereof (within a Stated Maturity), and the Certificates shall become due and payable on February 15 in each of the years and in principal amounts (the "Stated Maturities") and bear interest at the per annum rate(s) in accordance with the following schedule:

<u>Year of Stated Maturity</u>	<u>Principal Amount (\$)</u>	<u>Interest Rate (%)</u>
2015		
2016		
2017		
2018		
2019		
2020		
2021		
2022		
2023		
2024		
2025		
2026		
2027		
2028		
2029		
2030		
2031		
2032		
2033		
2034		

Interest on the Certificates shall accrue from the date of their delivery to the initial purchasers (anticipated to be December 18, 2014) at the per annum rate(s) shown above in this Section, and such interest shall be calculated on the basis of a 360-day year consisting of twelve 30-day months. Interest on the Certificates shall be payable on February 15 and August 15 of each year, commencing February 15, 2015, until maturity or prior redemption.

**SECTION 3. Terms of Payment - Paying Agent/Registrar.** The principal of, premium, if any, and the interest on the Certificates, due and payable by reason of maturity, redemption or otherwise, shall be payable only to the registered owners or holders of the Certificates (hereinafter called the "Holders") appearing on the registration and transfer books maintained by the Paying Agent/Registrar and the payment thereof shall be in any coin or currency of the United States of America which at the time of payment is legal tender for the payment of public and private debts, and shall be without exchange or collection charges to the Holders.

The selection and appointment of U.S. Bank National Association, Dallas, Texas, to serve as Paying Agent/Registrar for the Certificates is hereby approved and confirmed, and the

City agrees and covenants to cause to be kept and maintained by the Paying Agent/Registrar books and records relating to the registration, payment and transfer of the Certificates (the "Security Register"), all as provided herein, in accordance with the terms and provisions of a "Paying Agent/Registrar Agreement" substantially in the form attached hereto as **Exhibit A** and such reasonable rules and regulations as the Paying Agent/Registrar and City may prescribe; and the Mayor or Mayor Pro Tem and City Secretary are authorized to execute and deliver such Agreement in connection with the delivery of the Certificates. The City covenants to maintain and provide a Paying Agent/Registrar at all times until the Certificates are paid and discharged, and any successor Paying Agent/Registrar shall be a commercial bank, trust company, financial institution or other entity qualified and authorized to serve in such capacity and perform the duties and services of Paying Agent/Registrar. Upon any change in the Paying Agent/Registrar for the Certificates, the City agrees to promptly cause a written notice thereof to be sent to each Holder by United States Mail, first class postage prepaid, which notice shall also give the address of the new Paying Agent/Registrar.

Principal of and premium, if any, on the Certificates shall be payable at the Stated Maturities or upon prior redemption, only upon presentation and surrender of the Certificates to the Paying Agent/Registrar at its designated offices initially in St. Paul, Minnesota, or, with respect to a successor Paying Agent/Registrar, at the designated offices of such successor (the "Designated Payment/Transfer Office"). Interest on the Certificates shall be paid by the Paying Agent/Registrar to the Holders whose names appear in the Security Register at the close of business on the Record Date (the last business day of the month next preceding each interest payment date) and payment of such interest shall be (i) by check sent United States Mail, first class postage prepaid, to the address of the Holder recorded in the Security Register or (ii) by such other method, acceptable to the Paying Agent/Registrar, requested by, and at the risk and expense of, the Holder. If the date for the payment of the principal of or interest on the Certificates shall be a Saturday, Sunday, legal holiday or a day when banking institutions in the city where the Designated Payment/Transfer Office is located are authorized by law or executive order to be closed, then the date for such payment shall be the next succeeding day which is not such a Saturday, Sunday, legal holiday or day when banking institutions are authorized to be closed; and payment on such date shall have the same force and effect as if made on the original date payment was due.

In the event of a nonpayment of interest on a scheduled payment date, and for thirty (30) days thereafter, a new record date for such interest payment (a "Special Record Date") will be established by the Paying Agent/Registrar, if and when funds for the payment of such interest have been received from the City. Notice of the Special Record Date and of the scheduled payment date of the past due interest (which shall be fifteen (15) days after the Special Record Date) shall be sent at least five (5) business days prior to the Special Record Date by United States mail, first class postage prepaid, to the address of each Holder appearing on the Security Register at the close of business on the last business day next preceding the date of mailing of such notice.

#### SECTION 4. Redemption.

(a) Optional Redemption. The Certificates having Stated Maturities on and after February 15, 2025, shall be subject to redemption prior to maturity, at the option of the City, in whole or in part in principal amounts of \$5,000 or any integral multiple thereof (and if within a Stated Maturity by lot by the Paying Agent/Registrar), on February 15, 2024, or on any date thereafter at the redemption price of par plus accrued interest to the date of redemption.

(b) [Mandatory Redemption]. The Certificates maturing on February 15 in each of the years \_\_\_\_ and \_\_\_\_ (the "Term Certificates") shall be subject to mandatory redemption in part prior to maturity at the redemption price of par and accrued interest to the date of redemption on the respective dates and in principal amounts as follows:

Term Certificates due February 15, 20__	Term Certificates due February 15, 20__
<u>Redemption Date</u> <u>Principal Amount</u>	<u>Redemption Date</u> <u>Principal Amount</u>

Approximately forty-five (45) days prior to each mandatory redemption date for the Term Certificates, the Paying Agent/Registrar shall select by lot the numbers of the Term Certificates within the applicable Stated Maturity to be redeemed on the next following February 15 from moneys set aside for that purpose in the Certificate Fund (as hereinafter defined). Any Term Certificate not selected for prior redemption shall be paid on the date of their Stated Maturity.

The principal amount of the Term Certificates for a Stated Maturity required to be redeemed on a mandatory redemption date may be reduced, at the option of the City, by the principal amount of Term Certificates of like Stated Maturity which, at least 50 days prior to the mandatory redemption date, (1) shall have been acquired by the City at a price not exceeding the principal amount of such Term Certificates plus accrued interest to the date of purchase thereof, and delivered to the Paying Agent/Registrar for cancellation or (2) shall have been redeemed pursuant to the optional redemption provisions set forth in subsection (a) of this Section and not theretofore credited against a mandatory redemption requirement.]

(c) Exercise of Redemption Option. At least forty-five (45) days prior to an optional redemption date for the Certificates (unless a shorter notification period shall be satisfactory to the Paying Agent/Registrar), the City shall notify the Paying Agent/Registrar of the decision to redeem Certificates, the principal amount of each Stated Maturity to be redeemed, and the date of redemption therefor. The decision of the City to exercise the right to redeem Certificates shall be entered in the minutes of the governing body of the City.

(d) Selection of Certificates for Redemption. If less than all Outstanding Certificates of the same Stated Maturity are to be redeemed on a redemption date, the Paying Agent/Registrar shall treat such Certificates as representing the number of Certificates Outstanding which is obtained by dividing the principal amount of such Certificates by \$5,000 and shall select the Certificates to be redeemed within such Stated Maturity by lot.

(e) Notice of Redemption. Not less than thirty (30) days prior to a redemption date for the Certificates, a notice of redemption shall be sent by United States Mail, first class postage prepaid, in the name of the City and at the City's expense, to each Holder of a Certificate to be redeemed in whole or in part at the address of the Holder appearing on the Security Register at the close of business on the business day next preceding the date of mailing such notice, and any notice of redemption so mailed shall be conclusively presumed to have been duly given irrespective of whether received by the Holder.

All notices of redemption shall (i) specify the date of redemption for the Certificates, (ii) identify the Certificates to be redeemed and, in the case of a portion of the principal amount to be redeemed, the principal amount thereof to be redeemed, (iii) state the redemption price,

(iv) state that the Certificates, or the portion of the principal amount thereof to be redeemed, shall become due and payable on the redemption date specified, and the interest thereon, or on the portion of the principal amount thereof to be redeemed, shall cease to accrue from and after the redemption date, and (v) specify that payment of the redemption price for the Certificates, or the principal amount thereof to be redeemed, shall be made at the Designated Payment/Transfer Office of the Paying Agent/Registrar only upon presentation and surrender thereof by the Holder. If a Certificate is subject by its terms to prior redemption and has been called for redemption and notice of redemption thereof has been duly given as hereinabove provided, such Certificate (or the principal amount thereof to be redeemed) shall become due and payable and interest thereon shall cease to accrue from and after the redemption date therefor; provided moneys sufficient for the payment of such Certificate (or of the principal amount thereof to be redeemed) at the then applicable redemption price are held for the purpose of such payment by the Paying Agent/Registrar.

(f) Conditional Notice of Redemption. With respect to any optional redemption of the Certificates, unless moneys sufficient to pay the principal of and premium, if any, and interest on the Certificates to be redeemed shall have been received by the Paying Agent/Registrar prior to the giving of such notice of redemption, such notice may state that said redemption is conditional upon the receipt of such moneys by the Paying Agent/Registrar on or prior to the date fixed for such redemption, or upon the satisfaction of any prerequisites set forth in such notice of redemption; and, if sufficient moneys are not received, such notice shall be of no force and effect, the City shall not redeem such Certificates and the Paying Agent/Registrar shall give notice, in the manner in which the notice of redemption was given, to the effect that the Certificates have not been redeemed.

SECTION 5. Registration - Transfer - Exchange of Certificates - Predecessor Certificates. The Paying Agent/Registrar shall obtain, record and maintain in the Security Register the name and address of each and every owner of the Certificates issued under and pursuant to the provisions of this Ordinance, or if appropriate, the nominee thereof. Any Certificate may be transferred or exchanged for Certificates of other authorized denominations by the Holder, in person or by his duly authorized agent, upon surrender of such Certificate to the Paying Agent/Registrar for cancellation, accompanied by a written instrument of transfer or request for exchange duly executed by the Holder or by his duly authorized agent, in form satisfactory to the Paying Agent/Registrar.

Upon surrender of any Certificate (other than the single Initial Certificate authorized in Section 8 hereof) for transfer at the Designated Payment/Transfer Office of the Paying Agent/Registrar, the Paying Agent/Registrar shall register and deliver, in the name of the designated transferee or transferees, one or more new Certificates, executed on behalf of, and furnished by the City, of authorized denominations and having the same Stated Maturity and of a like aggregate principal amount as the Certificate or Certificates surrendered for transfer.

At the option of the Holder, Certificates (other than the single Initial Certificate authorized in Section 8 hereof) may be exchanged for other Certificates of authorized denominations and having the same Stated Maturity, bearing the same rate of interest and of like aggregate principal amount as the Certificates surrendered for exchange, upon surrender of the Certificates to be exchanged at the Designated Payment/Transfer Office of the Paying Agent/Registrar. Whenever any Certificates are surrendered for exchange, the Paying Agent/Registrar shall register and deliver new Certificates, executed on behalf of, and furnished by the City, to the Holder requesting the exchange.

All Certificates issued in any transfer or exchange of Certificates shall be delivered to the Holders at the Designated Payment/Transfer Office of the Paying Agent/Registrar or sent by United States Mail, first class postage prepaid, to the Holders, and, upon the registration and delivery thereof, the same shall be the valid obligations of the City, evidencing the same obligation to pay, and entitled to the same benefits under this Ordinance, as the Certificates surrendered in such transfer or exchange.

All transfers or exchanges of Certificates pursuant to this Section shall be made without expense or service charge to the Holder, except as otherwise herein provided, and except that the Paying Agent/Registrar shall require payment by the Holder requesting such transfer or exchange of any tax or other governmental charges required to be paid with respect to such transfer or exchange.

Certificates cancelled by reason of an exchange or transfer pursuant to the provisions hereof are hereby defined to be "Predecessor Certificates", evidencing all or a portion, as the case may be, of the same obligation to pay evidenced by the new Certificate or Certificates registered and delivered in the exchange or transfer therefor. Additionally, the term "Predecessor Certificates" shall include any mutilated, lost, destroyed or stolen Certificate for which a replacement Certificate has been issued, registered and delivered in lieu thereof pursuant to the provisions of Section 24 hereof and such new replacement Certificate shall be deemed to evidence the same obligation as the mutilated, lost, destroyed or stolen Certificate.

Neither the City nor the Paying Agent/Registrar shall be required to issue or transfer to an assignee of a Holder any Certificate called for redemption, in whole or in part, within forty-five (45) days of the date fixed for the redemption of such Certificate; provided, however, such limitation on transferability shall not be applicable to an exchange by the Holder of the unredeemed balance of a Certificate called for redemption in part.

**SECTION 6. Book-Entry-Only Transfers and Transactions.** Notwithstanding the provisions contained in Sections 3, 4 and 5 hereof relating to the payment, and transfer/exchange of the Certificates, the City hereby approves and authorizes the use of "Book-Entry-Only" securities clearance, settlement and transfer system provided by The Depository Trust Company (DTC), a limited purpose trust company organized under the laws of the State of New York, in accordance with the operational arrangements referenced in the Blanket Issuer Letter of Representation, by and between the City and DTC (the "Depository Agreement").

Pursuant to the Depository Agreement and the rules of DTC, the Certificates shall be deposited with DTC who shall hold said Certificates for its participants (the "DTC Participants"). While the Certificates are held by DTC under the Depository Agreement, the Holder of the Certificates on the Security Register for all purposes, including payment and notices, shall be Cede & Co., as nominee of DTC, notwithstanding the ownership of each actual purchaser or owner of each Certificate (the "Beneficial Owners") being recorded in the records of DTC and DTC Participants.

In the event DTC determines to discontinue serving as securities depository for the Certificates or otherwise ceases to provide book-entry clearance and settlement of securities transactions in general or the City determines that DTC is incapable of properly discharging its duties as securities depository for the Certificates, the City covenants and agrees with the Holders of the Certificates to cause Certificates to be printed in definitive form and issued and delivered to DTC Participants and Beneficial Owners, as the case may be. Thereafter, the Certificates in definitive form shall be assigned, transferred and exchanged on the Security

Register maintained by the Paying Agent/Registrar and payment of such Certificates shall be made in accordance with the provisions of Sections 3, 4 and 5 hereof.

SECTION 7. Execution - Registration. The Certificates shall be executed on behalf of the City by the Mayor under its seal reproduced or impressed thereon and countersigned by the City Secretary. The signature of said officers and the seal of the City on the Certificates may be manual or facsimile. Certificates bearing the manual or facsimile signatures of individuals who are or were the proper officers of the City on the Certificate Date shall be deemed to be duly executed on behalf of the City, notwithstanding that one or more of the individuals executing the same shall cease to be such officer at the time of delivery of the Certificates to the initial purchaser(s) and with respect to Certificates delivered in subsequent exchanges and transfers, all as authorized and provided in Texas Government Code, Chapter 1201, as amended.

No Certificate shall be entitled to any right or benefit under this Ordinance, or be valid or obligatory for any purpose, unless there appears on such Certificate either a certificate of registration substantially in the form provided in Section 9(c), manually executed by the Comptroller of Public Accounts of the State of Texas, or his duly authorized agent, or a certificate of registration substantially in the form provided in Section 9(d), manually executed by an authorized officer, employee or representative of the Paying Agent/Registrar, and either such certificate duly signed upon any Certificate shall be conclusive evidence, and the only evidence, that such Certificate has been duly certified, registered and delivered.

Notwithstanding the above and foregoing paragraph, both certificates of registration appearing in Section 9(c) and Section 9(d) shall be printed on the Initial Certificate(s) authorized for delivery to the initial purchasers in Section 8, and both such certifications shall be required to be manually executed in connection with the delivery of the Initial Certificate(s) to the initial purchaser. Upon the delivery of the Initial Certificate(s) to the initial purchaser with both such certificates of registration properly executed, the Initial Certificate(s) shall be deemed duly certified, registered and delivered by the City.

SECTION 8. Initial Certificate(s). The Certificates herein authorized shall be initially issued either (i) as a single fully registered certificate in the total principal amount shown in Section 1 hereof with principal installments to become due and payable as provided in Section 2 hereof and numbered T-1, or (ii) as multiple fully registered certificates, being one certificate for each year of maturity in the applicable principal amount and denomination and to be numbered consecutively from T-1 and upward (hereinafter called the "Initial Certificate(s)") and, in either case, the Initial Certificate(s) shall be registered in the name of the initial purchaser(s) or the designee thereof. The Initial Certificate(s) shall be the Certificates submitted to the Office of the Attorney General of the State of Texas for approval, certified and registered by the Office of the Comptroller of Public Accounts of the State of Texas and delivered to the initial purchaser(s). Any time after the delivery of the Initial Certificate(s), the Paying Agent/Registrar, pursuant to written instructions from the initial purchaser(s), or the designee thereof, shall cancel the Initial Certificate(s) delivered hereunder and exchange therefor definitive Certificates of authorized denominations, Stated Maturities, principal amounts and bearing applicable interest rates for transfer and delivery to the Holders named at the addresses identified therefor; all pursuant to and in accordance with such written instructions from the initial purchaser(s), or the designee thereof, and such other information and documentation as the Paying Agent/Registrar may reasonably require.

SECTION 9. Forms.

(a) Forms Generally. The Certificates, the Registration Certificate of the Comptroller of Public Accounts of the State of Texas, the Registration Certificate of Paying Agent/Registrar, and the form of Assignment to appear on each of the Certificates, shall be substantially in the forms set forth in this Section with such appropriate insertions, omissions, substitutions and other variations as are permitted or required by this Ordinance and may have such letters, numbers or other marks of identification (including identifying numbers and letters of the Committee on Uniform Securities Identification Procedures of the American Bankers Association) and such legends and endorsements (including insurance legends in the event the Certificates, or any maturities thereof, are purchased with insurance) and any reproduction of an opinion of counsel thereon as may, consistently herewith, be established by the City or determined by the officers executing such Certificates as evidenced by their execution. Any portion of the text of any Certificate may be set forth on the reverse thereof, with an appropriate reference thereto on the face of the Certificate.

The definitive Certificates and the Initial Certificate(s) shall be printed, lithographed, engraved, typewritten, photocopied or otherwise reproduced in any other similar manner, all as determined by the officers executing such Certificates as evidenced by their execution.

(b) Form of Definitive Certificate.

REGISTERED  
NO. \_\_\_\_\_

REGISTERED  
\$ \_\_\_\_\_

UNITED STATES OF AMERICA  
STATE OF TEXAS  
CITY OF MURPHY, TEXAS  
TAX AND WATERWORKS AND SEWER SYSTEM (LIMITED PLEDGE) REVENUE  
CERTIFICATE OF OBLIGATION  
SERIES 2014

Certificate Date:  
November 15, 2014

Interest Rate:  
\_\_\_\_\_ %

Stated Maturity:  
February 15, 20\_\_

CUSIP NO:  
\_\_\_\_\_

Registered Owner:

Principal Amount:

DOLLARS

The City of Murphy (hereinafter referred to as the "City"), a body corporate and municipal corporation in the County of Collin, State of Texas, for value received, acknowledges itself indebted to and hereby promises to pay to the Registered Owner named above (the "Registered Owner"), or the registered assigns thereof, the Principal Amount stated above, on the Stated Maturity date specified above (or so much thereof as shall not have been paid upon prior redemption) and to pay interest (computed on the basis of a 360-day year consisting of twelve 30-day months) on the unpaid Principal Amount hereof from the interest payment date next preceding the "Registration Date" of this Certificate appearing below (unless this Certificate bears a "Registration Date" as of an interest payment date, in which case it shall bear interest from such date, or unless the "Registration Date" of this Certificate is prior to the initial interest payment date, in which case it shall bear interest from the date of their delivery to the initial purchasers (anticipated to be December 18, 2014) at the per annum rate of interest specified

above; such interest being payable on August 15 and February 15 of each year, commencing February 15, 2015, until maturity or prior redemption. Principal of this Certificate is payable at its Stated Maturity or upon its prior redemption to the Registered Owner hereof, upon presentation and surrender, at the Designated Payment/Transfer Office of the Paying Agent/Registrar executing the registration certificate appearing hereon, or its successor. Interest is payable to the Registered Owner of this Certificate (or one or more Predecessor Certificates, as defined in the Ordinance hereinafter referenced) whose name appears on the "Security Register" maintained by the Paying Agent/Registrar at the close of business on the "Record Date", which is the last business day of the month next preceding each interest payment date, and interest shall be paid by the Paying Agent/Registrar by check sent United States Mail, first class postage prepaid, to the address of the Registered Owner recorded in the Security Register on the Record Date or by such other method, acceptable to the Paying Agent/Registrar, requested by, and at the risk and expense of, the Registered Owner. If the date for the payment of the principal of or interest on the Certificates shall be a Saturday, Sunday, legal holiday or a day when banking institutions in the city where the Designated Payment/Transfer Office is located are authorized by law or executive order to close, then the date for such payment shall be the next succeeding day which is not such a Saturday, Sunday, legal holiday or day when banking institutions are authorized to close; and payment on such date shall have the same force and effect as if made on the original date payment was due. All payments of principal of, premium, if any, and interest on this Certificate shall be without exchange or collection charges to the Registered Owner hereof and in any coin or currency of the United States of America which at the time of payment is legal tender for the payment of public and private debts.

This Certificate is one of the series specified in its title issued in the aggregate principal amount of \$\_\_\_\_\_ (herein referred to as the "Certificates") for the purpose of paying contractual obligations to be incurred for improvements and extensions to the City's combined Waterworks and Sewer System, including the acquisition of land and rights-of-way therefor, and (ii) professional services rendered in connection with such projects and the financing thereof, under and in strict conformity with the Constitution and laws of the State of Texas, particularly Texas Local Government Code, Subchapter C of Chapter 271, as amended, and pursuant to an Ordinance adopted by the governing body of the City (herein referred to as the "Ordinance").

[The Certificates maturing on the dates hereinafter identified (the "Term Certificates") are subject to mandatory redemption prior to maturity with funds on deposit in the Certificate Fund established and maintained for the payment thereof in the Ordinance, and shall be redeemed in part prior to maturity at the price of par and accrued interest thereon to the date of redemption, and without premium, on respective dates and in principal amounts as follows:

Term Certificates due February 15, 20__	Term Certificates due February 15, 20__
<u>Redemption Date</u> <u>Principal Amount</u>	<u>Redemption Date</u> <u>Principal Amount</u>

The particular Term Certificates of a stated maturity to be redeemed on each redemption date shall be chosen by lot by the Paying Agent/Registrar; provided, however, that the principal amount of Term Certificates for a Stated Maturity required to be redeemed on a mandatory redemption date may be reduced, at the option of the City, by the principal amount of Term Certificates of like Stated Maturity which, at least 50 days prior to the mandatory redemption

date, (1) shall have been acquired by the City at a price not exceeding the principal amount of such Term Certificates plus accrued interest to the date of purchase thereof, and delivered to the Paying Agent/Registrar for cancellation or (2) shall have been redeemed pursuant to the optional redemption provisions appearing below and not theretofore credited against a mandatory redemption requirement.]

The Certificates maturing on and after February 15, 2025, may be redeemed prior to their Stated Maturities, at the option of the City, in whole or in part, in principal amounts of \$5,000 or any integral multiple thereof (and if within a Stated Maturity, by lot by the Paying Agent/Registrar), on February 15, 2024, or on any date thereafter, at the redemption price of par, together with accrued interest to the date of redemption.

At least thirty (30) days prior to a redemption date, the City shall cause a written notice of such redemption to be sent by United States Mail, first class postage prepaid, to the registered owners of each Certificate to be redeemed at the address shown on the Security Register and subject to the terms and provisions relating thereto contained in the Ordinance. If a Certificate (or any portion of its principal sum) shall have been duly called for redemption and notice of such redemption duly given, then upon the redemption date such Certificate (or the portion of its principal sum to be redeemed) shall become due and payable, and, if moneys for the payment of the redemption price and the interest accrued on the principal amount to be redeemed to the date of redemption are held for the purpose of such payment by the Paying Agent/Registrar, interest shall cease to accrue and be payable from and after the redemption date on the principal amount redeemed.

In the event a portion of the principal amount of a Certificate is to be redeemed and the registered owner is someone other than Cede & Co., payment of the redemption price of such principal amount shall be made to the registered owner only upon presentation and surrender of such Certificate to the Designated Payment/Transfer Office of the Paying Agent/Registrar, and a new Certificate or Certificates of like maturity and interest rate in any authorized denominations provided by the Ordinance for the then unredeemed balance of the principal sum thereof will be issued to the registered owner, without charge. If a Certificate is selected for redemption, in whole or in part, the City and the Paying Agent/Registrar shall not be required to transfer such Certificate to an assignee of the registered owner within forty-five (45) days of the redemption date therefor; provided, however, such limitation on transferability shall not be applicable to an exchange by the registered owner of the unredeemed balance of a Certificate redeemed in part.

With respect to any optional redemption of the Certificates, unless moneys sufficient to pay the principal of and premium, if any, and interest on the Certificates to be redeemed shall have been received by the Paying Agent/Registrar prior to the giving of such notice of redemption, such notice may state that said redemption is conditional upon the receipt of such moneys by the Paying Agent/Registrar on or prior to the date fixed for such redemption, or upon the satisfaction of any prerequisites set forth in such notice of redemption; and, if sufficient moneys are not received, such notice shall be of no force and effect, the City shall not redeem such Certificates and the Paying Agent/Registrar shall give notice, in the manner in which the notice of redemption was given, to the effect that the Certificates have not been redeemed.

The Certificates are payable from the proceeds of an ad valorem tax levied, within the limitations prescribed by law, upon all taxable property in the City and from a limited pledge of the Net Revenues (as defined in the Ordinance) of the City's combined Waterworks and Sewer System (the "System"), such pledge of the Net Revenues for the payment of the Certificates being limited to an amount of \$1,000 and, together with a parity pledge securing the payment of

the Previously Issued Certificates (identified and defined in the Ordinance), being junior and subordinate to the lien on and pledge of the Net Revenues securing the payment of "Prior Lien Obligations" (as defined in the Ordinance) hereafter issued by the City. In the Ordinance, the City reserves and retains the right to issue Prior Lien Obligations while the Certificates are outstanding without limitation as to principal amount but subject to any terms, conditions or restrictions as may be applicable thereto under law or otherwise, as well as the right to issue Additional Obligations (identified and defined in the Ordinance) payable from the same sources as the Certificates and, together with the Certificates, equally and ratably secured by a parity lien on and pledge of the Net Revenues of the System.

Reference is hereby made to the Ordinance, a copy of which is on file in the Designated Payment/Transfer Office of the Paying Agent/Registrar, and to all the provisions of which the Registered Owner hereof by the acceptance hereof hereby assents, for definitions of terms; the description of and the nature and extent of the tax levied for the payment of the Certificates; the properties constituting the System; the limited amount of Net Revenues pledged to the payment of the principal of and interest on the Certificates; the nature and extent and manner of enforcement of the pledge; the terms and conditions relating to the transfer of this Certificate; the conditions upon which the Ordinance may be amended or supplemented with or without the consent of the Registered Owners of the Certificates; the rights, duties and obligations of the City and the Paying Agent/Registrar; the terms and provisions upon which the tax levy and the liens, pledges, charges and covenants made therein may be discharged at or prior to the maturity of this Certificate, and this Certificate deemed to be no longer Outstanding thereunder; and for the other terms and provisions contained therein. Capitalized terms used herein and not otherwise defined have the meanings assigned in the Ordinance.

This Certificate, subject to certain limitations contained in the Ordinance, may be transferred on the Security Register only upon its presentation and surrender at the Designated Payment/Transfer Office of the Paying Agent/Registrar, with the Assignment hereon duly endorsed by, or accompanied by a written instrument of transfer in form satisfactory to the Paying Agent/Registrar duly executed by, the Registered Owner hereof, or his or her duly authorized agent. When a transfer on the Security Register occurs, one or more fully registered Certificates of authorized denominations and of the same aggregate principal amount will be issued by the Paying Agent/Registrar to the designated transferee or transferees.

The City and the Paying Agent/Registrar, and any agent of either, may treat the Registered Owner hereof whose name appears on the Security Register (i) on the Record Date as the owner entitled to payment of interest hereon, (ii) on the date of surrender of this Certificate as the owner entitled to payment of principal hereof at its Stated Maturity or upon its prior redemption, in whole or in part, and (iii) on any other date as the owner for all other purposes, and neither the City nor the Paying Agent/Registrar, or any agent of either, shall be affected by notice to the contrary. In the event of nonpayment of interest on a scheduled payment date and for thirty (30) days thereafter, a new record date for such interest payment (a "Special Record Date") will be established by the Paying Agent/Registrar, if and when funds for the payment of such interest have been received from the City. Notice of the Special Record Date and of the scheduled payment date of the past due interest (which shall be fifteen (15) days after the Special Record Date) shall be sent at least five (5) business days prior to the Special Record Date by United States Mail, first class postage prepaid, to the address of each Registered Owner appearing on the Security Register at the close of business on the last business day next preceding the date of mailing of such notice.

It is hereby certified, recited, represented and covenanted that the City is a body corporate and political subdivision duly organized and legally existing under and by virtue of the Constitution and laws of the State of Texas; that the issuance of the Certificates is duly authorized by law; that all acts, conditions and things required to exist and be done precedent to and in the issuance of the Certificates to render the same lawful and valid obligations of the City have been properly done, have happened and have been performed in regular and due time, form and manner as required by the Constitution and laws of the State of Texas, and the Ordinance; that the Certificates do not exceed any constitutional or statutory limitation; and that due provision has been made for the payment of the principal of and interest on the Certificates by the levy of a tax and a pledge of a limited amount of the Net Revenues of the System as aforesated. In case any provision in this Certificate or any application hereof shall be invalid, illegal or unenforceable, the validity, legality and enforceability of the remaining provisions and applications shall not in any way be affected or impaired thereby. The terms and provisions of this Certificate and the Ordinance shall be construed in accordance with and shall be governed by the laws of the State of Texas.

IN WITNESS WHEREOF, the City Council of the City has caused this Certificate to be duly executed under the official seal of the City as of the Certificate Date.

CITY OF MURPHY, TEXAS

\_\_\_\_\_  
Mayor

COUNTERSIGNED:

\_\_\_\_\_  
City Secretary

(SEAL)

(c) Form of Registration Certificate of Comptroller of Public Accounts to Appear on Initial Certificate(s) only.

REGISTRATION CERTIFICATE OF  
COMPTROLLER OF PUBLIC ACCOUNTS

OFFICE OF THE COMPTROLLER       §  
OF PUBLIC ACCOUNTS               §  
THE STATE OF TEXAS               §       REGISTER NO. \_\_\_\_\_  
  §

I HEREBY CERTIFY that this Certificate has been examined, certified as to validity and approved by the Attorney General of the State of Texas, and duly registered by the Comptroller of Public Accounts of the State of Texas.

WITNESS my signature and seal of office this \_\_\_\_\_.

\_\_\_\_\_  
Comptroller of Public Accounts  
of the State of Texas

(SEAL)

(d) Form of Certificate of Paying Agent/Registrar to Appear on Definitive Certificates only.

REGISTRATION CERTIFICATE OF PAYING AGENT/REGISTRAR

This Certificate has been duly issued and registered under the provisions of the within-mentioned Ordinance; the certificate or certificates of the above entitled and designated series originally delivered having been approved by the Attorney General of the State of Texas and registered by the Comptroller of Public Accounts, as shown by the records of the Paying Agent/Registrar.

The designated office of the Paying Agent/Registrar in St. Paul, Minnesota, is the Designated Payment/Transfer Office for this Certificate.

U.S. BANK NATIONAL ASSOCIATION,  
Dallas, Texas, as Paying Agent/Registrar

Registration Date:

\_\_\_\_\_ By \_\_\_\_\_  
Authorized Signature

(e) Form of Assignment.

ASSIGNMENT

FOR VALUE RECEIVED the undersigned hereby sells, assigns and transfers unto  
(Print or typewrite name, address and zip code of transferee): \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
(Social Security or other identifying number: \_\_\_\_\_)  
\_\_\_\_\_ ) the within Certificate and all rights thereunder, and  
hereby irrevocably constitutes and appoints \_\_\_\_\_

\_\_\_\_\_  
attorney to transfer the within Certificate on the books kept for registration thereof, with full  
power of substitution in the premises.

DATED: \_\_\_\_\_

Signature guaranteed:  
\_\_\_\_\_

\_\_\_\_\_  
NOTICE: The signature on this assignment  
must correspond with the name of the  
Registered Owner as it appears on the face  
of the within Certificate in every particular.

(f) The Initial Certificate(s) shall be in the form set forth in paragraph (b) of this  
Section, except that the heading and first paragraph of the form of a single fully registered Initial  
Certificate shall be modified as follows:

REGISTERED  
NO. T-1

REGISTERED  
\$ \_\_\_\_\_

UNITED STATES OF AMERICA  
STATE OF TEXAS  
CITY OF MURPHY, TEXAS  
TAX AND WATERWORKS AND SEWER SYSTEM (LIMITED PLEDGE) REVENUE  
CERTIFICATE OF OBLIGATION  
SERIES 2014

Certificate Date:  
November 15, 2014

Registered Owner: \_\_\_\_\_

Principal Amount: \_\_\_\_\_ DOLLARS

The City of Murphy (hereinafter referred to as the "City"), a body corporate and municipal  
corporation in the County of Collin, State of Texas, for value received, acknowledges itself  
indebted to and hereby promises to pay to the Registered Owner named above (the "Registered  
Owner"), or the registered assigns thereof, on February 15 in each of the years and in principal  
installments and bearing interest at per annum rates in accordance with the following schedule:

<u>YEAR OF MATURITY</u>	<u>PRINCIPAL INSTALLMENTS (\$)</u>	<u>INTEREST RATE (%)</u>
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(Information to be inserted from schedule in Section 2 hereof.)

(or so much thereof as shall not have been redeemed prior to maturity) and to pay interest (computed on the basis of a 360-day year consisting of twelve 30-day months) on the unpaid Principal Amount hereof from the date of their delivery to the initial purchasers (anticipated to be December 18, 2014) at the per annum rate of interest specified above; such interest being payable on February 15 and August 15 of each year, commencing February 15, 2015, until maturity or prior redemption. Principal installments of this Certificate are payable in the year of maturity or on a redemption date to the registered owner hereof by U.S. Bank National Association, Dallas, Texas (the "Paying Agent/Registrar"), upon presentation and surrender, at its designated offices in St. Paul, Minnesota (the "Designated Payment/Transfer Office"), or its successor. Interest is payable to the Registered Owner of this Certificate (or one or more Predecessor Certificates, as defined in the Ordinance hereinafter referenced) whose name appears on the "Security Register" maintained by the Paying Agent/Registrar at the close of business on the "Record Date", which is the last business day of the month next preceding each interest payment date, and interest shall be paid by the Paying Agent/Registrar by check sent United States Mail, first class postage prepaid, to the address of the Registered Owner recorded in the Security Register on the Record Date or by such other method, acceptable to the Paying Agent/Registrar, requested by, and at the risk and expense of, the Registered Owner. If the date for the payment of the principal of or interest on the Certificates shall be a Saturday, Sunday, legal holiday or a day when banking institutions in the city where the Designated Payment/Transfer Office is located are authorized by law or executive order to close, then the date for such payment shall be the next succeeding day which is not such a Saturday, Sunday, legal holiday or day when banking institutions are authorized to close; and payment on such date shall have the same force and effect as if made on the original date payment was due. All payments of principal of, premium, if any, and interest on this Certificate shall be without exchange or collection charges to the Registered Owner hereof and in any coin or currency of the United States of America which at the time of payment is legal tender for the payment of public and private debts.

SECTION 10. Definitions. For purposes of this Ordinance, and for clarity with respect to the issuance of the Certificates and the levy of taxes and appropriation of Net Revenues therefor, the following words or terms, whenever the same appear herein without qualifying language, are defined to mean as follows:

(a) The term "Additional Obligations" shall mean tax and revenue obligations hereafter issued which by their terms are payable from ad valorem taxes and additionally payable from and secured by a parity lien on and pledge of the Net Revenues of the System of equal rank and dignity with the lien and pledge securing the payment of the Previously Issued Certificates and the Certificates.

(b) The term "Certificates" shall mean \$\_\_\_\_\_ "City of Murphy, Texas Tax and Waterworks and Sewer System (Limited Pledge) Revenue Certificates of Obligation, Series 2014" authorized by this Ordinance.

(c) The term "Certificate Fund" shall mean the special Fund created and established under the provisions of Section 11 of this Ordinance.

(d) The term “Collection Date” shall mean, when reference is being made to the levy and collection of annual ad valorem taxes, the date annual ad valorem taxes levied each year by the City become delinquent.

(e) The term “Fiscal Year” shall mean the twelve month operating period for the System ending September 30th of each year.

(f) The term “Government Securities” shall mean (i) direct noncallable obligations of the United States of America, including obligations the principal of and interest on which are unconditionally guaranteed by the United States of America, (ii) noncallable obligations of an agency or instrumentality of the United States, including obligations unconditionally guaranteed or insured by the agency or instrumentality and, on the date of their acquisition or purchase by the City, are rated as to investment quality by a nationally recognized investment rating firm not less than AAA or its equivalent, (iii) noncallable obligations of a state or an agency or a county, municipality, or other political subdivision of a state that have been refunded and that, on the date of their acquisition or purchase by the City, are rated as to investment quality by a nationally recognized investment rating firm not less than AAA or its equivalent and (iv) any other then authorized securities or obligations that may be used to defease obligations such as the Certificates under the then applicable laws of the State of Texas.

(g) The term “Gross Revenues” shall mean all income, receipts and revenues of every nature derived or received from the operation and ownership (excluding refundable meter deposits, restricted gifts and grants in aid of construction) of the System, including earnings and income derived from the investment or deposit of moneys in any special funds or accounts created and established for the payment and security of Prior Lien Obligations and other obligations payable solely from and secured only by a lien on and pledge of the Net Revenues.

(h) The term “Maintenance and Operating Expenses” shall mean all current expenses of operating and maintaining the System, including all salaries, labor, materials, repairs and extensions necessary to render efficient service; provided, however, that only such repairs and extensions, as in the judgment of the City Council, reasonably and fairly exercised, are necessary to maintain the operations and render adequate service to the City and the inhabitants thereof, or such as might be necessary to meet some physical accident or condition which would otherwise impair obligations payable from Net Revenues shall be deducted in determining “Net Revenues”. Depreciation charges shall not be considered Maintenance and Operating Expenses. Maintenance and Operating Expenses shall include payments under contracts for the purchase of water supply, treatment of sewage or other materials, goods, services, or facilities for the System to the extent authorized by law and the provisions of such contract

(i) The term “Net Revenues” shall mean the Gross Revenues of the System, with respect to any period, after deducting the System’s Maintenance and Operating Expenses during such period.

(j) The term “Outstanding”, when used in this Ordinance with respect to Certificates, means, as of the date of determination, all Certificates theretofore issued and delivered under this Ordinance, except:

(1) those Certificates cancelled by the Paying Agent/Registrar or delivered to the Paying Agent/Registrar for cancellation;

(2) those Certificates deemed to be duly paid by the City in accordance with the provisions of Section 20 hereof; and

(3) those Certificates that have been mutilated, destroyed, lost or stolen and replacement Certificates have been registered and delivered in lieu thereof as provided in Section 24 hereof.

(k) The term "Previously Issued Certificates" shall mean "City of Murphy, Texas, Tax and Waterworks and Sewer System (Limited Pledge) Revenue Certificates of Obligation, Series 2009", dated May 15, 2009.

(l) The term "Prior Lien Obligations" shall mean (1) the "City of Murphy, Texas, Tax and Waterworks and Sewer System Surplus Revenue Certificates of Obligation, Series 2004", dated April 15, 2004 and (2) all revenue bonds or other obligations, now outstanding and hereafter issued, payable from and secured by a lien on and pledge of the Net Revenues of the System, including, but not limited to, obligations hereafter issued that are payable from and secured, in whole or in part, by a lien on and pledge of the Net Revenues of the System, which is prior in right and claim to the lien on and pledge of the Net Revenues securing the payment of the Certificates.

(m) The term "System" shall mean all properties, facilities and plants currently owned, operated and maintained by the City for the supply, treatment, transmission and distribution of treated potable water and the collection, treatment and disposal of water-carried wastes, together with all future extensions, improvements, replacements and additions thereto.

**SECTION 11. Certificate Fund.** For the purpose of paying the interest on and to provide a sinking fund for the payment, redemption and retirement of the Certificates, there shall be and is hereby created a special Fund to be designated "SPECIAL SERIES 2014 TAX AND REVENUE CERTIFICATE OF OBLIGATION FUND" (the "Certificate Fund"), which Certificate Fund shall be kept and maintained at the depository bank of the City, and moneys deposited in said Certificate Fund shall be used for no other purpose. The Mayor, Mayor Pro Tem, City Manager, Director of Finance, and City Secretary of the City, individually or collectively, are hereby authorized and directed to cause to be transferred to the Paying Agent/Registrar for the Certificates, from funds on deposit in the Certificate Fund, amounts sufficient to fully pay and discharge promptly each installment of interest and principal of the Certificates as the same accrues or matures; such transfers of funds to be made in such manner as will cause immediately available funds to be deposited with the Paying Agent/Registrar for the Certificates at the close of business on the last business day next preceding each interest and/or principal payment date for the Certificates.

Pending the transfer of funds to the Paying Agent/Registrar, money in the Certificate Fund may, at the option of the City, be invested in obligations identified in, and in accordance with the City's Investment Policy, as the same may be amended from time to time and the provisions of the "Public Funds Investment Act" (Texas Government Code, Chapter 2256, as amended) relating to the investment of "bond proceeds"; provided that all such investments shall be made in such a manner that the money required to be expended from said Fund will be available at the proper time or times. All interest and income derived from deposits and

investments in said Certificate Fund shall be credited to, and any losses debited to, the said Certificate Fund. All such investments shall be sold promptly when necessary to prevent any default in connection with the Certificates.

The City has sufficient current funds available to pay the interest payment to become due on the Certificates on February 15, 2015 and August 15, 2015, and there will be deposited in the Certificate Fund (created for the payment of the Certificates) such amount of current funds which, together with accrued interest received from the purchaser of the Bonds, will be sufficient to pay the amounts to become due on the Certificates on February 15, 2015 and August 15, 2015.

SECTION 12. Tax Levy. To provide for the payment of the "Debt Service Requirements" on the Certificates, being (i) the interest on said Certificates and (ii) a sinking fund for their redemption at maturity or a sinking fund of 2% (whichever amount shall be the greater), there shall be and there is hereby levied, within the limitations prescribed by law, for the current year and each succeeding year thereafter while said Certificates or any interest thereon shall remain Outstanding, a sufficient tax on each one hundred dollars' valuation of taxable property in the City, adequate to pay such Debt Service Requirements, full allowance being made for delinquencies and costs of collection; said tax shall be assessed and collected each year and applied to the payment of the Debt Service Requirements, and the same shall not be diverted to any other purpose. The taxes so levied and collected shall be deposited into the Certificate Fund. This governing body hereby declares its purpose and intent to provide and levy a tax legally and fully sufficient to pay the Debt Service Requirements, it having been determined that the existing and available taxing authority of the City for such purpose is adequate to permit a legally sufficient tax in consideration of all other outstanding indebtedness.

The amount of taxes to be provided annually for the payment of the principal of and interest on the Certificates herein authorized to be issued shall be determined and accomplished in the following manner:

(a) Prior to the date the City Council establishes the annual tax rate and passes an ordinance levying ad valorem taxes each year, the City Council shall determine:

(1) The amount on deposit in the Certificate Fund after (a) deducting therefrom the total amount of Debt Service Requirements to become due on the Certificates prior to the Collection Date for the ad valorem taxes to be levied and (b) adding thereto the amount of Net Revenues of the System appropriated and allocated to pay such Debt Service Requirements prior to the Collection Date for the ad valorem taxes to be levied.

(2) The amount of Net Revenues, if any, appropriated and to be set aside for the payment of the Debt Service Requirements on the Certificates between the Collection Date for the taxes then to be levied and the Collection Date for the taxes to be levied during the next succeeding calendar year.

(3) The amount of Debt Service Requirements to become due and payable on the Certificates between the Collection Date for the taxes then to be levied and the Collection Date for the taxes to be levied during the next succeeding calendar year.

(b) The amount of taxes to be levied annually each year to pay the Debt Service Requirements on the Certificates shall be the amount established in paragraph (3) above less the sum total of the amounts established in paragraphs (1) and (2), after taking into consideration delinquencies and costs of collecting such annual taxes.

SECTION 13. Limited Pledge of Net Revenues. The City hereby covenants and agrees that subject to the prior lien on and pledge of the Net Revenues to the payment and security of Prior Lien Obligations, the Net Revenues of the System in the amount of \$1,000 are hereby irrevocably pledged to the payment of the principal of and interest on the Certificates, and the limited pledge of \$1,000 of the Net Revenues of the System herein made for the payment of the Certificates shall constitute a lien on the Net Revenues of the System in accordance with the terms and provisions hereof, and shall be on a parity in all respects with the lien on the Net Revenues securing the payment of the Previously Issued Certificates and Additional Obligations, if issued. Furthermore, such lien on and pledge of the Net Revenues securing the payment of the Certificates shall constitute a lien on the Net Revenues of the System until such time as the City shall pay all of such \$1,000, after which time the pledge shall cease, all in accordance with the terms and provisions hereof and be valid and binding without further action by the City and without any filing or recording except for the filing of this Ordinance in the records of the City.

Texas Government Code, Chapter 1208, as amended, applies to the issuance of the Certificates and the pledge of the revenues granted by the City under this Section of this Ordinance, and such pledge is therefore valid, effective and perfected. If Texas law is amended at any time while the Certificates are Outstanding and unpaid such that the pledge of the revenues granted by the City under this Section of this Ordinance is to be subject to the filing requirements of Texas Business and Commerce Code, Chapter 9, as amended, then in order to preserve to the Holders of the Certificates the perfection of the security interest in said pledge, the City agrees to take such measures as it determines are reasonable and necessary under Texas law to comply with the applicable provisions of Texas Business and Commerce Code, Chapter 9, as amended, and enable a filing to perfect the security interest in said pledge to occur.

SECTION 14. System Fund. The City hereby covenants and agrees that all gross revenues of the System (excluding earnings from the investment of money held in any special funds or accounts created for the payment and security of Prior Lien Obligations) shall be deposited from day to day as collected into a "System Fund" (hereinafter called the "System Fund") which System Fund shall be kept separate and apart from all other funds, accounts and moneys of the City, and shall be maintained at an official depository bank of the City. All moneys deposited in the System Fund shall be pledged and appropriated to the extent required for the following purposes and in the order of priority shown, to wit:

First. To the payment of all necessary and reasonable maintenance and operating expenses of the System as defined herein or required by statute to be a first charge on and claim against the revenues thereof,

Second. To the payment of all amounts required to be deposited in the special Funds created and established for the payment, security and benefit of Prior Lien Obligations in accordance with the terms and provisions of the ordinances authorizing the issuance of Prior Lien Obligations.

Third. To the payment, equally and ratably, of the limited amounts pledged to the payment of the Certificates, Previously Issued Certificates, and Additional Obligations, if issued, provided however, at such time as the City shall pay the Net Revenues pledged to the payment of the Certificates, such pledge being limited to \$1,000, such pledge shall cease.

Any Net Revenues remaining in the System Fund after satisfying the foregoing payments, or making adequate and sufficient provision for the payment thereof, may be appropriated and used for any other City purpose now or hereafter permitted by law.

SECTION 15. Deposits to Certificate Fund. The City hereby covenants and agrees to cause to be deposited in the Certificate Fund from the pledged Net Revenues in the System Fund, the amount of \$1,000.

The City covenants and agrees that the amount of pledged Net Revenues (\$1,000), together with ad valorem taxes levied, collected and deposited in the Certificate Fund for and on behalf of the Certificates, will be an amount equal to one hundred percent (100%) of the amount required to fully pay the interest and principal due and payable on the Certificates. In addition, any surplus proceeds from the sale of the Certificates not expended for authorized purposes shall be deposited in the Certificate Fund, or another fund created for the payment of the principal of and interest on any Certificate, and such amounts so deposited shall reduce the sums otherwise required to be deposited in the Certificate Fund from ad valorem taxes and the Net Revenues.

SECTION 16. Security of Funds. All moneys on deposit in the Funds for which this Ordinance makes provision (except any portion thereof as may be at any time properly invested) shall be secured in the manner and to the fullest extent required by the laws of the State of Texas for the security of public funds, and moneys on deposit in such Funds shall be used only for the purposes permitted by this Ordinance.

SECTION 17. Special Covenants. The City hereby further covenants as follows:

(a) It has the lawful power to pledge the Net Revenues of the System supporting this issue of Certificates and has lawfully exercised said powers under the Constitution and laws of the State of Texas, including said power existing under Texas Local Government Code, Subchapter C of Chapter 271, as amended, and Texas Government Code, Chapter 1502, as amended.

(b) Other than for the payment of any Prior Lien Obligations, the outstanding Previously Issued Certificates, and the Certificates, the Net Revenues of the System have not in any manner been pledged to the payment of any debt or obligation of the City or of the System.

SECTION 18. Issuance of Prior Lien Obligations and Additional Obligations. The City hereby expressly reserves the right to hereafter issue Prior Lien Obligations, without limitation as to principal amount, but subject to any terms, conditions or restrictions applicable thereto under law or otherwise. Prior Lien Obligations hereafter issued may be payable, in whole or in part, from the Net Revenues (without impairment of the obligation of contract with the Holders of the Certificates) upon such terms and conditions as the City Council may determine.

In addition, the City reserves the right to issue Additional Obligations, without limitation or any restriction or condition being applicable to their issuance under the terms of this Ordinance, payable from and secured by a lien on and pledge of the Net Revenues of the System of equal rank and dignity, and on a parity in all respects, with the lien thereon and pledge thereof securing the payment of the Previously Issued Certificates and the Certificates.

SECTION 19. Subordinate to Prior Lien Obligations, Covenants and Agreements. It is the intention of this governing body and accordingly hereby recognized and stipulated that the provisions, agreements and covenants contained herein bearing upon the management and operations of the System and the administering and application of revenues derived from the operation thereof, shall to the extent possible be harmonized with like provisions, agreements and covenants contained in the ordinances authorizing the issuance of the Prior Lien Obligations, and to the extent of any irreconcilable conflict between the provisions contained herein and in the ordinances authorizing the issuance of the Prior Lien Obligations, the provisions, agreements and covenants contained therein shall prevail to the extent of such conflict and be applicable to this Ordinance but in all respects subject to the priority of rights and benefits, if any, conferred thereby to the holders or owners of the Prior Lien Obligations. Notwithstanding the above, any change or modification affecting the application of revenues derived from the operation of the System shall not impair the obligation of contract with respect to the pledge of revenues herein made for the payment and security of the Certificates.

SECTION 20. Satisfaction of Obligation of City. If the City shall pay or cause to be paid, or there shall otherwise be paid to the Holders, the principal of, premium, if any, and interest on the Certificates, at the times and in the manner stipulated in this Ordinance, then the pledge of taxes levied and the lien on and pledge of the Net Revenues of the System under this Ordinance and all covenants, agreements and other obligations of the City to the Holders shall thereupon cease, terminate and be discharged and satisfied.

Certificates shall be deemed to have been paid within the meaning and with the effect expressed above in this Section when (i) money sufficient to pay in full such Certificates or the principal amount(s) thereof at maturity or the redemption date therefor, together with all interest due thereon, shall have been irrevocably deposited with and held in trust by the Paying Agent/Registrar, or an authorized escrow agent, or (ii) Government Securities shall have been irrevocably deposited in trust with the Paying Agent/Registrar, or an authorized escrow agent, which Government Securities have been certified by an independent accounting firm to mature as to principal and interest in such amounts and at such times as will insure the availability, without reinvestment, of sufficient money, together with any moneys deposited therewith, if any, to pay when due the principal of and interest on such Certificates, or the principal amount(s) thereof, on and prior to the Stated Maturity thereof or, if notice of redemption has been duly given or waived or if irrevocable arrangements therefor acceptable to the Paying Agent/Registrar have been made, the redemption date thereof. The City covenants that no deposit of moneys or Government Securities will be made under this Section and no use will be made of any such deposit which would cause the Certificates to be treated as "arbitrage bonds" within the meaning of Section 148 of the Internal Revenue Code of 1986, as amended, or regulations adopted pursuant thereto.

Any moneys so deposited with the Paying Agent/Registrar, or an authorized escrow agent, and all income from Government Securities held in trust by the Paying Agent/Registrar, or an authorized escrow agent, pursuant to this Section which is not required for the payment of the Certificates, or any principal amount(s) thereof, or interest thereon with respect to which such moneys have been so deposited, shall be remitted to the City or deposited as directed by

the City. Furthermore, any money held by the Paying Agent/Registrar for the payment of the principal of and interest on the Certificates and remaining unclaimed for a period of three (3) years after the Stated Maturity, or applicable redemption date, of the Certificates such moneys were deposited and are held in trust to pay shall, upon the request of the City, be remitted to the City against a written receipt therefor. Notwithstanding the above and foregoing, any remittance of funds from the Paying Agent/Registrar to the City shall be subject to any applicable unclaimed property laws of the State of Texas.

SECTION 21. Ordinance a Contract - Amendments. This Ordinance shall constitute a contract with the Holders from time to time, be binding on the City, and shall not be amended or repealed by the City so long as any Certificate remains Outstanding except as permitted in this Section and in Section 28 hereof. The City may, without the consent of or notice to any Holders of the Certificates, from time to time and at any time, amend this Ordinance in any manner not detrimental to the interests of the Holders of the Certificates, including the curing of any ambiguity, inconsistency or formal defect or omission herein. In addition, the City may, with the written consent of Holders of the Certificates holding a majority in aggregate principal amount of the Certificates then Outstanding affected thereby, amend, add to or rescind any of the provisions of this Ordinance; provided that, without the consent of all Holders of Outstanding Certificates, no such amendment, addition or rescission shall (1) extend the time or times of payment of the principal of, premium, if any, and interest on the Certificates, reduce the principal amount thereof, or the rate of interest thereon, or in any other way modify the terms of payment of the principal of, premium, if any, or interest on the Certificates, (2) give any preference to any Certificate over any other Certificate, or (3) reduce the aggregate principal amount of Certificates required to be held by Holders for consent to any such amendment, addition or rescission.

SECTION 22. Notices to Holders - Waivers. Wherever this Ordinance provides for notice to Holders of any event, such notice shall be sufficiently given (unless otherwise herein expressly provided) if in writing and sent by United States Mail, first class postage prepaid, to the address of each Holder appearing in the Security Register at the close of business on the business day next preceding the mailing of such notice.

In any case where notice to Holders is given by mail, neither the failure to mail such notice to any particular Holders, nor any defect in any notice so mailed, shall affect the sufficiency of such notice with respect to all other Certificates. Where this Ordinance provides for notice in any manner, such notice may be waived in writing by the Holder entitled to receive such notice, either before or after the event with respect to which such notice is given, and such waiver shall be the equivalent of such notice. Waivers of notice by Holders shall be filed with the Paying Agent/Registrar, but such filing shall not be a condition precedent to the validity of any action taken in reliance upon such waiver.

SECTION 23. Cancellation. Certificates surrendered for payment, redemption, transfer or exchange, if surrendered to the Paying Agent/Registrar, shall be promptly cancelled by it and, if surrendered to the City, shall be delivered to the Paying Agent/Registrar and, if not already cancelled, shall be promptly cancelled by the Paying Agent/Registrar. The City may at any time deliver to the Paying Agent/Registrar for cancellation any Certificates previously certified or registered and delivered which the City may have acquired in any manner whatsoever, and all Certificates so delivered shall be promptly cancelled by the Paying Agent/Registrar. All cancelled Certificates held by the Paying Agent/Registrar shall be returned to the City.

SECTION 24. Mutilated, Destroyed, Lost and Stolen Certificates. In case any Certificate shall be mutilated, destroyed, lost or stolen, the Paying Agent/Registrar may execute and deliver a replacement Certificate of like form and tenor, and in the same denomination and bearing a number not contemporaneously outstanding, in exchange and substitution for such mutilated Certificate, or in lieu of and in substitution for such destroyed, lost or stolen Certificate, only upon the approval of the City and after (i) the filing by the Holder thereof with the Paying Agent/Registrar of evidence satisfactory to the Paying Agent/Registrar of the destruction, loss or theft of such Certificate, and of the authenticity of the ownership thereof and (ii) the furnishing to the Paying Agent/Registrar of indemnification in an amount satisfactory to hold the City and the Paying Agent/Registrar harmless. All expenses and charges associated with such indemnity and with the preparation, execution and delivery of a replacement Certificate shall be borne by the Holder of the Certificate mutilated, destroyed, lost or stolen.

Every replacement Certificate issued pursuant to this Section shall be a valid and binding obligation, and shall be entitled to all the benefits of this Ordinance equally and ratably with all other Outstanding Certificates, notwithstanding the enforceability of payment by anyone of the destroyed, lost or stolen Certificates.

The provisions of this Section are exclusive and shall preclude (to the extent lawful) all other rights and remedies with respect to the replacement and payment of mutilated, destroyed, lost or stolen Certificates.

SECTION 25. Covenants to Maintain Tax-Exempt Status.

(a) Definitions. When used in this Section, the following terms have the following meanings:

“Closing Date” means the date on which the Certificates are first authenticated and delivered to the initial purchasers against payment therefor.

“Code” means the Internal Revenue Code of 1986, as amended by all legislation, if any, effective on or before the Closing Date.

“Computation Date” has the meaning set forth in Section 1.148-1(b) of the Regulations.

“Gross Proceeds” means any proceeds as defined in Section 1.148-1(b) of the Regulations, and any replacement proceeds as defined in Section 1.148-1(c) of the Regulations, of the Certificates.

“Investment” has the meaning set forth in Section 1.148-1(b) of the Regulations.

“Nonpurpose Investment” means any investment property, as defined in Section 148(b) of the Code, in which Gross Proceeds of the Certificates are invested and which is not acquired to carry out the governmental purposes of the Certificates.

“Rebate Amount” has the meaning set forth in Section 1.148-1(b) of the Regulations.

“Regulations” means any proposed, temporary or final Income Tax Regulations issued pursuant to Sections 103 and 141 through 150 of the Code, and 103 of the Internal Revenue Code of 1954, which are applicable to the Certificates. Any reference to any specific Regulation shall also mean, as appropriate, any proposed, temporary or final Income Tax Regulation designed to supplement, amend or replace the specific Regulation referenced.

“Yield” of (1) any Investment has the meaning set forth in Section 1.148-5 of the Regulations and (2) the Certificates has the meaning set forth in Section 1.148-4 of the Regulations.

(b) Not to Cause Interest to Become Taxable. The City shall not use, permit the use of, or omit to use Gross Proceeds or any other amounts (or any property the acquisition, construction or improvement of which is to be financed directly or indirectly with Gross Proceeds) in a manner which if made or omitted, respectively, would cause the interest on any Certificate to become includable in the gross income, as defined in Section 61 of the Code, of the Holder thereof for federal income tax purposes. Without limiting the generality of the foregoing, unless and until the City receives a written opinion of counsel nationally recognized in the field of municipal bond law to the effect that failure to comply with such covenant will not adversely affect the exemption from federal income tax of the interest on any Certificate, the City shall comply with each of the specific covenants in this Section.

(c) No Private Use or Private Payments. Except as permitted by Section 141 of the Code and the Regulations and rulings thereunder, the City shall at all times prior to the last Stated Maturity of Certificates:

(1) exclusively own, operate and possess all property the acquisition, construction or improvement of which is to be financed or refinanced directly or indirectly with Gross Proceeds of the Certificates, and not use or permit the use of such Gross Proceeds (including all contractual arrangements with terms different than those applicable to the general public) or any property acquired, constructed or improved with such Gross Proceeds in any activity carried on by any person or entity (including the United States or any agency, department and instrumentality thereof) other than a state or local government, unless such use is solely as a member of the general public; and

(2) not directly or indirectly impose or accept any charge or other payment by any person or entity who is treated as using Gross Proceeds of the Certificates or any property the acquisition, construction or improvement of which is to be financed or refinanced directly or indirectly with such Gross Proceeds, other than taxes of general application within the City or interest earned on investments acquired with such Gross Proceeds pending application for their intended purposes.

(d) No Private Loan. Except to the extent permitted by Section 141 of the Code and the Regulations and rulings thereunder, the City shall not use Gross Proceeds of the Certificates to make or finance loans to any person or entity other than a state or local government. For purposes of the foregoing covenant, such Gross Proceeds are considered to be “loaned” to a person or entity if: (1) property acquired, constructed or improved with such Gross Proceeds is sold or leased to such person or entity in a transaction which creates a debt

for federal income tax purposes; (2) capacity in or service from such property is committed to such person or entity under a take-or-pay, output or similar contract or arrangement; or (3) indirect benefits, or burdens and benefits of ownership, of such Gross Proceeds or any property acquired, constructed or improved with such Gross Proceeds are otherwise transferred in a transaction which is the economic equivalent of a loan.

(e) Not to Invest at Higher Yield. Except to the extent permitted by Section 148 of the Code and the Regulations and rulings thereunder, the City shall not at any time prior to the final Stated Maturity of the Certificates directly or indirectly invest Gross Proceeds in any Investment (or use Gross Proceeds to replace money so invested), if as a result of such investment the Yield from the Closing Date of all Investments acquired with Gross Proceeds (or with money replaced thereby), whether then held or previously disposed of, exceeds the Yield of the Certificates.

(f) Not Federally Guaranteed. Except to the extent permitted by Section 149(b) of the Code and the Regulations and rulings thereunder, the City shall not take or omit to take any action which would cause the Certificates to be federally guaranteed within the meaning of Section 149(b) of the Code and the Regulations and rulings thereunder.

(g) Information Report. The City shall timely file the information required by Section 149(e) of the Code with the Secretary of the Treasury on Form 8038-G or such other form and in such place as the Secretary may prescribe.

(h) Rebate of Arbitrage Profits. Except to the extent otherwise provided in Section 148(f) of the Code and the Regulations and rulings thereunder:

(1) The City shall account for all Gross Proceeds (including all receipts, expenditures and investments thereof) on its books of account separately and apart from all other funds (and receipts, expenditures and investments thereof) and shall retain all records of accounting for at least six years after the day on which the last outstanding Certificate is discharged. However, to the extent permitted by law, the City may commingle Gross Proceeds of the Certificates with other money of the City, provided that the City separately accounts for each receipt and expenditure of Gross Proceeds and the obligations acquired therewith.

(2) Not less frequently than each Computation Date, the City shall calculate the Rebate Amount in accordance with rules set forth in Section 148(f) of the Code and the Regulations and rulings thereunder. The City shall maintain such calculations with its official transcript of proceedings relating to the issuance of the Certificates until six years after the final Computation Date.

(3) As additional consideration for the purchase of the Certificates by the Purchaser and the loan of the money represented thereby, and in order to induce such purchase by measures designed to insure the excludability of the interest thereon from the gross income of the owners thereof for federal income tax purposes, the City shall pay to the United States out of the Certificate Fund or its general fund, as permitted by applicable Texas statute, regulation or opinion of the Attorney General of the State of Texas, the amount that when added to

the future value of previous rebate payments made for the Certificates equals (i) in the case of a Final Computation Date as defined in Section 1.148-3(e)(2) of the Regulations, one hundred percent (100%) of the Rebate Amount on such date; and (ii) in the case of any other Computation Date, ninety percent (90%) of the Rebate Amount on such date. In all cases, the rebate payments shall be made at the times, in the installments, to the place and in the manner as is or may be required by Section 148(f) of the Code and the Regulations and rulings thereunder, and shall be accompanied by Form 8038-T or such other forms and information as is or may be required by Section 148(f) of the Code and the Regulations and rulings thereunder.

(4) The City shall exercise reasonable diligence to assure that no errors are made in the calculations and payments required by paragraphs (2) and (3) and, if an error is made, to discover and promptly correct such error within a reasonable amount of time thereafter (and in all events within one hundred eighty (180) days after discovery of the error), including payment to the United States of any additional Rebate Amount owed to it, interest thereon, and any penalty imposed under Section 1.148-3(h) of the Regulations.

(i) Not to Divert Arbitrage Profits. Except to the extent permitted by Section 148 of the Code and the Regulations and rulings thereunder, the City shall not, at any time prior to the earlier of the Stated Maturity or final payment of the Certificates, enter into any transaction that reduces the amount required to be paid to the United States pursuant to Subsection (h) of this Section because such transaction results in a smaller profit or a larger loss than would have resulted if the transaction had been at arm's length and had the Yield of the Certificates not been relevant to either party.

(j) Elections. The City hereby directs and authorizes the Mayor, Mayor Pro Tem, City Manager, and Director of Finance, either or any combination of them, to make elections permitted or required pursuant to the provisions of the Code or the Regulations, as they deem necessary or appropriate in connection with the Certificates, in the Certificate as to Tax Exemption or similar or other appropriate certificate, form or document.

SECTION 26. Sale of the Certificates – Official Statement Approval. Pursuant to a public sale for the Certificates, the bid submitted by \_\_\_\_\_ and others (the "Purchaser") is declared to be the best bid received producing the lowest true interest cost rate to the City, and the sale of the Certificates to the Purchaser at the price of par plus accrued interest, if any, and a net premium of \$\_\_\_\_\_ is hereby determined to be in the best interests of the City and is approved and confirmed. Delivery of the Certificates to the Purchaser shall occur as soon as possible upon payment being made therefor in accordance with the terms of sale. The Initial Certificate shall be registered in the name as provided in the winning bid.

Furthermore, the use of the Preliminary Official Statement by the Purchaser in connection with the public offering and sale of the Certificates is hereby ratified, confirmed and approved in all respects. The final Official Statement, which reflects the terms of sale (together with such changes approved by the Mayor, Mayor Pro Tem, City Manager, Director of Finance, and City Secretary, one or more of said officials), shall be and is hereby in all respects approved and the Purchaser is hereby authorized to use and distribute said final Official Statement, dated

November 18, 2014, in the reoffering, sale, and delivery of the Certificates to the public. The Mayor and City Secretary are further authorized and directed to manually execute and deliver for and on behalf of the City copies of said Official Statement in final form as may be required by the Purchaser, and such final Official Statement in the form and content manually executed by said officials shall be deemed to be approved by the City Council and constitute the Official Statement authorized for distribution and use by the Purchaser.

SECTION 27. Proceeds of Sale. Immediately following the delivery of the Certificates, proceeds of sale in the amount of \$\_\_\_\_\_ shall be deposited to the credit of the construction fund maintained at a depository bank of the City, and the balance of the proceeds of sale of the Certificates shall be expended to pay costs of issuance. Pending expenditure for authorized projects and purposes, Certificate proceeds may be invested in authorized investments and any investment earnings realized shall be expended for such authorized projects and purposes or, in the event such projects have been completed, deposited in the Certificate Fund. Any surplus proceeds of sale of the Certificates, including investment earnings, remaining after completion of all authorized projects or purposes shall be disbursed for payment of costs of issuance or deposited to the credit of the Certificate Fund.

SECTION 28. Continuing Disclosure Undertaking.

(a) Definitions. As used in this Section, the following terms have the meanings ascribed to such terms below:

“MSRB” means the Municipal Securities Rulemaking Board.

“Rule” means SEC Rule 15c2 12, as amended from time to time.

“SEC” means the United States Securities and Exchange Commission.

(b) Annual Reports. The City shall provide annually to the MSRB (1) within six months after the end of each fiscal year, beginning in or after 2014, financial information and operating data with respect to the City of the general type included in the Official Statement and described in **Exhibit B** hereto, and (2) if not provided as part of such financial information and operating data, audited financial statements of the City, when and if available. Any financial statements so provided shall be prepared in accordance with the accounting principles described in **Exhibit B** hereto, or such other accounting principles as the City may be required to employ from time to time pursuant to state law or regulation, and audited, if the City commissions an audit of such statements and the audit is completed within the period during which they must be provided.

If the City changes its fiscal year, it will notify the MSRB of the change (and of the date of the new fiscal year end) prior to the next date by which the City otherwise would be required to provide financial information and operating data pursuant to this Section.

The financial information and operating data to be provided pursuant to this Section may be set forth in full in one or more documents or may be included by specific reference to any documents available to the public on the MSRB’s internet web site or filed with the SEC.

(c) Notice of Certain Events.

The City shall provide notice of any of the following events with respect to the Certificates to the MSRB in a timely manner and not more than ten (10) business days after occurrence of the event:

- (1) Principal and interest payment delinquencies;
- (2) Non-payment related defaults, if material;
- (3) Unscheduled draws on debt service reserves reflecting financial difficulties;
- (4) Unscheduled draws on credit enhancements reflecting financial difficulties;
- (5) Substitution of credit or liquidity providers, or their failure to perform;
- (6) Adverse tax opinions, the issuance by the Internal Revenue Service of proposed or final determinations of taxability, Notices of Proposed Issue (IRS Form 5701-TEB), or other material notices or determinations with respect to the tax status of the Certificates, or other material events affecting the tax status of the Certificates;
- (7) Modifications to rights of holders of the Certificates, if material;
- (8) Certificate calls, if material, and tender offers;
- (9) Defeasances;
- (10) Release, substitution, or sale of property securing repayment of the Certificates, if material;
- (11) Rating changes;
- (12) Bankruptcy, insolvency, receivership, or similar event of the City, which shall occur as described below;
- (13) The consummation of a merger, consolidation, or acquisition involving the City or the sale of all or substantially all of its assets, other than in the ordinary course of business, the entry into of a definitive agreement to undertake such an action or the termination of a definitive agreement relating to any such actions, other than pursuant to its terms, if material; and
- (14) Appointment of a successor or additional trustee or the change of name of a trustee, if material.

For these purposes, any event described in the immediately preceding subsection (c)(12) is considered to occur when any of the following occur: the appointment of a receiver, fiscal agent, or similar officer for the City in a proceeding under the United States Bankruptcy Code or in any other proceeding under state or federal law in which a court or governmental authority has assumed jurisdiction over substantially all of the assets or business of the City, or if such jurisdiction has been assumed by leaving the existing governing body and officials or officers in possession but subject to the supervision and orders of a court or governmental authority, or the entry of an order confirming a plan of reorganization, arrangement, or liquidation by a court or governmental authority having supervision or jurisdiction over substantially all of the assets or business of the City.

The City shall notify the MSRB, in a timely manner, of any failure by the City to provide financial information or operating data in accordance with Subsection (b) of this Section of this Ordinance by the time required by such Section.

(d) Filings with the MSRB. All financial information, operating data, financial statements, notices and other documents provided to the MSRB in accordance with this Section shall be provided in an electronic format prescribed by the MSRB and shall be accompanied by identifying information as prescribed by the MSRB.

Limitations, Disclaimers, and Amendments. The City shall be obligated to observe and perform the covenants specified in this Section for so long as, but only for so long as, the City remains an “obligated person” with respect to the Certificates within the meaning of the Rule, except that the City in any event will give the notice required by Subsection (c) of this Section of any Certificate calls and defeasance that cause the City to be no longer such an “obligated person.”

The provisions of this Section are for the sole benefit of the Holders and beneficial owners of the Certificates; and, nothing in this Section, express or implied, shall give any benefit or any legal or equitable right, remedy, or claim hereunder to any other person. The City undertakes to provide only the financial information, operating data, financial statements, and notices which it has expressly agreed to provide pursuant to this Section. Except as expressly provided within this Section, the City does not undertake to provide any other information, whether or not it may be relevant or material to a complete presentation of the City’s financial results, condition, or prospects; nor does the City undertake to update any information provided in accordance with this Section or otherwise. Furthermore, the City does not make any representation or warranty concerning such information or its usefulness to a decision to invest in or sell Certificates at any future date.

UNDER NO CIRCUMSTANCES SHALL THE CITY BE LIABLE TO THE HOLDER OR BENEFICIAL OWNER OF ANY CERTIFICATE OR ANY OTHER PERSON, IN CONTRACT OR TORT, FOR DAMAGES RESULTING IN WHOLE OR IN PART FROM ANY BREACH BY THE CITY, WHETHER NEGLIGENT OR WITHOUT FAULT ON ITS PART, OF ANY COVENANT SPECIFIED IN THIS SECTION, BUT EVERY RIGHT AND REMEDY OF ANY SUCH PERSON, IN CONTRACT OR TORT, FOR OR ON ACCOUNT OF ANY SUCH BREACH SHALL BE LIMITED TO AN ACTION FOR MANDAMUS OR SPECIFIC PERFORMANCE.

No default by the City in observing or performing its obligations under this Section shall constitute a breach of or default under this Ordinance for purposes of any other provision of this Ordinance.

Nothing in this Section is intended or shall act to disclaim, waive, or otherwise limit the duties of the City under federal and state securities laws.

Notwithstanding anything herein to the contrary, the provisions of this Section may be amended by the City from time to time to adapt to changed circumstances resulting from a change in legal requirements, a change in law, or a change in the identity, nature, status, or type of operations of the City, but only if (1) the provisions of this Section, as so amended, would have permitted an underwriter to purchase or sell Certificates in the primary offering of the Certificates in compliance with the Rule, taking into account any amendments or interpretations of the Rule to the date of such amendment, as well as such changed circumstances, and (2) either (a) the Holders of a majority in aggregate principal amount (or any

greater amount required by any other provision of this Ordinance that authorizes such an amendment) of the Outstanding Certificates consent to such amendment or (b) a Person that is unaffiliated with the City (such as nationally recognized bond counsel) determines that such amendment will not materially impair the interests of the Holders and beneficial owners of the Certificates. The provisions of this Section may also be amended from time to time or repealed by the City if the SEC amends or repeals the applicable provisions of the Rule or a court of final jurisdiction determines that such provisions are invalid, but only if and to the extent that reservation of the City's right to do so would not prevent underwriters of the initial public offering of the Certificates from lawfully purchasing or selling Certificates in such offering. If the City so amends the provisions of this Section, it shall include with any amended financial information or operating data next provided pursuant to subsection (b) of this Section an explanation, in narrative form, of the reasons for the amendment and of the impact of any change in the type of financial information or operating data so provided.

SECTION 29. Control and Custody of Certificates. The Mayor of the City shall be and is hereby authorized to take and have charge of all necessary orders and records pending investigation by the Attorney General of the State of Texas, including the printing of the Certificates, and shall take and have charge and control of the Initial Certificate pending the approval thereof by the Attorney General, the registration thereof by the Comptroller of Public Accounts and the delivery thereof to the Purchaser.

SECTION 30. Further Procedures. The Mayor of the City shall be and is hereby authorized to take and have charge of all necessary orders and records pending investigation by the Attorney General of the State of Texas, including the printing of the Certificates, and shall take and have charge and control of the Initial Certificate(s) pending the approval thereof by the Attorney General, the registration thereof by the Comptroller of Public Accounts and the delivery thereof to the Purchaser.

Furthermore, any one or more of the Mayor, Mayor Pro Tem, City Manager, Director of Finance, and City Secretary are hereby expressly authorized, empowered and directed from time to time and at any time to do and perform all such acts and things and to execute, acknowledge and deliver in the name and on behalf of the City all agreements, instruments, certificates or other documents, whether mentioned herein or not, as may be necessary or desirable in order to carry out the terms and provisions of this Ordinance and the issuance of the Certificates. In addition, prior to the initial delivery of the Certificates, the Mayor, Mayor Pro Tem, City Manager, Director of Finance, City Secretary, or Bond Counsel to the City are each hereby authorized and directed to approve any technical changes or corrections to this Ordinance or to any of the documents authorized and approved by this Ordinance: (i) in order to cure any technical ambiguity, formal defect, or omission in the Ordinance or such other document; or (ii) as requested by the Attorney General of the State of Texas or his representative to obtain the approval of the Certificates by the Attorney General and if such officer or counsel determines that such changes are consistent with the intent and purpose of the Ordinance, which determination shall be final. In the event that any officer of the City whose signature shall appear on any document shall cease to be such officer before the delivery of such document, such signature nevertheless shall be valid and sufficient for all purposes the same as if such officer had remained in office until such delivery.

SECTION 31. Bond Counsel's Opinion. The Purchaser's obligation to accept delivery of the Certificates is subject to being furnished a final opinion of Fulbright & Jaworski LLP, Dallas, Texas ("Bond Counsel"), approving the Certificates as to their validity, said opinion to be dated and delivered as of the date of delivery and payment for the Certificates. An executed

counterpart of said opinion shall accompany the global certificates deposited with DTC or a true and correct reproduction thereof shall be printed on the definitive Certificates in the event the book-entry-only system shall be discontinued.

SECTION 32. CUSIP Numbers. CUSIP numbers may be printed or typed on the definitive Certificates. It is expressly provided, however, that the presence or absence of CUSIP numbers on the definitive Certificates shall be of no significance or effect as regards the legality thereof, and neither the City nor attorneys approving said Certificates as to legality are to be held responsible for CUSIP numbers incorrectly printed or typed on the definitive Certificates.

SECTION 33. Benefits of Ordinance. Nothing in this Ordinance, expressed or implied, is intended or shall be construed to confer upon any person other than the City, the Paying Agent/Registrar and the Holders, any right, remedy, or claim, legal or equitable, under or by reason of this Ordinance or any provision hereof, this Ordinance and all its provisions is intended to be and being for the sole and exclusive benefit of the City, the Paying Agent/Registrar and the Holders.

SECTION 34. Inconsistent Provisions. Subject to Section 19 hereof, all ordinances, orders or resolutions, or parts thereof, which are in conflict or inconsistent with any provision of this Ordinance are hereby repealed to the extent of such conflict, and the provisions of this Ordinance shall be and remain controlling as to the matters contained herein.

SECTION 35. Governing Law. This Ordinance shall be construed and enforced in accordance with the laws of the State of Texas and the United States of America.

SECTION 36. Incorporation of Findings and Determinations. The findings and determinations of the City Council contained in the preamble hereof are hereby incorporated by reference and made a part of this Ordinance for all purposes as if the same were restated in full in this Section.

SECTION 37. Severability. If any provision of this Ordinance or the application thereof to any circumstance shall be held to be invalid, the remainder of this Ordinance and the application thereof to other circumstances shall nevertheless be valid, and the City Council hereby declares that this Ordinance would have been enacted without such invalid provision.

SECTION 38. Effect of Headings. The Section headings herein are for convenience of reference only and shall not affect the construction hereof.

SECTION 39. Construction of Terms. If appropriate in the context of this Ordinance, words of the singular number shall be considered to include the plural, words of the plural number shall be considered to include the singular, and words of the masculine, feminine or neuter gender shall be considered to include the other genders.

SECTION 40. Public Meeting. It is officially found, determined and declared that the meeting at which this Ordinance is adopted was open to the public and public notice of the time, place and subject matter of the public business to be considered at such meeting, including this Ordinance, was given, all as required by Texas Government Code, Chapter 551, as amended.

SECTION 41. Effective Date. In accordance with the provisions of Texas Government Code, Section 1201.028, as amended, this Ordinance shall be in force and effect from and after its passage on the date shown below and it is so ordained.

PASSED AND ADOPTED, this November 18, 2014.

CITY OF MURPHY, TEXAS

---

Eric Barna, Mayor

ATTEST:

---

Susie Quinn, City Secretary

(City Seal)

EXHIBIT A

**PAYING AGENT/REGISTRAR AGREEMENT**

## EXHIBIT B

**DESCRIPTION OF ANNUAL FINANCIAL INFORMATION**

The following information is referred to in Section 28 of this Ordinance.

**Annual Financial Information and Operating Data**

The financial information and operating data with respect to the City to be provided annually in accordance with such Section are as specified (and included in the Appendix or under the headings of the Official Statement referred to) below:

1. The financial statements of the City, portions of which are appended to the Official Statement as Appendix B for the most recently concluded fiscal year.
2. The information included in Tables 1 through 6 and 8 through 15 in the Official Statement.

**Accounting Principles**

The accounting principles referred to in such Section are generally those described in Appendix B to the Official Statement, as such principles may be changed from time to time to comply with state law or regulation.

AFFIDAVIT OF PUBLICATION

BEFORE ME, the undersigned authority on this day personally appeared Chad Engbrock of the C&S Media, dba The Murphy Monitor who, being by me duly sworn, upon oath deposes and says:

That the attached "NOTICE OF INTENTION TO ISSUE CITY OF MURPHY, TEXAS CERTIFICATES OF OBLIGATION" was published in the Murphy Monitor, a newspaper of general circulation in the City of Murphy, Texas, in its issues of

October 16, 2014;

October 23, 2014;

and said newspaper is a newspaper that complies with the provisions of Section 2051.044, Texas Government Code, as amended, in that it:

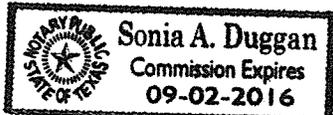
1. devotes not less than twenty-five percent (25%) of its total column lineage to items of general interest,
2. is published not less frequently than once each week,
3. is entered as second-class postal matter in the county where published, and
4. has been published regularly and continuously for at least twelve (12) months before the date of the first publication of the "NOTICE OF INTENTION TO ISSUE CITY OF MURPHY, TEXAS CERTIFICATES OF OBLIGATION" referenced above.

[Signature]  
Title: Publisher

Oct SWORN TO AND SUBSCRIBED BEFORE ME, this the 23 day of \_\_\_\_\_, 2014.

[Signature]  
Notary Public, State of Texas

(Notary Seal)



C&S Media Publication  
 Murphy Monitor  
 The Sachse News  
 THE WYLIE NEWS

**Employment**



**MACHINE OPERATORS AND FORKLIFT DRIVERS**  
**\$14.00 PER HOUR**  
**JOB FAIR**

**When: Friday, October 24, 2014**  
**Where: Best Western – Wylie Texas, 2011 N. Hwy 78, Wylie Teas**  
**Time: 9:00AM – 3:00 PM**

Now hiring for various machine operator and forklift positions.  
 Starting pay is \$14.00 per hour plus shift differential.

**Requirements:**  
 H. S. Diploma or GED; Some college or military background preferred  
 Previous machine operator experience preferred; 1 years forklift experience required;  
 Reliable Transportation; Pass Math skills test; Work flexible shifts; Physical Required  
 Clear Background; Pass Drug Test

**ONIN STAFFING**  
 2824 Terrell Road, Greenville, Texas  
 903-454-8163





▶ Join our Talent Network

**Employment**

Wylie Vet Hospital is looking for immediate full-time kennel help. Must be flexible in hours Monday - Sunday.  
 Call 972-442-1311.  
 24-1t-15-bill

**Garage Sale**

**Estate Sale!** (1st Part of 3) 1565 Bozman from 8am-5pm. Thurs. - Sat. Too much to list!

**HUGE GARAGE SALE!** 10/24-10/25 at 16303 CR 616, Farmersville, 75442 Baby Depot/Nursery necessities & furniture; lots of boy clothing, birth - 5T; household goods; two seat Pelican Mini Boat; chrome wheels; etc.

**Garage Sale**

**Garage Sale!** Oct. 24 and Oct. 25 starts at 7 a.m. Come see us at 432 FM 547 in Farmersville. Furniture, clothes, misc. One table of Shameless Cowgirl jewelry.

**Plant Sale - Going Out of Business!**

Must get rid of perennials and indoor plants. Oct. 24-Oct. 25 and Oct. 26. Open 9 a.m. - till ?. 2020 Country Club Rd. (FM 1378) in Lucas. 972-442-5379 or 214-535-6207.  
 24-1t-ppd

**Moving Sale!** Furniture, clothes, sports equipment, & household items. Fri. and Sat. from 7 am - 3 pm at 1216 Iron Horse, Wylie. Bozman Farms area.

**Legal Notice**

**NOTICE OF INTENTION TO ISSUE CITY OF MURPHY, TEXAS, CERTIFICATES OF OBLIGATION**

**TAKE NOTICE** the City Council of the City of Murphy, Texas, shall convene at 6:00 o'clock P.M. on the 18th day of November, 2014, at its regular meeting place in City Hall, 206 North Murphy Road, Murphy, Texas, and, during such meeting, the City Council will consider the passage of an ordinance authorizing the issuance of certificates of obligation in one or more series in a principal amount not to exceed \$3,000,000 for the purpose of paying contractual obligations to be incurred for (i) improvements

**Legal Notice**

and extensions to the City's combined Waterworks and Sewer System, including the acquisition of land and rights-of-way therefor, and (ii) professional services rendered in connection with such projects and the financing thereof, and such certificates shall be payable from ad valorem taxes and a limited pledge of the net revenues of the City's combined Waterworks and Sewer System. The certificates are to be issued, and this notice is given, under and pursuant to the provisions of Texas Local Government Code, Subchapter C of Chapter 271, as amended.  
 Susie Quinn  
 City Secretary  
 City of Murphy, Texas  
 23-2t-66-952

# Business & I

## SERVICES

**City of Murphy, TX**  
**Combination Tax & Waterworks & Sewer System (Limited Pledge) Revenue**  
**Certificates of Obligation, Series 2014**  
**0182-020**

**Preliminary Schedule of Events**

Sep-14						
S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

Oct-14						
S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

Nov-14						
S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

Dec-14						
S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

<b>Complete By</b>	<b>Day</b>	<b>Event</b>
22-Sep-14	Monday	First Southwest requests information for preparation of the Official Statement
29-Sep-14	Monday	First Southwest receives requested information. First Southwest begins preparation of the Official Statement
3-Oct-14	Friday	Draft Official Statement distributed to the City and Bond Counsel
<b>7-Oct-14</b>	<b>Tuesday</b>	<b>Concil meeting to approve publication of Notice of Intent for CO's</b>
<b>10-Oct-14</b>	<b>Friday</b>	<b>1st Notice of Intent published for CO's</b>
10-Oct-14	Friday	First Southwest receives comments on Official Statement
15-Oct-14	Wednesday	Distribute POS to Rating Agency
<b>17-Oct-14</b>	<b>Friday</b>	<b>2nd Notice of Intent published for CO's</b>
Week of Oct. 20th - 24th		Rating Conference Call/Meeting
3-Nov-14	Monday	Receive Rating
4-Nov-14	Tuesday	Electronically mail Official Statement to Potential Purchasers
18-Nov-14	Tuesday	Pricing
<b>18-Nov-14</b>	<b>Tuesday</b>	<b>City Council passes Ordinance authorizing issuance of the Certificates</b>
18-Dec-14	Thursday	Closing and Delivery of Funds to the City

Preliminary

**City of Murphy**

Certificates of Obligation

Series 2014

**Debt Service Schedule**

<b>Date</b>	<b>Principal</b>	<b>Coupon</b>	<b>Interest</b>	<b>Total P+I</b>
09/30/2014	-	-	-	-
09/30/2015	110,000.00	2.000%	115,200.00	225,200.00
09/30/2016	110,000.00	2.000%	113,000.00	223,000.00
09/30/2017	115,000.00	2.000%	110,750.00	225,750.00
09/30/2018	115,000.00	2.000%	108,450.00	223,450.00
09/30/2019	120,000.00	3.000%	105,500.00	225,500.00
09/30/2020	120,000.00	3.000%	101,900.00	221,900.00
09/30/2021	125,000.00	3.000%	98,225.00	223,225.00
09/30/2022	130,000.00	3.000%	94,400.00	224,400.00
09/30/2023	135,000.00	3.500%	90,087.50	225,087.50
09/30/2024	140,000.00	3.500%	85,275.00	225,275.00
09/30/2025	145,000.00	4.000%	79,925.00	224,925.00
09/30/2026	150,000.00	4.000%	74,025.00	224,025.00
09/30/2027	155,000.00	4.000%	67,925.00	222,925.00
09/30/2028	165,000.00	4.500%	61,112.50	226,112.50
09/30/2029	170,000.00	4.500%	53,575.00	223,575.00
09/30/2030	180,000.00	5.000%	45,250.00	225,250.00
09/30/2031	190,000.00	5.000%	36,000.00	226,000.00
09/30/2032	195,000.00	5.000%	26,375.00	221,375.00
09/30/2033	210,000.00	5.000%	16,250.00	226,250.00
09/30/2034	220,000.00	5.000%	5,500.00	225,500.00
<b>Total</b>	<b>\$3,000,000.00</b>	<b>-</b>	<b>\$1,488,725.00</b>	<b>\$4,488,725.00</b>

**Yield Statistics**

Bond Year Dollars	\$33,765.00
Average Life	11.255 Years
Average Coupon	4.4090774%
Net Interest Cost (NIC)	4.3199614%
True Interest Cost (TIC)	4.2237543%
Bond Yield for Arbitrage Purposes	4.0262647%
All Inclusive Cost (AIC)	4.4987973%

**IRS Form 8038**

Net Interest Cost	4.1543304%
Weighted Average Maturity	11.273 Years

Series 2014 CO - \$3.0mm | SINGLE PURPOSE | 9/30/2014 | 9:10 AM

**First Southwest Company**

Public Finance

Page 1

BACK TO AGENDA



500 North Akard Street  
 Lincoln Plaza, Suite 3200  
 Dallas, TX 75201  
 tel (214) 871-1400  
 reference no.: 1367053

October 29, 2014

City of Murphy  
 206 N. Murphy Road  
 Murphy, TX 75094  
 Attention: Ms. Linda Truitt, Director of Finance

Re: *US\$3,000,000 Murphy, Texas, Tax And Waterworks And Sewer System ( Limited Pledge )  
 Revenue Certificates Of Obligation, Series 2014, dated: November 15, 2014, due: February  
 15, 2034*

Dear Ms. Truitt:

Pursuant to your request for a Standard & Poor's Ratings Services ("Ratings Services") rating on the above-referenced obligations, Ratings Services has assigned a rating of "AA". Standard & Poor's views the outlook for this rating as stable. A copy of the rationale supporting the rating is enclosed.

This letter constitutes Ratings Services' permission for you to disseminate the above-assigned ratings to interested parties in accordance with applicable laws and regulations. However, permission for such dissemination (other than to professional advisors bound by appropriate confidentiality arrangements) will become effective only after we have released the rating on [standardandpoors.com](http://standardandpoors.com). Any dissemination on any Website by you or your agents shall include the full analysis for the rating, including any updates, where applicable.

To maintain the rating, Standard & Poor's must receive all relevant financial and other information, including notice of material changes to financial and other information provided to us and in relevant documents, as soon as such information is available. Relevant financial and other information includes, but is not limited to, information about direct bank loans and debt and debt-like instruments issued to, or entered into with, financial institutions, insurance companies and/or other entities, whether or not disclosure of such information would be required under S.E.C. Rule 15c2-12. You understand that Ratings Services relies on you and your agents and advisors for the accuracy, timeliness and completeness of the information submitted in connection with the rating and the continued flow of material information as part of the surveillance process. Please send all information via electronic delivery to: [pubfin\\_statelocalgovt@standardandpoors.com](mailto:pubfin_statelocalgovt@standardandpoors.com). If SEC rule 17g-5 is applicable, you may post such information on the appropriate website. For any information not available in electronic format or posted on the applicable website,

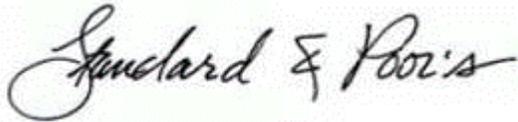
Please send hard copies to:  
 Standard & Poor's Ratings Services  
 Public Finance Department

55 Water Street  
New York, NY 10041-0003

The rating is subject to the Terms and Conditions, if any, attached to the Engagement Letter applicable to the rating. In the absence of such Engagement Letter and Terms and Conditions, the rating is subject to the attached Terms and Conditions. The applicable Terms and Conditions are incorporated herein by reference.

Ratings Services is pleased to have the opportunity to provide its rating opinion. For more information please visit our website at [www.standardandpoors.com](http://www.standardandpoors.com). If you have any questions, please contact us. Thank you for choosing Ratings Services.

Sincerely yours,

A handwritten signature in black ink that reads "Standard & Poor's". The signature is written in a cursive, flowing style.

Standard & Poor's Ratings Services

jb  
enclosures

cc: Mr. James Fisher  
Ms. Susan Strnad



## **Standard & Poor's Ratings Services Terms and Conditions Applicable To Public Finance Credit Ratings**

General. The credit ratings and other views of Standard & Poor's Ratings Services ("Ratings Services") are statements of opinion and not statements of fact. Credit ratings and other views of Ratings Services are not recommendations to purchase, hold, or sell any securities and do not comment on market price, marketability, investor preference or suitability of any security. While Ratings Services bases its credit ratings and other views on information provided by issuers and their agents and advisors, and other information from sources it believes to be reliable, Ratings Services does not perform an audit, and undertakes no duty of due diligence or independent verification, of any information it receives. Such information and Ratings Services' opinions should not be relied upon in making any investment decision. Ratings Services does not act as a "fiduciary" or an investment advisor. Ratings Services neither recommends nor will recommend how an issuer can or should achieve a particular credit rating outcome nor provides or will provide consulting, advisory, financial or structuring advice. Unless otherwise indicated, the term "issuer" means both the issuer and the obligor if the obligor is not the issuer.

All Credit Rating Actions in Ratings Services' Sole Discretion. Ratings Services may assign, raise, lower, suspend, place on CreditWatch, or withdraw a credit rating, and assign or revise an Outlook, at any time, in Ratings Services' sole discretion. Ratings Services may take any of the foregoing actions notwithstanding any request for a confidential or private credit rating or a withdrawal of a credit rating, or termination of a credit rating engagement. Ratings Services will not convert a public credit rating to a confidential or private credit rating, or a private credit rating to a confidential credit rating.

Publication. Ratings Services reserves the right to use, publish, disseminate, or license others to use, publish or disseminate a credit rating and any related analytical reports, including the rationale for the credit rating, unless the issuer specifically requests in connection with the initial credit rating that the credit rating be assigned and maintained on a confidential or private basis. If, however, a confidential or private credit rating or the existence of a confidential or private credit rating subsequently becomes public through disclosure other than by an act of Ratings Services or its affiliates, Ratings Services reserves the right to treat the credit rating as a public credit rating, including, without limitation, publishing the credit rating and any related analytical reports. Any analytical reports published by Ratings Services are not issued by or on behalf of the issuer or at the issuer's request. Ratings Services reserves the right to use, publish, disseminate or license others to use, publish or disseminate analytical reports with respect to public credit ratings that have been withdrawn, regardless of the reason for such withdrawal. Ratings Services may publish explanations of Ratings Services' credit ratings criteria from time to time and Ratings Services may modify or refine its credit ratings criteria at any time as Ratings Services deems appropriate.

Reliance on Information. Ratings Services relies on issuers and their agents and advisors for the accuracy and completeness of the information submitted in connection with credit ratings and the surveillance of credit ratings including, without limitation, information on material changes to information previously provided by issuers, their agents or advisors. Credit ratings, and the maintenance of credit ratings, may be affected by Ratings Services' opinion of the information received from issuers, their agents or advisors.

Confidential Information. Ratings Services has established policies and procedures to maintain the confidentiality of certain non-public information received from issuers, their agents or advisors. For these purposes, “Confidential Information” shall mean verbal or written information that the issuer or its agents or advisors have provided to Ratings Services and, in a specific and particularized manner, have marked or otherwise indicated in writing (either prior to or promptly following such disclosure) that such information is “Confidential.”

Ratings Services Not an Expert, Underwriter or Seller under Securities Laws. Ratings Services has not consented to and will not consent to being named an “expert” or any similar designation under any applicable securities laws or other regulatory guidance, rules or recommendations, including without limitation, Section 7 of the U.S. Securities Act of 1933. Rating Services has not performed and will not perform the role or tasks associated with an "underwriter" or "seller" under the United States federal securities laws or other regulatory guidance, rules or recommendations in connection with a credit rating engagement.

Disclaimer of Liability. Ratings Services does not and cannot guarantee the accuracy, completeness, or timeliness of the information relied on in connection with a credit rating or the results obtained from the use of such information. RATINGS SERVICES GIVES NO EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE. Ratings Services, its affiliates or third party providers, or any of their officers, directors, shareholders, employees or agents shall not be liable to any person for any inaccuracies, errors, or omissions, in each case regardless of cause, actions, damages (consequential, special, indirect, incidental, punitive, compensatory, exemplary or otherwise), claims, liabilities, costs, expenses, legal fees or losses (including, without limitation, lost income or lost profits and opportunity costs) in any way arising out of or relating to a credit rating or the related analytic services even if advised of the possibility of such damages or other amounts.

No Third Party Beneficiaries. Nothing in any credit rating engagement, or a credit rating when issued, is intended or should be construed as creating any rights on behalf of any third parties, including, without limitation, any recipient of a credit rating. No person is intended as a third party beneficiary of any credit rating engagement or of a credit rating when issued.

**City Council**  
**November 18, 2014**

---

**Issue**

Consider and/or act upon the Murphy Municipal Development District to authorize the City Manager to execute an Incentive Agreement between the City of Murphy, Murphy Municipal Development District and Calloway's Nursery, Inc.

**Background**

Staff has been working closely with the property owner of Murphy Village as well as the Vice President of Calloway's Nursery, Inc., John Cosby. The site proposed for development is located directly west of Christian Brothers and the railroad track south of FM 544. Development staff and Mr. Cosby have held numerous meetings to discuss the site.

**Details of request**

One of the water lines necessary to service this site is located on the north side of FM 544; and to develop at this site, the line must be brought across FM544. TXDOT will not allow anyone to open cut the water line so it must be bored, in this case, under FM544. The developer will also be required to connect the water line by Christian Brothers in order to loop the water line from Village Drive to Calloway's.

Mr. Cosby, on behalf of Calloway's Nursery, is requesting financial assistance from Murphy Municipal Development District not to exceed \$70,000. This assistance will fund the costs associated with the water line project across FM 544, allowing necessary infrastructure to be constructed for development of a Calloway's Nursery at this site.

**Project Details**

- This development is an allowed use on the site.
- Considering the current development schedule stays on track, it is estimated Calloway's would be built and operational by November 2015.
- The site would consist of approximately 5,000 square foot building, approximately 15,000 square foot greenhouse and approximately 40,000 square foot nursery yard.
- This new business will create 20 jobs (10 full time and 10 part time).

**Financial Considerations**

The first year taxable sales for this site are estimated at approximately \$2,000,000. Calloway's is requesting financial assistance from MDD not to exceed \$70,000 on a reimbursement basis. City staff will coordinate with the developer to process paid invoices specific to work completed and will reimburse the developer within 30 days of receipt.

**Board Consideration/Recommendation**

On November 10, 2014, the Murphy Municipal Development District, by a vote of 4-0, approved authorization for the City Manager to execute an Incentive Agreement between the City of Murphy, Murphy Municipal Development District and Calloway's Nursery not to exceed \$70,000.

**City Council**  
**November 18, 2014**

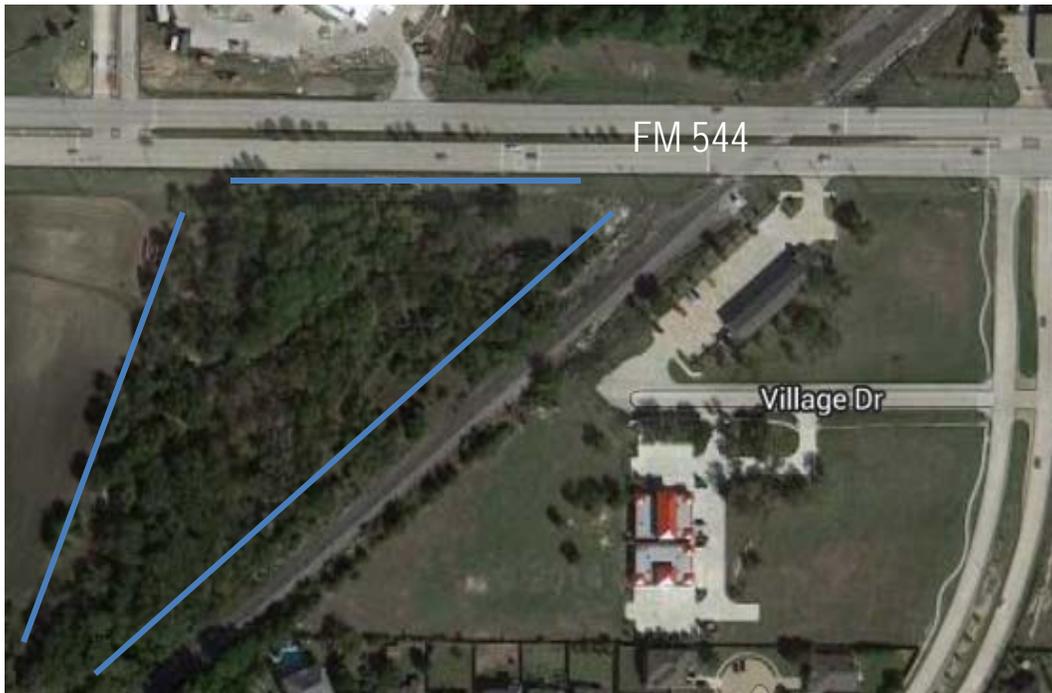
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**Staff Recommendation**

Staff recommends that the City Council authorize the City Manager to execute an Incentive Agreement between the City of Murphy, Murphy Municipal Development District and Calloway's Nursery not to exceed \$70,000.

**Attachments**

Map showing development location and water line locations for tie in  
MDD FY15 Budget Summary



**Proposed water lines for the Calloway's site. This will loop their site and the dead end line along Village Drive.**



**NORTHSTAR  
PUMP STATION  
NO SCALE**



**CITY OF RICHARDSON**



**LEGEND**

-  8" PIPE (EXCEPT AS NOTED)
-  PIPE LARGER THAN 8"
-  FIRE HYDRANT

**City of Murphy  
Proposed FY 2015 Budget**

ITEM 7.C.

	FY12 Actual	FY13 Actual	FY14 Budget	3/31/2014 Actual	FY14 Projected	FY15 Requested	Ref No
<b>MDD</b>							
REVENUES							
NON-PROPERTY TAXES							
4000-4060-0000 SALES TAX	257,038	642,548	862,000	372,077	862,000	883,600	
<b>TOTAL NON-PROPERTY TAXES</b>	<b>257,038</b>	<b>642,548</b>	<b>862,000</b>	<b>372,077</b>	<b>862,000</b>	<b>883,600</b>	
OTHER REVENUE							
4000-4305-0000 INTEREST INCOME	742	472	500	1,391	2,600	2,600	
4000-4330-0000 MISC INCOME	20,000	21,600		850,000	850,000		
<b>TOTAL OTHER REVENUE</b>	<b>20,742</b>	<b>22,072</b>	<b>500</b>	<b>851,391</b>	<b>852,600</b>	<b>2,600</b>	
38-9000-0000-0000 TRANSFER	907,638						
<b>TOTAL REVENUES</b>	<b>1,185,418</b>	<b>664,620</b>	<b>862,500</b>	<b>1,223,468</b>	<b>1,714,600</b>	<b>886,200</b>	
<b>MDD</b>							
CONTRACTUAL SERVICES							
5000-3101-0000 AUDITING AND ACCOUNTING	-	2,500	3,000	3,000	3,000	3,000	6
5000-3102-0000 CONSULTANT SERVICES	-	-	-	10,000	32,000	5,000	7
5000-3103-0000 LEGAL SERVICES	1,204	4,610	4,000	-	1,000	4,000	8
5000-3105-0000 ENGINEERING SERVICES	-	-	-	4,675	-	-	
5000-3112-0000 ISSUANCE COSTS	-	-	-	21,506	21,600	-	-
5000-3115-0000 BANK CHARGES	3	-	-	-	-	-	-
5000-3199-0000 CONTRACT LABOR	-	-	-	-	-	-	-
5000-3201-0000 TELEPHONE EXPENSES	-	-	-	-	-	-	-
5000-3202-0000 POSTAGE & FREIGHT	-	-	-	-	-	-	9
5000-3203-0000 TRAVEL AND TRAINING	-	-	5,000	-	2,500	5,000	10
5000-3301-0000 AD. AND PUBLIC NOTICES	-	-	1,000	-	-	500	11
5000-3302-0000 PRINTING AND BINDING	-	-	-	-	-	-	12
5000-3405-0000 WORKERS COMPENSATION	-	-	-	-	-	-	13
5000-3407-0000 UNEMPLOYMENT INS	-	-	-	-	-	-	-
5000-3703-0000 CELL/PAGERS/RADIOS	-	-	-	-	-	-	14
5000-3901-0000 DUES & MEMBERSHIP	-	-	-	500	-	2,000	14
5000-3910-0000 ADMINISTRATIVE COSTS	147,802	206,700	189,800	94,950	189,800	190,700	15
5000-3995-0000 INCENTIVES	-	-	-	-	30,000	130,000	15.1
5000-3996-0000 MURPHY MARKETPLACE INC	-	-	-	79,167	110,000	-	-
5000-3998-0000 UNEXPENDED PROMOTIONAL EX	-	-	-	-	-	-	-
5000-3999-0000 PROMOTIONAL EXPENSE	-	15,454	25,000	-	-	25,000	16
<b>TOTAL CONTRACTUAL SERVICES</b>	<b>149,009</b>	<b>229,264</b>	<b>227,800</b>	<b>213,798</b>	<b>389,900</b>	<b>365,200</b>	
CAPITAL OUTLAY							
5000-4305-0000 SPECIAL EQUIPMENT	-	-	-	1,000	-	-	-
<b>TOTAL CAPITAL OUTLAY</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1,000</b>	<b>-</b>	<b>-</b>	
DEBT SERVICE							
5000-5001-0000 PRINCIPAL	-	-	-	-	120,000	115,000	22
5000-5002-0000 INTEREST	-	-	-	-	8,700	13,200	23
<b>TOTAL DEBT SERVICE</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>128,700</b>	<b>128,200</b>	
Transfer to Capital Construction		600,000	-	850,000	850,000	-	-
<b>TOTAL EXPENDITURES</b>	<b>149,009</b>	<b>829,264</b>	<b>227,800</b>	<b>1,064,798</b>	<b>1,368,600</b>	<b>493,400</b>	
<b>REVENUE &amp; OTHER SOURCES OVER/ (UNDER) EXPENDITURES &amp; OTHER (USES)</b>	<b>1,036,409</b>	<b>(164,643)</b>	<b>634,700</b>	<b>158,671</b>	<b>346,000</b>	<b>392,800</b>	
<b>BEGINNING FUND BALANCE 10-01</b>		<b>1,036,410</b>	1,384,709		<b>871,767</b>	<b>1,217,767</b>	
<b>ENDING FUND BALANCE 09-30</b>	<b>1,036,410</b>	<b>871,767</b>	<b>2,019,409</b>		<b>1,217,767</b>	<b>1,610,567</b>	

**City Council Meeting  
November 18, 2014**

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**Issue**

Consider and/or act upon the authorization for the City Engineer to solicit bids for the construction of the South Maxwell Creek Parallel Trunk Sewer Line Project.

**Staff Resource/Department**

James Fisher, City Manager  
Gary Hendricks, P.E., City Engineer

**Key Focus Area**

Infrastructure

**Background/History**

On May 25, 2011, Murphy updated the city population, sanitary flow projections, and capital improvement plan with NTMWD. With the subdivision additions of Rolling Ridge Phase 6, Maxwell Creek North and The Gables, the main line sewer service capacity must be expanded to the Wylie Waste Water Treatment Plant.

This project was included in the 2008 Bond Program, but was put on hold. The City wanted to complete the utility relocations on North Murphy Road, lift station improvements, and the elevated storage tank prior to initiating this project. Also, subdivision improvements at Maxwell Creek and Gables had not begun. The budgeted amount for this project is \$2,248,926.

The City Engineer has completed preliminary design, survey, and land acquisition for the South Maxwell Creek Trunk Sewer Line project. The project is now ready for bid and construction will begin and be completed in 2015.

**Action Requested**

Authorize the City Engineer to solicit bids for the construction of the South Maxwell Creek Parallel Trunk Sewer Line Project and bring back to City Council for review in January 2015.

**City Council Meeting  
November 18, 2014**

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**Issue**

Consider and/or act upon the ratification of Resolution 14-R-810 regarding the use of the power of eminent domain to acquire the necessary portions of properties listed in Exhibit "A" specifically for additional Right-of-Way Easement.

**Staff Resource/Department**

James Fisher, City Manager

**Summary**

The City Council approved Resolution 14-R-810 at the November 4, 2014 City Council meeting. It is requested that City Council ratify this resolution.

**Action Requested**

Consider a motion ratifying Resolution 14-R-810.

**Attachments**

Resolution 14-R-810

**RESOLUTION NO. 14-R-810**

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MURPHY, TEXAS FINDING THAT A PUBLIC NECESSITY EXISTS TO ENLARGE, IMPROVE, WIDEN, OR EXTEND A PUBLIC STREET OR OTHER RIGHT-OF-WAY ON A PORTION OF A TRACT GENERALLY LOCATED AT NORTH MURPHY ROAD, NORTH OF FM 544 AND SOUTH OF THE MURPHY MUNICIPAL COMPLEX AND MORE PARTICULARLY DESCRIBED IN THE JAMES W. MAXWELL SURVEY, ABSTRACT NUMBER 582 BEING RECORDED IN THE REAL PROPERTY RECORDS OF COLLIN COUNTY AS RECORD FILE NUMBER 92-0016418; PROVIDING NOTICE OF AN OFFICIAL DETERMINATION TO ACQUIRE REAL PROPERTY FOR THE ACQUISITION OF AN ADDITIONAL RIGHT-OF-WAY EASEMENT; AUTHORIZING THE CITY MANAGER TO OBTAIN THE NECESSARY APPRAISAL REPORT AND MAKE BONA FIDE OFFERS OF JUST COMPENSATION FOR THE EASEMENT AS REQUIRED BY LAW; AUTHORIZING THE CITY ATTORNEY TO INSTITUTE EMINENT DOMAIN PROCEEDINGS ON BEHALF OF THE CITY FOR THE ACQUISITION OF THE EASEMENT ON SAID TRACT IF NEGOTIATIONS ARE UNSUCCESSFUL; APPROPRIATING FUNDS FROM A LAWFUL SOURCE; AND PROVIDING FOR AN EFFECTIVE DATE.**

**WHEREAS**, the City of Murphy (the "City"), by authority of Chapter 251 of the Texas Local Government Code, Chapter 311 of the Texas Transportation Code and by virtue of Article II, Section 2.03 of the Murphy City Charter as a home-rule municipality, is authorized to initiate eminent domain proceedings within or outside its corporate limits to acquire an easement in real property for a public purpose, including to enlarge, improve, widen, or extend a public street, alley, or other right-of-way or public roadway; and

**WHEREAS**, the City Council of the City of Murphy ("City Council") has investigated and determined that, there is a public necessity for the acquisition, by eminent domain, of a certain sidewalk easement ("Easement") identified in field notes attached as Exhibit "A" attached hereto and incorporated herein for all purposes (the "Property") and is the City's intent to acquire the necessary Easement on the Property for the purpose of, among other municipal purposes, to enlarge, improve, widen, or extend a public street, alley, or other right-of-way or public roadway; and

**WHEREAS**, the City Council has investigated and determined that the taking of said Easement in real property is necessary for public use, in particular to provide for a safer and more pedestrian-friendly routes to and from schools, parks, and residential areas; and

**WHEREAS**, it is necessary to establish procedures for determining the establishment and approval of just compensation for the Easement to be acquired by eminent domain as required by law; and

**WHEREAS**, the City Manager, or his designee, is required to make a bona fide offer, as defined by and in compliance with Chapter 21 of Texas Property Code, to acquire Easement on the Property for public use voluntarily from the Property 's owner prior to moving forward with easement acquisition by eminent domain; and

**WHEREAS**, if the City, through its authorized representatives , is unable to agree and cannot agree upon the just compensation to be paid with the Property 's owner, then the City Attorney is authorized and directed to institute proceedings in eminent domain to acquire the Easement on the Property.

**NOW THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF MURPHY, TEXAS THAT:**

**SECTION 1:** The findings set forth above are incorporated into the body of this Resolution as if fully set forth herein.

**SECTION 2:** The City Council hereby officially determines that there is a public necessity for and the public welfare and convenience will be served by, the acquisition, by eminent domain, of the an Easement on the Property, and it is the City's intent to acquire the Easement for public use, on the Property as more specifically described in and depicted on **Exhibit "A"**, attached hereto, specifically for municipal purposes, specifically for a right-of-way easement which involves the enlarging, widening, expanding, or improvement of a public road, alley, or other public right-of-way or public roadway.

**SECTION 3:** The City Manager or his designee is hereby authorized to contract, on behalf of the City, with professional appraisers for appraisal services, City Attorney for legal advice and services and professionals for any related tasks in connection with acquisition of the Easement on the Property as required by law for right-of-way easements. The City Manager or designee shall first make a bona fide offer to acquire the Easement on the Property from the Property's owner voluntarily. Should the Property's owner fail to provide the Easement voluntarily through said bona fide offer, the City Council hereby authorizes City Attorney to move forward with acquiring the Easement on the Property by eminent domain after the requisite statutory waiting period under the Texas Property Code.

**SECTION 4:** The City Manager or his designee is hereby authorized and directed to examine and rely on the independent appraisal reports, and other information , to

make a determination as to the establishment and approval of a fair market value offer and the just compensation for the Easement on the Property for the purpose of making a bona fide offer. After such consideration, the City Manager or his designee shall establish or approve the amount determined to be just compensation for acquisition of said Easement, and shall have the authority to execute any and all documents necessary to complete the acquisition of same.

**SECTION 5:** Upon establishment of the amount of just compensation for the acquisition of the Easement on the Property, the City Manager, his designee, or the City Attorney is authorized to send a written bona fide offer to the Property's owner for acquisition of said Easement at the full amount determined and established to be just compensation therefore, and to negotiate with said owner on behalf of the City to acquire the Easement voluntarily from said Property owner(s).

**SECTION 6:** The City Manager is hereby authorized to execute all documents necessary to acquire the Easement on the Property, on behalf of the City, whether by purchase or eminent domain. The City Council hereby ratifies any documents executed, prior to the effective date of this Resolution, by the City Manager which were necessary for the acquisition of the Easement on the Property.

**SECTION 7:** Should the City be unable to acquire the Easement voluntarily from the Property's owner through the making of a bona fide offer, the City Attorney is authorized to commence condemnation proceedings under the Texas Property Code for the acquisition of the Easement on the Property after the requisite statutory waiting period following the final bona fide offer.

**SECTION 8:** The amount to be paid, if any, for acquiring the Easement on the Property, will be appropriated from any lawful source.

**SECTION 9:** In the event that Special Commissioners appointed by the Court during condemnation proceedings return an award that is the same amount or less than the amount offered by the City for just compensation, the City Attorney is hereby authorized to settle the lawsuit for that amount and the City Finance Director is hereby authorized to issue a check from the appropriate fund in an amount not to exceed the Special Commissioners' award made payable to the County Clerk of Collin County, to be deposited into the registry of the Court, to enable the City to take possession of the Property without further action of the City Council.

**SECTION 10:** Should any section, subsection, sentence, clause or phrase of this Resolution be declared unconstitutional or invalid by a court of competent jurisdiction, it is expressly provided that any and all remaining portions of this Resolution shall remain in full force and effect. The City hereby declares that it would have passed this Resolution, and each section, subsection, clause or phrase thereof irrespective of the fact that any one or more sections, subsections, sentences, clauses and phrases be declared unconstitutional or invalid.

**SECTION 11:** This Resolution shall take effect immediately upon its passage and execution in accordance with the provisions of the Charter of the City of Murphy.

**CONSIDERED AND ADOPTED THIS** 4th day of November 2014 at a regular meeting of the City Council of the City of Murphy in which a quorum was present.

CITY OF MURPHY

**BY:** \_\_\_\_\_  
Eric Barna, Mayor

ATTEST:

\_\_\_\_\_  
Susie Quinn, City Secretary

APPROVED AS TO FORM:

\_\_\_\_\_  
Wm. Andrew Messer

08/18/14

**FIELD NOTE DESCRIPTION  
FOR  
PERMANENT SIDEWALK EASEMENT  
ACROSS THE PROPERTY OF**

**CHARLES E. CAMPBELL  
FILE NO. 92-0016418 DEED RECORDS OF  
COLLIN COUNTY, TEXAS**

BEING a parcel of land for permanent sidewalk easement over, under and across a tract of land located in the James Maxwell Survey, Abstract No. 582, Collin County, Texas, conveyed to Charles E. Campbell by a deed now of record in File No. 92-0016418, of the Deed Records of Collin County, Texas (DRCCT) and shown by Collin County CAD Identification No. 2520955. Said parcel of land for sidewalk easement being more particularly described as follows:

BEGINNING at a point for corner and being the northwest property corner of said Campbell tract and being in the west property line of Block A, Lot 2 of the Murphy Municipal Center Addition to the City of Murphy as recorded in Cabinet Q, Slide 609 of the Plat Records of Collin County, Texas (PRCCT) and shown by Collin County CAD Identification No. 2581946, and being in the existing east right-of-way of F.M. 2551 (Murphy Road) (a variable width right-of-way), said corner being S 88°19'54" E a distance of 6.35 feet from a TxDot disk found, said disk being the southwest corner of Block A, Lot 2 of said Murphy Municipal Center Addition;

THENCE, S 88°38'24" E, leaving said existing east right-of-way of F.M. 2551, along the north property line of said Campbell tract and along the south property line of Block A, Lot 2 of said Murphy Municipal Center Addition, a distance of 40.00 feet to a point for corner;

THENCE, S 00°53'41" W, leaving the north property line of said Campbell tract and the south property line of Block A, Lot 2 of said Murphy Municipal Center Addition, a distance of 129.00 feet to a point for corner;

THENCE, N 89°06'19" W, a distance of 10.00 feet to a point for corner;

THENCE, S 00°53'41" W, a distance of 250.45 feet to a point for corner, said point being in the south property line of said Campbell tract and in north property line Block A, Lot 1 of said Murphy Municipal Center Addition and shown by Collin County CAD Identification No. 2581947;

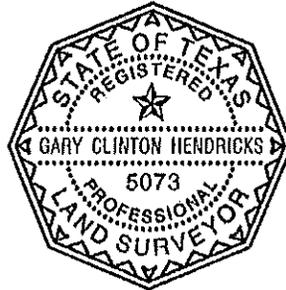
THENCE, N 84°27'58" W, along the south property line of said Campbell tract and along the north property line of Block A, Lot 1 of said Murphy Municipal Center Addition, a distance of 30.10 feet to a point for corner, said point being the southwest corner of said Campbell tract and in the said existing east right-of-way of F.M. 2551, said corner being S 85°12'27" E a distance of 3.05 feet from a TxDot disk found, said disk being the northwest corner of Block A, Lot 1 of said Murphy Municipal Center Addition;

08/18/14

THENCE, N 00°53'41" E, along the west property line of said Campbell tract and along the said existing east right-of-way of F.M. 2551 a distance of 377.34 feet to the POINT OF BEGINNING, and containing 0.0290 acre (12,643 square feet), more or less.

Notes:

1. Bearings and distances cited in this field note description are based on the Texas State Plane Coordinate System, NAD-83, Texas North Central Zone 4202.
2. Field surveys concluded on February 10, 2014.
3. An Easement Plat of even date herewith accompanies this Field Note Description.



*[Handwritten Signature]*  
 Date: 8/18/14

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