

PROJECT LAYOUT

PHASE 2

PHASE 1



MOON/WHITSON

CATES

KARLA

Phase 2A

- Delete roundabout/on-street parking
- Return to original 6-lane roadway
- Do underground utilities

Phase 2B

- Delete roundabout/on-street parking
- Keep all other proposed features

Phase 1

- Delete on-street parking/roundabout
- Redesign transition from 6 to 4 lanes

ATTACHMENT A SCOPE OF SERVICES

GUS THOMASSON ROAD – PHASE 1 RE-DESIGN

DESCRIPTION OF SERVICES:

The scope of services includes development of conceptual layouts, final design and associated details, and quantities to remove the planned roundabout and on-street parking from the current construction plans along Gus Thomasson Road, from Oates Drive north to Karla Drive. The project also includes revising the 6-lane to 4-lane roadway transition north of Karla Drive in order to achieve lane balance with the proposed traditional intersection at Karla Drive. Design revisions and quantities are assumed to be processed as a contractor change order, so a revised specifications book is not included in this scope of services.

Project Manager:

The City of Mesquite Project Manager for this project is **Corey Nesbit, PE, City Engineer**, who can be reached at **(972) 329-8535**.

All correspondence to the City of Mesquite should be addressed to:

Corey Nesbit, PE, City Engineer
City of Mesquite
Engineering Department
1515 N. Galloway Ave.
Mesquite, TX 75149
Email: **cnesbit@cityofmesquite.com**

BASIC SERVICES:

A. Research and Data Collection –

1. Meet with the City of Mesquite project manager and Gus Thomasson (GT) contractor to conduct an on-site review and assess previous plan design elements that have already been constructed.
2. Coordinate with the City of Mesquite to receive updated traffic counts. Perform signal warrant analysis at Karla, based on latest counts (no new counts are included in this scope of services).
3. Develop corridor concept layout to depict revised roadway plan, including lane drops north of Karla Drive.
4. Develop Proposed Typical Sections for corridor concept
5. Develop concept to reconfigure landscape/hardscape elements.
6. Review impact to existing franchise utilities to determine the need for adjustment within the project limits. Coordinate with franchise utility owners for any

adjustments required. This also includes coordination for probable traffic signal controller electrical service at Karla Drive.

B. Design Survey –

1. Perform topographic surveying of items that have already been constructed within the project limits, along with any new development that has occurred since the plans were originally designed. This includes items such as storm sewer, pavement removal, water/wastewater lines, and new driveways/adjacent development (e.g., Villas at Vanston Park).

C. Right-of-way and Easement Requirements –

1. Prepare a preliminary list of right-of-way parcels and easements necessary to construct the project (if any). Submit to the City of Mesquite within 5 days of corridor concept approval and prior to the preliminary plan submittal. This scope of services does not include effort to renew any temporary easements developed previously.
2. Meet with the City of Mesquite Staff to determine easement and right-of-way requirements for preparation of field notes and exhibits.
3. Prepare up to two (2) ROW easements, including metes and bounds description and an 8 ½" x 11" exhibit on a per tract basis. Deliver three (3) approved, signed sealed originals to the City for all easements.

D. Schematic Design –

1. Develop detailed intersection geometry and assess turning movements and queuing based on projected traffic counts
2. Develop Preliminary Design Cross Sections
3. Refine proposed typical sections based on approved corridor concept
4. Develop cost estimate based on approved corridor concept

E. Preliminary Design –

1. Prepare preliminary construction plans. Information required can be combined on sheets if the information can be clearly shown and is approved by the City of Mesquite project manager. Prepare the following 22"x34" sheets at the engineering scale indicated:
 - Project layout control sheet(s). Scale 1"= 100'.
 - Quantity sheet(s).
 - Typical sections and City standard detail sheets.
 - Construction phasing and temporary traffic control sheets. Scale 1"= 40'.
 - Paving plan sheets for street reconstruction. Sheets will include traffic signal foundations shown as a 36-inch circle. Profile showing left and right top of curb lines. Driveway replacement to be made to the property line, unless grade changes in street necessitate more replacement. Scale of plans to be: 1"=20' Horizontal; 1"=4' Vertical.

- Drainage plan sheets for reconfigured system. Includes assessment and redesign of inlet and conveyance systems and final plan and profiles of main trunkline(s) and laterals. Scale 1"=40'.
- Waterline service lateral revisions. Scale 1"=20' horizontal and 1"=5' vertical
- Sewer service lateral revisions. Scale 1"=20' horizontal
- Final buttoning and signage plan sheets. Scale 1"= 40'.
- Traffic signal plans and details. Scale 1"= 40'.
- Landscape and Irrigation Plans showing proposed intersection hardscape enhancements and tree planting locations

Driveway consolidation, reconfiguration or development of temporary easements is not included in this scope of services.

2. Prepare a list of any special technical specifications needed for the project (if any).
3. Prepare an estimate of construction quantities and develop the preliminary statement of probable construction cost.
4. Submit two sets of full size preliminary plans, a list of any additional special technical specifications and a preliminary statement of probable construction cost to the City and the contractor for review.
5. Meet with City of Mesquite staff to discuss City comments on preliminary plans, specifications list and cost estimates.
6. If applicable, distribute the preliminary plans and proposed schedule for start of construction to local utility companies to obtain information regarding impacts to their facilities. Submit copies of transmittal letters to the City for its records.

F. Final Design –

1. Revise preliminary plans incorporating comments from the City of Mesquite.
2. Incorporate comments from the utility companies.
3. Complete traffic signal plans (foundations, pole/mast arm size/table, signal head displays/tables, vehicle detection, conduit, pull boxes, phasing, Opticom, etc.).
4. Finalize construction plans for proposed improvements.
5. Finalize special technical specifications and special conditions (if any).
6. Incorporate standard details into the construction plans and prepare additional details as required.
7. Attend four (4) project meetings with City and contractor in which the on-going plan progress will be reviewed and design issues discussed.
8. Take off final construction quantities and prepare final construction cost estimates.
9. Submit three sets of pre-final plans (22x34), special technical specifications and final statement of probable construction cost to the City for review. Previous review comment markups shall be returned with this submittal.
10. Incorporate City final comments into the plans.
11. Submit three full size sets of final black line prints, specifications, and estimates to the City of Mesquite.
12. Attend up to two utility coordination meetings to start relocation process with affected franchise utilities.

G. Bid Phase Services –

1. Assist the City staff in coordinating contractor change order.
2. Submit a CD-ROM disk of the final plan revisions in PDF format.
3. Evaluate contractor pricing. Prepare letter of recommendation to the City of Mesquite for proceeding with the change order within four working days of bid receipt.

H. Public Involvement –

1. Assist the City of Mesquite with one (1) Public Meeting throughout the duration of the Project. Electronic presentation materials and corridor concept exhibit will be prepared for the meetings.

I. Construction Administration –

1. Provide additional construction support through field visits, RFI coordination, and traffic signal shop drawing review. Provide written responses to requests for information or clarification.

GUS THOMASSON ROAD - PHASE 1 RE-DESIGN
Fee Schedule

Task	Brown & Gay Engineers, Inc.	TBG Partners	Total
Engineering	\$140,960.00	\$11,240.00	\$152,200.00
Expenses	\$2,400.00	\$700.00	\$3,100.00
Total	\$143,360.00	\$11,940.00	\$155,300.00
%	92%	8%	100%

GUS THOMASSON ROAD - PHASE 1 RE-DESIGN

Fee Schedule

Summary of Hours (All Firms)

Description of Activity	Lead Firm	Brown & Gay Engineers, Inc.	TBG Partners	Total Hours
A. Research and Data Collection				
A.1 On site review with City and Contractor	BGE	9	0	9
A.2 Coordination with City Traffic Engr for signal warrant justification	BGE	4	0	4
A.3 Develop and coordinate revisions for Project Conceptual Layout	BGE	52	0	52
A.4 Develop revised Typical Sections	BGE	22	0	22
A.5 Develop Revised Landscape and Irrigation Concept Layout	TBG/BGE	16	64	80
A.6 Coordinate possible franchise utility impacts	BGE	10	0	10
Subtotal		113	64	177
B. Design Survey				
B.1 Topographic Survey of new features	BGE	15	0	15
Subtotal		15	0	15
C. Right-of-Way and Easement Requirements				
C.1 Identify and submit easement/ROW needs	BGE	2	0	2
C.2 Coordinate with City for ROW needs	BGE	2	0	2
C.3 Prepare up to 2 ROW Easements/Parcels	BGE	40	0	40
Subtotal		44	0	44
D. Schematic Design				
D.1 Develop Horizontal and Vertical Geometry for intersection and corridor	BGE	40	0	40
D.2 Develop Preliminary Design Cross Sections	BGE	40	0	40
D.3 Refine Typical Sections	BGE	10	0	10
D.4 Develop Engineer's Opinion of Probable Cost	BGE	9	0	9
Subtotal		99	0	99
E. Preliminary Design				
E.1.1 Preliminary Construction Plans - Project Layout Sheet	BGE	5	0	5
E.1.2 Preliminary Construction Plans - Quantity Sheet(s)	BGE	6	0	6
E.1.3 Preliminary Construction Plans - Typical Sections and Standard Detail Sheets	BGE	7	0	7
E.1.4 Preliminary Construction Plans - Constr Phasing and TCP Sheets	BGE	80	0	80
E.1.5 Preliminary Construction Plans - Paving Sheets	BGE	80	0	80
E.1.6 Preliminary Construction Plans - Drainage Sheets	BGE	96	0	96
E.1.7 Preliminary Construction Plans - Waterline Sheets	BGE	14	0	14

GUS THOMASSON ROAD - PHASE 1 RE-DESIGN

Fee Schedule

Summary of Hours (All Firms)

Description of Activity	Lead Firm	Brown & Gay Engineers, Inc.	TBG Partners	Total Hours
E.1.8 Preliminary Construction Plans - Sewer Sheets	BGE	10	0	10
E.1.9 Preliminary Construction Plans - Signing and Pavement Marking Sheets	BGE	34	0	34
E.1.10 Preliminary Construction Plans - Traffic Signal Plans, Lighting Plans, and Details	BGE	72	0	72
E.1.11 Preliminary Construction Plans - Landscape and Irrigation Plans	TBG/BGE	12	64	76
E.2 Prepare Specifications	BGE	13	0	13
E.3 Prepare Estimate of Construction Quantities and Probable Construction Cost	BGE	20	0	20
E.4 Produce and deliver two sets of full size Preliminary Plans, specifications, and estimate	BGE	72	0	72
E.5 Coordination with City regarding next steps for Preliminary Plans	TBG/BGE	16	2	18
E.6 Coordination with franchise utility companies regarding preliminary plans	BGE	10	0	10
Subtotal		547	66	613
F. Final Design				
F.1 Revise Preliminary Plans to incorporate City comments	BGE/TBG	26	14	40
F.2 Revise Preliminary Plans to incorporate franchise utility comments	BGE/TBG	4	2	6
F.3 Complete traffic signal and lighting plans	BGE	44	0	44
F.4 Finalize roadway, drainage and TCP plan details	BGE	32	0	32
F.5 Finalize technical specifications	BGE	8	0	8
F.6 Incorporate standard details into final plans	BGE/TBG	8	10	18
F.7 Attend up to 4 project meetings with City and Contractor	BGE	8	0	8
F.8 Take off final construction quantities and cost estimates	BGE	16	0	16
F.9 Produce and deliver 3 sets of pre final plans, specs, and estimate to City	BGE	64	0	64
F.10 Incorporate City final comments into the plans	BGE	20	0	20
F.11 Produce and deliver 3 sets of final plans, specs, and estimate to City	BGE	12	0	12
F.12 Attend up to 2 utility coordination meetings with franchise owners for needed relocations	BGE	4	0	4
Subtotal		246	26	272
G. Bid Phase Services				
G.1 Assist City staff in coordinating contractor change order	BGE/TBG	16	4	20
G.2 Prepare and submit CD-ROM disk of final plan revisions in pdf format	BGE/TBG	6	2	8
G.3 Evaluate Contractor pricing and prepare letter of recommendation to the City	BGE	5	0	5
Subtotal		27	6	33
H. Public Involvement				

GUS THOMASSON ROAD - PHASE 1 RE-DESIGN
Fee Schedule

Summary of Hours (All Firms)

Description of Activity	Lead Firm	Brown & Gay Engineers, Inc.	TBG Partners	Total Hours
H.1 Assist City with 1 Public Meeting including exhibit prep	BGE/TBG	34	2	36
Subtotal		34	2	36
I. Construction Administration				
I.1 Provide additional construction support through field visits, response to RFIs, and shop drawing review	BGE/TBG	40	4	44
Subtotal		40	4	44
TOTAL - ALL PHASES		1165	168	1333

GUS THOMASSON ROAD - PHASE 1 RE-DESIGN

Direct Expenses

Type	Firm Resp	Quantity	Unit	Fixed Cost	Cost
Courier Services	BGE	4	each	\$50.00	\$200.00
Foam Core Presentation Boards (Mounted)	BGE	3	each	\$300.00	\$900.00
Foam Core Presentation Boards (Mounted)	TBG	2	each	\$300.00	\$600.00
Mileage	BGE	500	mile	\$0.50	\$250.00
Mileage	TBG	200	mile	\$0.50	\$100.00
Plots (B/W on Bond)	BGE	700	square foot	\$1.50	\$1,050.00
BGE					\$2,400.00
TBG					\$700.00
TOTAL EXPENSES					\$3,100.00

GUS THOMASSON ROAD - PHASE 1 RE-DESIGN
Fee Schedule
Brown & Gay Engineers, Inc.

Function Code	Lead Firm	Sr PM	Project Engr	EIT	Designer	Surv Mgr/ RPLS	Survey Technician	Two Man Crew	Admin	Total Hours	Total Cost
A. Research and Data Collection											
A.1 On site review with City and Contractor	BGE	1	6						2	9	
A.2 Coordination with City Traffic Engr for signal warrant justification	BGE	2	2							4	
A.3 Develop and coordinate revisions for Project Conceptual Layout	BGE	4	24		24					52	
A.4 Develop revised Typical Sections	BGE		2	4	16					22	
A.5 Develop Revised Landscape and Irrigation Concept Layout	TBG/BGE	2	4		8				2	16	
A.6 Coordinate possible franchise utility impacts	BGE			8					2	10	
Subtotal		9	38	12	48	0	0	0	6	113	\$14,927.00
B. Design Survey											
B.1 Topographic Survey of new features	BGE					1	6	8		15	
Subtotal		0	0	0	0	1	6	8	0	15	\$2,106.00
C. Right-of-Way and Easement Requirements											
C.1 Identify and submit easement/ROW needs	BGE/TBG		2							2	
C.2 Coordinate with City for ROW needs	BGE		2							2	
C.3 Prepare up to 2 ROW Easements/Parcels	BGE/TBG		8			8	24			40	
Subtotal		0	12	0	0	8	24	0	0	44	\$5,696.00
D. Schematic Design											
D.1 Develop Horizontal and Vertical Geometry for intersection and corridor	BGE	8	16		16					40	
D.2 Develop Preliminary Design Cross Sections	BGE			40						40	
D.3 Refine Typical Sections	BGE		2		8					10	
D.4 Develop Engineer's Opinion of Probable Cost	BGE	1	2	6						9	
Subtotal		9	20	46	24	0	0	0	0	99	\$12,439.00
E. Preliminary Design	0										
E.1.1 Preliminary Construction Plans - Project Layout Sheet	BGE		1	2	2					5	
E.1.2 Preliminary Construction Plans - Quantity Sheet(s)	BGE		1	4	1					6	
E.1.3 Preliminary Construction Plans - Typical Sections and Standard Detail Sheets	BGE		2	4	1					7	
E.1.4 Preliminary Construction Plans - Constr Phasing and TCP Sheets	BGE		24	32	24					80	
E.1.5 Preliminary Construction Plans - Paving Sheets	BGE		24	32	24					80	
E.1.6 Preliminary Construction Plans - Drainage Sheets	BGE		40	24	32					96	
E.1.7 Preliminary Construction Plans - Waterline Sheets	BGE		4	6	4					14	
E.1.8 Preliminary Construction Plans - Sewer Sheets	BGE		4	4	2					10	
E.1.9 Preliminary Construction Plans - Signing and Pavement Marking Sheets	BGE	2	8	16	8					34	
E.1.10 Preliminary Construction Plans - Traffic Signal Plans, Lighting Plans, and Details	BGE	16	16	24	16					72	
E.1.11 Preliminary Construction Plans - Landscape and Irrigation Plans	TBG/BGE		4		8					12	
E.2 Prepare Specifications	BGE	1	4	8						13	
E.3 Prepare Estimate of Construction Quantities and Probable Construction Cost	BGE		4	12	4					20	
E.4 Produce and deliver two sets of full size Preliminary Plans, specifications, and estimate	BGE		24	24	24					72	
E.5 Coordination with City regarding next steps for Preliminary Plans	TBG/BGE		16							16	
E.6 Coordination with franchise utility companies regarding preliminary plans	BGE		4	6						10	
Subtotal		19	180	198	150	0	0	0	0	547	\$67,537.00
F. Final Design											
F.1 Revise Preliminary Plans to incorporate City comments	BGE/TBG	2	8	8	8					26	
F.2 Revise Preliminary Plans to incorporate franchise utility comments	BGE/TBG			4						4	
F.3 Complete traffic signal and lighting plans	BGE	4		16	24					44	
F.4 Finalize roadway, drainage and TCP plan details	BGE	8	24							32	

GUS THOMASSON ROAD - PHASE 1 RE-DESIGN
Fee Schedule
Brown & Gay Engineers, Inc.

Function Code	Lead Firm	Sr PM	Project Engr	EIT	Designer	Surv Mgr/ RPLS	Survey Technician	Two Man Crew	Admin	Total Hours	Total Cost
F.5 Finalize technical specifications	BGE		8							8	
F.6 Incorporate standard details into final plans	BGE/TBG			8						8	
F.7 Attend up to 4 project meetings with City and Contractor	BGE		8							8	
F.8 Take off final construction quantities and cost estimates	BGE			16						16	
F.9 Produce and deliver 3 sets of pre final plans, specs, and estimate to City	BGE		8	24	24				8	64	
F.10 Incorporate City final comments into the plans	BGE		4	8	8					20	
F.11 Produce and deliver 3 sets of final plans, specs, and estimate to City	BGE				8				4	12	
F.12 Attend up to 2 utility coordination meetings with franchise owners for needed relocations	BGE		4							4	
Subtotal		14	64	84	72	0	0	0	12	246	\$30,462.00
G. Bid Phase Services											
G.1 Assist City staff in coordinating contractor change order	BGE/TBG		16							16	
G.2 Prepare and submit CD-ROM disk of final plan revisions in pdf format	BGE/TBG		2		2				2	6	
G.3 Evaluate Contractor pricing and preare letter of recommendation to the City	BGE	2	2						1	5	
Subtotal		2	20	0	2	0	0	0	3	27	\$3,845.00
H. Public Involvement											
H.1 Assist City with 1 Public Meeting including exhibit prep	BGE	4	4	2	16				8	34	
Subtotal		4	4	2	16	0	0	0	8	34	\$4,366.00
I. Construction Administration											
I.1 Provide additional construction support through field visits, response to RFIs, and shop drawing review	BGE/TBG		40							40	
Subtotal		0	40	0	0	0	0	0	0	40	\$5,680.00
TOTAL - ALL PHASES		57	378	342	312	9	30	8	29	1165	\$140,960.00

GUS THOMASSON ROAD - PHASE 1 RE-DESIGN
Fee Schedule
TBG Partners

Function Code	Lead Firm	Principal	Senior Associate	Associate	Staff	Clerical	Total Hours	Total Cost
A. Research and Data Collection								
A.1 On site review with City and Contractor	BGE						0	
A.2 Coordination with City Traffic Engr for signal warrant justification	BGE						0	
A.3 Develop and coordinate revisions for Project Conceptual Layout	BGE						0	
A.4 Develop revised Typical Sections	BGE						0	
A.5 Develop Revised Landscape and Irrigation Concept Layout	TBG/BGE		4	20	40		64	
A.6 Coordinate possible franchise utility impacts	BGE						0	
Subtotal		0	4	20	40	0	64	\$4,260.00
B. Design Survey								
B.1 Topographic Survey of new features	BGE						0	
Subtotal		0	0	0	0	0	0	\$0.00
C. Right-of-Way and Easement Requirements								
C.1 Identify and submit easement/ROW needs	BGE						0	
C.2 Coordinate with City for ROW needs	BGE						0	
C.3 Prepare up to 2 ROW Easements/Parcels	BGE						0	
Subtotal		0	0	0	0	0	0	\$0.00
D. Schematic Design								
D.1 Develop Horizontal and Vertical Geometry for intersection and corridor	BGE						0	
D.2 Develop Preliminary Design Cross Sections	BGE						0	
D.3 Refine Typical Sections	BGE						0	
D.4 Develop Engineer's Opinion of Probable Cost	BGE						0	
Subtotal		0	0	0	0	0	0	\$0.00
E. Preliminary Design	0							
E.1.1 Preliminary Construction Plans - Project Layout Sheet	BGE						0	
E.1.2 Preliminary Construction Plans - Quantity Sheet(s)	BGE						0	
E.1.3 Preliminary Construction Plans - Typical Sections and Standard Detail Sheets	BGE						0	
E.1.4 Preliminary Construction Plans - Constr Phasing and TCP Sheets	BGE						0	
E.1.5 Preliminary Construction Plans - Paving Sheets	BGE						0	
E.1.6 Preliminary Construction Plans - Drainage Sheets	BGE						0	
E.1.7 Preliminary Construction Plans - Waterline Sheets	BGE						0	
E.1.8 Preliminary Construction Plans - Sewer Sheets	BGE						0	
E.1.9 Preliminary Construction Plans - Signing and Pavement Marking Sheets	BGE						0	
E.1.10 Preliminary Construction Plans - Traffic Signal Plans, Lighting Plans, and Details	BGE						0	
E.1.11 Preliminary Construction Plans - Landscape and Irrigation Plans	TBG/BGE		4	20	40		64	
E.2 Prepare Specifications	BGE						0	
E.3 Prepare Estimate of Construction Quantities and Probable Construction Cost	BGE						0	

GUS THOMASSON ROAD - PHASE 1 RE-DESIGN
Fee Schedule
TBG Partners

Function Code	Lead Firm	Principal	Senior Associate	Associate	Staff	Clerical	Total Hours	Total Cost
E.4 Produce and deliver two sets of full size Preliminary Plans, specifications, and estimate	BGE						0	
E.5 Coordination with City regarding next steps for Preliminary Plans	TBG/BGE			2			2	
E.6 Coordination with franchise utility companies regarding preliminary plans	BGE						0	
Subtotal		0	4	22	40	0	66	\$4,410.00
F. Final Design								
F.1 Revise Preliminary Plans to incorporate City comments	BGE/TBG		2	4	8		14	
F.2 Revise Preliminary Plans to incorporate franchise utility comments	BGE/TBG				2		2	
F.3 Complete traffic signal and lighting plans	BGE						0	
F.4 Finalize roadway, drainage and TCP plan details	BGE						0	
F.5 Finalize technical specifications	BGE						0	
F.6 Incorporate standard details into final plans	BGE/TBG			2	8		10	
F.7 Attend up to 4 project meetings with City and Contractor	BGE						0	
F.8 Take off final construction quantities and cost estimates	BGE						0	
F.9 Produce and deliver 3 sets of pre final plans, specs, and estimate to City	BGE						0	
F.10 Incorporate City final comments into the plans	BGE						0	
F.11 Produce and deliver 3 sets of final plans, specs, and estimate to City	BGE						0	
F.12 Attend up to 2 utility coordination meetings with franchise owners for needed relocations	BGE						0	
Subtotal		0	2	6	18	0	26	\$1,710.00
G. Bid Phase Services								
G.1 Assist City staff in coordinating contractor change order	BGE/TBG			4			4	
G.2 Prepare and submit CD-ROM disk of final plan revisions in pdf format	BGE/TBG			1		1	2	
G.3 Evaluate Contractor pricing and preare letter of recommendation to the City	BGE						0	
Subtotal		0	0	5	0	1	6	\$410.00
H. Public Involvement								
H.1 Assist City with 1 Public Meeting including exhibit prep	BGE/TBG			2			2	
Subtotal		0	0	2	0	0	2	\$150.00
I. Construction Administration								
I.1 Provide additional construction support through field visits, response to RFIs, and shop drawing review	BGE/TBG			4			4	
Subtotal		0	0	4	0	0	4	\$300.00
TOTAL - ALL PHASES		0	10	59	98	1	168	\$11,240.00

