

**MOUNTAIN BROOK CITY COUNCIL
PRE-MEETING DISCUSSION
MARCH 11, 2013**

The City Council of the City of Mountain Brook, Alabama met in public session in the temporary City Hall at 6:30 p.m. on Monday, the 11th day of March, 2013. The President of the City Council called the meeting to order and the roll was called with the following results:

Present: Virginia C. Smith, Council President
Amy G. Carter, Council President Pro Tempore
Jack D. Carl
William S. Pritchard III
Jesse S. Vogtle, Jr.
Lawrence T. Oden, Mayor

Absent: None

Also present were City Attorney Whit Colvin, City Manager Sam Gaston, and City Clerk Steven Boone.

1. AGENDA

1. Announcement that members of the governing body will meet with Governor on March 14th regarding the Highway 280 modifications by ALDOT.
2. Recognition of Employees of the Year from the Police, Fire, Public Works Departments, and Chamber of Commerce.

The following employees were recognized and presented with plaques:

- Police Officer of the Year – Ron Lamon.
- Police Civilian of the Year – Bernard Evans
- Firefighter of the Year – Gary Noah
- Public Works Employee of the Year – Sam Ingram, Sr.
- City Employee of the Year recognized by the Chamber of Commerce – Ronnie Vaughn

3. Phase 6 Sidewalk project update – Ben Burmester of Sain Associates (Appendix 1).
4. Phase 9 Sidewalk Preliminary Engineering Agreement along Brookwood Road, Crosshill Road and Oakdale Road – Virginia Smith, Amy Carter and Sam Gaston. (Resolution No. 2013-047 was added to the formal agenda.)
5. Turn Lane study for Cahaba Road at Heathermoor Road – Richard Caudle of Skipper Consultants (Appendix 2).

Mr. Caudle estimates that the turn lane, excluding right-of-way acquisition and utility relocation, could be \$190,000. It was the general consensus of the members of the City Council that the turn lane study be suspended until further notice.

6. Northern Beltline project discussion – Gil Rogers of the Southern Environmental Law Center (Appendix 3).
7. Request by the Mountain Brook Board of Education for waiver of permit fees for field house addition and future projects – Ken Key of the Board of Education. (Ordinance No. 1886 was added to the formal agenda.)

8. UPS bypass/disconnect switch purchase – Steven Boone (Appendix 4).

It was the consensus of the members of the City Council that any action determined appropriate by the City Manager will be ratified at a later meeting of the City Council.



Steven Boone, City Clerk

Mountain Brook Walkway System Phase 6
 CMAQ-9802(921)
 3/6/2013

PROJECT FUNDING SUMMARY PROVIDED BY ALDOT DATED 12/13/11

	TOTAL ESTIMATE	FEDERAL FUNDS	CITY FUNDS
Roadway (Construction Cost plus CE&I)	\$ 1,829,763.10	\$ 1,463,810.48	\$ 365,952.62
Federal Non-Participation	\$ 6,526.54		\$ 6,526.54
Indirect Cost	\$ 250,286.28	\$ 200,229.02	\$ 50,057.25
TOTAL:	\$ 2,086,575.92	\$ 1,664,039.50	\$ 422,536.41

PROJECT COST CHANGES KNOWN AS OF 3/6/13

	CONSTRUCTION TOTAL	CE&I (15% OF CONSTR \$)	GRAND TOTAL	80% FEDERAL	20% CITY	REASON FOR COST CHANGE
Change Order 1	\$ 11,199.50	\$ 1,679.93	\$ 12,879.43	\$ 10,303.54	\$ 2,575.89	Required Erosion Control Items added for ADEM and ALDOT comments, Approved
Change Order 2	\$ (46,806.24)	\$ (7,020.94)	\$ (53,827.18)	\$ (43,061.74)	\$ (10,765.44)	Revised wall design for battered (sloped) face to meet clear zone requirements and for height, length, footer revisions
Change Order 3	\$ 5,007.12	\$ 751.07	\$ 5,758.19	\$ 4,606.55	\$ 1,151.64	Added Magnolia Trees as coordinated by City, NLA, and property owner, Not approved yet
Extra payment to Walker Patton					\$ 474.65	For Mr. Smith landscaping, extra not approved from ALDOT
Anticipated Over/Under-runs	\$ 154,941.60	\$ 23,241.24	\$ 178,182.84	\$ 142,546.27	\$ 35,636.57	Approximate, anticipated over-runs for adjustments to meet field conditions
Knollwood Driveways	\$ 22,935.26	\$ 3,440.29	\$ 26,375.55	\$ 21,100.44	\$ 5,275.11	Approximate, revisions to driveways as required by ALDOT
Deletion of Minor Structure Concrete Walls	\$ (8,775.88)	\$ (1,316.38)	\$ (10,092.26)	\$ (8,073.81)	\$ (2,018.45)	Short walls have been determined to not be needed
Driveway revisions	\$ 45,018.67	\$ 6,752.80	\$ 51,771.47	\$ 41,417.18	\$ 10,354.29	Driveways (B) revisions
Wall J Battered Design	\$ 8,775.88	\$ 1,316.38	\$ 10,092.26	\$ 8,073.81	\$ 2,018.45	Waiting on contractor's official pricing, design is approved
Wall L and O						Will be repriced once redesign for revised heights complete
Cherokee/Overbrook revision						Will be priced once ALDOT approves design
Handrail						Will be priced once determine locations
Asphalt Patch						
TOTAL:	\$ 192,295.91	\$ 28,844.39	\$ 221,140.30	\$ 176,912.24	\$ 44,228.06	Approximate

NOTES:

The project funding summary includes the Roadway construction cost, federal non-participation costs, CE&I costs, and indirect costs.
 Anticipated Over-runs and Under-runs are evaluated monthly.
 Change Order 1 is approved
 Change Order 2 is pending, paperwork is in progress, all approvals are obtained
 Change Order 3 is pending, paperwork is in progress, all approvals are obtained

ESTIMATED SCHEDULE (pending weather and resolving pending issues):

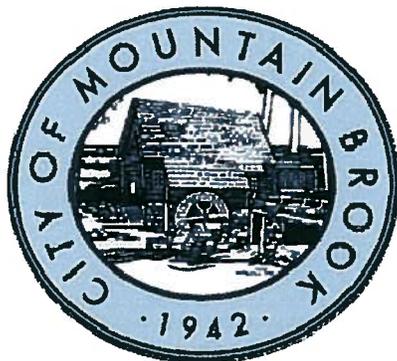
Overcrest Road	March - April
Cherokee Road	March - May
Overbrook Road	March - May
Old Leeds Road	April - June
Shiloh Drive	May - June
Substantial Completion	June
Final Punch, paperwork, and closeout	July

TRAFFIC STUDY

Cahaba Road at Heathermoor Road

Mountain Brook, Alabama

APPENDIX 2



Prepared for:
THE CITY OF MOUNTAIN BROOK

Prepared by:



March, 2013



Cahaba Road at Heathermoor Road

Mountain Brook, Alabama

Traffic Study

APPENDIX 2

Prepared for:

The City of Mountain Brook
 P.O. Box 130009
 Mountain Brook, Alabama 35213
 Phone (205) 802-2400 Fax (205) 879-6913

Prepared by:

Skipper Consulting, Inc.
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 Birmingham, Alabama 35235
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March, 2013

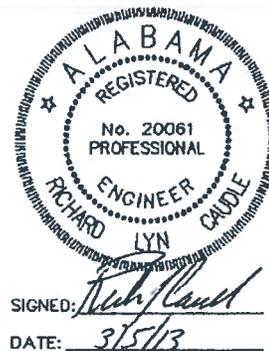


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INTRODUCTION

This report documents a traffic study performed for the intersection of Cahaba Road at Heathermoor Road in the City of Mountain Brook, Alabama. The location of the study intersection is shown in Figure 1.

The purposes of this report are to:

- Document background traffic data collected for the project, including:
 - Intersection turning movement traffic counts
 - Machine tube traffic counts
 - Speed surveys
 - Vehicle classification counts
- Analyze existing traffic conditions of the intersection of Cahaba Road at Heathermoor Road, including:
 - Intersection capacity analysis
 - Crash analysis
 - Sight distance analysis
 - Observations
- Analyze future traffic conditions of the intersection of Cahaba Road at Heathermoor Road, including additional traffic from:
 - Historical traffic growth
 - Lane Parke
- Development of roadway improvements, particularly examining the need for a southbound left turn lane on Cahaba Road at Heathermoor Road, including:
 - Alternatives considered
 - Left turn lane warrant analysis
 - Intersection capacity analysis
 - Queue calculations
 - Recommended roadway improvements



APPENDIX 2



North

Scale: n.t.s

Figure 1 Site Location Map

Cahaba Road at Heathermoor Road
Mountain Brook, Alabama

FEBRUARY, 2013

1104.016

Cahaba Road at Heathermoor Road

Mountain Brook, Alabama

Sources of information used in this study included: the City of Mountain Brook, the Regional Planning Commission of Greater Birmingham, the Transportation Research Board, the Institute of Transportation Engineers, the American Association of State Highway and Transportation Officials, the National Cooperative Highway Research Program, and office files and field reconnaissance efforts of Skipper Consulting, Inc.

APPENDIX 2

BACKGROUND INFORMATION

Roadway Descriptions

Within the study area, Cahaba Road is a two lane urban collector roadway with a posted speed limit of 30 miles per hour. The roadway is striped with four inch solid white edge lines and a four inch double yellow centerline.



Heathermoor Road is a two lane local roadway with a no standard posted speed limit, but with a posted school zone speed limit of 15 miles per hour when children are present. There is a right turn lane from Cahaba Road northbound onto Heathermoor Road; however, there is no left turn lane from Cahaba Road southbound onto Heathermoor Road.



APPENDIX 2

EXISTING CONDITIONS ANALYSIS

Existing Intersection Turning Movement Traffic Counts

Intersection turning movement traffic counts were performed at the intersection of Cahaba Road at Heathermoor Road on Wednesday to Thursday, November 7 to 8, 2012 by Traffic Data, LLC on behalf of Skipper Consulting, Inc. The counts were conducted from 7:00 a.m. to 9:00 a.m., 2:30 to 3:30 p.m., and 4:00 p.m. to 6:00 p.m. The intersection turning movement traffic count data is included in Appendix A. The intersection turning movement traffic count data was analyzed to determine the a.m., afternoon school, and p.m. peak hours of traffic flow. The peak hour intersection turning movement traffic count data is depicted in Figure 2.

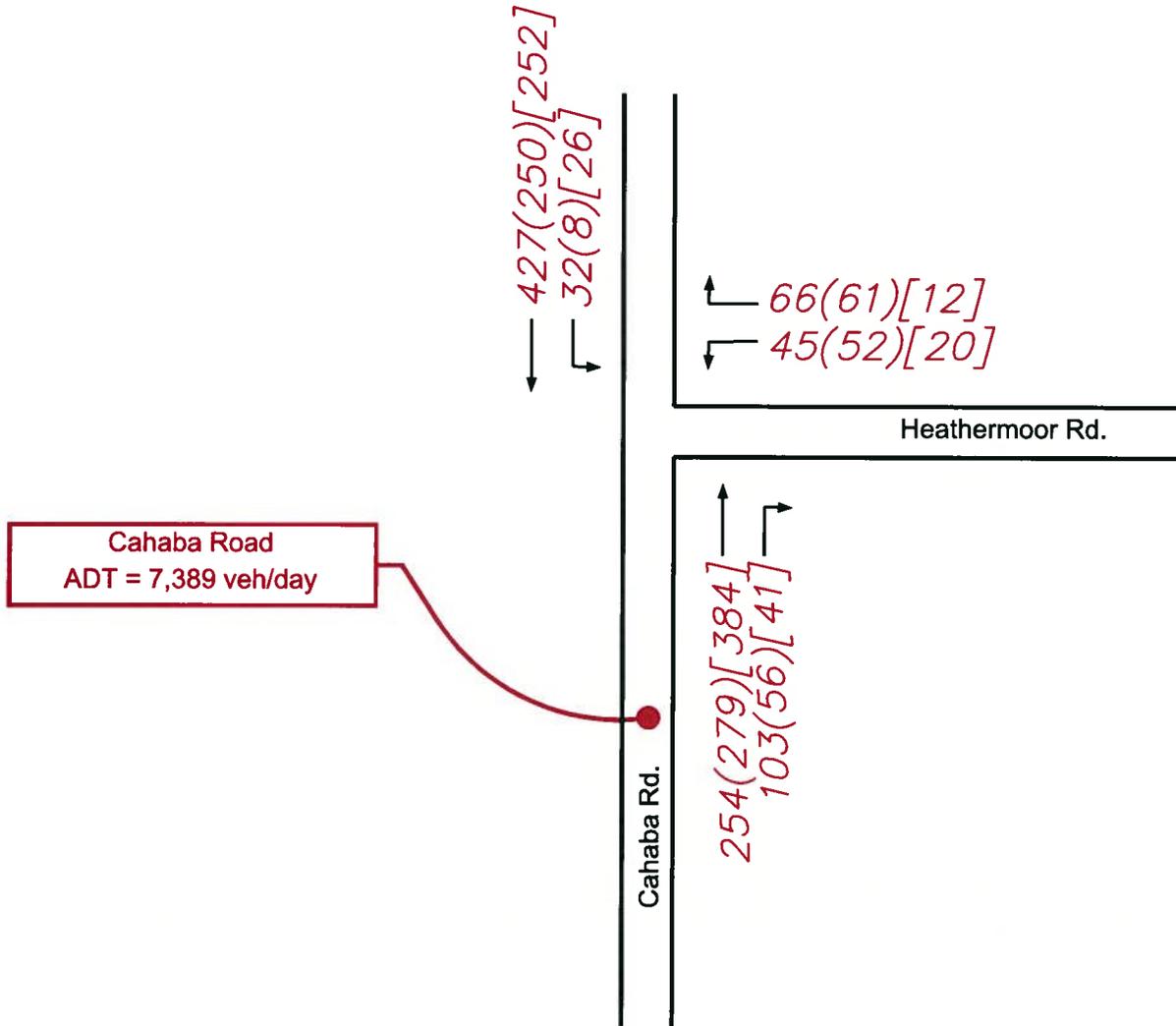
Existing Machine Traffic Count

A machine traffic count, including speed and classification, was performed on Cahaba Road immediately south of Heathermoor Road for 24 continuous hours beginning at 1:00 p.m. on Monday, March 4, 2013. The machine traffic count data is included in Appendix B. The data is summarized in Tables 1, 2 and 3.

The existing daily traffic volume on Cahaba Road is approximately 7,600 vehicles per day. The morning peak hour is generally 7:30 a.m. to 8:30 a.m., with a total traffic volume of approximately 720 vehicles per hour. The afternoon peak hour is generally 4:15 p.m. to 5:15 p.m., with a total traffic volume of approximately 700 vehicles per hour.

The posted speed limit on Cahaba Road is 30 miles per hour. The traffic count shows that the average speed of vehicles is approximately 34 miles per hour and the 85th percentile speed is 39 miles per hour. The 85th percentile speed is the speed at which 85% of all vehicles are traveling at or under and is used for design purposes.

Approximately 3% of the vehicles on Cahaba Road are classified as trucks. This is typical for collector roadways in the Birmingham area. Of these trucks, approximately 15% are heavy trucks (such as tractor-trailers).



APPENDIX 2



LEGEND
 100(100)[100]
 AM (School)[PM]



North
 Scale: n.t.s

Figure 2
Existing Traffic Counts
 Cahaba Road at Heathermooor Road
 Mountain Brook, Alabama

FEBRUARY, 2013

1104.016

Table 1
Existing Machine Traffic Count
Cahaba Road south of Heathermoor Road
Monday-Tuesday, March 4-5, 2013

Time	Cahaba Road		
	Northbound	Southbound	Total
12-1 AM	6	4	10
1-2 AM	0	3	3
2-3 AM	1	4	5
3-4 AM	4	2	6
4-5 AM	9	5	14
5-6 AM	46	30	76
6-7 AM	80	106	186
7-8 AM	263	360	623
8-9 AM	275	359	634
9-10 AM	222	198	420
10-11 AM	245	247	492
11-12 PM	289	281	570
12-1 PM	298	329	627
1-2 PM	256	361	617
2-3 PM	308	286	594
3-4 PM	277	299	576
4-5 PM	384	314	698
5-6 PM	316	301	617
6-7 PM	211	140	351
7-8 PM	127	83	210
8-9 PM	61	56	117
9-10 PM	38	41	79
10-11 PM	16	19	35
11-12 AM	7	8	15
Total	3,739	3,836	7,575
AM Peak	7:15-8:15 AM 297	7:30-8:30 AM 427	7:30-8:30 AM 717
PM Peak	4:15-5:15 PM 393	1:00-2:00 PM 361	4:15-5:15 PM 700

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Cahaba Road at Heathermoor Road

Mountain Brook, Alabama

Table 2
Existing Speed Survey
Cahaba Road south of Heathermoor Road
Monday-Tuesday, March 4-5, 2013

<i>Speed Range</i>	<i>Cahaba Road</i>		
	<i>Northbound</i>	<i>Southbound</i>	<i>Total</i>
0-14 mph	32	34	66
15-19 mph	17	8	25
20-24 mph	104	35	139
25-29 mph	570	402	972
30-34 mph	1,376	1,532	2,908
35-39 mph	1,233	1,428	2,661
40-44 mph	363	363	726
45-49 mph	38	29	67
50-54 mph	4	1	5
55-59 mph	1	1	2
60-64 mph	1	1	2
65-69 mph	0	0	0
70+ mph	0	2	2
85 th %tile	39 mph	39 mph	39 mph
Pace	30-40 mph	30-40 mph	30-40 mph
% in Pace	70%	78%	74%
Average	34 mph	35 mph	34 mph

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Cahaba Road at Heathermoor Road

Mountain Brook, Alabama

Table 3
Existing Vehicle Classification Count
Cahaba Road south of Heathermoor Road
Monday-Tuesday, March 4-5, 2013

<i>Classification</i>	<i>Thursday-Friday</i>		
	<i>Northbound</i>	<i>Southbound</i>	<i>Total</i>
Motorcycle	6	4	10
Car	2,937	3,176	6,113
2 Axle Long	647	547	1,194
Bus	30	24	54
6 Tire Vehicle (2 axle)	92	69	166
Single Unit Truck (3 axle)	2	1	3
Single Unit Truck (4 axle)	0	0	0
Double Unit Truck (less than 5 axles)	20	15	35
Double Unit Truck (5 axle)	0	0	0
Multi-Unit Truck (greater than 5 axles)	0	0	0
Truck Percentage	4%	3%	3%
% Medium Trucks	85%	85%	85%
% Heavy Trucks	15%	15%	15%

APPENDIX 2

Existing Intersection Capacity Analysis

Existing intersection capacity analyses were performed for the peak hours of traffic flow for the intersection of Cahaba Road at Heathermoor Road according to the methodology outlined in the 2010 *Highway Capacity Manual*, published by the Transportation Research Board. Capacities are expressed as levels of service, and range from a level of service “A” (highest quality of service) to a level of service “F” (jammed conditions). As a general rule, operation at a level of service “C” or better is desirable, with a level of service “D” considered acceptable during peak hours of traffic flow. The existing intersection capacity analysis worksheets are included in Appendix C and are summarized in Table 4. As shown in Table 4, all movements at the study intersection currently operate at acceptable levels of service.

**Table 4
Existing Intersection Capacity Analysis
Cahaba Road at Heathermoor Road**

Intersection	Approach	Movement	Level of Service		
			AM Peak	School	PM Peak
Cahaba Road at Heathermoor Road (unsignalized)	Heathermoor Road Westbound	Left/Right	C	C	B
	Cahaba Road Southbound	Left/Through	A	A	A

Existing Crash Analysis

Crash reports were obtained for the intersection of Cahaba Road at Heathermoor Road and adjacent roadway segments for calendar years 2010, 2011 and 2012 from the Mountain Brook Police Department. During the three year period, five crashes were reported. The distribution of crashes was as follows:

- 2010 – 2 crashes
- 2011 – 0 crashes
- 2012 – 3 crashes

APPENDIX 2

Cahaba Road at Heathermoor Road

Mountain Brook, Alabama

Of the five reported crashes, only one crash involved vehicles at the intersection of Cahaba Road at Heathermoor Road. The remaining four crashes involved vehicles entering or exiting parking spaces on Cahaba Road and Heathermoor Road (3 crashes) and one crash involving a parked trailer on Cahaba Road south of Heathermoor Road.

The one reported crash at the intersection of Cahaba Road at Heathermoor Road occurred on April 9, 2010 at 2:54 p.m. A vehicle turning left from Heathermoor Road struck a vehicle northbound on Cahaba Road. There were no injuries or fatalities. The weather was dry and clear.

A review of the crash data from 2010 through 2012 does not reveal any patterns which are subject to mitigating measures.

Existing Sight Distance Analysis

Intersection sight distance measurements were taken from Heathermoor Road entering Cahaba Road by Skipper Consulting, Inc. The available sight distances were then compared to the minimum required sight distances for the 36 mile per hour 85th percentile speed on Cahaba Road according to the 2012 *A Policy on Geometric Design of Highways and Streets*, published by the American Association of State Highway and Transportation Officials. Sight distance was determined from three locations: 1) behind the stop line, 2) behind the crosswalk, and 3) behind the edge of the through lane. In both the cases of: 1) behind the stop line and 2) behind the crosswalk, the sight distances were significantly impacted by roadside obstacles, as shown in the following photographs. It was only from behind the edge of the through lane where reasonable sight distances could be achieved.

The results of the data collected for sight distance measurements from behind the edge of the through lane and a comparison with minimum standards is shown in Table 5. As shown in Table 5, the available sight distance for Heathermoor Road is sufficient for the 39 mile per hour 85th percentile speed on Cahaba Road.



APPENDIX 2

Table 5
Existing Sight Distance Analysis

<i>Intersection</i>	<i>Measured Sight Distance</i>		<i>Required Sight Distance</i>	
	<i>Looking to the Left</i>	<i>Looking to the Right</i>	<i>Left Turn</i>	<i>Right Turn</i>
Heathermoor Road at Cahaba Road	>500'	480'	430'	375'

Observations

Traffic patterns at the intersection of Cahaba Road at Heathermoor Road are impacted by the presence of Mountain Brook Elementary School to the east of the study intersection on Heathermoor Road. One of the carpool patterns for drop-off and pick-up involves the intersection of Cahaba Road at Heathermoor Road. The southbound left from Cahaba Road onto Heathermoor Road is prohibited on weekdays from 7:15 to 8:15 a.m. and 2:15 to 3:30 p.m. Vehicles enter the carpool line from Cahaba Road northbound only. Vehicles exiting the carpool line are allowed to turn either north or south on Cahaba Road.

Operation of the carpool line completely blocks use of Heathermoor Road eastbound by users other than carpool during the afternoon pickup time. The carpool line extends into the intersection of Cahaba Road at Heathermoor Road and into the northbound right turn lane, but was never observed to exceed the storage available in the right turn lane (see the following pictures).



FUTURE CONDITIONS ANALYSIS

Historical Traffic Growth

Historical traffic counts were obtained for the years 1986 to 1999 for Lane Park Road and Montevallo Road from the Regional Planning Commission of Greater Birmingham. Traffic counts were also conducted in these same locations by Skipper Consulting, Inc. in 2007. An analysis was performed to determine the historical growth rate in traffic across this period. The analysis shows that traffic has been increasing at a rate of +0.8% per year to +1.0% per year since 1986. Therefore, for the purposes of this report, background traffic is increased by +1.0% per year to the year 2018 over existing traffic for future year conditions. The historical traffic growth analysis is shown in Table 6.

Table 6
Historical Traffic Growth

<i>Year</i>	<i>Daily Traffic Volume</i>	
	<i>Lane Park Road</i>	<i>Montevallo Road</i>
1986	8,000	10,700
1988	7,000	12,400
1993	6,900	11,200
1999	7,900	16,400
2007	9,400	12,900
Per Year Growth Rate		
	+0.8%	+1.0%

Trip Generation

In addition to historical traffic growth, additional traffic is expected at the intersection of Cahaba Road at Heathermoor Road due to the Lane Parke development. Year 2018 future traffic conditions for the intersection used in this study include all traffic generated by the proposed Lane Parke development as per the latest traffic impact study for Lane Parke as prepared by Skipper Consulting, Inc. The trip generation of Lane Parke is shown in Table 7. It should be noted that a portion of the traffic generated by Lane Parke will be intercepted trips, that is, trips which are already on the roadway network and would stop at the development while enroute to their final destination.

Cahaba Road at Heathermoor Road

Mountain Brook, Alabama

Table 7
Trip Generation - Lane Parke

<i>Time Period</i>	<i>External Trip Generation</i>			<i>Intercept Trip Generation</i>		
	<i>In</i>	<i>Out</i>	<i>Total</i>	<i>In</i>	<i>Out</i>	<i>Total</i>
AM Peak	274	237	511	81	61	142
PM School Peak	507	489	996	171	155	326
PM Peak	634	612	1246	214	194	408

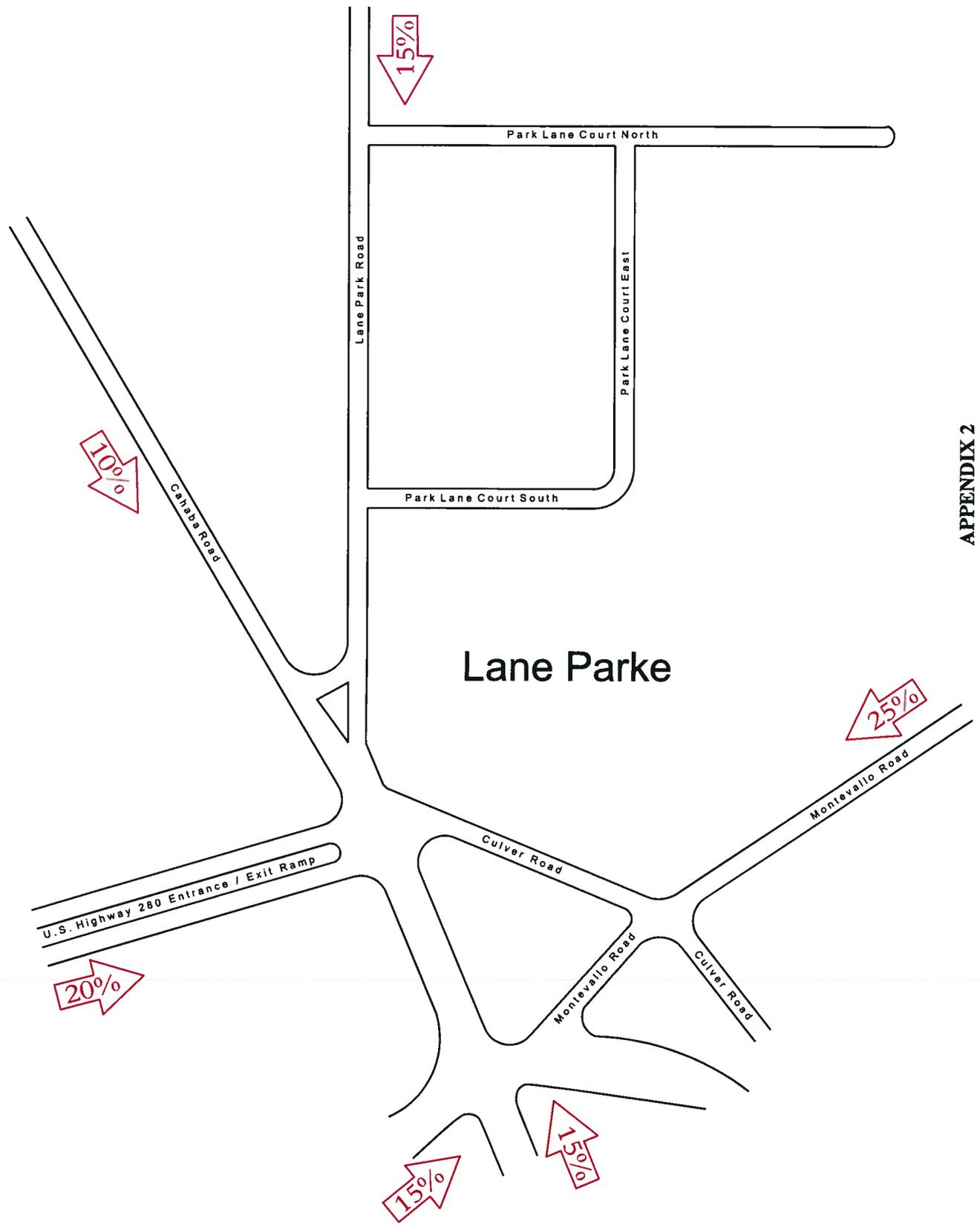
Note: PM School Peak trip generation was estimated at 80% of PM Peak trip generation

Directional Distribution

The directional distribution of traffic generated by Lane Parke was taken from the most recent traffic impact study for Lane Parke as prepared by Skipper Consulting, Inc. The directional distribution of site generated traffic is shown in Figure 3. Approximately 15% of the traffic generated by Lane Parke is expected to use Cahaba Road south of Mountain Brook Village.

Traffic Assignment

Historical traffic growth and traffic generated by Lane Parke was assigned to the area roadway network and then added to the existing traffic volumes. The resultant future year traffic volumes are depicted in Figure 4.



North

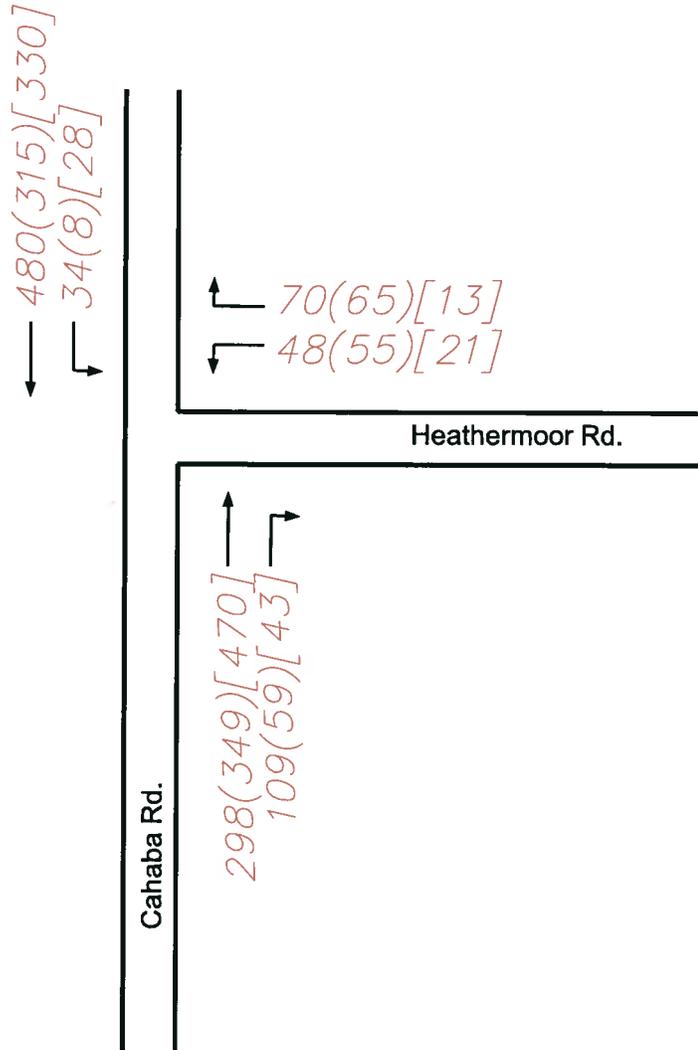
Scale: n.t.s

Figure 3
Directional Distribution

Lane Parke
Mountain Brook, Alabama

FEBRUARY, 2013

1104.016



APPENDIX 2



LEGEND

100(100)[100]
AM (School)[PM]



North

Scale: n.t.s

Figure 4
Future Traffic Volumes
 Cahaba Road at Heathermoor Road
 Mountain Brook, Alabama

FEBRUARY, 2013

1104.016

Future Intersection Capacity Analysis

Future intersection capacity analyses for the intersection of Cahaba Road at Heathermoor Road (without improvements) were performed for the peak hours of traffic flow according to the methodology outlined in the 2010 *Highway Capacity Manual*, published by the Transportation Research Board. Capacities are expressed as levels of service, and range from a level of service "A" (highest quality of service) to a level of service "F" (jammed conditions). As a general rule, operation at a level of service "C" or better is desirable, with a level of service "D" considered acceptable during peak hours of traffic flow. The future intersection capacity analysis worksheets are included in Appendix D and are summarized in Table 8. As shown in Table 8, all movements at each of the study intersections will continue to operate at acceptable levels of service in the year 2018 after construction of Lane Parke.

Table 8
Future Intersection Capacity Analysis
Cahaba Road at Heathermoor Road

<i>Intersection</i>	<i>Approach</i>	<i>Movement</i>	<i>Level of Service</i>		
			<i>AM Peak</i>	<i>School</i>	<i>PM Peak</i>
Cahaba Road at Heathermoor Road (unsignalized)	Heathermoor Road Westbound	Left/Right	D	C	C
	Cahaba Road Southbound	Left/Through	A	A	A

ALTERNATIVE IMPROVEMENT ANALYSIS

The primary purpose of this study is to examine the need for construction of a left turn on Cahaba Road southbound onto Heathermoor Drive. The future intersection capacity analyses do not indicate a poor level of service or excessive delay will be experienced on Cahaba Road southbound in the year 2018 with Lane Parke built out. However, warranting criteria and measures of effectiveness other than delay and level of service should also be considered to determine the need for a left turn lane. Those measures of effectiveness include turn lane warrants and queue length.

Alternatives Considered

Four alternatives were considered and analyzed for the project:

Alternative 1. This is the “No Build” alternative. The intersection would remain in its current configuration. Analyses for this alternative were presented in the previous section of this report.

Alternative 2. Construct a left turn lane on Cahaba Road southbound but keep the existing left turn prohibition on Cahaba Road southbound during school inbound and outbound peak periods.

Alternative 3. Construct left turn lane and allow left turns from Cahaba Road southbound during school inbound and outbound peak periods.

Alternative 4. Construct left turn lane and allow left turns from Cahaba Road southbound during school inbound and outbound peak periods. Prohibit left turns from Heathermoor Road onto Cahaba Road during the school inbound peak period.

Traffic Assignment

Future peak hour intersection traffic volumes would be the same for Alternatives 1 and 2, but would differ for Alternative 3 and Alternative 4. For Alternative 3, it is assumed that: 1) 50% more traffic will use Cahaba Road to access Mountain Brook Elementary School; and 2) 55% of the school traffic will come from the north and 45% from the south (distribution based on the left turn and right turn volumes exiting Heathermoor Road). This will affect traffic volumes only during the a.m. and afternoon school peak hours. The p.m. peak hour traffic volumes will remain unchanged. Alternative 4 traffic would be the same as Alternative 3 traffic, except for all traffic exiting Heathermoor Road during the a.m. peak period would be right turns only. A comparison of future traffic volume projections for each alternative is shown in Figure 5.

Left Turn Lane Warrant Analysis

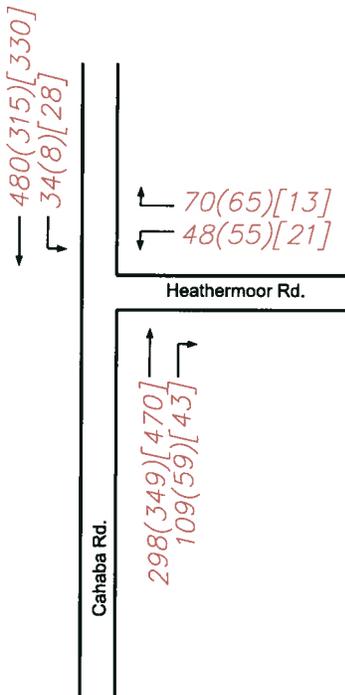
Left turn lane warrant analyses for a southbound left turn lane on Cahaba Road were performed for the future peak hour traffic volumes at the intersection of Cahaba Road at Heathermoor Road for Alternatives 1, 2 and 3 using the methodology included in the Transportation Research Board's National Cooperative Highway Research Program Report 457, *Evaluating Intersection Improvements: An Engineering Study Guide*. The results of the analyses are included in Appendix E and are summarized as follows:

Alternatives 1 and 2

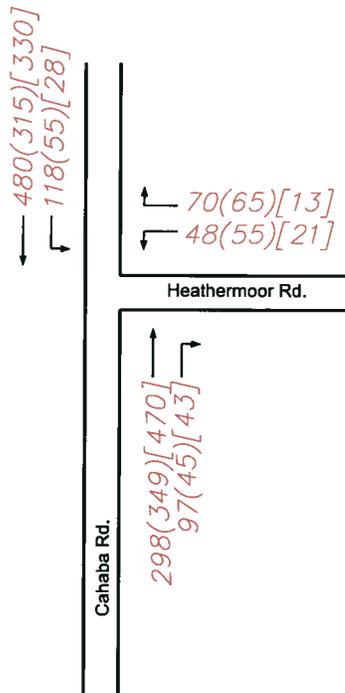
- AM Peak Hour – left turn lane warranted
- PM School Peak Hour – left turn lane not warranted
- PM Peak Hour – left turn lane not warranted

Alternatives 3 and 4

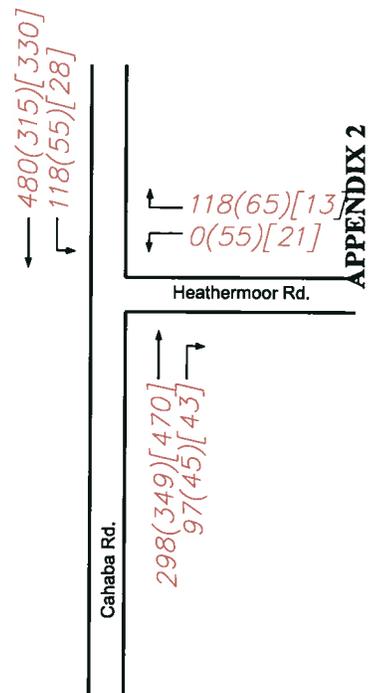
- AM Peak Hour – left turn lane warranted
- PM School Peak Hour – left turn lane warranted
- PM Peak Hour – left turn lane not warranted



Alternatives 1 and 2



Alternative 3



Alternative 4

APPENDIX 2



LEGEND

100(100)[100]
AM (School)[PM]



North

Scale: n.t.s

Figure 5

Future Traffic Volumes (Alternatives)

Cahaba Road at Heathermoor Road
Mountain Brook, Alabama

FEBRUARY, 2013

1104.016

Future Intersection Capacity Analysis

Future intersection capacity analyses for the intersection of Cahaba Road at Heathermoor Road (for Alternatives 2, 3 and 4) were performed for the peak hours of traffic flow according to the methodology outlined in the 2010 *Highway Capacity Manual*, published by the Transportation Research Board. Capacities are expressed as levels of service, and range from a level of service "A" (highest quality of service) to a level of service "F" (jammed conditions). As a general rule, operation at a level of service "C" or better is desirable, with a level of service "D" considered acceptable during peak hours of traffic flow. The future intersection capacity analysis worksheets for Alternative 2 are included in Appendix F, Appendix G for Alternative 3, and Appendix H for Alternative 4. Future intersection capacity analysis results are summarized in Table 9. As shown in Table 9, Alternatives 1 and 2 have comparable levels of service. Alternative 3 would result in degradation of levels of service for Heathermoor Road during the a.m. and p.m. school peak hours. Alternative 4 would improve levels of service for Heathermoor Road during the a.m. peak hour.

Table 9
Future Intersection Capacity Analysis (Alternatives)
Cahaba Road at Heathermoor Road

<i>Intersection</i>	<i>Approach</i>	<i>Movement</i>	<i>Level of Service</i>		
			<i>AM Peak</i>	<i>School</i>	<i>PM Peak</i>
Cahaba Road at Heathermoor Road (unsignalized)	Heathermoor Road Westbound	Left/Right	D/D/F/B	C/C/D/D	C/C/C/C
	Cahaba Road Southbound	Left	-/A/A/A	-/A/A/A	-/A/A/A
		Through	A/-/-	A/-/-	A/-/-

Legend: Alt. 1 / Alt. 2 / Alt. 3 / Alt. 4

Cahaba Road at Heathermoor Road

Mountain Brook, Alabama

Queue Calculations

Queue calculations for the left turn from Cahaba Road southbound onto Heathermoor Road were developed for Alternatives 2, 3 and 4 using a two minute arrival rate. The two minute arrival rate was calculated assuming the majority of southbound traffic would arrive in a 30 minute period before the beginning of school at Mountain Brook Elementary School. The following are the anticipated 95th percentile queue lengths:

Alternative 2

- AM Peak Hour – 60'
- PM School Peak Hour – 25'
- PM Peak Hour – 50'

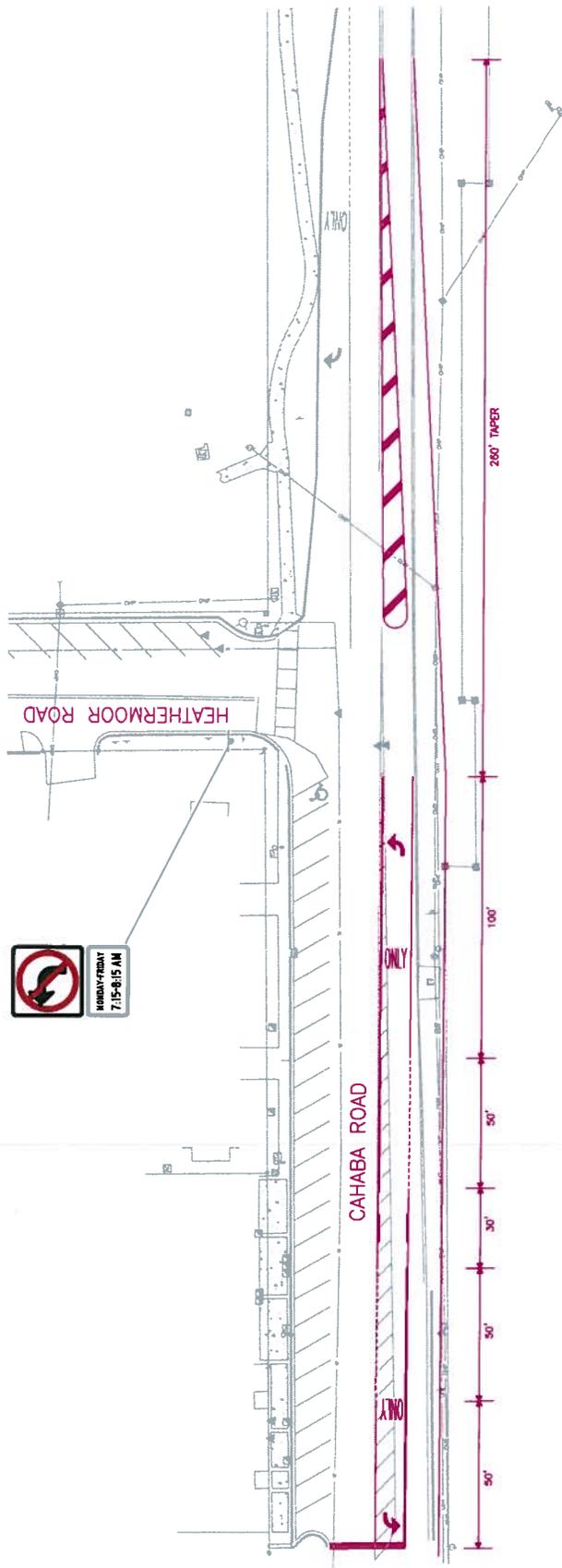
Alternatives 3 and 4

- AM Peak Hour – 195'
- PM School Peak Hour – 95'
- PM Peak Hour – 50'

Recommended Improvements

Based on the alternatives which have been analyzed in this study, it is recommended that the City install a left turn lane on Cahaba Road at the intersection of Heathermoor Drive. This left turn lane is warranted even with the turn restriction in place during peak school inbound and outbound periods. Since allowing left turn traffic on Cahaba Road southbound during the school inbound and outbound peak periods would have a detrimental impact on delay and level of service on Heathermoor Road during the a.m. peak hour, it is recommended that Alternative 4, which restricts Heathermoor Road traffic to right turns only during the inbound school peak period be implemented. It is recommended that the left turn lane should be designed with a minimum of 195 feet of storage to accommodate future removal of the left turn restriction. In functional design, this would involve widening Cahaba Road to a three lane cross section from Culver Road to Heathermoor Road.

The proposed conceptual design is shown in Figure 6.



0' 20' 40'
Graphic Scale in Feet



Figure 6
Conceptual Design
Cahaba Road at Heathermoor Road
Mountain Brook, Alabama
FEBRUARY, 2013 1104.016

Appendix A
Existing Intersection Turning Movement
Traffic Counts

APPENDIX 2

TRAFFIC DATA, LLC

1409 Turnham Lane
 Birmingham, AL 35216
 205-824-0125

Mountain Brook, AL

File Name : mtnbrook01
 Site Code : 00000000
 Start Date : 11/07/2012
 Page No : 1

Groups Printed- Unshifted

Start Time	CAHABA RD Southbound		HEATHERMOOR RD Westbound		CAHABA RD Northbound		Int. Total
	Left	Thru	Left	Right	Thru	Right	
02:30 PM	2	78	3	2	59	19	163
02:45 PM	1	71	14	18	73	33	210
Total	3	149	17	20	132	52	373
03:00 PM	2	54	25	35	73	3	192
03:15 PM	3	47	10	6	74	1	141
Total	5	101	35	41	147	4	333
04:00 PM	2	45	12	11	84	9	163
04:15 PM	6	44	9	1	78	10	148
04:30 PM	3	58	5	5	90	9	170
04:45 PM	4	59	4	2	94	6	169
Total	15	208	30	19	346	34	650
05:00 PM	6	66	4	1	107	7	191
05:15 PM	13	69	7	4	93	19	205
05:30 PM	12	66	4	2	75	8	167
05:45 PM	4	61	5	7	50	10	137
Total	35	262	20	14	325	44	700
07:00 AM	2	59	4	5	38	12	120
07:15 AM	0	82	11	17	51	24	185
07:30 AM	4	101	29	36	57	52	279
07:45 AM	9	118	9	17	73	18	242
Total	15	360	53	75	219	104	826
08:00 AM	10	112	3	3	55	18	201
08:15 AM	9	98	4	10	69	17	205
08:30 AM	4	81	1	7	49	8	150
08:45 AM	6	71	1	2	57	4	141
Total	29	360	9	22	230	47	697
Grand Total	102	1438	164	191	1399	285	3579
Apprch %	6.6	93.4	46.2	53.8	83.1	16.9	
Total %	2.8	40.2	4.6	5.3	39.1	8.0	

APPENDIX 2

Start Time	CAHABA RD Southbound			HEATHERMOOR RD Westbound			CAHABA RD Northbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1										
Intersection	04:30 PM									
Volume	26	252	278	20	12	32	384	41	425	0
Percent	9.4	90.6		62.5	37.5		90.4	9.6		
05:15 Volume	13	69	82	7	4	11	93	19	112	0
Peak Factor										0.896
High Int.	05:15 PM			05:15 PM			05:00 PM			
Volume	13	69	82	7	4	11	107	7	114	
Peak Factor			0.848			0.727			0.932	

TRAFFIC DATA, LLC
 1409 Turnham Lane
 Birmingham, AL 35216
 205-824-0125

File Name : mtnbrook01
 Site Code : 00000000
 Start Date : 11/07/2012
 Page No : 2

Start Time	CAHABA RD Southbound			HEATHERMOOR RD Westbound			CAHABA RD Northbound			App. Total	Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total		
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1											
By Approach	05:00 PM			04:00 PM			04:30 PM			04:00 PM	
Volume	35	262	297	30	19	49	384	41	425	0	
Percent	11.8	88.2		61.2	38.8		90.4	9.6			
High Int.	05:15 PM			04:00 PM			05:00 PM			-	
Volume	13	69	82	12	11	23	107	7	114	-	
Peak Factor	0.905			0.533			0.932			-	
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1											
Intersection	07:30 AM										
Volume	32	427	459	45	66	111	254	103	357	0	927
Percent	7.0	93.0		40.5	59.5		71.1	28.9		0	279
07:30 Volume	4	101	105	29	36	65	57	52	109	0	
Peak Factor	0.904			0.427			0.819			0.831	
High Int.	07:45 AM			07:30 AM			07:30 AM				
Volume	9	118	127	29	36	65	57	52	109		
Peak Factor	0.904			0.427			0.819				
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1											
By Approach	07:30 AM			07:00 AM			07:30 AM			07:00 AM	
Volume	32	427	459	53	75	128	254	103	357	0	
Percent	7.0	93.0		41.4	58.6		71.1	28.9			
High Int.	07:45 AM			07:30 AM			07:30 AM			-	
Volume	9	118	127	29	36	65	57	52	109	-	
Peak Factor	0.904			0.492			0.819			-	

APPENDIX 2

Appendix B
Existing Machine Traffic Count

TRAFFIC DATA, LLC
1409 Turnham Lane, Birmingham, AL 35216
205-824-0125

Location: : CAHABA RD south of HEATHERMOOR RD
 City, State: : MOUNTAIN BROOK, AL
 Speed Limit: : 20 mph

Date: 3/4/2013
 Monday

24 Hour Volume

Begin	NB	SB	Combined	Begin	NB	SB	Combined
1:00 PM	69	256	85 361	1:00 AM	0	0	1 3
1:15 PM	66		87 153	1:15 AM	0		2 2
1:30 PM	64		99 163	1:30 AM	0		0 0
1:45 PM	57		90 147	1:45 AM	0		0 0
2:00 PM	59	308	72 286	2:00 AM	0	1	2 4
2:15 PM	59		69 128	2:15 AM	0		1 1
2:30 PM	86		76 162	2:30 AM	0		0 0
2:45 PM	104		69 173	2:45 AM	1		1 2
3:00 PM	60	277	99 299	3:00 AM	0	4	1 2
3:15 PM	73		78 151	3:15 AM	1		0 1
3:30 PM	68		60 128	3:30 AM	1		1 2
3:45 PM	76		62 138	3:45 AM	2		0 2
4:00 PM	83	384	85 314	4:00 AM	1	9	1 5
4:15 PM	110		72 182	4:15 AM	0		0 0
4:30 PM	106		79 185	4:30 AM	2		2 4
4:45 PM	85		78 163	4:45 AM	6		2 8
5:00 PM	92	316	78 301	5:00 AM	5	46	3 30
5:15 PM	89		75 164	5:15 AM	7		2 9
5:30 PM	80		88 168	5:30 AM	23		6 29
5:45 PM	55		60 115	5:45 AM	11		19 30
6:00 PM	72	211	38 140	6:00 AM	13	80	12 106
6:15 PM	56		29 85	6:15 AM	12		25 37
6:30 PM	44		39 83	6:30 AM	15		36 51
6:45 PM	39		34 73	6:45 AM	40		33 73
7:00 PM	35	127	15 83	7:00 AM	34	263	56 360
7:15 PM	39		21 60	7:15 AM	69		70 139
7:30 PM	27		21 48	7:30 AM	92		113 205
7:45 PM	26		26 52	7:45 AM	68		121 189
8:00 PM	19	61	11 56	8:00 AM	68	275	95 359
8:15 PM	16		18 34	8:15 AM	62		98 160
8:30 PM	17		12 29	8:30 AM	84		92 176
8:45 PM	9		15 24	8:45 AM	61		74 135
9:00 PM	14	38	15 41	9:00 AM	55	222	60 198
9:15 PM	10		12 22	9:15 AM	58		55 113
9:30 PM	5		7 12	9:30 AM	56		43 99
9:45 PM	9		7 16	9:45 AM	53		40 93
10:00 PM	8	16	5 19	10:00 AM	66	245	54 247
10:15 PM	4		7 11	10:15 AM	65		57 122
10:30 PM	4		6 10	10:30 AM	60		69 129
10:45 PM	0		1 1	10:45 AM	54		67 121
11:00 PM	2	7	3 8	11:00 AM	51	289	72 281
11:15 PM	5		4 9	11:15 AM	87		64 151
11:30 PM	0		0 0	11:30 AM	82		69 151
11:45 PM	0		1 1	11:45 AM	69		76 145
3/5/2013 12:00 AM	1	6	0 4	12:00 PM	74	298	58 329
12:15 AM	1		2 3	12:15 PM	76		93 169
12:30 AM	3		2 5	12:30 PM	70		93 163
12:45 AM	1		0 1	12:45 PM	78		85 163

24 Hour Volume
 NB 3739 (49.4%)
 SB 3836 (50.6%)
 Combined 7575

12:00 AM - 12:00 PM
 NB 1440
 SB 1599
 Combined 3039

Peak Hour
 Count 297
 Volume Factor 0.81
 NB 47.4 %
 SB 52.6 %
 Combined 7:30 AM 717
 Factor 0.87

12:00 PM - 12:00 AM
 NB 2299
 SB 2237
 Combined 4536

APPENDIX 2.89
 NB 50.7 %
 SB 49.3 %
 Combined 4:15 PM 700
 Factor 0.91

TRAFFIC DATA, LLC
 1409 Turnham Lane, Birmingham, AL 35216
 205-824-0125

Location:: CAHABA RD south of HEATHERMOOR RD
 City, State : : MOUNTAIN BROOK, AL
 Speed Limit : : 20 mph

Date: 3/4/2013
 Monday

**24 Hour Speed
 Combined Channels**

mph	Total	0 - < 15	15 - < 20	20 - < 25	25 - < 30	30 - < 35	35 - < 40	40 - < 45	45 - < 50	50 - < 55	55 - < 60	60 - < 65	65 - < 70	70 - < 200
1:00 PM	617	4	2	7	70	254	216	55	6	1	2	0	0	0
2:00 PM	594	7	1	10	96	239	188	47	6	0	0	0	0	0
3:00 PM	576	8	0	8	86	235	188	44	5	0	0	0	0	2
4:00 PM	698	7	4	16	119	302	203	44	3	0	0	0	0	0
5:00 PM	617	5	3	23	114	228	190	51	3	0	0	0	0	0
6:00 PM	351	2	0	1	37	159	117	32	3	0	0	0	0	0
7:00 PM	210	0	0	1	18	74	90	24	3	0	0	0	0	0
8:00 PM	117	0	0	0	15	31	53	16	1	1	0	0	0	0
9:00 PM	79	0	0	1	9	22	32	15	0	0	0	0	0	0
10:00 PM	35	0	1	0	4	8	17	4	1	0	0	0	0	0
11:00 PM	15	0	0	0	1	5	5	3	1	0	0	0	0	0
3/5/2013														
12:00 AM	10	0	0	1	4	2	2	1	0	0	0	0	0	0
1:00 AM	3	0	0	0	0	3	0	0	0	0	0	0	0	0
2:00 AM	5	0	0	0	0	1	3	1	0	0	0	0	0	0
3:00 AM	6	0	0	0	1	0	3	2	0	0	0	0	0	0
4:00 AM	14	1	0	0	5	5	2	1	0	0	0	0	0	0
5:00 AM	76	0	0	3	21	23	23	6	0	0	0	0	0	0
6:00 AM	186	0	2	4	22	66	71	16	5	0	0	0	0	0
7:00 AM	623	15	2	15	50	249	215	74	1	1	0	1	0	0
8:00 AM	634	8	0	20	66	232	240	62	6	0	0	0	0	0
9:00 AM	420	1	1	5	47	128	170	61	6	0	0	1	0	0
10:00 AM	492	0	3	14	65	182	166	54	8	0	0	0	0	0
11:00 AM	570	2	0	4	59	201	241	57	4	2	0	0	0	0
12:00 PM	627	6	6	6	63	259	226	56	5	0	0	0	0	0
Total	7575	66	25	139	972	2908	2661	726	67	5	2	2	0	2
%		0.9	0.3	1.8	12.8	38.4	35.1	9.6	0.9	0.1	0.0	0.0	0.0	0.0

**Percentile Speeds
 (mph)**

<u>10 %</u>	<u>15 %</u>	<u>50 %</u>	<u>85 %</u>	<u>90 %</u>
28.6	29.8	34.5	39.1	40.1

**10 mph Pace Speed
 Number In Pace**

29.7 - 39.7	Average	34.3 mph
5610 (74.1 %)	Minimum	5.0 mph
	Maximum	88.7 mph

Speeds Exceeded

<u>10 mph</u>	<u>20 mph</u>	<u>30 mph</u>
99.4 %	98.8 %	84.1 %
Count	7526	7484
		6373

TRAFFIC DATA, LLC
 1409 Turnham Lane, Birmingham, AL 35216
 205-824-0125

Location: CAHABA RD south of HEATHERMOOR RD
 City, State: MOUNTAIN BROOK, AL
 Speed Limit: 20 mph

Date: 3/4/2013
 Monday

24 Hour Vehicle Classification
 Channel: NB

Time	Total	Blke	Cars & Trailer	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi
1:00 PM	256	0	194	48	4	8	0	0	2	0	0	0	0	0
2:00 PM	308	0	255	42	2	5	0	0	4	0	0	0	0	0
3:00 PM	277	1	224	46	2	4	0	0	0	0	0	0	0	0
4:00 PM	384	1	290	80	3	8	0	0	2	0	0	0	0	0
5:00 PM	316	1	258	49	3	4	0	0	1	0	0	0	0	0
6:00 PM	211	2	172	33	0	4	0	0	0	0	0	0	0	0
7:00 PM	127	1	109	16	0	1	0	0	0	0	0	0	0	0
8:00 PM	61	0	52	8	0	1	0	0	0	0	0	0	0	0
9:00 PM	38	0	34	4	0	0	0	0	0	0	0	0	0	0
10:00 PM	16	0	13	2	0	1	0	0	0	0	0	0	0	0
11:00 PM	7	0	7	0	0	0	0	0	0	0	0	0	0	0
3/5/2013														
12:00 AM	6	0	3	3	0	0	0	0	0	0	0	0	0	0
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	1	0	1	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	4	0	4	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	9	0	6	2	0	1	0	0	0	0	0	0	0	0
5:00 AM	46	0	35	8	0	1	1	0	1	0	0	0	0	0
6:00 AM	80	0	63	11	1	4	0	0	1	0	0	0	0	0
7:00 AM	263	0	203	46	4	7	0	0	3	0	0	0	0	0
8:00 AM	275	0	210	48	2	11	1	0	3	0	0	0	0	0
9:00 AM	222	0	163	47	1	10	0	0	1	0	0	0	0	0
10:00 AM	245	0	186	44	3	11	0	0	1	0	0	0	0	0
11:00 AM	289	0	224	53	1	11	0	0	0	0	0	0	0	0
12:00 PM	298	0	231	57	4	5	0	0	1	0	0	0	0	0
Total	3739	6	2937	647	30	97	2	0	20	0	0	0	0	0
%		0.2	78.6	17.3	0.8	2.6	0.1	0.0	0.5	0.0	0.0	0.0	0.0	0.0

TRAFFIC DATA, LLC
 1409 Turnham Lane, Birmingham, AL 35216
 205-824-0125

Location : CAHABA RD south of HEATHERMOOR RD
 City, State : MOUNTAIN BROOK, AL
 Speed Limit : 20 mph

Date: 3/4/2013
 Monday

24 Hour Vehicle Classification
 Channel: SB

Time	Total	Bike	Cars & Traller	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi
1:00 PM	361	1	292	60	3	3	1	0	1	0	0	0	0	0
2:00 PM	286	0	239	39	3	4	0	0	1	0	0	0	0	0
3:00 PM	299	0	242	43	4	10	0	0	0	0	0	0	0	0
4:00 PM	314	1	258	44	2	6	0	0	3	0	0	0	0	0
5:00 PM	301	0	244	49	2	5	0	0	1	0	0	0	0	0
6:00 PM	140	1	118	19	0	2	0	0	0	0	0	0	0	0
7:00 PM	83	1	71	10	0	1	0	0	0	0	0	0	0	0
8:00 PM	56	0	50	6	0	0	0	0	0	0	0	0	0	0
9:00 PM	41	0	37	4	0	0	0	0	0	0	0	0	0	0
10:00 PM	19	0	17	2	0	0	0	0	0	0	0	0	0	0
11:00 PM	8	0	8	0	0	0	0	0	0	0	0	0	0	0
3/5/2013														
12:00 AM	4	0	4	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	3	0	3	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	4	0	3	1	0	0	0	0	0	0	0	0	0	0
3:00 AM	2	0	2	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	5	0	4	0	0	1	0	0	0	0	0	0	0	0
5:00 AM	30	0	23	7	0	0	0	0	0	0	0	0	0	0
6:00 AM	106	0	93	11	0	2	0	0	0	0	0	0	0	0
7:00 AM	360	0	306	47	5	0	0	0	2	0	0	0	0	0
8:00 AM	359	0	305	43	2	7	0	0	2	0	0	0	0	0
9:00 AM	198	0	151	38	2	7	0	0	0	0	0	0	0	0
10:00 AM	247	0	193	41	0	10	0	0	3	0	0	0	0	0
11:00 AM	281	0	237	36	0	8	0	0	0	0	0	0	0	0
12:00 PM	329	0	276	47	1	3	0	0	2	0	0	0	0	0
Total	3836	4	3176	547	24	69	1	0	15	0	0	0	0	0
%		0.1	82.8	14.3	0.6	1.8	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0

TRAFFIC DATA, LLC
 1409 Turnham Lane, Birmingham, AL 35216
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Location: : CAHABA RD south of HEATHERMOOR RD
 City, State: : MOUNTAIN BROOK, AL
 Speed Limit: : 20 mph

Date: 3/4/2013
 Monday

24 Hour Vehicle Classification
 Combined Channels

Time	Total	Bike	Cars & Trailer	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi
1:00 PM	617	1	486	108	7	11	1	0	3	0	0	0	0	0
2:00 PM	594	0	494	81	5	9	0	0	5	0	0	0	0	0
3:00 PM	576	1	466	89	6	14	0	0	0	0	0	0	0	0
4:00 PM	698	2	548	124	5	14	0	0	5	0	0	0	0	0
5:00 PM	617	1	502	98	5	9	0	0	2	0	0	0	0	0
6:00 PM	351	3	290	52	0	6	0	0	0	0	0	0	0	0
7:00 PM	210	2	180	26	0	2	0	0	0	0	0	0	0	0
8:00 PM	117	0	102	14	0	1	0	0	0	0	0	0	0	0
9:00 PM	79	0	71	8	0	0	0	0	0	0	0	0	0	0
10:00 PM	35	0	30	4	0	1	0	0	0	0	0	0	0	0
11:00 PM	15	0	15	0	0	0	0	0	0	0	0	0	0	0
3/5/2013														
12:00 AM	10	0	7	3	0	0	0	0	0	0	0	0	0	0
1:00 AM	3	0	3	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	5	0	4	1	0	0	0	0	0	0	0	0	0	0
3:00 AM	6	0	6	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	14	0	10	2	0	2	0	0	0	0	0	0	0	0
5:00 AM	76	0	58	15	0	1	1	0	1	0	0	0	0	0
6:00 AM	186	0	156	22	1	6	0	0	1	0	0	0	0	0
7:00 AM	623	0	509	93	9	7	0	0	5	0	0	0	0	0
8:00 AM	634	0	515	91	4	18	1	0	5	0	0	0	0	0
9:00 AM	420	0	314	85	3	17	0	0	1	0	0	0	0	0
10:00 AM	492	0	379	85	3	21	0	0	4	0	0	0	0	0
11:00 AM	570	0	461	89	1	19	0	0	0	0	0	0	0	0
12:00 PM	627	0	507	104	5	8	0	0	3	0	0	0	0	0
Total	7575	10	6113	1194	54	166	3	0	35	0	0	0	0	0
%		0.1	80.7	15.8	0.7	2.2	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0

Appendix C
Existing Intersection Capacity Analysis
Worksheets

TWO-WAY STOP CONTROL SUMMARY							
General Information			Site Information				
Analyst	RLC		Intersection	Cahaba Rd at Heathermoor Rd			
Agency/Co.	Skipper Consulting		Jurisdiction	City of Mountain Brook			
Date Performed	2/18/2013		Analysis Year	Existing 2012			
Analysis Time Period	AM Peak Hour						
Project Description							
East/West Street: Heathermoor Road			North/South Street: Cahaba Road				
Intersection Orientation: North-South			Study Period (hrs): 0.25				
Vehicle Volumes and Adjustments							
Major Street	Northbound			Southbound			
Movement	1	2	3	4	5	6	
	L	T	R	L	T	R	
Volume (veh/h)		254	103	32	427		
Peak-Hour Factor, PHF	1.00	0.82	0.82	0.90	0.90	1.00	
Hourly Flow Rate, HFR (veh/h)	0	309	125	35	474	0	
Percent Heavy Vehicles	0	--	--	6	--	--	
Median Type	Undivided						
RT Channelized			0			0	
Lanes	0	1	1	0	1	0	
Configuration		T	R	LT			
Upstream Signal		0			0		
Minor Street	Eastbound			Westbound			
Movement	7	8	9	10	11	12	
	L	T	R	L	T	R	
Volume (veh/h)				45		66	
Peak-Hour Factor, PHF	1.00	1.00	1.00	0.43	1.00	0.43	
Hourly Flow Rate, HFR (veh/h)	0	0	0	104	0	153	
Percent Heavy Vehicles	0	0	0	6	0	6	
Percent Grade (%)	0			0			
Flared Approach		N			N		
Storage		0			0		
RT Channelized			0			0	
Lanes	0	0	0	0	0	0	
Configuration					LR		
Delay, Queue Length, and Level of Service							
Approach	Northbound	Southbound	Westbound			Eastbound	
Movement	1	4	7	8	9	10	11 12
Lane Configuration		LT		LR			
v (veh/h)		35		257			
C (m) (veh/h)		1105		473			
v/c		0.03		0.54			
95% queue length		0.10		3.19			
Control Delay (s/veh)		8.4		21.3			
LOS		A		C			
Approach Delay (s/veh)	--	--	21.3				
Approach LOS	--	--	C				

APPENDIX 2

TWO-WAY STOP CONTROL SUMMARY								
General Information			Site Information					
Analyst	RLC		Intersection	Cahaba Rd at Heathermoor Rd				
Agency/Co.	Skipper Consulting		Jurisdiction	City of Mountain Brook				
Date Performed	2/18/2013		Analysis Year	Existing 2012				
Analysis Time Period	School Peak Hour							
Project Description								
East/West Street: Heathermoor Road			North/South Street: Cahaba Road					
Intersection Orientation: North-South			Study Period (hrs): 0.25					
Vehicle Volumes and Adjustments								
Major Street	Northbound			Southbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)		279	56	8	250			
Peak-Hour Factor, PHF	1.00	0.79	0.79	0.81	0.81	1.00		
Hourly Flow Rate, HFR (veh/h)	0	353	70	9	308	0		
Percent Heavy Vehicles	0	--	--	6	--	--		
Median Type	Undivided							
RT Channelized			0			0		
Lanes	0	1	1	0	1	0		
Configuration		T	R	LT				
Upstream Signal		0			0			
Minor Street	Eastbound			Westbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)				52		61		
Peak-Hour Factor, PHF	1.00	1.00	1.00	0.47	1.00	0.47		
Hourly Flow Rate, HFR (veh/h)	0	0	0	110	0	129		
Percent Heavy Vehicles	0	0	0	6	0	6		
Percent Grade (%)	0			0				
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	0	0	0	0	0	0		
Configuration					LR			
Delay, Queue Length, and Level of Service								
Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		LT		LR				
v (veh/h)		9		239				
C (m) (veh/h)		1115		521				
v/c		0.01		0.46				
95% queue length		0.02		2.38				
Control Delay (s/veh)		8.3		17.6				
LOS		A		C				
Approach Delay (s/veh)	--	--	17.6					
Approach LOS	--	--	C					

APPENDIX 2

TWO-WAY STOP CONTROL SUMMARY								
General Information			Site Information					
Analyst	RLC		Intersection	Cahaba Rd at Heathermoor Rd				
Agency/Co.	Skipper Consulting		Jurisdiction	City of Mountain Brook				
Date Performed	2/18/2013		Analysis Year	Existing 2012				
Analysis Time Period	PM Peak Hour							
Project Description								
East/West Street: Heathermoor Road			North/South Street: Cahaba Road					
Intersection Orientation: North-South			Study Period (hrs): 0.25					
Vehicle Volumes and Adjustments								
Major Street	Northbound			Southbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)		384	41	26	252			
Peak-Hour Factor, PHF	1.00	0.93	0.93	0.85	0.85	1.00		
Hourly Flow Rate, HFR (veh/h)	0	412	44	30	296	0		
Percent Heavy Vehicles	0	--	--	6	--	--		
Median Type	Undivided							
RT Channelized			0			0		
Lanes	0	1	1	0	1	0		
Configuration		T	R	LT				
Upstream Signal		0			0			
Minor Street	Eastbound			Westbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)				20		12		
Peak-Hour Factor, PHF	1.00	1.00	1.00	0.73	1.00	0.73		
Hourly Flow Rate, HFR (veh/h)	0	0	0	27	0	16		
Percent Heavy Vehicles	0	0	0	6	0	6		
Percent Grade (%)	0			0				
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	0	0	0	0	0	0		
Configuration					LR			
Delay, Queue Length, and Level of Service								
Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		LT		LR				
v (veh/h)		30		43				
C (m) (veh/h)		1084		423				
v/c		0.03		0.10				
95% queue length		0.09		0.34				
Control Delay (s/veh)		8.4		14.5				
LOS		A		B				
Approach Delay (s/veh)	--	--	14.5					
Approach LOS	--	--	B					

APPENDIX 2

Appendix D
Future Intersection Capacity Analysis
Worksheets

APPENDIX 2

TWO-WAY STOP CONTROL SUMMARY								
General Information				Site Information				
Analyst	RLC			Intersection	Cahaba Rd at Heathermoor Rd			
Agency/Co.	Skipper Consulting			Jurisdiction	City of Mountain Brook			
Date Performed	2/18/2013			Analysis Year	Future 2018 No Build			
Analysis Time Period	AM Peak Hour							
Project Description								
East/West Street: Heathermoor Road				North/South Street: Cahaba Road				
Intersection Orientation: North-South				Study Period (hrs): 0.25				
Vehicle Volumes and Adjustments								
Major Street	Northbound			Southbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)		298	109	34	480			
Peak-Hour Factor, PHF	1.00	0.82	0.82	0.90	0.90	1.00		
Hourly Flow Rate, HFR (veh/h)	0	363	132	37	533	0		
Percent Heavy Vehicles	0	--	--	6	--	--		
Median Type	Undivided							
RT Channelized			0			0		
Lanes	0	1	1	0	1	0		
Configuration		T	R	LT				
Upstream Signal		0			0			
Minor Street	Eastbound			Westbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)				48		70		
Peak-Hour Factor, PHF	1.00	1.00	1.00	0.43	1.00	0.43		
Hourly Flow Rate, HFR (veh/h)	0	0	0	111	0	162		
Percent Heavy Vehicles	0	0	0	6	0	6		
Percent Grade (%)		0			0			
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	0	0	0	0	0	0		
Configuration					LR			
Delay, Queue Length, and Level of Service								
Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		LT		LR				
v (veh/h)		37		273				
C (m) (veh/h)		1048		415				
v/c		0.04		0.66				
95% queue length		0.11		4.58				
Control Delay (s/veh)		8.6		28.9				
LOS		A		D				
Approach Delay (s/veh)	--	--	28.9					
Approach LOS	--	--	D					

APPENDIX 2

TWO-WAY STOP CONTROL SUMMARY							
General Information				Site Information			
Analyst	RLC			Intersection	Cahaba Rd at Heathermoor Rd		
Agency/Co.	Skipper Consulting			Jurisdiction	City of Mountain Brook		
Date Performed	2/18/2013			Analysis Year	Future 2018 No Build		
Analysis Time Period	School Peak Hour						
Project Description							
East/West Street: Heathermoor Road				North/South Street: Cahaba Road			
Intersection Orientation: North-South				Study Period (hrs): 0.25			
Vehicle Volumes and Adjustments							
Major Street	Northbound			Southbound			
Movement	1	2	3	4	5	6	
	L	T	R	L	T	R	
Volume (veh/h)		349	59	8	315		
Peak-Hour Factor, PHF	1.00	0.79	0.79	0.81	0.81	1.00	
Hourly Flow Rate, HFR (veh/h)	0	441	74	9	388	0	
Percent Heavy Vehicles	0	--	--	6	--	--	
Median Type	Undivided						
RT Channelized			0			0	
Lanes	0	1	1	0	1	0	
Configuration		T	R	LT			
Upstream Signal		0			0		
Minor Street	Eastbound			Westbound			
Movement	7	8	9	10	11	12	
	L	T	R	L	T	R	
Volume (veh/h)				55		65	
Peak-Hour Factor, PHF	1.00	1.00	1.00	0.47	1.00	0.47	
Hourly Flow Rate, HFR (veh/h)	0	0	0	117	0	138	
Percent Heavy Vehicles	0	0	0	6	0	6	
Percent Grade (%)	0			0			
Flared Approach		N			N		
Storage		0			0		
RT Channelized			0			0	
Lanes	0	0	0	0	0	0	
Configuration					LR		
Delay, Queue Length, and Level of Service							
Approach	Northbound	Southbound	Westbound			Eastbound	
Movement	1	4	7	8	9	10	11 12
Lane Configuration		LT		LR			
v (veh/h)		9		255			
C (m) (veh/h)		1030		434			
v/c		0.01		0.59			
95% queue length		0.03		3.67			
Control Delay (s/veh)		8.5		24.4			
LOS		A		C			
Approach Delay (s/veh)	--	--	24.4				
Approach LOS	--	--	C				

APPENDIX 2

TWO-WAY STOP CONTROL SUMMARY							
General Information				Site Information			
Analyst	RLC			Intersection	Cahaba Rd at Heathermoor Rd		
Agency/Co.	Skipper Consulting			Jurisdiction	City of Mountain Brook		
Date Performed	2/18/2013			Analysis Year	Future 2018 No Build		
Analysis Time Period	PM Peak Hour						
Project Description							
East/West Street: Heathermoor Road				North/South Street: Cahaba Road			
Intersection Orientation: North-South				Study Period (hrs): 0.25			
Vehicle Volumes and Adjustments							
Major Street	Northbound			Southbound			
Movement	1	2	3	4	5	6	
	L	T	R	L	T	R	
Volume (veh/h)		470	43	28	330		
Peak-Hour Factor, PHF	1.00	0.93	0.93	0.85	0.85	1.00	
Hourly Flow Rate, HFR (veh/h)	0	505	46	32	388	0	
Percent Heavy Vehicles	0	--	--	6	--	--	
Median Type	Undivided						
RT Channelized			0			0	
Lanes	0	1	1	0	1	0	
Configuration		T	R	LT			
Upstream Signal		0			0		
Minor Street	Eastbound			Westbound			
Movement	7	8	9	10	11	12	
	L	T	R	L	T	R	
Volume (veh/h)				21		13	
Peak-Hour Factor, PHF	1.00	1.00	1.00	0.73	1.00	0.73	
Hourly Flow Rate, HFR (veh/h)	0	0	0	28	0	17	
Percent Heavy Vehicles	0	0	0	6	0	6	
Percent Grade (%)	0			0			
Flared Approach		N			N		
Storage		0			0		
RT Channelized			0			0	
Lanes	0	0	0	0	0	0	
Configuration					LR		
Delay, Queue Length, and Level of Service							
Approach	Northbound	Southbound	Westbound			Eastbound	
Movement	1	4	7	8	9	10	11
Lane Configuration		LT		LR			
v (veh/h)		32		45			
C (m) (veh/h)		999		337			
v/c		0.03		0.13			
95% queue length		0.10		0.46			
Control Delay (s/veh)		8.7		17.3			
LOS		A		C			
Approach Delay (s/veh)	--	--	17.3				
Approach LOS	--	--	C				

APPENDIX 2

Appendix E

APPENDIX 2

Left Turn Lane Warrant Analysis Worksheets

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

2-lane roadway (English)

INPUT

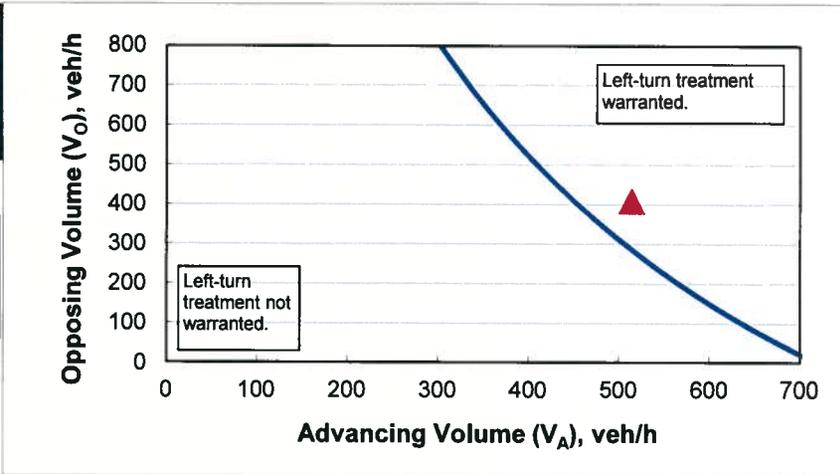
Variable	Value
85 th percentile speed, mph:	36
Percent of left-turns in advancing volume (V_A), %:	7%
Advancing volume (V_A), veh/h:	514
Opposing volume (V_O), veh/h:	407

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	450
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment warranted.	

CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9



Alternatives 1 and 2 - AM Peak Hour

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

2-lane roadway (English)

INPUT

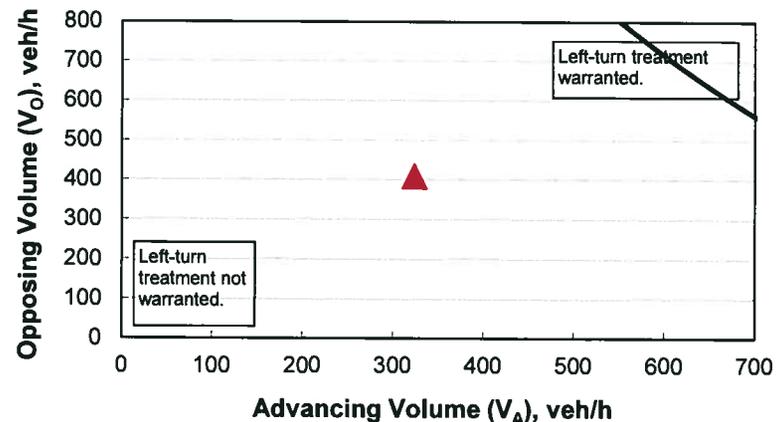
Variable	Value
85 th percentile speed, mph:	36
Percent of left-turns in advancing volume (V_A), %:	2%
Advancing volume (V_A), veh/h:	323
Opposing volume (V_O), veh/h:	408

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	820
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	

CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9



Alternatives 1 and 2 - PM School Peak Hour

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

2-lane roadway (English)

INPUT

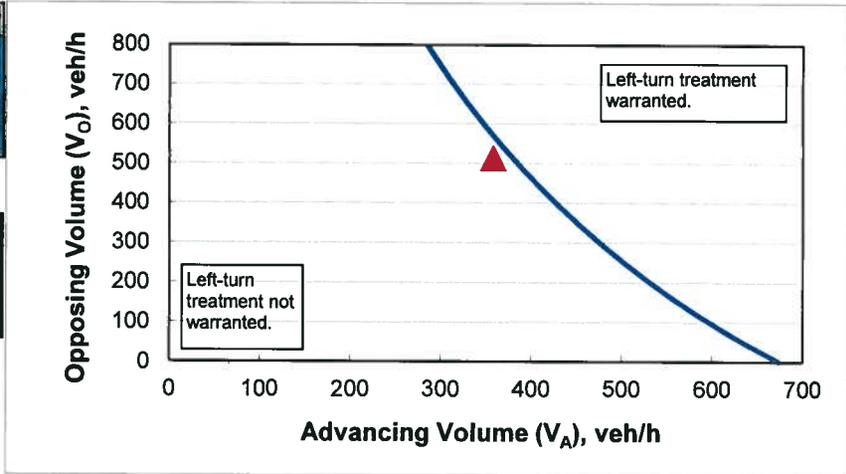
Variable	Value
85 th percentile speed, mph:	36
Percent of left-turns in advancing volume (V_A), %:	8%
Advancing volume (V_A), veh/h:	358
Opposing volume (V_O), veh/h:	513

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	379
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	

CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9



Alternatives 1 and 2 - PM Peak Hour

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

2-lane roadway (English)

INPUT

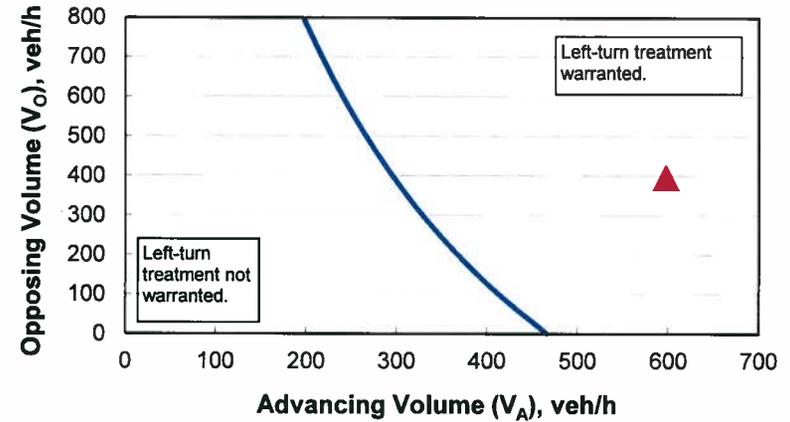
Variable	Value
85 th percentile speed, mph:	36
Percent of left-turns in advancing volume (V_A), %:	19%
Advancing volume (V_A), veh/h:	598
Opposing volume (V_O), veh/h:	395

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	297
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment warranted.	

CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9



Alternatives 3 and 4 - AM Peak Hour

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

2-lane roadway (English)

INPUT

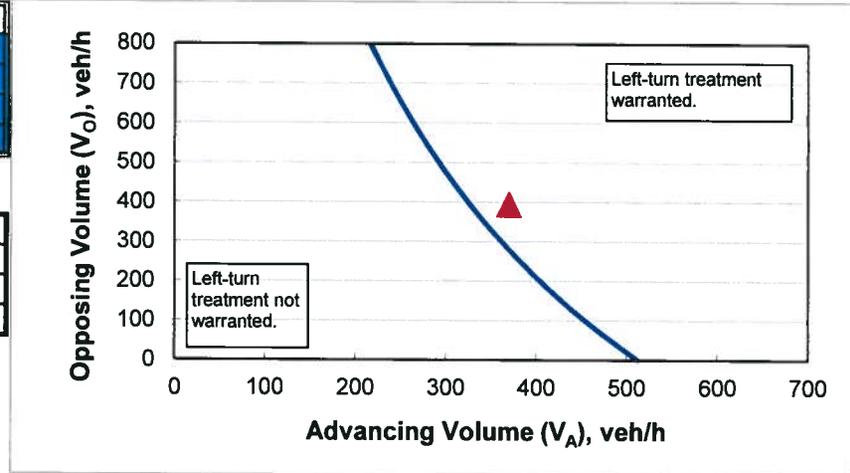
Variable	Value
85 th percentile speed, mph:	36
Percent of left-turns in advancing volume (V_A), %:	15%
Advancing volume (V_A), veh/h:	370
Opposing volume (V_O), veh/h:	394

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	326
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment warranted.	

CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9



Alternatives 3 and 4 - PM School Peak Hour

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

2-lane roadway (English)

INPUT

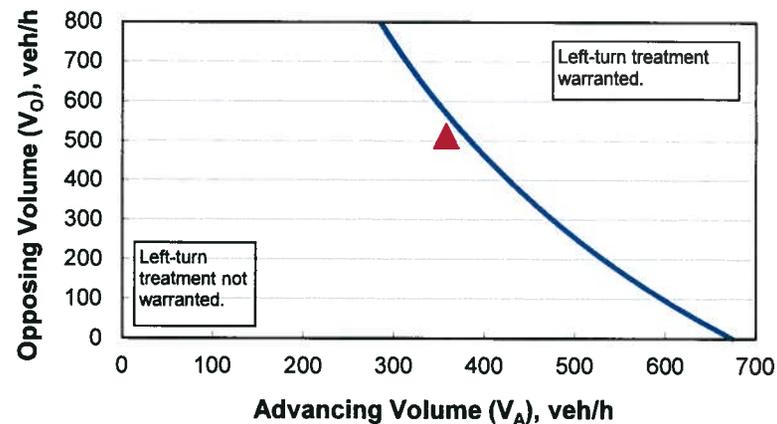
Variable	Value
85 th percentile speed, mph:	36
Percent of left-turns in advancing volume (V_A), %:	8%
Advancing volume (V_A), veh/h:	358
Opposing volume (V_O), veh/h:	513

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	379
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	

CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9



Alternatives 3 and 4 - PM Peak Hour

Appendix F
Future Intersection Capacity Analysis
Worksheets – Alternative 2

TWO-WAY STOP CONTROL SUMMARY							
General Information				Site Information			
Analyst	RLC			Intersection	Cahaba Rd at Heathermoor Rd		
Agency/Co.	Skipper Consulting			Jurisdiction	City of Mountain Brook		
Date Performed	2/18/2013			Analysis Year	Future 2018 Alt. 2		
Analysis Time Period	AM Peak Hour						
Project Description							
East/West Street: Heathermoor Road				North/South Street: Cahaba Road			
Intersection Orientation: North-South				Study Period (hrs): 0.25			
Vehicle Volumes and Adjustments							
Major Street	Northbound			Southbound			
Movement	1	2	3	4	5	6	
	L	T	R	L	T	R	
Volume (veh/h)		298	109	34	480		
Peak-Hour Factor, PHF	1.00	0.82	0.82	0.90	0.90	1.00	
Hourly Flow Rate, HFR (veh/h)	0	363	132	37	533	0	
Percent Heavy Vehicles	0	--	--	6	--	--	
Median Type	Undivided						
RT Channelized			0			0	
Lanes	0	1	1	1	1	0	
Configuration		T	R	L	T		
Upstream Signal		0			0		
Minor Street	Eastbound			Westbound			
Movement	7	8	9	10	11	12	
	L	T	R	L	T	R	
Volume (veh/h)				48		70	
Peak-Hour Factor, PHF	1.00	1.00	1.00	0.43	1.00	0.43	
Hourly Flow Rate, HFR (veh/h)	0	0	0	111	0	162	
Percent Heavy Vehicles	0	0	0	6	0	6	
Percent Grade (%)	0			0			
Flared Approach		N			N		
Storage		0			0		
RT Channelized			0			0	
Lanes	0	0	0	0	0	0	
Configuration					LR		
Delay, Queue Length, and Level of Service							
Approach	Northbound	Southbound	Westbound			Eastbound	
Movement	1	4	7	8	9	10	11 12
Lane Configuration		L		LR			
v (veh/h)		37		273			
C (m) (veh/h)		1048		415			
v/c		0.04		0.66			
95% queue length		0.11		4.58			
Control Delay (s/veh)		8.6		28.9			
LOS		A		D			
Approach Delay (s/veh)	--	--	28.9				
Approach LOS	--	--	D				

APPENDIX 2

TWO-WAY STOP CONTROL SUMMARY								
General Information			Site Information					
Analyst	RLC		Intersection	Cahaba Rd at Heathermoor Rd				
Agency/Co.	Skipper Consulting		Jurisdiction	City of Mountain Brook				
Date Performed	2/18/2013		Analysis Year	Future 2018 Alt. 2				
Analysis Time Period	School Peak Hour							
Project Description								
East/West Street: Heathermoor Road			North/South Street: Cahaba Road					
Intersection Orientation: North-South			Study Period (hrs): 0.25					
Vehicle Volumes and Adjustments								
Major Street	Northbound			Southbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)		349	59	8	315			
Peak-Hour Factor, PHF	1.00	0.79	0.79	0.81	0.81	1.00		
Hourly Flow Rate, HFR (veh/h)	0	441	74	9	388	0		
Percent Heavy Vehicles	0	--	--	6	--	--		
Median Type	Undivided							
RT Channelized			0			0		
Lanes	0	1	1	1	1	0		
Configuration		T	R	L	T			
Upstream Signal		0			0			
Minor Street	Eastbound			Westbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)				55		65		
Peak-Hour Factor, PHF	1.00	1.00	1.00	0.47	1.00	0.47		
Hourly Flow Rate, HFR (veh/h)	0	0	0	117	0	138		
Percent Heavy Vehicles	0	0	0	6	0	6		
Percent Grade (%)	0			0				
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	0	0	0	0	0	0		
Configuration					LR			
Delay, Queue Length, and Level of Service								
Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		L		LR				
v (veh/h)		9		255				
C (m) (veh/h)		1030		434				
v/c		0.01		0.59				
95% queue length		0.03		3.67				
Control Delay (s/veh)		8.5		24.4				
LOS		A		C				
Approach Delay (s/veh)	--	--	24.4					
Approach LOS	--	--	C					

APPENDIX 2

TWO-WAY STOP CONTROL SUMMARY								
General Information				Site Information				
Analyst	RLC			Intersection	Cahaba Rd at Heathermoor Rd			
Agency/Co.	Skipper Consulting			Jurisdiction	City of Mountain Brook			
Date Performed	2/18/2013			Analysis Year	Future 2018 Alt. 2			
Analysis Time Period	PM Peak Hour							
Project Description								
East/West Street: Heathermoor Road				North/South Street: Cahaba Road				
Intersection Orientation: North-South				Study Period (hrs): 0.25				
Vehicle Volumes and Adjustments								
Major Street	Northbound			Southbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)		470	43	28	330			
Peak-Hour Factor, PHF	1.00	0.93	0.93	0.85	0.85	1.00		
Hourly Flow Rate, HFR (veh/h)	0	505	46	32	388	0		
Percent Heavy Vehicles	0	--	--	6	--	--		
Median Type	Undivided							
RT Channelized			0			0		
Lanes	0	1	1	1	1	0		
Configuration		T	R	L	T			
Upstream Signal		0			0			
Minor Street	Eastbound			Westbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)				21		13		
Peak-Hour Factor, PHF	1.00	1.00	1.00	0.73	1.00	0.73		
Hourly Flow Rate, HFR (veh/h)	0	0	0	28	0	17		
Percent Heavy Vehicles	0	0	0	6	0	6		
Percent Grade (%)	0			0				
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	0	0	0	0	0	0		
Configuration					LR			
Delay, Queue Length, and Level of Service								
Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		L		LR				
v (veh/h)		32		45				
C (m) (veh/h)		999		337				
v/c		0.03		0.13				
95% queue length		0.10		0.46				
Control Delay (s/veh)		8.7		17.3				
LOS		A		C				
Approach Delay (s/veh)	--	--	17.3					
Approach LOS	--	--	C					

APPENDIX 2

Appendix G
Future Intersection Capacity Analysis
Worksheets – Alternative 3

TWO-WAY STOP CONTROL SUMMARY							
General Information				Site Information			
Analyst	RLC			Intersection	Cahaba Rd at Heathermoor Rd		
Agency/Co.	Skipper Consulting			Jurisdiction	City of Mountain Brook		
Date Performed	2/18/2013			Analysis Year	Future 2018 Alt. 3		
Analysis Time Period	AM Peak Hour						
Project Description							
East/West Street: Heathermoor Road				North/South Street: Cahaba Road			
Intersection Orientation: North-South				Study Period (hrs): 0.25			
Vehicle Volumes and Adjustments							
Major Street	Northbound			Southbound			
Movement	1	2	3	4	5	6	
	L	T	R	L	T	R	
Volume (veh/h)		298	97	118	480		
Peak-Hour Factor, PHF	1.00	0.82	0.82	0.90	0.90	1.00	
Hourly Flow Rate, HFR (veh/h)	0	363	118	131	533	0	
Percent Heavy Vehicles	0	--	--	6	--	--	
Median Type	Undivided						
RT Channelized			0				0
Lanes	0	1	1	1	1		0
Configuration		T	R	L	T		
Upstream Signal		0			0		
Minor Street	Eastbound			Westbound			
Movement	7	8	9	10	11	12	
	L	T	R	L	T	R	
Volume (veh/h)				48		70	
Peak-Hour Factor, PHF	1.00	1.00	1.00	0.43	1.00	0.43	
Hourly Flow Rate, HFR (veh/h)	0	0	0	111	0	162	
Percent Heavy Vehicles	0	0	0	6	0	6	
Percent Grade (%)	0			0			
Flared Approach		N			N		
Storage		0			0		
RT Channelized			0			0	
Lanes	0	0	0	0	0	0	
Configuration					LR		
Delay, Queue Length, and Level of Service							
Approach	Northbound	Southbound	Westbound			Eastbound	
Movement	1	4	7	8	9	10	11 12
Lane Configuration		L		LR			
v (veh/h)		131		273			
C (m) (veh/h)		1061		327			
v/c		0.12		0.83			
95% queue length		0.42		7.29			
Control Delay (s/veh)		8.9		53.1			
LOS		A		F			
Approach Delay (s/veh)	--	--	53.1				
Approach LOS	--	--	F				

APPENDIX 2

TWO-WAY STOP CONTROL SUMMARY							
General Information				Site Information			
Analyst	RLC			Intersection	Cahaba Rd at Heathermoor Rd		
Agency/Co.	Skipper Consulting			Jurisdiction	City of Mountain Brook		
Date Performed	2/18/2013			Analysis Year	Future 2018 Alt. 3		
Analysis Time Period	School Peak Hour						
Project Description							
East/West Street: Heathermoor Road				North/South Street: Cahaba Road			
Intersection Orientation: North-South				Study Period (hrs): 0.25			
Vehicle Volumes and Adjustments							
Major Street	Northbound			Southbound			
Movement	1	2	3	4	5	6	
	L	T	R	L	T	R	
Volume (veh/h)		349	45	55	315		
Peak-Hour Factor, PHF	1.00	0.79	0.79	0.81	0.81	1.00	
Hourly Flow Rate, HFR (veh/h)	0	441	56	67	388	0	
Percent Heavy Vehicles	0	--	--	6	--	--	
Median Type	Undivided						
RT Channelized			0				0
Lanes	0	1	1	1	1		0
Configuration		T	R	L	T		
Upstream Signal		0			0		
Minor Street	Eastbound			Westbound			
Movement	7	8	9	10	11	12	
	L	T	R	L	T	R	
Volume (veh/h)				55		65	
Peak-Hour Factor, PHF	1.00	1.00	1.00	0.47	1.00	0.47	
Hourly Flow Rate, HFR (veh/h)	0	0	0	117	0	138	
Percent Heavy Vehicles	0	0	0	6	0	6	
Percent Grade (%)	0			0			
Flared Approach		N			N		
Storage		0			0		
RT Channelized			0			0	
Lanes	0	0	0	0	0	0	
Configuration					LR		
Delay, Queue Length, and Level of Service							
Approach	Northbound	Southbound	Westbound			Eastbound	
Movement	1	4	7	8	9	10	11 12
Lane Configuration		L		LR			
v (veh/h)		67		255			
C (m) (veh/h)		1047		378			
v/c		0.06		0.67			
95% queue length		0.20		4.75			
Control Delay (s/veh)		8.7		32.1			
LOS		A		D			
Approach Delay (s/veh)	--	--	32.1				
Approach LOS	--	--	D				

APPENDIX 2

TWO-WAY STOP CONTROL SUMMARY							
General Information				Site Information			
Analyst	RLC			Intersection	Cahaba Rd at Heathermoor Rd		
Agency/Co.	Skipper Consulting			Jurisdiction	City of Mountain Brook		
Date Performed	2/18/2013			Analysis Year	Future 2018 Alt. 3		
Analysis Time Period	PM Peak Hour						
Project Description							
East/West Street: Heathermoor Road				North/South Street: Cahaba Road			
Intersection Orientation: North-South				Study Period (hrs): 0.25			
Vehicle Volumes and Adjustments							
Major Street	Northbound			Southbound			
Movement	1	2	3	4	5	6	
	L	T	R	L	T	R	
Volume (veh/h)		470	43	28	330		
Peak-Hour Factor, PHF	1.00	0.93	0.93	0.85	0.85	1.00	
Hourly Flow Rate, HFR (veh/h)	0	505	46	32	388	0	
Percent Heavy Vehicles	0	--	--	6	--	--	
Median Type	Undivided						
RT Channelized			0			0	
Lanes	0	1	1	1	1	0	
Configuration		T	R	L	T		
Upstream Signal		0			0		
Minor Street	Eastbound			Westbound			
Movement	7	8	9	10	11	12	
	L	T	R	L	T	R	
Volume (veh/h)				21		13	
Peak-Hour Factor, PHF	1.00	1.00	1.00	0.73	1.00	0.73	
Hourly Flow Rate, HFR (veh/h)	0	0	0	28	0	17	
Percent Heavy Vehicles	0	0	0	6	0	6	
Percent Grade (%)	0			0			
Flared Approach	N			N			
Storage	0			0			
RT Channelized			0			0	
Lanes	0	0	0	0	0	0	
Configuration				LR			
Delay, Queue Length, and Level of Service							
Approach	Northbound	Southbound	Westbound			Eastbound	
Movement	1	4	7	8	9	10	11
Lane Configuration		L		LR			
v (veh/h)		32		45			
C (m) (veh/h)		999		337			
v/c		0.03		0.13			
95% queue length		0.10		0.46			
Control Delay (s/veh)		8.7		17.3			
LOS		A		C			
Approach Delay (s/veh)	--	--	17.3				
Approach LOS	--	--	C				

APPENDIX 2

Appendix H
Future Intersection Capacity Analysis
Worksheets – Alternative 4

SOUTHERN ENVIRONMENTAL LAW CENTER

Telephone 205-745-3060

2829 2ND AVENUE SOUTH, SUITE 282
BIRMINGHAM, AL 35233-2838

Facsimile 205-745-3064

February 22, 2013

Mayor Terry Oden
City of Mountain Brook
P. O. Box 130009
Mountain Brook, Alabama 35213-0009

*Let's put this
on next agenda
Call her + let her know*

Dear Mayor Oden:

The Alabama Department of Transportation intends to break ground on the \$4.7 billion Northern Beltline sometime this year. I write to you today to request some time on the agenda at an upcoming meeting to discuss this project in more detail. I have concerns both about this project's impacts on natural resources and about its economic impacts on all communities in the area with transportation infrastructure needs.

In all of the propaganda that has been produced to justify the Northern Beltline, nothing has been said about communities' competing transportation needs. I am including a map showing a sample of unfunded projects that could all be completed for one billion dollars less than the cost of the Northern Beltline. These 63 projects include redesigning Malfunction Junction (the intersection with one of the highest accident rates in the state), widening I-65, improving 280, and widening I-59/20.

APPENDIX 3

The Beltline would be the most expensive road project in Alabama history (and one of the most expensive in the country), at \$90 million per mile (and this cost does not account for other infrastructure improvements that will be needed such as sewer). It will not be completed for over 30 years, if it is ever completed at all. Its route guarantees a very limited transportation benefit, estimated to take only 1-3% of traffic off interstates in downtown Birmingham (to say nothing of addressing the current congestion problems in the southern parts of the Birmingham area). Its job-creation potential is highly speculative and would likely consist of moving existing jobs around within greater Birmingham rather than creating "new" ones. And it will draw federal funding away from dozens of other projects around the area, including safety improvements, bridge replacements, and road resurfacing and widening; each of these projects would also create jobs in the short- and long-term and are vital to the region's economic health. Finally, this project will impact the area's waterways (which include headwaters for most of metro Birmingham's drinking water supply), air quality, wetlands, and forest resources. In summary, the Northern Beltline is a 1960s-era approach to economic growth in a 21st-century world.

I would welcome the opportunity to discuss the Northern Beltline in the near future with you, answer any questions, and would even suggest that you convene a forum that included a spokesperson from the organization pushing this project. Because of the size of this investment and its implications for other needs around Birmingham, your position on this project should be informed by the most complete picture of the project's costs and benefits. As a native of Birmingham, I want to see this area thrive economically with a transportation system that allows us to continue building a world-class metro area that guarantees a high quality of life. This project is not the right investment to achieve those long-term goals.

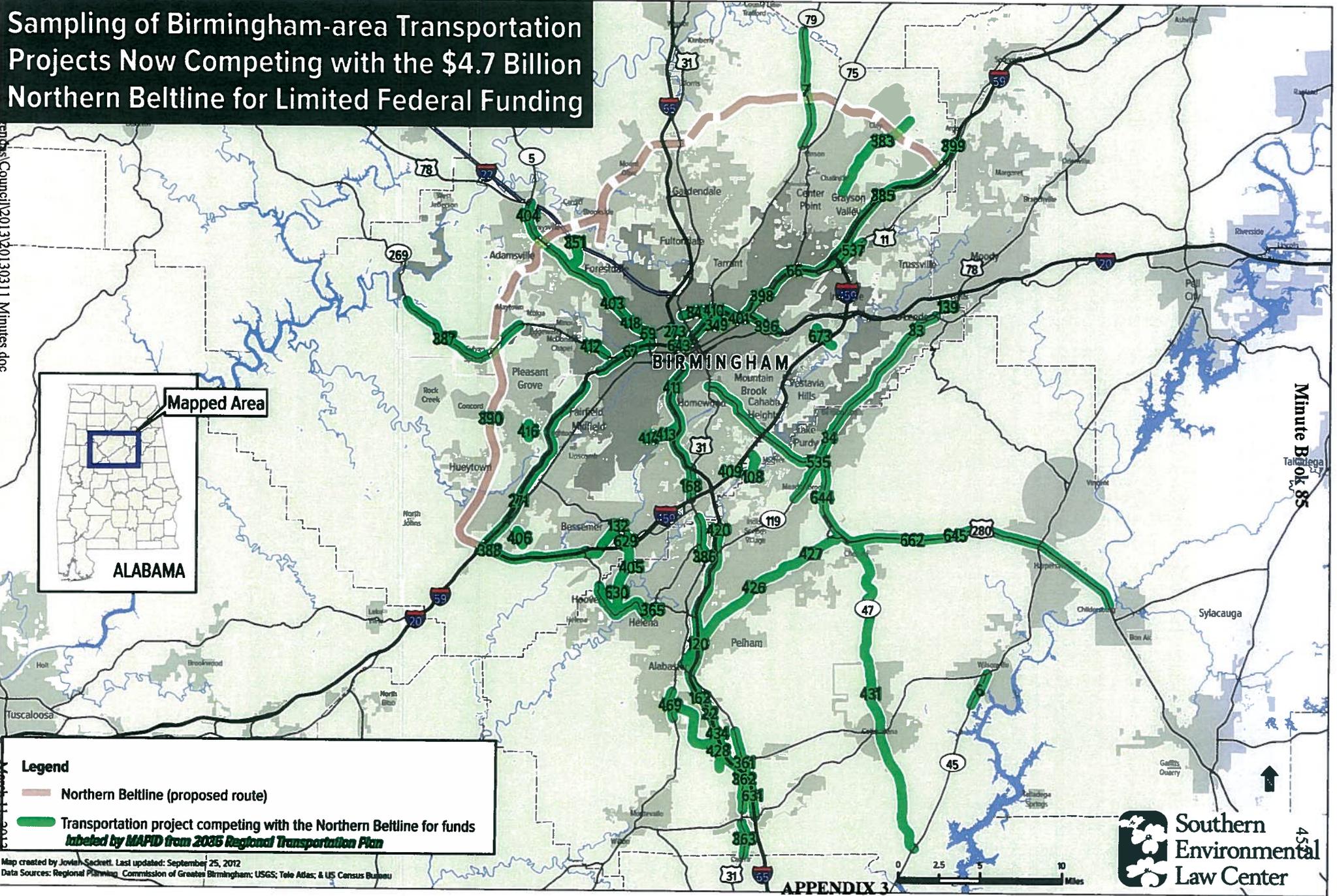
Thank you very much for your attention.

Gil Rogers
Senior Attorney

*Mayor Oden,
We look forward to
hopefully seeing
you soon.
Sarah*

Sampling of Birmingham-area Transportation Projects Now Competing with the \$4.7 Billion Northern Beltline for Limited Federal Funding

enthus/Council/2013/20130311 Minutes.doc



Minute Book 85

45

438 PE- Preliminary Engineering, RW- Right of Way, UT- Utility Adjustment, CN- Construction

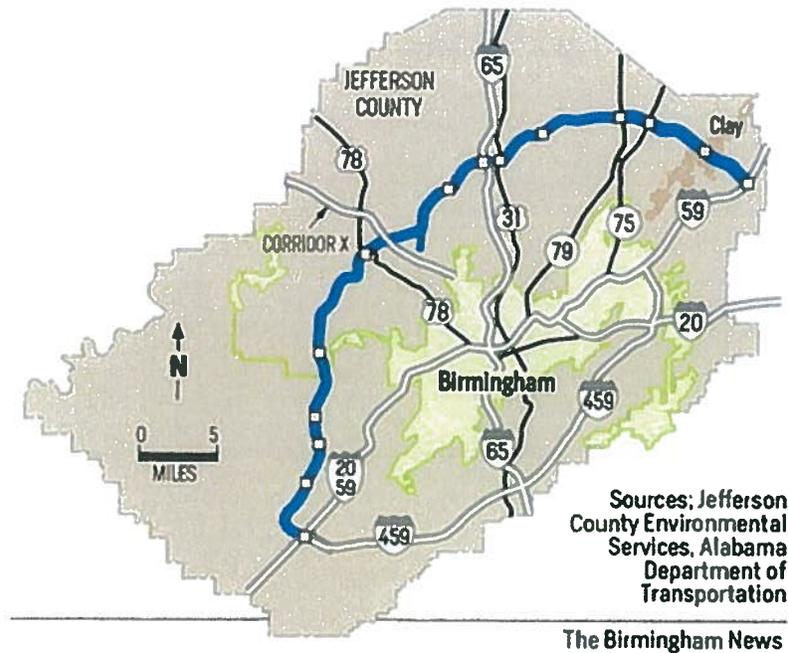
7	SR-79 from North end of 4-lane to 1 mile inside Blount County Line (PE, RW, CN)	33
22	I-65 from Exit 242 North to Valleydale Rd (exit 247) - Widen from 4 to 8 lanes (CN)	11*
22	I-65 from US 31(exit 238) North to CR-42 (exit 242) - Widen from 4 to 8 lanes, Phase 2 (CN)	11
33	SR-119 from Jefferson-Shelby County Line to Leeds - Widen from 2 to 4 lanes (PE, RW, CN)	*
34	SR 119 from 2000" south of Lake Purdy Bridge to Jefferson/Shelby County Line - Widen from 2 to 5 lanes (RW, CN)	16
59	US 78 from Pratt Hwy/2nd St. to I-59 - Widen from 4 to 5 or 7 lanes (RW, UT, CN)	23
67	I-59/I-20 West from North of Ave I(Exit 119B) to South of Arkadelphia Rd (Exit 123) - Widen from 8 to 10 lanes (CN)	28*
84	Finley Ave Extension From SR-3(US-31/26th Street) to Fred Shuttlesworth Drive, Phase 2 and Phase 3, Continuing to SR-79 (CN)	*
108	CR-29/Caldwell Mill Rd from CR-370 to Acton Rd - Widen from 2 to 3 lanes and bridge replacement (CN)	14
111	US 31 from CR 52 to I-65 at Alabaster and from CR 105 to Riverchase Pkwy - Widen from 4 to 6 lanes (CN)	*
114	Lakeshore Parkway Extension from SR-150 to I-459 (PE, UT, CN)	*
120	Shelby CR-11 from US-31 to East Weatherly Entrance - Widen from 2 to 3 lanes, resurfacing (PE, UT, RW, CN)	24
132	Parkwood Road Improvements (RW, CN)	*
139	US-411 from East of Dawson Street Connector to End of 4-Lane - Widen from 2 to 4 lanes (RW, CN)	*
162	I-65 South Additional Lanes and Bridge Widening, from Exit 228 at Calera North to Exit 238 at Alabaster (CN)	25*
168	US-31 from Riverchase Parkway to Data Drive and from I-459 to I-65 - Widen from 4 to 6 lanes (RW, CN)	*
271	I-59 from I-459(Exit 106) to Valley Rd.(Exit 118) - Widen from 4 to 6 lanes (PE, UT, RW, CN)	*
273	I-65 at 16th St Interchange, add NB on-ramp and SB off-ramp (Exit 262A) (RW, CN)	13*
349	40th St North, From I-59 to 400ft. South of 10th Ave. North, Add left turn lane (UT, RW, CN)	*
351	CR-65 (Hillcrest Rd) From SR-5 (US-78) to Corridor X - Widen from 2 to 4 lanes (PE, UT, RW, CN)	*
361	US-31, from I-65 (Exit 231) North to Alabaster 2.6 Mi -Widen from 2 to 4 Lanes (CN)	*
362	US-31, from I-65(Exit 231) South to 6th Ave (Calera) 2.2 Miles -Widen from 2 to 4 lanes (CN)	*
363	US-31, from 20th St.(Calera) South to Chilton County Line, 2.1 Miles - Widen from 2 to 4 lanes (CN)	*
365	Morgan Rd from South Shades Crest Rd to SR 261 in Helena -Widen from 2 to 5 lanes (CN)	15
383	Springville Road, from CR-10 (Chalkville Mt. Rd.) to CR-32 (Clayton Rd.) - Widen from 2 to 4 lanes (CN)	*
385	I-59 N, from I-459 to Deerfoot Parkway - Widen from 4 to 6 lanes (CN)	*
386	US-31 from SR-119 to Cahaba River (Riverchase Parkway) - Widen from 4 to 6 lanes (CN)	*
387	SR-269 from Maytown CL to Port Birmingham - Widen from 2 to 4 lanes (Intermodal Project) (CN)	*
388	I-459 from I-59 to (CR-52) Morgan Rd - Widen from 4 to 6 lanes (CN)	*
390	Allison-Bonnet Memorial Drive(CR-56), from Hueytown Rd (CR-46) to Brooklane Drive - Widen from 2 to 4 lanes (CN)	*
396	I-20, from I-59 to Montevallo Road (Exit 132B) and Interchange Modifications At I-59- Widen from 4 to 6 lanes (CN)	*
398	I-59 North I-20 Interchange (Exit 130) to 1st Ave North (Exit 132) - Widen from 6 to 8 Lanes (CN)	*
399	I-59 North from Deerfoot Parkway to Jefferson/St.Clair County Line - Widen from 4 to 6 lanes NBL (CN)	*
401	I-59 North from EBS Expressway (Exit 126A) to I-20 Interchange (Exit 130) - Widen from 8 to 10 lanes (CN)	*
403	US-78 from Cherry Ave (CR-105) to Hillcrest Rd (CR-65) - Widen from 4 to 6 lanes (CN)	*
404	US-78 from Hillcrest Rd (CR-65) to Corridor X Interchange Graysville - Widen from 4 to 6 lanes (CN)	*
405	Stadium Trace Parkway from Current Terminus to CR-52 -Extend Existing Roadway (CN)	*
406	Academy Drive from US-11 to Old Tuscaloosa Hwy Widen and Realign from 2 to 3 lanes (CN)	*
406	Academy Drive from Old Tuscaloosa Hwy.To CR-18 (Eastern Valley Rd). New Road 0 to 3 lanes (CN)	*
409	Old Rocky Ridge Rd., from Altadena Rd to Dolly Creek Ln. - Widen from 2 to 4 lanes (CN)	*
410	SR-79 (Tallapoosa St.) from 400' South of I-59/I-20 to East Lake Blvd. Widen and Drainage Correction 4 to 6 lanes (CN)	*
411	I-65, from 6th Ave S to U.S. 31 (north and southbound) - Widen from 6 to 8 and/or add auxiliary lanes (CN)	2, 3
412	SR-269 from Ave. F to Minor Parkway - Widen from 4 to 6 lanes (CN)	*
413	Lakeshore Parkway from Wildwood North to Oxmoor Rd - Widen from 4 to 6 lanes (CN)	*
414	Lakeshore Parkway from Oxmoor Rd. to Industrial Drive - Widen from 4 to 6 lanes (CN)	*
416	Brooklane Drive (CR-51) from Davey Allison Blvd. to Allison-Bonnet Memorial Drive - Widen from 2 to 4-5 lanes (CN)	*
418	US-78 from Pratt Hwy (2nd St.) to Cherry Ave(CR-105) - Widen from 4 to 8 Lanes (CN)	*
420	Interchange Modification on I-65 @ CR-17 (Valleydale Road), (Flyover Ramps) Phase 2 (PE, RW, UT, CN)	*
426	CR-11 from East Weatherly through CR-52 Intersection to CR-36 -Widen from 2 to 4 lanes	30
427	CR-11 from CR-36 to CR-280 -Widen from 2 to 4 lanes	31
428	CR-12 (Smokey Rd) from CR-107 East to CR-87 - Widen from 2 to 4 lanes (CN)	*
431	CR-47 from SR-25 South to SR-145 - Widen 2 to 4 lanes (CN)	*
434	CR-87 from CR-12 North 0.55 miles - Widen 2 to 4 lanes, intermodal access (CN)	27
469	SR-119 From CR-80 (Mission Hills Rd.) North to CR-26 (Fulton Springs Rd.) - Widen from 2 to 5 lanes (CN)	*
535	US-280 Lane Addition from I-459 To CR-17 (Valleydale Road) Including Access Management Improvements (Phase 2)(RW, UT, CN)	1
537	US-11 Additional Lanes from I-459 to Tutwiler Drive - Widen from 4 to 6 lanes (UT, CN)	*
630	Ross Bridge Parkway Extension (parallel roadway of South Shades Crest Road) from SR 150 to CR 52 (CN)	*
631	I-65 from SR-25 (Exit 228) to US-31, North of Calera - Widen from 4 to 8 lanes (CN)	*
643	I-20/59 Reconstruction(Depressing) between ramp of I-65 and ramp of US 31/E.B.Expressway (CN)	*
644	US 280 Corridor Improvements (West Segment) from EB Expressway to Eagle Point Pkwy- Widen from 6 to 8 lanes (CN)	*
645	US 280 Limited Access Road from Eagle Point Pkwy to Shelby & Talladega County Line - Widen from 4 to 6 lanes (CN)	*
662	US 280 Frontage Roads (Eastbound) from Eagle Point Pkwy to Shelby & Talladega County Line (Coosa River) (CN)	*
673	Grants Mill Rd from Old Leeds to Overton Rd, Phase 2 - Widen from 2/4 to 5 lanes (CN)	*

APPENDIX 3

* Project is not in the 2035 Regional Transportation Plan

NORTHERN BELTLINE FACTS

— PROPOSED NORTHERN BELTLINE ROUTE



APPENDIX 3

- The proposed Northern Beltline, a 52-mile 6-lane interstate, will cost taxpayers \$4.7 billion, or \$90 million per mile, and take at least 30 years to build. It would be the most expensive road project in Alabama history.
- As a result of the latest federal transportation bill, this \$4.7 billion can now be spent on other needed roads and bridges around Birmingham. ALDOT could widen I-59, I-20, I-65 south of Birmingham, fix Malfunction Junction, and complete all 50 of the Regional Planning Commission's visionary projects for \$1 billion less than the Northern Beltline would cost. All of these other projects will generate jobs, but they are now competing with the Beltline for limited federal funding.
- The Northern Beltline will only relieve 1-3% of traffic on existing interstates and has been ranked 36th in priority by the Regional Planning Commission. Yet half of the federal funding for the region is currently expected to fund this road.
- The Northern Beltline will pull business and growth opportunities away from downtown Birmingham and its inner suburbs.
- Any job that the Northern Beltline does produce will come at a cost to taxpayers of \$456,000 per job, and these jobs will not materialize until (and if) the Beltline is completed – decades from now.

The Northern Beltline in Birmingham: Will They Come? Myth vs Fact

The speculative economic benefits of the Northern Beltline have been presented to the community as hard facts. But the fact is they are myths articulated in the Alabama Department of Transportation's 2012 reevaluation of the project, in presentations by the Coalition for Regional Transportation, and in the Birmingham Business Alliance's legislative agenda. Much of this information is misleading or false, as detailed by the Ochs Center for Metropolitan Studies in "If You Build It, Will They Come?" found at: http://www.ochscenter.org/documents/NB_Report_Final_0612.pdf.

Myth: *The funding for the Northern Beltline can only be used for the Northern Beltline.*

Fact: The cost of the Northern Beltline is \$4.7 billion, or \$90 million per mile. The July 2012 federal transportation bill, MAP-21, eliminated the separate pot of money that was funding the Northern Beltline, so the Northern Beltline now competes for federal money with other projects in Birmingham and throughout Alabama that are much more critical for transportation, safety and congestion relief. In other words, the billions of dollars that might be spent on the Northern Beltline can now be spent on other transportation projects elsewhere in the state.¹

Myth: *The Northern Beltline will improve traffic flow and reduce traffic congestion caused by limited existing interstate route options through our area.*

Fact: The Regional Planning Commission of Greater Birmingham projected that only 1% to 3% of the traffic through downtown Birmingham on I-20/59 would be diverted if the Northern Beltline were built and that the project will not reroute significant truck traffic. Traffic analyses in ALDOT's Reevaluation also do not support the claim that the Beltline will reduce traffic or congestion. The Beltline will actually *increase* traffic on the already heavily congested section of I-59 between the current I-59/I-459 interchange and the planned interchange at I-59 in Trussville.

The anemic traffic volumes projected for the Beltline do not justify the construction of a 6-lane highway (much less ALDOT's plans for an ultimate expansion to 8 lanes). The assumption that some trucks will take a 53-mile detour around the north side of Birmingham to avoid peak hour congestion is baseless, particularly given that the existing and much shorter I-459 already provides such a detour. Not only does the Beltline have limited congestion reduction potential, the RPC has ranked 35 other transportation projects ahead of the Northern Beltline in importance, in large part because of the Beltline's limited ability to reduce congestion.

Myth: *The Northern Beltline will be one of the greatest economic development engines ever seen in the Birmingham area.*

Fact: Past and projected population growth numbers suggest otherwise, as does the Center for Business and

¹ U.S. Congressional Research Service, *Surface Transportation Funding and Programs Under MAP-21: Moving Ahead for Progress in the 21st Century (P.B. 112-141)* (R42762; Sept. 27, 2012), by Robert S. Kirk, et. al. p.10 <http://www.fas.org/sgp/crs/misc/R42762.pdf>. Accessed October 11, 2012; See also 40 USCS § 14501; 23 USCS § 133.

Economic Research (CBER). According to the CBER's 2010 study, only 372 businesses and 6,527 residents would locate along the Beltline corridor compared to the no-build scenario. The Ochs Center report also predicts that long-term growth will not occur along most of the corridor. This conclusion is consistent with projections from the 2012 ALDOT Reevaluation that predicts construction of the Beltline would attract only 2,208 new residents and 2,842 new jobs by 2030 along its corridor.

The CBER's study admits that any growth and development that might be associated with the Northern Beltline is highly dependent upon other infrastructure investments, especially sewer. Project supporters have not identified any funding sources for all the secondary investment that is needed. The economic costs to Jefferson County residents, sewer ratepayers, and property owners in the small cities and unincorporated areas along the Northern Beltline corridor are likely to be substantial.

Myth: *Constructing the Northern Beltline will create tens of thousands of jobs.*

Fact: The CBER's study concluded that over a 17-year construction period (which is the most optimistic possible timeframe for this project to be built), no more than 4,014 jobs will be created by the Northern Beltline in any one year. However, the Ochs Center analysis shows that the construction phase will actually create, at best, only 2,805 jobs in any one year. The difference is due to the fact that CBER used outdated 2002 data that did not take into account substantial increases in materials and other non-labor construction costs for projects like the Northern Beltline.

APPENDIX 3

In addition, similar jobs can be created by investing in other infrastructure projects that are more beneficial to the area.

Myth: *The Northern Beltline will provide accessibility to the northern and western parts of the Birmingham region that will attract businesses and people.*

Fact: The Beltline itself is not projected to attract many businesses or residents. Birmingham already has more road and interstate miles than many southeastern cities. Moreover, the relationship between the presence or absence of a beltline and the extent of economic development is not strong—especially in the absence of other necessary infrastructure such as sewer. Bessemer, for example, has ample access to two interstates already, I-20 and I-459, yet has actually lost residents in the last decade. In addition, the CBER study failed to analyze numerous important variables such as school quality, crime data and developable land in its forecasting models. Businesses and residents alike would consider these factors prior to making relocation decisions. Furthermore, because of the overall low projected population growth rates for Jefferson County, any business or person that locate in the Northern Beltline corridor would likely be coming from elsewhere in the Birmingham area; this is thus not “new” growth for the region.

Myth: *Birmingham is the only city of its size in the southeast that does not have a complete, connected interstate route around its metropolitan area.*

Fact: Many large southern metros such as Orlando, Knoxville, Tampa, and Chattanooga do not have completed interstate routes around their cities. The Ochs Center examined cities around the region and found that the presence of a complete beltline does not automatically translate into economic growth or low unemployment. In many cities, the construction of a beltline corresponded with strong growth pressures that are not present in Jefferson County.

Myth: *Appalachian Highway funds are available for the Northern Beltline. These funds represent years of contributions by Alabama taxpayers and should not be allowed to go to other states.*

Fact: Alabama, like all other states, is a net recipient—not donor—of federal highway money. Every state receives more from the federal highway trust fund than it pays in federal taxes on gasoline and diesel fuel. In fact, Alabama already receives more return per dollar and a higher relative share than Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee. Current federal budget conditions create tremendous uncertainty about the long-term potential for sustaining the different road funds and thus being able to guarantee money for the Northern Beltline's construction, which ALDOT says would likely take upwards of 30-35 years. Alabama should explore other ways to obtain federal support for sustainable transportation investments that could yield more positive economic growth at a lesser cost. This support could come through the Appalachian Highway funds for projects such as extending Corridor X, or through other federal channels.

Myth: *If we don't use the money for the Northern Beltline, we lose the money.*

Fact: The new transportation bill allows for the Northern Beltline funding to be spent on a host of other transportation projects through 2014. Nobody can predict what Congress will do when this bill expires in 2014. While this new transportation bill does eliminate the State's 20% match for the Beltline through 2014, there is also no guarantee that this favorable treatment will continue past that date either. This means that if Alabama decides to build the Northern Beltline, the state may still be on the hook for 20% of the project's \$4.7 billion cost after 2014, even though, as State Transportation Director John Cooper recently observed, "we are struggling to preserve our *existing* highway system." Despite the acknowledged need to fix and maintain existing roads and bridges, Alabama currently spends 36% of its transportation funds on new and expanded highway infrastructure compared to a national average of 23%, which is clearly unsustainable as the State's maintenance backlog continues to grow.

Putting the federal contribution aside, Alabamians will still have to fund sewer and water lines, secondary road upgrades, public safety services, schools and other necessary infrastructure to bring any economic development to the Beltline area. With Jefferson County in bankruptcy and other small cities in the project's path strapped for cash, there is no clear indication of ability to pay these additional costs, which are not included in the \$4.7 billion cost of the Beltline.

Memorandum

To: Sam Gaston, City Manager
CC: Mayor and members of the City Council
From: Steven Boone
Date: 3/6/2013
Re: Uninterruptable Power Supply (UPS) bypass/disconnect switch

The City has a \$50,000 UPS that will be located in the server room once we move into the municipal complex. The purpose of the UPS is to constantly condition (stabilize) electricity and ensure that the protected equipment is not affected during the instant it takes for power to transfer to the backup generator during a power outage. The protected equipment includes, but not limited to, all computer servers including 911 and the dispatch consoles.

The City's 911 consultant recommends that the City purchase and install a bypass (disconnect) switch that will allow power to bypass the UPS so that the UPS can be replaced without cutting off the power whenever the UPS fails. There is a disconnect switch inside of the UPS which allows for the replacement of batteries without disrupting power. The City does not currently have an external bypass/disconnect nor has one been needed during the last 5-6 years that the UPS has been in operation. The cost of the bypass is \$4,890 plus installation (yet to be determined). The lead time for the bypass is 30 days so a decision is needed as quickly as possible.

Another benefit of installing the bypass is the energizing of the various systems being installed for testing purposes. As designed currently, the server room cannot be energized until the UPS is moved and installed which is scheduled for Monday, April 22. If the bypass is approved, it will enable the electrician to energize the server room earlier to allow the security, telephone equipment, dispatch consoles and other systems to be tested and any issues resolved in advance of the move scheduled for April 24. I am trying to verify that the server room cannot be energized prior to installing the UPS without the bypass and hopefully can report my findings to you Monday night.

*Installation quote is \$6000. May
 can be reduced if done on time &
 material basis.*

APPENDIX 4



Represented By: I.C.E., INC. P.O. BOX 360146 Birmingham, AL 35236 (205) 444-9191 FAX (205) 444-9196

DATE: Feb 6, 2013 TIME: 8:43 AM
 TO: LEE MOORE PHONE:
 911 CONSULT FAX:
 FROM: Matt Fancher PHONE: (205)444-9191
 I.C.E., Inc. FAX: (205)444-9196
 QUOTE # F020613-2 EMAIL: mfancher@icebham.com
 RE: Maintenance Bypass Cabinet – City of Mountain Brook

In Response To Your Inquiry We Offer The Following Quotation:

Terms: Net 30 Days From Shipment Shipment: TBD

Taxes: Not Included Freight: Prepaid & Allowed-Offload By Others

QUOTE VALIDITY: 30 DAYS **F.O.B. – FACTORY**

We are pleased to provide our quotation for the following Emerson Network Power, Liebert NX UPS System for your consideration on this project.

Liebert Maintenance Bypass Cabinet, model 38MB0300CC6AL, with the following features:

- Input and Output Circuit Breakers
- Front Access service design
- Casters and leveling feet
- Single rotary switch interlocked for error free "make-before-break" manual transfers
- N.O. and N.C. auxiliary contacts
- Shipped separately and include interconnecting cables for bolting the MBP-T cabinet to the left side of the UPS

UPS System Start-up Services, including the following:

Start-up includes one site trip by a LGS customer engineer after the UPS has been installed. The site trip includes the following services for one UPS module: non-powered inspection, UPS electrical and operational checkout, full parts and labor for any remedial work required on the UPS or battery cabinets, and customer operation training. Start-up also includes remedial onsite labor, parts, and travel for the full one-year warranty period.

- Startup is scheduled at the customers designated time after installation is completed by your electrician. Installation services not included.

Terms & Conditions:

- Quotation Valid for 45 days
- Price does not include tax

- Please address Purchase Orders to: **Area Liebert Partner Such As:**
Graybar – Shane Hawkins
Shane.hawkins@graybar.com
(205) 244-2600

Total Price Including Ground Freight With Liftgate Delivry but NOT TAX USD \$4,890.00

Unloading, uncrating and installation to be provided by others.

Matt Fancher
Account Representative

**MINUTES OF THE REGULAR MEETING OF THE
CITY COUNCIL OF THE CITY OF MOUNTAIN BROOK, ALABAMA
MARCH 11, 2013**

The City Council of the City of Mountain Brook, Alabama met in public session in the temporary City Hall at 7:00 p.m. on Monday, the 11th day of March, 2013. The President of the City Council called the meeting to order and the roll was called with the following results:

Present: Virginia C. Smith, Council President
Amy G. Carter, Council President Pro Tempore
Jack D. Carl
William S. Pritchard III
Jesse S. Vogtle, Jr.
Lawrence T. Oden, Mayor

Absent: None

Also present were City Attorneys Whit Colvin, City Manager Sam Gaston, and City Clerk Steven Boone.

The City Council President stated that a quorum was present and that the meeting was open for the transaction of business.

1. CONSENT AGENDA

Council President Smith announced that the following matters will be considered at one time on the consent agenda provided no one in attendance objects:

Approval of the minutes of the February 25, 2013 meeting of the City Council.

2013-042	Set a public hearing for April 8, 2013 at 7 p.m. to consider an ordinance amending Section 129-192(b) of the City Code to allow veterinary/animal grooming uses as a conditional use in the Local Business district.	Exhibit 1
2013-043	Authorize the contract renewal with Waste Management for garbage, trash and recycling service.	Exhibit 2, Appendix 1
2013-044	Award to Dunn Construction Company, Inc. the bid for 2013 street [re]paving.	Exhibit 3, Appendix 2
2013-045	Authorize a \$340 change order to the Alscan, Inc. contract (Resolution 2012-044 dated March 26, 2012) for the purchase of a pedestal mount for the garage access card reader.	Exhibit 4, Appendix 3
2013-046	Accept an additional 20 feet of right-of-way along Pine Ridge Road at 3415 and 3501 Pine Ridge Road as recommended by the Planning Commission with respect to the Thompson development.	Exhibit 5, Appendix 4
2013-047	Authorize the execution of an agreement with the Alabama Department of Transportation (ALDOT) for preliminary engineering of the Phase 9 sidewalk project (CMAQ-PE120 Project Reference No. 100056493).	Appendix 5

Thereupon, the foregoing minutes and resolutions were introduced by Council President Smith and their immediate adoption was moved by Council member Pritchard. The minutes and resolutions were then considered by the Council. Council member Vogtle seconded the motion to adopt the foregoing minutes and resolutions. Then, upon the question being put and the roll called, the vote was recorded as follows:

Ayes: Virginia C. Smith, Council President
 Amy G. Carter, Council President Pro Tempore
 Jack D. Carl
 Jesse S. Vogtle, Jr.
 William S. Pritchard III

Nays: None

Council President Smith thereupon declared that said minutes and resolutions (2013-042 through 2013-047) are adopted by a vote of 5—0 and, as evidence thereof, she signed the same.

3. CONSIDERATION OF AN ORDINANCE (NO. 1886) GRANTING THE WAIVER OF BUILDING PERMIT FEES FOR [FUTURE] CONSTRUCTION AND RELATED ACTIVITIES OF THE MOUNTAIN BROOK BOARD OF EDUCATION (EXHIBIT 6, APPENDIX 6)

Council President Smith introduced the ordinance in writing and invited comments and questions from the audience. There being no discussion or comments, Council member Pritchard made a motion that all rules and regulations which, unless suspended, would prevent the immediate consideration and adoption of said ordinance be suspended, and that unanimous consent for the immediate consideration of said ordinance be given and that the reading of the ordinance at length be waived. The motion was seconded by Council member Vogtle and was carried, as follows:

Ayes: Virginia C. Smith, Council President
 Amy Carter, Council President Pro Tempore
 Jack D. Carl
 William S. Pritchard III
 Jesse S. Vogtle, Jr.

Nays: None

The President of the Council declared the motion carried by a vote of 5—0.

After said ordinance had been considered in full by the Council, Council member Pritchard moved for the adoption of said ordinance. The motion was seconded by Council member Vogtle. Thereupon, Council President Smith called for vote with the following results:

Ayes: Virginia C. Smith, Council President
 Amy Carter, Council President Pro Tempore
 Jack D. Carl
 William S. Pritchard III
 Jesse S. Vogtle, Jr.

Nays: None

The President of the Council declared that the ordinance (No. 1886) is hereby adopted by a vote of 5—0 and, as evidence thereof, she signed the same.

4. PUBLIC HEARING TO CONSIDER AN ORDINANCE (NO. 1885) AMENDING THE PLANNED UNIT DEVELOPMENT (PUD) PLAN FOR THE LANE PARKE DEVELOPMENT (ORDINANCE NO. 1871 ADOPTED MAY 21, 2012) (EXHIBIT 7, APPENDIX 7)

Council President Smith opened the public hearing, introduced the ordinance in writing, and invited comments and questions from the audience. There being no discussion or comments, Council member Pritchard made a motion that all rules and regulations which, unless suspended, would prevent the immediate consideration and adoption of said ordinance be suspended, and that unanimous consent for the immediate

consideration of said ordinance be given and that the reading of the ordinance at length be waived. The motion was seconded by Council member Carl and was carried, as follows:

Ayes: Virginia C. Smith, Council President
Amy Carter, Council President Pro Tempore
Jack D. Carl
William S. Pritchard III

Nays: None

Abstained: Jesse S. Vogtle, Jr.

The President of the Council declared the motion carried by a vote of 4—0.

After said ordinance had been considered in full by the Council, Council member Pritchard moved for the adoption of said ordinance. The motion was seconded by Council member Carl. Thereupon, Council President Smith called for vote with the following results:

Ayes: Virginia C. Smith, Council President
Amy Carter, Council President Pro Tempore
Jack D. Carl
William S. Pritchard III

Nays: None

Abstained: Jesse S. Vogtle, Jr.

The President of the Council declared that the ordinance (No. 1885) is hereby adopted by a vote of 4—0 and, as evidence thereof, she signed the same.

5. ANNOUNCEMENT REGARDING THE NEXT REGULAR MEETING OF THE CITY COUNCIL

Council President Smith announced that the next meeting of the Mountain Brook City Council will be held on Monday, March 25, 2013 at the [temporary] Mountain Brook City Hall located at 3928 Montclair Road, Suite 230, Mountain Brook, Alabama 35213. Please visit the City's web site (www.mtnbrook.org) for more information.

6. EXECUTIVE SESSION AND ADJOURNMENT

There being no further business to come before the City Council, it was moved by Council member Pritchard that the City Council convene in executive session to discuss a matter involving pending litigation. The motion was seconded by Council President Smith. The City Attorney certified that the subject of said executive session was allowed pursuant to the Open Meetings Act. Then, upon the question being put and the roll called, the vote was recorded as follows:

Ayes: Virginia C. Smith, Council President
Amy Carter, Council President Pro Tempore
Jack D. Carl
William S. Pritchard III
Jesse S. Vogtle, Jr.

Nays: None

President Smith declared that the motion carried by a vote of 5–0 and then asked that the members of the audience be excused. President Smith also announced that the City Council will adjourn upon conclusion of the executive session.



Steven Boone, City Clerk

EXHIBIT 1

RESOLUTION NO. 2013-042

BE IT RESOLVED by the City Council of the City of Mountain Brook that, at the meeting of the City Council to be held on Monday, April 8, 2013, at 7:00 p.m., in the [temporary] Council Chamber of the Mountain Brook City Hall, the City Council will hold a public hearing regarding the adoption of an ordinance amending Section 129-192(b) of the City Code to allow veterinary/animal grooming uses as a conditional use in the Local Business district.

BE IT FURTHER RESOLVED by the City Council of the City of Mountain Brook that the City Clerk be, and he hereby is, authorized and directed to cause to be published not fewer than twenty-two (22) days prior to April 8, 2013, by posting in five (5) conspicuous places within the City of Mountain Brook, as follows: City Hall – 3928 Montclair Road, Gilchrist Drug Company - 2805 Cahaba Road, Joe Muggs Newsstand - 2037 Cahaba Road, Piggly Wiggly Food Store 4 - 93 Euclid Avenue, and The Invitation Place - 3150 Overton Road notices of said public hearing in words and figures substantially as follows:

“NOTICE OF PUBLIC HEARING

PROPOSED ZONING CODE NOTICE

Notice is hereby given that at a regular meeting of the City Council of the City of Mountain Brook to be held on Monday, April 8, 2013, at 7:00 p.m., in the temporary Council Chamber of the Mountain Brook City Hall located at 3928 Montclair Road, Suite 230, Mountain Brook, Alabama 35213, the City Council will hold a public hearing regarding a proposal that the City Council adopt an ordinance in words and figures substantially as follows:

‘ORDINANCE NO.

**AN ORDINANCE AMENDING SECTION 129-192(b) OF THE CITY CODE
TO ALLOW VETERINARY/ANIMAL GROOMING USES AS A
CONDITIONAL USE IN THE LOCAL BUSINESS DISTRICT**

BE IT ORDAINED by the City Council of the City of the City of Mountain Brook, Alabama, that Section 129-192(b) of the City Code is hereby amended to include subsection (9) as follows:

1. Section 129-192(b). Conditional uses.

“(9) Veterinary Clinics/Pet Grooming, provided that there be no outdoor runs, and that business be conducted wholly within a building; boarding only as required for surgical procedures. Conditional review and approval shall ensure compatibility with the surrounding commercial and residential uses; soundproofing of walls may be required.”

2. Repealer. All ordinances or parts of ordinances heretofore adopted by the City Council of the City of Mountain Brook, Alabama that are inconsistent with the provisions of this ordinance are hereby expressly repealed.

3. Severability. If any part, section or subdivision of this ordinance shall be held unconstitutional or invalid for any reason, such holding shall not be construed to invalidate or impair the remainder of this ordinance, which shall continue in full force and effect notwithstanding such holding.

4. Effective Date. This ordinance shall become effective immediately upon adoption and publication as provided by law.'

At the aforesaid time and place, all interested parties will be heard in relation to the changes proposed by said ordinance."

BE IT FURTHER RESOLVED that the City Clerk be, and he hereby is, further authorized and directed to give written notice of the hearing to the owners of the property located in whole or in part within 500 feet from the boundaries of the property described in this resolution in the form and manner and within the time required by Act No. 1123 of the 1973 Regular Session of the Legislature of Alabama.

BE IT FURTHER RESOLVED that the City Clerk be, and he hereby is, further authorized and directed to publish one insertion of the Notice herein above set out, which includes the proposed ordinance, one time, not less than twenty-two days prior to the public hearing provided for therein, in The Birmingham News, a newspaper of general circulation in the City of Mountain Brook, and one week after such first insertion to cause to be published again in said newspaper a synopsis of said proposed ordinance in lieu of a full copy of the same, which synopsis shall refer to the date and name of the newspaper in which the proposed ordinance was published in full.

EXHIBIT 2

RESOLUTION NO. 2013-043

BE IT RESOLVED by the City Council of the City of Mountain Brook, Alabama ("the City"), as follows:

1. That in accordance with applicable provisions of law and Section 3B of the contract between the City and Waste Management, Inc. ("Contractor") dated September 4, 1998 ("the Contract"), the term of the Contract shall be extended for three years from the current date of expiration (September 30, 2013) to September 30, 2016;

2. That the terms and conditions of the Contract shall remain in effect for the term of the extension hereby approved, as further set forth in correspondence dated February 15, 2013, from Michael P. Mitchell, Public Sector, to Mountain Brook City Manager Sam Gaston, which correspondence is incorporated herein by reference.

3. That the mayor is hereby authorized and directed to execute such contractual documents or instruments as may be necessary and appropriate to give effect to this resolution.

APPENDIX 1

EXHIBIT 3

RESOLUTION NO. 2013-044

BE IT RESOLVED by the City Council of the City of Mountain Brook, Alabama, that the street resurfacing bid submitted by Dunn Construction Company, Inc. being the lowest qualified bid is hereby accepted and that the Mayor or City Manager of the City is hereby authorized and directed, for and on behalf of the City, to enter into a contract with Dunn Construction Company, Inc., for said street resurfacing (Project MI 01-2013) as described below:

<u>Description</u>	<u>Estimated Quantity</u>	<u>Unit</u>	<u>Unit Bid Price</u>	<u>Amount</u>
Asphalt Milling	7,690	Ton	\$ 22.75	\$174,947.50
Adjusting Manholes	15	Each	\$150.00	\$ 2,250.00
Bituminous Tact Coat	6,500	Gallon	\$ 3.45	\$ 22,425.00
Leveling Course Baby Binder	200	Ton	\$ 88.00	\$ 17,600.00
Slag Seal Wearing Course	6,922	Ton	\$ 82.00	\$567,604.00
Poly modified open graded friction course mix	N/A	Ton	N/A	\$ 0.00
BID AMOUNT				<u>\$784,826.50</u>

BE IT FURTHER RESOLVED by the City Council of the City of Mountain Brook, Alabama, that the City Council hereby authorizes the execution of a contract, in the form as attached hereto as Exhibit A subject to such minor modifications that may be determined appropriate by the City Attorney, with respect to said street resurfacing project.

APPENDIX 2

EXHIBIT 4

RESOLUTION NO. 2013-045

BE IT RESOLVED by the City Council of the City of Mountain Brook, Alabama that the City Council hereby authorizes a \$340 change order to the Alscan, Inc. contract (Resolution 2012-044 dated March 26, 2012) for the purchase of a pedestal mount for the garage access card reader.

APPENDIX 3

EXHIBIT 5

RESOLUTION 2013-046

BE IT RESOLVED by the City Council of the City of Mountain Brook, Alabama that it hereby accepts the dedication of twenty (20) feet of right of way along part of Pine Ridge Road, specifically as shown on the attached Thompson's Addition to Pine Ridge Record Plat (attached as Exhibit A and made a part hereof) as "20.00' ROW DEDICATED BY THIS PLAT." The Record Plat by which such dedicated right of way was identified and offered for dedication was further approved by the Planning Commission of the City of Mountain Brook by affirmative vote on March 4, 2013.

APPENDIX 4

EXHIBIT 6**ORDINANCE NO. 1886**

**AN ORDINANCE GRANTING THE WAIVER OF BUILDING PERMIT FEES
FOR CONSTRUCTION AND RELATED ACTIVITIES OF THE
MOUNTAIN BROOK BOARD OF EDUCATION**

BE IT ORDAINED by the City Council of the City of the City of Mountain Brook, Alabama, as follows:

5. Mountain Brook Board of Education building permit fee waiver. The City Council of the City of Mountain Brook, Alabama hereby authorizes the waiver of all [future] building permit fees with respect to construction, renovation, and related projects of the Mountain Brook Board of Education.

6. Building Permits. The City Council of the City of Mountain Brook, Alabama hereby confirms that the Mountain Brook Board of Education (and all agents and subcontractors thereof) shall continue to follow all provisions of the Mountain Brook City Code with respect to building activities including, but not limited to, the application for building permits and building inspections.

7. Business Licenses. The City Council of the City of Mountain Brook, Alabama hereby confirms that all building and other contractors engaged by the Mountain Brook Board of Education shall continue to comply with all provisions of the Mountain Brook City Code with respect to business licensing and the payment of appropriate business license fees.

8. Repealer. All ordinances or parts of ordinances heretofore adopted by the City Council of the City of Mountain Brook, Alabama that are inconsistent with the provisions of this ordinance are hereby expressly repealed.

9. Severability. If any part, section or subdivision of this ordinance shall be held unconstitutional or invalid for any reason, such holding shall not be construed to invalidate or impair the remainder of this ordinance, which shall continue in full force and effect notwithstanding such holding.

10. Effective Date. This ordinance shall become effective immediately upon adoption and publication as provided by law.

APPENDIX 6**EXHIBIT 7****ORDINANCE NO. 1885**

**AN ORDINANCE TO AMEND LANE PARKE DEVELOPMENT
PLAN PREVIOUSLY APPROVED BY ORDINANCE 1871**

BE IT ORDAINED by the City Council of the City of the City of Mountain Brook, Alabama, as follows:

1. Development Standards. The Master Development Plan and the materials submitted by the applicant, as required by Section 129-265 of the Mountain Brook City Code, as approved upon the adoption of Ordinance 1871 dated May 21, 2012 are hereby amended to include the changes specified in Exhibit A attached hereto.

2. Description of Affected Property. The property that is the subject of the rezoning approved by this ordinance is described as follows:

A parcel of land being situated in the Northeast quarter of the Northwest quarter and the Southeast quarter of the Northwest quarter of Section 8, Township 18 South, Range 2 West, more particularly described as follows:

Begin at the Southwest Corner of the Northeast Quarter of the Northwest Quarter of Section 8, Township 18 South, Range 2 West; being the Point of Beginning; thence run Northerly along the West line of said Quarter - Quarter a distance of 665.12 feet; thence right 91°-08'-04" a distance of 1325.11 feet; thence right 88°-58'-55" a distance of 74.22 feet; thence right 37°-49'-05" a distance of 736.41 feet; thence right 52°-46'-30" a distance of 62.37 feet; thence right 00°-14'-22" a distance of 179.92 feet; thence left 90°-58'-32" a distance of 355.39 feet; thence right 88°-43'-29" a distance of 24.53 feet; thence left 87°-29'-35" a distance of 139.13 feet; thence right 89°-27'-49" a distance of 14.61 feet; thence left 117°-30'-00" a distance of 175.92 feet; thence right 84°-32'-17" a distance of 46.85 feet; thence tangent to a curve to the left having a radius of 1243.26 feet and a central angle of 9°-20'-05" along the curve an arc distance of 202.55 feet; thence right 62°-49'-52" from the tangent of said curve a distance of 329.33 feet; thence tangent to a curve to the left having a central angle of 18°-00'-50" and a radius of 66.12 feet an arc distance of 20.79 feet; thence left 2°-03'-01" to the tangent of a curve to the left having a central angle of 34°-34'-36" and a radius of 60.77 feet, an arc distance of 36.67 feet; thence continue from the tangent of said curve a distance of 45.64 feet; thence right 90°-00'-00" a distance of 119.49 feet; thence right 33°-25'-36" a distance of 245.11 feet; thence right 0°-00'-42" a distance of 377.82 feet to the Point of Beginning.

Said Parcel contains 27.59 acres more or less.

3. Repealer. All ordinances or parts of ordinances heretofore adopted by the City Council of the City of Mountain Brook, Alabama that are inconsistent with the provisions of this ordinance are hereby expressly repealed.

4. Severability. If any part, section or subdivision of this ordinance shall be held unconstitutional or invalid for any reason, such holding shall not be construed to invalidate or impair the remainder of this ordinance, which shall continue in full force and effect notwithstanding such holding.

5. Effective Date. This ordinance shall become effective immediately upon adoption and publication as provided by law.

APPENDIX 7

DESIGN STANDARDS & PATTERN BOOK

RESIDENTIAL BUILDINGS

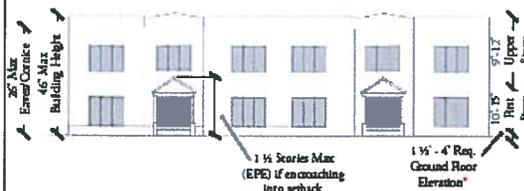
MASSING NOTES

NOTES

Transparency

- On the face fronting the primary street, hereafter called the "Primary Facade", the first story shall have a transparency of 15% to 40% of the facade.
- On the Primary Facade, each upper story shall have a transparency of 15% to 40% of the facade.
- Bay windows and balconies may extend up to 5' over the front building line on upper stories, and shall extend a minimum of 3' and a maximum of 5' from the building facade.
- Each building shall have at least one Enhanced Primary Entrance (EPE).

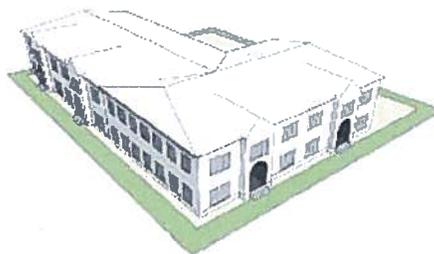
2 STORY BUILDINGS



* For buildings fronting on Park Lane Court South and/or Main Street. ("Leasing" office in residential component excluded).

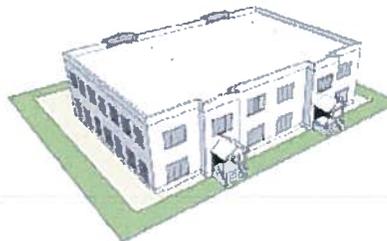
Pitched Roof Massing:

- For buildings fronting on Park Lane Court South and/or Main Street, ground floor elevation is required to be 1.5' to 4' above grade at front building line ("Leasing" office in residential component excluded).
- Two story buildings with a pitched roof shall have a maximum cornice/eaves height of 26'. Three story buildings shall have a maximum cornice/eaves height of 36'. Four story buildings shall have a maximum cornice/eaves height of 46' with a maximum building height of 66'.
- Acceptable roof pitch range is 5:12 to 14:12.
- Pitched roofs must not extend more than 20' above the eaves.
- Pitched roof structures may contain additional floor area which may be occupied without counting towards the story maximum for purposes of the Regulating Plan, provided any additional floor area is associated with and accessory to the floor area of the inferior story. In this condition, the maximum cornice height may be exceeded by 3', provided that a transparency of 15% to 45% is provided for the half-story through the use of dormers.



Flat Ro of Massing:

- Parapets must extend a minimum of 3' above the top of the roof structure if utilized.
- Parapets must occur within the maximum building height.
- Buildings or residential spaces with a flat roof and parapet are not required to have a cornice/eaves line distinct from the top of the parapet.
- All rooftop equipment shall fall within the permissible roof heights, be located away from slopes or areas exposed to the public street, and otherwise be screened from view from adjacent public streets or be incorporated into the skin of the building or internal to the block.



Bay Rhythms:

- Differentiated bays should be expressed on each face of a building or residential space directly fronting a public space or street.
- Bays shall be a minimum of 25' and a maximum of 50' wide on Primary Frontages. On any facade that is visible from a public right of way that is directly adjacent to an area of Primary Frontage, at least one bay shall be articulated on the corner adjacent to the Primary Facade. Where these facades are over 60' in length, they must have architectural articulation, such as bays or pilasters, for at least 20% of the facade in addition to the first bay adjacent to the Primary Facade.



AS AMENDED: MARCH 11, 2013

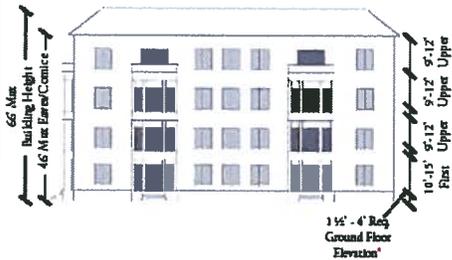
DESIGN STANDARDS & PATTERN BOOK

MASSING DIAGRAMS

RESIDENTIAL BUILDINGS

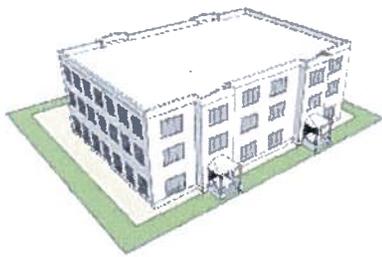
3 STORY BUILDINGS

4 STORY BUILDINGS



* For buildings fronting on Park Lane Court South and/or Main Street. ("Leasing" office in residential component excluded).

* For buildings fronting on Park Lane Court South and/or Main Street. ("Leasing" office in residential component excluded).



AS AMENDED: MARCH 11, 2013

MINDFUL OF THE PAST, LOOKING TO THE FUTURE



**WASTE MANAGEMENT**

700 Clow Road
Birmingham, AL 35217

February 15, 2013

Sam Gaston
City Manager
City of Mountain Brook
P.O. Box 130009
Mountain Brook, AL 35213

Dear Mr. Gaston:

This confirms the offer of Waste Away Group, Inc. to renew its existing contract with the City of Mountain Brook, AL for residential refuse collection. The contract includes, in addition to household garbage, specified leaf collection, curbside trash/debris and recycling.

This renewal is pursuant to the terms of the parties' original contract. The renewal term will begin October 1, 2013 and end September 30, 2016. Consistent with that agreement, Waste Away will offer this service for the fiscal year October 1, 2013 to September 30, 2014 at its current rate, plus 80% of the change in the applicable Consumer Price Index (CPI) from 2012 to 2013, all as specified in the agreement. We will make the CPI calculation as soon as data is available.

Thank you for the opportunity to provide Mountain Brook's residential collection service. We look forward to continuing this mutually beneficial business relationship. If you have any questions, please call me at 205- 808-5147.

Sincerely,

A handwritten signature in black ink that reads "M. P. Mitchell".

Michael P. Mitchell
Public Sector
Waste Management

APPENDIX 1

From everyday collection to environmental protection, Think Green® Think Waste Management.

2013-043

DUNN

APAC

CITY OF MOUNTAIN BROOK
STREET IMPROVEMENTS
PROJECT NO. MI01-2013

CITY OF MOUNTAIN BROOK
STREET IMPROVEMENTS
PROJECT NO. MI01-2013

ITEM #	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT BID PRICE	AMOUNT
1.05	ASPHALT MILLING	TON	7,690	\$22.75	\$174,947.50
2.01	ADJUSTING MANHOLES	EACH	15	\$150.00	\$2,250.00
3.01	BITUMINOUS TACT COAT	GALLON	6,500	\$3.45	\$22,425.00
5.01	LEVELING COURSE BABY BINDER	TON	200	\$88.00	\$17,600.00
5.02	SLAG SEAL WEARING COURSE	TON	6,922	\$82.00	\$567,604.00

ITEM #	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT BID PRICE	AMOUNT
1.05	ASPHALT MILLING	TON	7,690	27.86	214,243.40
2.01	ADJUSTING MANHOLES	EACH	15	131.84	1,977.60
3.01	BITUMINOUS TACT COAT	GALLON	6,500	3.44	22,360.00
5.01	LEVELING COURSE BABY BINDER	TON	200	110.85	22,170.00
5.02	SLAG SEAL WEARING COURSE	TON	6,922	112.54	779,001.88

TOTAL AMOUNT BID: \$ 784,825.50

TOTAL AMOUNT BID: \$ 1,039,752.88

TRAFFIC CONTROL IS THE RESPONSIBILITY OF CONTRACTOR.

TRAFFIC CONTROL IS THE RESPONSIBILITY OF CONTRACTOR.

APPENDIX 2

Project Coordinator: Jacky McClendon 205 802-3875

Project Coordinator: Jacky McClendon 205 802-3875

2013-044

Good Hope

CITY OF MOUNTAIN BROOK
STREET IMPROVEMENTS
PROJECT NO. MI01-2013

ITEM #	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT BID PRICE	AMOUNT
1.05	ASPHALT MILLING	TON	7,690	30.00	230,700.00
2.01	ADJUSTING MANHOLES	EACH	15	250.00	3,750.00
3.01	BITUMINOUS TACT COAT	GALLON	6,500	4.00	26,000.00
5.01	LEVELING COURSE BABY BINDER	TON	200	112.21	22,442.00
5.02	SLAG SEAL WEARING COURSE	TON	6,922	97.00	671,220.00

TOTAL AMOUNT BID: \$ 944,112.00

TRAFFIC CONTROL IS THE RESPONSIBILITY OF CONTRACTOR.

CONTRACT

THIS CONTRACT, MADE AND ENTERED INTO THIS THE 11th day of March, 2013, BY AND BETWEEN THE CITY OF MOUNTAIN BROOK, HEREINAFTER REFERRED TO AS THE OWNER AND, Dunn Construction Company, Inc. HEREINAFTER REFERRED TO AS THE CONTRACTOR.

WITNESSETH:

THAT THE PARTIES HERETO DO MUTUALLY AGREE AS FOLLOWS:

1. THE CONTRACTOR WILL FURNISH ALL MATERIALS, EQUIPMENT, SUPPLIES, TOOLS, POWER, FUEL, AND SERVICES AND PERFORM ALL LABOR NECESSARY FOR MI01-2013 AND WILL CONSTRUCT SAME IN STRICT CONFORMITY WITH THE TERMS AND CONDITIONS SET FORTH IN THE FOLLOWING NAMED DOCUMENTS WHICH ARE HERETO ATTACHED AND MADE A PART OF THIS CONTRACT:

PROJECT NO. MI 01-2013: NOTICE TO CONTRACTORS, GENERAL CONDITIONS, SPECIAL CONDITIONS, SPECIFICATIONS, BID PROPOSAL, PERFORMANCE BOND, LABOR AND MATERIALS BOND, CONTRACT PLANS AS ENUMERATED AND IDENTIFIED IN THE SPECIFICATIONS; AND COPY OF RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MOUNTAIN BROOK ACCEPTING THE BID.

2. THE OWNER WILL PAY TO THE CONTRACTOR, ON FAITHFUL PERFORMANCE OF HIS UNDERTAKINGS HEREUNDER, IN LAWFUL MONEY OF THE UNITED STATES, THE RESPECTIVE UNIT PRICES SET FORTH IN THE AFOREMENTIONED BID PROPOSAL FOR EACH UNIT OF WORK PERFORMED OR INSTALLED BY THE CONTRACTOR.

3. THE OWNER WILL MAKE PAYMENTS TO THE CONTRACTOR AS SPECIFIED IN PARAGRAPH 8 OF THE GENERAL CONDITIONS.

4. WITHIN A PERIOD OF 30 DAYS AFTER COMPLETION OF THE WORK THE OWNER WILL MAKE A FINAL AND COMPLETE PAYMENT IN FULL TO THE CONTRACTOR ON ACCOUNT OF THIS CONTRACT; PROVIDED THAT, DURING SAID 30 DAY PERIOD, THE CONTRACTOR HAS SUBMITTED TO THE OWNER SATISFACTORY WRITTEN EVIDENCE THAT ALL PAYROLLS AND OTHER COSTS INCURRED BY THE CONTRACTOR IN CONNECTION WITH THE WORK HAVE BEEN PAID IN FULL AND NOTICE OF COMPLETION PUBLISHED AS REQUIRED BY SECTION 16, TITLE 50, CODE OF ALABAMA OF 1940; OTHERWISE FINAL PAYMENT WILL BE MADE ONLY AFTER SUCH EVIDENCE HAS BEEN SUBMITTED.

5. THE CONTRACTOR WILL COMMENCE THE WORK ON OR AS OF THE DATE SET IN A NOTICE FROM THE OWNER TO PROCEED WITH THE WORK, WILL PROSECUTE SAME DILIGENTLY AND CONTINUOUSLY UNTIL COMPLETED, AND WILL COMPLETE SAME IN CONFORMITY WITH THE STATED REQUIREMENTS WITHIN 45 CONSECUTIVE CALENDAR DAYS. SHOULD THE WORK OR ANY SEPARATE PART THEREOF BE NOT COMPLETED BY SUCH TIME OR DATE, THEN THE CONTRACTOR WILL PAY TO THE OWNER AS FIXED, AGREED AND LIQUIDATED DAMAGES THE SUM STIPULATED IN PARAGRAPH 4 (A) OF THE SPECIAL CONDITIONS.

IN WITNESS WHEREOF, PARTIES HAVE EXECUTED THIS CONTRACT ON THE DAY AND DATE FIRST ABOVE WRITTEN IN 3 ORIGINAL COUNTERPARTS.

Good Hope Contract Co. Inc.
[Signature]

Project Coordinator: Jacky McClendon 205 802-3875

Project Coordinator: Jacky McClendon 205 802-3875

2013-044

CITY OF MOUNTAIN BROOK

BY: 
MAYOR Lawrence T. Oden

ATTEST: 
BY: _____
TITLE: City Clerk

ATTEST: _____ BY: _____
SECRETARY TITLE: _____

CERTIFICATE OF SECRETARY OF CONTRACTOR:

I, _____, CERTIFY THAT I AM THE SECRETARY OF THE CORPORATION NAMED AS CONTRACTOR HEREIN THAT _____ WHO SIGNED THIS CONTRACT ON BEHALF OF THE CONTRACTOR, WAS THEN _____ OF SAID CORPORATION THAT SAID CONTRACT WAS DULY SIGNED FOR AND ON BEHALF OF SAID CORPORATION BY AUTHORITY OF ITS GOVERNING BODY AND IS WITHIN THE SCOPE OF ITS CORPORATE POWERS.

SECRETARY _____

(CORPORATE SEAL)

COUNTERSIGNED:

BY: _____

TITLE: _____

(Signature of Surety)

BY: _____

TITLE: _____

WITNESS: _____

BY: _____

TITLE: _____

COUNTERSIGNED:

BY: _____

TITLE: _____

APPENDIX 2

Project Coordinator: Jacky McClendon 205 802-3875

Project Coordinator: Jacky McClendon 205 802-3875

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS, that we, hereinafter called the Principal, and, hereinafter called the Surety, are held and firmly bound unto the City of Mountain Brook, Alabama, in the penal sum of seven hundred eighty-four thousand, eight hundred twenty-six (804,826.50) dollars, for payment of which we bind ourselves, our heirs, executors, administrators, successors, and assigns for the faithful performance of a certain written contract, dated the 02/13 day of, 2013 entered into between the Principal and the Owner for the construction of the following:
dollars (\$784,826.50)

PROJECT NO. MI 01-2013

A copy of which contract is incorporated herein by reference and is made a part hereof as if fully copied herein.

NOW, THEREFORE, the condition of this obligation is such that if the Principal shall faithfully perform the terms and conditions of the contract in all respects on his or their part, and shall fully pay all obligations incurred in connection with the performance of such contract on account of labor and materials used in connection therewith, and all such other obligations of every form, nature and character, and shall save harmless the Owner from all and any liability of every nature, kind and character which may be incurred in connection with the performance or fulfillment of such contract or other such liability resulting from negligence or otherwise on the part of such Principal, and further shall save harmless the Owner from all costs and damage which may be suffered by reason of the failure to fully and completely perform said contract and shall fully reimburse and repay the Owner for all expenditures of every kind, character and description which may be incurred by the Owner in making good any and every default which may exist on the part of the Principal in connection with the performance of said contract; and further that the Principal shall pay all lawful claims of all persons, firms, partnerships or corporations for all labor performed and materials furnished in connection with the performance of the contract, and that failure to do with such persons, firms, partnerships or corporations shall give them a direct right of action against the Principal and Surety under this obligation and provided however, that no suit, action or proceeding by reason of any default whatsoever shall be brought on this bond after one (1) year from the date on which the final payment on the contract falls due; and provided further that any alterations or additions which may be made under the contract, or in the work to be done under it, or the giving by the Owner of any extension of time for the performance of the contract or any other forbearance on the part of either the Owner or the Principal shall not in any way release the Principal and Surety, or either of them, their heirs, executors, administrators, successors, or assigns from their liability hereunder; notice to the Surety of any such alterations, extensions or forbearance being expressly waived.

This obligation shall remain in full force and effect until the performance of all covenants, terms and conditions herein stipulated, and after such performance it shall be null and void.
Executed in 3 original counterparts.

IN TESTIMONY WHEREOF witness the hands and seals of the parties hereto on the _____ day of, 2013.

(Signature of Principal)

TITLE: _____

WITNESS: _____

TITLE: _____

Project Coordinator: Jacky McClendon 205 802-3875

LABOR AND MATERIALS BOND

KNOW ALL MEN BY THESE PRESENTS, that we, hereinafter called the Principal, and hereinafter called the Surety, are held and firmly bound unto the CITY OF MOUNTAIN BROOK, ALABAMA, hereinafter called the Oblige, in the penal sum of eight hundred twenty-six and 50/100 dollars (\$84,826.50) lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, personal representatives, successors and assigns jointly and severally, firmly by these presents. seven hundred eighty-four thousand

WHEREAS, said Principal has entered into a certain contract with said Oblige dated the 02/13 day of, 2013, for Street Improvements designated as MI01-2013 which contract and the plans and specifications for said work shall be deemed a part thereof as fully as if set out herein.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH that if said Principal and all subcontractors to whom any portion of the work provided for in said contract is sublet and all assignees of said Principal and of such subcontractors shall promptly make payments to all persons supplying him or them with labor, materials, equipment or supplies for or in the prosecution provided for in such Contract, or in any amendment or extension of or addition to said Contract, and for the payment of reasonable attorney's fees, incurred by the claimant or claimants in suits of said bonds, then the above obligations shall be void; otherwise to remain in full force and effect. Provided, however, that this bond is subject to the following conditions and limitations.

(a) Any person, firm or corporation that has furnished labor, materials, equipment or supplies for or in the prosecution of the work provided for in said contract shall have a direct right of action against the Principal and Surety on this bond, which right of action shall be asserted in a proceeding, instituted in the county in which said Principal or Surety does business. Such right of action shall be asserted in a proceeding instituted in the name of the claimant or claimants for his or their use and benefit if against said Principal and Surety or either of them (but not later than one year after the final settlement of said Contract) in which action such claims or claim shall be adjudicated and judgment rendered thereon.

(b) The Principal and Surety hereby designate and appoint Mayor Lawrence Oden, as the Agent of each of them to receive and accept services or process or other pleading issued or filed in any proceeding instituted on this bond and hereby consent that such services shall be the same as personal service on the Principal and/or Surety.

(c) The Surety shall not be liable hereunder for any damages or compensation recoverable under Workmen's Compensation or Employers Liability Statute.

Project Coordinator: Jacky McClendon 205 802-3875

(d) In no event shall Surety be liable for a greater sum than the penalty of this bond or subject to any suit, action or proceeding thereof that is instituted later than one year after the final settlement of said contract.

(e) This bond shall be construed so as to comply with the requirements of Section 16, Title 50, and Code of Alabama of 1940.

SIGNED, SEALED AND DELIVERED this ___ day of, 2013, in ___ original counterparts.

(Signature of Principal)

WITNESS: _____ BY: _____

TITLE: _____

(Signature of Surety)

WITNESS: _____ BY: _____

TITLE: _____

COUNTERSIGNED:

BY: _____
RESIDENT AGENT

STREET IMPROVEMENTS - 90 CALENDAR DAYS

4. LIQUIDATED DAMAGES:

(a) Liquidated damages, as specified in Paragraph 7.8(a) of the General Conditions, are hereby mutually fixed and agreed upon at the rate of \$500.00 per calendar day of delay in completing the work.

5. All new surfaces shall be tapered to meet the existing gutter line to the maximum extent possible without structurally weakening the new surface.

6. ONE YEAR WARRANTY:

(e) General Warranty for One Year After Completion of Contract: For a period of at least one year after the completion of the contract, the Contractor warrants the fitness and soundness of all work done and materials and equipment put in place under the contract and neither the final certificate of payment nor any provision in the contract documents nor partial or entire occupancy of the premises by the Owner shall constitute an acceptance of work not done in accordance with the contract documents or relieve the Contractor of liability in respect to any express warranties or responsibility for faulty materials or workmanship. The contractor shall remedy any defects in the work and pay for any damage to other work resulting therefrom, which shall appear within a period of one year from the date of final acceptance of the work unless a longer period is specified. The Owner will give notice of observed defects with reasonable promptness. The accepted date of the beginning of the one-year warranty shall be the date of final estimate payment to the Contractor by the Owner or Engineer.

Project Coordinator: Jacky McClendon 205 802-3875

Project Coordinator: Jacky McClendon 205 802-3875

SPECIAL CONDITIONS

1. DESCRIPTION OF WORK:

(a) The work to be done consists of milling and resurfacing of streets selected by the City.
(b) The milling of asphalt shall be performed in a manner that will produce a smooth riding surface. The depth of milling will be determined by the City Engineer. The material produced by the milling of streets will be recycled as a Binder Course that meets the Binder Course specifications as provided in Section V. If the Contractor chooses to do so.

(c) Under no circumstances can any milled material be left overnight in the streets or gutter.
(d) The following streetsMILL FULL WIDTH OF ALL STRETS.

- Milling will be full width, approximately 1 1/4 inches

1B. Traffic Control:

All traffic control shall be the responsibility of the contractor, including signs and flag persons.

2. CONTRACT PLANS:

(a) The work shall be performed in accordance with these specifications where directed by the City and utilizing the approximate quantities of materials shown on Page 3 of the contract portion of these specifications. The City, however, reserves the right to increase or decrease the quantities estimated without penalty or change of unit prices bid.

3. DATE OF COMPLETION:

(a) The Contractor shall start to work on the date set by the Owner in a written notice to proceed (work order) as outlined in Paragraph 7.2 (a) of the General conditions, and shall completely finish all work within the specified number of calendar days and subject to allowable delays as stated in Paragraph 7.7 (a) of the General Conditions:

SECTION VII
GENERAL CONDITIONS
DEFINITIONS OF TERMS

1.1 DEFINITIONS:

Wherever the words, forms or phrases defined or pronouns used in their stead, occur in these specifications, in the contract or in the advertisement or any document, or instrument herein contemplated or to which these specifications apply, the intent and meaning shall be construed and interpreted as follows:

Addenda: Any change in specifications after advertisements for bids will be made by addenda to specifications, with appropriate supplemental plans. After issuance, any addenda shall become a part of the specifications, as much as though fully contained therein.

Bidder: Any individual, firm or corporation submitting a bid or proposal for the work contemplated.

Construction Bonds or Performance Bonds: The approved form of security furnished by the contractor and his surety as a guarantee of good faith on the part of the contractor to execute the work in accordance with the Plans, Specifications and Terms of the Contract.

Contract: The written agreement between the Owner and the Contractor covering the performance of the work. The contract includes the Advertisement (Notice to Contractors), Proposal, General Conditions, Special conditions, Detailed Specifications, Contract Agreement, Construction Bonds, Plans, and all approved Addenda and Change Orders thereto.

Engineer: The engineer selected by the owner for the performance of all engineering services in connection with the design and construction of the work, and his duly authorized representatives.

Owner: The corporate or other legally constituted body designate in the contract as the owner of the completed work and as a party to the contract, and his duly authorized representatives.

Contractor: The individual, firm or corporation selected by the owner as the successful bidder who has become a party to the Contract, and his duly authorized representatives.

Plans: All plans, drawings and maps identified in the special conditions as contract plans, together with all approved revisions or additions thereto.

Proposal: The written and signed statement which includes the completed proposal form duly filed with the owner by the person or persons, partnership, company, firm, or corporation proposing to do the work contemplated.

Proposal Form: The form furnished by the engineer on whom the formal bids for the work are to be prepared and submitted.

Project Coordinator: Jacky McClendon 205 802-3875

Project Coordinator: Jacky McClendon 205 802-3875

Specifications: The directions, provisions and requirements contained herein pertaining to the method and manner of performing the work or to the quantities or qualities of materials to be furnished under the contract.

Surety or Sureties: The corporate body which is bound by such bonds as are required with and for the Contractor, and engages to be responsible for the entire and satisfactory fulfillment of the Contract and for any and all requirements as set out in the Specifications, Contract or Plans.

"THE WORK" or "THE PROJECT": The work or project, including the furnishing of all labor, materials, tools, equipment and incidentals, necessary or required to complete the improvement in conformity with the directions, provisions and requirements of the Specifications, limitations and conditions of the Contract and in accordance with the intent of the Plans.

AWWA: American Water Works Association

ASTM: American Society for Testing Materials

ASA: American Standards Association

NEMA: National Electric Manufacturer's Association

2.1 PROPOSAL FORM:

The Engineer will furnish bidders with Proposal Forms which will contain a list of the items of work to be done or materials to be furnished and upon which bid prices are asked.

2.2 INTERPRETATION OF ESTIMATE:

The quantities of the work and materials shown on the Proposal form or on the Plans are believed to approximately represent the work to be performed and materials to be furnished and are to be used for comparison of bids. Payment to the Contractor will be made only for the actual quantities of work performed or materials furnished in accordance with the Plans and Specifications and it is understood that the quantities may be increased or decreased as hereinafter provided without in any way invalidating the bid prices.

2.3 EXAMINATION OF DOCUMENTS AND SITE OF THE WORK:

Bidders are advised that the plans, specifications, estimates and addenda of the engineer shall constitute all the information which the owner will furnish. No other information given by the owner or representative thereof, prior to the execution of the contract shall become a part of or change the contract, plans, specifications or estimates or be binding upon the owner. Bidders are required, prior to submitting a proposal, to read carefully the specifications, the proposal, contract and bond forms; to examine the plans; to visit the site of the work; to examine carefully local conditions; to inform themselves by their independent research of the difficulties to be encountered and judge for themselves of the accessibility of the work and all attending circumstances affecting the cost of doing the work or the time required for

Project Coordinator: Jacky McClendon 205 802-3875

its completion and obtain all information required to make an intelligent proposal. Bidders shall rely exclusively upon their own estimates, investigation and other data which are necessary for full and complete information upon which the proposal may be based. It is mutually agreed that submission of the proposal will be evidence that the bidder has made the examination and investigations required herein.

2.4 PREPARATION OF PROPOSAL:

The bidder shall submit his proposal on the forms furnished by the engineer. Each item for which a quantity of work is shown shall show a unit price, and each item shall be correctly extended and summarized. Should there develop a discrepancy between the unit price and the extended amount shall be corrected. The proposal must be properly signed, with the name and address of the firm, corporation or individual bidder clearly shown in the space provided. For a corporation the title of the official signing the proposal and the state in which the corporation was chartered must be shown, and the corporation seal affixed and attested by the secretary.

2.5 PROPOSAL GUARANTY:

Each bidder must submit with his proposal a certified check made payable to the owner or a bid bond made by a company qualified and authorized to transact business in the state in which the proposed work is located, in an amount not less than five percent (5%) of the total amount of his proposal as a guaranty that, if awarded a contract, the bidder will execute the required contract and furnish the required construction bonds (surety bonds) within ten (10) days after date of notice of such award.

2.6 FILING OF PROPOSAL:

Each proposal must be filed in a sealed envelope with the owner within the time limit for receiving proposals as stated in the advertisement and shall be made on the proposal form attached to the other contract documents. The envelope containing the proposal and other contract documents shall contain the name of the project, name and address of the bidder, and the bidder's license number and date of latest license renewal; otherwise the bid will not be opened. Proposals filed after the scheduled date and hour of opening proposals will be returned to the sender unopened.

2.7 WITHDRAWAL OF PROPOSALS:

A proposal may be withdrawn, modified or amended at any time prior to the scheduled date and hour of opening proposals by submitting to the owner a written statement setting forth the nature of the desired modification or the reason for withdrawal.

2.8 OPENING OF PROPOSALS:

The proposals filed with the owner will be opened and publicly read at the time and place stated in the advertisement. Bidders are invited to be present. Proposals filed in proper order and accepted by the owner for consideration and canvass and which have been opened and read may not be withdrawn for a period of 60 days after date of opening.

Project Coordinator: Jacky McClendon 205 802-3875

2.9 IRREGULAR PROPOSALS:

Proposals will be considered irregular if they show any omissions, alterations of forms, additions or conditions not called for, or irregularities of any kind. However, the Owner reserves the right to waive technicalities and make the award in the best interest of the owner.

2.10 REJECTION OF PROPOSALS:

The owner reserves the right to reject any or all proposals.

2.11 DISQUALIFICATION OF BIDDERS:

Any bidder using the same or different names for submitting more than one proposal for the work will be disqualified for further consideration on the work.

AWARD AND EXECUTION OF CONTRACT

3.1 CONSIDERATION OF PROPOSALS:

After the proposals are opened and read, the owner will check and tabulate all proposals and such tabulations shall be made public. Until the final award of the contract, the owner reserves the right to reject any or all proposals; to waive technicalities and to advertise for new proposals.

3.2 AWARD OF CONTRACT:

(e) The owner will award the contract or reject all proposals received within 60 days after date of opening proposals.

(b) The award of the contract, if made, shall be to the lowest responsible bidder whose proposal complies with the requirements of the owner.

(c) before an award is made, the owner reserves the right to investigate the previous experience, financial status, and general reputation of the three (3) lowest bidders.

3.3 RETURN OF PROPOSAL GUARANTY:

As soon as the proposals have been compared, the owner may, at its discretion, return the proposal guaranties accompanying those proposals which in its judgment would not be considered in making the award. After the award is made, only the successful bidder's proposal guaranty will be retained until the required contract and bonds have been executed, after which it will be returned to the bidder.

Project Coordinator: Jacky McClendon 205 802-3875

3.4 CONSTRUCTION (SURETY) BONDS:

With the execution and delivery of the contract, the contractor shall furnish to the owner a performance bond and a labor and materials bond for the total amount of the contract as security for faithful performance of the contract and for the payment of all persons performing labor and furnishing material under the contract. Maintenance provisions of the bonds shall remain in effect for twelve (12) months after completion of the work. The bonds shall be in a form satisfactory to the owner. The surety shall be a reputable bonding company authorized to transact business in the state in which the work is located and shall be acceptable to the owner.

3.5 EXECUTION OF CONTRACT:

The contract shall be executed by the successful bidder and returned to the owner with acceptable construction bonds within ten days after the date of notice of award by the owner. The contract, bonds and other documents shall be approved by the owner's attorney, if required, before execution and acceptance by the owner.

3.6 FAILURE TO EXECUTE CONTRACT:

Should the successful bidder to whom the contract has been awarded fail to execute the contract and furnish satisfactory construction (surety) bonds within ten days after date of notice award, it shall be considered that he has abandoned his proposal; the tender of contract shall be withdrawn; and the amount of the proposal guaranty shall be forfeited to the owner as fixed and agreed liquidated damages. The filing of a proposal by any bidder shall be considered as an acceptance by him of this provision.

SCOPE OF WORK

4.1 Intent of Plans and Specifications:

The intent of the plans and specifications is to prescribe a complete work which the contractor undertakes to do in full compliance with the contract. The contractor shall do all work as provided in the plans, specifications and other parts of the contract and shall do such additional, extra and incidental work as may be considered necessary to complete the work in a satisfactory and acceptable manner. Any work or material not shown on the plans or described in the specifications but which may be fairly implied as included in any item of the contract shall be performed and/or furnished by the contractor without additional charge thereof. The contractor shall furnish all labor, materials, tools, equipment and incidentals necessary to the prosecution of the work.

Project Coordinator: Jacky McClendon 205 802-3875

4.2 Increase or Decrease of Quantities:

The owner reserves the right to alter the quantities of work to be performed or to extend or shorten the improvement at any time, when and as found necessary and the contractor shall perform the work as altered, increased or decreased at the contract unit prices. No allowance will be made for any change in anticipated profits nor shall such changes be considered as waiving or invalidating any conditions or provisions of the contract.

4.3 Alterations of Plans and Specifications:

The owner reserves the right, at any time, to make such changes in the plans and the character of the work as may be necessary or desirable to insure completion in the most satisfactory manner, provided such changes do not materially alter the original plans and specifications or change the general nature of the work as a whole. Such changes shall not be considered as waiving or invalidating any condition or provision of the contract.

4.4 Extra Work:

When any work is necessary to the proper completion of the project for which no prices are provided in the proposal or contract, the contractor shall do such work, but only when and as ordered by the engineer. Payment for the extra work will be made as hereinafter provided.

4.5 Cleaning Up:

(a) Throughout the progress of the work the contractor shall keep the construction area, including storage areas used by him, free from accumulation of waste material or rubbish and shall keep his materials and equipment in a neat and orderly manner. Immediately upon completion of any section of the work and before payment thereon has been made, he shall remove from the site all construction equipment, temporary structures, and debris and shall restore the site to a neat, workmanlike condition. Waste material shall be disposed of at locations satisfactory to the engineer.

(b) Where the contractor has performed work on, or has made use of, private property for storage of materials or for other purposes, he shall obtain a satisfactory release from the owner of said property after completion of the work and the removal of all materials and equipment therefrom.

(c) After completion of all work contemplated under the contract and before final cleanup of the site of each separate part of the work, shall restore all surfaces to a neat and orderly condition; and shall remove all construction equipment, tools and supplies therefrom.

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correct fitting of all parts for the satisfactory installation and operation in service of all materials and equipment as specified.

5.7 Cooperation of the Contractor:

(a) The contractor shall maintain a copy of the plans and specifications available on the work at all times.

(b) The contractor shall give to the work the consistent attention necessary to facilitate the progress thereof and shall provide a competent superintendent on the work at all times who is fully authorized as his agent on the work. The superintendent shall be capable of thoroughly understanding the plans and specifications and shall receive and fulfill instructions from the Engineer or his authorized representative.

5.8 Construction Grades and Stakes

The engineer will furnish the contractor with bench marks and control points from which all lines, grades and measurements necessary for the proper prosecution and control of the work shall be set by the contractor. The contractor shall satisfy himself as to the accuracy of all measurements before proceeding with the work. In the setting of batter boards, the contractor shall furnish all necessary materials and labor. All stakes and markings set by the engineer for his own use or for the contractor's guidance shall be scrupulously preserved by the contractor. Any stakes or markings lost or destroyed by the contractor's forces through negligence shall be replaced by the engineer at the contractor's expense when so ordered by the engineer.

5.9 Authority of Inspectors

(a) The inspectors employed by and working under the directions of the engineer shall have full authority to reject any defective material or workmanship and to suspend any construction that is improperly performed, subject to the final decision of the engineer. Inspectors will not be authorized to revoke, alter, enlarge, or relax the provisions of the plans and specifications or to issue any instructions contrary thereto.

(b) The contractor may request, and the engineer will issue, written instructions on any important questions which may develop in respect to the acceptance or rejection of materials or workmanship.

5.10 Quality of Materials and Equipment

Only materials and equipment conforming to the requirements of these specifications shall be used in the work and such materials and equipment shall be used only after approval has been given by the engineer. All materials and equipment furnished for the work shall be new and unused and of recent manufacture.

5.11 Samples and Tests of Materials

(a) Where required by the specifications or by the engineer, tests and/or inspection of materials incorporated in the work shall be performed by commercial laboratories approved by the engineer. Tests, unless otherwise specified, shall be made in accordance with the latest standard methods of the American Society for Testing Materials.

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CONTROL OF WORK AND MATERIALS

5.1 Authority of the Engineer:

All work shall be done under the supervision of the engineer and to his satisfaction. He shall decide all questions which arise as to quality and acceptability of materials furnished, work performed, manner of performance, rate of progress of the work, sequence of construction, interpretation of plans and specifications, acceptable fulfillment of the contract, compensation and suspension of work. His decisions and estimates shall be final.

5.2 Conformity with Plans:

All work shall conform to the lines, grades, cross-sections, details and dimensions shown on the plans. Any deviation from the plans which may be required by the exigencies of construction will be determined by the engineer and authorized by him in writing.

5.3 Existing Structures Not Shown on Plans:

It is intended that the plans show the location of all existing surface and sub-surface structures. However, the location of many gas mains, water mains, conduits, sewers, etc., is unknown and the owner assumes no responsibility for failure to show any or all of these structures on the plans or to show them in their exact location. It is mutually agreed that such failure will not be considered sufficient basis for claims for extra work or for increasing the pay quantities, unless an obstruction encountered is such as to necessitate substantial changes in the lines or grades or require the building of special structures, provisions for which are not made in the plans, in which case the provisions in these specifications for extra work shall apply.

5.4 Sub-Surface Information and Data:

The sub-surface information and data furnished in the drawings are not intended as representations or warranties but are furnished for information only. It is expressly understood that the owner will not be responsible for the accuracy thereof any deduction, interpretation, or conclusion drawn therefrom by the contractor. The information is made available in order that the contractor may have ready access to the same information available to the owner and is not a part of this contract.

5.5 Coordination of Plans and Specifications:

The plans and specifications are complementary and a requirement occurring in either of them is binding as if shown in both. In any conflict between plans and specifications the engineer shall make such corrections or interpretations as may be deemed necessary for the fulfillment of the intent of the plans and specifications. If any discrepancy between figured dimensions and scaled dimensions arise, the figured dimensions shall govern.

5.6 Shop and Erection Drawings:

The contractor shall furnish to the engineer detailed shop drawings for work that is to be fabricated and erection drawings equipment that is to be installed. These drawings shall show the principal dimensions of the materials or equipment to be furnished, foundation plans, number and position of all anchor bolts, together with the manufacturer's specifications, parts lists, descriptive literature and operating instructions. Materials shall not be fabricated nor equipment shipped until these drawings have been approved by the engineer. Approval of these drawings shall not relieve the contractor for the correctness of all dimensions and for the

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(b) The costs of such tests, sampling and inspection shall be borne by the contractor, who shall furnish evidence satisfactory to the engineer that the materials have passed the required tests and inspections prior to the incorporation of such materials into the work.

5.12 Storage of Materials and Equipment

(a) All materials and equipment intended for incorporation into the work shall be stored in a manner that will insure preservation of their quality and fitness for the work. Storage facilities shall be provided at the expense of the contractor.

(b) The contractor shall be responsible for loss, damage or deterioration of materials and equipment caused by improper protection from weather or from other sources of damage.

5.13 Inspection

The engineer will inspect all phases of the work in progress. The contractor shall furnish the engineer with every reasonable facility for ascertaining whether or not the work as performed is in accordance with the requirements and intents of the plans and specifications. Should any work be covered or hidden prior to the approval thereof by the engineer, it shall be uncovered for examination at the contractor's expense.

5.14 Removal of Defective and Unauthorized Work

(a) Work performed without proper controls for lines and grades having been given; work performed beyond the lines or not in conformity with the grades shown on the plans or as given; or done without proper inspection; or any extra or unclassified work performed without written authority and prior agreement in writing as to prices, will be performed at the contractor's risk and will be considered unauthorized, and, at the option of the engineer, may not be measured and paid for and may be ordered removed at the contractor's expense.

(b) All work which has been rejected or condemned shall be removed and replaced at the contractor's expense. Defective materials shall be removed immediately from the site of the work.

5.15 Test Period and Final Inspection

(a) As each separate principal part of the work is completed, it shall be immediately inspected by the engineer. If found to be insubstantial compliance with the plans and specifications, it shall be tentatively accepted by the engineer. Thereafter, all such completed and accepted part of the work shall be maintained in good condition by and at the expense of the contractor until final acceptance by the owner of all work covered by the contract.

(b) After the principal operating parts of the work have been completed and tentatively accepted, they shall be operated simultaneously as a single unit by and at the expense of the contractor. In the presence of the engineer, for a period of not less than ten (10) days. During the test period, the contractor shall make all such repairs, adjustments and replacements as may be found necessary to develop the capacities and complete operating functions called for or implied in the specifications.

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(c) Operation and maintenance work prior to and during the test period shall be by and at the expense of the contractor and shall be continued until all work performed under the contract has been formally accepted by the owner.

(d) After the test period has been concluded and the construction of all work under contract has been completed, the engineer, contractor and a representative of the owner shall make a joint final inspection of all phases of the work. If the work is not acceptable at the time of such inspection, the engineer will notify the contractor of the defects which must be remedied before final acceptance can be made.

LEGAL RELATIONS AND RESPONSIBILITY TO PUBLIC

6.1 Laws to Be Observed:

The contractor shall, at all times, observe and comply with all Federal and State laws and local ordinances and regulations which in any manner affect the conduct of the work and shall observe and comply with all orders and decrees which exist at the present or which may be enacted later, or bodies or tribunals having jurisdiction or authority over the work.

6.2 Permits and Licenses

The contractor shall procure all permits and licenses, pay all charges or fees, and give all notices necessary and incident to lawful prosecution of the work.

6.3 Patented Devices, Materials and Processes

The contractor and the Surety shall indemnify and save harmless to the owner and his or its duly authorized representatives from all and every demand for damages, royalties or fees on any patented devices, materials and processes used by him or used in connection with the work done or material furnished under this contract.

6.4 Sanitation

The contractor shall provide and maintain the necessary sanitary conveniences for the use of laborers on the worksite, properly secluded from public observations. Sanitary conveniences and practices shall comply with state and local regulations.

6.5 Public Convenience and Safety

(a) Where the work is located in or near city streets, alleys or rights-of-way, or highways the contractor shall store construction materials and perform the work in such a manner as will provide reasonably adequate and satisfactory convenience for the general public and residents along the work.

(b) No street shall be closed without the permission of the engineer and the fire department having jurisdiction. Where traffic is diverted from the work the contractor shall

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provide all materials and perform all work for the construction and maintenance of all required temporary roadways and structures.

(c) Storage of materials and the work shall be arranged so that there will be free access to all fire hydrant, valves, manholes and other utility appurtenances.

(d) The contractor shall take such precautionary measures in the performance of the work as will give maximum protection at all times to persons and property near the work.

6.6 Barricades and Warning Signals

Where the work is located in or adjacent to any street, alley or public place, the contractor shall at his own expense furnish and erect such barricades, fences, lights, and danger signals and shall provide such watchmen as are required to protect persons, property and the work. Barricades shall be painted so as to be visible at night. From sunset to sunrise, the contractor shall furnish and maintain at least one (1) light at each barricade. The contractor shall be solely responsible for all damages to the work due to failure of barricades, signs, lights and watchmen to protect it. The contractor's responsibility for the maintenance of barricades, signs, lights and watchmen shall not cease until the project has been finally accepted by the owner.

6.7 Use of Explosives

Should the contractor elect to use explosives in the prosecution of the work, the utmost care shall be exercised so as not to endanger life or property, and the contractor shall carry on such work in compliance with the applicable state and local laws and ordinances regulating the use of explosives. Where explosives are stored or kept, they shall be marked plainly, "Dangerous - Explosives."

6.8 Privileges of the Contractor in Streets, Alleys, and Rights-of-Ways

For the performance of the contract, the contractor will be permitted to occupy such portions of the public property as will not unduly restrict traffic or endanger the public.

6.9 Railway and Highway Crossings

(a) Where the work encroaches upon the right-of-way of any railway, public highway or other public utility, the owner will obtain all easements or authority necessary to enter upon such right-of-way for the prosecution and completion of the work; but the contractor shall make all arrangements with the owner of the right-of-way for the actual construction work and shall perform the work on or across the right-of-way in the manner and at the times agreed upon with the owner, and shall pay the costs thereof, including the costs, if any, of temporary construction performed by the owner as a means of providing safe and continuous operation of its facilities during the construction period. The contractor shall take extra precautions for the safety of the work, the owner's facilities and the general public as may be necessary, by sheeting, bracing, and thoroughly supporting the sides of any excavation and supporting and protecting any adjacent structures.

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(b) Where required by any railway or highway owner, the contractor shall post with the owner thereof any performance bond which may be required to guarantee the satisfactory replacement or repair of materials, paving or grading within the right-of-way thereof.

6.10 Protection and Restoration of Property

(a) The contractor shall not enter upon private property for any purpose without first obtaining permission from its owner and he shall be responsible for the preservation of, and shall use every precaution necessary to prevent damage to, all trees, shrubbery, fences, culverts, bridges, pavement, driveways, sidewalks, etc. and to all water, sewer, gas, telephone, and electric lines thereof, and to all other public or private property along or adjacent to the work.

The contractor shall notify the proper representatives of any public service corporation, any company or any individual not less than twenty-four (24) hours in advance of any work which might damage or interfere with the operation of their property, along or adjacent to the work. The contractor shall be responsible for all damage or injury to property of any character resulting from any act, omission, neglect or misconduct in the manner or method of executing the work or due to its non execution of the work or at any time due to defective work or materials.

(b) When and where any direct or indirect damage or injury is done to public or private property on account of any act, omission, neglect or misconduct in the execution of the work or in consequence of the non-execution thereof on the part of the contractor, he shall restore, at his expense, such property to a condition similar or equal to that existing before such damage or injury was done, by repairing, rebuilding or otherwise restoring as may be directed, or he shall make good such damage or injury in an acceptable manner.

6.11 Public Utilities and Public Property to be Changed

(a) Where the proper accomplishment of the work requires that any property of privately-owned public utilities be cut, moved, relocated, rebuilt, or otherwise disturbed in any way, the owner shall, upon proper application by the contractor, notify the utility owner to make the required changes. The contractor, prior to making application to the owner shall make all preliminary arrangements with the utility owner, including the scheduling of work. The owner shall not be responsible for any delays in the accomplishment of the required changes on utility property by reason of the contractor's failure to schedule the work properly or otherwise; and in no case shall the contractor be allowed any claim for extension of time or additional compensation based on failure of the utility owner to make the required changes within the stipulated period of time.

6.12 Service Connections

Where service connections or lines from water or gas mains or sewers to the user's premises are disconnected, broken, damaged, or otherwise rendered inoperative by the contractor for any reason he shall, at his own expense, repair or replace same and restore service to the premises at the earliest possible time.

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6.13 Temporary Sewer and Drain Connections

When existing storm or sanitary sewers are required to be taken up, moved, or rebuilt, the contractor, at his own expense, shall provide and maintain temporary outlets and connections for all private or public drains, sewers, and sewer outlets connected to or served by the sewers to be rebuilt, and where necessary, shall provide adequate pumping facilities; and shall maintain these services until such time as the permanent sewers and connections are built and in service.

6.14 Water and Electricity

(a) It shall be the responsibility of the contractor to provide and maintain at his own expense an adequate supply of water and electricity required for the work.

(b) Electric power used through permanent electrical connections of the work for preliminary operation shall be paid for by the contractor until final acceptance of the work by the owner.

6.15 Use of a Section or Portion of the Work

Whenever, in the opinion of the engineer, any portion of the work or any structure is in suitable condition, it may be put into use upon the written order of the engineer and such usage shall not be held to be in any way an acceptance of the work or structure or any part thereof as a waiver of any of the provisions of these specifications or contract. Pending final completion and acceptance of the work, all necessary repairs and renewals of any section of the work so put into use, due to defective material or workmanship, to natural causes other than ordinary wear and tear or to the operation of the contractor shall be performed by and at the expense of the contractor.

6.16 Responsibility and Liability for Claims

(a) The contractor and his surety shall indemnify and save harmless the owner and all its officers, agents, and servants against any claims of liability arising from or based on the violation of any law, ordinance, regulation, order or decree, whether by himself or by his employees.

(b) The contractor and his surety shall indemnify and save harmless the owner and all its officers, agents and employees from all suits, actions or claims of any character, name and description brought for, or on account of any injuries or damages received or sustained by any person, persons or property by or from the contractor or by or in consequence of any neglect in safeguarding the construction, or through the use of unacceptable materials in constructing the work, or by or on account of any claim or amounts arising or recovered under the "Workmen's Compensation Law" or any other law, ordinance, order or decree.

(c) The contractor guarantees the payment of all just claims for materials, supplies, tools, labor, etc., against him or any subcontractor in connection with his contract.

6.17 Insurance

The contractor shall take out and maintain throughout the life of the contract, Workmen's Compensation, Contractor's Public Liability and Property Damage Insurance. The public liability

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shall be in an amount not less than \$1,000,000 for injuries, including accidental death, to any one person and not less than \$1,000,000 on account of one accident. Property damage insurance shall be in an amount not less than \$1,000,000. Workmen's Compensation insurance shall be in conformity with the requirements of the state laws. The contractor shall furnish the owner with satisfactory evidence of his compliance with these provisions.

6.18 Contractor's Responsibility for the Work

Until acceptance by the engineer as provided in these specifications, the work shall be under the charge and care of the contractor and he shall take every necessary precaution to prevent injury or damage to the worker or any part thereof by the action of the elements or from any other cause whatsoever, whether arising from the execution or from the non-execution of the work. The contractor shall rebuild, repair, restore and make good, at his own expense, all injuries or damage to any portion of the work occasioned by any of the aforementioned causes before acceptance.

6.19 No Waiver of Legal Rights

Inspection by the engineer or by any of his duly authorized representatives, any order, measurement or certificate by the engineer, any order by the owner for payment of money, any payment for or acceptance of any work or any extension of time or possession taken by the owner, shall not operate as a waiver of any provision of the contract or any power therein reserved to the owner or any right of damages therein provided. Any waiver of any breach of contract shall not be held to be a waiver of any other or subsequent breach.

- (c) All workmen shall have sufficient skill and experience to properly perform the work assigned to them. On any special or skilled work or in any trade, only qualified, careful and efficient mechanics shall be used.
- (d) Any employee of the contractor who may be adjudged by the owner to be incompetent, untrustworthy or otherwise undesirable shall be removed from the work immediately upon request of the owner and shall not be re-employed on the work thereafter.
- (e) The contractor shall furnish such equipment as is considered necessary for the prosecution of the work in an acceptable manner and at a satisfactory rate of progress. All equipment, tools and machinery shall be subject to the approval of the engineer.

7.6 Annulment of Contract

(a) The contract may be annulled by the owner for any of the following reasons: (1) Substantial evidence that the progress being made by the contractor is insufficient to complete the work within the specified time; (2) Deliberate failure on the part of the contractor to proceed with the construction of the work when so instructed by the engineer or to observe any requirements of these specifications; (3) Failure on the part of the contractor to promptly make good any defects in materials or construction that may be called to his attention by the engineer; (4) In case the contractor becomes insolvent or is declared bankrupt, or allows any final judgment to stand against him unsatisfied, or shall make an assignment for the benefit of his creditors.

(b) Before the contracts annulled, the contractor and his Surety will first be notified in writing by the owner of the conditions which make annulment of the contract imminent. Fifteen (15) days after notice is given, if no effective effort has been made by the contractor or his surety to correct the conditions of which complaint is made, the owner may declare the contract annulled, and will notify the contractor and his surety accordingly.

(c) Upon receipt of notice from the owner that the contract has been annulled, the contractor shall immediately discontinue all operations. The owner may then proceed with the construction in any lawful manner that it may elect, until it is finally completed. When thus finally completed, the total cost of the work will be computed and if this total cost is greater than the contractor price, the difference shall be paid to the owner by the contractor or his surety.

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PROSECUTION AND PROGRESS

7.1 Subcontracts and Assignments

The contractor shall not let any part of the work to a subcontractor nor shall he assign the whole or any part of the contract or any monies due there under without prior written consent of the owner. Any subcontracts so let shall be subject to all of the applicable provisions of the principal contract and the contractor shall be fully responsible for the acts and omissions of his subcontractors.

7.2 Beginning and Completion of Work

After award and execution of the contract the owner shall notify the contractor in writing to proceed with the work, such notice to state the date on which the contractor will commence work. The rate of progress shall be such that the whole work will be performed and premises cleaned up in accordance with the contract, plans and specifications within the time limit as set out in the Special Conditions.

7.3 Construction Schedule

Within ten (10) days after date of contract, the contractor shall prepare and submit to the owner for approval a construction schedule showing the dates on which he proposes to start and complete each separate part of the work. When approved by the owner, the construction schedule shall become a part of the contract and shall be adhered to as closely as practicable thereafter by the contractor until each separate part of the work has been completed. The schedule may be revised from time to time as the work progresses by approval of both parties to the contract; but approval by the owner shall not be construed in any way as an approval of an extension of time of completion.

7.4 Prosecution of Work

The contractor shall continuously and diligently prosecute the work in such order and manner, and with an ample force of men and equipment that will accomplish the work in a safe and workmanlike manner.

7.5 Character of Workmen and Equipment

(a) The contractor shall comply with all federal, state and local laws, regulations and ordinances governing the employment of labor and the payment of wages thereto for work performed under this contract. In general, the contractor shall give preference to qualified local residents but in no case shall he employ any person whose age or physical condition is such as to make his employment dangerous to the health or safety of himself or of others employed on the work.

(b) The contractor shall adopt uniform schedules for wage rates and working hours, and shall follow such schedules consistently throughout the life of the contract. The owner reserves the right to examine the contractor's payroll and employment records to insure compliance with these provisions.

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7.7 Extension of Time of Completion

The contractor may be allowed an extension of time for delays due to unforeseeable causes beyond the contractor's control and without the fault or negligence of the contractor, including but not restricted to acts of God, the public enemy, and the Federal Government. Delays due to adverse weather conditions shall not be considered as grounds for an extension of time of completion. Extension of time shall be considered only when submitted to the engineer in writing within ten (10) days from and after the time when any alleged cause of delay shall occur.

7.8 Failure to Complete Work on Time

In case of delay in completion of the work and in case the owner does not terminate the contractor's right to proceed, then the actual damages caused by the delay will be impossible to determine, in which event the contractor shall pay to the owner, in lieu thereof, as fixed, agreed and liquidated damages an amount as stipulated in the Special Conditions for each calendar day of delay until the work has been completed and accepted; and the contractor and his sureties shall be liable to the owner for the total amount thereof.

7.9 Temporary Suspension

(a) The engineer shall have the authority to suspend the work wholly or in part for such period or periods of time as he may deem necessary due to unsuitable weather or such other conditions as rare considered unfavorable or the suitable prosecution of work. The contractor shall proceed with the work promptly when notified by the engineer to resume operations.

(b) The contractor shall not suspend work without written authority from the engineer.

7.10 Termination of Contract

(a) The contract will be considered fulfilled, except as provided in any bond or bonds or by law, when all the work has been completed, the final inspection made and final acceptance and final payment have been made by the owner.

(b) The contractor shall guarantee each specific portion of the work against defective materials and workmanship, and to meet all performance requirements for a period of one year from date of acceptance by the owner; and shall furnish satisfactory evidence to the owner that all sums of money due for labor and materials used in the work have been paid. During the guarantee period, upon written request by the owner, the contractor shall immediately replace or repair all defective materials and make good all defective workmanship at his own expense and to the satisfaction of the owner.

(c) After final inspection and upon receipt of satisfactory evidence of payment for all labor and materials used in the work, the engineer will notify the owner in writing of his acceptance of the work performed under the contract and of his recommendations in respect to final payment to the contractor.

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MEASUREMENTS AND PAYMENTS

8.1 Measurements of Quantities

The determination of quantities of work acceptably completed under the terms of the contract will be made by the engineer, based on measurements taken by him or his assistants. These measurements will be taken according to the United States standard measurements.

8.2 Scope of Payment

(e) The contractor shall receive and accept as compensation, as herein provided, in full payment of furnishing all labor, materials, tools, equipment and incidentals; for performing all work contemplated and embraced under the contract; for all loss or damage arising out of the nature of the work or from the action of the elements; for any unforeseen defects or obstructions which may arise during the prosecution of the work and before its final acceptance by the owner; for all risks connected with the prosecution of the work; for all expense incurred by or in consequence of suspension or discontinuance of such prosecution of the work herein specified; for any infringement of patents, trademarks or copyrights; and for completing the work in an acceptable manner according to the plans and specifications.

(b) Any materials or work covered by partial estimates shall, upon payment, become the sole property of the owner; however, the payment of any partial or periodical estimates prior to final acceptance of the work by the owner shall in no way constitute an acknowledgment of the acceptance of the work nor in any way prejudice or effect the obligation of the contractor to repair, correct, renew or replace, at his expense, any defects or imperfections in the construction or in strength or quality of the materials used in the construction of the work under the contract 8.3 Payment for Extra Work.

(e) The extra work performed by the contractor, authorized by the engineer and approved by the owner will be paid at the lump sum and/or unit prices agreed on in written change orders signed by the contractor, engineer and owner before such work is begun. All extra work shall be subject to all other conditions of the contract.

8.4 Partial Payments

(a) At the end of each calendar month during the life of the contract the engineer will prepare an estimate of the quantities of work and of the total amount due therefore. On or before the fifteenth (15th) day of the following month the owner will make a partial payment to the contractor equivalent in amount to the value of all work done to the end of the preceding month, less ten (10) per cent of such amount to be retained, less previous payments. The retained amounts shall be held by the owner until final completion and acceptance of all work contemplated under the contract, at which time the retained amounts and other amounts then due shall be paid in full.

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(b) In the preparation of monthly partial pay estimates account may be taken, if specifically approved by the owner, of materials delivered to the site of work but not yet incorporated into the work.

(c) If, upon completion of approximately fifty (50) percent of all work authorized, the owner sees that satisfactory progress is being made, he may make any of the remaining partial payments in full without retainage.

8.5 Final Payment

(e) When the work provided for by the contract has been completely performed on the part of the contractor and all parts of the work have been approved by the engineer and accepted by the owner, a final estimate will be prepared which shows the total cost of the work performed under the contract, including extra work as authorized by change orders, the total amount retained and the total amount paid on previous partial estimates. All prior estimates upon which payments have been made are subject to necessary corrections or revisions in the final payment. All pay estimates will be certified as correct by the engineer and approved by the owner before payment.

(b) The final payment will be made to the contractor as soon as practicable after final acceptance by the owner.

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**STREET IMPROVEMENTS
DETAILED SPECIFICATIONS**

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APPENDIX 2

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DETAILED SPECIFICATIONS

ITEM I.

1.05 MILLING OF ASPHALT

The milling of asphalt shall be performed in a manner that will produce a smooth riding surface. The equipment used for milling shall and will be approved by the City engineer.

1.06 BASIS OF PAYMENT

Payment shall be made at the contract unit Price Per Ton, and shall be the actual number of tons milled and verified by the plant inspector at the plant weigh station. The contractor shall furnish the city of Mountain Brook with two (2) copies of weight tickets on each truck returning milled mix to the plant. This amount, so paid, shall constitute full compensation for milling and transporting the mix to the plant and furnishing all equipment and tools, fuel, labor and incidentals necessary to complete the work.

ITEM II.

ADJUSTING MANHOLES, INLETS AND CATCH BASINS

2.01 SCOPE

The work covered by this item shall consist of furnishing all materials and labor necessary for the resetting and adjusting of existing manhole, inlet, or catch basin frames and covers to bring them to the location and grade required by the new construction.

2.02 RESETTING

Existing manhole, inlet, and catch basin frames and covers shall be reset in accordance with these specifications when the existing manholes, inlets, or catch basins are more than one (1) inch above or below the new grade or elevation of the proposed construction. They shall be thoroughly cleaned and accurately set to line and grade of the new construction by removing the frame and cover and raising or lowering the masonry top of the structure and resetting on a cushion of cement mortar.

2.03 PAVING RINGS

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Paving rings of proper diameter, width, length, weight, and height, may be used on manhole, inlet, or catch basin frames in lieu of resetting under this specification.

2.04 METHOD OF PAYMENT

Payment for adjusting, resetting, or raising manhole, inlet, and catch basin frames and covers shall be made for the actual number so relocated as specified above and at the unit price as listed under Item II. of the contract pay items. This amount, so paid, shall be full compensation for adjusting, resetting, and furnishing and placing paving rings, materials, tools, equipment, forms, drawings and specifications, and performing all labor required to complete the work herein specified.

ITEM III

BITUMINOUS TACK COAT

3.01 SCOPE

The work covered by this item shall consist of furnishing all labor, materials and equipment, and performing all operations in connection with the application of a bituminous tack coat on a previously prepared bituminous binder course or existing pavement, as shown on drawings, as hereinafter specified and as directed by the engineer.

3.02 DESCRIPTION

The bituminous tack coat shall consist of a hot or cold application of bituminous material on a prepared bituminous binder course, base course or existing pavement as specified by the engineer.

3.03 QUANTITY OF MATERIAL

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The amount of bituminous material to be applied to each square yard for the tack coat shall be within the maximum and minimum quantities specified herein below. The exact amount to be applied shall be determined by the engineer and may be varied to meet existing conditions.

MATERIAL	AMOUNT
Square Yard	Gallons Per
Bituminous Material	0.05 to 0.15

3.04 BITUMINOUS MATERIAL

The bituminous material to be used for the tack coat shall be either asphalt cement or cutback asphalt and shall conform to the following:

ASPHALT CEMENT

The asphalt cement shall be homogeneous, free from water, shall not foam when heated to a temperature of 350 deg. F. and shall meet the following requirements:

	A.A.S.H.O.	
	TEST METHODS	MIN. MAX.
Water Percent.....	T-55-42	-- 0
Penetration @ 77 degrees F.....	T-48-42	85 200
Flash Point Deg. F. (Cleve. Open Cup)...	T-51-42	375 --
Duot. Asphalt Residue @ 77 Deg. F. CM..	T-45-42	100 --
Portion of Bitumen Soluble in CCl4.....		99.5 --
Temperature of Application, Deg. F.		225 300

CUT-BACK ASPHALT

The cutback asphalt shall be homogeneous; it shall not have been distilled at a temperature high enough to injure by cracking. It shall be free from water, shall show no separation upon standing and shall meet the following requirements:

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A.A.S.H.O.

TEST METHODS	RC-2	GRADES RC-3	RC-4
Flash Point (Open Tag) Deg. F.	T-79-42	80+	80+
Pural Viscosity @ 140 Deg. F.	T-72-42	100-200	250-500
@ 180 Deg. F.		125-250	
Distillation (% of Total)	T-78-42		
Distillate to 437 Deg. F.		40+	25+
Distillate to 500 Deg. F.		65+	55+
Distillate to 600 Deg. F.		87+	83+
Residue from Distillation to 680 Deg. F.			
Test of Residue		67+	73+
Penetration @ 77 Deg. F.	T-49-42	80-120	80-120
Ductility @ 77 Deg. F.	T-51-42	100+	100+
Percent Soluble in CCl4	T-44-42	99.5+	99.5+
Temperature of Application, Deg. F.		100-175	150-200 175-200

Sampling and Testing of Bituminous Material. All sampling of bituminous material unless otherwise specified shall be done in accordance with the American Association of State Highway Officials method No. T-40-42. All tests shall be supplied by the Contractor at his expense.

3.05 WEATHER LIMITATION

The tack coat shall be applied only when the existing surface is dry, when the atmospheric temperature is above fifty (50) degrees F., and when the weather is not rainy.

3.06 EQUIPMENT

(a) All equipment, tools, machines, etc., shall be subject to the approval of the engineer and must be maintained in satisfactory condition at all times.

(b) The distributor shall have pneumatic tires. It shall be so designed and equipped to distribute the bituminous material uniformly at even heat on variable widths of surface at readily determined and controlled rates of from five hundredths (.05) to twenty-five (25) to seventy-five (75) pounds per square inch and with an allowable variation from any specified rate not to exceed Project Coordinator: Jacky McClendon 205 802-3875

five (5) percent. Distributor equipment shall include an independently operated bitumen pump, tachometer, pressure gauges, volume measuring devices and a thermometer for reading temperature of tank contents. The distributor shall be equipped for circulation and agitation of the bituminous material during the heating process.

(c) When cutback asphalt is used any suitable hand method approved by the engineer may be employed as long as the material is uniformly distributed over the entire surface.

3.07 REMOVAL OF LOOSE AND FOREIGN MATERIAL

Immediately before applying the tack coat all surfaces, both horizontal and vertical, which will be in contact with the new asphalt plant mix shall be thoroughly cleaned of all dirt, debris, extruded joint material, grease, oil, grass, roots, clay coating, and all other foreign materials which may impair the construction. All depressions not reached by rotary power brooms and blower shall be cleaned by hand brooming, or other equipment, as directed by the engineer, including, but not limited to, washing and flushing. The contractor shall not grease, oil or perform any maintenance of any equipment while located within the construction limits of the work.

3.08 APPLICATION OF BITUMINOUS MATERIAL

Prior to the operation of removing the dust has been completed and after the application of the tack coat, an inspection shall be made of the course to be treated to determine its fitness to receive the bituminous tack coat. That portion of the surface of the course proposed for immediate treatment must be dry and in a satisfactory condition. The application of the bituminous tack material shall be made by means of a pressure distributor or approved hand method, as hereinbefore specified, at the temperature specified and shall be applied at the pressure and in amounts as directed by the engineer. The bituminous tack material shall be so applied that uniform distribution is obtained at all points of the surface to be treated. Unless the distributor is equipped to obtain satisfactory results at the junction of previous and subsequent applications building paper shall be spread on the surface for a sufficient distance back from the ends of each application so that flow through the sprays may be started and stopped on the paper and all sprays will be operated at full force on the surface to be treated. Immediately after the application, the building paper so employed shall be removed and destroyed. All spots unavoidably missed by the distributor shall be properly treated with bituminous material. Project Coordinator: Jacky McClendon 205 802-3875

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Following the application the surface shall be allowed to cure without being disturbed for such period of time as may be necessary to permit setting of the tack coat, as determined by the engineer. The contractor shall then maintain the surface until the succeeding layer of pavement has been placed. Suitable precautions shall be taken against damage during this interval by the contractor including supplying and spreading any sand necessary to cure excess bituminous material and making necessary repairs to damage spots. A suitable method shall be employed to protect all curbs and gutters from receiving any bituminous materials.

3.09 POURING CRACKS

Where excessive cracks have developed in existing plant mix pavements that are to be resurfaced such as cracks, are to be poured with asphalt. Before the cracks are poured, they shall be thoroughly cleaned of all dirt or other foreign matter by approved methods. The cracks shall then be poured with Grade A C-8 asphalt heated to a temperature that will allow it to flow to the full depth of the crack. After pouring is completed, all excess asphalt shall be removed from the surface of the pavement with suitable tools.

3.10 DETERMINATION OF PAY QUANTITIES

The quantities of bituminous tack coat for which payment will be allowed shall be expressed in gallons and shall be the actual quantities of material used in the accepted work as measured by the engineer, corrected to gallons at sixty (60) degrees F. in accordance with the appropriate table contained in the American Society for Testing Materials, Standard Abridged Volume Correction Table, Serial Designation D206-36, for Petroleum Oils.

3.11 PAYMENT

Payment for bituminous tack coat placed under these specifications shall be made for the quantities determined as specified above at the contract unit price per gallon as listed under Item III of the contract pay items. This amount, so paid, shall be full compensation for furnishing, delivering and applying the material, furnishing and spreading blotter material, and for all labor, equipment, tools and other expenses incidental to the work. Pouring cracks in existing pavements shall be considered as an incidental item of the work and no specific payment will be allowed therefor.

ITEM IV

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HOT LAID PLANT MIX SEAL COURSE AND BINDER COURSE

5.01 SCOPE

The work covered by this item shall consist of furnishing all labor, materials, equipment and performing all operations in connection with the construction of a hot laid plant mix seal course and hot laid plant mix binder course, as hereinafter specified and as directed by the engineer. The binder course may be used as a leveling course for filling holes and replacing removed base course, which has not been removed to a depth of more than two and one-half inches. In general, the binder course is to be used to ring an uneven surface to the intended contour of the finished pavement as well as to provide additional thickness to the existing pavement as required by the contract plans and specifications.

5.02 DESCRIPTION

The bituminous seal course and binder course shall consist of mineral aggregate and mineral filler uniformly plant mixed with bituminous material and placed and compacted on a prepared base course, existing pavement or subgrade.

5.03 CLASSIFICATION

The class of bituminous pavement shall be mixed in a central plant and laid hot in accordance with the requirements of these specifications.

5.04 AGGREGATES

(a) The binder aggregate shall consist of crushed stone, crushed slag, screenings, sand or asphaltic linerock. All aggregates for hot laid seal course shall be slag conforming to American Association of State Highway Officials Standard Specification M-29-42 and as specified in Item V. The aggregate shall be free from soft and disintegrated pieces, vegetable matter, balls of clay, clay coating, or other objectionable matter and shall be tough, durable and sound. The portion of the material retained on the No. 10 sieve shall be known as the coarse aggregate, the portion passing the No. 10 sieve and retained on the No. 200 sieve shall be known as the fine aggregate and the portion passing the No. 200 sieve shall be known as the mineral filler.

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Only one type of aggregate shall be used except by written permission of the Engineer.

(b) FINE AGGREGATE. The fine aggregate shall conform to the American Association of State Highway Officials Standard Specifications No. M-29-42 for Sand for Bituminous Mixtures. The gradation may be adjudged as directed by the Engineer.

(c) COARSE AGGREGATE. The coarse aggregate shall conform to all the above requirements and shall have a percentage of wear not to exceed fifty (50) as determined by the Los Angeles Abrasion Test after five hundred (500) revolutions (A.A.S.H.O. Test Method T-96-42). Slag shall be blast furnace product having a dry weight per cubic foot of not less than seventy-five (75) pounds, and consist of angular fragments reasonably uniform in density, free from an excess of thin elongated pieces. Crushed stone shall be at least 90 percent sound when subjected to five alternations in the sodium sulphate test for soundness.

(d) MINERAL FILLER. The mineral filler shall consist of Stonedust, Portland cement or other material approved by the engineer, and shall be free from foreign or other objectionable matter.

(e) HYDRATED LIME. The hydrated lime shall meet the requirements of A.S.T.M. Designation C-6-44.

(f) SAMPLING AND TESTING AGGREGATES. All sampling of aggregates unless otherwise specified shall be made in accordance with A.A.S.H.O. Method No. T-36-24 for mineral filler. All tests shall be supplied by the Contractor at his expense. The source from which the aggregates are to be obtained shall be selected by the Contractor well in advance of the time when they will be required in the work and suitable sized samples shall be furnished for testing. Subsequent testing of deliveries of aggregates shall be made as directed by the engineer.

5.05 BITUMINOUS MATERIALS

(a) The grades of material used shall meet the requirements set forth in the following tables:

(b) For Tack Coat: See Item IV.

(c) For Mixing: Asphalt shall be Grade AC-8 and shall meet the following requirements:

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ASPHALT CEMENT

The asphalt cement shall be homogeneous, free from water and shall meet the requirements of the following specifications:

PETROLEUM ASPHALT	AASHO TEST	
	METHOD	CEMENT
GRADES		
Penetration @ 77 Deg. F. 5 Sec.	T-49-42	
Total Bitumen (Soluble in CS/2) Not Less Than	T-44-42	85-100
Total Bitumen (Soluble in CCl ₄) Ductility @ 77 deg. F. Not Less Than	T-45-42 T-51-42	99.0% 100cms
Flash Point deg. F. Not Less Than	T-48-42	400
Penetration of Residue @ 77 deg. F. 100g 5 sec. as compared to penetration before heating Not Less Than	T-49-42	60%
Loss @ 325 degrees F. 5 hrs. Not More Than	T-47-42	1.0%
Temperature Deg. F. @ time of mixing		

(c) Sampling & Testing Bituminous. All sampling unless otherwise specified shall be made in accordance with A.A.S.H.O. Method No. T-40-42. All tests shall be supplied by the Contractor at his expense. The source from which the bituminous materials are to be obtained shall be selected by the contractor well in advance of the time when they will be required in the work and suitable samples shall be furnished for testing in advance of the production of bituminous mixtures. Subsequent testing of deliveries of bituminous materials shall be made.

5.06 Percentage of Bituminous Material. The percentage of bituminous material by weight to be used for preparing the bituminous mixtures shall be within the limit as directed by the engineer and hereinafter specified.
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5.07 General Composition. The finished mixture prepared as hereinafter specified shall meet the following composition limits by weight:

WEARING SURFACE

Job Mix: Sieve Size Other Information:	Percent by Weight	
Passing 1 1/4 inch	100	% AC Required 5.30
Passing 1 inch	100	AC Req. ton 106.0
Passing 3/4 inch	100	Max. Sp. Grav. Mix 2.595
Passing 1/2 inch	100	Unit WT. 154.9
Passing 3/8 inch	97	Stability (lbs) 1900
Passing No. 4 sieve	80	Flow 11.50
Passing No. 8 sieve	57	Agg. Sp. Gr. 2.825
Passing No. 16 sieve	40	TSR 0.97
Passing No. 30 sieve	28	Anti-strip N/A
Passing No. 50 sieve	16	# of Blows 50
Passing No. 100 sieve	11	
Passing No. 200 sieve	6.6	

Note: 5.30 % asphalt binder grade PG67-22 must be added to the mix.
The remaining _____ 0 % AC comes from the RAP.

Materials: % Approx.	Description
25	#899 Steel Slag
32	#810 Limestone
24	#8910 BF Slag
18	Coarse Sand
1	Baghouse Fines

Type Mix: W Mix # Slag Seal Asphalt Binder Grade PG 67-22

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Passing 200 mesh sieve	6 percent to 14 percent
Passing 10 mesh sieve	50 percent to 75 percent
Passing 3/8 inch screen	95 percent to 100 percent

The asphaltic limestone shall be the product of a quarry and plant that has previously produced material meeting these requirements which has been successfully used for a period of not less than three (3) years.

SAND. The sand used in this mixture shall be free from clay, loam and other foreign matter. It shall be so graded that not more than five percent (5%) will pass a 100 mesh sieve, not more than thirty percent (30%) will pass a 50 mesh sieve, and not more than five percent (5%) will be retained on a 4 mesh sieve.

Arrangements shall be made to by-pass rock asphalt around any screen on the plant having openings smaller than three-quarters inch (3/4").

The mineral aggregate in the asphaltic limestone mixture shall contain approximately 50% asphaltic limestone and 50% natural sand, Stone or slag screenings.

5.08 Mixing Plant.

(a) The plant shall be so designed, coordinated and operated as to produce a mixture within these specifications. It shall have a minimum capacity of a 2,000 pound batch, and must be of the weigh batch type. Any plant used by the Contractor for the preparation of bituminous mixture shall conform to all the requirements specified below:

(b) Requirements for all plants:

(1) Plant Scales. Scales for any weigh box or hopper may be either of the beam or springless dial type and shall be of a standard make and design, sensitive to one-half of one percent of their maximum capacity.

(2) Equipment for Preparation of Bituminous Material. Tanks for storage of bituminous material shall be capable of heating the material, under effective and positive control at all times, too

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BABY BINDER

JOB MIX: Sieve Size Information:	Percent by Weight	
Passing 1 1/4 inch	100	% AC Required 5.10
Passing 1 inch	100	AC Req. Ton 102.0
Passing 3/4 inch	100	Max. Sp. Grav. Mix 2.502
Passing 1/2 inch	96	UNIT WT. 149.4
Passing 3/8 inch	79	Stability (lbs) 2000
Passing 1/4 inch	55	Flow 11.00
Passing 8 inch	38	Agg. Sp. Gr. 2.802
Passing 16 inch	27	TSR 0.95
Passing 30 inch	19	Anti-strip N/A
Passing 50 inch	10	# of Blows 50
Passing 100 inch	7	
Passing 200 inch	5.1	

Note: 4.00 % asp. Binder grade PG67-22 must be added to the mix. The remaining 1.1% AC comes from the RAP.

Materials: % Approx.	Description
29	#78 Limestone
27	#810 Limestone
10	#89 Limestone
13	Coarse Sand
20	Rap
1	Baghouse Fines

Type Mix: 3/4" Mix # Binder Asphalt Binder Grade pg 67-22

The amount of bitumen shall be fixed by the engineer when the correct gradation and type of aggregate and length of haul of the plant mixture has been determined. The bitumen shall be a percent of the mineral aggregate.

All plant mix material used must be workable at the time of placing and must be a stable mix that will set up properly.

ASPHALTIC LIMESTONE. The rock asphalt shall be uniform natural asphaltic limestone consisting of not less than four percent (4%) of asphalt, not more than ninety-six percent (96%) of limestone, practically free from sulfates, aluminas and any but minute shells.

It shall be so crushed that the pulverized material will meet the following gradation requirements:

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the temperature requirements set forth herein. The heating system shall provide uniform heating of the entire contents.

(3) Feeder for Dryer. The plant shall be provided with an accurate mechanical means for uniformly feeding the mineral aggregate into the dryer so that a uniform production and a uniform temperature may be secured.

(4) Dryer. A rotary dryer of any satisfactory design for drying and heating the mineral aggregates shall be provided.

(5) Screens. Plant screens, capable of screening all aggregates to the specified sizes and proportions and having normal capacity slightly in excess of the full capacity of the mixer shall be provided.

(6) Bituminous Control Unit. Satisfactory means for weighing shall be provided to obtain the proper amount of bituminous material as specified.

(7) Thermometric Equipment. An armored thermometer reading from one hundred (100) to three hundred (300) degrees F. shall be fixed in the bituminous feed line at a suitable location near the discharge valve at the mixer unit. The plant shall be further equipped with an approved dial scale mercury actuated thermometer, an electric pyrometer, or the approved thermometric instrument, so placed at the discharge chute of the dryer as to register automatically or indicate the temperature of the heated aggregate when drying or heating is required.

(8) Devices for Application of Liquefiers. Plants for producing liquefier type of mixes shall be equipped with an approved means of accurately measuring the liquefier and a spray bar which will adequately spray the material uniformly over the entire mass of mineral aggregate.

(c) Special Requirements for Batching Plants: (1) Weigh Box or Hopper. The equipment shall include a means for accurately weighing each bin size of aggregate in a weigh box or hopper suspended on scales ample in size to hold a full batch without hand raking or running over. The weigh box or hopper shall be supported on fulcrums and knife edges so constructed that they will not be easily thrown out of alignment or adjustment.

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(2) Mixer Unit for Batch Method. The plant shall include a steam jacketed bath mixer of an approved twin pug mill type and shall be capable of producing a uniform mixture within specification requirements.

5.09 Placing Equipment.

Equipment for spreading, shaping and finishing shall consist of an approved self-contained power machine operating in such a manner as to produce a surface which will comply with the specified requirements for smoothness. Necessary small tools, rakes, shovels, lutes, etc., shall be provided to correct any irregularities that may occur in placing the course. When and if so directed by the engineer, pneumatic tires, motor-driven blade grader in good condition and of an approved design may be used for leveling under the conditions hereinafter specified. It shall have a wheelbase of not less than 17 feet and shall weigh not less than 5 tons.

5.10 Rolling Equipment.

Rollers shall be designed for constructing bituminous courses. The power rollers shall be rollers rated at six to eight tons capacity and may be of the tandem type. The roller wheels shall be equipped with adjustable scrapers, which shall be used when necessary to clean the wheel surface. Rollers shall also be equipped with water tanks and sprinkling devices which shall be used to keep the wheels wet and prevent the mixture from sticking.

5.11 Weather Limitations.

Bituminous courses shall be constructed only when the surface is dry, when atmospheric temperature is above fifty degrees F. and when the weather is not rainy.

5.12 Equipment.

All equipment, tools, machines, plants, etc., shall be subject to the approval of the engineer and must be maintained in a satisfactory working condition at all times.

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5.13 Reconditioning of Sub-Grade, Existing Pavements and Base Courses.

(a) The sub-grade or base course of existing pavements previously constructed shall be reconditioned as herein specified below prior to laying the bituminous course. The sub-grade or base course surface shall be cleaned of loose and foreign matter by sweeping with power sweepers, power blowers or hand brooms as directed by the engineer.

(b) Sub-Grade. After the sub-grade has been graded and rolled to line and profile elevation the sub-grade shall be tested with a ten (10) foot straight edge applied parallel to and at right angles to the center lines. It shall not show any deviation in excess of three-eighths inches (3/8") and shall be to grade as shown on the drawings. Any deviation in excess of this amount shall be corrected by loosening, adding or removing material, reshaping and re-compacting as directed by the engineer. When so specified, the sub-grade shall be treated with a prime coat as specified elsewhere herein.

(c) Base Courses. The surface of the base course shall be inspected and tested by the engineer for tolerance as specified. Any deviation in excess of the requirements set forth shall be corrected and treated with a prime coat as specified elsewhere herein.

(d) Existing Pavements. The surface of existing pavements shall be thoroughly cleaned of all loose aggregate, clay, dirt, debris or other foreign matter. All holes, pavement failures and broken surfaces shall be repaired or reconstructed. In general, this work shall be as follows: Small potholes shall have all loose material removed and shall be thoroughly cleaned and mopped with a hot prime coat. These holes shall then be filled to grade with a hot bituminous binder material thoroughly compacted with suitable tool or roller. Larger areas, which show failure of base course shall have all unsuitable material, removed and shall be replaced with slag well choked or bituminous binder material as herein specified.

5.14 Mixing.

The bituminous mixture shall be produced in an approved plant as specified herein.

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(a) Preparation of Mineral Aggregate. The aggregate for the mixture shall be dried and heated, if necessary, before entering the mixer. The temperature of the aggregate at the time of mixing shall be the minimum as determined by the engineer, required for proper mixing and coating with the bituminous material. At no time shall the temperature be high enough to drive off the volatiles necessary to maintain the mixture in workable condition. The aggregate shall be screened to specified sizes and conveyed to separate bins ready for mixing with bituminous materials. Additional filler, if necessary, shall be proportioned and added to the mineral aggregate.

(b) Preparation of Bituminous Mixtures. The aggregate prepared as described above shall be accurately measured and conveyed into the mixer in the proportionate amounts of each aggregate required to meet the specified grading. The specified amount of bituminous material for each batch shall be introduced into the mixer. A sufficient interval of time shall be allowed after the addition of each material to secure thorough incorporating prior to the introduction of the next ingredient. The asphalt cement shall be introduced in such a manner that no segregation shall take place in the mixture. The aggregate and bitumen shall be mixed for at least thirty seconds or longer as may be necessary to thoroughly coat all the particles as directed by the engineer.

(c) Mixing Temperature. The mixing temperature of any mixture shall be specified by the engineer according to the mix, weather conditions, length of haul and other job conditions existing at the time the mixture is to be placed.

5.15 Transportation of Mixtures.

The mixture shall be transported from the plant to the site in trucks having clean, light metal beds and rear-end dump truck beds may be thinly coated with soapy water or a light oil distillate. When so directed by the engineer, each load shall be covered with canvas or other suitable material of ample size to protect it from the weather. Deliveries of material shall be made so that spreading and rolling of all mixture can be completed during daylight. Hauling over freshly laid material will not be permitted.

5.16 Placing.

The surface area over which a hot mix bituminous wearing surface is to be placed shall be swept clean of all foreign or objectionable matter as directed by the engineer. The mixture shall be dumped in an approved mechanical spreader or as Project Coordinator: Jacky McClendon 205 802-3875

specified. The speed of the mechanical spreader shall be regulated so that surface course will be smooth and of such depth that when compacted the course will conform to cross section, grade and contour required. In areas where the use of machine spreading is impractical, the mixture may be spread by hand, in which case the mixture shall be dumped on approved dump boards outside the area to be spread. The mixture shall be distributed into place by means of shovels spread with rakes and thoroughly combed in a uniformly loose layer of such thickness that when compacted it will conform to the required grade and thickness. Contact surfaces of previously constructed pavements shall be painted with a thin, uniform coat of hot asphalt cement just before mixture is placed.

5.17 Compaction of Mixture.

(a) Compaction shall be affected by tandem roller as specified. Rolling of the mixture shall begin as soon after spreading as it will bear a roller without undue displacement or hair cracking. Rolling shall start longitudinally at the extreme sides of the lanes and proceed toward the center of the pavement, overlapping on successive trips by at least one-half the width of the rear wheel of the roller. Alternate trips of the roller shall be of slightly different lengths. The mixture shall be subjected to diagonal rolling crossing the lines of the first. The motion of the roller shall at all times be slow enough to avoid displacement of the mixture. Any displacement of the mixture occurring as a result of reversing the direction of the roller or any other cause shall at once be corrected by the use of rakes and fresh mixture applied where required. Sufficient rollers shall be furnished to adequately handle the output of the plant. Rolling shall be continued until all roller marks are eliminated. To prevent adhesion of the mixture to the roller, the wheels shall be kept properly moistened, but an excess of water will not be permitted. The rollers shall be in good condition, suitable for rolling bituminous pavement and shall be operated by competent and experienced roller men. Places not accessible to the roller shall be compacted by hand tampers. Hand tampers shall weigh not less than twenty-five (25) pounds and shall have a tamping face area of not more than fifty (50) square inches. Skin patching on an area that has been rolled will not be permitted. Any mixture that becomes mixed with foreign material, or is in any way defective, shall be removed, replaced with fresh mixture, and compacted to the density of the surrounding area. The wearing Project Coordinator: Jacky McClendon 205 802-3875

course or binder course shall not be opened to travel until the material has set to the point where it will not pick up under traffic.

All "drippings", fat and lean areas and defective construction of any description, shall be replaced at the contractor's expense.

Depressions which develop before the completion of the rolling shall be remedied by loosening the mixture and adding new mixture to bring such depressions to a true surface. Should any depressions remain after the final compaction has been obtained, the full depth of mixture shall be removed and replaced with sufficient new mixture to form a true and even surface. All high spots, high joints and honeycombs shall be corrected as directed by the engineer.

Joints shall comply with the "Smoothness Tests" and present the same uniformity of texture, density, etc., as the other sections of the surface.

5.18 Edges of Pavement.

The outside edges of the pavement shall be trimmed neatly to line or gutter edge while the course is being finished.

5.19 Smoothness Tests.

The finished surface of the seal course shall not vary more than one-quarter inch (1/4") when measured by a ten foot (10') straight edge applied parallel with the center line. Tests for conformity with the specified crown and grade shall be made immediately after initial compression. Any variation shall be corrected by removing or adding materials and continuing the rolling. After the completion of final rolling the smoothness of the course shall be again checked and any irregularities exceeding the specified tolerances or that retain water on the surface shall be corrected by removing the defective work and replacing with new material, as directed by the engineer and at the expense of the contractor. An approved straight edge shall be furnished by the contractor for making these tests.

5.20 Sampling Pavements and Mixtures.

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manipulating, placing, shaping, compacting, rolling and finishing, improving unsatisfactory areas and furnishing all labor and incidentals necessary to complete the work in place.

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Suitable sized samples for the determination of thickness and density of the completed pavement may be removed and tested by the engineer. The contractor shall replace the pavement without cost where samples are removed. If any deficiency in composition, density, and thickness exceeds, the requirements specified herein, no payment shall be made for such areas of pavement and they shall be removed and replaced by the contractor as directed by the engineer. Only those materials that have been demonstrated by tests as satisfactory for the intended use will be acceptable.

5.21 Inspection of Plant and Materials.

(a) The paving plant, plant operation and materials shall be inspected and tested by an independent testing laboratory approved by the engineer. The inspector shall represent the engineer at the paving plant, inspecting the plant, operation, verification of weights, proportion and character of materials, checking temperatures, and any inspection necessary to insure mixture being produced in accordance with these specifications. The cost of this inspection shall be at the contractor's expense and as part of the cost of furnishing the materials.

(b) The testing laboratory shall furnish the engineer two certified copies of test reports on all materials and daily reports of plant operations and inspection.

5.22 Determination of Pay Quantities.

The quantities of binder course and seal course, for which payment will be allowed, shall be expressed in tons, and shall be the actual number of tons of hot laid bituminous plant mix used in the completed and accepted work, as verified by the plant inspector. When and as directed by the engineer, trucks shall be weighed at periodic intervals.

5.23 Payment.

Payment for hot laid binder course and seal course placed under these specifications will be made for the quantities determined in the manner specified above at the applicable contract unit price per ton as listed under Item V of the contract pay items. This amount, so paid, shall constitute full compensation for preparing or reconditioning base course or sub-grade and for furnishing all material, including asphalt, all equipment and tools and for handling, mixing,

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ADDENDUM TO AGREEMENT BETWEEN THE CITY OF MOUNTAIN BROOK AND SUCCESSFUL BIDDER DATED

THIS ADDENDUM ("the Addendum") to the principal agreement between the City of Mountain Brook, Alabama ("the City") and Dunn Construction, Inc. ("the Contractor") dated March 12, 2013.

This Addendum is a part of the principal agreement, but supersedes and controls any conflicting or inconsistent terms or provisions in the principal agreement, particularly to the extent the conflicting or inconsistent terms or provisions purport either (a) confer greater rights or remedies on the Contractor than are provided herein or under otherwise applicable law, or to (b) reduce, restrict, or eliminate rights or remedies that would be available to the City under otherwise applicable law. The addendum shall remain in full force and effect with respect to any amendment, extension, or supplement of or to the principal agreement, whether or not expressly acknowledged or incorporated therein. No agent, employee, or representative of the City is authorized to waive, modify, or suspend the operation of the Addendum or any of its terms or provisions without express approval of the Mountain Brook City Council.

1. **Definitions.** For purposes of this Addendum, the terms below have the following meanings:
 - A. "The City" refers to and includes the City of Mountain Brook, Alabama, and its constituent departments, boards, and agencies.
 - B. "The (this) Agreement" refers to the principal contract, agreement, proposal, quotation, or other document that sets forth the basic terms and conditions under which the Contractor is engaged to provide goods, materials, or services to the City, including the payment or other consideration to be provided by the City in exchange therefore.
 - C. "The Contractor" refers to the person, firm, or other legal entity that enters into an agreement with the City to provide goods, materials, or services to the City, and includes vendors and suppliers providing goods, materials, and services to the City with or without a formal contract as well as the Contractor's vendors, suppliers, and subcontractors.
2. **Arbitration; Mediation; Alternate Dispute Resolution.** The City agrees to arbitrate disputes or to engage in alternate dispute resolution (ADR) if arbitration or ADR is required by the agreement as a means of resolving disagreements arising thereunder or is a precondition to the pursuit of other legal remedies, but only to the extent (1) the rights and remedies available under such arbitration rules or processes do not afford the Contractor greater relief (e.g., attorney's fees, damages, etc.) than would be available under otherwise applicable law, (2) the venue for the arbitration or mediation proceeding is in Jefferson County, Alabama, and (3) the costs of such proceedings (including the fees of the arbitrator or mediator) are divided evenly between the parties.
3. **Attorney's Fees; Court Costs; Litigation Expenses.** The City shall not be liable for attorney's fees, court costs, litigation expenses, and like charges except and to the extent such fees, costs, and charges would be assessed against the City under applicable law in the absence of any contractual provision imposing or assigning liability therefor.

Project Coordinator: Jacky McClendon 205 802-3875

- 4. **Late Payment Charges; Fees; Interest.** The City shall not be liable for any late payment charges, interest, or fees on any delinquent bill for goods, materials, or services at a rate higher than two-thirds of one percent per month (eight percent per annum), but bills rendered to the City shall not be considered delinquent any earlier than thirty (30) days after rendition of a complete and accurate bill by the Contractor. Contested bills shall not be subject to late payment charges pending resolution of the dispute.
- 5. **Indemnification; Hold-Harmless; Release; Waiver; Limitations of Liability or Remedies.** The City shall not and does not indemnify, hold harmless, or release the Contractor or any other person, firm, or legal entity for, from, or with respect to any claim, cause of action, cost, charge, fee, expense, or liability whatsoever arising out of or relating to the subject matter of the agreement or the performance or nonperformance thereof; nor shall or does the City waive its right to assert or pursue any remedy or claim for relief of any kind that it may have against the Contractor or any other person, firm, or entity in privity therewith or acting on Contractor's behalf. Any limitation or restriction regarding the type, nature, form, amount, or extent of any right, remedy, relief, or recovery that would otherwise be available to the City is expressly disavowed, excluded from the terms of the agreement, and void.
- 6. **Choice of Law; Choice of Venue or Forum.** The meaning, legal effect, and enforcement of terms and provisions of the agreement and the resolution of any disputes arising thereunder or relating thereto shall be governed by the laws of the State of Alabama except to the extent otherwise required by applicable conflict-of-law principles. The venue of any suit, action, or legal proceeding brought to enforce or secure relief by reason of any asserted breach of duty arising out of or relating to the performance or nonperformance of the agreement shall be Jefferson County, Alabama except to the extent otherwise required by applicable principles of law.
- 7. **Construction of Addendum.** Nothing in this Addendum shall be construed to create or impose any duty or liability on the City, to create a right or remedy in favor of the Contractor against the City, or to restrict or abrogate any right or remedy that is available to the City against the Contractor or any other person, firm, or entity under either the principal agreement or as a matter of law.
- 8. **Alabama Immigration Law Compliance Contract.** Contractor agrees that it will fully comply with the Immigration Reform and Control Act of 1986, as amended by the Immigration Act of 1990, and the Beason-Hammon Alabama Taxpayer and Citizen Protection Act, which makes it unlawful for an employer in Alabama to knowingly hire or continue to employ an alien who is or has become unauthorized with respect to such employment or to fail to comply with the I-9 requirements or fails to use E-Verify to verify the eligibility to legally work in the United States for all of its new hires who are employed to work in the State of Alabama. Without limiting the foregoing, Contractor shall not knowingly employ, hire for employment, or continue to employ an unauthorized alien, and shall have an officer or other managerial employee who is personally familiar with the Contractor's hiring practices to execute an affidavit to this effect on the form supplied by the Board and return the same to the City. Contractor shall also enroll in the E-Verify Program prior to performing any work, or continuing to perform any ongoing work, and shall remain enrolled throughout the entire course of its performance hereunder, and shall attach to its affidavit the E-Verify Program for Employment Verification and Memorandum of Understanding

Project Coordinator: Jacky McClendon 205 802-3875

NOTICE

To: CONTRACTORS AND GRANTEES
 FROM: THE CITY OF MOUNTAIN BROOK
 ATTN: STEVEN BOONE
 P. O. BOX 130008, MOUNTAIN BROOK, ALABAMA 35213-0208
ALABAMA IMMIGRATION LAW COMPLIANCE
 The purpose of this Memorandum is to alert you to the Alabama Immigration Law Compliance flow-down requirements that became effective on January 1, 2012. These are discussed herein and can be summarized as follows:
 1. PROVIDE The City of Mountain Brook ("the City") documentation supporting your compliance with the Immigration law by timely submitting a notarized Affidavit of Alabama Immigration Compliance by a Business Entity/Employer/Contractor to a Political Subdivision of the State of Alabama and an E-Verify Memorandum of Understanding;
 2. PROVIDE The City a signed Alabama Immigration Law Compliance Contract in the attached Notice form provided;
 3. PROVIDE your subcontractors notice of their compliance obligations and OBTAIN from each a notarized Affidavit of Alabama Immigration Compliance by a Subcontractor.
 The requirements above, imposed by HB 56, are a condition for the award of any contract, grant, or incentive by the State of Alabama, any political subdivision thereof, or any state-funded entity to a business entity or employer that employs one or more employees (working in the State of Alabama). As a Contractor or a Grantee, if you believe these obligations do not apply to you, please notify the City immediately.
 For your convenience, we have included for your use a sample AFFIDAVIT OF ALABAMA IMMIGRATION COMPLIANCE BY A BUSINESS ENTITY/EMPLOYER/CONTRACTOR TO A POLITICAL SUBDIVISION OF THE STATE OF ALABAMA. Please complete, and return a copy to The City of Mountain Brook along with your attached E-VERIFY MEMORANDUM OF UNDERSTANDING. See ALA. CODE § 31-13-9 (c).
 You are also required to obtain from your subcontractors a notarized AFFIDAVIT OF IMMIGRATION COMPLIANCE BY A SUBCONTRACTOR. A careful review of the broad definition below of the term "Contractor" in the Act will assist you in deciding to whom to provide notice.
 If you contract with more than one local government, you will only need to have one affidavit completed and notarized, and then provide a copy to the requesting governmental entities. You are required to maintain your subcontractors' affidavits at your offices. These documents will be subject to audit. You may provide a copy of this Memorandum with your memorandum to your subcontractors as an explanation for this mandatory requirement.
 Finally, you will find a NOTICE OF ALABAMA IMMIGRATION LAW COMPLIANCE REQUIREMENTS TO ALL CONTRACTORS OF THE CITY OF MOUNTAIN BROOK, ALABAMA ("ALABAMA IMMIGRATION COMPLIANCE CONTRACT") for execution by contractors and to be returned to the City of Mountain Brook. To the extent that there is no formal written contract between a contractor and the City (e.g., where business is conducted by purchase order), this document shall serve as your Alabama Immigration Compliance Contract. Similar language shall also be included in all future contracts and agreements executed with the City of Mountain Brook.
 1.ALA. CODE § 31-13-9 (a) and (b). See <http://www.legis.state.al.us/Files/immigration-AL-Law-2011-535>. The law is now codified in ALA. CODE §§ 31-13-9 to 31-13-10 as well as § 33-6-6 (the "Act").
 2.A Contractor is defined broadly in the Act as "A person, employer, or business entity that enters into an agreement to perform any service or work or to provide a certain product in exchange for valuable consideration. This designation shall include, but not be limited to, a general contractor, subcontractor, independent contractor, contract employee, project manager, or a consulting or staffing entity." ALA. CODE §§ 31-13-9 (1).

Project Coordinator: Jacky McClendon 205 802-3875

APPENDIX 2

and such other documentation as the Board may require to confirm Contractor's enrollment in the E-Verify Program. Contractor agrees not to knowingly allow any of its subcontractors, or any other party with whom it has a contract, to employ in the State of Alabama any illegal or undocumented aliens to perform any work in connection with the Project, and shall include in all of its contracts a provision substantially similar to this paragraph. If Contractor receives actual knowledge of the unauthorized status of one of its employees in the State of Alabama, it will remove that employee from the project, jobsite or premises of the City and shall comply with the Immigration Reform and Control Act of 1986, as amended by the Immigration Act of 1990, and the Beason-Hammon Alabama Taxpayer and Citizen Protection Act. Contractor shall require each of its subcontractors, or other parties with whom it has a contract, to act in a similar fashion. If Contractor violates any term of this provision, this Agreement will be subject to immediate termination by the City. To the fullest extent permitted by law, Contractor shall defend, indemnify and hold harmless the City from any and all losses, consequential damages, expenses (including, but not limited to, attorneys' fees), claims, suits, liabilities, fines, penalties, and any other costs arising out of or in any way related to Contractor's failure to fulfill its obligations contained in this paragraph.

DATED this 11 day of March, 2013.

Dunn Construction Company, Inc.

City of Mountain Brook, Alabama

By: _____

By: *[Signature]*

Its: _____

Its: *[Signature]*

AFFIDAVIT OF ALABAMA IMMIGRATION COMPLIANCE BY A BUSINESS ENTITY/EMPLOYER/CONTRACTOR TO A POLITICAL SUBDIVISION OF THE STATE OF ALABAMA

(to be completed as a condition for the award of any contract, grant, or incentive by the State of Alabama, any political subdivision thereof, or any state-funded entity to a business entity)

City of Mountain Brook, Alabama
 FORM FOR SECTIONS 9 (a) and (b) BEASON-HAMMON ALABAMA TAXPAYER AND CITIZEN PROTECTION ACT;
 CODE OF ALABAMA, SECTIONS 31-13-9 (a) and (b)

State of _____
 County of _____

Before me, a notary public, personally appeared _____ (print name) who, being duly sworn, says as follows:

As a condition for the award of any contract, grant, or incentive by the State of Alabama, any political subdivision thereof, or any state-funded entity to a business entity or employer that employs one or more employees, I hereby attest that in my capacity as _____ (state position) for _____ (state business entity/employer/contractor name) that said business entity/employer/contractor shall not knowingly employ, hire for employment, or continue to employ an unauthorized alien.

I further attest that said business entity/employer/contractor is enrolled in the E-Verify program. (ATTACH A COPY OF YOUR ORGANIZATION'S E-VERIFY MEMORANDUM OF UNDERSTANDING TO DOCUMENT THAT THE BUSINESS ENTITY/EMPLOYER/CONTRACTOR IS ENROLLED IN THE E-VERIFY PROGRAM.)

I further attest that all sub-contractors in my employment are duly enrolled in the E-Verify program and upon request can produce the appropriate forms verifying such action.

Signature of Affiant (an Officer or Owner of Contractor)

E-Verify User Identification Number

Sworn to and subscribed before me this _____ day of _____, 2013.

I certify that the affiant is known (or made known) to me to be the identical party he or she claims to be.

Signature and Seal of Notary Public

My Commission Expires: _____

[Seal]

NOTICE OF ALABAMA IMMIGRATION LAW COMPLIANCE REQUIREMENTS TO ALL CONTRACTORS OF THE CITY OF MOUNTAIN BROOK, ALABAMA ("ALABAMA IMMIGRATION COMPLIANCE CONTRACT")

As a Contractor, as defined in the Act, to the CITY OF MOUNTAIN BROOK, ALABAMA ("the City"), it is critical to your relationship (future or continuing) with the City that you comply with the Immigration Reform and Control Act of 1986, as amended by the Immigration Act of 1990, and the Beason-Hammon Alabama Taxpayer and Citizen Protection Act. Accordingly, please provide your Affidavit of Immigration Compliance with attached E-Verify Memorandum of Understanding, as requested in the attached memorandum. If you do not believe these obligations apply to you, please notify the City immediately. Effective January 1, 2012, every contract entered into by the City a contractor will contain the following clause or one substantially similar:

Alabama Immigration Law Compliance Contract: Contractor agrees that it will fully comply with the Immigration Reform and Control Act of 1986, as amended by the Immigration Act of 1990, and the Beason-Hammon Alabama Taxpayer and Citizen Protection Act, which makes it unlawful for an employer in Alabama to knowingly hire or continue to employ an alien who is or has become unauthorized with respect to such employment or to fail to comply with the I-9 requirements or fails to use E-Verify to verify the eligibility to legally work in the United States for all of its new hires who are employed to work in the State

Project Coordinator: Jacky McClendon 205 802-3875

Project Coordinator: Jacky McClendon 205 802-3875

of Alabama. Without limiting the foregoing, Contractor shall not knowingly employ, hire for employment, or continue to employ an unauthorized alien, and shall have an officer or other managerial employee who is personally familiar with the Contractor's hiring practices to execute an affidavit to this effect on the form supplied by the Board and return the same to the City. Contractor shall also enroll in the E-Verify Program prior to performing any work, or continuing to perform any ongoing work, and shall remain enrolled throughout the entire course of its performance hereunder, and shall attach to its affidavit the E-Verify Program for Employment Verification and Memorandum of Understanding and such other documentation as the Board may require to confirm Contractor's enrollment in the E-Verify Program. Contractor agrees not to knowingly allow any of its subcontractors, or any other party with whom it has a contract, to employ in the State of Alabama any illegal or undocumented aliens to perform any work in connection with the Project, and shall include in all of its contracts a provision substantially similar to this paragraph. If Contractor reaches actual knowledge of the unauthorized status of one of its employees in the State of Alabama, it will remove that employee from the project, jobsite or premises of the City and shall comply with the Immigration Reform and Control Act of 1986, as amended by the Immigration Act of 1990, and the Reason-Hammon Alabama Taxpayer and Citizen Protection Act. Contractor shall require each of its subcontractors, or other parties with whom it has a contract, to act in a similar fashion. If Contractor violates any term of this provision, this Agreement will be subject to immediate termination by the City. To the fullest extent permitted by law, Contractor shall defend, indemnify and hold harmless the City from any and all losses, consequential damages, expenses (including, but not limited to, attorney's fees), claims, suits, judgments, fines, penalties, and any other costs arising out of or in any way related to Contractor's failure to fulfill its obligations contained in this paragraph.

To the extent that there is no formal written contract between the City and the Contractor (e.g., where business is conducted by purchase order), this document shall serve as the Alabama Immigration Compliance Contract.

Alabama Immigration Law Compliance Contract Notice Acknowledged and Agreed by Contractor whose name appears below:

Contractor Officer or Owner Signature/Date _____

Print Name/Title/Company _____

Please execute and return to THE CITY OF MOUNTAIN BROOK, ALABAMA within the next 10 days. Enclosed into contract addendum.

Project Coordinator: Jacky McClendon 205 802-3875

AFFIDAVIT OF ALABAMA IMMIGRATION COMPLIANCE BY A SUBCONTRACTOR TO A POLITICAL SUBDIVISION OF THE STATE OF ALABAMA

To be completed as a condition for the award of any [sub]contract, grant, or incentive by the State of Alabama, any political subdivision thereof, or any state-funded entity to a business entity. TO BE RETURNED TO THE CONTRACTOR OR GRANTEE OF THE CITY OF MOUNTAIN BROOK, ALABAMA.

City of Mountain Brook, Alabama
 FORM FOR SECTIONS 9 (a) and (b) REASON-HAMMON ALABAMA TAXPAYER AND CITIZEN PROTECTION ACT;
 CODE OF ALABAMA, SECTIONS 31-13-9 (a) and (b)

State of _____
 County of _____

Before me, a notary public, personally appeared _____ (print name) who, being duly sworn, says as follows:

As a condition for the award of any [sub]contract, [sub]grant, or incentive by the State of Alabama, any political subdivision thereof, or any state-funded entity to a business entity or employer that employs one or more employees, I hereby attest that in my capacity as _____ (state position) for _____ (state business entity/employer/contractor name) that said business entity/employer/[sub]contractor shall not knowingly employ, hire for employment, or continue to employ an unauthorized alien.

I further attest that said business entity/employer/contractor is enrolled in the E-Verify program. (ATTACH A COPY OF YOUR ORGANIZATION'S E-VERIFY MEMORANDUM OF UNDERSTANDING TO DOCUMENT THAT THE BUSINESS ENTITY/EMPLOYER/[SUB]CONTRACTOR IS ENROLLED IN THE E-VERIFY PROGRAM.)
 I further attest that all sub-contractors in my employment are duly enrolled in the E-Verify program and upon request can produce the appropriate forms verifying such action.

Signature of Affiant (an Officer or Owner of [Sub]Contractor) _____

E-Verify User identification Number _____

Sworn to and subscribed before me this _____ day of _____, 20____.

I certify that the affiant is known (or made known) to me to be the identical party he or she claims to be.

Signature and Seal of Notary Public _____

My Commission Expires: _____

[Seal]

Project Coordinator: Jacky McClendon 205 802-3875



February 25, 2013

Steve Boone
City of Mountain Brook
802-3825

Steve,

The following price of \$340.00 is for the addition of a pedestal mount for the card reader leading into the parking deck. The original RFP# 16 had Taylor Miree providing the pedestal.

Alscan requests a response no later than 10 days.

Sincerely,

Daniel Tourtelotte
Daniel Tourtelotte
Alscan, Inc.



Request for Information Alscan0003
Detailed RFPs Grouped by RFP Number

Min Brook Municipal Complex
66 Church Street, Mountain Brook, AL 35213
Tel: 205-478-7770 Fax: 205-478-7771
Brasfield & Gorrie LLC
Project # 16132cc

Prepared By:	William Brasfield Architects PC 2204 First Avenue South Suite 200 Birmingham, AL 35223	Designer:	Mare Fugate	Submittal #:	Alscan Inc 237 Cassard Circle Suite 101 Birmingham, AL 35209	Designer:	Don Tourtelotte
Co-Prepared:		Author RFP Number:	3				

Subject: RFP #16 Questions
Category: Architectural

File: [unclear]

Comments: [unclear]

- 1) Who is to provide the pedestal? The electrical contractor is to provide all of the conduit.
- 2) Also, the 200-6 is not a valid number from Engineering Parking Systems. Do you mean 200-6?
- 3) Is the pedestal to be mounted on a island (4" height) or at street level?

Responses: [unclear]

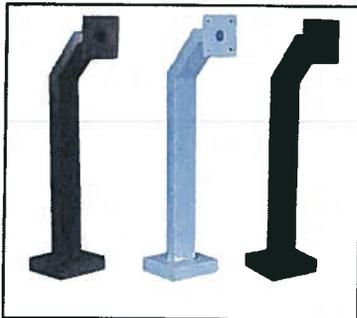
Response #1: [unclear]

- 1. [unclear]
- 2. [unclear]
- 3. The pedestal will be mounted on an island. The curb is actually 6"

APPENDIX 3

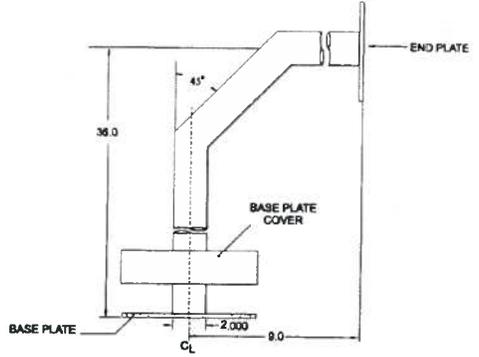
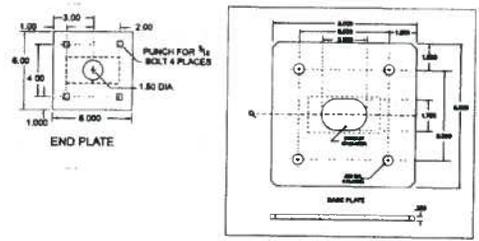
MODEL 306-6

Card Reader Pedestals



These pedestals are typically used to install card readers or intercoms at drive-up and pedestrian access points. Made of 2" X 4" rectangular steel tubing with a 6" X 6" mounting plate and 8" X 8" base plate. A steel base plate cover is provided to conceal the mounting hardware. Housings and adapters are available for these pedestals to accommodate most access control devices such as card readers and intercoms.

HEIGHT TO CENTER OF MOUNTING PLATE: 36"
ARM EXTENSION: 9"
MATERIAL: 2" X 4" Rectangular steel tubing
FINISH: White, Black or Beige Powder Coat



MODEL 306-6 PEDESTAL GENERAL DIMENSIONS



ENGINEERED PARKING SYSTEMS
25010 AVENUE TIBBITTS, VALENCIA, CA 91355
PHONE (861) 294-0778 (800) EPSRINFO (377-4636) FAX (861) 294-0874
www.epsinfo.com



ENGINEERED PARKING SYSTEMS
25010 AVENUE TIBBITTS, VALENCIA, CA 91355
PHONE (861) 294-0778 (800) EPSRINFO (377-4636) FAX (861) 294-0874
www.epsinfo.com

RESOLUTION NUMBER 2013-047

BE IT RESOLVED, by the City Council of the City of Mountain Brook, Alabama as follows:

- 1. That the City enter into an agreement with the State of Alabama, acting by and through the Alabama Department of Transportation for:

Project CMAQ-PE12() a preliminary engineering project to design sidewalks along Brookwood Road, Crosshill Road and Oakdale Drive, Phase 9 of a citywide project, in the City of Mountain Brook, Alabama; which Agreement is before this Council.

- 2. That the Agreement be executed in the name of the City, by its Mayor, for and on its behalf;
- 3. That the Agreement be attested by the City Clerk and the seal of the City affixed thereto.

BE IT FURTHER RESOLVED that upon the completion of the execution of the Agreement by all parties, that a copy of such Agreement be kept on file by the City Clerk.

Passed, adopted and approved this 11th day of March, 2013.

ATTESTED:

Steven Boone
City Clerk

[Signature]
Mayor, City of Mountain Brook

I, the undersigned qualified and acting City Clerk of the City of Mountain Brook, do hereby certify that the above and foregoing is a true copy of a resolution passed and adopted by the City Council of the City named therein, at a regular meeting of such Council held on the 11th day of March, 2013 and that such resolution is on file in the City Clerk's Office.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the official seal of the City on this 11th day of March, 2013.

Steven Boone
City Clerk

CONSULTANT 3/19/90
REVISED 7/18/90
REVISED 6/16/11

EXHIBIT M

CERTIFICATION FOR FEDERAL-AID CONTRACTS: LOBBYING

This certification is applicable to the instrument to which it is attached whether attached directly or indirectly with other attachments to such instrument.

The prospective participant/recipient, by causing the signing of and the submission of this Federal contract, grant, loan, cooperative AGREEMENT, or other instrument as might be applicable under Section 1352, Title 31, U. S. Code, and the person signing same for and on behalf of the prospective participant/recipient each respectively certify that to the best of the knowledge and belief of the prospective participant or recipient and of the person signing for and on behalf of the prospective participant/recipient, that:

- (1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the prospective participant/recipient or the person signing on behalf of the prospective participant/recipient as mentioned above, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- (2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, or other instrument as might be applicable under Section 1352, Title 31, U. S. Code, the prospective participant/recipient shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U. S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

The prospective participant/recipient also agrees by submitting this Federal contract, grant, loan, cooperative agreement or other instrument as might be applicable under Section 1352, Title 31, U. S. Code, that the prospective participant/recipient shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such subrecipients shall certify and disclose accordingly.

Sam Gaston

From: Bailey, Alicia
Sent: Friday, January 25, 2013 8:46 AM
To: Sam Gaston
Cc: Meads, Jim
Subject: Mountain Brook Phase 9
Attachments: City to ALDOT letter requesting permission.docx

Sam,
 You had given me a copy of the Phase 9 PE funding agreement. Has the Council approved this and the executed copy sent to ALDOT?

If so, the next step is to submit a letter (see attached) to ALDOT requesting permission to select a consultant from the on-call list. Once they provide permission, we send a letter saying you pick Sain from the list. Then ALDOT will send you a letter approving the selection and will tell us that we can enter into an agreement.

Alicia Bailey, PE
 Team Leader/Transportation

244 West Valley Avenue, Suite 200
 Birmingham, Alabama 35209
 Direct: (205) 263-2169
 Cell: (205) 910-2699

Email: abailey@sain.com
 Website: www.sain.com



DISCLAIMER NOTICE

This e-mail and any attachments may contain confidential and privileged information. If you are not the intended recipient, please notify the sender immediately by return e-mail, delete this e-mail and destroy any copies. Any dissemination or use of this information by a person other than the intended recipient is unauthorized and may be illegal.

Sain Associates, Inc.
 244 W. Valley Ave. Suite 200
 Birmingham, AL 35209
 205-940-6420

1/25/2013

January 25, 2013

Mr. Brian C. Davis, P.E.
 Division Engineer
 Alabama DOT - 3rd Division
 1020 Bankhead Highway West
 Birmingham, AL 35204

SUBJECT: Mountain Brook Sidewalks Phase 9
 CMAQ-PE12()
 Reference No. 100056493

Attention: Lance Taylor, P.E.

Dear Mr. Taylor:

The City of Mountain Brook is requesting permission to select a consultant from the on-call Design Services list to perform the Preliminary Engineering for the subject project. The City of Mountain Brook will entertain a fee proposal from the Consultant upon written approval from your office and will follow fee proposal procedures in accordance with ALDOT and FHWA guidelines.

If any additional information is required, please feel free to contact me at (205) 802-3803.

Sincerely,

Sam Gaston
 City Manager

AGREEMENT FOR PRELIMINARY ENGINEERING BETWEEN THE STATE OF ALABAMA AND THE CITY OF MOUNTAIN BROOK

Project CMAQ-PE12() Sidewalks Phase 9 along Brookwood Road, Crosshill Road and Oakdale Drive Mountain Brook, Alabama Reference Number:100056493

THIS AGREEMENT is made and entered into by and between the State of Alabama, acting by and through the Alabama Department of Transportation, hereinafter referred to as STATE; and the City of Mountain Brook, Alabama, hereinafter referred to as CITY, in cooperation with the United States Department of Transportation, Federal Highway Administration, hereinafter referred to as the FHWA; and

WHEREAS, a Transportation Improvement Program has been developed for the Birmingham urbanized area and certain transportation improvements and priorities are listed therein; and

WHEREAS, it is in the public interest for the STATE and the CITY to cooperate toward the implementation of the Transportation Improvement Program; and

WHEREAS, the STATE and the CITY desire to cooperate in a preliminary engineering project to design sidewalks along Brookwood Road, Crosshill Road and Oakdale Drive, Phase 9 of a citywide project, in the City of Mountain Brook, Alabama.

WHEREAS, Federal transportation funds are dedicated specifically to the Birmingham Area by the 2005 Safe, Accountable, Flexible and Efficient Transportation Equity Act-Legacy for Users (SAFETEA-LU), as directed by the Birmingham Metropolitan Planning Organization (MPO), and hereinafter referred to as Congestion Mitigation and Air Quality (CMAQ) Improvement Program funds.

NOW, THEREFORE, the parties hereto, for, and in consideration of the premises stated herein do hereby mutually promise, stipulate, and agree as follows:

- 1) The CITY will perform or have performed all services required to fulfill the purposes of this Agreement. The Third Division of the Alabama Department of Transportation will be the lead agency for the STATE relative to the work under this agreement and will be the point of contact for the CITY. Plans will be by or for the CITY and approved by the STATE.
2) This Agreement will cover all aspects of the preliminary engineering phase of the project. The preliminary engineering phase is hereby defined as that work necessary to advance the development of the Project through construction authorization by FHWA. This phase will include all environmental studies and documentation required by FHWA.

2013-047

- 3) Funding for this Agreement is subject to the availability of Federal Aid funds at the time of authorization by FHWA.
4) This Project will be administered by the CITY and all cost will be financed, when eligible for Federal participation, on the basis of 80 percent Federal funds and 20 percent CITY funds. Any rescission mandated by Congress will be applied to the Federal Funds if applicable. The estimated cost and participation by the various parties are as follows:

Table with 4 columns: Category, Total Estimated Cost, Total Estimated Federal Funds, Estimated Local Funds. Rows include Preliminary Engineering and Total.

It is understood that the above is an estimate only, and in the event the final cost exceeds the estimate, the CITY will be responsible for its proportional share above noted. The project will commence upon execution of this agreement and upon written authorization to proceed from the STATE directed to the CITY. After obligation, these funds are available until expended.

- 5) It is expressly understood that this is a cost reimbursement program and no federal funds will be provided to the CITY prior to accomplishment of work for which reimbursement is requested.
6) The CITY agrees that in the event the FHWA determines, due to rules and/or regulations of FHWA (including but not limited to delay of the projects, or delay of projects contemplated to be developed and accomplished in sequence to the current projects) that Federal funds expended on this project must be refunded to the FHWA, the CITY will reimburse and pay to the STATE a sum of money equal to the total amount of STATE and Federal funds expended under this Agreement.
7) The CITY will, when appropriate, submit invoices to the STATE for reimbursement for work performed by or for the CITY in carrying out the terms of this agreement. Requests for reimbursement will be made on forms provide by the STATE and will be submitted through the Division Engineer for payment. The CITY may bill the STATE not more often than once per month for the funds due for work performed under this Agreement. Invoices for payment will be submitted in accordance with state law and will indicate that the payment is due, true, correct, unpaid and the invoice will be notarized. Invoices for any work performed by the CITY under the terms of this agreement will be submitted within twelve (12) months after the completion and acceptance by the STATE for the work. Any invoices submitted after this twelve-month period will not be eligible for payment.
8) The performances of the work covered by this Agreement will be in accordance with the current regulations and requirements of the STATE and FHWA.

APPENDIX 5

- 9) Any service of the STATE necessary to carry out the intent of this Agreement will be in accordance with the current regulations and requirements of the STATE and FHWA.
- 10) The STATE will assist the CITY in any public involvement actions that may be required.
- 11) The STATE will provide without cost to the CITY information available from its records that will facilitate the performance of the work.
- 12) Agency to Indemnify: The CITY will be responsible at all times for all of the work performed under this Agreement and the CITY will protect, defend, indemnify and hold harmless the State of Alabama, the Alabama Department of Transportation, the officials, officers, employees in both their official and individual capacities, and their agents and/or assigns, from and against any and all actions, damages, claims, loss, liabilities, including attorney's fees and expenses whatsoever or any amount paid in compromise thereof arising out of or connected with the work performed under this Agreement.
By entering into this agreement, the CITY is not an agent of the STATE, its officers, employees, agents or assigns. The CITY is an independent entity from the STATE and nothing in this Agreement creates an agency relationship between the parties.
- 13) Agreement Change: The terms of this Agreement may be modified by supplemental agreement duly executed by the parties hereto.
- 14) Termination: Either party has the right to terminate this Agreement at any time by giving thirty (30) days written notice of termination. Said notice will be mailed by certified or registered mail.
- 15) It is clearly understood by both parties that the STATE does not commit any STATE or Federal funds beyond those mentioned herein and that a separate Agreement will be required for the construction of the proposed improvements.
- 16) Arbitration: Any dispute concerning a question of fact in connection with the work not disputed of by this Agreement between the CITY and the STATE will be referred to the director of the State of Alabama Department of Transportation, whose decision will be final.
- 17) Exhibits M and N are hereby attached to and made a part of this Agreement.
- 18) 7/24th Law: Nothing shall be construed under the terms of this Agreement by the CITY or the STATE that shall cause any conflict with Section 23-1-63, Code of Alabama, 1975.

IN WITNESS WHEREOF, the parties hereto cause this Agreement to be executed by those officers, officials and persons thereunto duly authorized, and the Agreement is deemed to be dated and to be effective on the date hereinafter stated as the date of the approval of the Governor of Alabama.

SEAL

ATTEST:

BY: Steven Boone
City Clerk (Signature)
Steven Boone
Type name of Clerk

THE CITY OF MOUNTAIN BROOK
BY: Lawrence T. Oden
Mayor (Signature)
Lawrence T. Oden
Type name of Mayor

APPROVED AS TO FORM:

BY: _____
Jim R. Ippolito, Jr.
Chief Counsel
Alabama Department of Transportation

RECOMMENDED FOR APPROVAL:

Brian C. Davis
Division Engineer

Robert J. Jilla,
Multimodal Transportation Engineer

G. M. Harper, P.E.
Acting Chief Engineer

STATE OF ALABAMA
ACTING BY AND THROUGH THE
ALABAMA DEPARTMENT OF
TRANSPORTATION

John R. Cooper, Transportation Director

The foregoing Agreement is hereby executed in the name of the State of Alabama and signed by the Governor on this _____ day of _____, 20_____.

Robert Bentley
Governor, State of Alabama



ALABAMA DEPARTMENT OF TRANSPORTATION

THIRD DIVISION
OFFICE OF DIVISION ENGINEER
1020 BANKHEAD HWY. WEST
P.O. Box 2745
BIRMINGHAM, ALABAMA 35202-2745
Telephone: (205) 328-5820 FAX: (205) 254-3199

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Robert Bentley
Governor

John R. Cooper
Transportation Director

November 5, 2012

The Honorable Lawrence Oden
Mayor, City of Mountain Brook
City Hall
P.O. Box 130009
Mountain Brook, Alabama 35213-0009

RE: Jefferson County
Project Number: CMAQ-PE12()
[Proj. Ref. No. 100056493]
Mountain Brook Sidewalks - Phase 9
Along Brookwood Road, Crosshill Road
and Oakdale Drive in the City of Mountain
Brook

Dear Mayor Oden,

I have enclosed the original Preliminary Engineering Agreement (and one copy) between the State of Alabama and the City of Mountain Brook, Alabama for the above referenced project.

This Agreement is submitted to the City for approval. After execution by the City Council, please return the original document and the copy, with original signature and the City Seal affixed to both to this office for further handling. A certified resolution, which authorizes the Mayor to sign the Agreement, affixed with the City seal should be included with the original Agreement, as well as with the copy.

If I can supply you with any additional information or clarify any point contained herein, please feel free to contact me at your convenience.

Sincerely,

Brian C. Davis
Division Engineer

BCD/LAT/SFPB
Enclosure

C: Mrs. Sandra F. P. Bonner
File w/Enc.

2013-047



Robert Bentley
Governor

ALABAMA DEPARTMENT OF TRANSPORTATION

1409 Coliseum Boulevard, Montgomery, Alabama 36110



John R. Cooper
Transportation Director

October 29, 2012

Mr. Brian C. Davis
Division Engineer
Alabama Department of Transportation
Post Office Box 2745
Birmingham, Alabama 35202

SUBJECT: CMAQ-PE12()
Mountain Brook Sidewalks Phase 9
Along Brookwood Road, Crosshill Road, and Oakdale Drive
Mountain Brook, Alabama
Jefferson County
Reference Number: 100056493

Dear Mr. Davis:

The enclosed funding agreement between the State and the City of Mountain Brook, Alabama, is to obligate federal funds for preliminary engineering for the referenced project.

Please review this agreement and, if it is acceptable, present it to the city for approval. The agreement should be executed by the city, signed by the mayor with the city seal affixed and a resolution attached authorizing the mayor to be the signatory on behalf of the city. After the agreement is executed by the city, please sign and return this document to this office.

Please contact Mary Lou Crenshaw at 334-353-6439 if you have any questions.

Sincerely,

Robert J. Jilla
Multimodal Transportation Engineer

By:
C. W. Colson, Jr.
Special Programs Engineer

RJJ:CWC:mlc
Attachment
c: file

7



MOUNTAIN BROOK
SCHOOLS

February 27, 2013

Mountain Brook City Council
Mountain Brook City Hall
56 Church Street
Mountain Brook, AL 35213

APPENDIX 6

Please place the following request on your March 11, 2013, Council Meeting agenda.

Request exemption of permit fees for site and building work for contracted and locally performed projects at our several campus locations.

Mountain Brook Board of Education maintains a Long Range Capital Replacement and Improvement Plan based on curriculum changes, student enrollment and building assessments. These factors drive the need for additions, renovation and site work projects at different school buildings across the district. While we carefully budget for these projects, and we have not included permit fees in the bid packages or contracts over the last 15-20 years.

We have a project for an addition to the High School Field House planned for this summer. The low bid for this project was \$1,492,100. Based on a fee of \$8.00/thousand, the added cost for this project will be close to \$12,000.

In light of the current economic conditions any savings on our facilities budget would be greatly appreciated.

Sincerely,

Richard C. Barlow
Superintendent

effective · challenging · engaging

32 VINE STREET MOUNTAIN BROOK, AL 35213 (205)871-4608 (205)877-8303 FAX

www.mtnbrook.k12.al.us

1886



Dana O. Hazen, AICP
 City Planner
 3928 Montclair Road, Suite 230
 Mountain Brook, Alabama 35213-0009
 Telephone: 205/802-3805
 Fax: 205.879.6913
 hazend@mtnbrook.org
 www.mtnbrook.org

MEMO

DATE: March 7, 2013

TO: Mayor, City Council
 City Manager
 City Attorney

FROM: Dana Hazen, City Planner

RE: Amendment to Lane Parke PUD

Petition Summary

Request to amend the Lane Parke Planned Unit Development (PUD) master development plan to allow the ground floor elevation of portions of the residential component to be 1-1/2 – 4 feet lower than approved by Ordinance 1871 in May of 2012.

Analysis

The approved PUD requires that the first floor finished floor elevation of all of the buildings in the residential component be 1-1/2 to 4 feet above finished grade. The plans that have been submitted for permits show the finished floor elevations for buildings 3, 4 and 5 to be approximately 6 inches above finished grade. Also, the leasing office for the residential component (which is located in the southwest corner of building 1) is at grade in order to comply with ADA requirements for the leasing portion of that building.

At their meeting of March 4, 2013, the Planning Commission voted to recommend approval of the proposed amendment to the PUD.

The VDR committee has reviewed the proposed change and is in favor of the change from a design standpoint.

The Building Superintendent has reviewed the plans and has indicated that this proposed change in no way effects the floodway/floodplain or FEMA approvals/projects.

APPENDIX 7

Proposal: These 3 residential buildings & the leasing area "L" are to have finished floors 1-1/2' to 4' lower than approved by adopted PUD.

