ORDINANCE NO. 1871

AN ORDINANCE TO AMEND THE ZONING ORDINANCE AND MAP OF THE CITY OF MOUNTAIN BROOK, ALABAMA

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

1. Amendment of Zoning Ordinance and Map. The zoning ordinance of the City of Mountain Brook and zoning map established under authority of Section 129-17 of the Mountain Brook City Code are hereby amended by rezoning the property described hereinbelow from its present "Local Business District" zoning classification under Chapter 129, Article XII and "Residence D District" zoning classification under Chapter 129, Article VII, of said Code to a "Planned Unit Development District" zoning classification as described in Chapter 129, Article XVI. The zoning ordinance of the City of Mountain Brook shall further be amended by modifying the Building and Development Regulating Plan for Mountain Brook Village under Chapter 129, Article XXXI to eliminate designation of the building frontage types for the subject property and to set forth that the development of the subject property shall be governed by the zoning standards set forth in the PUD Rezoning Application and Master Development Plan.

2. 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, are made a part hereof and are specifically incorporated herein by reference, said Plan and materials constituting regulatory standards for use of the affected Property, subject to modification only as provided for in Article XVI, Chapter 129 of the Mountain Brook City Code.

3. 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.

Lane Parke 1871

4. **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.

5. **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.

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

ADOPTED: This 21st day of May, 2012.

Virginia C. Smith, Council President

APPROVED: This 21st day of May, 2012.

Lawrence T. Oden, Mayor

CERTIFICATION

I, Steven Boone, City Clerk of the City of Mountain Brook, Alabama, hereby certify the above to be a true and correct copy of an ordinance adopted by the City Council of the City of Mountain Brook, Alabama, as its meeting held on May 21, 2012, as same appears in the minutes of record of said meeting, and published by posting copies thereof on May ~~21~~ 22, 2012, at the following public places, which copies remained posted for five (5) days as required by law.

City Hall, ~~56 Church Street~~ 3928 Montclair Road, Suite, 148
Gilchrist Pharmacy, 2850 Cahaba Road
The Invitation Place, 3150 Overton Road
Piggly Wiggly Foodstore No. 4, 93 Euclid Ave.
Joe Muggs Newsstand, 2037 Cahaba Road

Steven Boone, City Clerk

Lane Parke 1871

AFFIDAVIT OF PUBLICATION

THE BIRMINGHAM NEWS COMPANY

PUBLISHERS OF
THE BIRMINGHAM NEWS

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NOTICE OF PROPOSED REZONING AND PUBLIC HEARING

Notice is hereby given that, at a regular meeting of the City Council of the City of Mountain Brook, Alabama, to be held on Monday, May 14, 2012, at 7:00 p.m., in the Auditorium of Mountain Brook Junior High School located at 205 Overbrook Road, Mountain Brook, Alabama, the City Council will consider the adoption of an ordinance rezoning property located at or near the intersection of Lane Park Road and Culver Road in Mountain Brook Village:

CITY OF MOUNTAIN BROOK, ALABAMA
ORDINANCE NO. _____
AN ORDINANCE TO AMEND THE ZONING ORDINANCE
AND MAP OF THE CITY OF MOUNTAIN BROOK, ALABAMA

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

1. Amendment of Zoning Ordinance and Map. The zoning ordinance of the City of Mountain Brook and zoning map established by authority of Section 129 17 of the Mountain Brook City Code are hereby amended by rezoning the property described hereinbelow from its present "Local Business District" zoning classification under Chapter 129, Article XII and "Residence D District" zoning classification under Chapter 129, Article VII, of said Code to a "Planned Unit Development District" zoning classification as described in Chapter 129, Article XVI. The zoning ordinance of the City of Mountain Brook shall further be amended by modifying the Building and Development Regulating Plan for Mountain Brook Village under Chapter 129, Article XXXI to eliminate designation of the building frontage types for the subject property and to set forth that the development of the subject property shall be governed by the zoning standards set forth in the PUD Rezoning Application and Master Development Plan.

2. 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, are made a part hereof and are specifically incorporated herein by reference, said Plan and materials constituting regulatory standards for use of the affected Property, subject to modification only as provided for in Article XVI, Chapter 129 of the Mountain Brook City Code.

3. 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 685.12 feet; thence right 91 degrees-08'-04" a distance of 1325.11 feet; thence right 88degrees-58'-55" e distance of 74.22 feet; thence right 37 degrees-49'-05" a distance of 736.41 feet; thence right 52degrees-46'-30" a distance of 62.37 feet; thence right 00degrees-14'-22" a distance of 179.92 feet; thence left 90 degrees-58'-32" a distance of 355.39 feet; thence right 88 degrees-43'-29" a distance of 24.53 feet; thence left 87degrees-29'-35" a distance of 139.13 feet; thence right 89 degrees-27'-49" a distance of 14.61 feet; thence left 117 degrees-30'-00" a distance of 175.92 feet; thence right 84 degrees-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 degrees-20'-05" along the curve an arc distance of 202.55 feet; thence right 62 degrees-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 degrees-00'-50" and a radius of 68.12 feet an arc distance of 20.79 feet; thence left 2degrees-03'-01" to the tangent of a curve to the left having a central angle of 34degrees-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 90degrees-00'-00" a distance of 119.49 feet; thence right 33 degrees-25'-36" a distance of 245.11 feet; thence right 0 degrees-00'-42" a distance of 377.82 feet to the Point of Beginning.

Said Parcel contains 27.59 acres more or less.

4. 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.

5. 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.

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

At the aforesaid time and place, all persons who desire shall have an opportunity to be heard in opposition to or in favor of the changes proposed by said ordinance. A map of the property, a development plan proposed for the property, and other documents, information, and materials filed in conjunction with the application for rezoning, including a model, as well as a copy of the foregoing proposed ordinance, are available for public inspection at Mountain Brook City Hall (Office of the City Planner), 3928 Montclair Road, Suite 232, Mountain Brook, Alabama, during regular business hours.

Bham News: April 15, 2012

On this 16th day of April A.D. Two Thousand , and Twelve, Vickie Webb declares that she is an Accounting Clerk of "The Birmingham News" published in the City of Birmingham, in the County of Jefferson, in the State of Alabama, and that the advertisement, a true copy of which is herewith attached, appeared in "The Birmingham News" on the following dates:

April 15, 2012

Vickie Webb
Signed- Vickie Webb

State of Alabama
County of Jefferson

On 4-16-, 2012, Vickie Webb personally appeared before me, who is personally known to me to be the signer of the above document, and she acknowledged that she signed it.

Nancy S. Bridgman
Nancy S Bridgman, Notary Public

NANCY S BRIDGMAN
NOTARY PUBLIC
STATE OF ALABAMA
MY COMMISSION EXPIRES DEC. 22, 2014

AFFIDAVIT OF PUBLICATION

THE BIRMINGHAM NEWS COMPANY

PUBLISHERS OF
THE BIRMINGHAM NEWS

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SYNOPSIS OF NOTICE OF
PROPOSED REZONING
AND PUBLIC HEARING

Notice is hereby given that, at a regular meeting of the City Council of the City of Mountain Brook, Alabama, to be held on Monday, May 14, 2012, at 7:00 p.m., in the Auditorium of Mountain Brook Junior High School located at 205 Overbrook Road, Mountain Brook, Alabama, the City Council will consider the adoption of an ordinance rezoning property located at or near the intersection of Lane Park Road and Culver Road in Mountain Brook Village. Said property is proposed to be rezoned to and governed by the zoning standards set forth in the a) Residence D District pursuant to Chapter 129, Article XII, and b) PUD Rezoning Application and Master Development Plan pursuant to Chapter 129, Article XVI of the Mountain Brook City Code. In addition, the Master Development Plan and the materials submitted by the applicant, as required by Section 129-265 of the Mountain Brook City Code, are made a part hereof and are specifically incorporated herein by reference, said Plan and materials constituting regulatory standards for use of the affected Property, subject to modification only as provided for in Article XVI, Chapter 129 of the Mountain Brook City Code.

At the aforesaid time and place, all persons who desire shall have an opportunity to be heard in opposition to or in favor of the changes proposed by said ordinance. A map of the property, a development plan proposed for the property, and other documents, information, and materials filed in conjunction with the application for rezoning, including a model, as well as a copy of the foregoing proposed ordinance, are available for public inspection at Mountain Brook City Hall (Office of the City Planner), 3928 Montclair Road, Suite 232, Mountain Brook, Alabama, during regular business hours.

Notice of said public hearing, which included the full text of the proposed ordinance, was published in The Birminghem News on April 15, 2012.

Bham News: April 22, 2012

On this 23rd day of April A.D. Two Thousand , and Twelve, Vickie Webb declares that she is an Accounting Clerk of "The Birmingham News" published in the City of Birmingham, in the County of Jefferson, in the State of Alabama, and that the advertisement, a true copy of which is herewith attached, appeared in "The Birmingham News" on the following dates:

April 22, 2012

Vickie Webb
Signed- Vickie Webb

State of Alabama
County of Jefferson

On 4-23-, 2012, Vickie Webb personally appeared before me, who is personally known to me to be the signer of the above document, and she acknowledged that she signed it.

Nancy S Bridgman
Nancy S Bridgman, Notary Public

NANCY S BRIDGMAN
NOTARY PUBLIC
STATE OF ALABAMA
MY COMMISSION EXPIRES DEC. 22, 2014

May 3, 2012

Mayor and Council,

I have herein attached my report for Lane Parke, which will serve as a "refresher" regarding the purposes of a PUD, and will help you hone in on the differences between the proposed PUD and the PUD approved in 2010. The report also includes a brief summation of the Villages Master Plan projections for this area of Mountain Brook Village, as well as the Planning Commission's and VDR's recommendations for the proposed PUD.

Please let me know if you have any questions regarding the PUD or my report...

Remember that we are meeting in the auditorium of the MB Junior High for this hearing on May 14th (7:00).
The pre-meeting will be held in the cafeteria at 6:30.

Thanks,

Dana

Dana
802-3821
hazend@mtnbrook.org

Lane Parke - City Council Review - May 14, 2012

Request

To rezone 27.59 acres of land zoned Local Business and Residence-D to Planned Unit Development (PUD) for a mixed-use commercial and residential development.

General Purpose and Applicability of a Planned Unit Development

The Planned Unit Development (PUD) District is designed to permit flexible development of projects which are comprehensively planned as a single development with a functional master development plan which fully considers the entire site as an integrated project and gives broad consideration to impacts and relationships to surrounding areas. The PUD District permits flexibility in locating buildings, mixtures of building types and land uses, and open spaces.

The PUD plan shall encourage more efficient development and use of land which results in one or more of the following benefits to the general public *that could not be gained under standard zoning districts*, such as:

a. Reduced negative aesthetic and environmental impacts from buildings and site development facilities, including better management of or reduction in the environmental impacts of development on the surrounding community;

b. A better relationship between buildings, streetscapes, and public or common open spaces, resulting in an integrated community character that considers extensions and transitions to adjacent areas, as well as relationships to the particular characteristics of the site;

c. Less burden of traffic on streets, roads, and highways, including better pedestrian accommodations and connections; or

d. Exemplary design of buildings and civic spaces which reinforces and complements the existing character of surrounding areas.

In recommending the permitting of such flexibility, the Council should consider policies or goals in the City's Village Master Plan and other broad public benefits demonstrated in a master development plan. The Council may attach conditions to a master development plan proposed for a PUD to safeguard the public health, safety, and general welfare.

Analysis

Section 129-265 of the Municipal Code refers to the following items which are to be considered in conjunction with any recommendation for approval of a PUD:

(1) The relationship between the proposed development and the property which is adjacent to the proposed development:

The proposed plan appears to be compatible with surrounding properties and the village as a whole, encouraging a more efficient use of land than might otherwise benefit the general public if developed under separate base zoning districts.

(2) The effect of the proposed development on development and planning objectives of the city:

The proposed plan appears to promote the City's planning objectives which encourage a pedestrian-friendly mix of retail and residential uses, with higher density residential on the "fringe" of the village, which may have a positive effect on development in immediate area, encouraging investment in and redevelopment of deteriorating properties in the vicinity.

(3) The adequacy of existing and proposed streets, utilities and other public facilities to serve the development:

Addressed in the PUD application and in the applicant's traffic study by Skipper Consultants; also summarized by Sain Associates on behalf of the City. Both documents are attached.

(4) The nature, design and appropriateness of the proposed land use arrangement for the parcel involved:

The proposed land use arrangement appears to utilize a pedestrian scale, with one/two-story commercial uses fanning out in a concentric arc that mimics the existing street layout of the village. Higher density uses such as the inn and the multi-family units are appropriately located at the north end of the project, creating a good transition from the smaller-scale core of the village to the higher density residential uses to the north.

(5) The adequacy of open space areas for the proposed PUD:

When compared to the open space areas approved for the PUD in 2010 (10 acres or 37% of site area), this proposal for open space seems undersized (3.95 acres or 14% of the site area). While the amount of open space in a PUD typically correlates to the density and height gained in buildable areas, the 23% reduction in open space proposed herein may be more than adequate compensation for the 16% reduction in leasable area (from 345,033 sf in the 2010 PUD to 290,000 sf herein proposed).

(6) The ability of the subject parcel and surrounding areas to accommodate future expansion, if needed:

Future expansion of neither commercial nor residential uses is expected on the subject site.

(7) Building coverage and floor area to be devoted to each type of use in the proposed PUD:

Adequately addressed in proposed PUD plan.

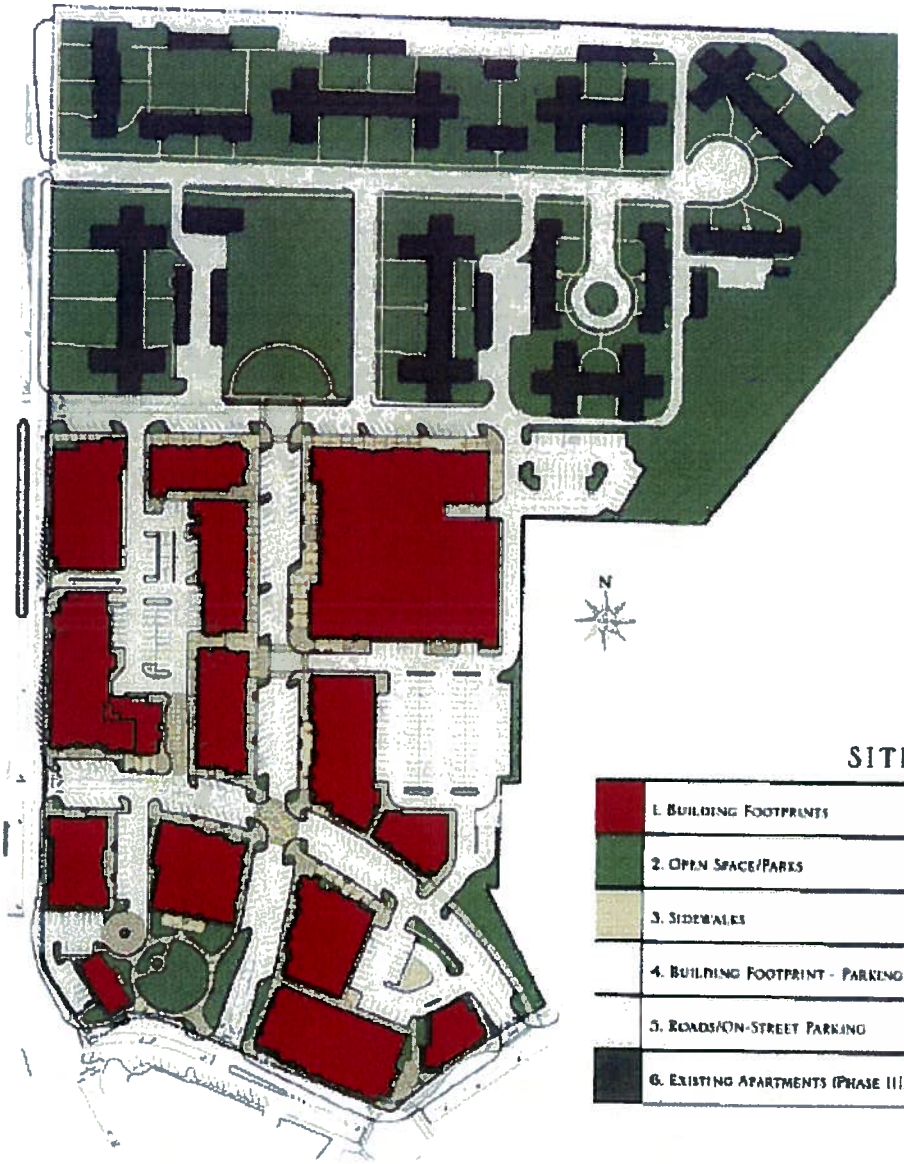
(8) The number of dwelling units per acre for residential areas:

Proposed: 276 units/6.68 acres = 41 units per acre; existing 277 units/22 acres = 12.59 units per acre. Residential density per acre is increasing 3-fold, but the actual number of units is remaining virtually unchanged. PUD zoning encourages a more dense use of land as long as there is a substantial amount of public open space dedicated as part of the PUD.

Comparison to the PUD plan approved for Lane Parke by the City Council in 2010

Aside from the evident reductions in height, scale and parking arrangement the following changes to the plan are noted:

Master Development Plan (pages 8-9 of PUD):
Commercial leasable area (including the inn) has been reduced from the 2010 PUD by 50,031 sf (from 345,031 sf to 295,000 sf). Without the inn, the commercial leasable area has been reduced from the 2010 PUD by 49,926 sf (from 245,926 sf to 196,000 sf). See excerpt of table of square footages from the 2010 PUD below:



SITE COVERAGE TABLE

	1. Building Footprints	±/ 4.6 Acres	16.7%
	2. Open Space/Parks	±/ 10.3 Acres	37.3%
	3. Sidewalks	±/ 2.3 Acres	8.3%
	4. Building Footprint - Parking Structures	±/ 1.9 Acre	6.9%
	5. Roads/On-Street Parking	±/ 3.5 Acres	12.7%
	6. Existing Apartments (Phase III)	±/ 2.3 Acres	8.3%
	Totals	±/ 27.6 Acres	100.0%

BUILDING USE DENSITY TABLE - PHASE I & PHASE II

		Existing	Proposed	Percentage of Total (Proposed)
	1. Retail	71,529 SF (With Retail Shopping Center)	206,300 SF	48.9%
	2. Office/Commercial	7,197 SF (Bay Building & Regions Bank)	39,626 SF	9.4%
	3. Inn	0 SF	99,105 SF	23.5%
	4. Residential	151,347 SF (136 Apartments)	47,244 SF	11.2%
	5. Storage/ Support/ Common Space	0 SF	29,627 SF	7.0%
	Totals	230,073 SF	421,902 SF	100%

Permitted Land Uses (page 10):
Permitted Uses. (Retail Use Area):

The Villages Master Plan indicates that retail uses should be focused along Culver and the core of the village (in other words, along "primary" frontages), and that office and service uses should be located farther from the village core towards the residential area to the north.

As such, the 2010 approval did not allow the following service uses on the ground floor (primary frontage):

Daycare Centers
Neuromuscular therapists
Personal fitness trainers
Physical therapists
Theaters for the performing arts
Gymnasiums
Parcel delivery and packaging stores
Photography studios
Shoe repair
Travel agents

The proposed PUD eliminated:
Gymnasiums
Neuromuscular therapists
Barber shops (except "one" noted as permitted)
Beauty shops
Hair salons
Nail salons
Tanning salons

The proposed PUD lists the following as permitted in all areas where retail is a permitted use:
Fitness Centers
Personal Fitness Trainers
Parcel Delivery and Packaging Stores
Shipping and Wrapping of Packages, and Sale of Related Items
Photography Studios Travel Agents
Staff Recommendation: The above uses would be better suited for inclusion in the category immediately below (permitted only on Lane Park Road, Park Lane Court South, or otherwise as a conditional use with further council approval on a case-by-case basis).

The proposed PUD lists the following as permitted only on Lane Park Road or Park Lane Court South, or otherwise as conditional uses with further City Council approval for Main Street, Jemison Lane, Culver Road and Montevallo Road:
Daycare Centers
Physical therapists
Shoe repair
Theaters for the performing arts

Permitted Land Uses (page 11):
Permitted Uses. (Inn):
The 2010 approval was limited to 85 rooms; *new proposal is 100 rooms.*

The proposed plan states that the Inn site may be used as "residential" in lieu of the Inn, for no more than 40 residential units, and states:

"At any time following the date that is three (3) years following approval of this PUD Application, any use permitted in the Residential Use Area, provided, however, in the event the Inn/Commercial Use Area is used as residential dwelling units, the Inn/Commercial Use Area shall not include more than forty (40) residential units."

Base Zoning District Standards (page 13):
Section 129-261 (c) of the Municipal Code states that, with regard to underlying base zoning districts, where the proposed development plan deviates from the standards of the base districts, the proposed PUD plan must demonstrate and identify where deviations are necessary to achieve goals. The 2010 PUD did not adequately identify deviations from base zoning districts, nor did it adequately justify the reasons for the proposed deviations.

Section 8 of the proposed PUD contains a detailed chart which clearly identifies the proposed deviations and gives specific justifications for each deviation.

Design Standards & Pattern Book (page 15):
Building Designs, Locations and Sizes:
The 2010 PUD specified that changes in the square footage of any individual building by not more than 20% would be permitted, as long as the overall square footage of all buildings did not increase by more than 5%.

Section 9 of the proposed PUD, "Buildings, Designs, Locations and Sizes" goes into great detail about how the actual, built plan may deviate from the Illustrative Site plan in the proposed PUD.

Design Standards & Pattern Book (page 16):
Village Design Review
The 2010 PUD contained a somewhat overly cumbersome, two-fold procedure whereby the VDR Committee formally reviewed the schematic designs for each phase of building construction, providing feedback and recommendations to the developer (and to the council in the event that the developer did not agree with recommendations from the VDR Committee).

The proposed PUD relies on the zoning officer to interpret whether proposed buildings comply with the pattern book, and gives the zoning officer the opportunity at each phase of construction to require the project owner to present the proposed plans to the VDR Committee at a regularly scheduled meeting. No formal VDR process is outlined in the proposed PUD and no mention of appeal to council is made.

Staff Recommendation: Formal review by the VDR Committee should be incorporated into the PUD for each maneageable piece of the project, in its respective schematic phase. Recommendations made by the VDR would then be incorporated into the design of each phase prior to submittal of plans for building permits. A determination of compliance with VDR recommendations would subsequently be made by the zoning officer prior to issuance of any building permit. Any perceived conflict with compliance with the pattern book or VDR recommendations would be forwarded to the council for review and determination. Also, the project owner would have the right to appeal the VDR and/or zoning officer's decision to the council for final determination.

The role of VDR for signage remains unchanged from the 2010 PUD.

Design Standards & Pattern Book (pages 24 - 47)
Street-Front building type and Freestanding building type limited to 2 stories and a maximum height of 42 feet (same as 2010 PUD); 46 feet is allowed in the village.

Residential over Retail has been eliminated; 2010 PUD allowed 3 stories with a maximum of 46 feet.

The Inn, as proposed, may contain up to 4 stories, with a maximum height of 66 feet. The 2010 PUD allowed a maximum of 3 stories with a maximum height limit of 56 feet; however, the location of the Inn in the 2010 PUD was much closer to the village and central to the project. The new location is farther to the north and away from the village. This gradual transition in height may be appropriate.

Parking garages are proposed at 2 stories above grade (maximum height of 42 feet) with the option of a 3rd story for a City Parking Level (maximum height of 46 feet). The 2010 PUD was the same.

The Grocery building may contain 1 story, with a maximum height of 36 feet; this new typology was not included in the 2010 PUD.

Residential structures may contain up to 4 stories, with a maximum height of 66 feet. The Villages Master Plan allows up to 6 stories and 72 feet in height (with dedicated open space).

<u>** Refer to maps on pages 22 and 23 for location of specific types of buildings and types of frontages.</u>

Landscape, Parks and Open Spaces Plan (page 86):
Hardscapes:
The 2010 PUD specifies that sidewalk, curb and paving patterns and materials shall be compatible and consistent with the designs, patterns and materials of sidewalks, curbs and paving currently in the existing village; it did not specify certain streets where this treatment would or would not occur.

The proposed PUD specifies that only "primary" and "secondary" frontages will be improved to match the existing village; this leaves out the east end of proposed Park Lane South, the north end of Main Street (which borders the inn) and all of proposed Park Lane North (see map of Street Frontage Designation, page 23).

Staff Recommendation: It may be more appropriate to require all frontages within the project to match the existing villages with respect to paving patterns and materials.

Identifying Features:
The 2010 PUD included a sixth "identifying feature" that is not included herein; it read: "Brick crosswalks at prominent intersections."

Landscape, Parks and Open Spaces Plan (page 87):
Street Plantings:
The 2010 PUD did not make reference to only certain streets within the project as far as street planting is concerned.

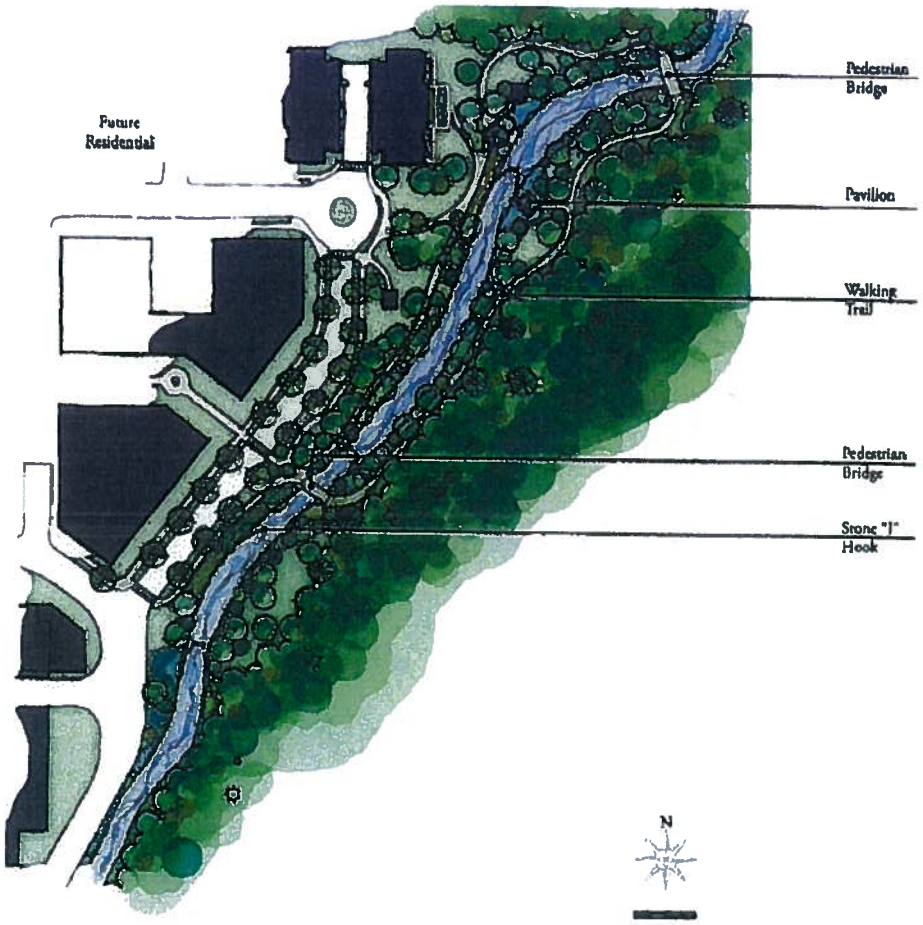
The proposed plan refers to "primary" and "secondary" frontages throughout this section (and in the "identifying features" section) of the PUD.

Open Space (pages 88 through 91):
The Woodland Park depiction on page 91 indicates and area "reserved for future use."
Staff Recommendation: Specify the nature of the "future use."

The Woodland Park has changed quite a bit from the 2010 approval, with limited amenities (no pedestrian bridges or pavilion... or undulated stream).
See excerpt of 2010 plan below:

OPEN SPACE

WOODLAND PARK



The three parks approved in the 2010 PUD equaled 10.3 acres (37.3% of the site). *The proposed open space equals 3.95 acres (14.31% of the site). While the amount of open space in a PUD typically correlates to the density and height gained in buildable areas, the 23% reduction in open space proposed herein may be more than adequate compensation for the 16% reduction in leasable area (from 345,033 sf in the 2010 PUD to 290,000 sf herein proposed).*

The 2010 PUD specified that it was to be installed with the completion of the residential phase or within no more than ten (10) years from approval of the PUD.

The proposed PUD specifies that the Woodland Park is to be completed by the end of the Residential Phase, which is anticipated to be the first phase of the project, as specified on page 101.

Development Schedule and Phasing (page 101):
The 2010 PUD phasing was such that the central commercial phase was to be constructed first, with the south commercial phase second, and the residential portion to the north last. *The phasing in the proposed PUD "anticipates" beginning with the residential portion on the north end, then the central commercial portion followed by the south commercial portion and concluded with the inn (or 40 additional residential units in its place as the market may dictate).*

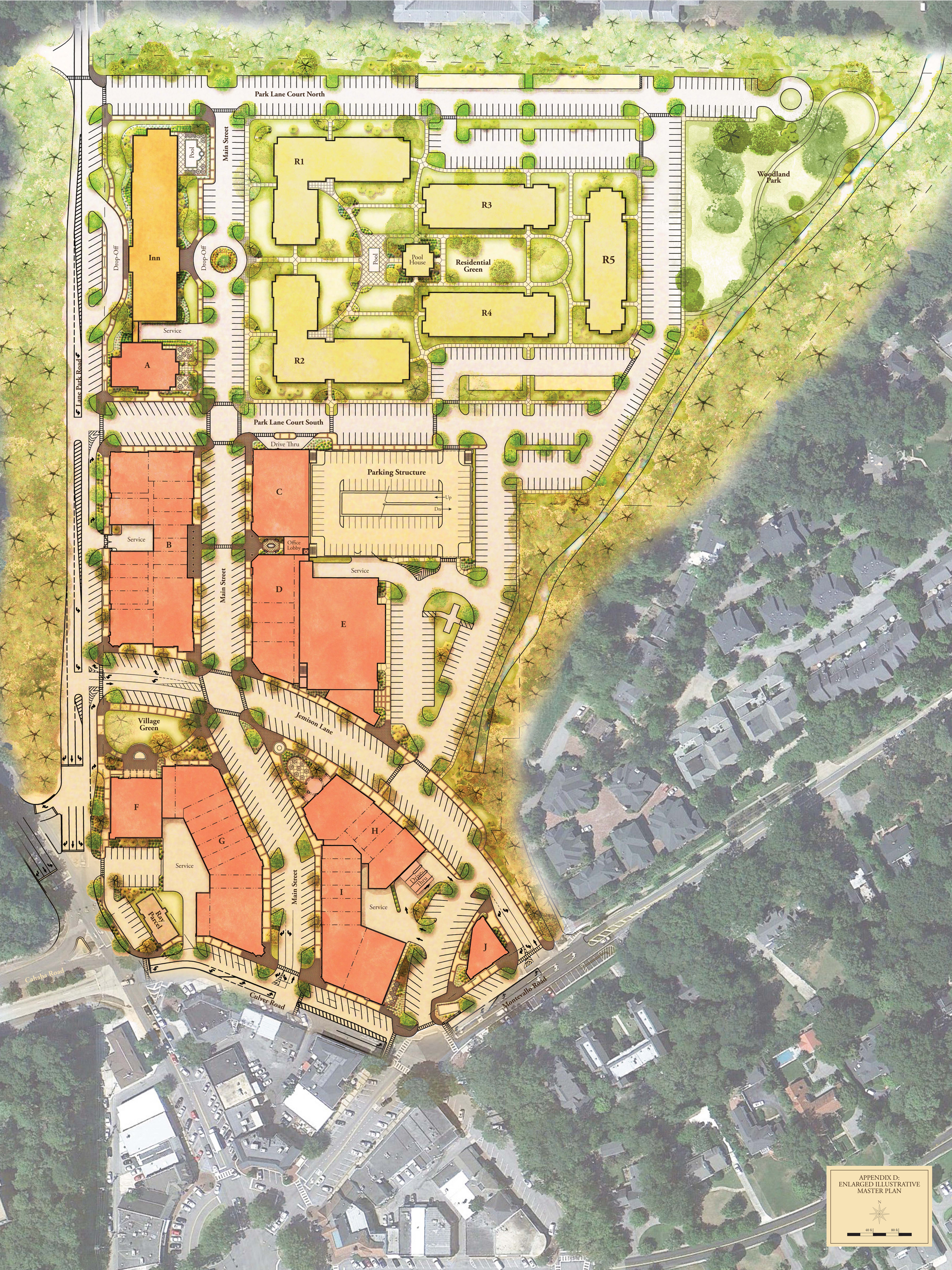
Section 129-265 (b) (1) (d) of the Municipal Code requires that the PUD application contain a development/phasing schedule.

While the proposed PUD "anticipates" a schedule, the language in the PUD says, "...nothing in this PUD application shall be construed to require that the Phases be constructed in any particular order."

Villages Master Plan
Special Policy Area 1 allows the inclusion of the Western Shopping Center in a mixed-use PUD. It calls for smaller-scale buildings (1-2 stories) near the village core and allows for taller buildings (4-6 stories) to transition toward the north end of the site. The Plan requires a minimum of 200 square feet of civic open space per dwelling unit to be dedicated to the public to balance any increase in residential density (which the proposed PUD meets). It also indicates that any structured parking should be "disguised" behind commercial buildings. Rental housing opportunities are encouraged by the Plan, and rental housing is herein proposed.

Planning Commission Recommendation
The Planning Commission voted to recommend approval of the proposed PUD on April 2, 2012. No further conditions of approval were formally recommended.

VDR Recommendations
Please see attached minutes from the VDR Committee's special meeting for Lane Parke, dated March 29, 2012, as well the attached email from the VDR Chair, Ellen Elsas, regarding the VDR minutes.


Park Lane Court North
Park Lane Court South
Main Street
Lane Park Road
Jemison Lane
Culver Road
Montevallo Road
Cahaba Road
Drop-Off
Drop-Off
Inn
Pool
Service
A
B
C
D
E
F
G
H
I
J
R1
R2
R3
R4
R5
Pool
Pool House
Residential Green
Woodland Park
Parking Structure
Up
Dn
Office Lobby
Drive Thru
Village Green
Ray Parcel
Drive-Thru
APPENDIX D:
ENLARGED ILLUSTRATIVE
MASTER PLAN
N
40 ft
80 ft

Surface Parking	1,013 spaces
Parking Structure	188 spaces
Total	1,201 spaces
* Typical Parking Space = 9'-0" x 18'-0"	

APPENDIX E:
DIMENSIONED
ILLUSTRATIVE
MASTER PLAN

N

40 ft 80 ft

CITY OF MOUNTAIN BROOK
VILLAGE DESIGN REVIEW COMMITTEE
MINUTES – SPECIAL MEETING
MARCH 29, 2012

Those present: Chairman Ellen Elsas
Co-Chair James Carter
Sally Legg
Lynn Ritchie
Tynes Quarles
Bo Grisham, Supernumerary
Dana Hazen, City Planner
Carole Epstein, Executive Assistant

Those Absent: Rob Walker, Supernumerary
Councilwoman Virginia Smith

I. LANE PARKE DEVELOPMENT – EVSON GROUP

Mr. Jeffrey Brewer, 94 Crestview Drive, appeared before the Committee on behalf of the Evson Group to update on the proposed Lane Parke, a Planned Unit Development project, and how the design review process will work going forward.

Mr. Brewer said that the proposed plan is intended to be respectful to the Village Master Plan as was developed and adopted by the Planning Commission, specifically with respect to the commercial areas of the project by reducing the scale of the original project by 22%. He said that the new design is intended to be consistent in scale and sympathetic to the rest of the village. The plan is comprehensive in nature in that it does not anticipate another phase that is not defined at this point.

Mr. Brewer presented the design concepts and components of the plan saying that the goal is for Lane Parke to feel like it was developed over a long period of time and fits the City's Master Plan. He said that the project consists of approximately 71,000 square feet of existing retail shops and about 7,000 square feet of office space resting in the southern quadrant of the site. The new plan will call for 166,000 square feet of retail space, 30,000 square feet of office space, a 100-room inn with 99,000 square feet and 276 residential apartments. The development will be built in two phases and will cost about $130 million to $140 million. A flood mitigation plan, embarked upon by the City, will be improved by this development. The apartment complex currently on the site has become outdated and needs to be replaced. The architecture should be a varied collection of small buildings and styles reminiscent of the existing village.

Mr. Brewer said that in the PUD submittal there is a section dedicated to the Design Review Process. He said that the plan is to bring components of the project through the Zoning Officer. The Zoning Officer would then submit manageable pieces of the project to the Committee at the schematic design phase of the work. He explained that comments made by the Committee have the most chance of being incorporated into the plan at the schematic design stage of the project since it is expensive to go back and redraw plans when comments are presented at the end of the project. The second step is to give the Committee the opportunity for a final review before the building permit is issued and construction starts. Information to and from the Committee will be funneled through the Zoning Officer. The third piece is the legislative process. An overall sign plan will be presented for the Committee's approval and then each tenant will bring individual sign plans before the Committee. He said that the Committee would have the option of approving signage on an individual basis or just approving an overall plan.

~~It was the consensus of the Committee that it would be a good idea to get the Committee involved at the schematic design phase of the project~~. Mrs. Elsas said that Design Review needs to make certain that, as part of the approved PUD, it is established that Design Review will review during the schematic phase of each segment of the project design and receive feedback on action taken relative to the points agreed upon at this meeting. Review and approval by Design Review should also be required prior to the issuing of a building permit. She reiterated that the role regarding signage is as defined in the Pattern Book..

Mr. Brewer said that the bulk of the PUD is a pattern book that dominates historical concepts. Ultimately, the pattern book is the set of controls from a design and aesthetics standpoint. It is important to know that the pattern book will dictate the style of architecture and govern the aesthetics of the development over the years.

Mr. Jeff Slaten, Architect, explained that the pattern book is built upon Village Overlay plans. New typologies have evolved and have been incorporated into the Village Overlay plans. He reviewed typologies proposed for Lane Parke.

It was the consensus of the Committee to relay the thought that they were not in favor of the "Main Street USA" look of the proposed buildings. Rather, they prefer to have architectural features such as rounded buildings on corners to give that "Old World" look that is prevalent in Mountain Brook Village.

Mr. Slaten said that the Village Romantic style will be used in the first phase of the project, which may set the pattern of styles. He described the style (as outlined in the Pattern Book) as such:

- "Village Romantic" style will have a picturesque structural order guided by the eye for an overall harmonius composition. Bilateral building

symmetry is not common and is discouraged. Individual design elements or groups of elements can be symmetrical to each other however. The overall goal of the style should be an appearance of modest, durable charm;

- A Village Romantic surface is meant to be textured. Wall material should be as natural as possible, brick, stone or wood, with natural undulations across the masonry faces to create soft variations of shade and shadow. Openings are recessed deeply to create strong shadow lines and trim profiles are projected to unify grouped elements;
- The scale of details is important in this style to be appropriate to the building material being used. It is better to be reserved and get a few great details versus ambitious and design a lot of mediocre or incorrect ones;
- Monument design elements to be viewed from afar are not typical due to the inherent modesty of the architectural style;
- Village Romantic's largest and most common design element is the use of gable-fronted end walls. They can be in Brick (natural color or painted/stained), stone, or stucco, with wood possibly being introduced in the upper stories through half-timbering (entire wall) or thick beveled siding (starting over the upper window head trim);
- All masonry appearance should be one to project a hand crafted appearance, minimizing the machine influence of material production;
- Gable End Walls are commonly grouped together in number which can create a very appealing rhythmic roofline;
- The most important feature of a Village Romantic building is the treatment of the exterior wall surface in its design and in material character. The Village Romanic is rooted in the precedent of the existing built fabric of Mountain Brook specifically and in the overall Shades Valley area. Natural materials like stone, brick, stucco and wood, are used in combination to create a charming visual texture across all building faces;
- Another distinctive element in the Village Romantic style is the occurrence of wall projections and overhangs;
- Getting the correct scale of a Village Romantic Store front is the most important goal. The key concept to keep in mind while designing this style of storefront is to be "warm and welcoming." Architecturally, this can be accomplished by limiting the store opening to 12 feet or less in height and providing an awning that reduces the effective "ceiling" to around 8' to 9';
- In the Village Romantic style, arches abound and are used as a very good clue to determine the overall style of an authentic building. The most commonly used form is called a "Tudor Arch" (a flattened, pointed arch typically built up from four key center points;
- Towers can be circular, rectangular or polygonal and should seek to maintain the main building mass eave line or act as a transition between two different eave heights;

- Materially, towers should be masonry with minimal punched openings to accentuate solidity;
- Village Romantic Dormers are a very important roof element in this style to create visual interest within the mass of roof that steeper roof pitches create. Dormers are typically large, with windows grouped in numbers from 2-4. They can be handled successfully in many different ways, but the most egregious error is for it not to be in proportion to the rest of the roof. Their placement needs to be composed well just as many other building elements.

Mr. Brewer said that a more detailed explanation of the Village Romantic style can be found in the Pattern Book.

Mr. Brewer said that this look (Village Romantic) could be accomplished by making buildings longer rather than wider since the buildings must be built up to the street in accordance with the Village Overlay requirements. Styles and typologies will be matched to the buildings for appropriateness. Mr. Brewer cautioned that there may be open spaces between the buildings and careful attention will be given to prevent this from happening. Mr. Carter objected to using the Birmingham Classic style because most people do not want to see modern or mid-century buildings in the village. People do not want to see a wide variety of styles. Birmingham Classic style is "not Mountain Brook."

Mr. Brewer said that his group is asking to be allowed to paint brick on some of the buildings. He said that painting the might be appropriate for a group of buildings rather than single buildings.

Mr. Carter said that he prefers painted brick to less attractive unpainted brick.

Mrs. Legg said that she does not believe that brick should be painted, especially if that brick has not already been painted.

Mrs. Elsas said that she would like to go on record as saying that while she agrees with the emphasis on Village Romantic, she is not opposed to some variety in building style. She said that she does not object to painted brick used selectively in the appropriate location since, in her opinion, there is a context for this in Mountain Brook and it is important to avoid a monolithic or monotonous look.

Mrs. Ritchie said that a major concern of merchants whose stores face Cahaba is strong sunlight. She said they have expressed a need for some way to block the sun's rays during afternoon hours by using awnings and/or tinted windows. These factors may dictate the style to be used in the buildings on Main Street.

Mr. Quarles said that the Village Romantic style, which is being suggested for the first set of buildings being built, is wonderful but those buildings will be done on an ad-hock basis. In the second or third phases of the project will have to be done

in large sections which will bring the focus back to the mercantile or turn-of-the-century style, which would allow "playing" with the awnings.

Regarding "key" places, Mrs. Legg said that she does not agree with the idea of putting only the best of materials into the "key" places. Quality materials should be used in all of the buildings. Mrs. Legg said that, in her opinion, the Committee should be involved in designing the buildings.

Mr. Brewer said that his group appreciates the input of the Committee.

Mrs. Elsas said that the Committee looks forward to working with the group when choosing styles, color palettes and materials as the work progresses.

Mr. Colvin said that he has noted that right now there is a palette of styles and a palette of architectural materials. He has noticed that the Pattern Book allows a mix and match of styles and there is no specificity as to how that mix and match occurs. He said that it would be helpful in communicating information from the Committee to the City Council when it comes time to firm up the Pattern Book as to a preferred style. After all, the zoning book will be the law of this 28 acre parcel and will govern exactly what happens there.

Mr. Colvin asked whether or not Village Romantic (the way it has been drafted) includes a wide enough palette to provide for a good amount of variation within that style itself. In other words, is there enough built in or does that palette need to be broadened within that style.

Mr. Carter said that the emphasis should be put on the Village Romantic style. He said he thinks this style will determine the village and makes it different from places like Virginia Highlands in Atlanta, Pepper Place or Five Points.

Mr. Colvin asked whether or not the Committee is comfortable that out of the four styles, Village Romantic style clearly defines what we would want for our village.

Mr. Carter said that he thinks the pattern book is only a good starting place but that the overall success in the design and the look of Parke Lane would be primarily determined by the attention to detail and the effort to keep a 'Village' look. He said that he feels that Design Review should have input early on in the design process and there should be a follow up review of either each building or a block of buildings at a time.

Mrs. Elsas reiterated ~~said~~ that she likes having more variation and not limiting to one style. She said that she thinks that even though the property will not be built over a long period of time, she does not want it to look like it all happened as one development.

Mr. Colvin said that he does not want the Committee to think that he is suggesting scratching the other three styles, but he would like to know whether the Committee thinks that Village Romantic has the right tools and limitations to create the kinds of buildings desired.

Mrs. Ritchie said that she thinks the development will evolve around the Village Romantic style considering the discussion that has taken place today.

Mr. Colvin pointed out that the developer has a lot of money invested in the project and they would like to have an approved plan that they can depend on so they do not have to spend more money than planned.

Mr. Brewer said that there is so much control built into what has been provided to this Committee than anybody else in any other village. It is an important project and needs trust and a partnership.

Mr. Quarles said that Village Romantic will not apply to all phases. For instance, the grocery store or the apartment complex could not be built in the Village Romantic style.

Mrs. Legg said that the parking deck could be disguised with trees. She said that the Committee does not want the "Disney World look." The Committee does not want to drive up the cost of the project. She said that the owner of each building will want their personal touch put onto there specific building. She said that the community does not want a contemporary look.

Mrs. Elsas cautioned that tenants will want to put their own touch into the architecture of the building and signs.

Mrs. Elsas thanked the group for presenting the plan to the Committee.

The meeting was then adjourned.

Dana Hazen

From: Ellen Elsas [ellen.elsas@gmail.com]
Sent: Wednesday, April 25, 2012 4:52 PM
To: Carole Epstein
Cc: Bo Grisham; Dana Hazen; James Carter; Lynn Ritchie; Rob Walker; Sally Legg; Tynes Quarles
Subject: Re: SPECIAL MEETING WITH PARKE LANE

Carole,
Reviewing the minutes, I think it captured our discussion. Regarding Sally's comments, we can include the application's descriptive language for the Village Romantic style as part of the minutes to define the characteristics of the style. This definition of the key visual elements of the style needs to be in writing as well as in pattern book illustrations. I will go on record saying that while I agree with the emphasis on Village Romantic, I am not opposed to some variety in building style, and I do not object to painted brick used selectively in the appropriate location. There is a context for this in Mt. Brook. It is important to avoid a monolithic or monotonous look.
As to Councilwoman Smith's question, we need to make certain that as part of the approved PUD it is established that VDR will review during the schematic phase of each segment of the project design, receive feedback on action taken relative to the points agreed upon at this meeting. As is stated, review and approval by VDR is also required prior to the issuing of a building permit. VDR's role regarding signage is as defined.
Ellen

On Apr 25, 2012, at 3:17 PM, Carole Epstein wrote:

> I have received comments from Mr. Carter (they are marked in red) and Mr. Quarles. I have not heard from anyone else. Please look over and let me know if any other changes need to be made. Councilwoman Smith said that she wants to be sure that the Council knows what the VDR wants from the developers of Lane Parke. So, I need to make sure these minutes truly reflect your input at the March 29th meeting. Thanks.
>
> Carole M. Epstein, CPS/CAP, CMC/MMC
> Executive Assistant
> City of Mountain Brook
> 3928 Montclair Road/Suite 232
> Mountain Brook, AL 35213
>
> Phone: (205) 802-3810
> Fax: (205) 879-6913
> Email: epsteinc@mtnbrook.org
>
> <20120329specialmeeting.doc>

SUBMITTAL DATE: APRIL 20, 2012

Lane Parke

MOUNTAIN BROOK, ALABAMA

MINDFUL OF THE PAST, LOOKING TO THE FUTURE

EVSON, INC. | DANIEL CORPORATION | GOODWYN, MILLS AND CAWOOD, INC. | HISTORICAL CONCEPTS

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Lane Parke

MOUNTAIN BROOK, ALABAMA

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LANE PARKE

MOUNTAIN BROOK VILLAGE

The Project Owner and the owner of the Ray Parcel hereby apply for the re-zoning of the Property from Local Business District and Residence D District to a Planned Unit Development District in accordance with Article XVI of the City Code. Accordingly, each of the above referenced owners hereby submits the information included in this PUD Application to the City pursuant to the application requirements of Article XVI of the City Code and consents to and requests the re-zoning of the Property from Local Business District and Residence D District to a Planned Unit Development District.

EVSON, INC.,
an Alabama corporation

By: _____
Name: John T. Evans
Its: Vice President
Date: April 20, 2012

RC LIMITED, LLC,
an Alabama limited liability company

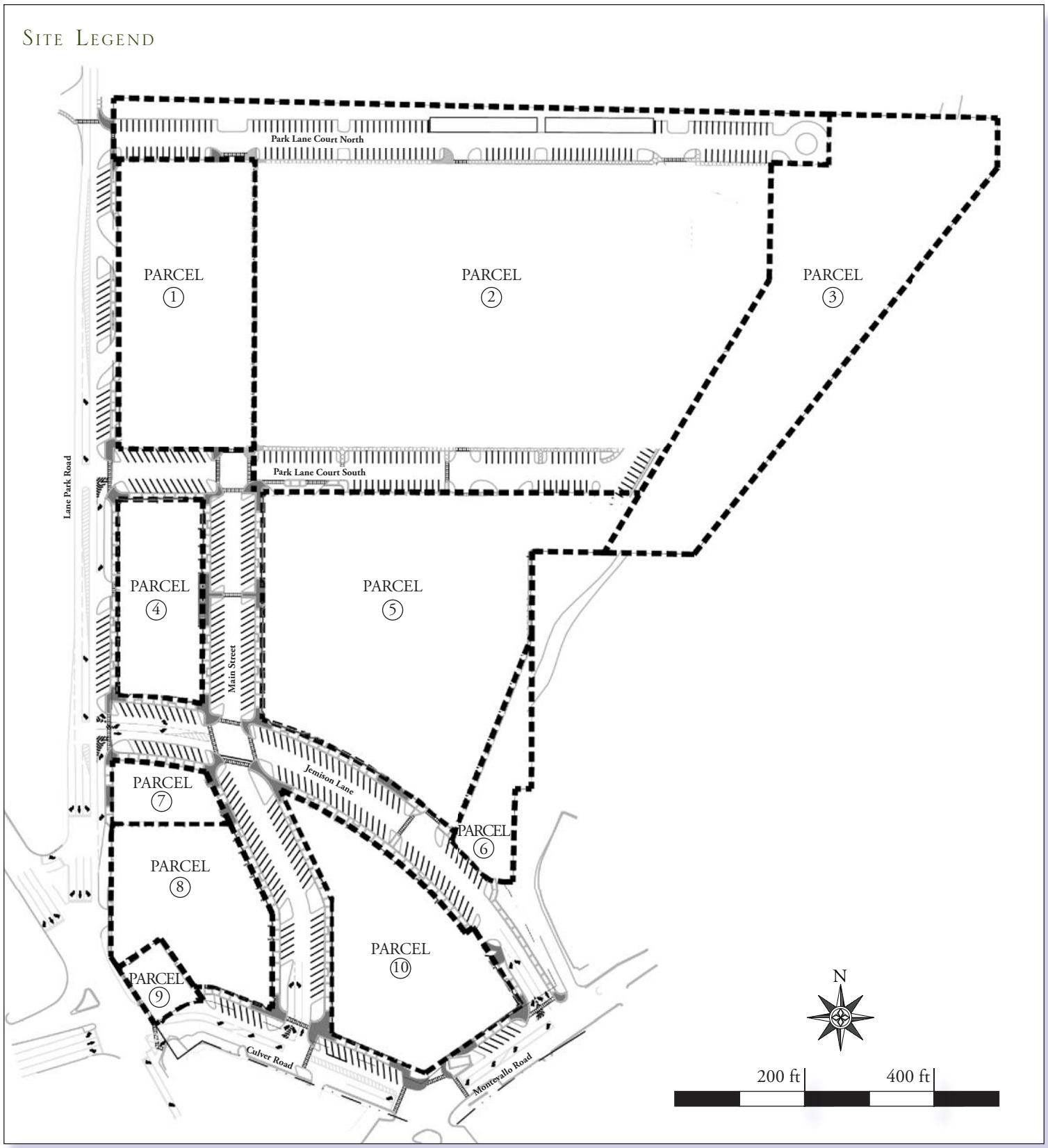
By: _____
Name: Henry B. Ray
Its: President
Date: April 20, 2012

As used in this PUD Application, the following terms are defined as follows:

1. **Architectural Styles** means the Architectural Styles more particularly described in the Pattern Book.
2. **Building Typologies** means the permitted building types and specifications designated as Building Typologies and more particularly described in the Pattern Book.
3. **City** means the City of Mountain Brook, Alabama.
4. **City Code** means The Code of the City of Mountain Brook, Alabama.
5. **City Council** means the City Council of the City of Mountain Brook, Alabama.
6. **Design Committee** means the City's village design review committee as defined in the City Code.
7. **Design Review Process** means the Design Review Process described in Section 9 of this PUD Application.
8. **Design Standards** means the Design Standards set forth in Section 9 of this PUD Application.
9. **Evson Parcel** means that portion of the Property owned by Evson, Inc., an Alabama limited liability company, and more particularly described in Section 20 of this PUD Application.
10. **Gross Floor Area** means the total enclosed floor area of all floors of a building (including mezzanines), measured from the exterior faces of exterior walls and from the center line of walls separating buildings, including basements, lobbies, common areas, elevator shafts, stairwells, mechanical or equipment rooms, common corridors, building amenity areas, storage areas, enclosed garages, attics (whether or not a floor has actually been laid, providing structural headroom of 6'6" or more) and any other fully enclosed spaces of the building, whether leased to tenants or not. Gross Floor Area shall exclude rooftops, plazas, covered walkways, covered parking areas, outdoor dining or market areas, balconies, porches, terraces, loading docks, roof overhangs and any other non-enclosed areas (whether covered by a roof or not).
11. **Illustrative Master Plan** means the Illustrative Master Plan included in Section 4 of this PUD Application.
12. **Jemison Lane** means the proposed right of way identified as Jemison Lane on the Site Legend set forth on Page 3.
13. **Landscape Standards** means the Landscape Standards set forth in the Landscaping, Parks and Open Space Plan included in Section 10 of this PUD Application.
14. **Lane Parke** means the Property and all improvements, public and private, to be constructed on the Property in accordance with the Lane Parke Plan.
15. **Lane Parke Plan** means the plans for Lane Parke submitted for review pursuant to this PUD Application.
16. **Lighting and Screening Standards** means the Lighting and Screening Standards set forth in the Lighting and Screening Plan included in Section 11 of this PUD Application.
17. **Local Business District Standards** means the regulations and standards set forth in Sections 129-191 through 129-197 of the City Code as in effect as of January 1, 2012.
18. **Main Street** means the proposed right of way identified as Main Street on the Site Legend set forth on Page 3.
19. **Master Association** means any Master Association created in connection with the Master Declaration of Restrictions and Easements more particularly described in Section 16 of this PUD Application.
20. **Net Leasable Area** means the total enclosed floor area designed for the exclusive use of an occupant, including any basements, but excluding lobbies, common areas, elevator shafts, stairwells, mechanical or equipment rooms, common corridors, building amenity areas, storage areas, garages, covered parking areas, loading docks and any other areas not set aside for the exclusive use of occupants of the building. Unless otherwise noted in this PUD Application, all references to "square feet", "square foot" or "square footage" shall refer to the number of square feet of Net Leasable Area.
21. **Optional City Parking Level** means the Optional City Parking Level as described in Section 9 of this PUD Application.
22. **Parcel** means the corresponding parcel of land identified as Parcel "1 – 10" on the Site Legend set forth on Page 3, or any other legal parcel of land within Lane Parke now existing or created in the future by a Preliminary or Final Subdivision Plat submitted in connection with the development of Lane Parke.
23. **Parking Structure** shall mean the parking structure identified as the "Parking Structure" on the Illustrative Master Plan, or any other parking structure approved to be constructed in accordance with the Lane Parke Plan.
24. **Park Lane Court North** means the proposed right of way identified as Park Lane Court North on the Site Legend set forth on Page 3.
25. **Park Lane Court South** means the proposed right of way identified as Park Lane Court South on the Site Legend set forth on Page 3.
26. **Pattern Book** means the Pattern Book included in Section 9 of this PUD Application.
27. **Permitted Density** means the total number of square feet of Net Leasable Area permitted to be constructed within Lane Parke, as more particularly set forth in Section 7 of this PUD Application.
28. **Phase(s)** means any one or more of the phases of anticipated construction, consisting of a Residential Phase, a Grocery/Commercial Phase, a Retail Phase and an Inn Phase, each as more particularly described and shown in Section 15 of this PUD Application.
29. **Planning Commission** means the Planning Commission of the City of Mountain Brook, Alabama.
30. **Property** means the real property more particularly described in Section 20 of this PUD Application that is to be re-zoned to a Planned Unit Development District.
31. **Project Owner** means Evson, Inc., an Alabama corporation, and its successors and/or assigns.
32. **PUD Application** means this document, all schedules and exhibits attached hereto or provided in connection herewith, and all amendments and modifications hereto.
33. **Ray Building** means the building identified as the "Ray Building" on the Illustrative Master Plan.
34. **Ray Parcel** means that portion of the Property currently owned by RC Limited, LLC, an Alabama limited liability company, and more particularly described in Section 20 of this PUD Application.
35. **Regulating Plan** means the Regulating Plan more particularly described in the Pattern Book.
36. **Residence G Standards** means the regulations and standards for the Residence G Residential District set forth in Sections 129-531 through 129-535 of the City Code as in effect as of January 1, 2012.
37. **Shared Parking Analysis** means the Shared Parking Analysis as defined in Section 13 of this PUD Application.
38. **Shared Parking Assumptions** means the square footages assigned to each category of uses within Lane Parke that serve as the basis upon which the Shared Parking Analysis was made, as particularly described in Section 13 of this PUD Application.
39. **Shared Parking Opinion** means a Shared Parking Opinion as defined in Section 13 of this PUD Application.
40. **Total Parking Supply** means the Total Parking Supply as defined in Section 13 of this PUD Application.
41. **Unit** means any condominium unit created on any Parcel or within any Unit located on the Property.

42. **Use Area** means any of the Use Areas more particularly described in Section 6 of this PUD Application.
43. **Village** means Mountain Brook Village.
44. **Village Green** means the Village Green as defined in Section 10 of this PUD Application.
45. **Village Master Plans** means the Village Master Plans adopted by the Planning Commission as of June, 2007.
46. **Village Overlay Standards** means the regulations and standards set forth in Sections 129-551 through 129-557 of the City Code as in effect as of January 1, 2012.
47. **Woodland Park** means the Woodland Park as defined in Section 10 of this PUD Application.

Site Legend



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Consistent with the goals and ideals of the Village Master Plans, Lane Parke has been designed and planned around the following concepts:

- To be a seamless extension of Mountain Brook Village that preserves the diversity of its architectural heritage and community oriented, pedestrian scale.
- To enhance the Village by cultivating pedestrian connections, adding green space, improving storm water mitigation measures and providing ample parking.
- To create a competitive retail environment that will attract an array of upscale retailers which will increase the available revenue base the City uses to support community services and schools.

When completed, Lane Parke will replace the aging Mountain Brook Shopping Center and Park Lane Apartments with updated retail space, ample parking alternatives, new residential options, an upscale inn and office space. The ±27 acre Property is ideally suited to accommodate this diversity of uses when comprehensively planned in accordance with the Planned Unit Development Zoning Classification established pursuant to Section 129-261 of the City Code. Accordingly, the Lane Parke Plan has been conceived in accordance with the following planning objectives:

1. To advance the vision for Mountain Brook Village as articulated in the Village Master Plans by (i) creating new development around the perimeter of the Village that will contribute to the vitality of the Village as a whole, (ii) providing opportunities for more evening business and community activity, (iii) providing additional parking alternatives in Mountain Brook Village through additional surface parking and a discrete parking structure and (iv) enhancing the shopping, dining and entertainment choices in the Village.
2. To preserve the character and tradition of Mountain Brook Village as a pedestrian friendly, community oriented destination, while incorporating flexibility in design and operation that is critical to attract and maintain leading retailers.
3. To cultivate a festive environment for families and events through amenities to be shared by all of Mountain Brook Village, such as green spaces, marketplace ambiance, broad sidewalks and open plazas that will characterize Lane Parke and invite leisurely strolls, al fresco dining, sidewalk shopping and community gatherings.
4. To design, construct and operate Lane Parke in a manner that is sympathetic to the existing Village and minimizes impacts on adjacent neighborhoods by focusing on transitions between uses, setbacks, topography, vegetation, screening and green space.
5. To complement the existing aesthetic of Mountain Brook Village by emphasizing architectural quality, promoting attractive and pedestrian oriented streetscapes, integrating the Property with the Village and maintaining rich landscaping and green space.
6. To continue to assist the City's flood mitigation efforts by augmenting the existing storm water management system.
7. To improve traffic circulation within Lane Parke by introducing street and signal improvements and eliminating access points.
8. To minimize disruptions to the Property through phased construction.
9. To achieve a more efficient and economical arrangement of buildings, lots, uses, circulation and supporting infrastructure than would be feasible under the current zoning classifications applicable to the Property.

Existing Condition

Illustrative Master Plan

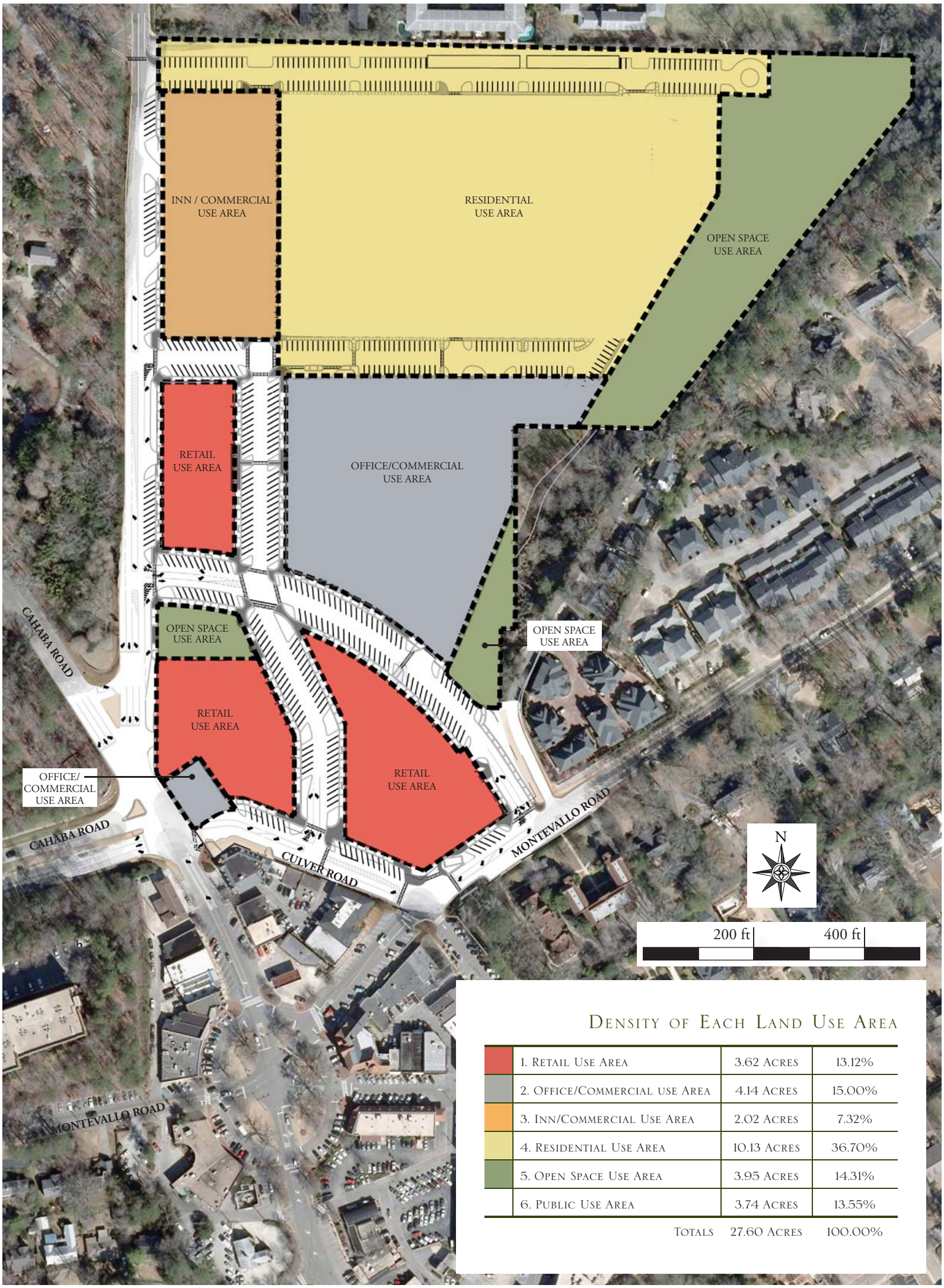
Summary of Proposed Residential Structures (as Proposed by the Illustrative Master Plan)

1.	Distribution of Housing Types	
	Multi-Family Units	
2.	Location, Groupings and Orientation	
	See Design Standards and Illustrative Master Plan	
3.	Number of Units	
	276 Multi-Family Units	
4.	Maximum Height and Stories	
	See Design Standards	
5.	Existing and Proposed Floor Area	
	Existing (Net Leasable Area) 275,900 Sf	Proposed (Net Leasable Area) 303,600 Sf

Summary of Proposed Non-Residential Structures (as Proposed by the Illustrative Master Plan)

1.	Types of Uses	
	Retail, Office/Commercial, Inn/Commercial	
2.	Location, Groupings and Orientation	
	See Design Standards and Illustrative Master Plan	
3.	Maximum Height and Stories	
	See Design Standards	
4.	Existing and Proposed Floor Area	
	Existing (Net Leasable Area) Retail 71,529 Sf Office 7,197 Sf Inn 0 Sf	Proposed (Net Leasable Area) Retail 166,000 Sf Office 30,000 Sf Inn 99,000 Sf

* Inclusive of the 5,000 Square Foot Ray Building.



Density of Each Land Use Area

	1. Retail Use Area	3.62 Acres	13.12%
	2. Office/Commercial use Area	4.14 Acres	15.00%
	3. Inn/Commercial Use Area	2.02 Acres	7.32%
	4. Residential Use Area	10.13 Acres	36.70%
	5. Open Space Use Area	3.95 Acres	14.31%
	6. Public Use Area	3.74 Acres	13.55%
	Totals	27.60 Acres	100.00%

Permitted Uses

Multiple uses shall be permitted within Lane Parke including retail, hospitality, office, service, residential, green space, parking and municipal uses, as more particularly set forth below.

Lane Parke is divided into each of the following Use Areas, the location and boundaries of which are shown in Section 5 on Page 9. All uses are permitted by right unless (i) expressly limited or conditioned herein or (ii) the square footage of any specific use would exceed the Shared Parking Assumption for such specific use, as outlined in Section 13, in which case such specific use shall be conditioned upon the delivery by Project Owner of a Shared Parking Opinion, in accordance with Section 13, confirming that the parking demand created by such specific use shall not exceed the Total Parking Supply.

Retail Use Area. Within areas designated Retail Use Area, the following uses are permitted by right:

1. Antique stores;
2. Appliances and electronic goods and equipment;
3. Arts and crafts stores;
4. Bakeries selling food from the premises;
5. Banks and financial services firms;
6. Barber shops (limited to one);
7. Bars, pubs and other establishments primarily engaged in the sale of alcoholic beverages for on-site consumption;
8. Bookstores;
9. Bridal shops;
10. Business offices and professional offices, provided however, that business offices or professional offices may only be located in space with frontage along Lane Park Road;
11. Clothing stores;
12. Coffee shops;
13. Computer and electronics stores;
14. Daycare centers if located on Lane Parke Road or Park Lane Court South;
15. Dry cleaning establishments where no laundering or cleaning is done on the premises;
16. Electronic and electrical repair shops;
17. Fitness centers;
18. Florist shops;
19. Furniture stores;
20. Garden and lawn stores;
21. General merchandise stores, including full-line department stores;
22. Gift shops;
23. Grocery stores;
24. Hardware stores;
25. Ice cream parlors;
26. Interior design shops that include the on-site exchange of merchandise for general consumers;
27. Jewelry stores;
28. Liquor, wine and/or spirits stores;
29. Meat, seafood, vegetable and fruit markets;
30. Parcel delivery and packaging stores;
31. Personal fitness trainers and studios, heath clubs, spas, dance/yoga studios and similar facilities;
32. Pet shops;
33. Pharmacies;
34. Photography studios;
35. Physical therapists if located on Lane Parke Road or Park Lane Court South;
36. Rental and sale of electronic media and related items;
37. Restaurants, cafes, cafeterias and delicatessens, provided however, that the Shared Parking Assumptions shall not apply to restaurant, cafeteria or delicatessen uses that are ancillary to a primary use within the Inn/Commercial Use Area or the Retail Use Area (such as a delicatessen within a grocery store);
38. Shipping and wrapping of packages and sale of related items;
39. Shoe repair shops if located on Lane Parke Road or Park Lane Court South;
40. Shoe stores;
41. Sporting goods stores;
42. Theaters for the performing arts if located on Lane Parke Road or Park Lane Court South;
43. Travel agents;
44. United States Post Office;
45. Variety stores;
46. Streets, rights of way, service roads, access ways and drive aisles;
47. Sidewalks and pedestrian passage ways;
48. Drive through facilities, if implemented in accordance with the Design Standards;
49. Accessory uses customarily incidental to the uses permitted in the Retail Use Area;
50. Any other business that provides for the display and on-site exchange of merchandise for general consumers that is not otherwise prohibited under the City Code;
51. Streets, rights of way, service roads, access ways and drive aisles (both public and private); and
52. Sidewalks and pedestrian passage ways.

Within areas designated Retail Use Area, if located on Main Street, Jemison Lane, Culver Road or Montevallo Road, the following conditional uses may be permitted within Lane Parke, but only with the prior written approval of the city council:

1. Daycare centers;
2. Physical therapists;
3. Shoe repair shops;
4. Theaters for the performing arts

Office/Commercial Use Area. Within areas designated Office/Commercial Use Area, the following uses are permitted by right:

1. Any use permitted in the Retail Use Area;
2. Business offices and professional offices, provided however, that no business offices or professional offices located on any Parcel other than the Ray Parcel (Parcel 9) shall be located on the first (1st) floor of a building;
3. Interior design shops;
4. Public and private parking structures;
5. Commercial uses ancillary to the operation of a parking structure, such as administrative space for parking structure management and valet services, an automobile wash/detail service and storage space;
6. Streets, rights of way, service roads, access ways and drive aisles (both public and private); and
7. Storage, back office support, mechanical or other uses ancillary to any primary use permitted under the Retail Use Area, Office/Commercial Use Area, Inn/Commercial Use Area, Residential Use Area or Public Use Area.

Inn/Commercial Use Area. Within areas designated Inn/Commercial Use Area, the following uses are permitted by right:

1. Inns, bed and breakfast establishments and hotels, provided however, in no event shall such use include more than one-hundred (100) rooming units;
2. Administrative office uses;
3. Meeting/conference uses ancillary to the operation of a full service inn;
4. Kitchen and catering services for use in connection with meeting/conference uses and for the provision of room service;
5. Commercial uses ancillary to the operation of a full service inn, including salons, pool, spas, gym, laundry/cleaning services, valet services, concierge services and other amenities;
6. Newsstands, gift shops, galleries, shops selling sundry items, coffee shops or shops selling food items for carry out only located within an inn, bed and breakfast establishment or hotel;
7. Any use permitted in the Retail Use Area, provided however, that (i) the square footage of Net Leasable Area devoted primarily to uses permitted within the Retail Use Area shall not exceed the Permitted Density and (ii) no more than one (1) sit-down, full service restaurant shall be permitted in the Inn/Commercial Use Area;
8. At any time following the date that is three (3) years following approval of this PUD Application, any use permitted in the Residential Use Area, provided however, in the event the Inn/Commercial Use Area is used as residential dwelling units, the Inn/Commercial Use Area shall not include more than forty (40) residential units;
9. Streets, rights of way, service roads, access ways and drive aisles (both public and private); and
10. Sidewalks and pedestrian passage ways.

Residential Use Area. Within areas designated as Residential Use Area, the following uses are permitted by right:

1. Residential dwelling units, provided however, the Residential Use Area shall not include more than two-hundred seventy-six (276) residential units;
2. Enclosed garages and covered parking;
3. Leasing and sales offices;
4. Amenities, improvements, storage and mechanical uses ancillary to residential dwelling units, including but not limited to a pool, gym, laundry/cleaning services and recreational facilities;
5. Streets, rights of way, service roads, access ways and drive aisles (both public and private); and
6. Sidewalks and pedestrian passage ways.

Open Space Use Area. Within areas designated Open Space Use Area, the following uses are permitted by right:

1. Parks;
2. Playgrounds;
3. Green space;
4. Trails;
5. Outdoor dining areas;
6. Amenities, valet services, pavilions, amphitheaters and accessory structures ancillary to the foregoing uses; and
7. Special events, including festivals, parades, races, assemblies, gatherings and other events permitted under the City Code provided such special events are sponsored and the sponsor thereof satisfies all requirements of the City Code with respect to thereto.

Public Use Area. Within areas designated Public Use Area, the following uses are permitted by right:

1. Streets, rights of way, service roads, access ways and drive aisles (both public and private);
2. Sidewalks and pedestrian passage ways;
3. Special events, including festivals, parades, races, assemblies, gatherings and other events permitted under the City Code, provided such special events are sponsored and the sponsor thereof satisfies all requirements of the City Code with respect to thereto; and
4. Sidewalk vending and kiosk operations located on sidewalks and other pedestrian passage ways, provided that (except for special events for which a separate permit is obtained pursuant to the City Code):
   a. there shall be no more than five (5) sidewalk vending or kiosk locations within Lane Parke;
   b. such vending or kiosk site operations shall be conducted from a fixed location (though nothing herein shall prevent any vending or kiosk structure from having wheels or otherwise being capable of being transported);
   c. the location of such vending or kiosk site shall not lead to or cause significant congestion or blocking of pedestrian traffic;
   d. all items or services to be sold must be a permitted use under the Retail Use Area;
   e. the design of any vending or kiosk structure has been approved by the Design Committee; and
   f. the operator of such vending or kiosk site shall have obtained a business license pursuant to the City Code and shall otherwise be in compliance with all applicable provisions of the City Code.

7. Permitted Density

Permitted Density

The density of land uses within Lane Parke shall not exceed (collectively, the "Permitted Density"): (i) with respect to each Use Area, the Maximum Square Footage Per Land Use set forth in Table 1 below, as adjusted for the Programming Allowance, and (ii) with respect to each Parcel, the Maximum Square Footage Per Parcel set forth in Table 2 below. The Maximum Square Footage Per Land Use set forth in Table 1 below for the Retail Use Area and the Office/Commercial Use Area may each increase by up to 5% based upon the final programming requirements of building occupants provided that the incremental parking demand resulting from such increase shall not exceed the Total Parking Supply, as determined by a Shared Parking Opinion (the "Programming Allowance"). In no event shall the ratio of Net Leasable Area to Gross Floor Area for any Use Area or Parcel exceed 1 to 1.15.

Table 1 - Net Leasable Area Per Land Use

	Use Area	Maximum Net Leasable Area	
	1. Retail Use Area	112,500 Sf	
	2. Office/Commercial Use Area	Office: 30,000 Sf*	Retail: 47,000 Sf
	3. Inn/Commercial Use Area	Inn: 99,000 Sf	Retail: 6,500 Sf
	4. Residential Use Area	303,600 Sf	
	Totals	598,600 Sf	

Table 2 - Net Leasable Area Per Parcel

Parcel	Maximum Net Leasable Area
Parcel 1	105,500 Sq Ft
Parcel 2	303,600 Sq Ft
Parcel 3	0 Sq Ft
Parcel 4	36,700 Sq Ft
Parcel 5	88,500 Sq Ft
Parcel 6	0 Sq Ft
Parcel 7	0 Sq Ft
Parcel 8	37,650 Sq Ft
Parcel 9	5,000 Sq Ft
Parcel 10	46, 200 Sq Ft

* Inclusive of the 5,000 Square Foot Ray Building.

Base Zoning District Standards

The base zoning district for Parcel 1 and Parcels 3 – 10 shall be the Local Business District Standards and the Village Overlay Standards.

The base zoning district for Parcel 2 shall be the Residence G Standards and the Village Overlay Standards.

The buildings and uses within Lane Parke shall generally comply with the Local Business District Standards, the Residence G Standards and the Village Overlay Standards, as applicable, except as specifically set forth herein.

Because the Project Owner will be creating a new street network with unique Design Standards applied to multiple uses, deviations from the base zoning district standards are needed to provide sufficient flexibility to achieve the goals of the Village Master Plan and the Development Objectives of Lane Parke, as outlined in this PUD Application.

Notwithstanding anything contained herein or in the City Code to the contrary, the following deviations from the Local Business District Standards, the Residence G Standards and the Village Overlay Standards shall be permissible within Lane Parke:

	Base Zoning District Standards	Lane Parke Plan	Reason for Deviation
Uses			
Uses	Uses permitted in the Residence G Standards and the Local Business District Standards	See Section 6 for the Permitted Uses in Lane Parke.	By integrating a new street network, new parking infrastructure, better pedestrian connections and better traffic circulation through a comprehensive plan, the existing residential and commercial uses can be better integrated, and new, compatible uses introduced, in an efficient manner that avoids negative impacts on surrounding areas and satisfies the objectives of the Village Master Plan.
Density			
Residential	12 units per acre per floor.	See Section 7 for the Permitted Density.	Lane Parke has been designed to provide sufficient parking, traffic circulation and green space to serve the increased density.
Commercial	Limited by parking and height requirements.	See Section 7 for the Permitted Density.	
Building Typologies			
Building Typologies	Allows Street-Front, Free-Standing and Stacked Flat Buildings	Introduces Grocery, Inn, Parking Structure and Residential Typologies and building limitations for each.	Additional typologies are required to accommodate the proposed uses in Lane Parke.
Regulating Plan			
Regulating Plan	See existing regulating plan in the Village Overlay Standards.	See new Regulating Plan for Lane Parke on pages 22 and 23.	Lane Parke is establishing a new and different street network than contemplated in the existing regulating plan.
Height of Buildings			
Parapet	2-4'	Minimum 3'	To ensure all rooftop equipment is hidden from view.
Residential	Maximum 3 stories / 46' Pitched roofs allowed up to 16'	Maximum 4 stories / 66' Pitched roofs allowed up to 20'	In the locations of the Inn Building and Residential Buildings, these heights are consistent with the height increases contemplated by the Village Master Plan. The additional allowed heights are mitigated by their location well removed from the core of the Village, the design features required by the Design Standards and the Open Space Requirements.
Inn	Maximum 3 stories / 46' Pitched roofs allowed up to 13'	Maximum 4 stories / 66' Pitched roofs allowed up to 20'	New building typology.
First Story Height (Internal)			
Street-Front Free-Standing	12' Minimum 18' Maximum	May exceed 18' in height provided that such first story internal building heights shall not exceed 30'	To accommodate the required specifications of proprietors occupying more than one story
Required Ground Floor Elevation			
Street-Front Free-Standing	0-1'	Not applicable along Montevallo Road and Culver Road	The construction of topography and drainage improvements within Lane Parke will dictate the ground floor elevation heights to mitigate flood risk.
Required front Building Line			
Free-Standing	10-25'	Minimum 5'	To more closely align Free-Standing Buildings with Street-Front Buildings and create a more consistent street edge.
Residential	22-26'	Minimum 10'	To allow for greater spacing between structures, and to provide a center courtyard for the addition of green space and amenities.
Additional deviations		Front building lines along streets and rights of way may vary in accordance with the Design Standards	To enhance architectural character and visual interest along the street front.
		Front building line requirements shall not apply to drive aisles; access points to the public parking structure as generally depicted in the Illustrative Master Plan; and canopies, porte cocheres, balconies and other similar building overhangs	To allow for efficient vehicular travel and convenient access to parking within the Lane Park Plan.
Side Yard Setbacks			
Free-Standing	10% of Lot width or 10', whichever is less	5'	To more closely align Free-Standing Buildings with Street-Front Buildings and create a more consistent street edge.
Residential	10% of Lot width or 10', whichever is less	5'	To allow for greater spacing between structures, and to provide a center courtyard for the addition of green space and amenities.
Minimum Rear Yard Setback			
Free-Standing	10'	5'	To allow more building frontage on lots restricted in size by utility easements and drainage/floodway easements.
Residential	20'	10'	To allow for greater spacing between structures, and to provide a center courtyard for the addition of green space and amenities.

Required Lot Width & Minimum Lot Depth			
Free-Standing	60' width	Not Applicable	Lane Parke will be divided into Parcels as identified on Page 3 of this PUD Application. The Design Standards and Illustrative Master Plan contemplate buildings and structures being oriented with respect to such Parcels, so minimum lot widths and depths are not necessary.
Street-Front	25' width		
Residential	60' width; 100' depth		
Street Wall			
Street-Front	Street wall to cover 90-100% of a lot	Not applicable to drive aisles and access points to the public parking structure	To allow for efficient vehicular travel and convenient access to parking within the Lane Parke Plan.
Residential	Street wall to cover 65-100% of a lot	Not Applicable	To allow for greater spacing between buildings, and to provide a center courtyard for the addition of green space and amenities.
Primary Entrances			
Primary Entrances	One (1) primary entrance to be located every 50' of street frontage on Primary Frontages	Exceptions permissible with respect to tenants occupying in excess of 4,000 square feet of space that require single point entry	To accommodate the requirements of larger tenants in the Lane Parke Plan.
Facade Projections			
Free-Standing	Bay windows and balconies may extend up to 5' from the facade, but may not extend over front building line.	Bay windows and balconies may extend up to 3' over the front building line.	To allow for more variation on buildings that preserve a tight street edge.
Parking, Vehicle and Pedestrian Access Standards			
Parking Quantity	Retail-5 per 1,000; Service-5 per 1,000; Office-4 per 1000; Residential-2 per dwelling unit plus visitor spaces	Parking quantity and access will be implemented in accordance with the Parking, Access and Traffic Plan included in Section 13 of this PUD application	Parking quantities incorporate shared use reductions, as allowed by the Village Overlay Standards.
Parking Design	Parking for all residential uses shall be located in the rear of any residential building, and no parking shall be permitted in any front yard or side yard; allowance for visitor parking in front of any building if located on –street and available for public use	Parking design for the Residential Use Area will be implemented in accordance with the Parking, Access and Traffic Plan included in Section 13 of this PUD application, which does not forbid parking in front or side yards	This will allow for multiple, yet smaller and more discreet, parking fields and is necessary to provide a center courtyard for the addition of green space and amenities. The location of the Residential Buildings away from the commercial core of Lane Parke and the Village mitigates the aesthetic impacts of parking areas within front and side yards.
Vehicle Access Limitations	Vehicle access to all lots shall be limited according to frontage type on the applicable Building and Development Regulating Plan	The limitation on vehicle access to buildings for both Primary and Secondary Frontages shall not apply to drive aisles and access points to the public parking structure, as generally depicted in the Illustrative Master Plan	To allow for efficient vehicular travel and convenient access to parking within the Plan, so service areas will be located in accordance with the Parking, Access and Traffic Plan in Section 15 of this PUD Application.
Drive-through Facilities	Drive-through facilities may be permitted only where ingress and egress is provided from a Secondary or Access Street as identified in the Master Plan	Drive-through facilities shall be permissible in three (3) locations in accordance with the Design Standards	The Design Standards comply with the spirit of the Village Overlay Standards but specific streets in the Lane Parke Plan vary from the layout in the Village Master Plan.
Service Yards			
Service Yards	Residence G Standards and Local Business District Standards require service yards to be located at the rear of the buildings and specify size and material requirements	Does not require service yards to be at the rear and dictates that service yards be screened from view (see Design Standards)	Some of the buildings in the Lane Parke Plan do not have a rear yard and will have streets on all sides. Accordingly, service areas shall be located in accordance with the Parking, Access and Traffic Plan and screened in accordance with the Design Standards.
Material Specifications			
Standards	All buildings shall have one primary material covering at least 70% of building facades	The primary material for Residential Buildings may consist of less than 70% coverage of the building facades	To break up the scale of this larger (up to 4-story) building type.
Building Materials	Primary Materials and Secondary Materials do not include the use of painted brick	Allows for the use of painted brick	To provide greater variety without compromising the aesthetic of Mountain Brook Village.
Sidewalk Width			
Sidewalk Width	Sidewalks on primary streets shall be 8-12' wide	The sidewalk on the section of Lane Parke Road north of Park Lane Court South shall be 6' minimum	This sidewalk will not support retail traffic and will serve as a transition to residential areas north of Lane Parke.

Additional notes:

1. Utilities. The Building Typology requirements do not apply where utility easements and drainage/floodway easements prohibit the ability to conform.

2. Ray Building. To the extent the Ray Building does not comply with the Village Overlay Standards, the Local Business District requirements or the Design Standards in any respect, no alterations to the Ray Building shall be required and the Ray Building may remain as currently constructed as a legal non-conforming structure. Any future material exterior alterations or renovations to the Ray Building shall conform to the appropriate Architectural Style set forth in the Pattern Book.

3. Design Standards. The Design Standards are hereby incorporated herein by reference and any provisions thereof not expressly identified above that deviate from the Village Overlay Standards, the Residence G Standards or the Local Business District regulations shall be permissible. To the extent any provisions of the Design Standards are inconsistent with the provisions of the Village Overlay Standards, the Residence G Standards or the Local Business District regulations, the Design Standards shall control.

4. Parking Design. The requirements related to Parking Design shall not apply, as parking and access will be implemented in accordance with the Parking, Access and Traffic Plan included in Section 13 of this PUD Application.

The standards set forth in this Section 9 shall apply to the design of buildings within Lane Parke and shall be collectively referred to as the "Design Standards".

Plans, diagrams, illustrations and photographs have been included in Section 4 and in this Section 9 for purposes of reference and example (the "Design Examples"). Final locations of buildings and private streets, and the final designs, features and number of buildings may vary from those depicted in the Design Examples, but only to the extent such final designs are consistent with the Design Standards.

BUILDINGS

The design, orientation and architectural styling of buildings and façades in Lane Parke shall be in accordance with the Pattern Book included in this Section 9 on Pages 17 – 84 (the "Pattern Book").

The section of the Pattern Book entitled General Design Guidelines, Regulating Plan & Building Typologies governs the orientation, massing, height and transparency of buildings and façades in, and establishes open space requirements for, Lane Parke. The Pattern Book provides the following Building Typologies that are permissible within Lane Parke: (i) Street-Front Buildings, (ii) Free-Standing Buildings, (iii) Residential Buildings, (iv) an Inn Building, (v) Parking Structure and (vi) Grocery Building. The Regulating Plan set forth on Page 22 designates the Building Typology that can be constructed within each Parcel within Lane Parke.

The section of the Pattern Book entitled Architectural Styles governs the architectural styling of each of the buildings and facades to be constructed within Lane Parke. The Pattern Book establishes the following Architectural Styles that are permissible within Lane Parke: (i) Village Romantic, (ii) Southern Mercantile, (iii) Birmingham Classic and (iv) Village Mid-Century. The design of each building or façade shall conform to the guidelines established in the Pattern Book for the designated Architectural Style.

PARKING STRUCTURE

The Parking Structure shall be designed in accordance with the Parking Structure Building Typology and shall generally conform to the following:

The Parking Structure shall be designed in a manner such that, except for views through access points to the Parking Structure, no substantial portion of any vehicle parked on the top level thereof shall be visible from ground level on Main Street, Jemison Lane, Culver Road or Lane Park Road.

The Parking Structure shall contain bicycle racks conveniently located to encourage bicycle use.

As described in this PUD Application, the Parking Structure is designed to have three (3) parking levels, one (1) level on grade and two (2) levels above grade. At the request of the City, on terms mutually acceptable to the City and the Project Owner, the Project Owner will agree to construct, in accordance with the Design Standards (the "Optional City Parking Level"), an additional third (3rd) above grade level on the Parking Structure.

BUILDING DESIGNS, LOCATIONS AND SIZES

The following changes in the designs, locations and sizes of buildings shall be permissible by right:

- The Illustrative Master Plan and the Three Dimensional Conceptual Renderings included in Appendix C are designed to show the general location of building footprints, public improvements, other development features and the relationships between those features. It is not intended to show precise details nor exact sizes, locations or design features of Lane Parke. The Illustrative Master Plan and the Three Dimensional Conceptual Renderings included in Appendix C are not final engineering drawings, and features may be (and are expected to be) modified as final designs are developed pursuant to the Pattern Book and the Design Review Process. Examples of such modifications include the following:
    - Building layouts may be modified to meet tenant needs;
    - Building footprints may shift;
    - Buildings may be separated to provide for pedestrian passages, access between buildings, useable courtyard or landscaping space, or other outdoor spaces;
    - The location of private streets and parking spaces may be adjusted in accordance with final building layouts; and
    - Footprint details (such as corners, angles, bays, and like features) may vary.

  However, with respect to any such modifications, (i) the Permitted Density, which includes the Net Leasable Area Per Land Use and the Net Leasable Area Per Parcel, shall not be exceeded, (ii) the buildings and structures shall comply in all respects with the limitations established by the Pattern Book, and (iii) the location of Primary and Secondary Frontages shall not change, and the private streets shall comply in all respects with the limitations established by the Parking, Access and Traffic Plan, and (iv) the Total Parking Supply shall not be reduced.
- The square footage of space constructed within Lane Parke may be less than the total square footage proposed by the Illustrative Master Plan.
- Changes in building design to accommodate drive through facilities in accordance with the section of these Design Standards titled "Drive Through Facilities" set forth below.
- Changes in the location of surface parking spaces, provided the Total Parking Supply is provided.
- The construction of below grade basement space under any building provided that adequate parking is provided to accommodate any increases in usable space pursuant to the Parking, Access and Traffic Plan.
- Upon election by the City, the construction of the Optional City Parking Level in accordance with the Design Standards.

DRIVE THROUGH FACILITIES

Drive through facilities may be designed and constructed as amenities to first floor retail or commercial space in the following locations (i) within Parcel 10 along Jemison Lane, (ii) within Parcel 5 along Park Lane Court South, and (iii) within Parcel 8, provided however, that such drive through facilities may only service the following uses: banks/financial institutions, pharmacies (including pharmacies ancillary to another primary use), dry-cleaners, coffee shops and specialty food related concepts not included within the fast-food restaurant category such as bakeries, delicatessens and stores offering the sale of ice cream, yogurt and/or smoothies. Fast-food restaurant uses may not utilize drive through facilities.

The size and design of buildings and storefronts may vary from the sizes and designs shown in the Illustrative Master Plan and in the Parking, Access and Traffic Plan to accommodate the inclusion of or changes to drive-through facilities as permitted by these Design Standards.

DESIGN REVIEW

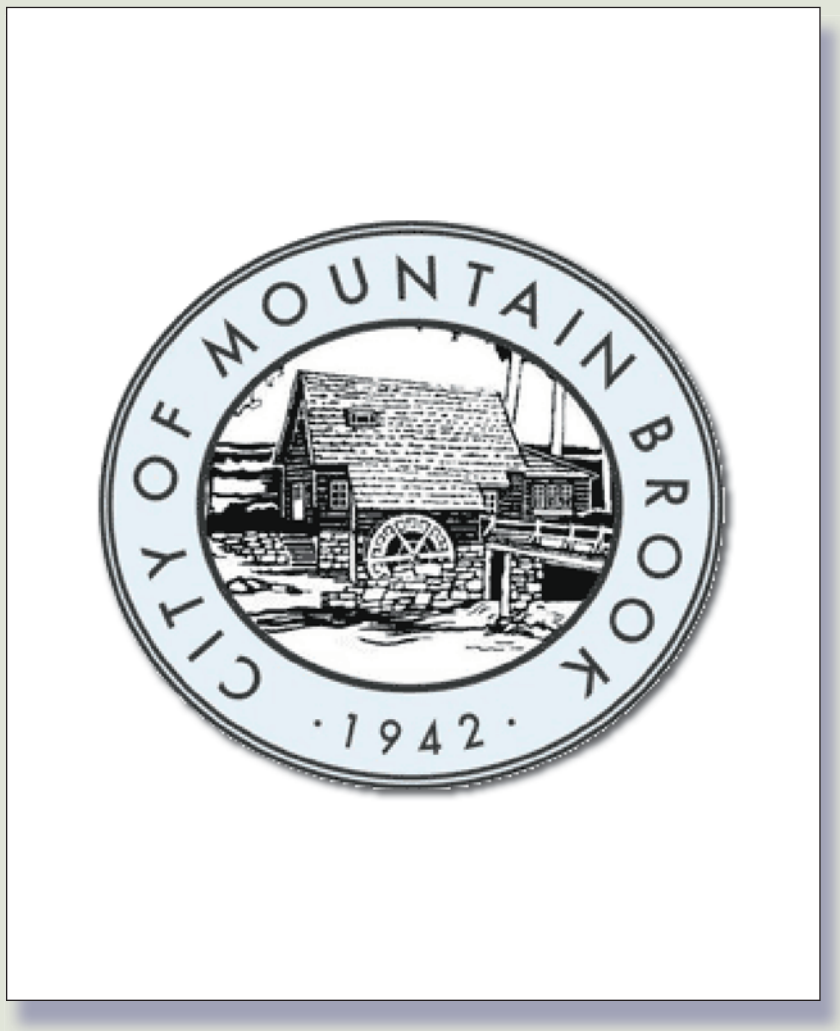
In connection with the preparation of schematic design documents for any building(s), the Project Owner shall submit to the zoning officer (as defined in the City Code) schematic design drawings (site plan, floor plans and elevations of the buildings therein) ("Preliminary Plans") for review and comment relative to compliance with the Design Standards. The zoning officer shall have the right to consult with the Design Committee for guidance on whether the Preliminary Plans comply with the Design Standards. Upon written request of the zoning officer, the Project Owner shall present the Preliminary Plans to the Design Committee at a regularly scheduled meeting of the Design Committee and cooperate with any subsequent inquiries of the Design Committee. The zoning officer will notify the Project Owner in writing within 30 days of the last to occur of the submittal of the Preliminary Plans or the Project Owner's presentation to the Design Committee if said Preliminary Plans do not comply with the Design Standards, which written notice shall include a description of why the Preliminary Plans are not in compliance with the Design Standards.

Prior to commencing construction on any building within Lane Parke, the Project Owner shall apply for a building permit in accordance with the requirements of Section 109-40 through Section 109-46 of the City Code. The zoning officer shall have the right to consult with the Design Committee to determine if the final plans for any building comply with the Design Standards.

The provisions of the foregoing two (2) paragraphs shall be referred to herein as the "Design Review Process").

DESIGN REVIEW — SIGNAGE AND AWNINGS

The Project Owner shall submit a final signage plan (based upon the Signage Plan included in Section 12 of this PUD Application) to the Design Committee for review and approval as a Master Sign Plan in accordance with the requirements of Section 121, Division 3, of the City Code and each business within Lane Parke, prior to erecting any signs or awnings, shall submit an application for a sign permit in accordance with the requirements of Section 121, Division 2, of the City Code.



Lane Parke

PATTERN BOOK

The following pages comprise the Pattern Book for Lane Parke. The Pattern Book consists of general design guidelines, permissible Building Typologies and permissible Architectural Styles. The purpose of the Pattern Book is to provide standards for the design and construction of buildings within Lane Parke that ensure continuity of architectural aesthetics and quality that is consistent with the heritage of the Village, and has been developed in a manner that is consistent with, and expands the intent of, the Village Master Plans, the PUD Zoning Ordinance and the Village Overlay Standards. The Pattern Book utilizes diagrams, photographs and renderings so that it can be used both as a regulating document and as a communication tool for presenting the character and feel of future development. The Pattern Book provides history based text, detailed diagrams and photographs to illustrate the minimum accepted design and construction criteria, while still allowing room for unique and creative design. The format of the Pattern Book is based upon architectural field guides and other academic publications recognized as authorities on defining historic architectural styles and precedents.

The Pattern Book has been produced by Historical Concepts with input from the Project Owner, their marketing and design teams, as well as key community stakeholders in order to gain a targeted and focused consensus for the vision of Lane Parke.

This Pattern Book shall govern the design of buildings and facades within Lane Parke, and shall control over any conflicting provisions of the Village Overlay Standards, Local Business District Standards, or the Residence G Standards.

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Lane Parke

GENERAL DESIGN GUIDELINES, REGULATING PLAN & BUILDING TYPOLOGIES

This section of the Pattern Book governs the orientation, massing, height and transparency of buildings and façades in, and establishes open space requirements for Lane Parke. The following Building Typologies are permissible within Lane Parke: (i) Street-Front Buildings, (ii) Free-Standing Buildings, (iii) Residential Buildings, (iv) an Inn Building, (v) a Parking Structure, and (vi) a Grocery Building.

The Regulating Plan set forth on Page 22 designates the Building Typology that can be constructed within each Parcel within Lane Parke.

The design of each building or façade shall conform to the Regulating Plan and the requirements of the applicable Building Typology. For each Building Typology, example diagrams have been included as reference material, provided however, such Design Examples shall not be construed as final designs. Final designs may vary from such Design Examples provided such designs substantially conform to the guidelines established for the applicable Building Typology. The Building Typology requirements do not apply where utility easements and drainage/floodway easements prohibit the ability to conform.

The Regulating Plan and the regulations in this Pattern Book regarding Building Typologies shall control over any conflicting provisions of the Village Overlay Standards, Local Business District Standards, or the Residence G Standards.

ARCHITECTURAL FEATURES

- The use of stylistically appropriate architectural features, such as towers and turrets, is encouraged to mark important public spaces in accordance with the following:
  - Public spaces where architectural features may be appropriate are the intersection of two public streets, the terminus of a street that ends in a "T" intersection, or fronting onto a significant public or open space such as a park or plaza.
  - The portion of the structure that exceeds the building height limit shall occupy no more than 20% of the building footprint.
  - Appropriate architectural features may be allowed to extend up to 10' above the maximum allowed building height on buildings three stories or less, provided that they are appropriate to the Architectural Style and Building Typology.
- The use of ornamental features such as spires, chimneys and weather vanes is also encouraged where appropriate. Ornamental features may extend up to 6' above the maximum allowed building height.
- At any and all points, the maximum building height (external) shall be measured from the existing grade of the sidewalk at the lot frontage, or the proposed grade at the front building line, whichever is lower.

Lane Parke
ARCHITECTURAL STYLES
VILLAGE ROMANTIC

Lane Parke
ARCHITECTURAL STYLES
SOUTHERN MERCANTILE

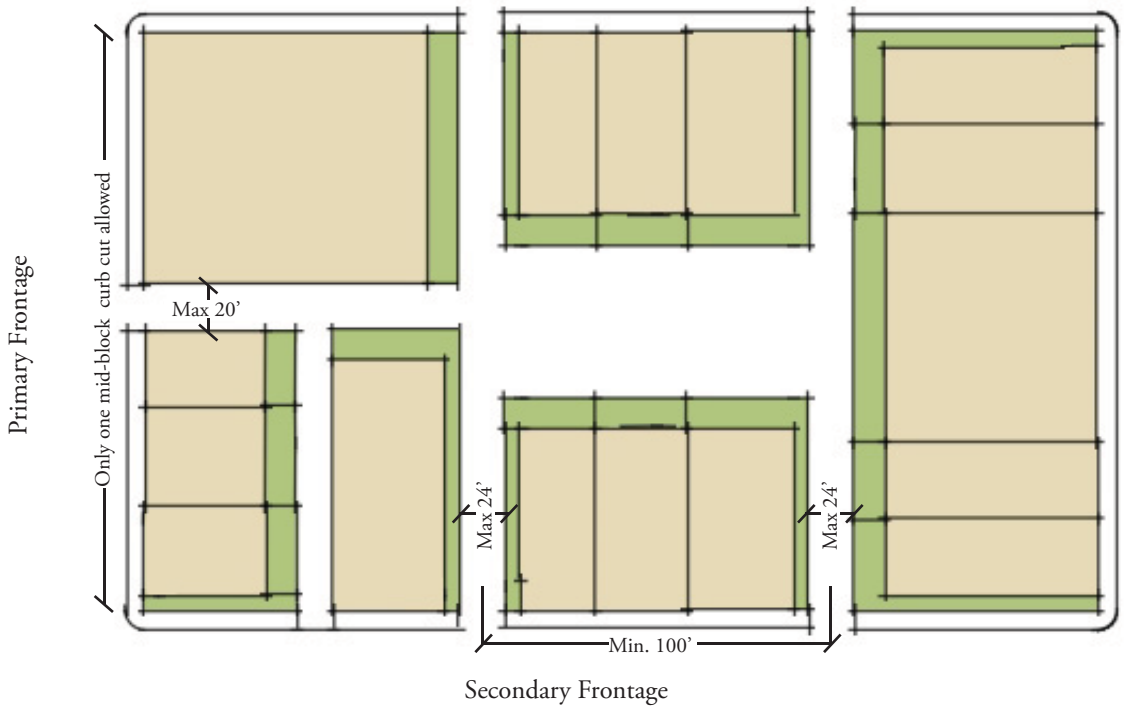
Lane Parke
ARCHITECTURAL STYLES
BIRMINGHAM CLASSIC

Lane Parke
ARCHITECTURAL STYLES
VILLAGE MID-CENTURY

VEHICULAR ACCESS

Vehicular access shall be limited upon the frontage type indicated on the Regulating Plan:

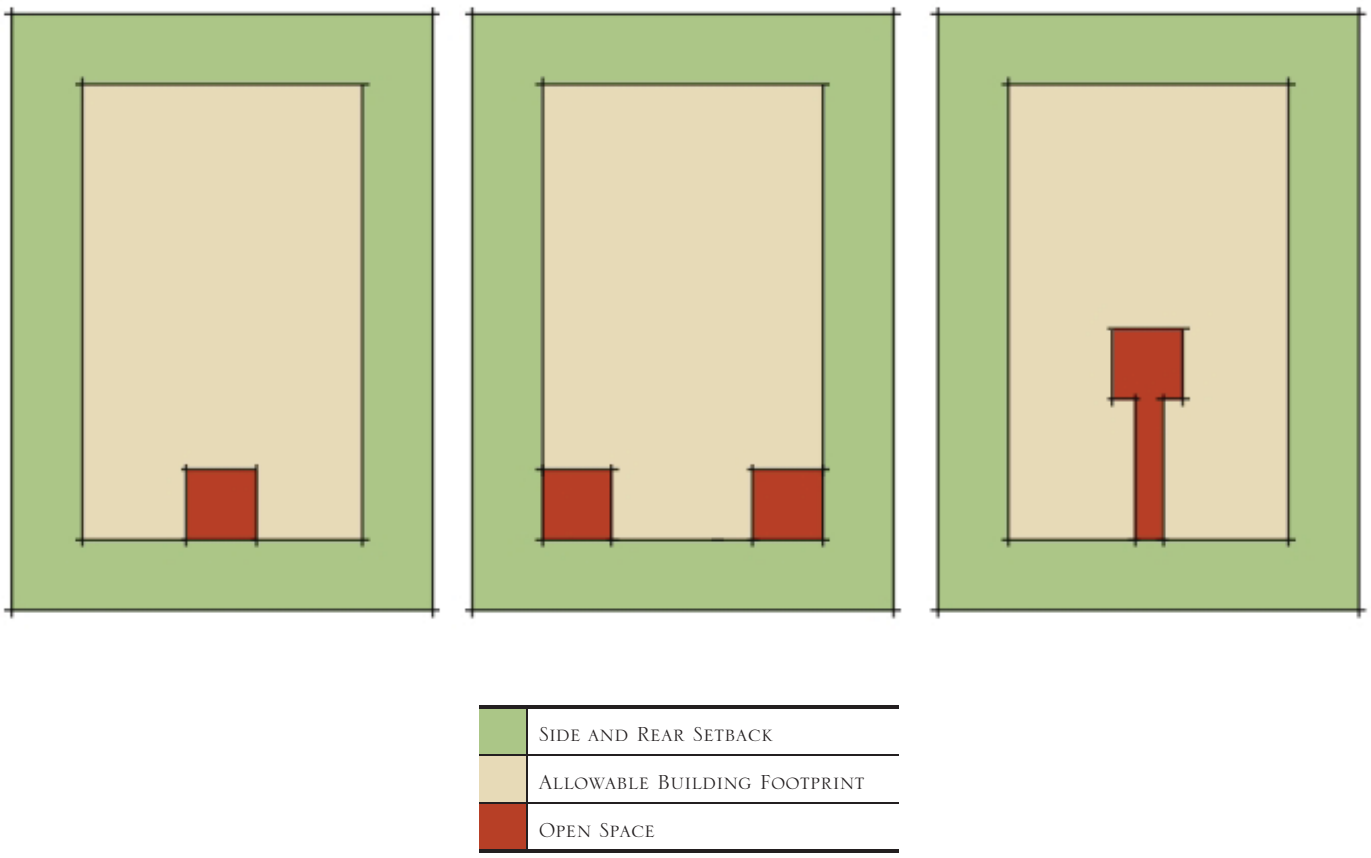
- Only one curb cut per block will be allowed on areas of Primary Frontage, with all other access occurring via alleys off of Secondary Frontage, or support streets as identified in the Traffic and Access Plan (as defined in Section 12).
- Vehicular access points on areas of Secondary Frontage shall not occur more frequently than every 100'. Where applicable, no more than 20% of the lot frontage shall be dedicated to vehicular access.
- There are no access requirements for private streets and parking areas.



OPEN SPACE REQUIREMENTS

These open space requirements are intended to create functional civic amenities within Lane Parke in exchange for increased density:

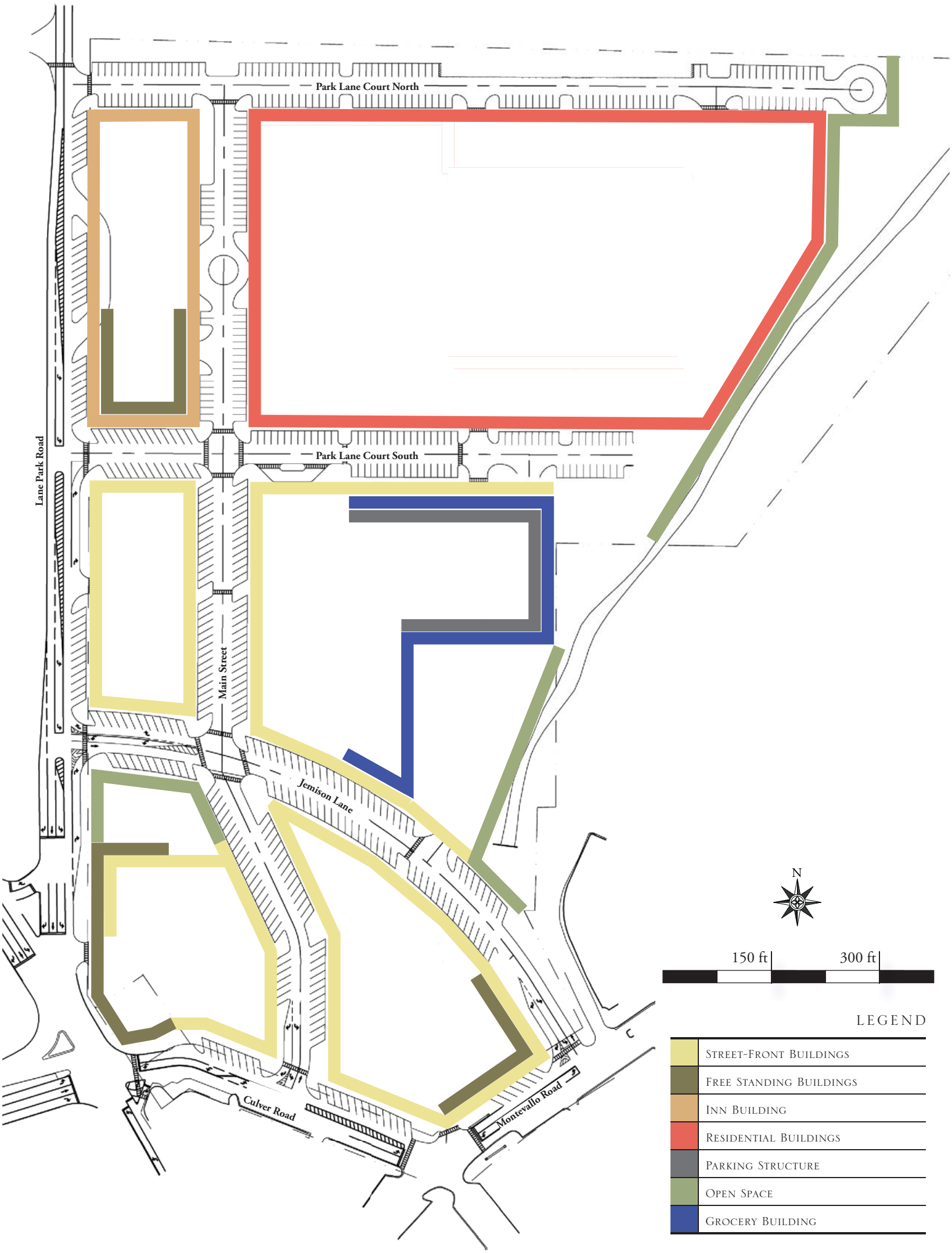
- Open space shall be in addition to any required setbacks and must occur in the otherwise allowable building footprint.
- Open space shall not include parking areas, service areas, or site utility areas.
- The open space requirements are as follows:
  - Ground level non-residential use: no requirement
  - Upper level non-residential use: 10% of upper level square footage
  - Residential uses: 100 square feet per dwelling unit
- Alternately, the open space requirement may be fulfilled by creating a public park or plaza equal to the square footage of the total required open space of Lane Parke instead of distributing the open space among the buildings and facades of individual commercial spaces.
- All open space for non-residential uses shall be directly accessible from the building frontage or a passage that breaks the facade, in one of the configurations illustrated below:



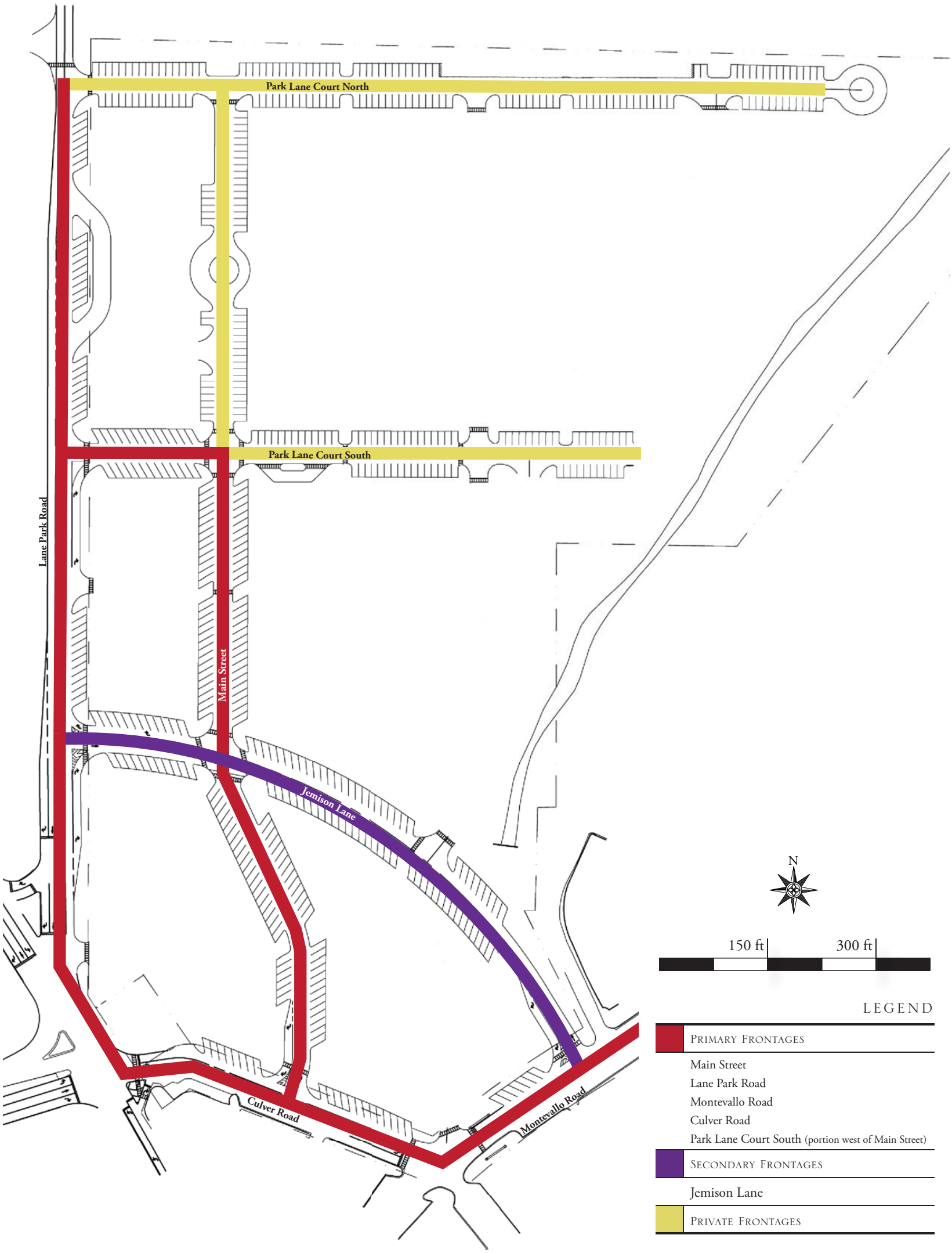
SERVICE AREA REQUIREMENTS

All service areas, loading areas and waste containers shall be either screened from view from any Primary Frontage or Secondary Frontage or wholly enclosed within the structure. Screening walls and materials shall be designed and constructed with materials compatible to that of the principal structure and, to the extent practical, landscape elements shall be incorporated to provide additional screening.

Regulating Plan — Building Typologies



Regulating Plan — Street Frontage Designation



The pedestrian scale and unique character of the existing buildings and architecture in the Village are key to its continued viability. The Street-Front Building Typology provided in this Section has been developed to maintain this pedestrian scale and unique architecture while allowing for a vibrant and exciting shopping experience unique to the area. The Street-Front Building Typology for Lane Parke is based upon the Street-Front Building Type established by the Village Overlay Standards.

The following standards allow for differences in height, massing, scale and materials that are critical in creating the sense that Lane Parke is an extension of the existing Village that has evolved over time. Each store space or building's relationship to public streets, open spaces and surrounding architecture should be taken into consideration as material and massing decisions are made to ensure each elevation is sympathetic with the structures and spaces around it.

Street-Front Buildings are those with immediate frontage on streets. To remain consistent with the Village, this Building Typology is low-scale (1 to 2 ½ stories) with engaging street-level storefronts. The massing, materials and overall design of a Street-Front Building is especially important at street level where a high level of pedestrian activity will take place.

The following pages detail height, massing and orientation standards that govern Street-Front Buildings to ensure a quality and character consistent with the existing structures in the Village. Street-Front Buildings shall meet the following building standards, which standards shall control over any conflicting provisions of the Village Overlay Standards or of the Local Business District Standards.

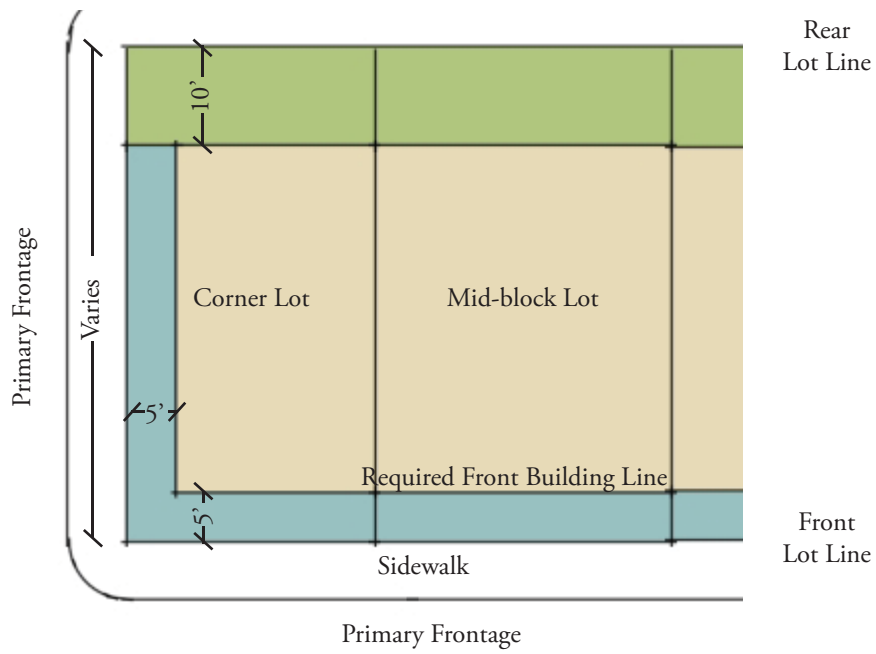
Lot Diagrams

LEGEND

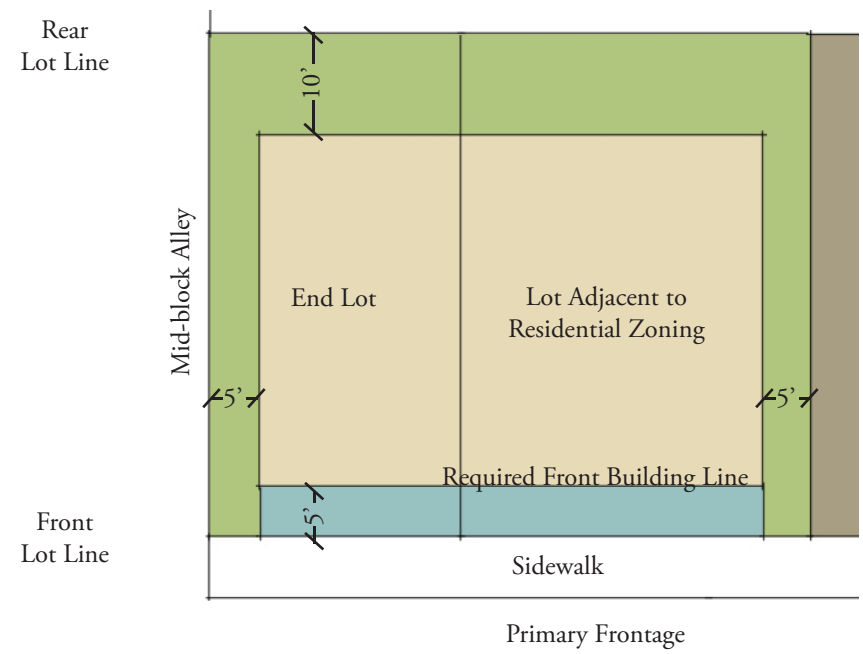
	Build-To Zone
	Setback
	Allowable Building Footprint
	Residential Lot
	Building Footprint

Lot Layout Notes:

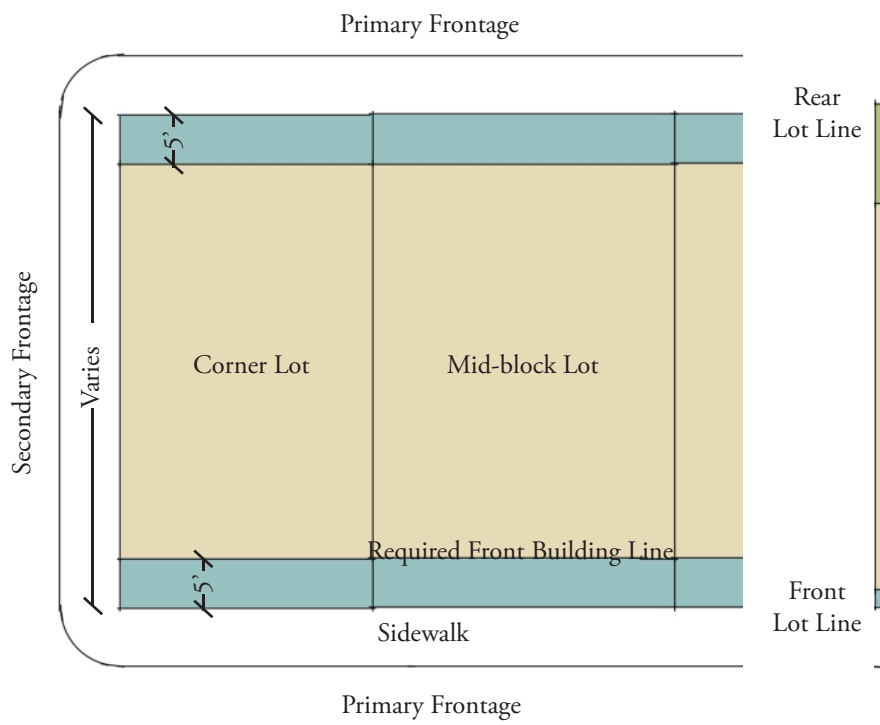
- There is no minimum or maximum required lot depth.
- There is no minimum or maximum required lot width.
- The front facade of the building must occur in the Build-To Zone.
- Exceptions to the Street Wall Coverage requirements may be permitted to comply with the Open Space Requirements.
- Maximum lot coverage is 90% of the buildable lot area. Any open space required on the lot shall reduce the maximum lot coverage.
- All references to a lot or depictions of a lot line shall refer to a land condominium Unit or the boundary line of a land condominium Unit, or if no applicable land condominium Unit has been established, then to a Parcel or the boundary line of such Parcel.
- Lot references shall not refer to a condominium Unit other than a land condominium Unit.



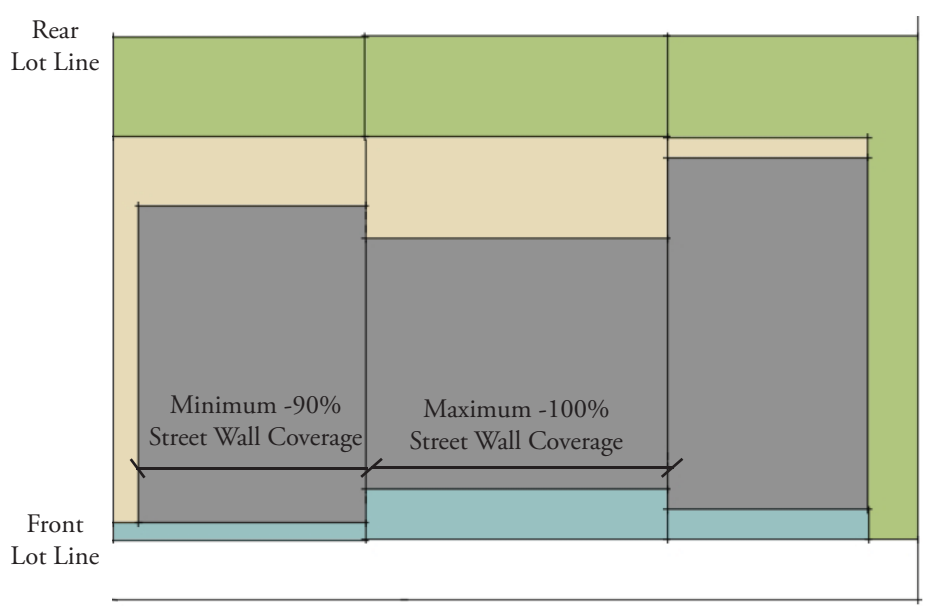
Primary Frontage Corner and Mid-Block Lot Configurations



End Lot Configurations



Dual Primary and Secondary Frontage Corner Lot Configuration



Street Wall Coverage Requirements

Street-front Buildings

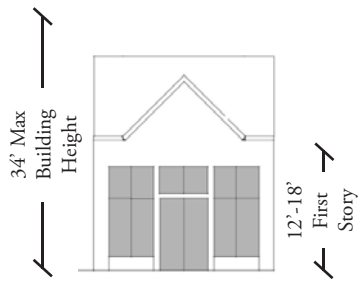
Massing Notes

Notes

Transparency:

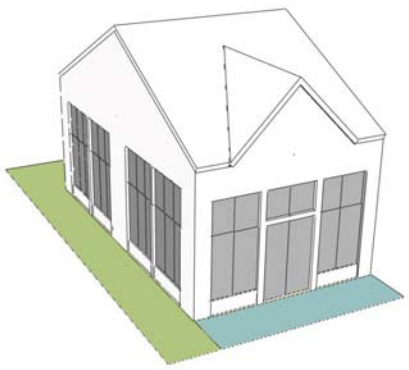
- On the facade fronting the primary street, hereafter called the "Primary Facade", the first story shall have a transparency of 60% to 90% of the facade.
- On the Primary Facade, each upper story shall have a transparency of 15% to 60% of the facade.
- On facades other than the Primary Facade that are visible from a public right of way, both the first story and upper stories shall have a minimum transparency of 40%.
- Bay windows and balconies may extend up to 3' over the front building line on upper stories, and shall extend a minimum of 3' and a maximum of 5' from the building facade. The use of loggias and arcades along the ground story of the building is encouraged as an amenity for pedestrians.
- A main entrance is required at a minimum of every 50' on the Primary Facade. Buildings or store spaces of over 4,000 square feet shall have at least one entrance per facade that fronts onto a public street, but are excepted from the 50' requirement.
- Corner buildings shall be considered to have two frontages, but may designate one frontage as the principal frontage that meets all of the standards of this section. The other frontage shall meet all of the standards of this section for at least the first 25 feet of building facade, and shall maintain the required front building line for at least the first 40' of the side frontage.

One Story Buildings



Pitched Roof Massing:

- One story buildings with a pitched roof shall have a maximum cornice/eaves height of 18'.
- Two story buildings with a pitched roof shall have a maximum cornice/eaves height of 26'.
- Pitched roofs must not extend more than 10' above the eaves if the roof pitch is 5:12 to 13:12.
- Pitched roofs must not extend more than 16' above if the roof pitch is 14:12 to 20:12. Pitched roofs sloped greater than 20:12 will not be allowed.
- No building shall exceed 42' in height.
- 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.

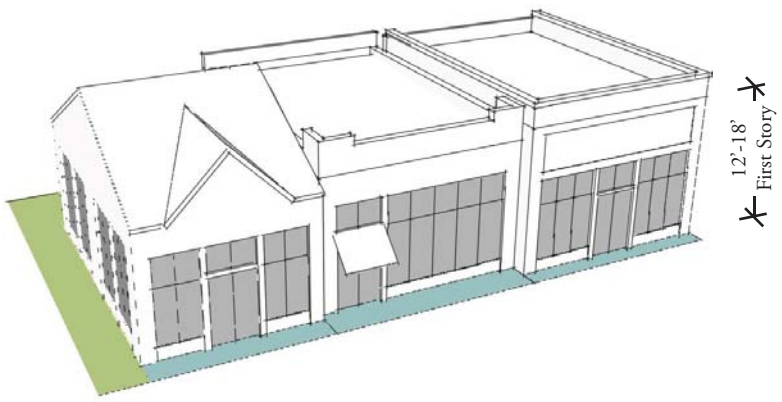


Flat Roof Massing:

- Parapets must extend a minimum of 3' above the top of the roof structure. This minimum height is intended to ensure that all rooftop equipment is hidden from public view.
- Parapets must occur within the maximum building height.
- Buildings or store 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 Rhythm:

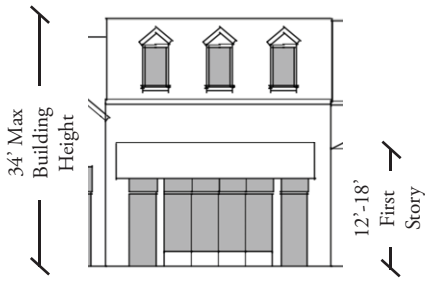
- Differentiated bays should be expressed on each facade of a building or store space directly fronting a public space or street.
- Bays shall be a minimum of 20' and a maximum of 30' wide on Primary Frontages. On any facade that is visible from a public right of way that is directly adjacent to an area 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.

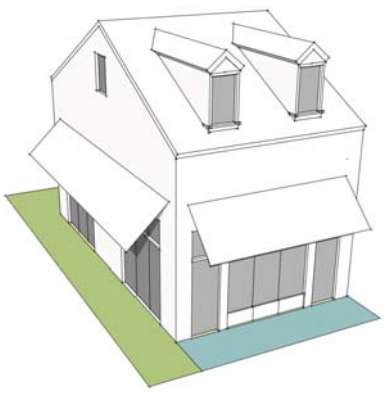


Massing Diagrams

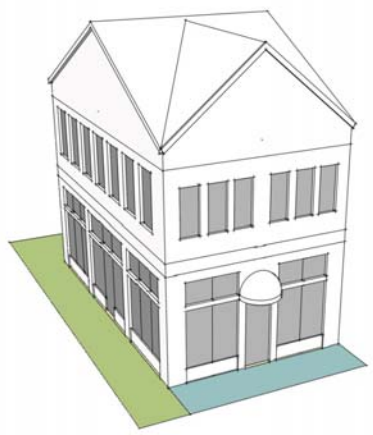
Street-front Buildings

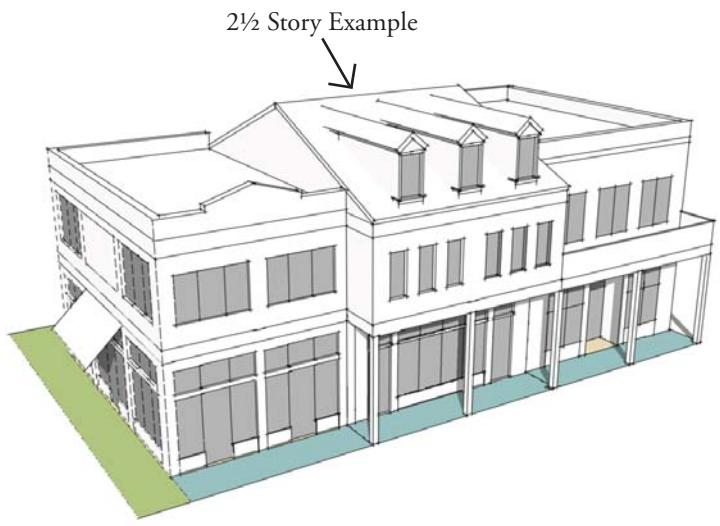
One-and-a-half Story Buildings





Two Story Buildings





The Free-Standing Building Typology for Lane Parke is based upon the Free-Standing Building Type established by the Village Overlay Standards. The Free-Standing Building Typology allows for differences in height, orientation, massing, scale and materials that are critical in creating the sense that Lane Parke is an extension of the existing Village that has evolved over time. Each building's relationship to the street, surrounding buildings and parks is especially important for the Free-Standing Building Typology since these buildings will be engaged with one or more public spaces on all sides.

The Free-Standing Building Typology is low-scale (1 to 2 ½) stories with elegant street-fronts and pedestrian friendly designs.

The following pages detail height, massing and orientation standards that govern Free-Standing Buildings to ensure a quality and character consistent with the existing structures in the Village. Free-Standing Buildings shall meet the following building standards, which standards shall control over any conflicting provisions of the Village Overlay Standards or of the Local Business District Standards.

Lot Diagrams

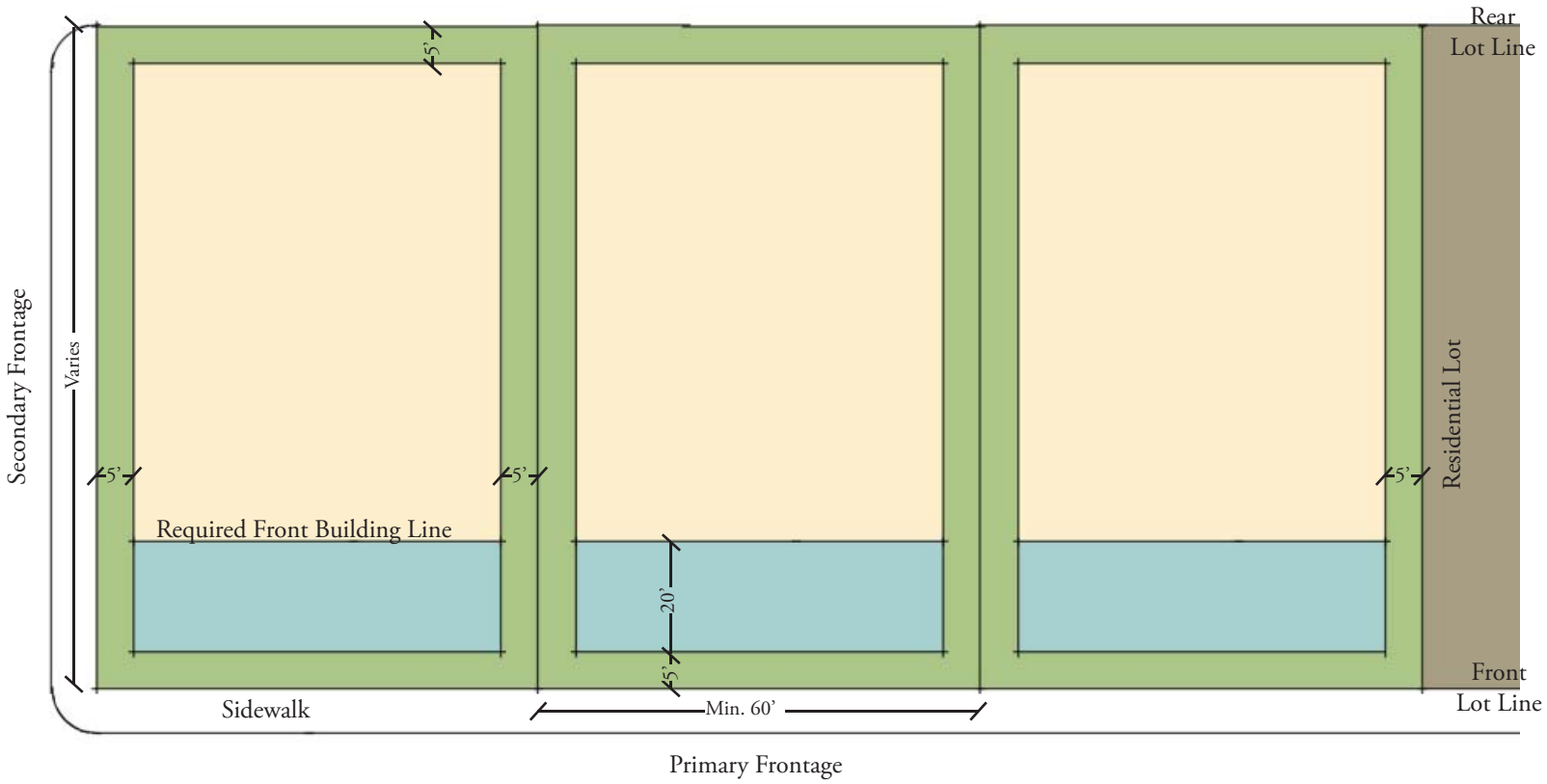
Free-Standing Buildings

LEGEND

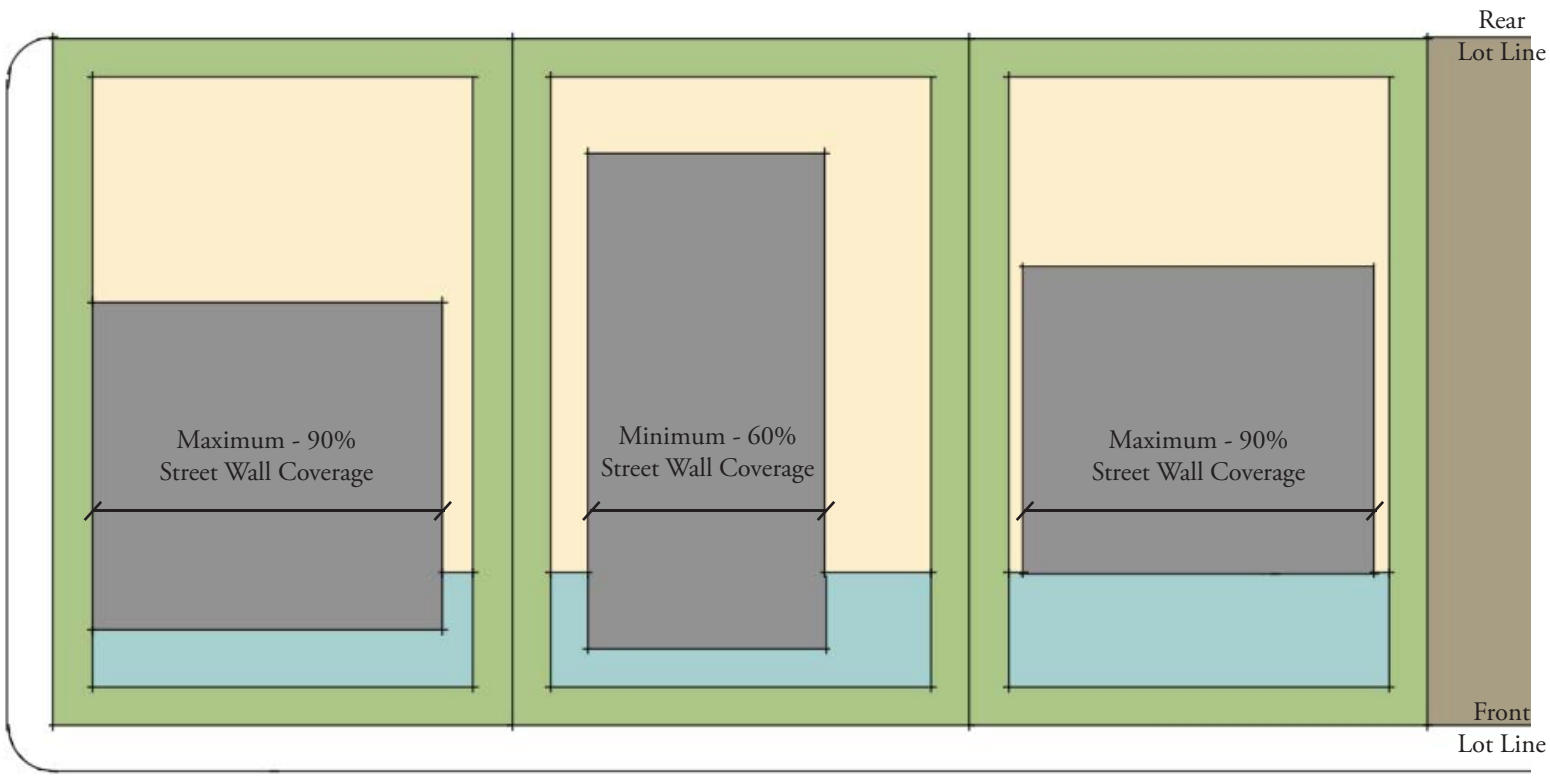
	Build-To Zone
	Setback
	Allowable Building Footprint
	Residential Lot
	Building Footprint

Lot Layout Notes:

- There is no minimum or maximum required lot depth.
- There is no minimum or maximum required lot width.
- The front facade of the building must occur in the Build-To Zone.
- Maximum lot coverage is 60% of the buildable lot area. Any open space required on the lot shall reduce the maximum lot coverage. Pedestrian and vehicular access drives shall not count against the lot coverage.
- Exceptions to the Street Wall Coverage requirements may be permitted to comply with the Open Space Requirements.
- All references to a lot or depictions of a lot line shall refer to a land condominium Unit or the boundary line of a land condominium Unit, or if no applicable land condominium Unit has been established, then to a Parcel or the boundary line of such Parcel.
- Lot references shall not refer to a condominium Unit other than a land condominium Unit.



Corner, Mid-Block, and End Lot Conditions



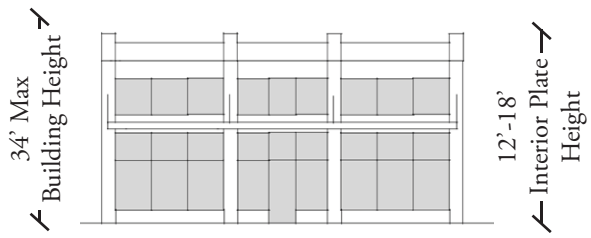
Street Wall Coverage Requirements

Notes

Transparency:

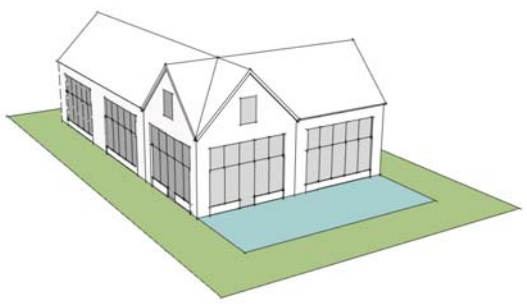
- On the facade fronting the primary street, hereafter called the "Primary Facade", the first story shall have a transparency of 60% to 90% of the facade.
- On the Primary Facade, each upper story shall have a transparency of 15% to 60% of the facade.
- On facades other than the Primary Facade that are visible from a public right of way, both the first story and upper stories shall have a minimum transparency of 40%.
- Bay windows and balconies may extend up to 3' over the front building line on upper stories, and shall extend a minimum of 3' and a maximum of 5' from the building facade. The use of loggias and arcades along the ground story of the building is encouraged as an amenity for pedestrians.
- A main entrance is required at a minimum of every 50' on the Primary Facade. Buildings or store spaces of over 4,000 square feet shall have at least one entrance per facade that fronts onto a public street, but are excepted from the 50' requirement.
- Corner buildings shall be considered to have two frontages, but may designate one frontage as the principal frontage that meets all of the standards of this section. The other frontage shall meet all of the standards of this section for at least the first 25 feet of building facade, and shall maintain the required front building line for at least the first 40' of the side frontage.

One Story Buildings



Pitched Roof Massing:

- One story buildings with a pitched roof shall have a maximum cornice/eaves height of 18'.
- Two story buildings with a pitched roof shall have a maximum cornice/eaves height of 26'.
- Pitched roofs must not extend more than 10' above the eaves if the roof pitch is 5:12 to 13:12.
- Pitched roofs must not extend more than 16' above if the roof pitch is 14:12 to 20:12. Pitched roofs sloped greater than 20:12 will not be allowed.
- No building shall exceed 42' in height.
- 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.

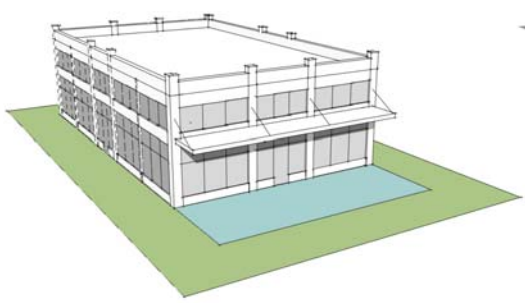


Flat Roof Massing:

- Parapets must extend a minimum of 3' above the top of the roof structure.
- Parapets must occur within the maximum building height.
- Buildings or store 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 Rhythm:

- Differentiated bays should be expressed on each facade of a building or store 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.

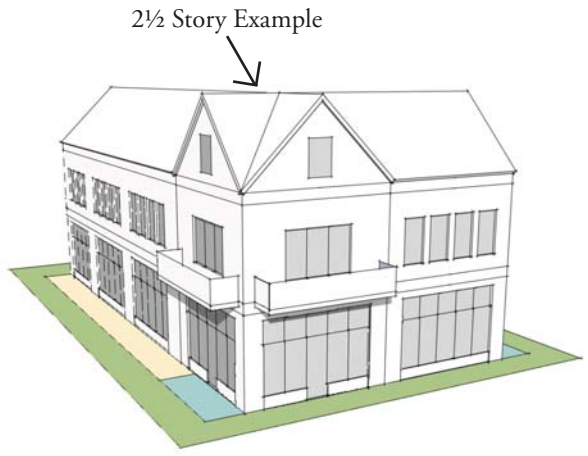


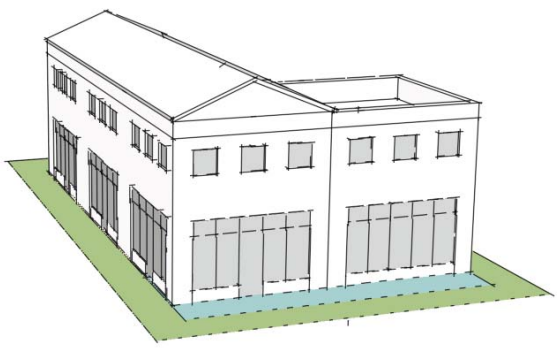
Massing Diagrams

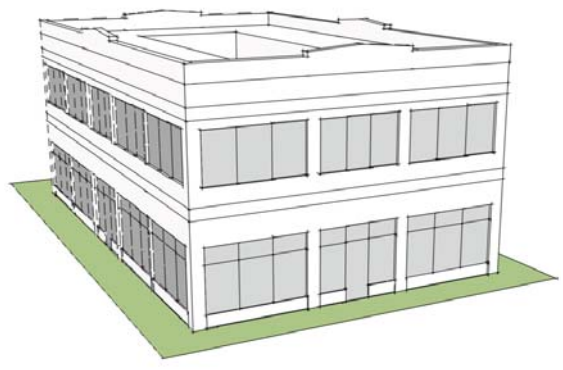
Free-Standing Buildings

One-and-a-half Story Buildings

Two Story Buildings







The Residential Building Typology will allow for a unique lifestyle environment where residents can live and walk to the shops, restaurants, and office space of the Lane Parke and the Village. Buildings constructed in accordance with this Typology should be pedestrian in scale and in keeping with the character of Lane Parke.

The Residential Building Typology is mid-scale (2 to 4 stories). Each building's relationship to public streets, open spaces, and surrounding buildings should be taken into consideration as material and massing decisions are made to ensure each elevation is sympathetic with the structures and spaces around it. Design professionals should work to minimize the impact of the building's height on the character of the surrounding areas utilizing techniques including but not limited to:

- Stepping down the facade at primary street frontages
- Providing additional set backs from the street

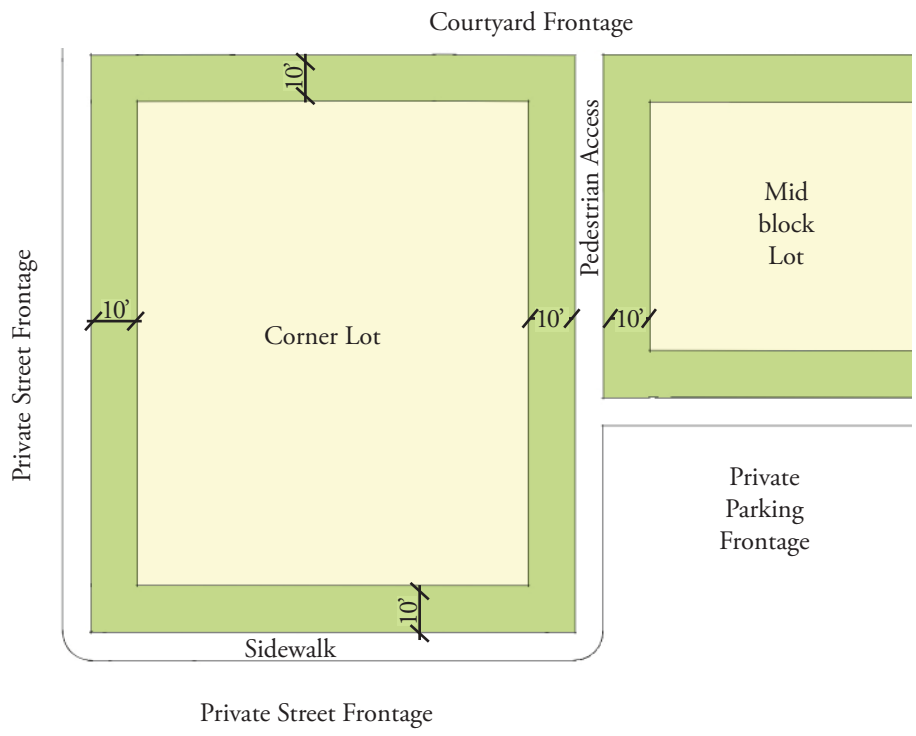
The following pages detail lot, height and massing standards that govern Residential Buildings to ensure they remain in character with the existing Village. Residential Buildings shall meet the following building standards, which standards shall control over any conflicting provisions of the Village Overlay Standards or of the Residence G Standards.

LEGEND

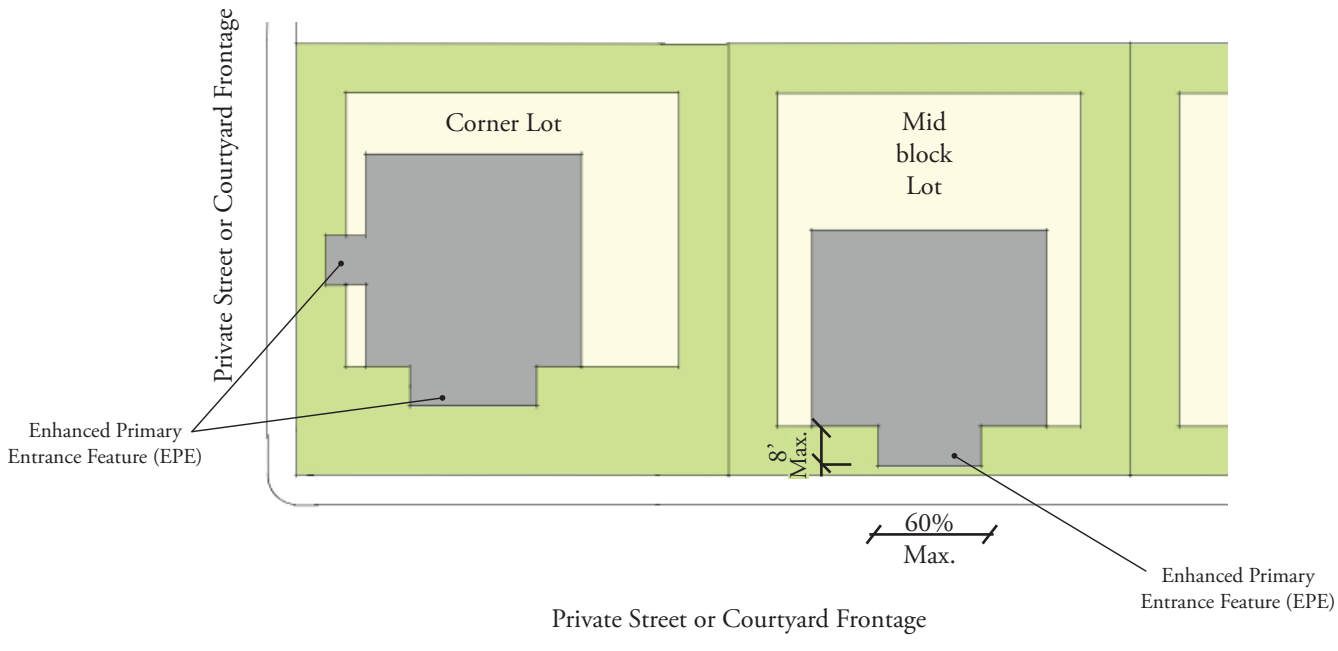
	Setback
	Allowable Building Footprint
	Building Footprint

Lot Layout Notes:

- There is no minimum or maximum required lot depth.
- There is no minimum or maximum required lot width.
- Maximum lot coverage is 60% of the buildable area. Any open space required on the lot shall reduce the maximum lot coverage.
- Side setbacks between buildings is 10% of the lot width or 10', whichever is less, provided building code separation requirements are met with additional easements.
- An Enhanced Primary Entrance feature may extend up to 8' beyond the constructed front building line of the building provided: (a) It occupies no more than 60% of the front façade on each lot, (b) it remains unenclosed, with no fixed windows or screen, (c) any roof structure on or associated with the feature is up to one and one-half stories; and, (d) it is designed as an extension of the primary building using the same foundation, building materials, architectural styles and ornamentation as the primary building.
- All references to a lot or depictions of a lot line shall refer to a land condominium Unit or the boundary line of a land condominium Unit, or if no applicable land condominium Unit has been established, then to a Parcel or the boundary line of such Parcel.
- Lot references shall not refer to a condominium Unit other than a land condominium Unit.



Private Street Frontage Lot Configuration



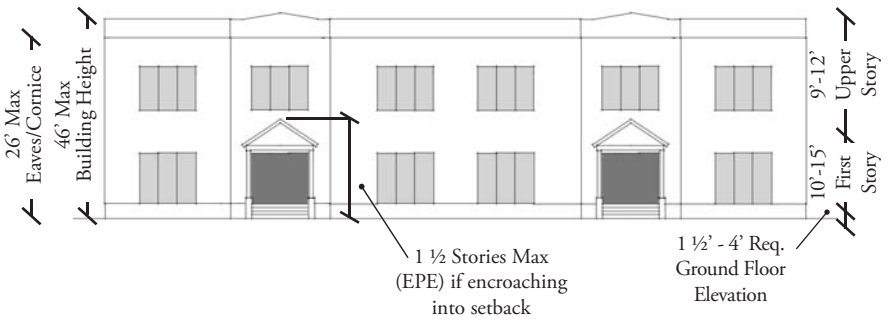
Enhanced Primary Entrance Feature

Notes

Transparency:

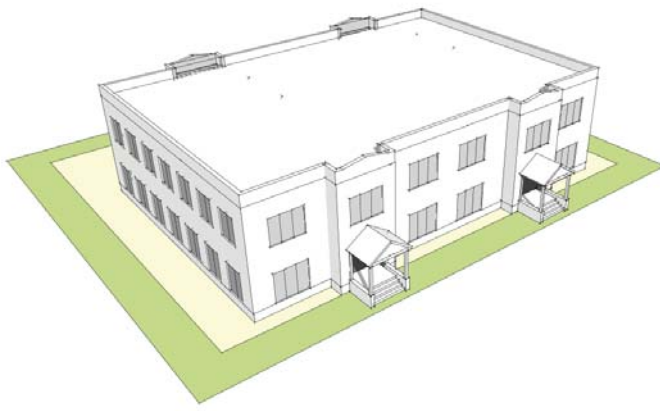
- On the face fronting the primary street, hereafter called the "Primary Facade", the first story shall have a transparency of 15% to 40% of the façade.
- On the Primary Facade, each upper story shall have a transparency of 15% to 40% of the facade.
- Bay windows and balconies may extend up to 5' over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

2 Story Buildings



Pitched Roof Massing:

- Ground floor elevation is required to be 1.5' to 4' above grade at front building line.
- 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.

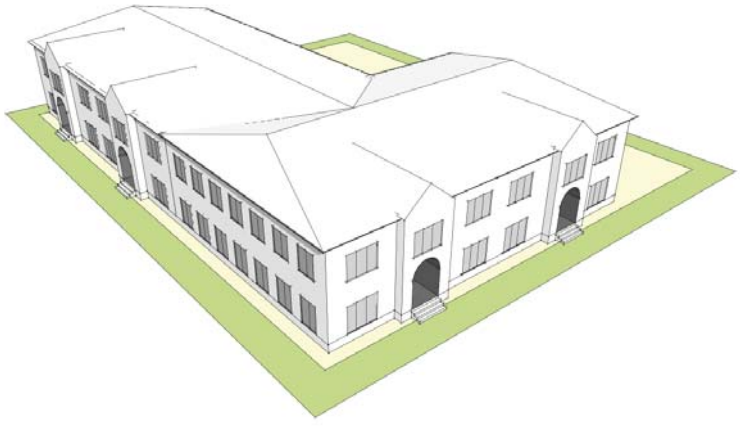


Flat Roof Massing:

- 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 skim of the building or internal to the block.

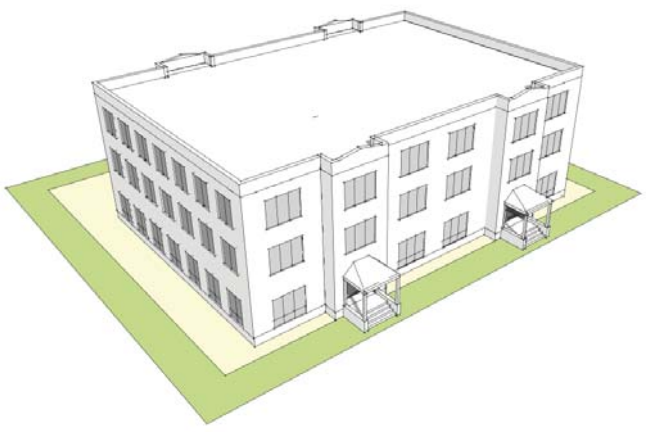
Bay Rhythm:

- 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.



Massing Diagrams

3 Story Buildings



4 Story Buildings

The Inn Building Typology is designed to retain the pedestrian scale, elegant design and overall character of the Village.

The Inn Building is mid-scale (up to 4 stories). An Inn Building should be designed to ensure that the massing, scale and character of the building is sympathetic to and does not overwhelm the pedestrian experience or other structures in the Village and along Lane Park Road.

The following standards permit differences in height, orientation, mass, scale and design essential to creating a sense that Lane Parke evolved over time and grew out of the existing Village. Design professionals should work to minimize the impact of the building's height on the character of the surrounding areas utilizing techniques including but not limited to:

- Stepping down the facade at primary street frontages
- Providing additional set back from the street

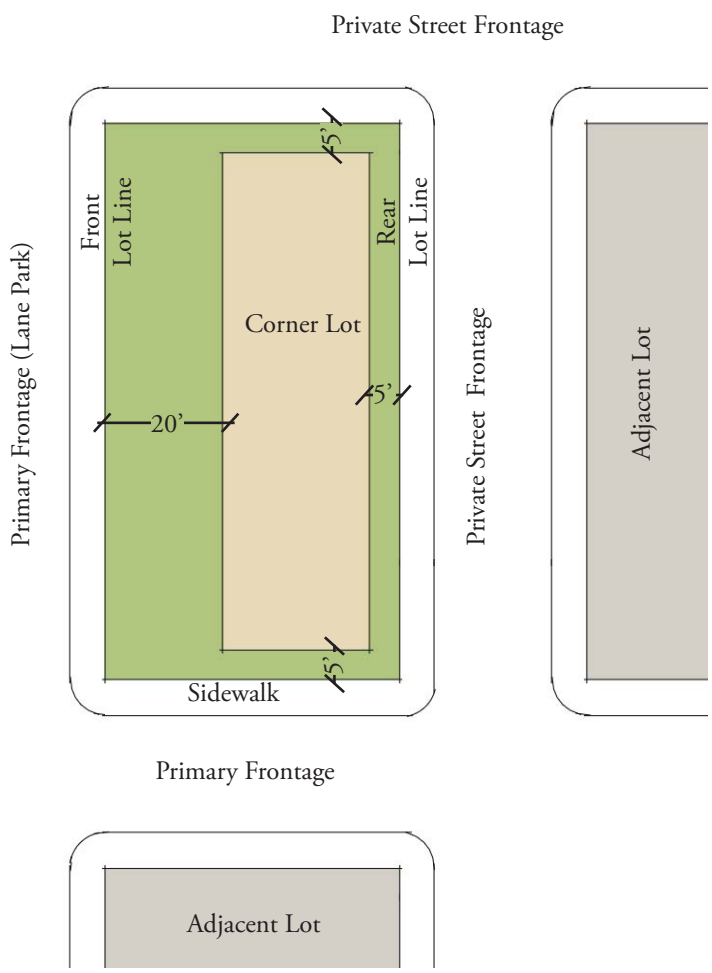
The following pages detail height, massing and orientation standards that govern Inn Buildings to ensure any such structure will remain in character with the existing Village. An Inn Building shall meet the following building standards, which standards shall control over any conflicting provisions of the Village Overlay Standards or of the Local Business District Standards.

LEGEND

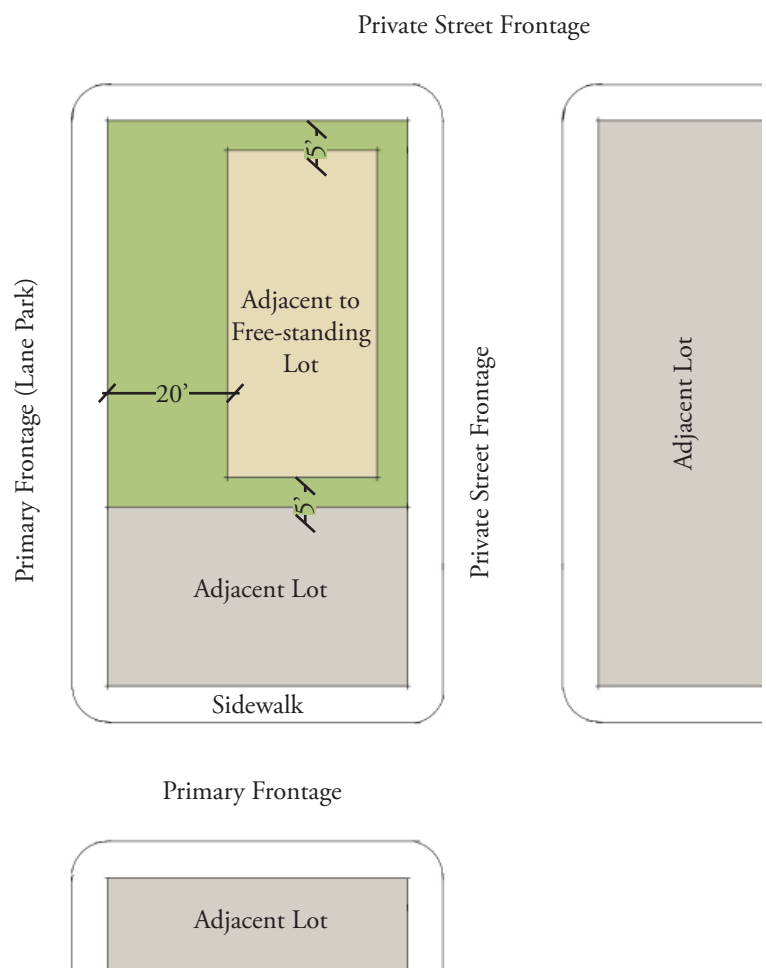
	Setback
	Allowable Building Footprint
	adjacent lot

Lot Layout Notes:

- There is no minimum or maximum required lot depth.
- There is no minimum or maximum required lot width.
- Maximum lot coverage is 90% of the buildable lot area. Any open space required on the lot shall reduce the maximum lot coverage. Pedestrian and vehicular access drives shall not count against the lot coverage.
- All references to a lot or depictions of a lot line shall refer to a land condominium Unit or the boundary line of a land condominium Unit, or if no applicable land condominium Unit has been established, then to a Parcel or the boundary line of such Parcel.
- Lot references shall not refer to a condominium Unit other than a land condominium Unit.



Primary Frontage Lot Configurations



Primary Frontage Lot Configurations with Adjacent lot

Inn Building

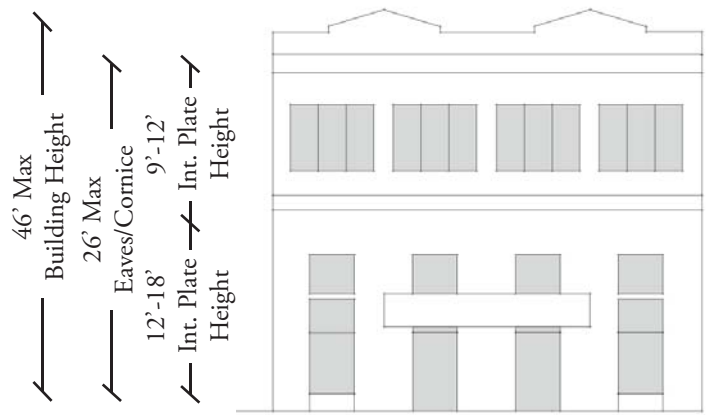
Massing Notes

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 façade.
- 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 6' from the building façade.

Two Story Buildings



Pitched Roof Massing:

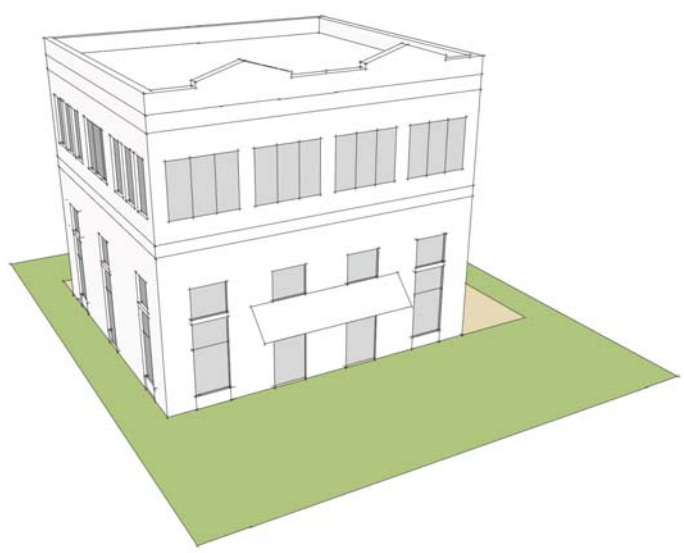
- Two story buildings with a pitched roof shall have a maximum cornice/eaves height of 26' with a maximum building height of 46'. Three story buildings shall have a maximum cornice/eaves height of 36' with a maximum building height of 56'.
- No building shall exceed 4 stories (maximum eaves height of 46' in height:; max. building height of 66') Towers and other appropriate architectural features that extend above the roof must fall within this maximum height. No parapet shall exceed 6' in height from the highest interior plate height.
- Pitched roofs must not extend more than 12' above the eaves if the roof pitch is 5:12 to 13:12.
- Pitched roofs must not extend more than 20' above if the roof pitch is 14:12 to 20:12. Pitched roofs sloped greater than 20:12 will not be allowed. Any steeply pitched roof that exceeds 16' in height shall utilize dormers, gables, or other forms to break up the roof mass.
- 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 roof structures may contain additional floor area built into or behind the parapet wall. In this condition, the parapet height may be increased to the maximum building height to screen the occupied space provided the increased parapet occupies less than 45% of the length of the building facade.

Flat Roof Massing:

- Parapets must extend a minimum of 3' above the top of the roof structure.
- Parapets must occur within the maximum building height.
- Buildings or store and inn 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 Rhythm:

- Differentiated bays should be expressed on each facade of a building or store and inn space directly fronting a public space or street.
- Bays shall be a minimum of 20' and a maximum of 30' 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.

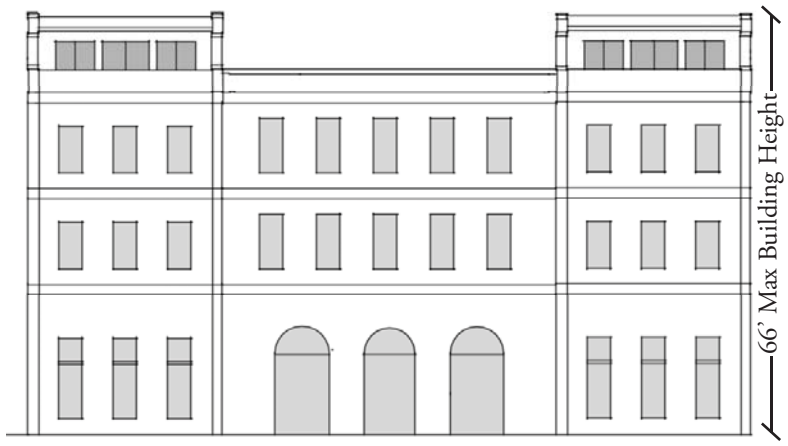


Massing Diagrams

Inn Building

Three Story Buildings

Four Story Buildings



The Parking Structure Typology is necessary to support the parking requirements of the proposed uses in Lane Parke. However, the Parking Structures must be designed in a manner that does not compromise the pedestrian scale and character of the Village. By concealing the Parking Structure and concentrating parking areas, the Parking Structure Typology helps encourage pedestrian activity and frees up more space for parks and public areas. The Parking Structure Typology is new to the Village.

The Parking Structure Typology is designed to accommodate functional parking spaces behind or above other structures. The Parking Structure Typology should occur on the interior of blocks and be masked from view by the other Building Typologies or design features so as to provide interest and variation along the street. Like the other typologies, this building type is mid-scale (1 to 3 stories) to retain the character of the Village. The parking areas must not be directly visible from any Primary Frontages. Any views from Secondary Frontages need to be well screened and architecturally articulated. Entries to such parking structures that are visible from any public right of way must meet the requirements of the Parking Structure Typology or of the other applicable Building Typologies as set forth in the regulating plan.

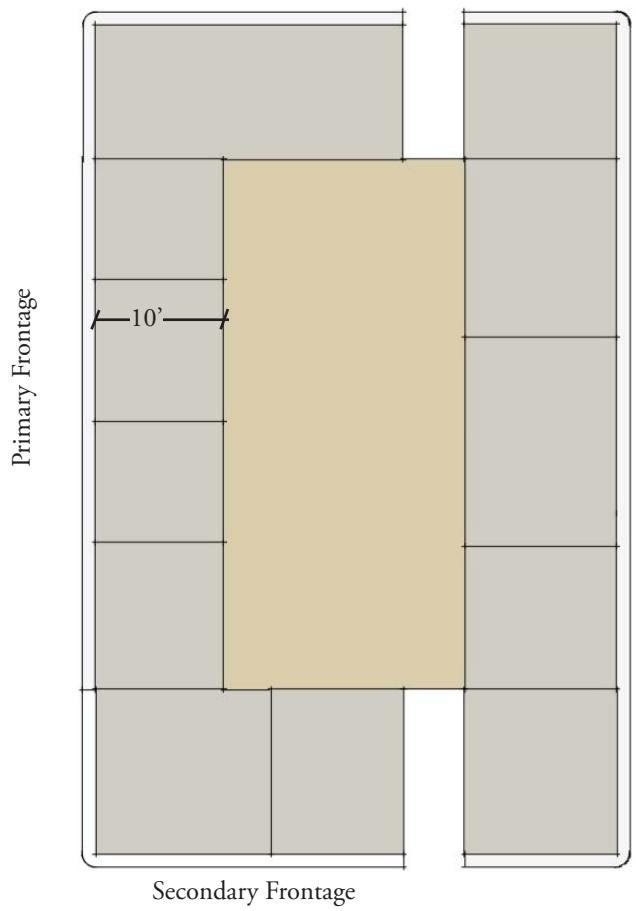
The next pages detail height, massing and orientation standards that govern the Parking Structure to ensure they remain in character with the existing Village. The Parking Structure shall meet the following building standards, which standards shall control over any conflicting provisions of the Village Overlay Standards or of the Local Business District Standards.

Lot Layout Notes:

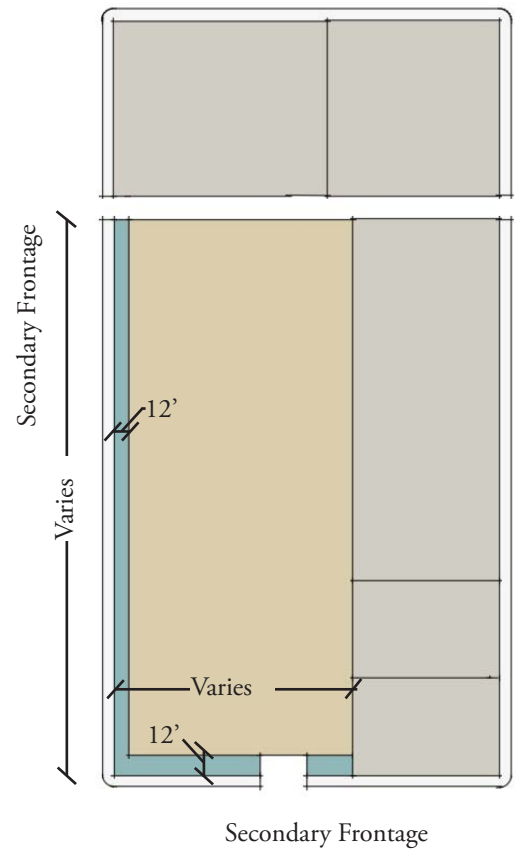
- There is no minimum or maximum required lot depth.
- There is no minimum or maximum required lot width.
- The front facade of the building must occur in the Build-To Zone.
- Exceptions to the Street Wall Coverage requirements may be permitted to comply with the Open Space Requirements.
- All references to a lot or depictions of a lot line shall refer to a land condominium Unit or the boundary line of a land condominium Unit, or if no applicable land condominium Unit has been established, then to a Parcel or the boundary line of such Parcel.
- Lot references shall not refer to a condominium Unit other than a land condominium Unit.

LEGEND

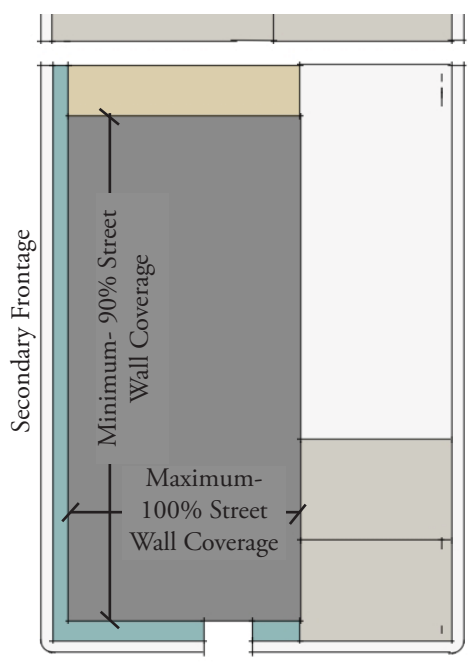
	Build-To Zone
	Adjacent Lots
	Building Footprint
	Allowable Building Footprint



Mid-block Lot Configuration



Corner Lot Configuration



Street Wall Coverage Requirements

One Story Buildings

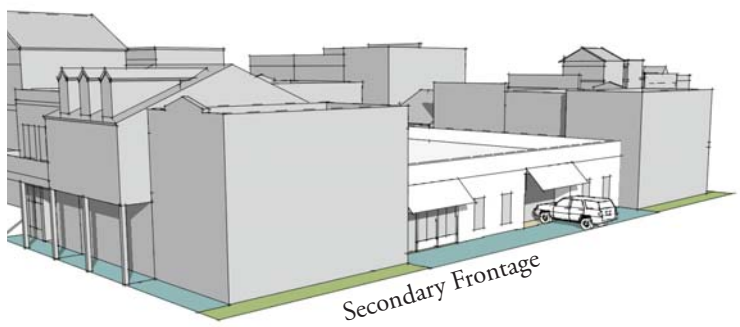
Transparency:

- On the facade fronting the primary street, hereafter called the "Primary Facade", Parking Structures must be lined by commercial space which conforms to one of the applicable Building Typologies as set forth in the Regulating Plan.
- On any facade that faces Secondary Frontage, the first story shall have a transparency 40% to 70% of the facade on the first floor and each upper story shall have a transparency 15% to 60% of the facade. Any other facades that are visible from a public right of way, both the first story and upper stories shall have a minimum transparency of 40%.
- Vehicular entries into Parking Structures should occur on Secondary or Service Frontage where possible. An entry may occur on an area of Primary Frontage provided that the Parking Structure is behind liner buildings of at least 10' in depth.

Secondary Frontage

Roof Massing:

- One story buildings may contain one story of parking above grade and shall be a maximum of 34' in height.
- Two story buildings may contain two stories of parking above grade and shall be a maximum of 42' in height.
- Parapets must extend a minimum of 42" above the top of the floor structure at the highest level of parking.
- Parapets must occur within the maximum building height.
- Buildings 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.
- At the option of the city, upon its election to construct the Optional City Parking Level on the Parking Structure, three story buildings may be permitted that contain three stories of parking above grade and shall be a maximum of 46' in height.



Architectural Features:

- Stair towers may exceed the maximum building height if designed in accordance with the Architectural Features requirements in the General Design Guidelines, except that such stair tower may be located at any location within such Parking Structure.

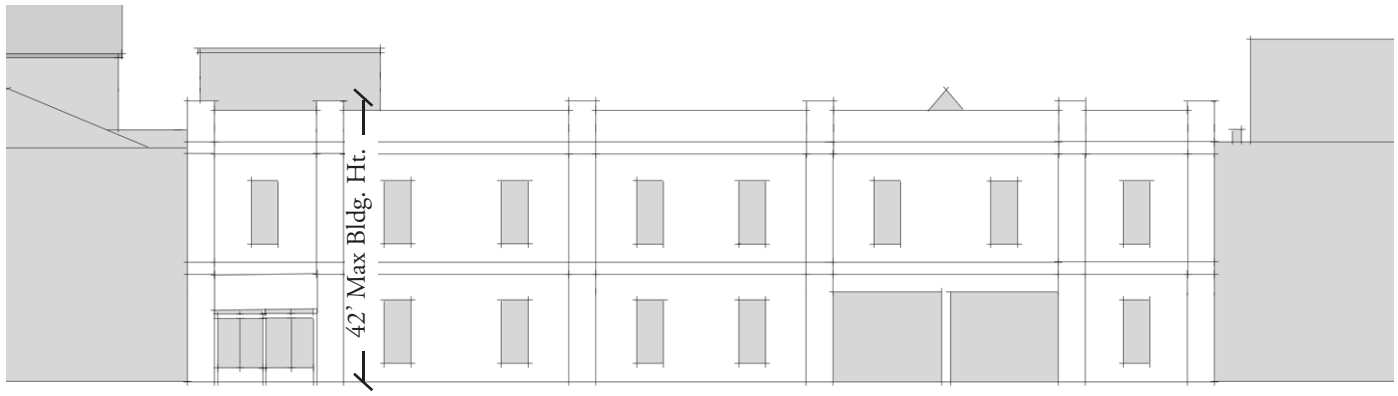
Bay Rhythm:

- Differentiated bays should be expressed on each facade of a building 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.

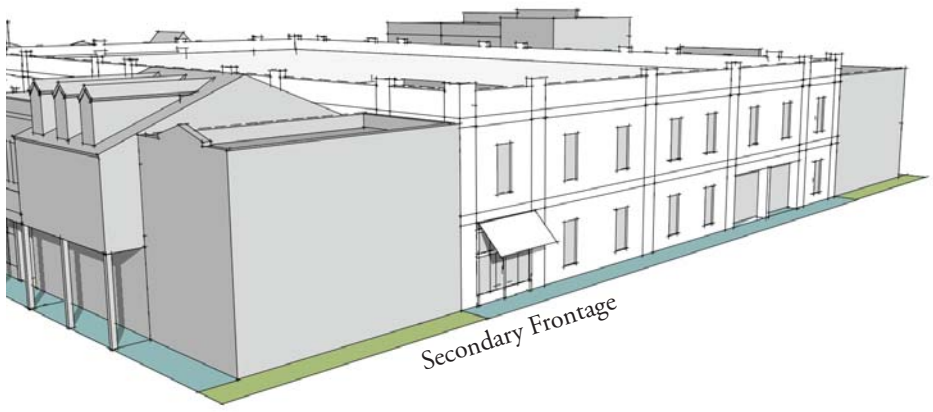
Massing Diagrams

Parking Structure

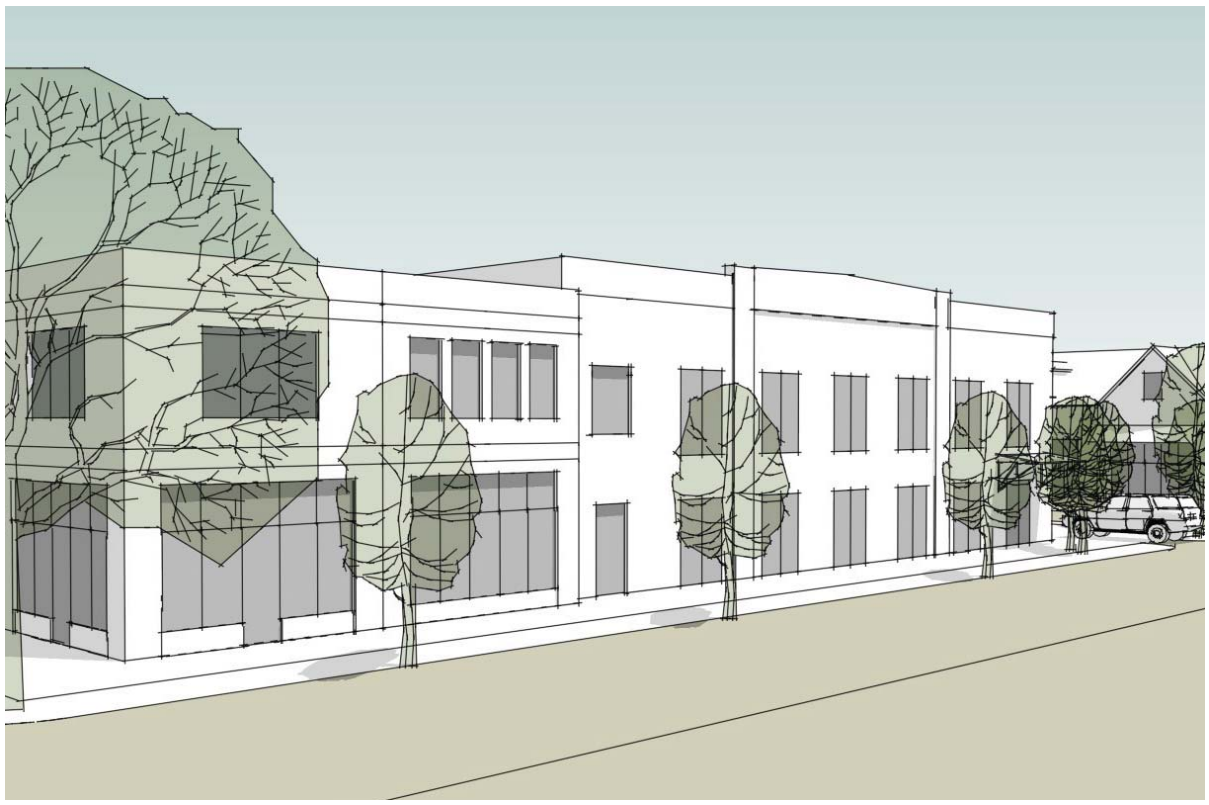
Two Story Buildings



Secondary Frontage



Secondary Frontage



The Grocery Building Typology in Lane Parke should be designed in a manner that does not compromise the pedestrian character of the Village. Careful consideration must be given to integrate the large massing of the structure as well as high parking and visibility requirements into the fabric of the village streets and blocks.

The Grocery Building Typology shall be located along secondary streets (or private street frontages) only. Facades of the building visible from a public right of way should be lined with Street Front Building(s) or other appropriate typologies. If a facade immediately fronts a public right of way without liner buildings, then it must be detailed in a manner consistent with adjacent building typologies. Surface parking requirements shall have limited frontage on streets and should be screened with enhanced landscaping.

The following pages detail height, massing and orientation standards that govern a Grocery Building to ensure any such structure it will remain in character with the existing Village. A Grocery Building shall meet the following building standards, which standards shall control over any conflicting provisions of the Village Overlay Standards or of the Local Business District Standards.

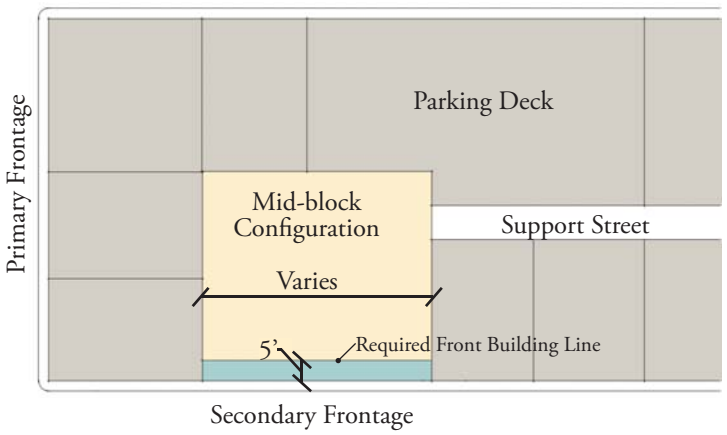
Lot Diagrams

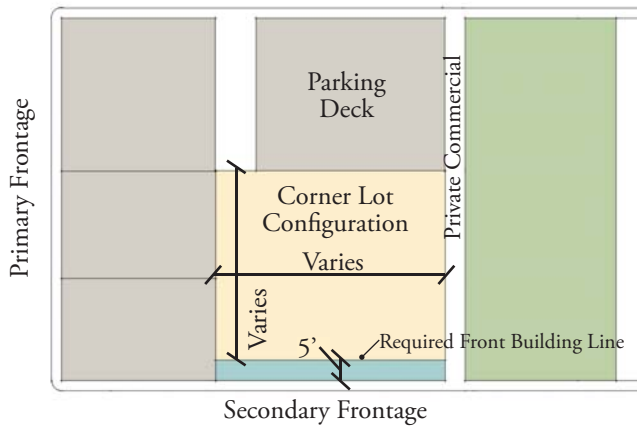
Legend

	Build-To Zone
	Green Space
	Allowable Building Footprint & Surface Parking
	Residential Lot
	Building Footprint
	Adjacent Commercial Lots

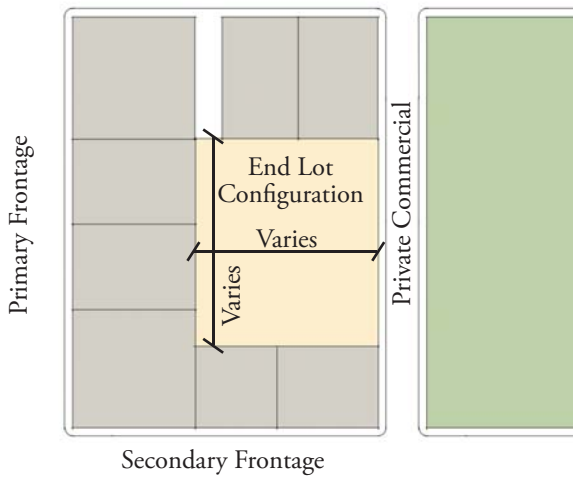
Lot Layout Notes:

- There is no minimum or maximum required lot depth.
- There is no minimum or maximum required lot width.
- The front facade of the building must occur in the Build-To Zone if fronting a Primary or Secondary Frontage. No build-to requirements shall apply if the front façade of the building is facing a Private Frontage.
- Exceptions to Street Wall Coverage requirements may be permitted for the following: a) to comply with the Open Space Requirements, b) to create Open Space for plaza or street market.
- Maximum lot coverage is 90% of the buildable lot area. Any open space required on the lot shall reduce the maximum lot coverage. Pedestrian and vehicular access drives shall not count against the lot coverage.
- All references to lot or depictions of a lot line shall refer to a land condominium Unit or the boundary line of a land condominium Unit, or if no applicable land condominium Unit has been established, then to a Parcel or the boundary line of such Parcel.
- Lot references shall not refer to a condominium Unit other than a land condominium Unit.

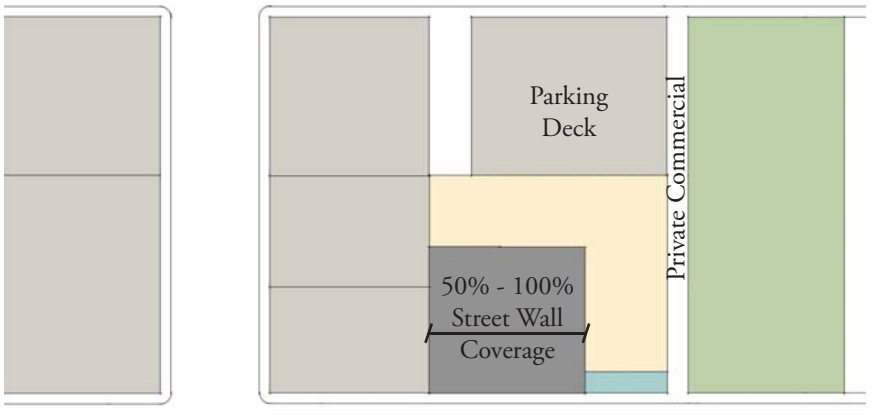




Primary Frontage Corner and Mid-Block Lot Configurations



End Lot Configurations



Street Wall Coverage Requirements

Grocery Building

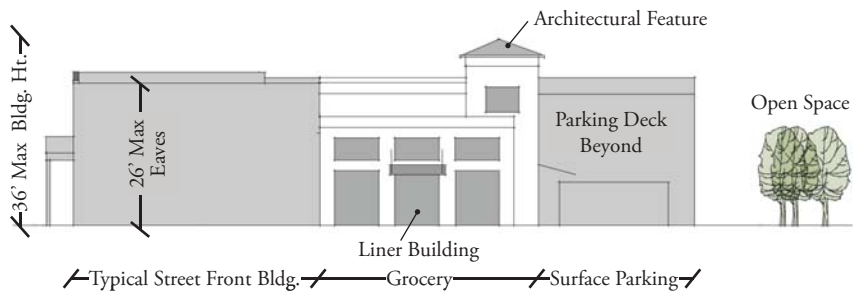
Massing Notes

Notes

Transparency:

- On any facade that faces a Secondary Frontage, the first story shall have a transparency of 40% to 70% of the facade on the first floor and each upper story shall have a transparency of 15% to 60% of the facade. Any other facades that are visible from a public right of way, both the first story and upper stories shall have a minimum transparency of 40%.
- Frontages visible from public right of ways may be lined with commercial space that conforms to one of the applicable Building Typologies as set forth in the Regulating Plan.
- Vehicular entries to parking should occur on Secondary Private or Service Frontage. An entry may occur on an area of Primary Frontage, provided that the building is behind liner buildings of at least 10' in depth.

One Story Buildings

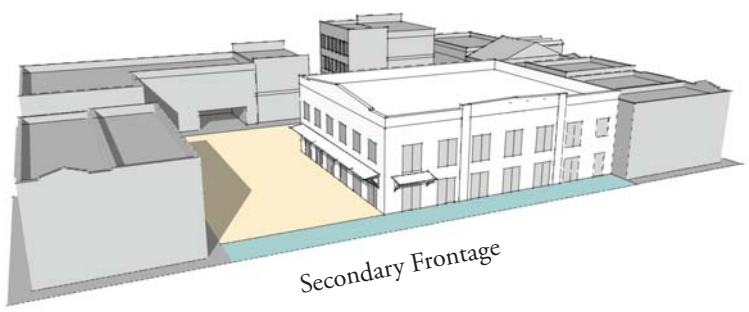


Pitched Roof Massing:

- One story buildings with a pitched roof shall have a maximum cornice/eaves height of 26'.
- Pitched roofs must not extend more than 10' above the eaves if the roof pitch is 5:12 to 13:12.
- Pitched roofs must not extend more than 16' above if the roof pitch is 14:12 to 20:12. Pitched roofs sloped greater than 20:12 will not be allowed.
- No building shall exceed 36' in height.
- 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.

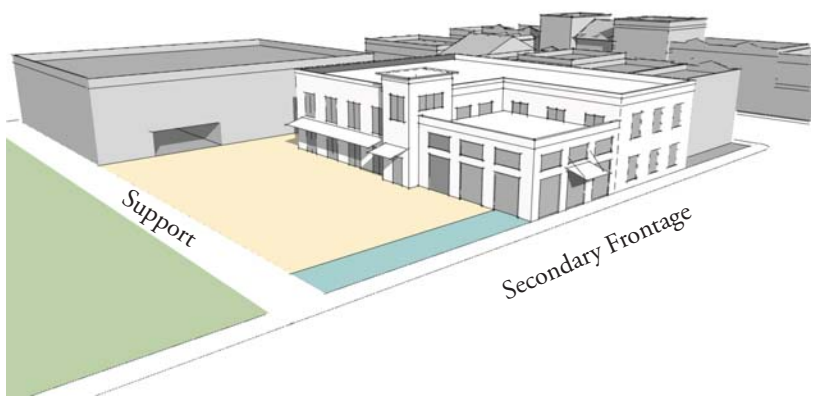
Flat Roof Massing:

- Parapets must extend a minimum of 3' above the top of the roof structure. This minimum height is intended to ensure that all rooftop equipment is hidden from public view.
- Parapets must occur within the maximum building height.
- Buildings or store 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.



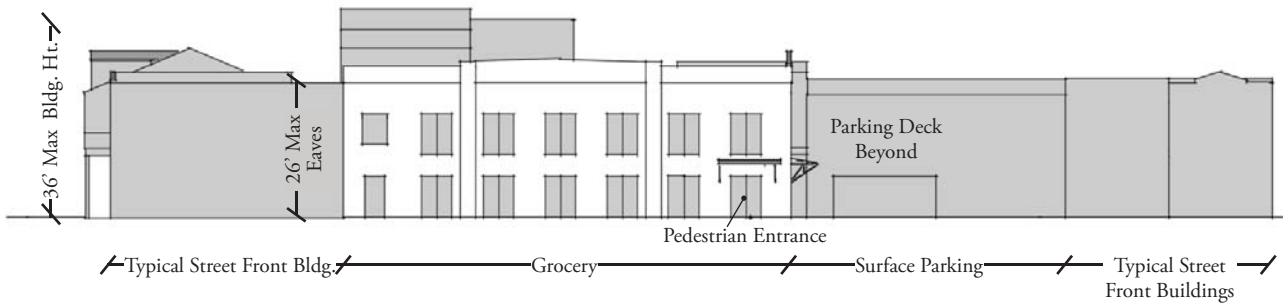
Architectural Features:

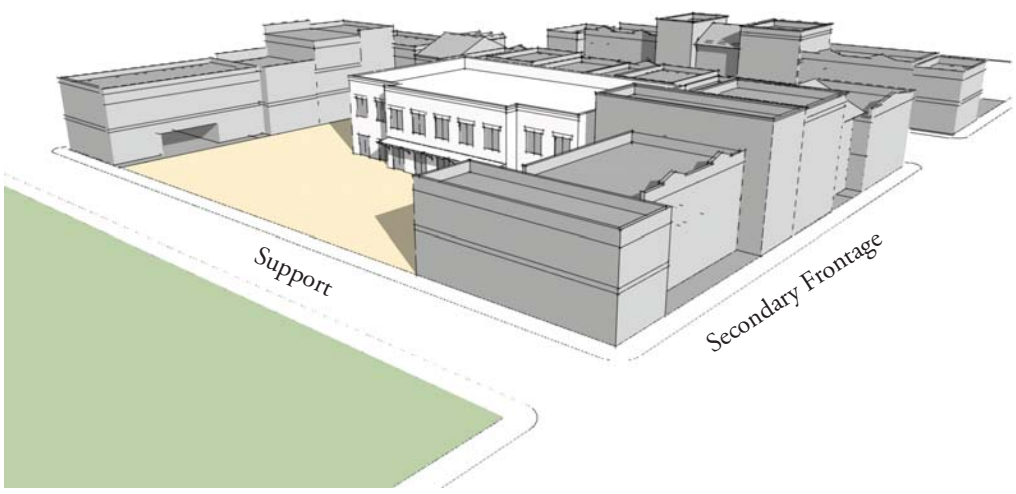
- Buildings are limited to one story.
- Internal mezzanine floors are permitted within allowable ceiling height.
- Differentiated bays should be expressed on each facade of a building or store space that is over 60' wide and is directly fronting a public space or street.
- Bays shall be a minimum of 20' and a maximum of 30'; they must have architectural articulation, such as piers or pilasters.

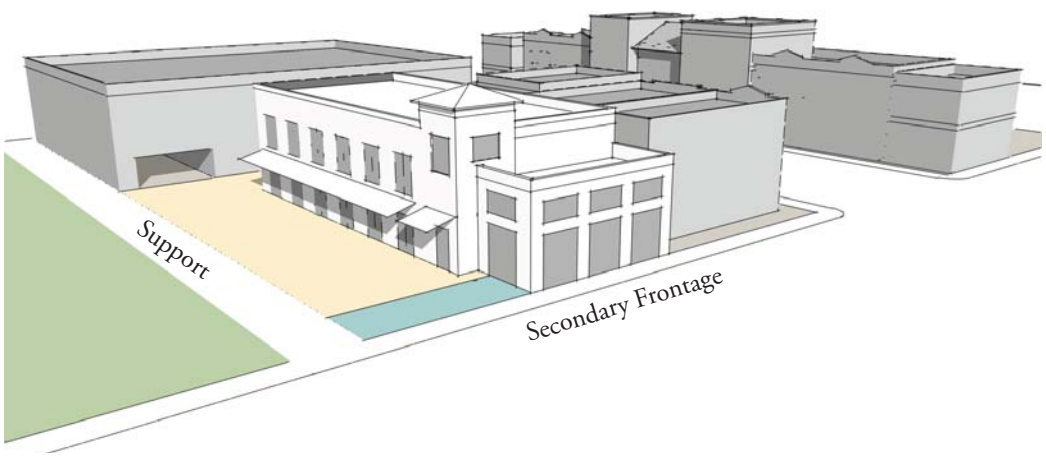


Massing Diagrams

Grocery Building







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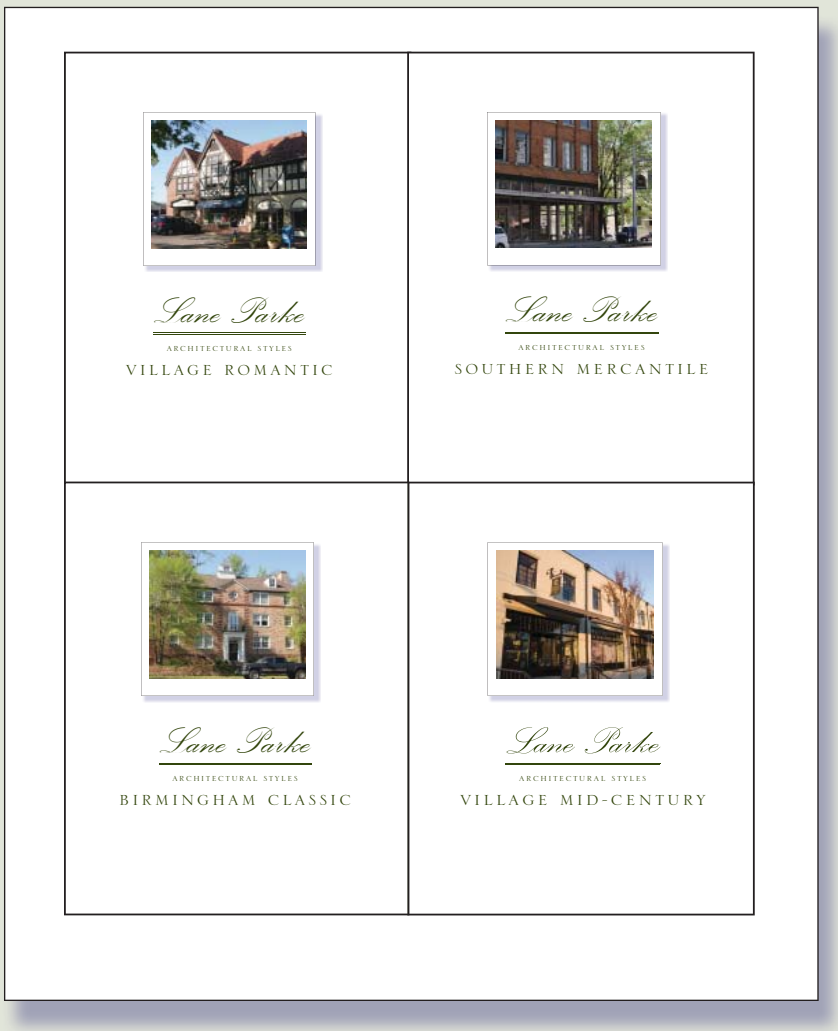


Lane Parke

ARCHITECTURAL STYLES

Each building or façade within Lane Parke shall be designed in accordance with one or more of the following Architectural Styles: (i) Village Romantic, (ii) Southern Mercantile, (iii) Birmingham Classic and (iv) Village Mid-Century. The design of each building, façade, store space or residential space shall conform to the guidelines established herein for the designated Architectural Style, including the Identifying Features and Design Concepts, which must be approved in accordance with the Design Review Process. Multiple Architectural Styles may be applied to the following Building Typologies: (i) Street-Front Buildings, (ii) Free-Standing Buildings, (iii) Residential Buildings, (iv) Inn Building, (v) a Parking Structure, and (vi) Grocery Building. Multiple Architectural Styles shall, when appropriate, be applied to the façades of any Street-Front Building that occupies the length of a block in order to create architectural diversity (taking into consideration the architectural diversity of surrounding buildings). For each Architectural Style, example photographs and illustrations have been included as reference material, provided however, such Design Examples shall not be construed as final designs, nor shall such Design Examples be construed to require the incorporation of any particular design element represented therein. Final designs may vary from such Design Examples provided such designs substantially conform to the guidelines established for the designated Architectural Style. The standards for each Architectural Styles shall control over any conflicting provisions of the Village Overlay Standards, the Local Business District Standards or the Residence G Standards.

The VILLAGE ROMANTIC Architecture Style is based on the extensive palette of existing precedent within Mountain Brook Village and the larger Shades Valley area. Mountain Brook and the surrounding villages were developed during the early twentieth-century when the turn-of-the-century romantic movements influenced many architects, planners, and developers. The ultimate source of these movements is the reverence of the traditional European village and its values expressed in quality, natural building materials and a rich variety of simple massed forms.

Roofs are steeply pitched, typically 11:12 to 20:12, and front facing gables are very common and encouraged individually or in groups. Walls are masonry or stucco with half-timbering, stucco, shingle, or siding as upper story surfacing of in gable infill, often beginning over the window head trim. Windows are grouped vertically and horizontally to create larger glazed openings, with the upper sash of all windows being divided into smaller panes over a single pane lower sash. Turrets, arches, bays, brackets, dormers, and chimneys all embellish and add character to Village Romantic structures.

Appropriate Building Typologies

- Street-Front Buildings
- Free Standing
- Residential
- Inn

IDENTIFYING FEATURES

1. Steeply pitched roofs (11/12 to 20/12)
2. Picturesque Massing, often Asymmetrical in Overall Composition
3. Second Story or Other Key Elements Project from Main Wall Plane
4. Masonry Walls on Ground Level of Multi-story Buildings
5. Polygonal Turrets or Towers at Inside Corners
6. Half-Timbered Wall Surface Treatment

Appropriate Building Materials

- Wall materials: brick, painted brick, stucco, and stone masonry
- Trim/accent materials: brick, cutstone, cast stone, and wood
- Roofing materials: slate, flat clay or concrete tiles, metal or composite architectural shingles

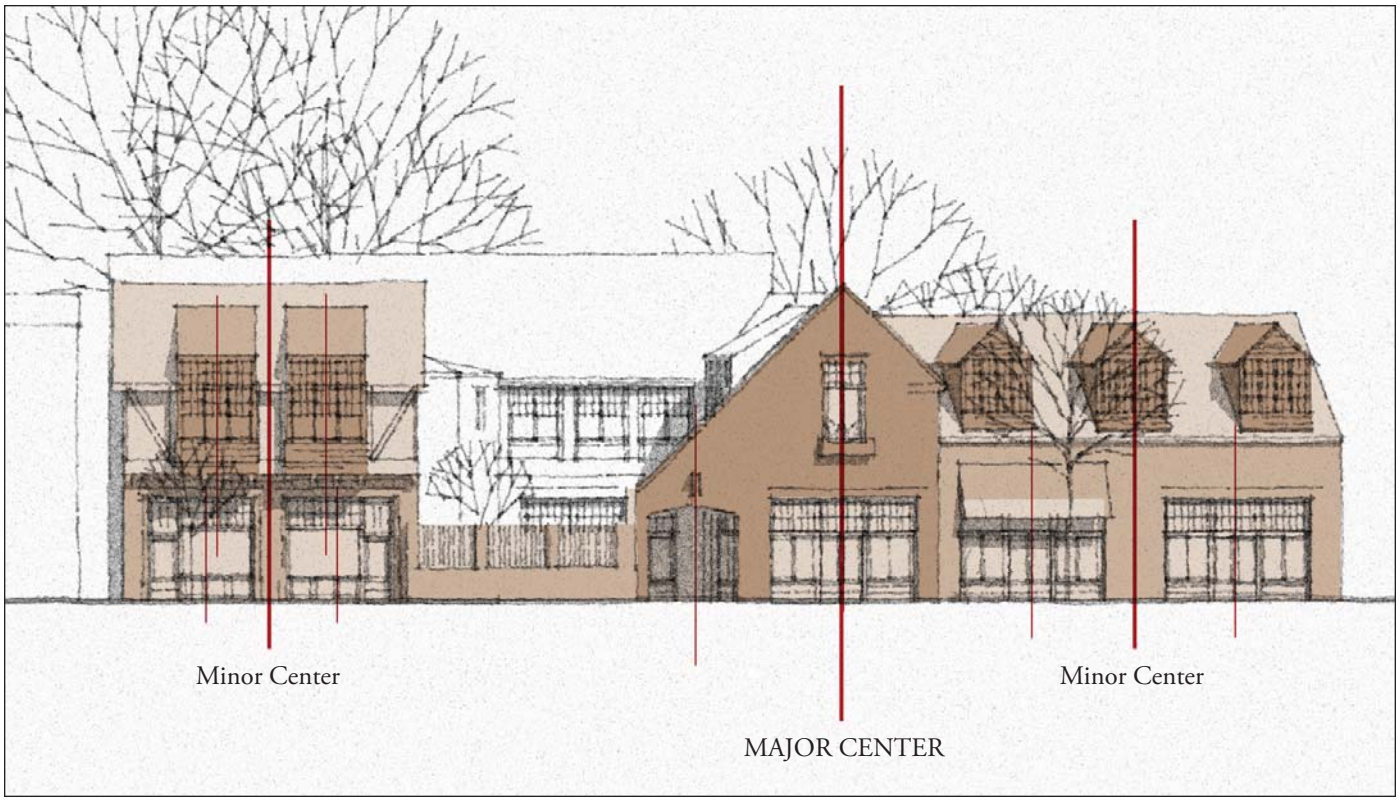
Additional Resources

- *Designs on Birmingham* edited by Philip Morris and Marjorie White, published by the Birmingham Historical Society.
- *Mountain Brook Village: Then & Now* by Linda Nelson and Marjorie White, published by the Birmingham Historical Society.
- *The Abrams Guide to American House Styles* by William Morgan.
- *A Field Guide to American Houses* by Virginia and Lee McAlester.
- *American Houses: A Field Guide* by Gerald Foster

POUNDBURY VILLAGE STORES

Etc...
2726

THE SOMERS TOWN COFFEE HOUSE
SOMERSTOWN COFFEE HOUSE



Village Romantic Design Concepts

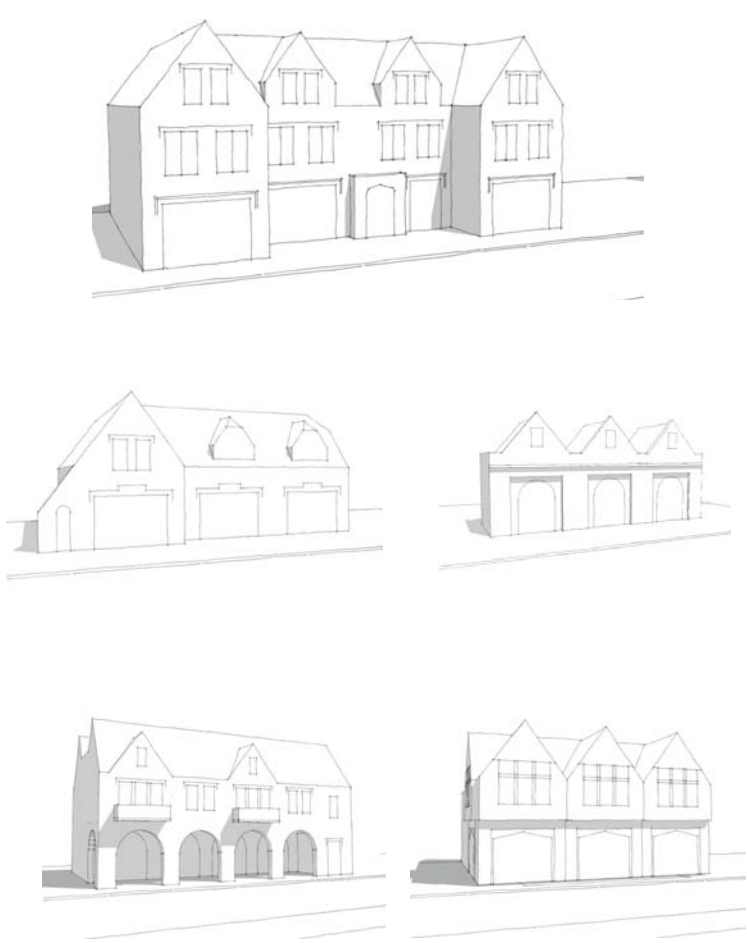
SYMMETRY - A Village Romantic building will have a picturesque structural order guided by the eye for an overall harmonious composition. Bilateral building symmetry is not common and is discouraged. Individual design elements or groups of elements can be symmetrical to each other however. While this apparent contradiction makes the style more difficult to prescribe than others, the results of a well composed Village Romantic building will have a timeless, charming character.

PROPORTION - All historic styles are grounded in simplicity of proportion formulas, if any are present at all. Many times proportion is simply that which 'looks' right. In the Village Romantic style, 1:2, 1:3, 2:3, and 3:5 are key proportional relationships to consider. Wall opening dimensions need to honor standard masonry unit sizes to minimize awkward material cuts and misaligned openings. The overall goal of the style should be an appearance of modest, durable charm.

SURFACE - A Village Romantic surface is meant to be textured. Wall material should be as natural as possible, brick, stone, or wood, with natural undulations across the masonry faces to create soft variations in shade and shadow. Openings are recessed deeply to create strong shadow lines and trim profiles are projected to unify grouped elements.

HIERARCHY OF SCALE - The scale of details are very important in this style to be appropriate to the building material being used. Stone and masonry details will be larger and more simple than those of details constructed in wood. Details are more prevalent in this style more so than any others because of the variety of architectural elements at your disposal; it is better to be reserved and get a few great details versus ambitious and design a lot of mediocre or incorrect ones. Monumental design elements to be viewed from afar are not typical due to the inherent modesty of the architectural style.

Village Romantic Massing Examples



GABLE END WALLS

Village Romantic's largest and most common design element is the use of gable-fronted end walls. They can be in Brick (natural color or painted/stained), Stone, or Stucco, with wood possibly being introduced in the upper stories through half-timbering (entire wall) or thick beveled siding (starting over the upper window head trim).

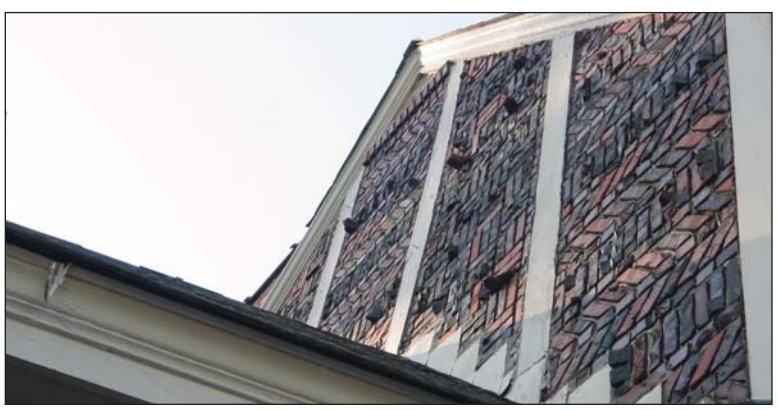
All masonry appearance should be one to project a hand crafted appearance, minimizing the machine influence of material production. Roof Pitch should be high (11/12) to steep (20/12). If wood is used in upper gables the roof structure will project out from the wall by a minimum of 6"; if masonry is used, a slight parapet will terminate the roof structure behind the wall and the parapet will be capped with masonry, often slightly contrasting in color and texture with the lower wall material.

Gable End Walls are also commonly grouped together in number which can create a very appealing rhythmic roofline. If grouped, gables should maintain the same material appearance while the fenestration may vary.

WALL SURFACES & TEXTURES

The most important feature of a Village Romantic building is the treatment of the exterior wall surface in its design and in material character. The Village Romantic is rooted in the precedent of the existing built fabric of Mountain Brook specifically and in the overall Shades Valley area. This existing precedent was itself built upon the precedent of the Garden City movement of the early 20th Century, popularized by British Arts & Crafts architects and planners working at that time. Natural materials like stone, brick, stucco, and wood, are used in combination to create a charming visual texture across al building faces.

Half-Timbering is an ornamental wall detail to depict the structural appearance of wood wall supports infilled with a contrasting wall material. Common dimensions to consider for wood 'timbering' trim - 5"-9" in width, to be flush with or slightly protrude from the infill surface. The infill material is most commonly stucco, smooth or rough texture, followed by brick in non-structural patterns painted or stained to a light color. An alternate contrast can be achieved if the wood trim is light and the infill is a darker tone or hue.



PROJECTIONS & OVERHANGS

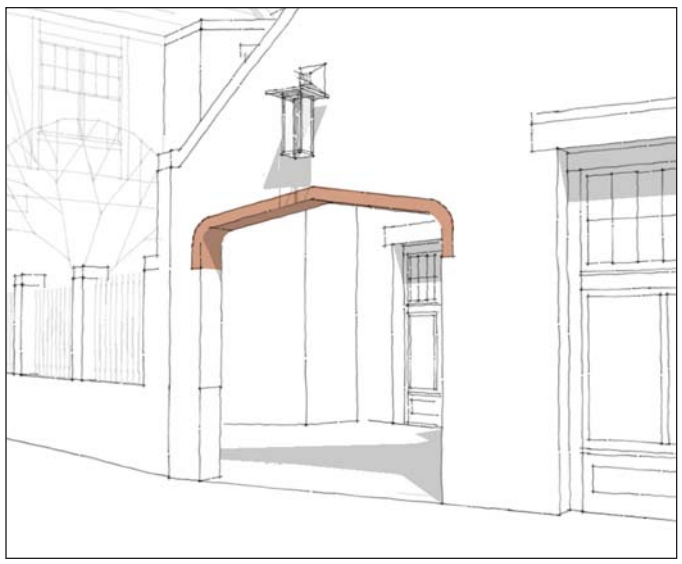
Another distinctive element in the Village Romantic style is the occurrence of wall projections and overhangs. 'Projection' and 'Overhang' will be interchanged in the text below to describe the general effect of 'sticking out', but there is a slight difference. 'Projection' is used to describe individual building elements that project out from the main wall plane, such as bay windows and dormers. 'Overhang' is used to describe an entire floor/wall that cantilevers over the one below in order to expand interior space - it is a very practical consideration, as the old adage goes, make every inch count!

When an overhang occurs there is always a transition of material and it will always transitions from 'heavy' to 'light', that is, if brick, stone, or stucco is used on the ground level the upper story that is overhanging will be a lighter mix of materials, often seen as half-timbering (wood posts between stucco or brick infill). The distance of these overhangs will not exceed 24" and are most common between 6"-16". In the larger overhangs there will often be visual if not structural support provided underneath the projection. If a 'Projection' occurs off of the lighter story it will often maintain the similar wall surface material. If it projects off a solid masonry wall the lighter mix of materials rule should apply.

STOREFRONTS & SIGNAGE

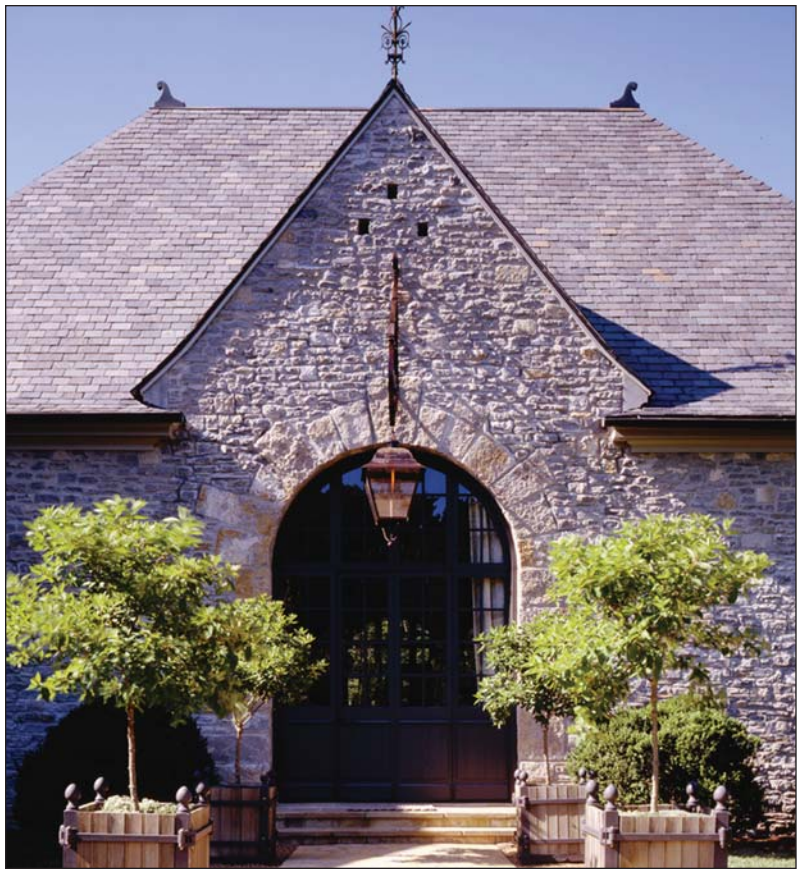
Getting the correct scale of a Village Romantic Storefront is the most important goal. Historically, these structures were more on the human scale with the openings and display area smaller than those of other architectural styles. The key concept to keep in mind while designing this style of storefront is to be 'warm and welcoming'. Architecturally this can be accomplished by limiting the store opening to 12 feet or less in height and providing an awning that reduces the effective 'ceiling' to around 8'-9'.

Storefront material should be of wood construction, with heavier, articulated framing 6"-10" in width. Transom window sashes should be divided into multiple, vertically proportioned panes, while lower display windows should be large clear glass, but never wider than tall.



ARCHES

In the Village Romantic style, arches abound and are used as a very good clue to determine the overall style of an authentic building. The most commonly used form is called a 'Tudor Arch' - a flattened, pointed, arch typically built up from four key center points. It is very similar in appearance to an elliptical arch. The dimensions of all Tudor Arches may vary but the distance from spring-line to peak should always be less than half of the arch opening. Other acceptable forms to consider would be elliptical and half-round arches. The trim around the arch can be brick, stone, stucco, or wood and will often be in a contrasting color from the wall which surrounds it. Arches repeated in a row as an ensemble make for very successful and useful arcades. Repetition of this element should occur in odd numbers only.

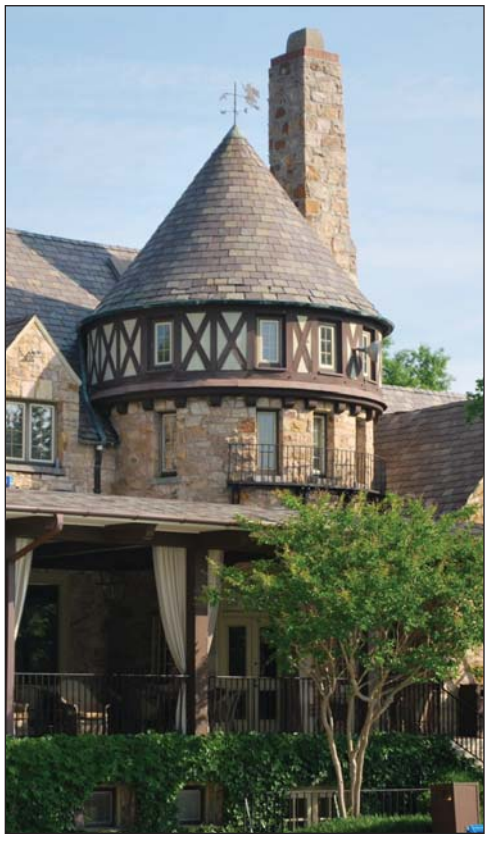


TOWERS

Village Romantic Towers are charming, solid, and mostly subtle design elements. Unlike more formal castles and forts, Village Romantic towers occur at inside corners (most common), or off of the front building face (not centered), or as a growth off up from the wall plane (fully engaged).

Towers can be circular, rectangular, or polygonal (6-8 sides most common) and should seek to maintain the main building mass eave line or act as a transition between two different eave heights. They are not common in great numbers as they are not an essential element to creation of a pleasing Village Romantic Building. If the project site is placed at the end of an axis line or is placed around positive outdoor space by use of a courtyard, a tower would be a successful design element to consider.

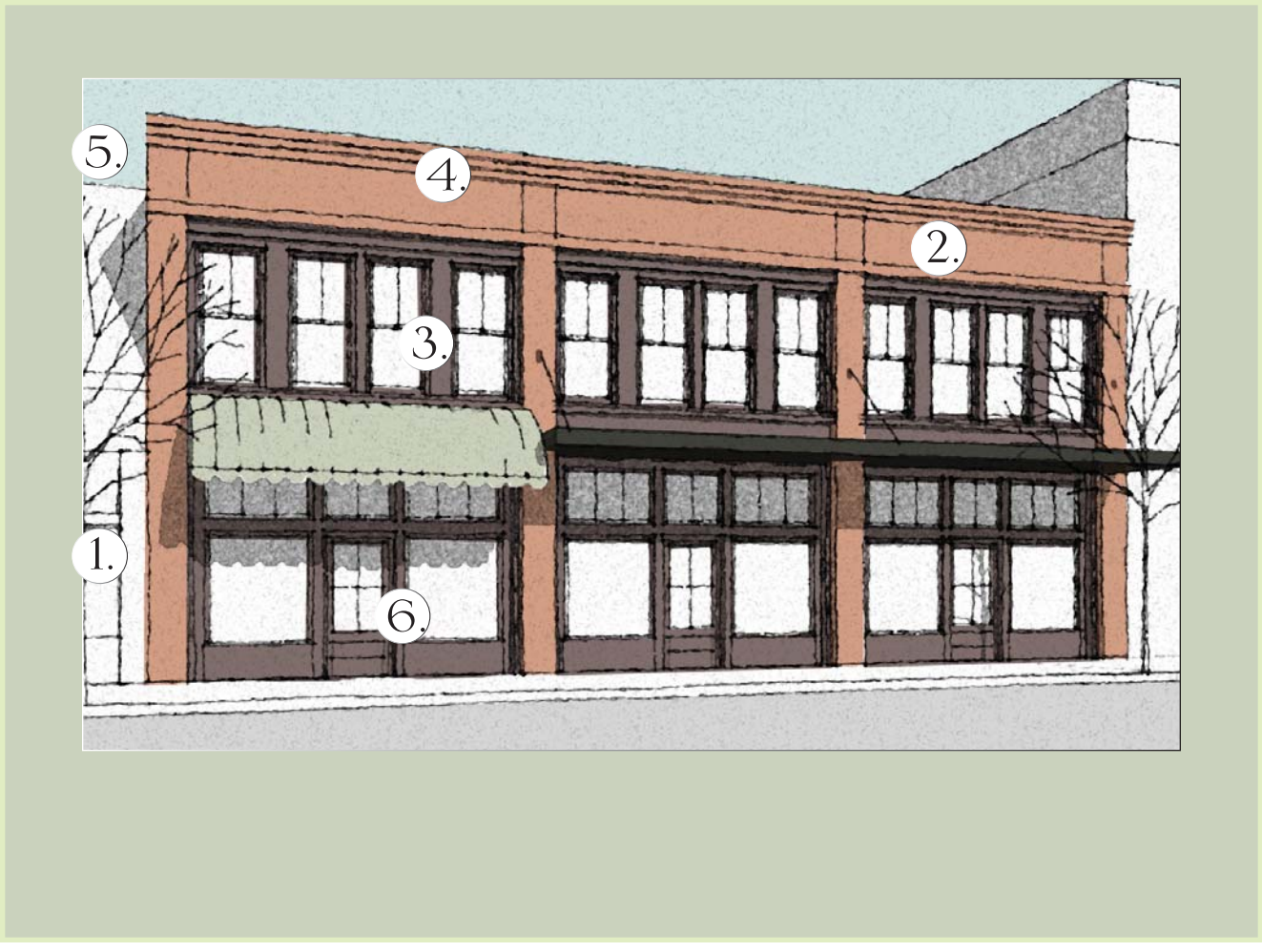
Materially, towers should be masonry (matched to the rest of the building, brick, stone, or stucco) with minimal punched openings to accentuate solidity.



DORMERS

Village Romantic Dormers are a very important roof element in this style to create visual interest within the mass of roof that steeper roof pitches create. They will most often be gabled in form, but may also be shed or a clipped gable. They can be located solely on the roof plane or be placed on the wall and provide a break in the eave line.

Dormers are typically large, with windows grouped in numbers from 2-4. They can be handled successfully in many different ways, but the most egregious error is for it not to be in proportion to the rest of the roof. Their placement needs to be composed well just as any other building element.



The SOUTHERN MERCANTILE Style is an interesting architectural variation in its simple expressive forms balanced with sometimes intricate and always interesting textural detail. It might be better termed as 'Main Street Vernacular" since it is a building style you may find on main streets in all sizes of towns and cities across the country. As in all national styles there are common elements that create the framework for the local vernacular to graft onto and adapt to their own particular traditions or uses.

Southern Mercantile buildings address all the practical needs for the building occupants and its visitors. They range in size from the one-store one-story small shops of individual merchants all the way to the 3 to 4 story mill buildings that housed the manufacture or storage of the goods to be sold on Main Street. Large glazed openings of ganged windows and doors maximize the view of goods for sale to passers-by and provide generous light for the interior as many buildings only have light from one wall.

Upon this utilitarian need for visibility the wonderful creativity of brickwork and wood trim satisfied the more ephemeral need for visual interest, distinction, and beauty. A Southern Mercantile building celebrates its status on the street as a handsome accompaniment to its neighbors.

Appropriate Building Typologies

- Street-Front Buildings
- Grocery Building
- Parking Structure

IDENTIFYING FEATURES

1. Masonry wall construction
2. Flat roof with ornamented parapet
3. Punched openings at upper floors with higher concentration of glazing at lower level
4. Brick and masonry detailing (i.e. corbeling, banding, arches, or decorative motifs)
5. Horizontal and vertical banding suggestive of post and lintel structure
6. Large glazed storefront on street

Appropriate Building Materials

- Wall materials: brick, stone, stucco, painted brick
- Trim/accent materials: brick, cast stone, wood
- Roofing material: metal, flat clay or concrete tiles, composite architectural shingles

Additional Resources

- *Designs on Birmingham* edited by Philip Morris and Marjorie White, published by the Birmingham Historical Society.
- *Mountain Brook Village: Then & Now* by Linda Nelson and Marjorie White, published by the Birmingham Historical Society.
- *The Abrams Guide to American House Styles* by William Morgan.
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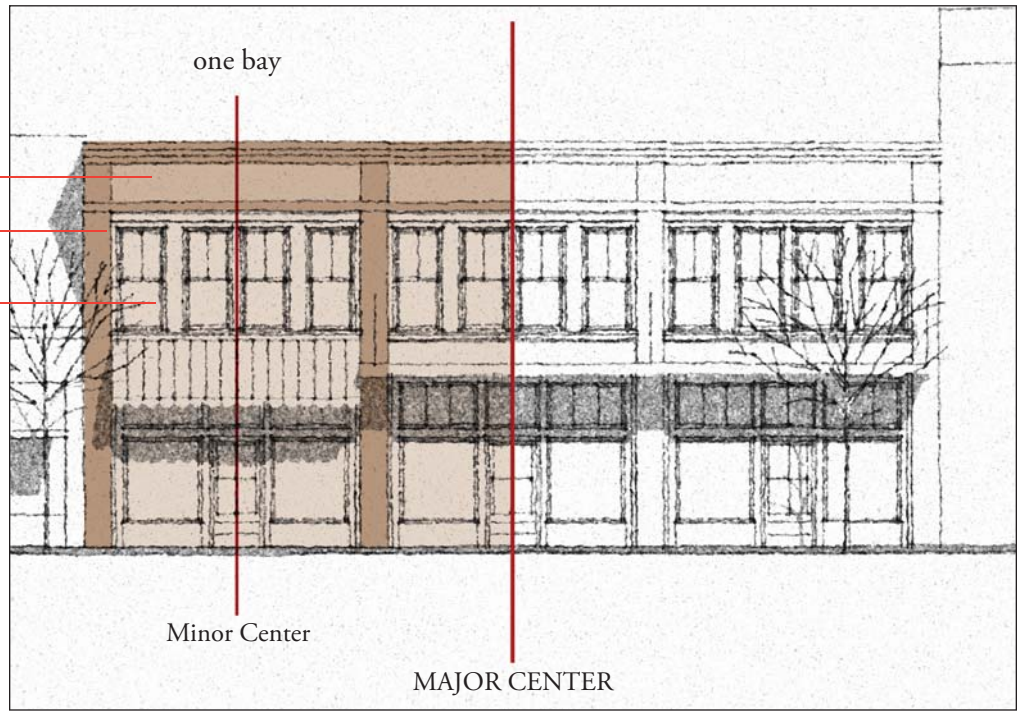
Example Gallery

Southern Mercantile



Southern Mercantile Design Concepts

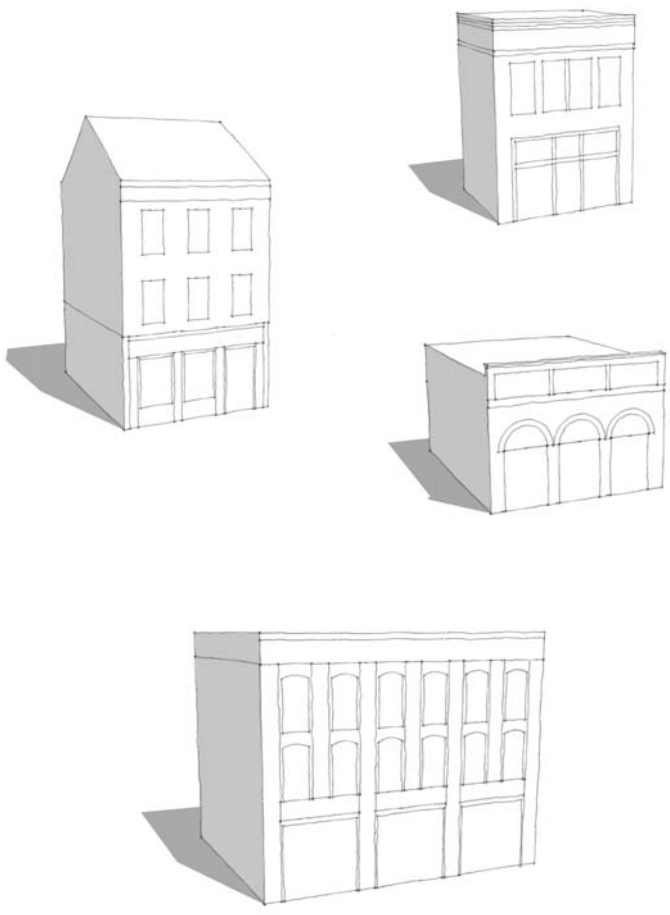
SYMMETRY - A Southern Mercantile building will have a structural order guided by the width of the overall building and its division into smaller bays. There is a freedom in the choice and the number of bays which are only limited by the practical requirements of the structure and the overall length of the property. Common bay numbers are 1, 2, 3, 4 , & 5.

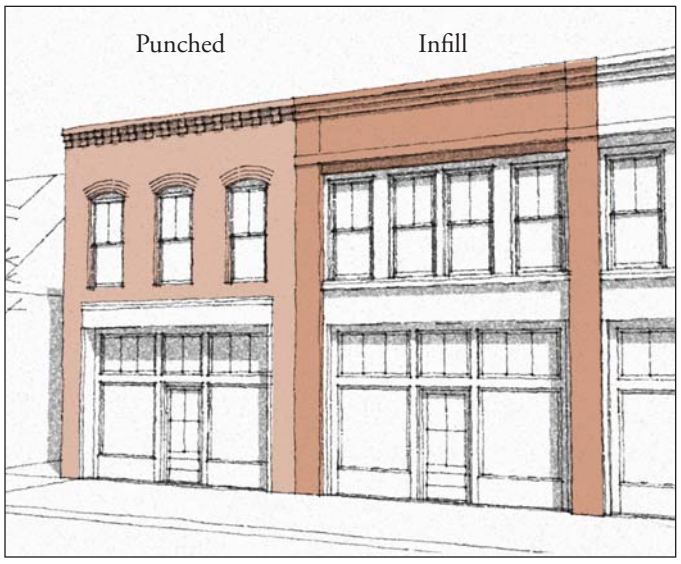
PROPORTION - Southern Mercantile proportions are based upon and generated from very simple formulas and are very responsive to utilitarian necessities (structural spans, column heights, etc). Wall opening dimensions need to honor standard masonry unit sizes, minimizing awkward material cuts and misaligned openings. Building corners should maintain a 24" solid surface before the introduction of any glazing to better 'carry' the building. The overall goal of the style should be an appearance of solid simplicity.

SURFACE - A Southern Mercantile surface is well detailed. Openings are recessed deeply, a minimum of 8", and parapets can project as much as 36" with transitional depths or visual supports building up from 0 (wall plane) to 36 (edge of cornice). The use of shade and shadow is very important to the reading of a Southern Mercantile building. Simple, ornamental brickwork is a way for the store-owners to differentiate themselves from their neighbors while being practical and using very similar construction methods and dimensions. If handled with attention and care and based upon historic examples, this design style can be very pleasing to the eye.

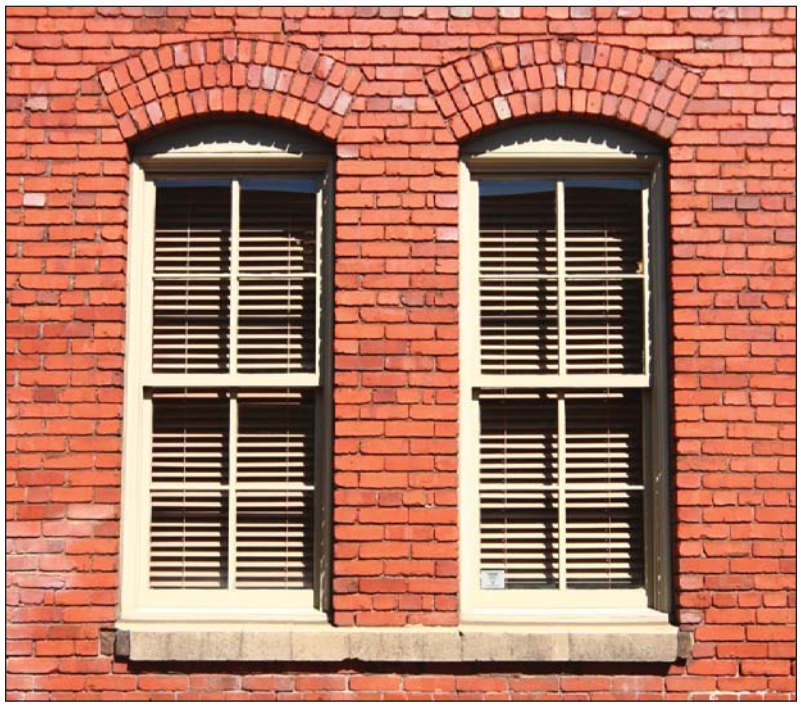
HIERARCHY OF SCALE - Masonry details are more prevalent in this style more so than any others, which may take more study and care to execute successfully. Any and all efforts exerted in this area will result in a more valuable and attractive structure.

Southern Mercantile Massing Examples



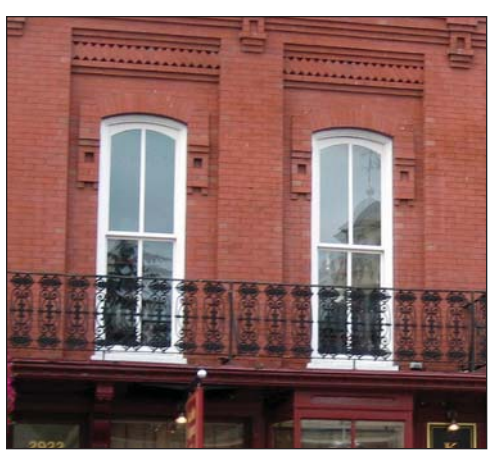


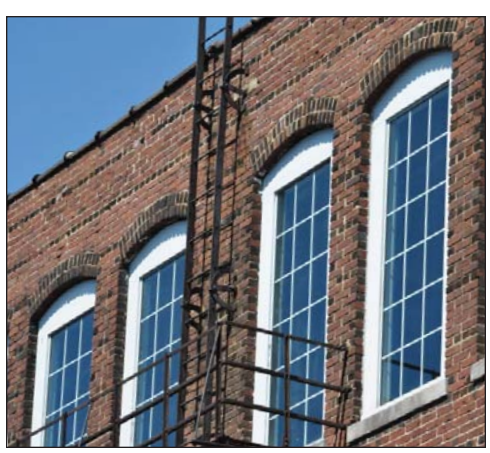
OPENINGS AND FRAMEWORK

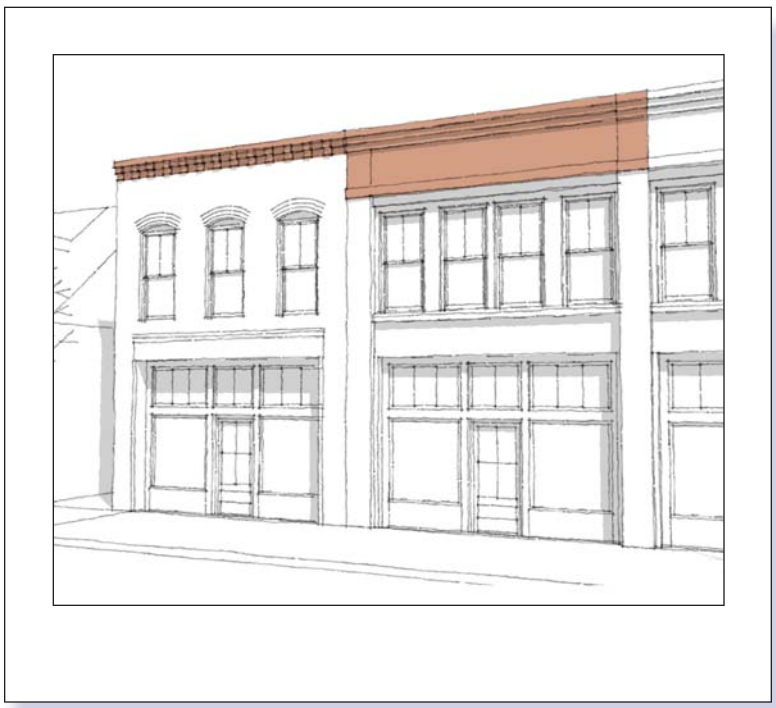


Southern Mercantile building openings are one of two types - punched or infill. Punched openings typically occur in the upper stories of mercantile buildings, while the infill is usually used in the ground floor to increase glazing area. The punched openings are large in order to maximize the penetration of light into the building interior. Punched openings can be handled in a variety of ways, but all should be recessed from the wall by at least 4".

The primary design intent is to be functional yet simply adorned in a way that expresses the structural components of the elevation.

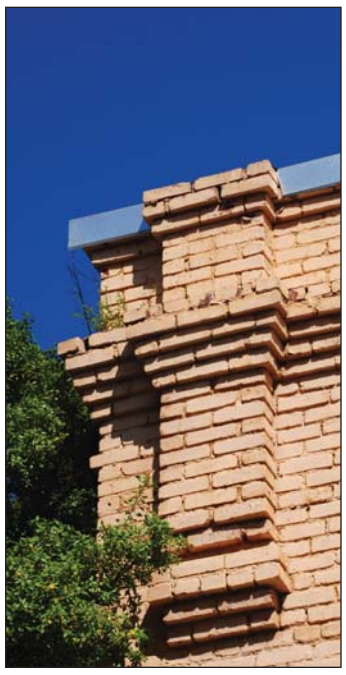






The parapet of a Southern Mercantile building is where you will see the greatest expenditure of design creativity in this style - an amazing variety can be achieved through simple manipulations of a small, standard building component called the brick. A brick's plain rectangular shape on its own does not immediately equate with beauty or complexity, but a simple glance at the accompanying images will expose its wonderful possibilities.

Southern Mercantile parapets can be as simple as a single row of offset brick in the same coursing as the wall below or as elaborate as the one illustrated below and be a mixture of ornamental sheet metal or wood cornice detailing and brick surrounds. Wall coping is typically natural or cast stone 6"-8" thick. Heights range from 24"-48".



STOREFRONTS & SIGNAGE

Southern Mercantile Storefronts are large and can either be infill between masonry piers or punched into the wall plane similar to upper story windows in this style. The storefronts are typically larger in width than height and they contain a majority of glazing punctuated by the entry doors to the interior. Wood or Metal framing up to 12" in width provide the framework for the window sash and doors, which can be a combination of both large and small panes. Although there are many possible successful solutions, the main concepts to maintain are pane proportions between windows and doors and that as one rises in elevation the panes typically decrease in size. Metal columns and entablature can add another layer of scale to the building but are not required. Within the general rectangular openings the entry doors may be placed in any desired composition as symmetry at this smaller scale is less necessary for success - often the entry bay is recessed further into the building than the surrounding windows to create a covered area and to accentuate the entry. Entries should be larger than normal, often exceeding one door in width, and entry doors should be at a minimum 50% glazed. Other building bays may have additional entry points but the main entry should always be clear to the pedestrian.

The simplest way to accomplish this clarity is by placing the store signage directly over the main entry point, either on the awning or applied directly to the wall or entablature above the entry. Larger scale signage to be viewed from afar is best located on the parapet wall surface.

BRICKWORK & DETAILS

Southern Mercantile brickwork and accent masonry details are what differentiate it from the more austere Village Mid-Century style. In general the offsets and angles are exaggerated to create bold, vibrant shadows that enliven the overall building facade. The primary locations for this type of detail to occur is on the parapet, at the window heads, and between the storefront and upper story windows.

AWNINGS & MISCELLANEOUS

Southern Mercantile awnings can range from flat metal planes held out from the wall surface by links or chains to soft, striped, curved canopies that move in the breeze. While the rectangular metal roof might seem too similar to the Birmingham Classic, at the smaller scale there will be more articulation at the surfaces of a Southern Mercantile metal awning.

There are no hard and fast typical rules for such a variety of design possibilities, hard or soft, shallow or deep, low or high pitch, sign or no sign; but the awning should relate to and enhance to overall building composition.

The BIRMINGHAM CLASSIC architectural style encompasses elements from Federal, Georgian, and Classical Revival styles inspired by English and Colonial precedent. The classical buildings found in and around Birmingham share the core characteristics of the classical tradition, but express subtle differences from similar styles in other parts of the South. This style is found in many public buildings, college campuses, and stately homes around Birmingham.

The dominant feature of these buildings is the simple and symmetrical massing embellished by more refined classical ornamentation. Roof forms are typically gabled or hipped with slopes no greater than 6:12. In most cases these buildings are constructed with brick and/or stone masonry with the higher style examples using cast stone for their ornamentation. More modest examples are constructed of brick masonry with wood ornamentation. The entries and doors are often intricately detailed to bring a pedestrian scale to some of the larger structures.

Appropriate Building Typologies

- Street-Front Buildings
- Free Standing
- Residential
- Inn

IDENTIFYING FEATURES

1. Simple Volumes additive porches or smaller wings to make more complex shapes. Recessed colonnades are also common.
2. Symmetrical composition of doors and windows
3. Simplified classical detailing at entries, windows, cornices and walls
4. Roof pitches typically 6:12 or less for the main massing with shallower pitches (3-5:12) for frontal triangular gables or secondary masses and porches

Appropriate Building Materials

- Wall materials: brick, painted brick, stucco, and stone masonry
- Trim/accent materials: brick, cutstone, cast stone, and wood
- Roofing materials: slate, flat clay or concrete tiles, metal or composite architectural shingles

Additional Resources

- *Designs on Birmingham* edited by Philip Morris and Marjorie White, published by the Birmingham Historical Society.
- *Mountain Brook Village: Then & Now* by Linda Nelson and Marjorie White, published by the Birmingham Historical Society.
- *The Abrams Guide to American House Styles* by William Morgan.
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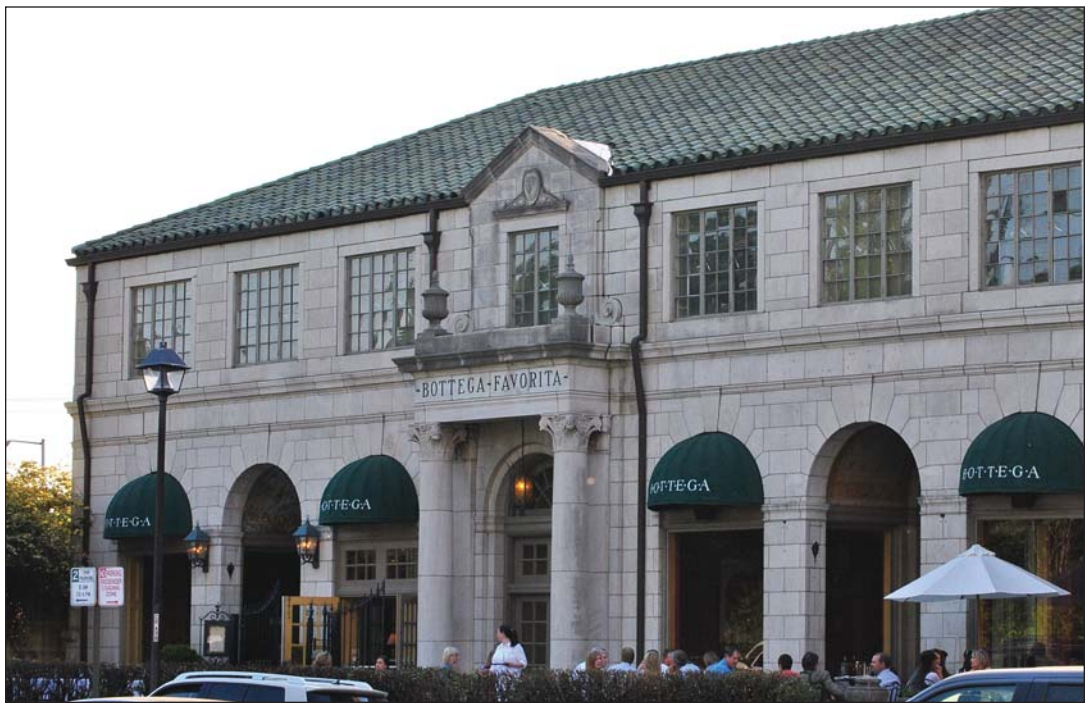
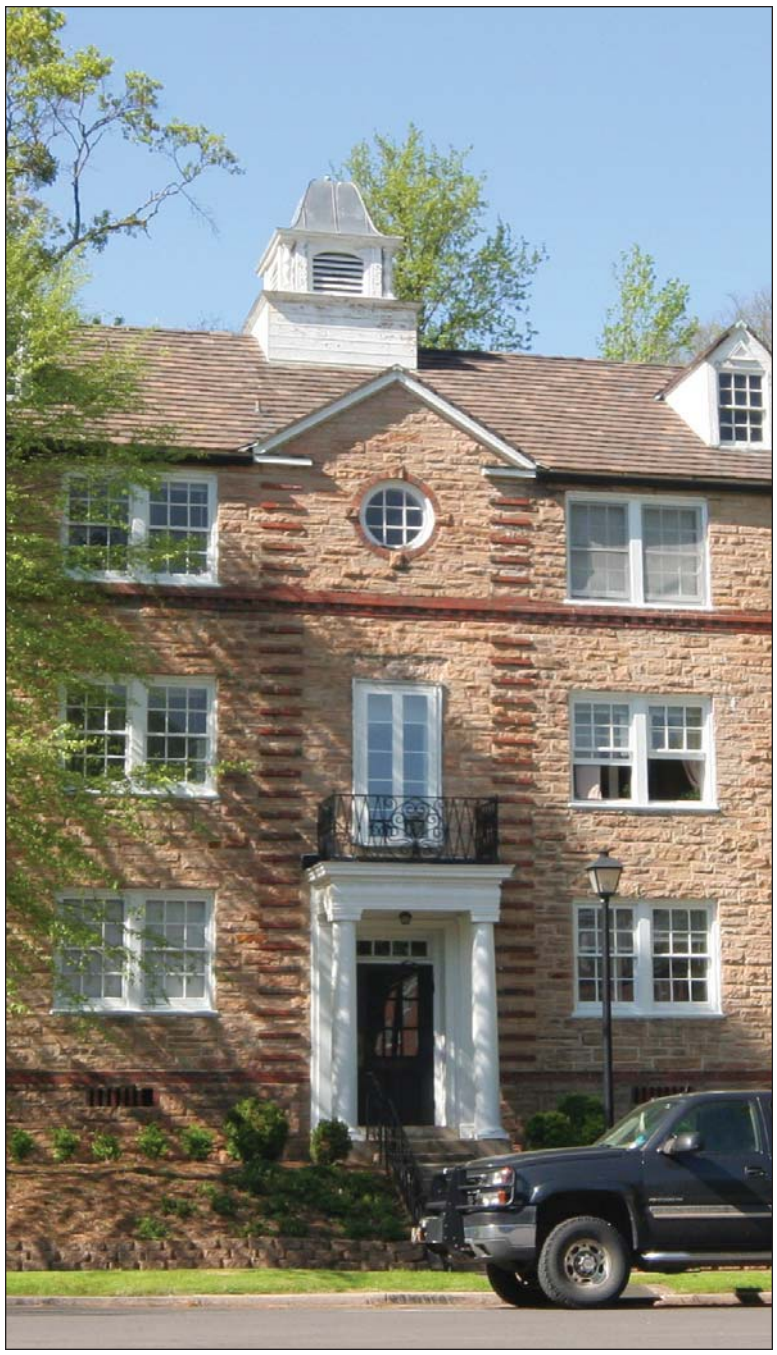
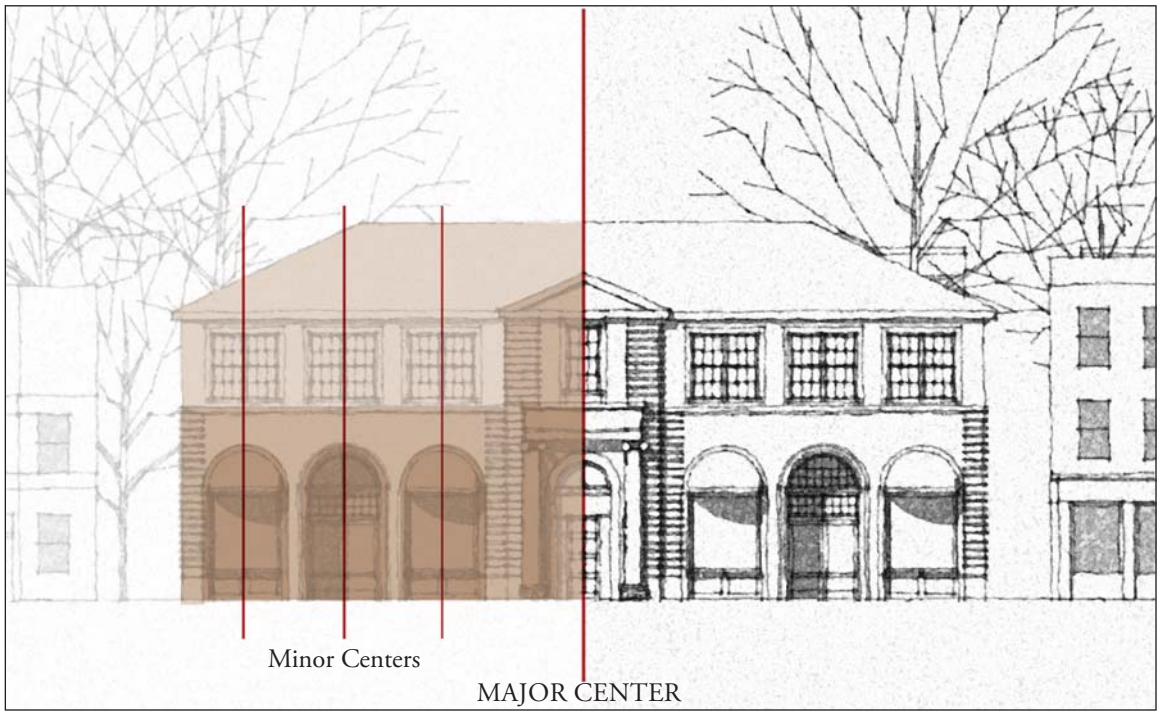
Example Gallery

Birmingham Classic







Birmingham Classic Design Concepts

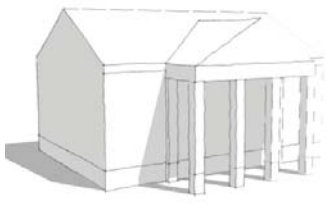
SYMMETRY - The most prominent feature of a Birmingham Classic building will be its bilateral symmetry, each side generally matching the other along the imaginary centerline. This symmetry mimics the natural 'design' of animals and humans that is generally symmetrical.

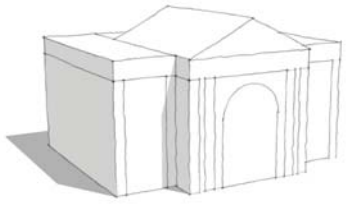
PROPORTION - The organization of a Birmingham Classic building is based upon and generated from proportions which can be found in nature and many historic structures. The classical canons of Tuscan, Doric, Ionic, and Corinthian proportions can be applied to appropriately size cornices, columns, openings, pedestals and bases. Typical ratios include 1:1, 1:2, 1:3, 2:3, 3:5, 1:1.618 (the Golden Section)

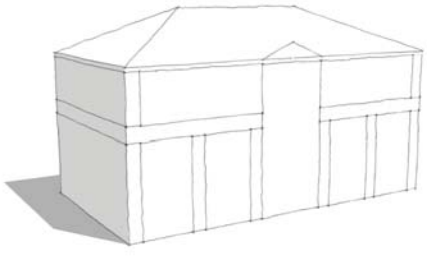
SURFACE - Monumental Birmingham Classic buildings should be constructed of lasting materials such as brick, stone, or stucco. Buildings that are more commercial in nature may have wood trim, and buildings more residential in nature may be constructed of primarily wood. Openings should be recessed into masonry walls at a minimum of 2".

HIERARCHY OF SCALE - A Birmingham Classic building can be a stand-alone monument or part of the urban fabric. It includes large scale elements such as porticoes which can be experience from a distant urban scale and small scale elements such as mouldings to relate to the smaller human scale. However, all sizes of details require the use of appropriate proportions to compose an aesthetically pleasing and successful building.

Birmingham Classic Massing Examples

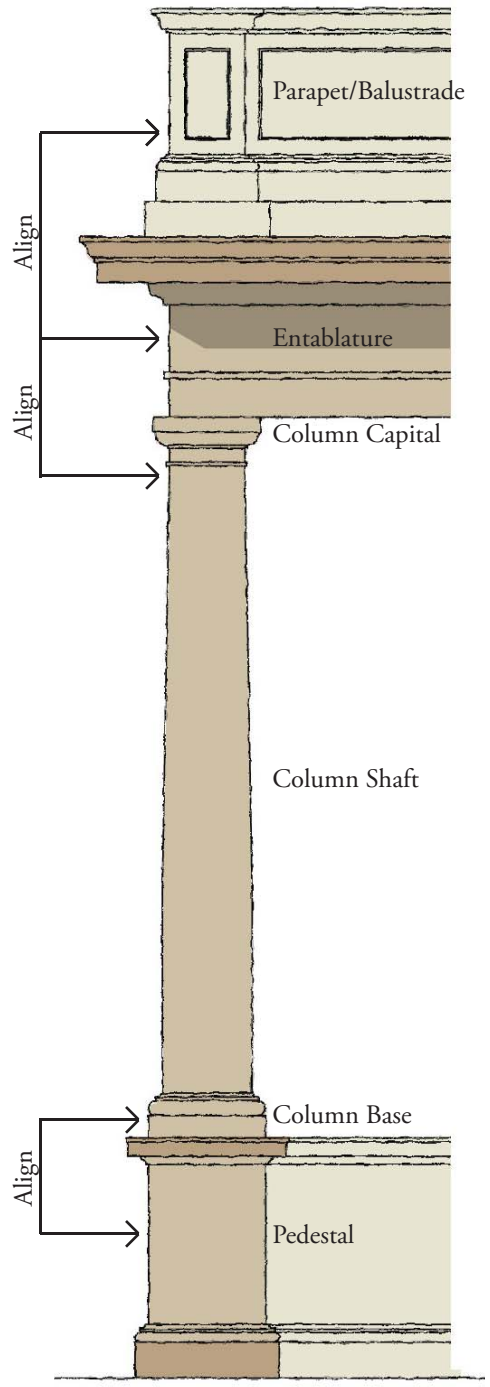


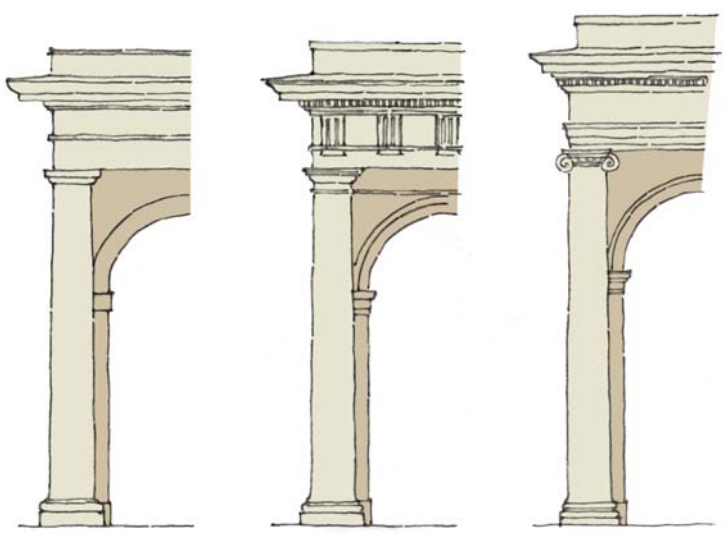




CLASSICAL DETAILS

Birmingham Classic buildings draw heavily on classical details for embellishments at important portals and horizontal planes. The profiles and proportions of these details are dictated by the classical tradition that is well documented. The most prominent proportional systems are expressed in the classical canonical orders of Tuscan, Doric, Ionic, and Corinthian. More information about these traditions can be found in additional resources such as *The American Vignola* by William Ware or *Parallels of the Classical Orders of Architecture* by Normand and von Mauch.

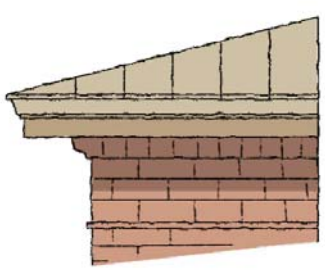




Arch Conditions - Tuscan, Doric, Ionic (left to right)

Gable with Stone Cornice - High Style

Gable with Wood Cornice - Mid-Style



Classical Brick Cornice with Hip Roof

ENTRY FEATURES

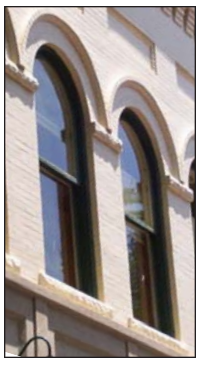
The entries into buildings of the Birmingham Classic style are the most articulated elements on the facade. They are highlighted with ornamental embellishments and architectural features. The entry most often occupies the central bay on a bilaterally symmetrical facade. Specifically on public buildings, there is often a large loggia or arcade that provides shelter and a place for people to gather. These arcades feature an odd number of bays, with the entry occupying the central bay. Retail buildings may have a flat expression of an arcade filled with glass as their storefront windows. Storefronts can also take the form of large trabeated openings with an articulation of small pilasters and mouldings around the glass within the large masonry opening.

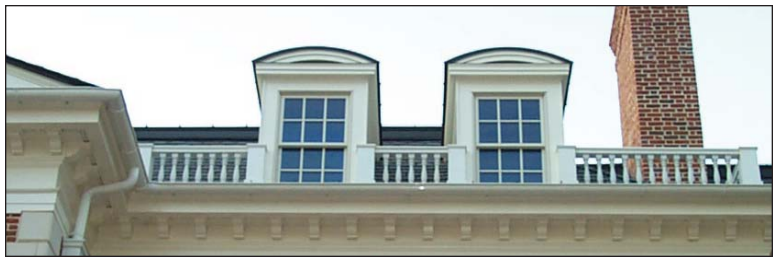
DOORS

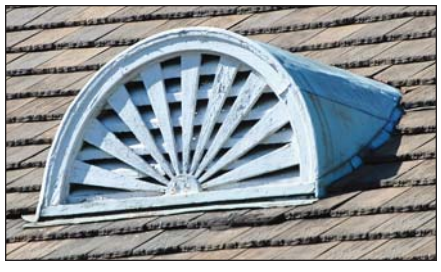
The main door of a Birmingham Classic building is often highly embellished and the central element on the facade. In these instances, the entry takes the form of large double doors with a rectangular or semicircular transom. On less monumental buildings, the entry takes the form of a single door with sidelights. In both cases, the door surround is articulated with a portico, pilasters or columns. Less important side doors, or residential entries often display a stripped down version of columns or pilasters with a shallow gable or bracketed shed roof similar to an awning.

WINDOWS, DORMERS & VENTS

Windows on Birmingham Classic buildings shall be vertical in proportion, though several windows may be ganged in order to form a more horizontal composition. Windows may have a half-round or elliptical head. Windows should be operable with double-hung or casements preferred. Standard minimum window size shall be 2'-8" in width and 5'-0" in height. Window head heights should align at each story of the building. Dormers, where appropriate, should be constructed of wood and not masonry as the main body of the structure. Small accent windows in non-rectangular shapes are allowed for accents such as in the pediment of a facade. Windows should be articulated as punched openings with inset wood trim. The masonry opening may be articulated as a round, elliptical, or jack arch. Shutters may be used, but must be sized appropriately to the opening and have functioning hardware and hinges.

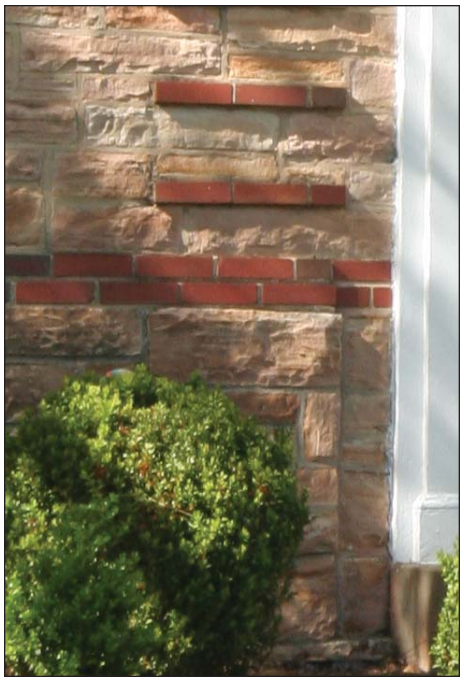


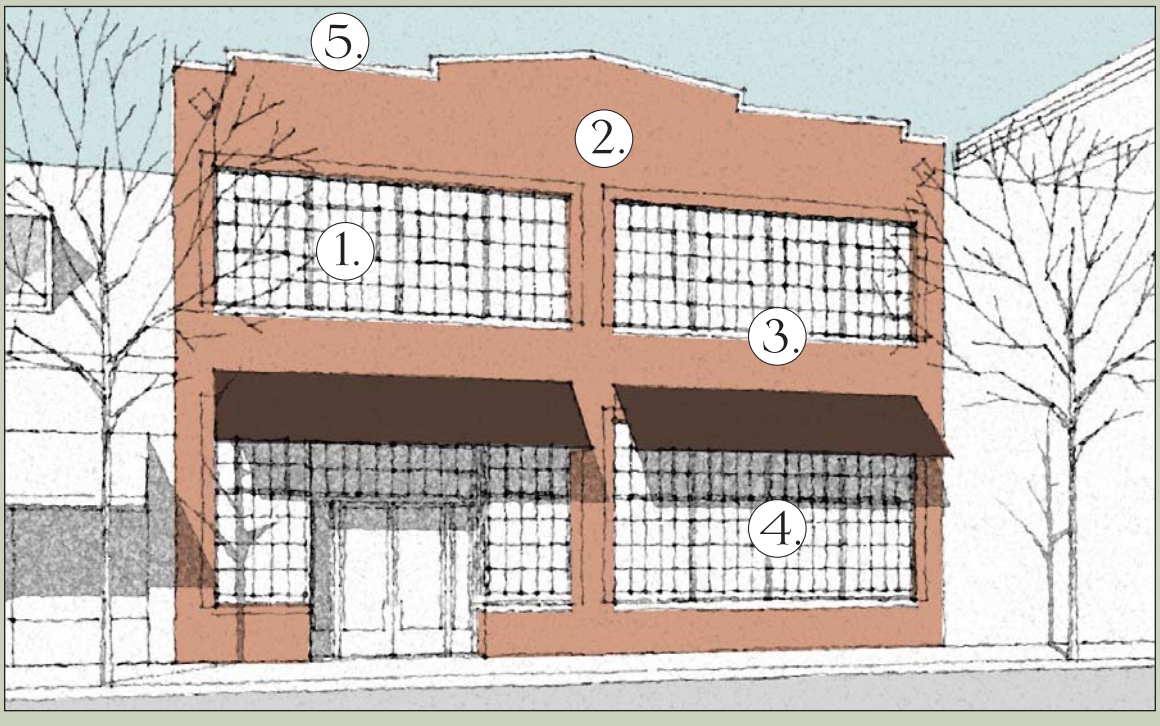




BRICKWORK - STONEWORK

Brick or stone may be used to create texture on the facades of Birmingham Classic buildings. Contrasting brick or stone may be used in horizontal bands to imply a base, watertable, or cornice. Quoining may be implied at the corners of buildings, surrounding large openings, or below the edges of a pediment to imply pilasters. Contrasting or protruding brick or stone may be used to highlight architectural features or imply a bay rhythm where no glazing is present.





The VILLAGE MID-CENTURY Architectural Style is typified by an early to mid-century modern aesthetic of machine-like craft and the absence of ornament. It is important to consider that while not as architecturally honoured as the more typical historic styles, done well, it is still valid and pleasing to both users and viewers. Many practitioners of this style were trained in the traditional schools of architecture where proper relational proportions are highly valued. This means that whatever the design goal, the relationships between building height and width, and the building to its elements were always considered as a coherent composition.

In a general view the Village Mid-Century building appearance is horizontal. It is a smaller scale 1-2.5 story building which can be expanded horizontally to accommodate more utilitarian building types such as grocery stores or restaurants, where you want large openings to engage customers or for al fresco dining. The Village Mid-Century is a local designation appropriate for Mountain Brook Village in that many of the buildings in the existing Village developed in the 50's and 60's take this style.

Appropriate Building Typologies

- Street-Front Buildings
- Free Standing
- Parking Structure
- Grocery Building

IDENTIFYING FEATURES

1. Large punched openings in masonry walls
2. Simple, minimal surface articulation
3. Horizontal proportions in majority of architectural design elements
4. Metal windows with multiple panes and awning openings
5. Parapet with Simple Coping that is often stepped or sloped in height

Appropriate Building Materials

- Wall material: brick, painted brick, stucco, cut or cast stone
- Accent material: brick, stone, cast concrete, metal
- Roofing material: metal, flat clay or concrete tiles, composite architectural shingles

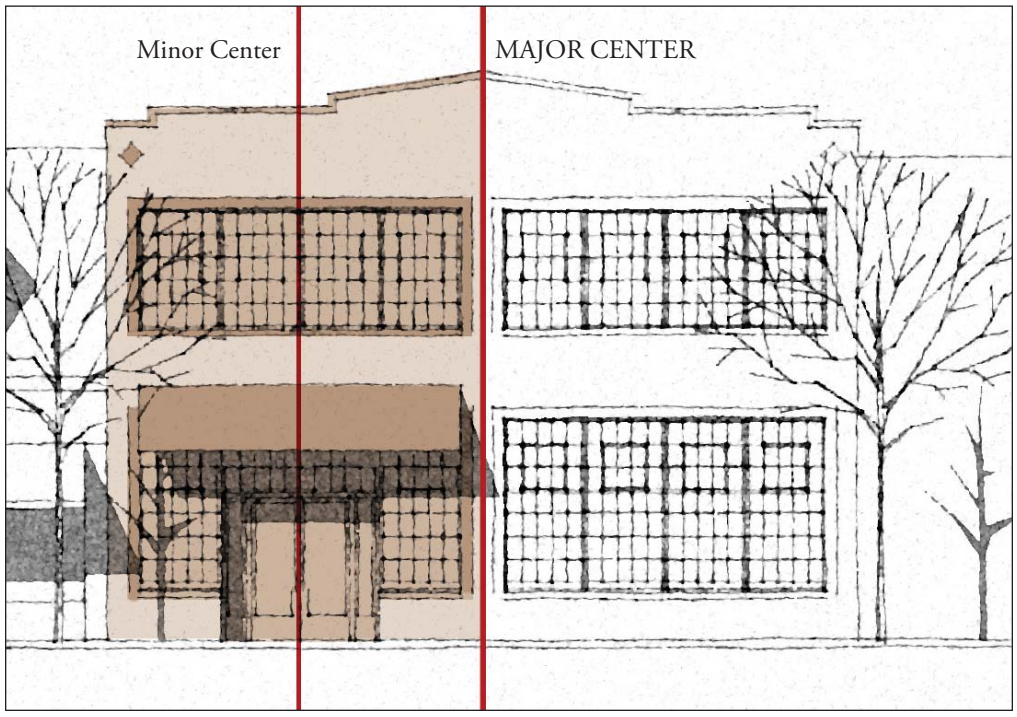
Additional Resources

- *Designs on Birmingham* edited by Philip Morris and Marjorie White, published by the Birmingham Historical Society.
- *Mountain Brook Village: Then & Now* by Linda Nelson and Marjorie White, published by the Birmingham Historical Society.
- *The Abrams Guide to American House Styles* by William Morgan.
- *A Field Guide to American Houses* by Virginia and Lee McAlester.
- *American Houses: A Field Guide* by Gerald Foster

MARTIN BISCUIT CO.

COFFEE

Village Mid-Century



Village Mid-Century design Concepts

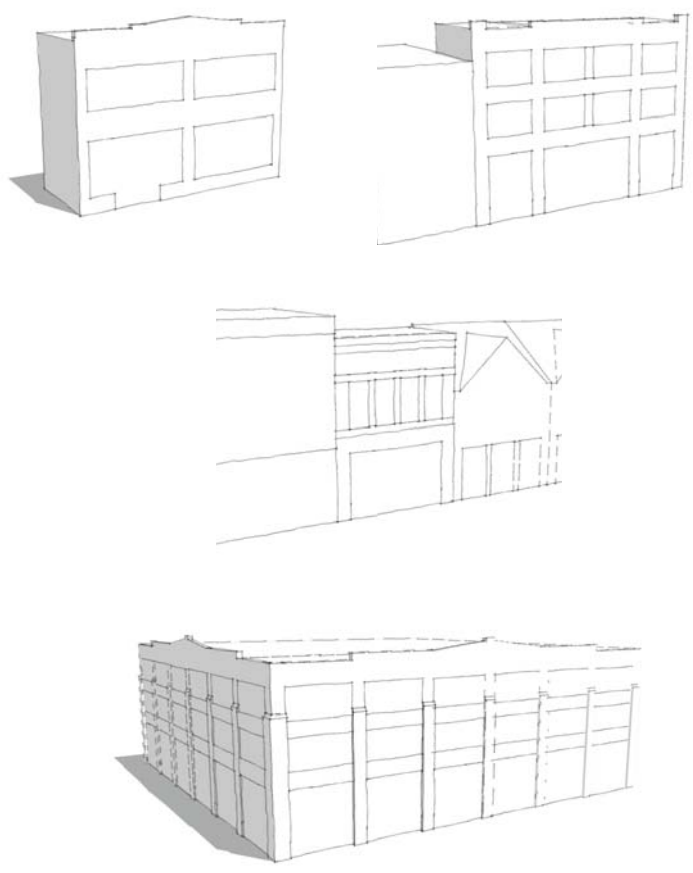
SYMMETRY - A Village Mid-Century building is very similar to the structural symmetry of the Southern Mercantile style and will also have a visual order guided by the width of the overall building and its division into smaller bays. There is a freedom in the choice and the number of bays which are only limited by the practical requirements of the structure and the overall length of the property. Common bay numbers are 1, 2, 3, 4 , & 5.

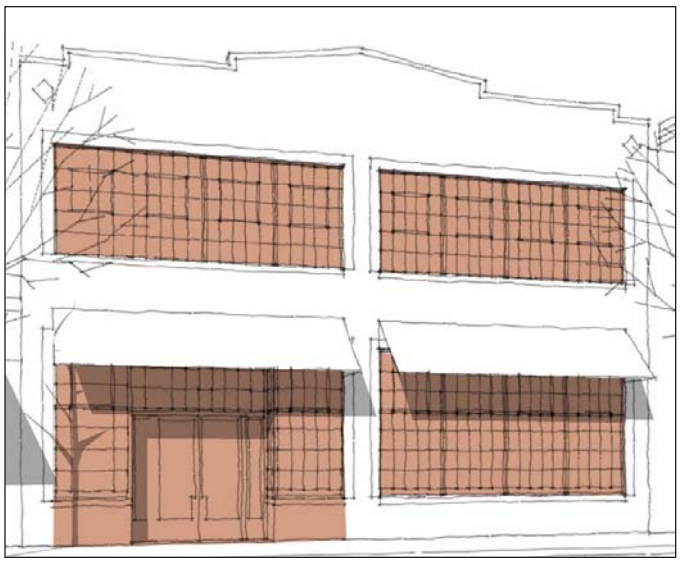
PROPORTION - Village Mid-Century proportions are based upon and generated from very simple formulas and are very responsive to utilitarian necessities (structural spans, column heights, etc). Wall opening dimensions need to honor standard masonry unit sizes, minimizing awkward material cuts and misaligned openings. Building corners should maintain a 24" solid surface before the introduction of any glazing to better 'carry' the building. The overall goal of the style should be an appearance of solid simplicity.

SURFACE - A Village Mid-Century surface is meant to be 'clean'. Openings are not recessed deeply, to a maximum of 8". Any protrusions from the wall plane do not project more than 4-6" typically. These dimension dictums reduce the visual depth of the building by reducing the shadows that are cast by the sun. If handled with attention this effect can be very aesthetically pleasing.

HIERARCHY OF SCALE - Details are less prevalent in this style more so than any others, but that does not indicate or mean that concern for the human scale is absent or ignored. It is actually more important here that these smaller scale details be correct because there are so few of them.

Village Mid-Century Massing Examples





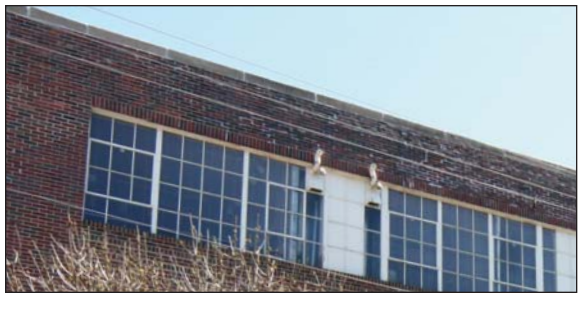
OPENINGS & FRAMEWORK

Village Mid-Century building openings are very large and horizontal in proportion. They are created by placing duplicate or similar windows next to each other in groups of two, three, four, and five. The primary design intent is to express a clean and horizontal aesthetic with minimal ornamental pattern and detail. Brickwork detailing may or may not be utilized at the edge of the openings - if it is it is generally 8-12" of brick and/or other masonry. Simplicity is paramount. Windows will be metal with multiple panes and thin frame profiles. See Storefronts and Signage for details on that respective feature.

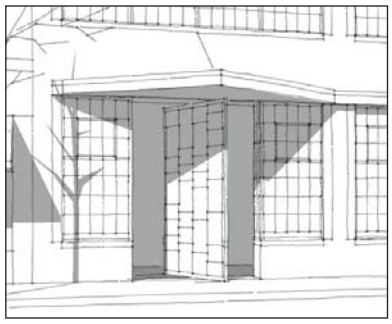
PARAPETS

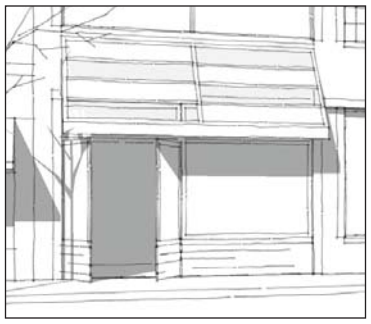
Village Mid-Century parapets are often the architectural feature that gets the most attention. At its simplest the lone detail is a stone or tile coping that presents a contrasting band of color, emphasizing the buildings mass horizontally against the sky. Vertical steps are introduced to add architectural interest to the corners or center or to draw attention to signage or other elements like window bays.

In all cases the integrity of the planar quality of the wall surface is to be maintained. In rare occurrences if ornament is desired the motifs of Art Deco parapet sculpture would be most appropriate due to its shallow relief which similarly minimizes the strong contrast of sunlight and deep shadow while still seeking to individualize designs.



STOREFRONTS & SIGNAGE





Village Mid-Century Storefronts continue the general themes of the style. Larger in width than height, they contain a majority of glazing punctuated by the entry doors to the interior. Metal window and door frames with thin profile sashwork are most common in order to maintain a light infill appearance. Wood is discouraged due to its heavier appearance.

Within the general rectangular openings the entry doors may be placed in any desired composition as symmetry at this smaller scale is less necessary for success. Entries should be larger than normal, often exceeding one door in width, and interesting industrial openings are encouraged. Other building bays may have additional entry points but the main entry should always be clear to the pedestrian.

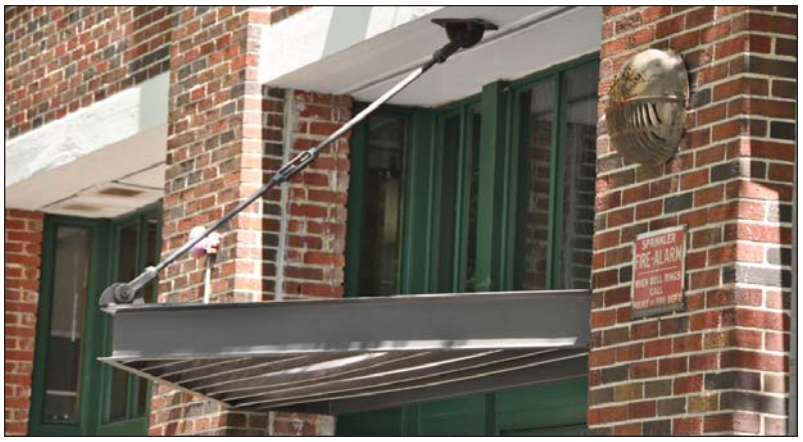
The simplest way to accomplish this clarity is by placing the store signage directly over the main entry point, either on the awning or applied directly to the wall above the opening. Larger scale signage to be viewed from afar is best located on the parapet wall surface above the upper story windows as depicted.

SURFACE TEXTURE

Village Mid-Century walls are of masonry construction with a veneer of brick or less often stucco. Brick is encouraged, especially selections with sharp clean machine like edges and smooth color tone with minimal variations. Accent or contrasting color bricks, or alternate brick bond patterns are encouraged to emphasize the architectural elements and the horizontal plane. While they are encouraged they should also be used with restraint, as an exuberant use of this would not be fitting to the style.

AWNINGS & MISCELLANEOUS

Village Mid-Century awnings have sharp lines and visually 'hard' fabrics or materials. No soft curves or frilly, paisley flapping should occur in a Village Mid-Century awning. If sloped they have stiff metal frames with either taut, solid color fabrics or simple metal roofing. The pitch of the awning can range from nearly flat to nearly vertical. Flat awnings can range from running the full width of the building to only projecting out over the entry point. Flat awning thicknesses should never exceed 12" in height unless the larger size is proportional to the mass of the building and is needed for proper structure. Similar to the treatment of the windows, the structure (not the fabric or other covering) of a Village Mid-Century awning should be 'light' in appearance.



double pitched awning

steep single pitched awning

full flat awning

entry flat angled awning

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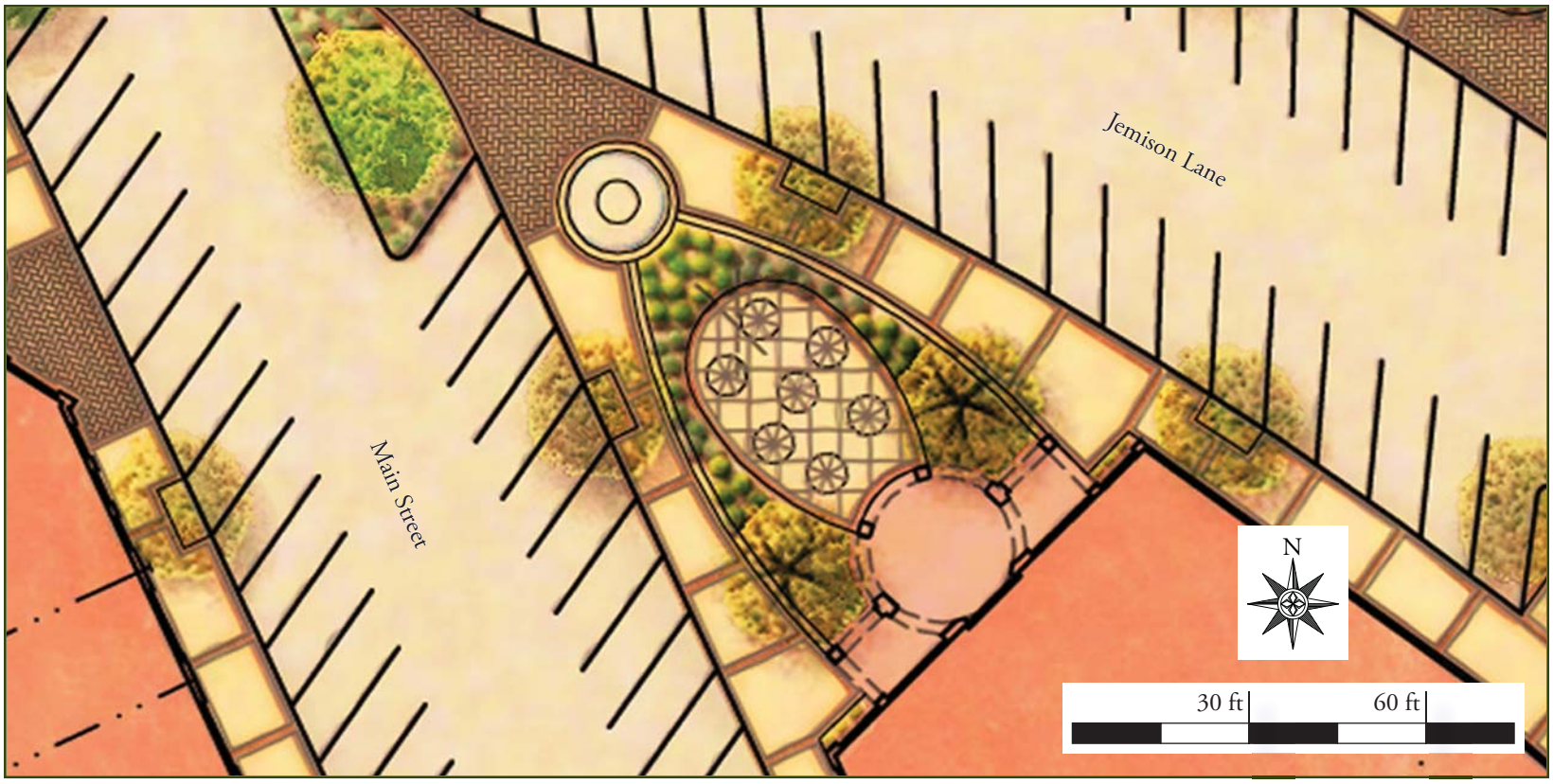
Lane Parke

LANDSCAPE STANDARDS

The standards set forth in this Section 10 shall apply to the design of the parks and open spaces within Lane Parke. The final designs of the parks, open spaces, streetscapes, sidewalks, curbs and paving shall be designed and constructed in accordance with the standards set forth in this Section 10 (the "Landscape Standards") and shall be subject to the Design Review Process. Example diagrams have been included in this Landscaping, Parks and Open Spaces Plan as reference material, provided however, such Design Examples shall not be construed as final designs. Final landscaping designs may vary from the Design Examples shown in this Landscaping, Parks and Open Spaces Plan provided such designs substantially conform to the Landscape Standards.



HARDSCAPES

Sidewalk, curb and paving designs, patterns and materials located on Primary Frontages and Secondary Frontages shall be compatible and consistent with the designs, patterns and materials of sidewalks, curbs and paving currently existing in the Village. The scale will be pedestrian friendly and encourage flow throughout the village. Enhanced design features may be permitted in accordance with the following:

All walkways located on Primary Frontages and Secondary Frontages will carry out the general theme of paving in the Village. Sidewalk corners at street intersections located on Primary Frontages and Secondary Frontages will have the same wood mold brick in a diagonal herringbone pattern with flat rowlock and soldier border as currently used. This will provide a seamless transition from the existing urban fabric to the new construction.

Beyond the corners, the sidewalks located on Primary Frontages and Secondary Frontages will be paved in concrete using the same scored running bond pattern, with the wood mold brick border. Stone accents will be used in a field of brick in special areas, such as drop off for the inn, plazas, pocket parks, some of the anchor stores and all corners at intersections located on Primary Frontages and Secondary Frontages.

Sidewalks on Primary Frontages shall be between eight (8) and twelve (12) feet wide, except that the sidewalks located on that portion of Lane Park Road north of Park Lane Court South shall be between six (6) and twelve (12) feet wide. Sidewalks on Secondary Frontages and Private Frontages shall be between six (6) and twelve (12) feet wide except that sidewalks in the Residential Use Area shall be a minimum of five (5) feet wide in accordance with the Residence G Standards.

Streets will be paved in asphalt with concrete curb and gutter.

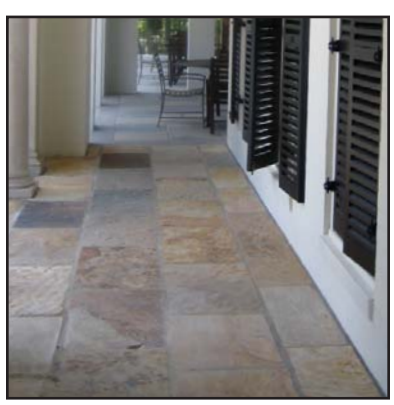
IDENTIFYING FEATURES

1. Pedestrian Friendly
2. A field of wood mold brick used at corners on Primary Frontages and Secondary Frontages.
3. Scored buff concrete with wood mold brick bands for accent along Primary Frontages and Secondary Frontages.
4. Stone accents and stained concrete used at special entrances and plazas.
5. Smooth transition of materials from existing Mountain Brook Village

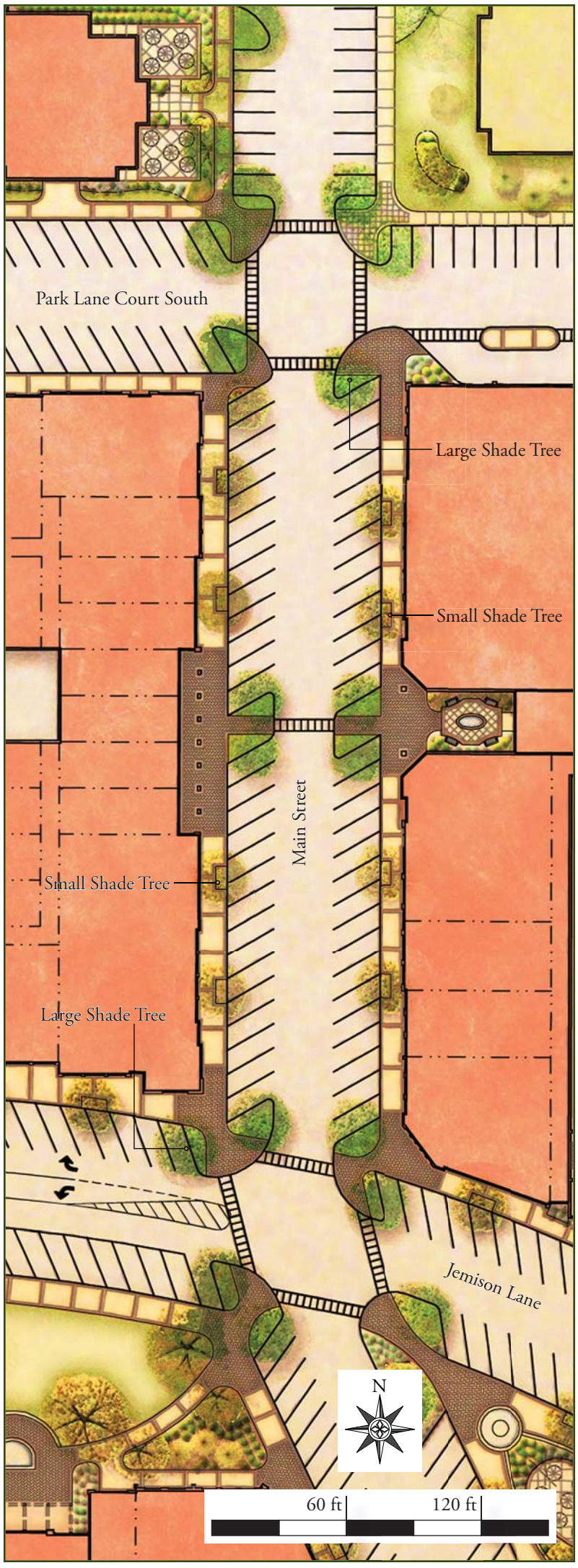
Brick Crosswalks

Scored Buff Concrete with Brick Bands

Brick at Sidewalk Corners



Special Stone Surfaces



STREET PLANTINGS

Trees and plantings shall be compatible and consistent with those used throughout the Village along Primary Frontages and Secondary Frontages. Planters, benches and other similar features may be included, provided they are consistent with and complementary to those utilized throughout the Village. Enhanced design features may be permitted in accordance with the following:

A major characteristic of Mountain Brook is the lush tree canopy of the city. The majestic oaks at the intersection of Cahaba Road and Montevallo Road are iconic to Mountain Brook Village. The main reason these tall giants achieved such size in a streetscape situation is because of the large amount of root volume space in the islands. The large islands have allowed sufficient area for growth to reach maturity.

Street trees in small pits surrounded by paving do not achieve their true mature size or reach the potential longevity. It is our intent to provide a series of islands (adjacent to parking spaces) along Primary Frontages and Secondary Frontages with ample space to allow enough root volume to achieve a similar size. These islands will be placed at each corner along the streetscape of Primary Frontages and Secondary Frontages to create an allee effect with a larger space size. These large shade tree plantings will eventually tower over any merchant signage per the described preference in the Village Master Plans.

Each street along Primary Frontages and Secondary Frontages will have a different species of large shade tree for the corners. Between the larger shade trees will be another species of a medium size shade tree. A low growing ground cover will be used predominately in these islands with a double row of evergreen shrubs. Unlike shrubs, the ground cover will not be as competitive with the tree for root growth and water but add another layer of green to the streetscape.

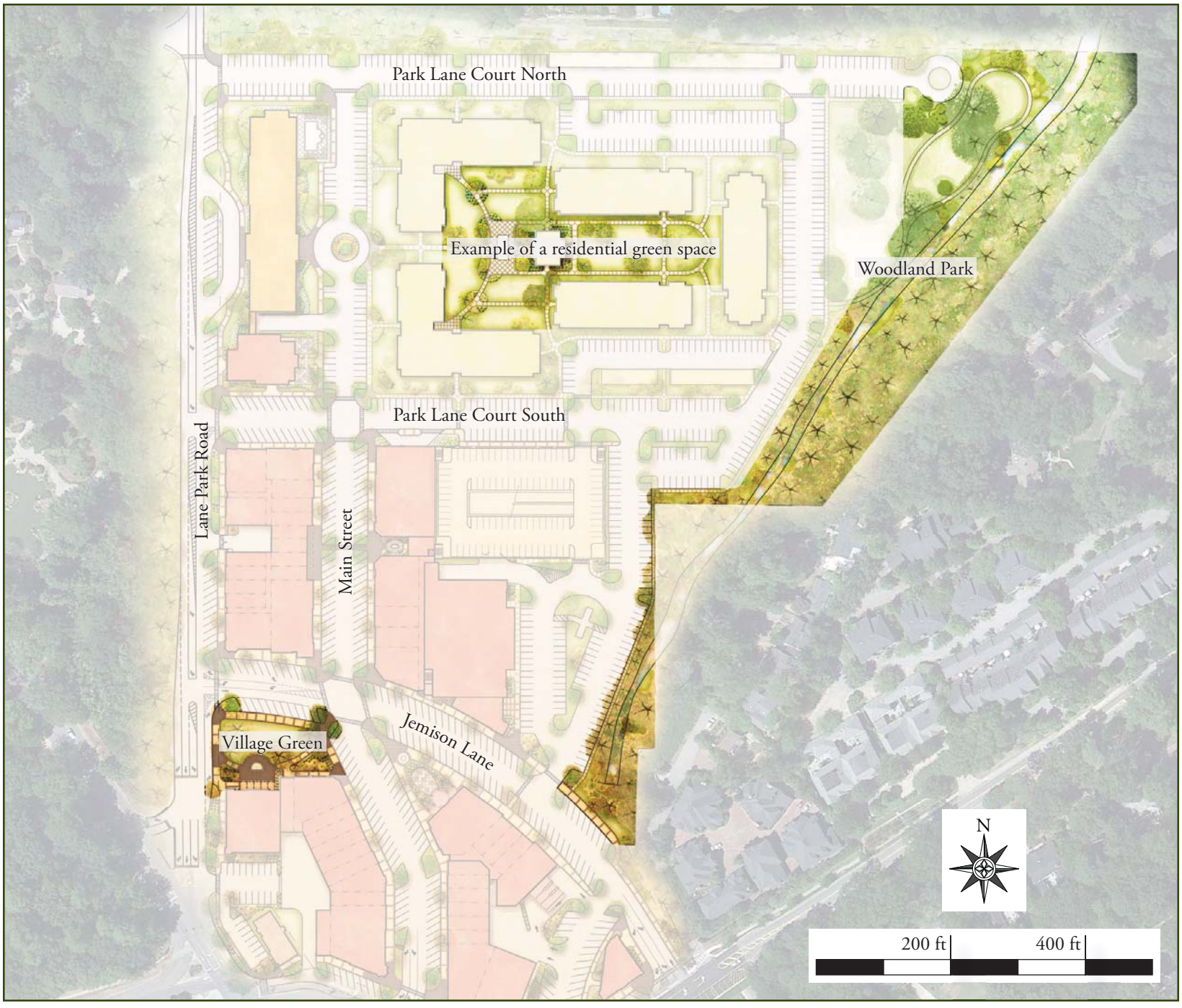
Most trees will be indigenous (or accepted cultivars) to the area and appropriate for the microclimate, suitable for urban conditions and unhindered pedestrian flow. Providing native trees will blend with the existing canopies in adjacent neighborhoods, village canopy and tree massing at the Botanical Gardens. There are a few accepted exotics trees, appropriate for streetscapes, which will be acceptable such as Elm varieties and Chinese Pistache.

Shrubs, Ground Cover and Vines

Shrubs will occur where there are larger areas of walkway such as pocket parks, plazas, parks, sidewalks wider than ten feet, Cahaba Road or when screening is needed. Shrubs will not occur unless there is ample room for pedestrians to flow smoothly through an area. Vines will be planted at the base of columns in colonnade areas for additional greenery with evergreen flowering plants such as Carolina Jessamine and Confederate Jasmine.

IDENTIFYING FEATURES

1. Islands to support large shade trees at corners along Primary Frontages and Secondary Frontages
2. Large and medium size native shade trees
3. Evergreen and flowering accent trees to complement the shade trees



OPEN SPACE, STORM WATER MANAGEMENT AND ACTIVE CONNECTIVITY

Open space within Lane Parke shall include the Village Green, the Woodland Park, residential green space and numerous pocket parks and spaces of passage.

It is the goal to manage stormwater leaving the site and improve water quality. Maximizing water percolation into the ground is key to the management of the amount of runoff in a development. Lane Parke will strive to use a number of techniques like biorention or raingardens, pervious paving in strategic locations and infiltration swales to assist in the percolation of water into the ground. All these methods filter the water and improve water quality.

All parks and public spaces are connected by a walkway system providing linkage to streetscapes and beyond to the Village and adjacent neighborhoods. These walkways will complement the existing network indentified in the Mountain Brook Pedestrian Master Plan and beyond providing linkage to the proposed greenways and trails of the Our One Mile Greenway Master Plan for Jefferson County.

IDENTIFYING FEATURES

1. Village Green
2. Woodland Park
3. Residential green space
4. Active connectivity with the Mountain Brook
5. Innovative storm water management
6. Tree lined streets

VILLAGE GREEN

The Village Green will be located at the intersection of Jemison Lane and Lane Park Road and is the northern tip of this block. The green shall be designed and constructed in accordance with the following:

The Village Green will be a formal green space for the Village and provide a civic space for public gathering and passive use. This green space provides a continuous green canopy from the Birmingham Botanical Gardens in the west into Lane Parke and along Jemison Lane connecting with the natural corridor of Watkins Brook in the east. Native trees seen in both natural areas, in the eastern and western borders, will be used in the park and along the streetscape to strengthen that green connection. Doing so increases street tree sustainability and is in keeping with the natural context of the area with seasonal interest.

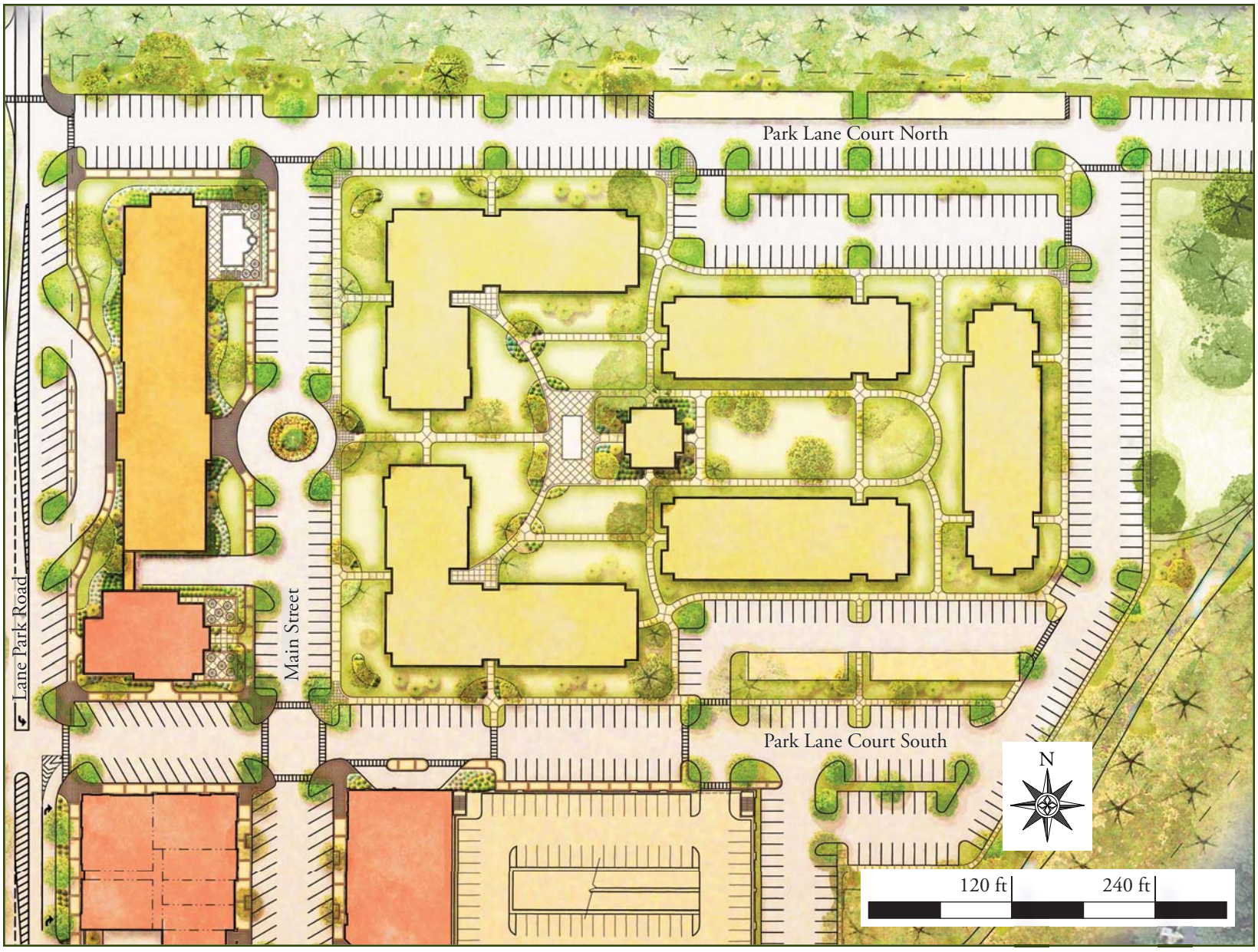
A central plaza will be the focal point of the park with an opportunity for artistic expression in the way of a fountain, sculpture or plantings. This plaza area acts as an outdoor room for the adjacent buildings and transition to the lawn space and streetscapes beyond. Occasional seating is included with street lights and other site furnishings. A formal lawn space for passive play and gathering is surrounded by a perimeter walkway connecting the green to the network of traditional walkways found throughout the Village and beyond.

IDENTIFYING FEATURES

1. Formal lawn for civic events and gatherings
2. Occasional seating
3. Bioretention in the Lawn
4. Pedestrian Connectivity
5. Green Continuity with Surrounding Areas
6. Outdoor Dining

Residential Green Space

Open Space



RESIDENTIAL GREEN SPACE

Residential green space will be located around the inn, residences, creek and as buffer to parking areas in accordance with the Open Space Requirements. These areas are pedestrian friendly with connectivity to all retail spaces, parks and to the Village beyond. Selected existing shade trees of good health have been identified to be protected and incorporated in the new landscape. These mature specimens mixed with new plantings will create a quiet and mature look for the residences. A diverse selection of native shade trees, evergreen and flowering accent trees will be used throughout the area.

The canopy will blend in with the surrounding canopies of adjacent residential neighborhoods and the Birmingham Botanical Gardens across the street. Shrubs and groundcover will provide seasonal interest with a varied texture and color palette. Native plants will be incorporated to provide interest for local birds and wildlife.

The lawn will also be designed with bioretention infrastructure aiding storm water to percolate in the ground thus minimizing storm water runoff. Overflow will travel to Woodland Park for another opportunity of infiltration before reaching the creek.

IDENTIFYING FEATURES

1. Quiet and Pedestrian Friendly
2. Pedestrian Connectivity to Retail Spaces, Parks and Beyond
3. A Diverse selection of Native Shade Trees
4. Evergreen and Flowering Accent Tree
5. Varied palette of Shrubs and Ground cover for seasonal interest
6. Selected healthy Existing Trees protected

WOODLAND PARK

The Woodland Park will be located as shown on the Illustrative Master Plan and shall be completed by the completion of construction of the Residential Phase.

Plantings within the natural area will include riparian plants for creek stabilization and indigenous trees planted beyond the creek (similar to the eastern slope to bring that canopy type throughout the Woodland Park and reminiscent to the canopy at the Botanical Gardens to the west of Lane Park Road). Native plant massing will be used throughout and with areas of native shrubs, groundcover and wildflowers.

Walking paths, similar to the Jemison Trail, will connect the Village with the natural areas and designated areas for wildlife observation, picnics and informal gathering and walks. These paths via the walkway system will connect with the existing Mountain Brook trail system. The exposed creek will be reminiscent to a rock lined mountain stream with natural plantings.

Plants will be watered initially for stabilization only. Long term irrigation will not be used. Bioretention will be used to handle storm water overflow and filter toxins present before entering Watkins Branch.

IDENTIFYING FEATURES

1. Native tree canopy
2. Trails
3. Connectivity with Mountain Brook Trail System
4. Native plants and wildflowers
5. Wildlife Observation
6. Complements Adjacent Existing Tree Canopies
7. Occasional seating

Plant List

Shade Trees

Latin Name	Common Name
Fagus grandifolia	American Beech
Fraxinus pennsylvanica	Green Ash
Fraxinus pennsylvanica 'Patmore'	Pat Moore Ash
Fraxinus pennsylvanica 'Urbanite'	Urbanite Ash
Ginkgo biloba	Ginkgo
Koelreuteria bipinnata	Golden Rain Tree
Liquidambar styraciflua	Fruitless Sweetgum
Liriodendron tulipifera	Tulip Poplar
Magnolia grandiflora	Southern Magnolia
Magnolia macrophylla	Big Leaf Magnolia
Nyssa sylvatica	Black Gum
Pistacia chinensis	Chinese Pistache
Quercus alba	White Oak
Quercus falcata	Southern Red Oak
Quercus lyrata	Overcup Oak
Quercus michauxii	Swamp Chestnut Oak
Quercus nuttallii	Nuttall Oak
Quercus phellos	Willow Oak
Quercus shumardii	Shumard Oak
Taxodium distichum	Cypress
Ulmus parvifolia	Lacebark Elm
Ulmus parvifolia "Bosque"	Bosque Elm
Ulmus parvifolia "Drake"	Drake Elm

Small Accent Trees

Latin Name	Common Name
Acer palmatum	Japanese Maple
Betula nigra	River Birch
Cercis canadensis	Redbud
Cornis florida	Dogwood
Crataegus marshallii	Parsley Hawthorn
Ilex cornuta "burfordii"	Burford Holly
Ilex decidua	Deciduous Holly
Ilex vomitoria	Yaupon Holly
Lagerstroemia indica	Crape Myrtle
Magnolia virginiana 'Australis'	Sweet Bay Magnolia
Malus x zumi	Zumi Crabapple
Myrica cerifera	Wax Myrtle

Vines

Latin Name	Common Name
Ficus pumila	Fig Vine
Gelsemium sempervirens	Carolina Jessemine
Parthenocissus tricuspidata	Boston Ivy
Smilax lanceolata	Smilax
Trachelospermum asiaticum	Asiatic Jasmine
Trachelospermum jasminoides	Star Jasmine

Native Plants for Natural Areas

Latin Name	Common Name
Aesculus pavia	Red Buckeye
Ageratum	Hardy Ageratum
Asimina triloba	PawPaw
Asclepias tuberosa	Butterfly Weed
Betula nigra	River Birch
Callicarpa americana	American Beautyberry
Calycanthus floridus	Carolina Sweetshrub
Carpinus caroliniana	American Hornbeam
Cercis canadensis	Redbud
Chionanthus virginicus	Fringe Tree
Clethera accuminata	Summersweet
Coreopsis	Coreopsis
Cornus florida	Flowering Dogwood
Crataegus marshallii	Parsley Hawthorn
Daucus corata	Queen Annes Lace
Euonumus americana	Hearts a Bustin'
Fagus grandifolia	American Beech
Fothergilla gardenia 'Mt. Airy'	Fothergilla selections
Halesia diptera	Silver Bell
Hibiscus militaris	Swamp Hibiscus
Hydrangea quercifolia	Oakleaf Hydrangea
Ilex decidua	Deciduous Holly
Kalmia latifolia	Mountain Laurel
Magnolia macrophylla	Bigleaf Magnolia
Magnolia virginiana	Sweet Bay Magnolia
Prunus americana	Wild Plum
Rudbeckia	Black Eye Susan
Schizachyrium scoparium	Little Bluestem
Violet odorata	Sweet Violet

Shrubs and Ground Cover

Latin Name	Common Name
Abelia grandiflora	Glossy Abelia
Agarista populifolia	Florida Leucothoe
Aspidistra elatior	Aspidistra
Berberis thunbergii	Red Leaf Barberry
Clethera accuminata	Summersweet
Cotoneaster horizontalis	Cotoneaster
Cotoneaster lacteus	Parney's Cotoneaster
Cyrtomium falcatum	Holly Leaf Fern
Euonymus alatus	Winged Euonymus
Euonumus americana	Hearts a Bustin'
Forsythia intermedia	Forsythia
Fothergilla gardenia 'Mt. Airy'	Fothergilla selections
H. quercifolia 'Alice'	Oakleaf Hydrangea
H. quercifolia 'Pee Wee'	Oakleaf Hydrangea
H. quercifolia 'Snow Flake'	Oakleaf Hydrangea
H. quercifolia 'Snowqueen'	Oakleaf Hydrangea
Hamamelis virginiana	Witchhazel
Ilex cornuta "Burforii"	Burford Chinese Holly
Ilex latifolia	Luster-Leaf Holly
Ilex vomitoria	Yaupon
Ilex x messerve 'Blue Princess'	Blue Princess Holly
Ilex x 'Nellie Stevens'	Nellie Stevens Holly
Jasminum floridum	Florida Jasmine
Jasminum mesnyi	Primrose Jasmine
Juniperus conferta	Shore Juniper
K. latifolia 'Minuet'	Mountain Laurel (Dwarf)
K. latifolia 'Sarah', 'Nathan Hale'	Mountain Laurel
Leucothoe fontanesiana	Leucothoe
Liriope muscari	Liriope
Myrica cerifera	Wax Myrtle
Nandina domestica	Nandina
Ophiopogon japonicus	Mondo
Prunus laurocerasus 'Schipkaensis'	Skip Laurel
Raphiolepis indica	Indian Hawthorn
Rosa 'Radrazz'	Knockout Rose
Spiraea cantoniensis	Reeves Spirea
Spiraea thunbergii	Baby's Breath Spirea
Spiraea vanhouttei	Vanhoutte Spirea
Ternstroemia gymnanthera	Cleyera
Vinca major	Vinca

Riparian Plants for Creek Stabilization

Latin Name	Common Name
Trees	
Acrer rubrum (FAC)	Red Maple
Betula nigra (FACW)	River Birch
Cornus amomum	Silky Dogwood
Cornus foemina (FACW-)	Swamp Dogwood
Magnolia virginiana (FACW+)	Sweet Bay Magnolia
Nyssa aquatica (OBL)	Water Tupelo
Quercus michauxii	Swamp Chestnut Oak
Quercus nigra (FAC)	Water Oak
Quercus phellos (FACW-)	Willow Oak
Quercus shumardii (FACW-)	Shumard Oak
Salix nigra (OBL)	Black Willow
Taxodium distichum (OBL)	Bald Cypress
Grasses/Herbs	
Amorpha fruticosa (FACW)	False Indigo
Andropogon gerardii (FAC)	Big Blue Stem
Asclepias incarnata (OBL)	Milkweed
Aster sp.	Aster
Echinacea purpureum	Purple Cone Flower
Eupatorium purpureum	Joe-Pye Weed
Helenium autumnale (FACW)	Sneeze Weed
Helianthus simulans	Swamp Sunflower
Juncus effuses	Common Rush
Lobelia cardinali	Cardinal Flower
Panicum virgatum	Switch Grass
Schizachyrium scoparium (FACU)	Little Blue Stem
Scirpus sp.	Wool Rush
Sorghastrum nutans (FACU)	Indian Grass
Tripiscum dachtyoides	Gamma Grass
Shrubs	
Cephalanthus occidentallis (OBL)	Buttonbush
Hydrangea querciflora (FACU)	Oak leafed Hydrangea
Ilex cassine (FACW)	Dahoon Holly
Itea virginica (FACW+)	Virginia Sweetspire
Myrica cerifera (FAC+)	Wax Myrtle
Rhododendron sp.	Native Azalea
Viburnum nodum (FACW+)	Possumhaw
Ferns	
Dryopteris erythrosora	Autumn Fern
Onoclea sensibilis (FACW)	Sensitive Fern
Osmunda sp. (FACW+)	Cinnamon Fern
Woodwardia areolata (OBL)	Netted Chain Fern

The standards set forth in this Section 11 shall apply to the design of lighting and screening within Lane Parke (the "Lighting and Screening Standards").

LIGHTING

Lighting fixtures will be provided throughout Lane Parke sufficient to produce an average of 1.5 foot candles of light for all public areas for the comfort and safety of patrons and residents. The light fixtures will be thoughtfully placed so as not to detract from the architecture but enhance the massing and details of the varied styles, and generally in accordance with the following:

Street lighting

The traditional acorn styled street light will be used on all streets within Lane Parke. Light poles will be appropriately spaced to provide an average of 1.5 foot candles of light coverage. In addition, ground up lighting will be placed at all street tree locations and where appropriate at building facades. Storefronts will contribute to the light levels due to the large amount of glass area required for each building facade.

Building Facades

A variety of wall sconces and recessed lighting fixtures will be used throughout Lane Parke, which will be located at appropriate locations in order to highlight entrances, public walkways and specific shops. Architectural accent lighting will also be used and will be located on the rear of parapets and on the roofs to highlight special architectural features.

Structured Parking

The primary source of illumination for the Parking Structure will be metal halide fixtures hung from the ceiling and appropriately spaced. On the roof top level of the Parking Structure, pole lighting will be employed but will be supplemented with recessed wall mounted fixtures in order to limit the amount of pole lights and light spillage.

IDENTIFYING FEATURES

1. Classic Acorn Street Light
2. Subtle illumination on street – not too bright
3. Accent lighting on architectural features and trees
4. Bright illumination in parking decks

SCREENING

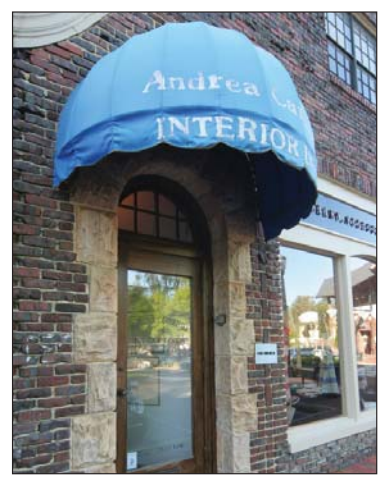
All mechanical equipment will be screened so that no portion of the equipment is visible from an eye level view or from below. Screening materials shall be complementary to the building materials used in adjacent structures. Where reasonably possible, forms of trellises will be used as a roof element to provide supplemental screening for such equipment. To the extent mechanical equipment is visible from above, reasonable measures shall be employed to minimize the visibility of such equipment, including painting such equipment to match the screening enclosure or the roof.

The standards set forth in this Section 11 shall apply to the design of signs and awnings within Lane Parke (the "Signage Plan"), and all signs and awnings shall be approved by the Design Committee in accordance with the requirements of the City Code.

VILLAGE ROMANTIC

The most common types of signage in this style are painted plaques hung from a single decorative bracket mounted perpendicular to the face of the building. Other types of signage include those printed on awnings over entrances, stenciled/painted script on linear plaques over entrances and stenciling on storefront glass.

Typical sign size classification: 2'x 3' for hanging signs – Other types will vary with building configuration.



SOUTHERN MERCANTILE

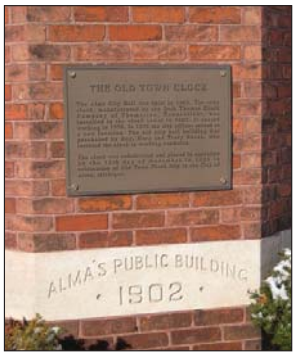
Large and bold lettering mounted (or stenciled) onto friezes and/or head casing of storefronts, as well as painted lettering on awnings over entrances and storefront glass are the most common types of signage in this style. Painted masonry (frequently on the sides of corner buildings) and hanging signs similar to those found in Village Romantic are also common.

Typical signage size classification: 6-8' x 2' for storefront signage. Painted masonry can cover large expanses of side walls. Other types will vary with building configuration.

BIRMINGHAM CLASSIC

Signage tends to be less bold than in other styles. The highest style examples will have the building or occupant's name carved into the frieze or pediment. Small plaques either wood or cast metal are also frequently mounted on the building surfaces as well as lettering on awnings. Site permitting, classically detailed free standing signs or monuments are also appropriate.

Typical signage size classification: 3-4' x 6-12" sized to fit within frieze applications. Wall mounted plaques and free standing signage will vary with building configuration.



VILLAGE MID-CENTURY

The more austere surfaces of these buildings are often enriched by large painted or mounted signs over entrances and/or parapets. Awnings with stenciled or mounted signage or perpendicular hanging signs also can add liveliness to this style.

Typical signage size classification: Painted signage can span across several bays of a building's façade. Mounted signage tends to be of a similar scale to those found on Southern Mercantile buildings, however it can and often is applied to a building in a vertical orientation.

PARKING

To service the parking demands of the improvements to be constructed within Lane Parke, not less than 1,201 parking spaces are projected to be provided (the "Total Parking Supply") as follows:

Surface Parking	1,013 spaces
Parking Structure	188 spaces
Total	**1,201 spaces**

Surface parking figures include Ground Level parking spaces within the Parking Structure.

Parking spaces in excess of the Total Parking Supply may be provided.

Based upon the methodology set forth herein, the Total Parking Supply will be sufficient to (i) satisfy existing zoning standards and (ii) meet the anticipated parking demand created by the uses and improvements of Lane Parke.

The Total Parking Supply satisfies the requirements of existing zoning when using the shared parking methodology permitted by the Village Overlay Standards. The Village Overlay Standards require that approximately 1,136 parking spaces be provided (the "Code Parking") to service the uses and improvements to be included within Lane Parke. The Code Parking reflects the number of parking spaces required for non-shared uses under Section 129-555(a) of the Village Overlay Standards, as reduced for shared parking arrangements in accordance with Section 129-555(b)(3)(d) thereof, which provides that "the cumulative requirements of uses sharing the parking may be reduced for uses having different hours of operation or different peak periods of demand . . . [provided the] proposed reduction shall be based upon recognized industry sources, such as the most recent edition of the Urban Land Institute Shared Parking Model." As more particularly set forth in the Shared Parking Analysis (as defined below), the Code Parking was determined by applying the shared parking model established by the Urban Land Institute.

To evaluate anticipated parking demand within Lane Parke, Walker Parking Consultants ("Walker"), a leading national parking consultant, has prepared a Shared Parking Analysis, a copy of which has been submitted with this PUD Application as Appendix A (the "Shared Parking Analysis"). In preparing the Shared Parking Analysis, Walker has utilized the methods prescribed by *Shared Parking, 2nd Edition* (as updated as of January, 2005), an industry standard publication commissioned and approved by the Urban Land Institute and the International Council of Shopping Centers.

The Shared Parking Analysis concludes, among other things, as follows:

- 1,136 parking spaces are required to serve Lane Parke during periods of peak demand (7:00 p.m. on a Saturday in December).
- Surplus parking is projected to be available 365 days per year.

In accordance with the recommendations of the Shared Parking Analysis, the Total Parking Supply shall be provided, subject only to Permitted Attrition (as defined below), in order to meet projected demand and satisfy the Code Parking.

The Parking Structure shall contain bicycle racks conveniently located to encourage bicycle use.

The Parking Structure is designed to have three (3) parking levels, one (1) level on grade and two (2) levels above grade. At the request of the City, on terms mutually acceptable to the City and the Project Owner, the Project Owner will agree to construct the Optional City Parking Level in accordance with the Design Standards.

"Shared Parking Opinion" shall mean an opinion, addressed to the City, issued by Walker or another nationally recognized parking consultant approved by the City certifying that any increase in the square footage of any specific use in excess of the applicable Shared Parking Assumption for such specific use shall not create parking demand in excess of the Total Parking Supply. If the opening for business by an occupant of space in Lane Parke shall cause the square footage of any specific use (as described in the table below) to exceed the Shared Parking Assumption for such specific use, the Project Owner shall deliver to the zoning officer, prior to such occupant's opening for business, a Shared Parking Opinion. The Project Owner shall have the right to increase the Total Parking Supply through the use of valet services, off-site parking arrangements, the construction of additional parking spaces or otherwise in order for a Shared Parking Opinion to be issued.

"Shared Parking Assumptions" shall mean:

Land Use	Factor	Unit
Retail	94,273	square feet of Net Leasable Area
Pharmacy	9,951	square feet of Net Leasable Area
Fine/Casual Dining	13,505	square feet of Net Leasable Area
Family Restaurant	8,230	square feet of Net Leasable Area
Fast Food	8,229	square feet of Net Leasable Area
Hotel-Business	100	rooms
Residential Shared, Rental	276	units
Office	25,043	square feet of Net Leasable Area
Bank (Drive In Branch)	4,500	square feet of Net Leasable Area
Grocery	27,312	square feet of Net Leasable Area

"Permitted Attrition" shall mean the permitted reduction in the Total Parking Supply due to handicap parking requirements and permissible variations in the Lane Parke Plan, which shall not exceed 3% of the Total Parking Supply.

TRAFFIC AND ACCESS

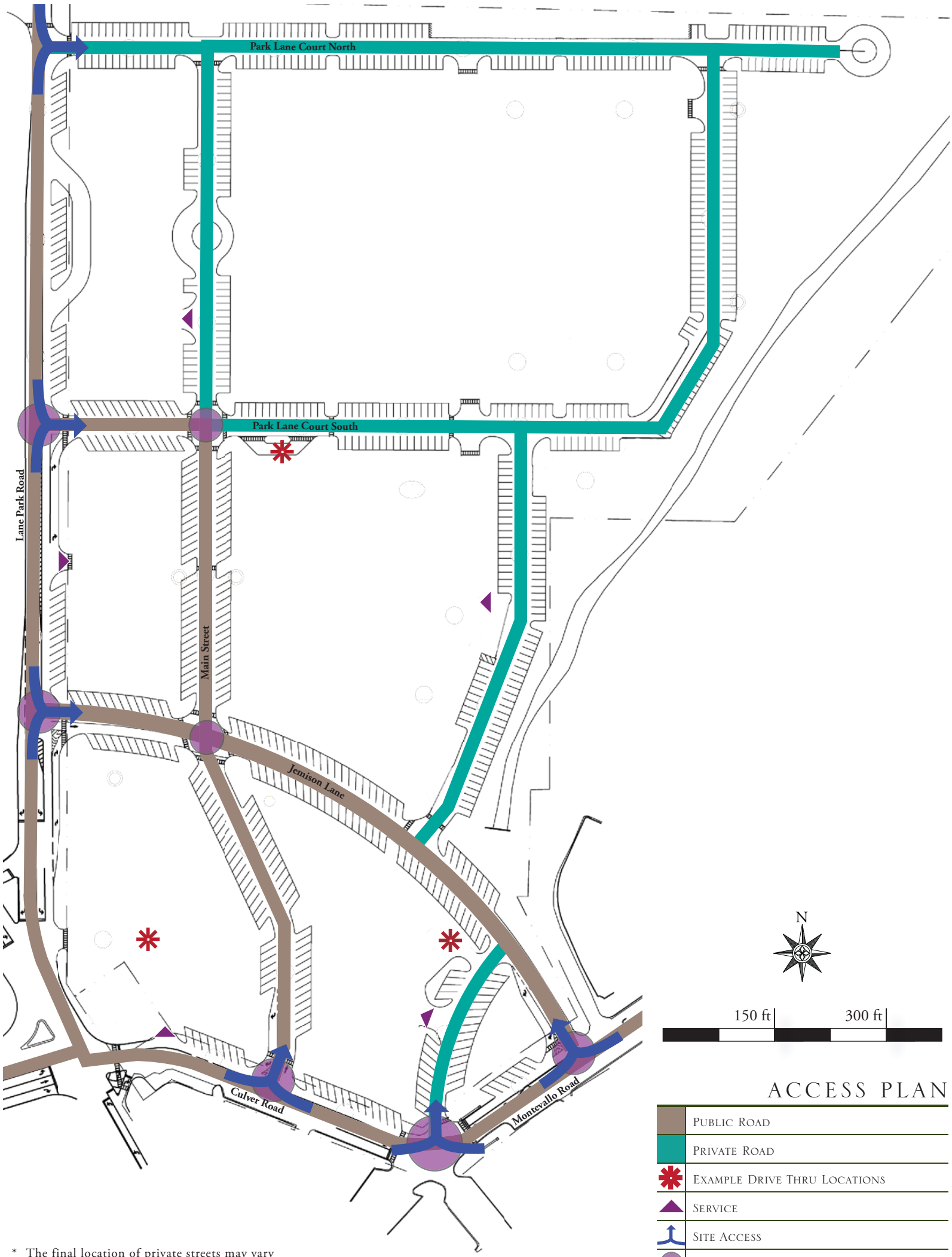
The plan of traffic and access for Lane Parke shall be as more particularly set forth herein in this Section 13 (the "Traffic and Access Plan"). The traffic and access improvements constructed in connection with the Lane Parke Plan shall be in accordance with the Traffic and Access Plan.

The Traffic and Access Plan has been prepared in accordance with the recommendations of a Traffic Impact Study prepared by Skipper Consulting, Inc, a leading regional traffic consultant, a copy of which has been submitted with this PUD Application as Appendix B (the "Traffic Impact Study").

The Traffic Impact Study recommends that the following improvements be constructed to better service the traffic demands resulting from the uses and improvements to be included within Lane Parke (collectively, the "Traffic Improvements"):

- Widening of Lane Park Road to a three lane cross section from north of the center access to the intersection of Cahaba Road/Culver Road/U.S. Hwy. 280 ramps
- Constructing right turn lanes into the south and center accesses on Lane Park Road
- Constructing a right turn lane on Lane Park Road southbound turning onto the U.S. Hwy. 280 entrance ramp
- Widening of Culver Road to a three lane cross section
- Restriping Montevallo Road to provide a left turn lane into the site access
- Modifying the traffic signal at the intersection of Cahaba Road/Lane Park Road/Culver Road/U.S. 280 Ramps to allow for a protected-permissive left turn arrow for traffic turning left from the U.S. 280 ramp northbound onto Cahaba Road and Lane Park Road

In accordance with the recommendations of the Traffic Impact Study, the Traffic Improvements shall be constructed and/or implemented.

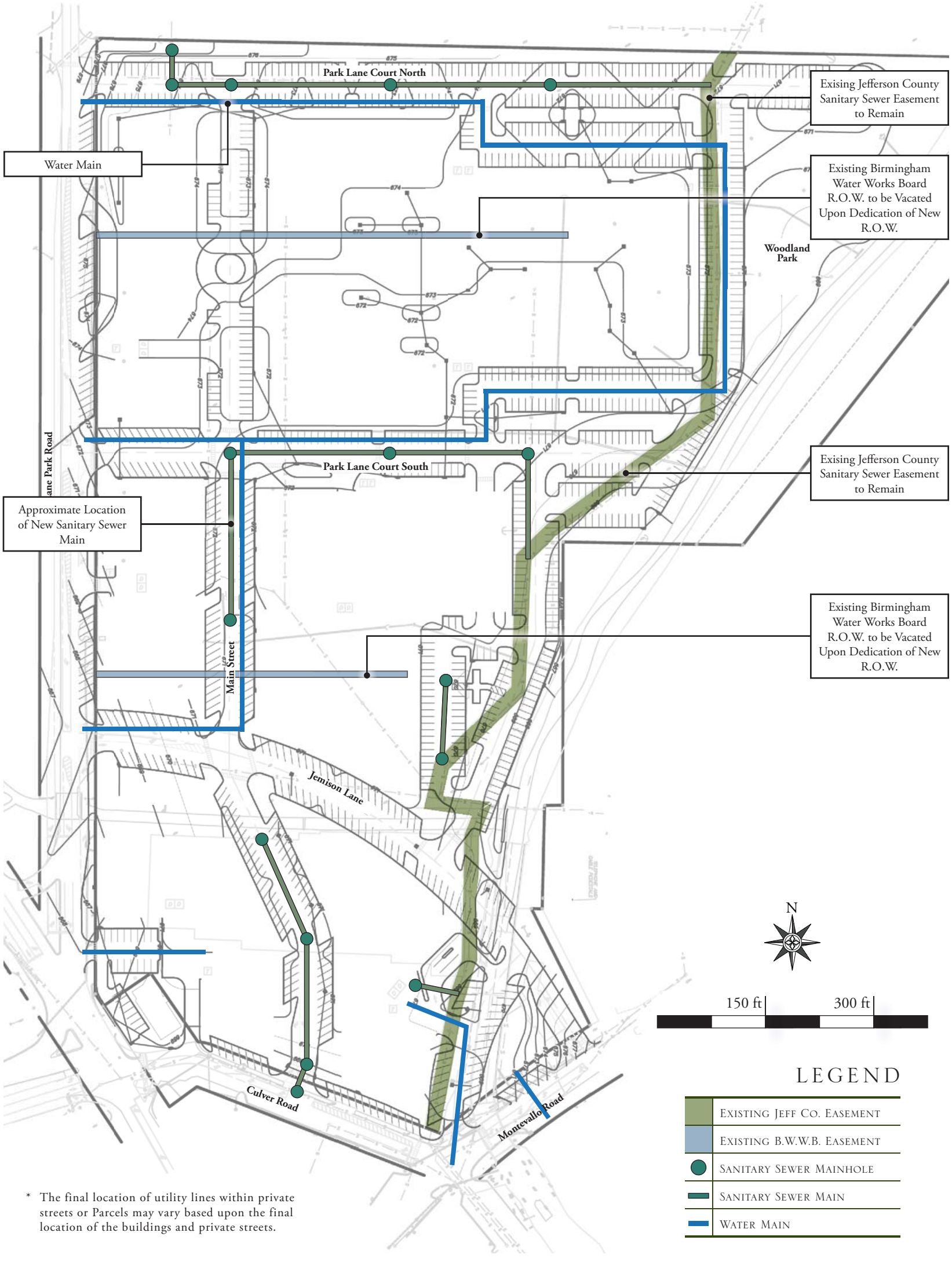


ACCESS PLAN

	Public Road
	Private Road
	Example Drive Thru Locations
	Service
	Site Access
	Gateway

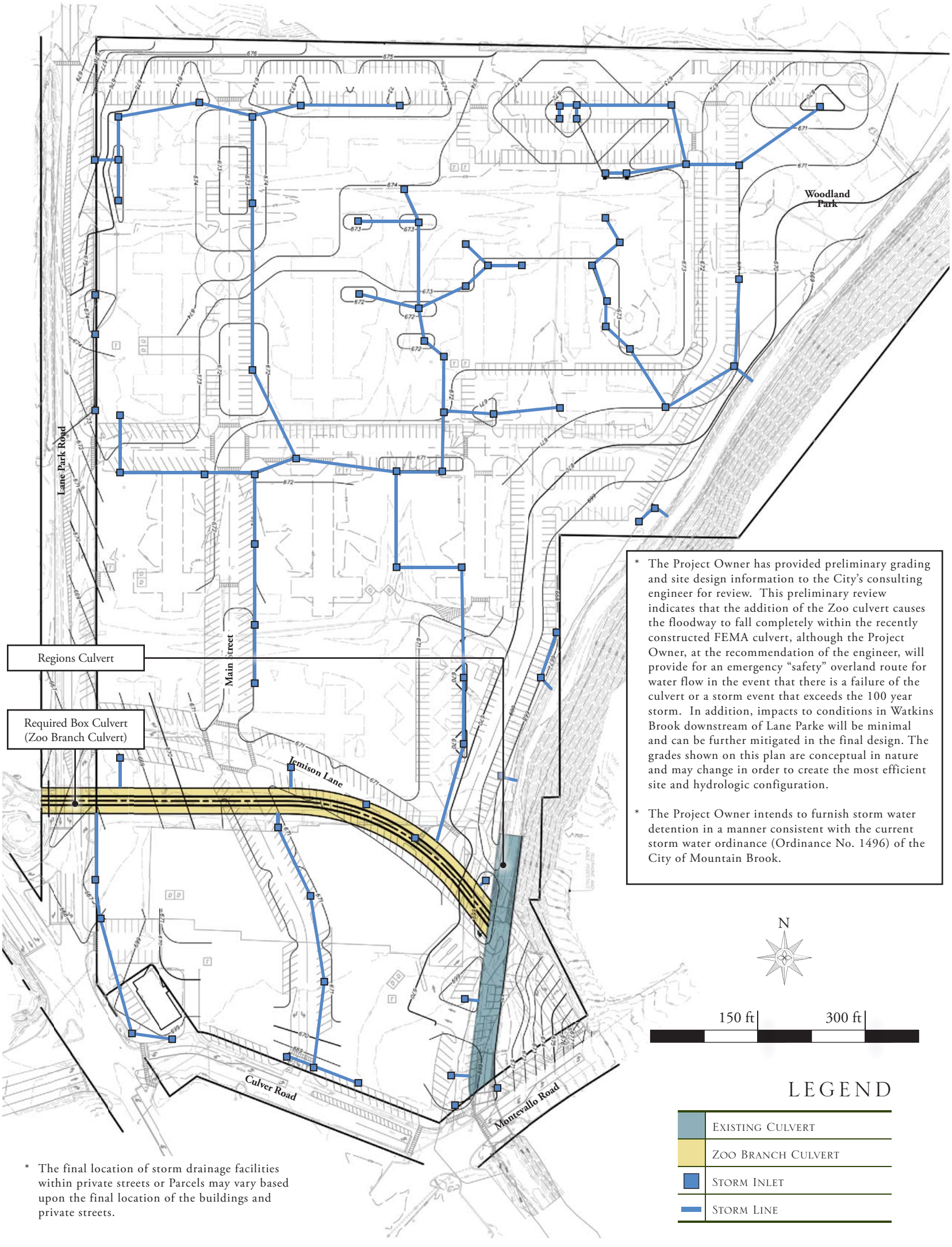
* The final location of private streets may vary based upon the final location of the buildings.

Utilities Plan



* The final location of utility lines within private streets or Parcels may vary based upon the final location of the buildings and private streets.

Storm Drainage Plan



* The Project Owner has provided preliminary grading and site design information to the City's consulting engineer for review. This preliminary review indicates that the addition of the Zoo culvert causes the floodway to fall completely within the recently constructed FEMA culvert, although the Project Owner, at the recommendation of the engineer, will provide for an emergency "safety" overland route for water flow in the event that there is a failure of the culvert or a storm event that exceeds the 100 year storm. In addition, impacts to conditions in Watkins Brook downstream of Lane Parke will be minimal and can be further mitigated in the final design. The grades shown on this plan are conceptual in nature and may change in order to create the most efficient site and hydrologic configuration.

* The Project Owner intends to furnish storm water detention in a manner consistent with the current storm water ordinance (Ordinance No. 1496) of the City of Mountain Brook.

* The final location of storm drainage facilities within private streets or Parcels may vary based upon the final location of the buildings and private streets.

Lane Parke is projected to be developed in four (4) Phases, as more particularly depicted below. However, at the election of the Project Owner, each of the Phases may be constructed concurrently, and nothing in this PUD Application shall be construed to require that the Phases be constructed in any particular order. The schedule of construction, subject to force majeure, is anticipated to be as follows:

Residential Phase

Commencement will occur on or before the date that is one (1) year following approval of this PUD Application.

Substantial completion of improvements within the Residential Phase is anticipated to occur within twenty-six (26) months of commencement of construction of the Residential Phase.

Grocery/Commercial Phase

Commencement anticipated on or before the date that is twenty-six (26) months following approval of this PUD Application.

Substantial completion of improvements within the Grocery/Commercial Phase is anticipated to occur within twenty four (24) months of commencement of construction of the Grocery/Commercial Phase.

Retail Phase

Commencement anticipated on or before the date that is six (6) months following completion of improvements in the Grocery/Commercial Phase.

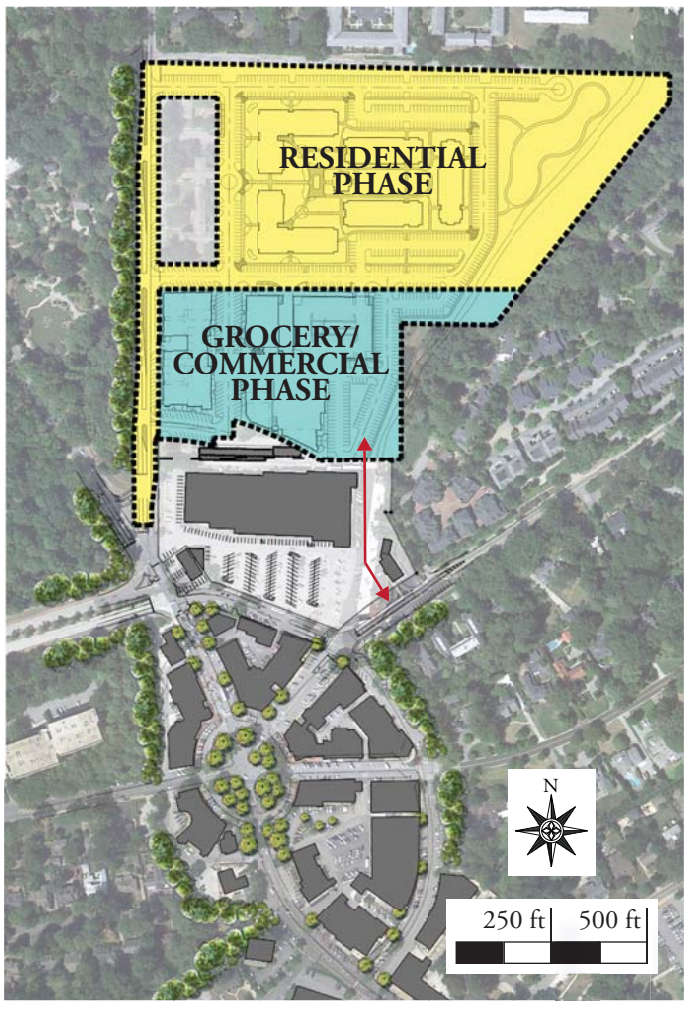
Substantial completion of improvements within the Retail Phase is anticipated to occur within twenty four (24) months of commencement of construction of the Retail Phase.

Inn Phase

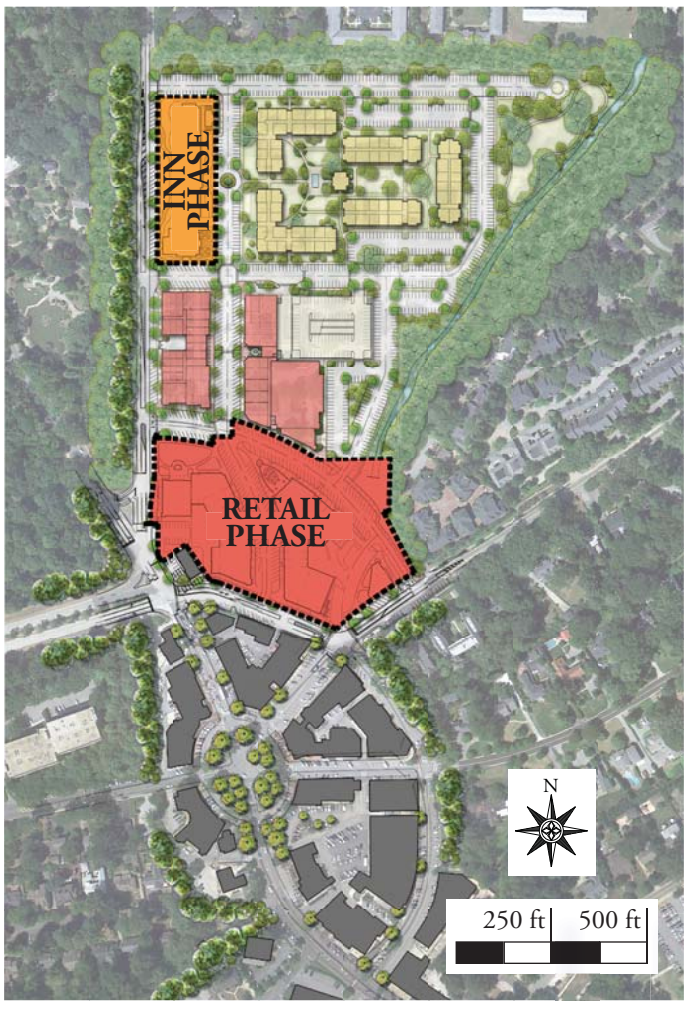
Commencement anticipated on or before the date that is four (4) years following approval of this PUD Application.

Substantial completion of all improvements within the Inn Phase is anticipated to occur within twenty four (24) months of commencement of construction of the Inn Phase.

Residential Phase and Grocery/Commercial Phase



Inn Phase and Retail Phase



SUBDIVISION PLAT

As part of the Lane Parke Plan, the Property will be resurveyed and subdivided. On or before the commencement of construction of the first Phase in Lane Parke, the Project Owner will submit an application with the Planning Commission for approval of a preliminary subdivision plat creating Parcels and rights of way consistent with the approved Lane Parke Plan.

VACATION OF PUBLIC RIGHTS OF WAY

In order for the development of Lane Parke to commence, it will be necessary that certain public streets and rights of way located within Lane Parke be vacated. Such streets and rights of way are more particularly shown on that certain Map of Dedication recorded in Map Book 120, Page 34 in the Office of the Judge of Probate of Jefferson County, Alabama, a copy of which is attached as Schedule I to this Plan of Subdivision, Ownership, Maintenance and Restrictive Covenants. Prior to the commencement of construction of each Phase, the Project Owner will submit a Declaration of Vacation to be approved by the Planning Commission and City Council with respect to the applicable streets located in such Phase.

OWNERSHIP AND MAINTENANCE

The Project Owner is the owner of the Evson Parcel. RC Limited, LLC is the owner of the Ray Parcel.

The Project Owner intends to market the space in Lane Parke for lease to commercial or residential tenants, as applicable, though Parcels or Units may be sold as market conditions dictate. Improvements such as private streets, sidewalks, utilities, parking structures and parks will be conveyed to and owned by the Master Association and subjected to use restrictions pursuant to the Master Declaration (as defined below) and/or other recorded restrictions. Public streets and rights of way shall be conveyed or dedicated to the City. Improvements within the Open Space Use Area or the Public Use Area, regardless of how owned, will generally be open to the public without restriction or charge, except that limited areas of the Parking Structure, rights of way and sidewalks may be reserved for the exclusive use of occupants of certain Parcels or Units.

As more particularly described below, the Property will be subject to a Master Declaration that will provide reciprocal rights to and impose common obligations on each subdivided Parcel within Lane Parke. Additional restrictions and governance structures may be imposed in the form of condominium regimes or restrictive covenants, as described below.

The Master Declaration, the condominium regimes and the restrictive covenant regimes described below shall establish the framework through which the common areas of Lane Parke shall be maintained.

MASTER DECLARATION

The Property will be subject to a Master Declaration of Restrictions and Easements (the "Master Declaration"). The Master Declaration will grant reciprocal easements that benefit and burden all Parcels within the Property, impose restrictions on the use and development of the Parcels and establish protocols for the maintenance of common areas. Anticipated provisions to be included in the Master Declaration are, but shall not be limited to, the following:

Easements

- Easements for ingress and egress over non-public rights of way, sidewalks, parking areas, open space and other common areas.
- Easements for parking over any non-public parking areas that are not otherwise specifically reserved for use by specific Parcels or Units within the Property.
- Easements for the right to enter upon and maintain common areas, including the right to cut and trim trees and other vegetation.
- Easements for the installation and maintenance of utilities.
- Easements for storm water drainage and for the installation and maintenance of the Property's storm water drainage system.
- Easements for lateral support for improvements constructed on or near common boundary lines.

Restrictions

- Restrictions on categories of use within certain Parcels or Units within the Property. By way of example, no uses other than residential uses will be permitted within Parcel 2.
- Prohibitions on specific uses with respect to certain Parcels and Units and with respect to the Property as a whole. By way of example, pawn shops would be a prohibited use in areas where retail is a permitted use.
- Restrictions and regulations governing the design and orientation of improvements on the Property, to the extent not addressed by the Lane Parke Plan.
- Rules and regulations governing the use and operation of the Property.

Common Area Maintenance

- A framework pursuant to which the Project Owner, as declarant, or, alternatively, a Master Association, shall be responsible for the maintenance of all non-public rights of way, sidewalks, parking areas, landscaping, open space and other common areas. The Project Owner or the Master Association, as applicable, shall have the right to levy assessments against each Parcel for such Parcel's pro-rata share of maintenance expenses, and the Project Owner or such Association shall have a continuing lien against such Parcel for non-payment of assessments. The assessment lien shall be subject to the lien of ad valorem taxes.

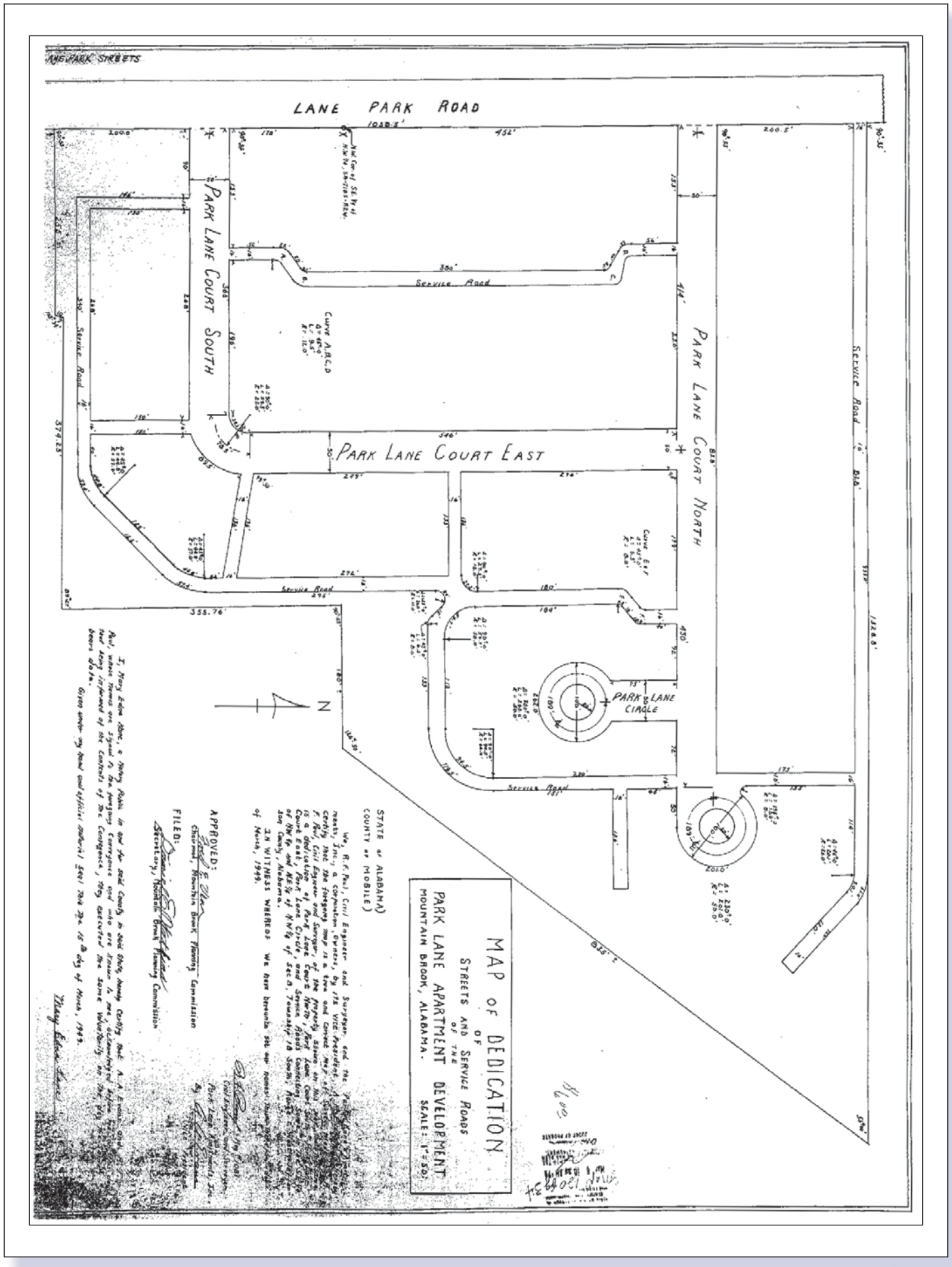
CONDOMINIUM REGIME FOR LANE PARKE

The Parcels in Lane Parke may be submitted to the condominium form of ownership pursuant to the provisions of the Alabama Uniform Condominium Act of 1991, Code of Alabama 1975, §§ 35-8A-101 *et seq.* through one or more condominium regimes (each, a "Condominium Regime"). The Units in any Condominium Regime shall consist of separate blocks of space or buildings within Lane Parke. To illustrate, the following are examples of potential Units within the condominium:

- the building footprints may be designated as land condominium Units;
- the space designated for use as an inn may comprise a Unit;
- blocks of space designated for use as retail or commercial may comprise one or more Units;
- the space designated for use as residential, or individual residential units, may comprise one or more Units;
- the Parking Structure may comprise a Unit; and
- the sidewalks and certain other common areas may comprise one or more Units.

Each Unit will be subject to a Declaration of Condominium (a "Condominium Declaration"). Any Condominium Declaration will establish the condominium Units, grant reciprocal easements that benefit and burden all Units within such Condominium Regime, impose restrictions on the use of the Units and establish protocols for the maintenance of common areas through a condominium association.

Schedule I to Plan of Subdivision, Ownership, Maintenance and Restrictive Covenants



I. **Current Ownership:** The Property is currently owned by the following persons:
- Evson, Inc., an Alabama limited liability company; and
- RC Limited, LLC, an Alabama limited liability company.

II. **Size:** The Property consists of approximately 27 acres. The minimum acreage required to rezone property to a Planned United Development District pursuant to Section 129-261(d) of the City Code is four (4) acres for property covered by an approved village master plan. The Property is covered by the Village Master Plans.

III. **Address:** The Property is currently identified by the following primary addresses:
- 2700 – 2721 Culver Road, Birmingham, Alabama 35223 (Mt. Brook Shopping Center portion of Evson Parcel)
- 2629 Cahaba Road, Birmingham, Alabama 35223 (Ray Parcel)
- 2525 Park Lane Court North, Birmingham, Alabama 35223 (Park Lane Apartments portion of Evson Parcel)

IV. **Tax Parcel Identification Numbers:** The Property is currently identified by the following tax parcel identification numbers as assigned by the Jefferson County Revenue Department:
- 28-08-2-001-005.000 (Park Lane Apartments portion of Evson Parcel)
- 28-08-2-001-006.000 (Mt. Brook Shopping Center portion of Evson Parcel)
- 28-08-2-001-007.000 (Ray Parcel)

V. **Mortgages:** The Property is currently subject to the following recorded mortgages:

- Evson Parcel
  Mortgages in favor of Wells Fargo Bank, National Association:

  Address: Wells Fargo Bank, National Association
  Middle Market Real Estate
  2907 Central Avenue, Suite 109
  Homewood, Alabama 35209

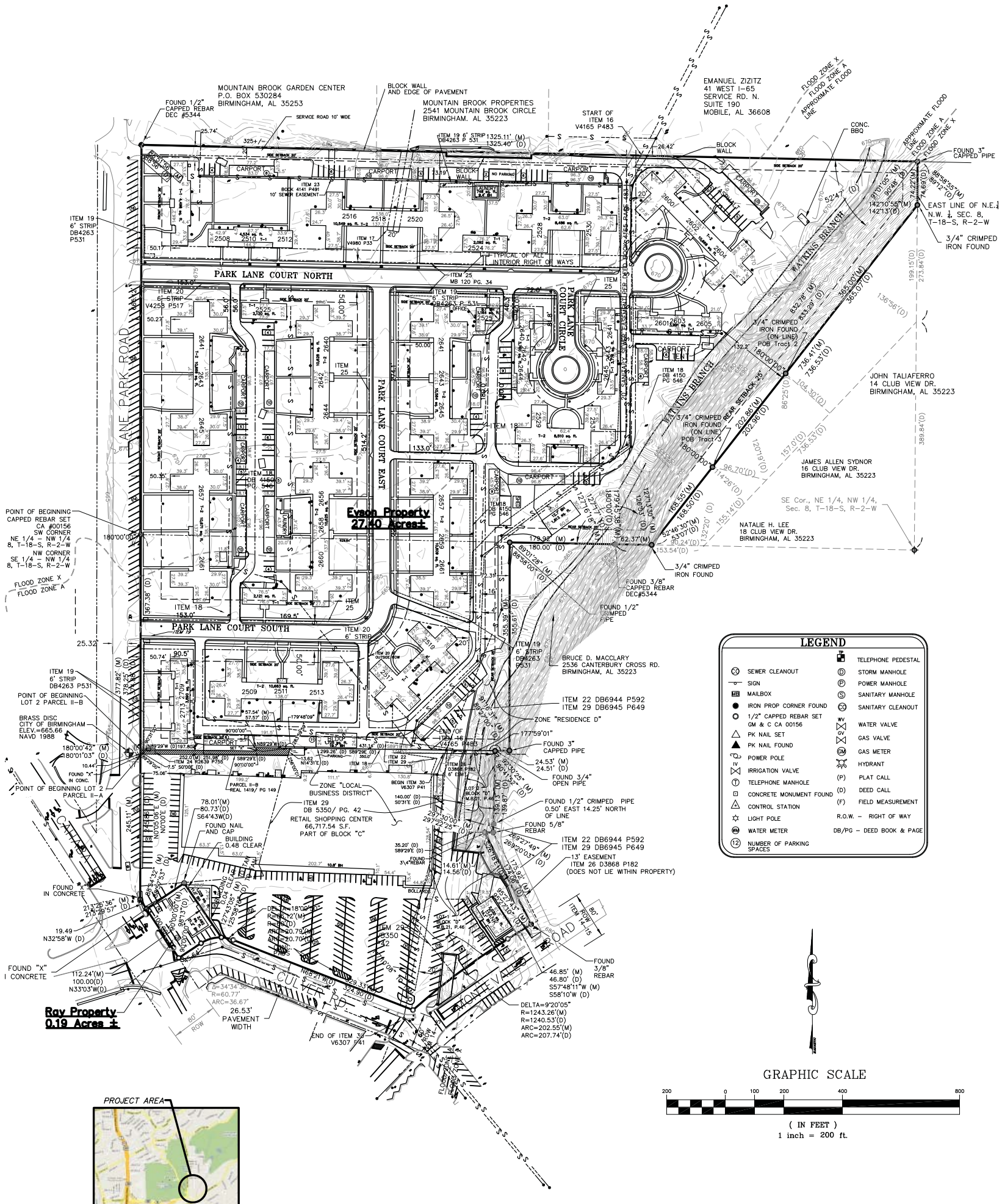
- Ray Parcel
  Mortgage in favor of Regions Bank (as successor to AmSouth Bank):

  Address: Regions Bank
  520 Montgomery Highway
  Vestavia Hills, Alabama 35216

  Mortgage in favor of First Commercial Bank:

  Address: First Commercial Bank
  800 Shades Creek Parkway
  Birmingham AL 35209

Survey - Sheet One



NOTE: See Sheet 2
for Seal and Signature

BOUNDARY SURVEY

SHEET 1 of 2

Legal Description: Evson, Inc. Property

State of Alabama
Jefferson County
City of Mountain Brook

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 88º 58' 55" a distance of 74.22 feet; thence right 37° 49' 05" a distance of 736.41 feet; thence right 52º 46' 30" a distance of 62.37 feet; thence right 00º 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 09° 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 right 52° 16' 55" from the tangent of said curve a distance of 112.24 feet; thence left 90° 00' 00" a distance of 78.01 feet; thence right 91° 05' 28" a distance of 19.49 feet; thence right 33° 25' 36" a distance of 245.11 feet; thence right 00° 00' 42" a distance of 377.82 feet to the Point of Beginning. Said parcel contains 27.40 acres more or less.

Legal Description: Ray Property

State of Alabama
Jefferson County
City of Mountain Brook

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

Commence at the Northwest Corner of the Southeast Quarter of the Northwest Quarter of Section 8, Township 18 South, Range 2 West; thence run South along the West line of said Quarter-Quarter a distance of 377.82 feet; thence left 00° 00' 42" a distance of 245.11 feet; thence left 33° 25' 36" a distance of 19.49 feet, to the Point of Beginning; thence left 91° 05' 28" a distance of 78.01 feet; thence right 90° 00' 00" a distance of 112.24 feet; thence right 125° 40' 04" to the tangent of a curve to the left having a radius of 60.77 feet and a central angle of 34° 34' 36", along the curve an arc distance of 36.67 feet; thence from the tangent of said curve continue a distance of 45.64 feet; thence right 90° 00' 00" a distance of 100.00 feet to the Point of Beginning. Said parcel contains 0.19 acres more or less.

Schedule B - Section II Exceptions

1. Not a Matter of Survey
2. Not a Matter of Survey
3. Not a Matter of Survey
4. None Found
5. Not a Matter of Survey
6. Not a Matter of Survey
7. Not a Matter of Survey
8. Lease dated May 16, 1973 recorded in Volume 3437, Page 702 - Not a matter of survey
9. Lease dated October 23, 1980 recorded in Volume 2000, Page 853 and Volume 3880 Page 957 - Not a matter of survey
10. Memorandum of lease dated February 9, 1990 recorded in Volume 3956, Page 221. Not a matter of survey
11. Lease recorded in Instrument Number 9710/4500 - Not a matter of survey
12. Lease recorded in Instrument Number 9908/1368 - Not a matter of survey
13. Not a matter of survey
14. Map Book 21, Page 46, No restrictions or reservations found, Rights-of-Way are as shown on drawing
15. Map Book 21, Page 46; Map Book 120, Page 34; No restrictions or reservations found, Rights-of-Way are as shown on drawing
16. Easement and right-of-way to Jefferson County recorded in Volume 4165, Page 483; Map Book 31, Page 11 - As shown on survey; Declaration of Vacation recorded in Deed Book 4165, Page 486 - Blanket in Nature
17. Right-of-Way recorded in Volume 4980, Page 31. Does Not Apply; Volume 4980, Page 33 - As Shown on Survey; Volume 2514, Page 455 - Vacated sewer therefore not shown on survey
18. Right-of-Way recorded in Volume 4150, Page 546. As shown on survey
19. Right-of-Way recorded in Volume 4263, Page 531 - Right-of-Way is outside road right-of-way in several areas as shown on survey
20. Right-of-Way recorded in Volume 4258, Page 517 - Right-of-Way is 9' outside road right-of-way on the eastern end as shown on survey
21. Agreement recorded in Volume 4225, Page 162 - Not a matter of survey
22. Right-of-way recorded in Volume 6207, Page 390, Blanket in nature, and Volume 6944 Page 592 - As shown on survey
23. Easement recorded in Volume 4141, Page 491 - As shown on survey
24. Right-of-Way recorded in Volume 2639, Page 755 - As shown on survey
25. Map of street dedication recorded in Map Book 120, Page 34 -As shown on survey
26. Easement for sewer line recorded in Volume 3868 Page 182 - As shown on survey
27. Right-of-Way recorded in Volume 2514, Page 467,Volume 2514, Page 470 - Vacated sewer therefore not shown on survey
28. Easement recorded in Volume 4980, Page 33 - Does not apply
29. Right-of-way recorded in Volume 5350, Page 42 - As shown and Blanket in nature, Volume 6945, Page 649, #F-BD-4702, Alabama Power Sketch - As shown on survey
30. Right of way recorded in Volume 6307, Page 41 - As shown on survey

Boundary Survey General Notes:

1. **Underground utilities & encroachments:** There was no attempt made to determine the location or extent of a possible encroachment beneath the surface. Underground structures and facilities that are shown were located from surface markings or graphically from drawings furnished by the utility. No excavation of underground utilities, underground mines or subsurface building foundations was made as a part of this survey.

2. **Date of survey:** February 9th, 2010 is the date of field survey and the last day the surveyor gathered data for the survey.

3. **Source of Information used:** Deeds listed in exceptions and boundary survey map by Douglas Engineering, dated August 16, 1994, Deed 4234, Page 91, Deed 4448 Page 325, Deed 4447 Page 537, Deed 4447 Page 547, Deed 4447 Page 549, Jefferson County Tax Map.

4. **Signature and seal:** This survey and drawing is not valid without the signature and seal of Van Marcus Peavy, Alabama Professional Land Surveyor.

5. **Type of survey:** This is a Boundary Survey.

6. Property lies in Flood Zone A and Zone X as per community F.I.R.M. Panel #01073C0557G, effective date, September 29, 2006.

7. Setback lines based on Residence D zoning and opinion of Jerry Weems,Building Manager, City of Mountain Brook. Setback lines have changed since Lane Park development and buildings are "grandfathered" for meeting requirements.

I hereby state that all parts of this survey and drawing have been completed in accordance with the current requirements of the Standards of Practice for Surveying in the State of Alabama to the best of my knowledge, information and belief.

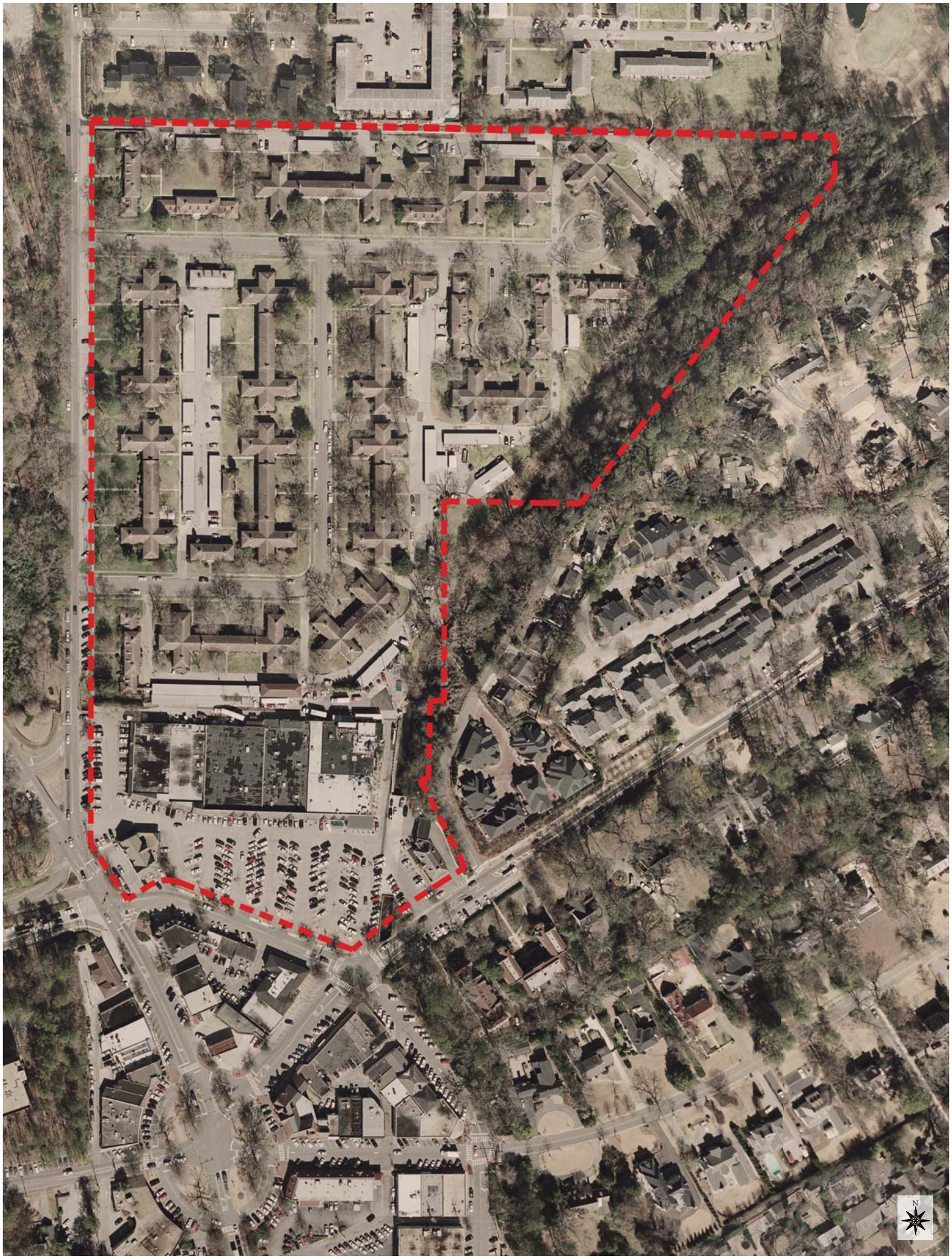
5-19-10

Van Marcus Peavy, PLS 16681 **Date of Signature**

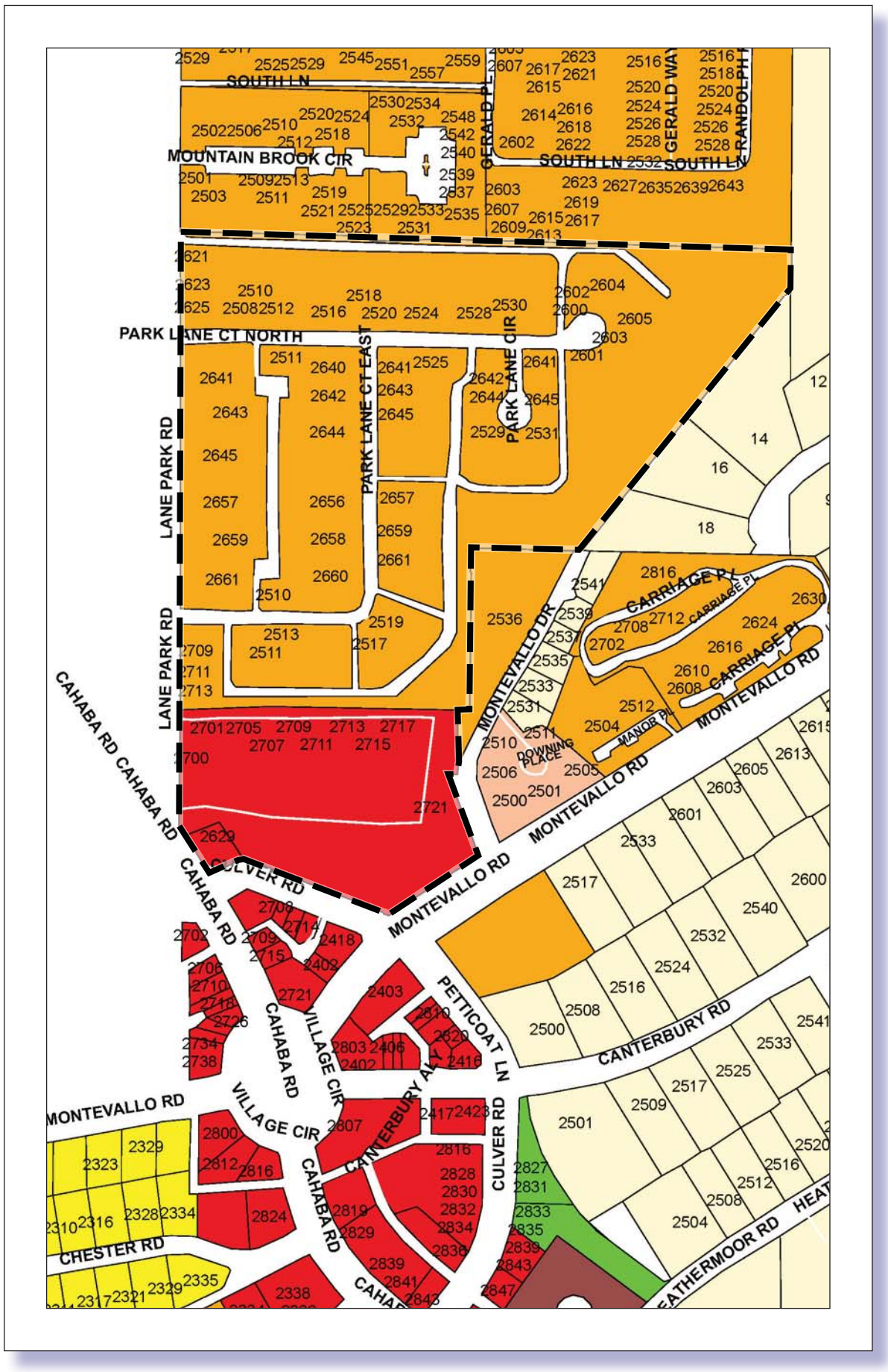
ALABAMA REGISTERED NO. 16681 PROFESSIONAL LAND SURVEYOR VAN MARCUS PEAVY

SHEET 2 of 2

Aerial Photograph



The surrounding land use of Lane Park is generally categorized as multi-family attached residential structures to the north; single-family attached residential and single-family detached residential structures to the east; the City of Birmingham and Birmingham Botanical Gardens to the west; and village commercial to the south.



LEGEND

- Clustered Residential
- Community Shopping
- Local Business District
- Residence A District
- Residence B District
- Residence C District
- Residence D District
- Residence G District
- Recreation District
- RID

LEGAL DESCRIPTION OF THE PROPERTY

State of Alabama
Jefferson County
City of Mountain Brook

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 88º-58'-55" a distance of 74.22 feet; thence right 37°-49'-05" a distance of 736.41 feet; thence right 52º-46'-30" a distance of 62.37 feet; thence right 00º-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 87º-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 2º-03'-01" to the tangent of a curve to the left having a central angle of 34º-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 90º-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.

LEGAL DESCRIPTION OF THE EVSON PARCEL

State of Alabama
Jefferson County

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 88º-58'-55" a distance of 74.22 feet; thence right 37°-49'-05" a distance of 736.41 feet; thence right 52º-46'-30" a distance of 62.37 feet; thence right 00º-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; thence tangent to a curve to the left having a radius of 1243.26 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 right 52°-16'-55" from the tangent of said curve a distance of 112.24 feet; thence left 90°-00'-00" a distance of 78.01 feet; thence right 91°-05'-28" a distance of 19.49 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 27.40 acres more or less.

LEGAL DESCRIPTION OF THE RAY PARCEL

State of Alabama
Jefferson County

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

Begin at the Northwest corner of the Southeast quarter of the Northwest quarter of Section 8 Township 18 South Range 2 West; thence run south along the west line of said quarter – quarter a distance of 377.82 feet; thence left 00°-00'-42" a distance of 245.11 feet; thence left 33°-25'-36" a distance of 19.49 feet, to the Point of Beginning; thence left 91°-05-'28" a distance of 78.01 feet; thence right 90°-00'00" a distance of 112.24 feet; thence right 125°-40'-04" to the tangent of a curve to the left having a radius of 60.77 feet and a central angel of 34°-34'-36" along the curve an arc distance of 36.67 feet; thence from the tangent of said curve continue a distance of 45.64 feet; thence right 90°-00'-00" a distance of 100.00 feet; to the Point of Beginning.

Said parcel contains 0.19 acres more or less.

STEVEN A. BRICKMAN
ATTORNEY AT LAW
(205) 930-5171
sbrickman@sirote.com

SIROTE & PERMUTT
A PROFESSIONAL CORPORATION

February 8, 2012

To Whom It May Concern:

To our knowledge and based upon our review of title due diligence obtained by the Project Owner (as defined in the PUD Application), we confirm that the Property (as defined in the PUD Application) does not currently appear to be subject to any covenants or restrictions of record except as set forth below:

> A restriction encumbering the Ray Parcel contained in that certain Deed recorded in Book 1059, Page 872 in the Office of the Judge of Probate of Jefferson County, Alabama providing that no petroleum products shall be advertised, stored, sold or distributed from the premises for a period of twenty years following the date of the Deed. The date of the Deed is April 17, 1974, a copy of which is attached hereto.

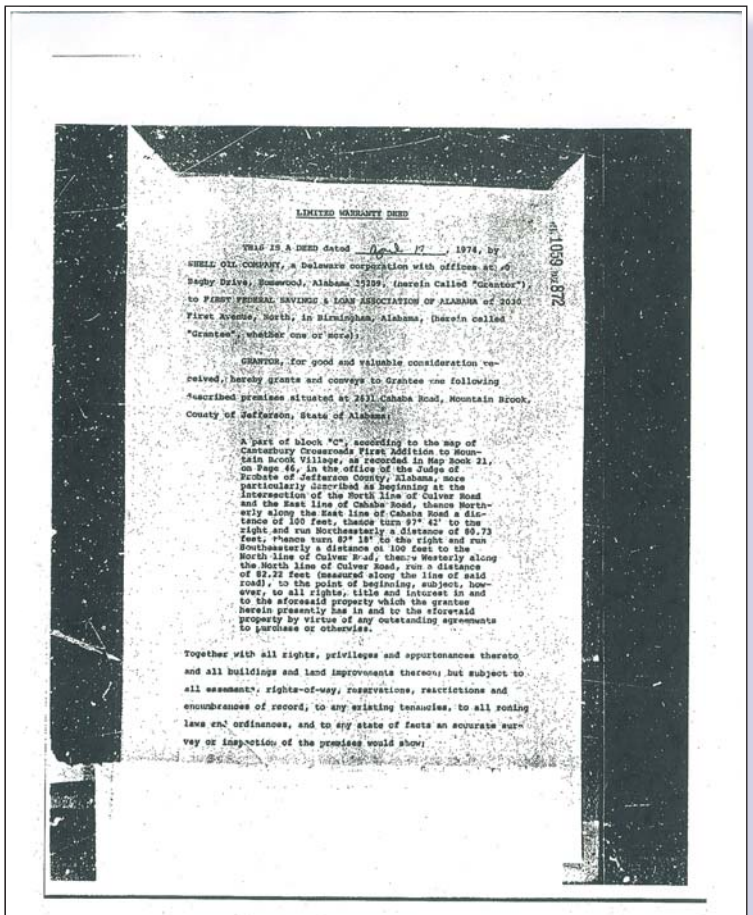
Sirote & Permutt, P.C.

By: Steve A. Brickman
Steven A. Brickman
FOR THE FIRM

SAB/pta

DOCSBHM\1702029\2\

LAW OFFICES AND MEDIATION CENTER
2311 HIGHLAND AVENUE SOUTH BIRMINGHAM, ALABAMA 35205
POST OFFICE BOX 55727 BIRMINGHAM, ALABAMA 35255-5727
TELEPHONE | 205.930.5100 FAX | 205.930.5101 URL | http://www.sirote.com
Birmingham | Huntsville | Mobile



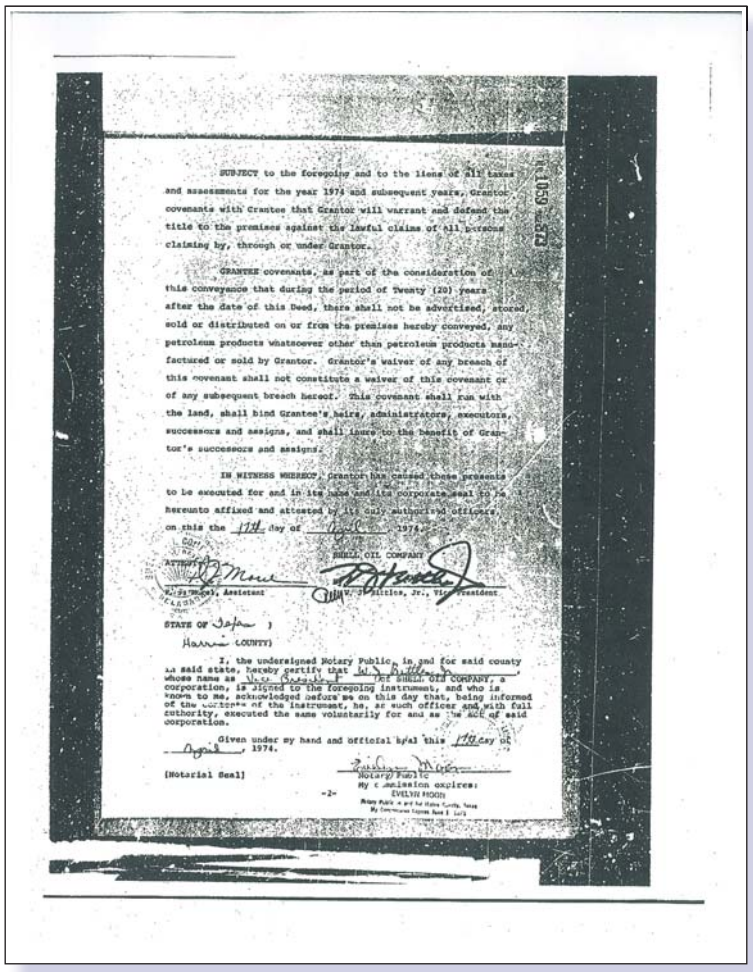
LIMITED WARRANTY DEED

THIS IS A DEED dated April 17, 1974, by SHELL OIL COMPANY, a Delaware corporation with offices at 9 Bagby Drive, Homewood, Alabama 35209, (herein called "Grantor") to FIRST FEDERAL SAVINGS & LOAN ASSOCIATION OF ALABAMA of 2030 First Avenue, North, in Birmingham, Alabama, (herein called "Grantee", whether one or more).

GRANTOR, for good and valuable consideration received, hereby grants and conveys to Grantee the following described premises situated at 2631 Cahaba Road, Mountain Brook, County of Jefferson, State of Alabama:

A part of block "C", according to the map of Canterbury Crossroads First Addition to Mountain Brook Village, as recorded in Map Book 21, on Page 46, in the office of the Judge of Probate of Jefferson County, Alabama, more particularly described as beginning at the intersection of the North line of Culver Road and the East line of Cahaba Road, thence Northerly along the East line of Cahaba Road a distance of 100 feet, thence turn 97° 42' to the right and run Northeasterly a distance of 80.73 feet, thence turn 89° 18' to the right and run Southeasterly a distance of 100 feet to the North line of Culver Road, thence Westerly along the North line of Culver Road, run a distance of 82.22 feet (measured along the line of said road), to the point of beginning, subject, however, to all rights, title and interest in and to the aforesaid property which the grantee herein presently has in and to the aforesaid property by virtue of any outstanding agreements to purchase or otherwise.

Together with all rights, privileges and appurtenances thereto and all buildings and land improvements thereon; but subject to all easements, rights-of-way, reservations, restrictions and encumbrances of record, to any existing tenancies, to all zoning laws and ordinances, and to any state of facts an accurate survey or inspection of the premises would show;



SUBJECT to the foregoing and to the liens of all taxes and assessments for the year 1974 and subsequent years, Grantor covenants with Grantee that Grantor will warrant and defend the title to the premises against the lawful claims of all persons claiming by, through or under Grantor.

GRANTEE covenants, as part of the consideration of this conveyance that during the period of Twenty (20) years after the date of this Deed, there shall not be advertised, stored, sold or distributed on or from the premises hereby conveyed, any petroleum products whatsoever other than petroleum products manufactured or sold by Grantor. Grantor's waiver of any breach of this covenant shall not constitute a waiver of this covenant or of any subsequent breach hereof. This covenant shall run with the land, shall bind Grantee's heirs, administrators, executors, successors and assigns, and shall inure to the benefit of Grantor's successors and assigns.

IN WITNESS WHEREOF, Grantor has caused these presents to be executed for and in its name and its corporate seal to be hereunto affixed and attested by its duly authorized officers, on this the 17th day of April, 1974.

SHELL OIL COMPANY

Attest: E. J. Morel, Assistant Secretary

By: Jerry W. Spittler, Jr., Vice President

STATE OF Texas)
Harris COUNTY)

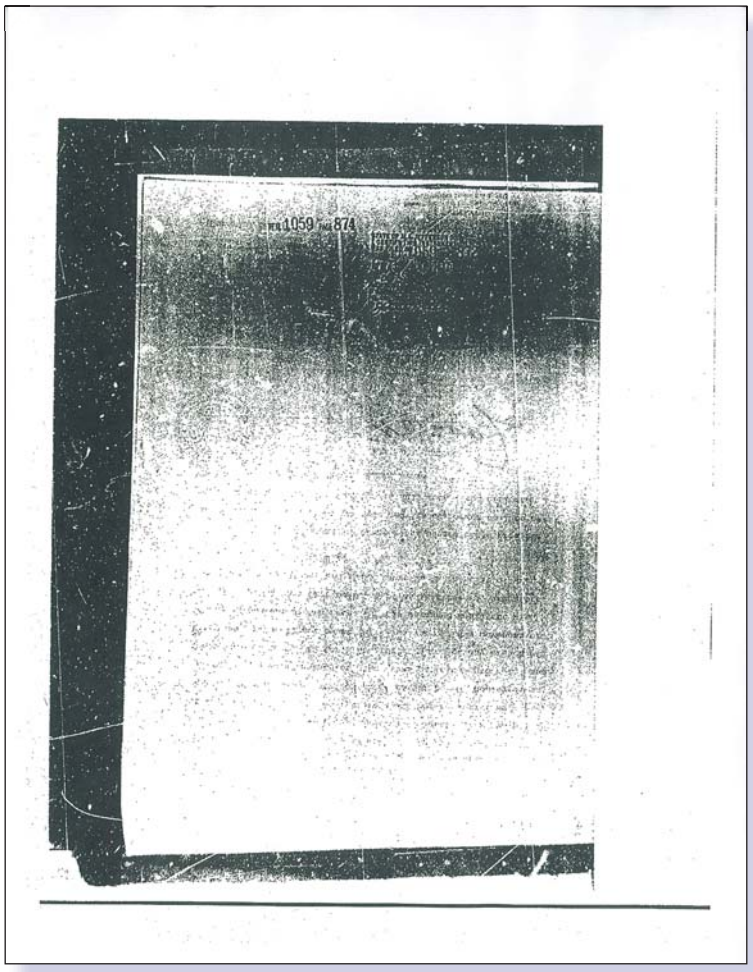
I, the undersigned Notary Public, in and for said county in said state, hereby certify that W. J. Spittler, Jr. whose name as Vice President of SHELL OIL COMPANY, a corporation, is signed to the foregoing instrument, and who is known to me, acknowledged before me on this day that, being informed of the contents of the instrument, he, as such officer and with full authority, executed the same voluntarily for and as the act of said corporation.

Given under my hand and official seal this 17th day of April, 1974.

[Notarial Seal]

Notary Public
My Commission expires:
EVELYN HOGG

-2-



600 20th Street North
Birmingham., Al. 35203
205 251 2871
facsimilie 205 226 9280
Sender's direct dial 205 380 4164

Land Title Company of Alabama

April 16, 2012

Mr. Steve Brickman
Sirote & Permutt, P.C.
2311 Highland Avenue South
Birmingham, Al. 35205

Re: Evson Address Research/Certification of Owners

Dear Steve:

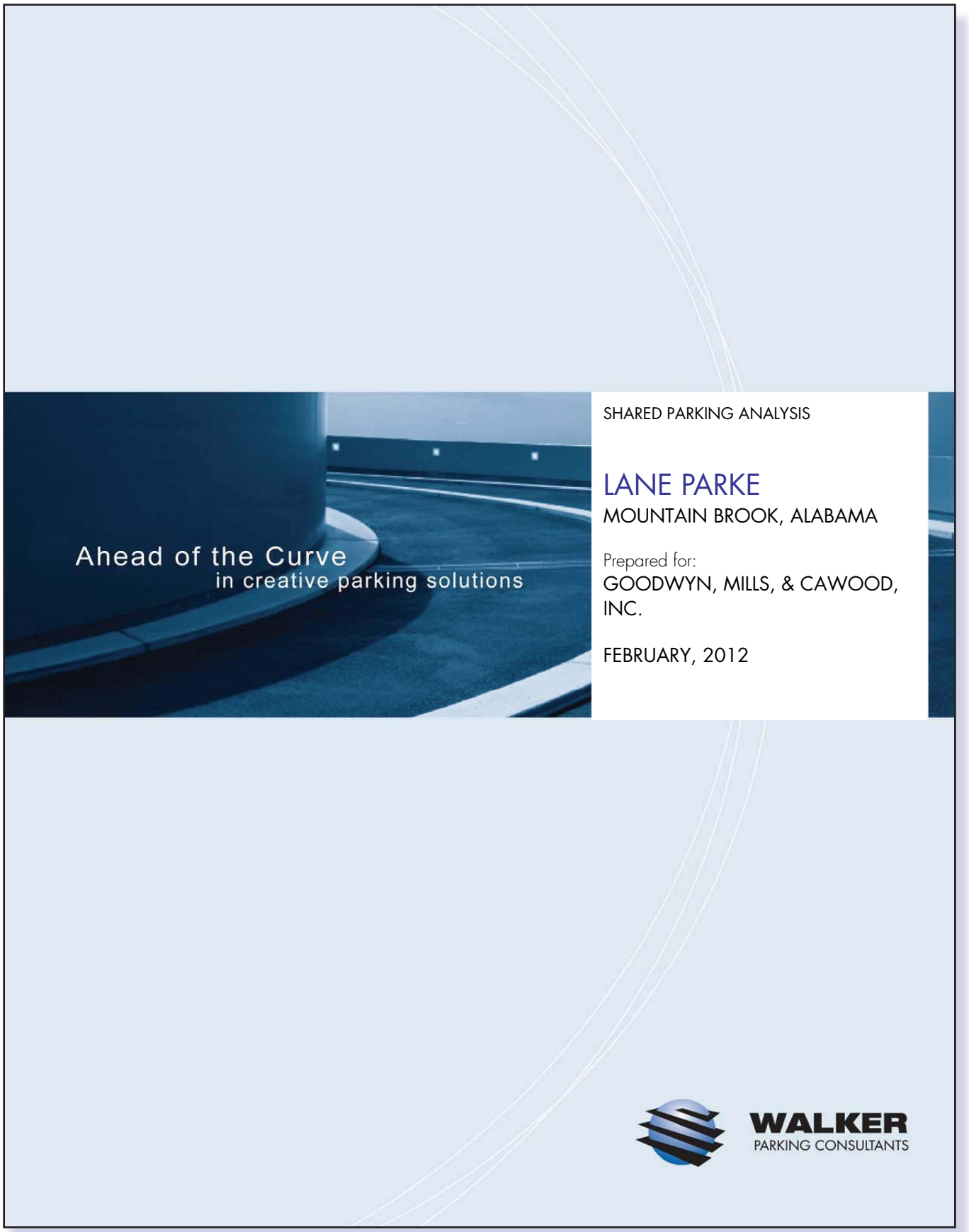
Land Title Company certifies that, as of April 5, 2012, the list of names and addresses attached hereto as Exhibits "A" and "B" is a true and correct list of the names and addresses of all property owners whose property lies within 500 feet of any portion of the Property. The Property is defined as that property identified as Parcel ID. Numbers 28-08-2-001-005; 006; 007 and 008 as shown on the records of the Tax Assessor of Jefferson County, Alabama.

For purposes of identifying the property owners, the property owner is considered to be the person who is shown as the owner of such parcel according to the records of the Tax Assessor of Jefferson County, Alabama.

Sincerely,

Susan R. Gannett, Senior Vice President

A full copy of the Shared Parking Analysis has been submitted as a part of this PUD Application and is available for review at Mountain Brook City Hall.



A full copy of the Traffic Impact Study has been submitted as a part of this PUD Application and is available for review at Mountain Brook City Hall.

TRAFFIC IMPACT STUDY

Lane Parke

Mountain Brook, Alabama

Prepared for:

GOODWYN, MILLS AND CAWOOD, INC.

Prepared by:

SKIPPER CONSULTING INC.

September 2009
Revision 1: May 2010
Revision 2: January 2012

EXECUTIVE SUMMARY
LANE PARKE TRAFFIC IMPACT STUDY

Skipper Consulting ("Skipper") submits this executive summary of its traffic impact study ("Study") for Lane Parke in Mountain Brook, Alabama in connection with a planned unit development application ("PUD Application") submitted for Lane Parke ("Development") to the City of Mountain Brook ("City") by Evson, Inc., its developer ("Evson").

After a thorough review of the traffic impacts of the Development, Skipper believes that the internal site access system and external road improvements proposed by Evson are designed to handle the increased traffic from the Development and will provide traffic benefits to the City.

The new proposed site access system will improve the traffic flow to and from the Development for a variety of reasons. By reducing the number of access points to the public roadway system from twelve (12) to seven (7) – not counting service entrances – drivers traversing the public roadways adjacent to the Development will experience fewer delays which arise from more numerous entry and exit points and will benefit from a streamlined traffic flow in and out of the Development. In addition, removing the existing access to the Mountain Brook Shopping Center from within the intersection of Cahaba Road, Culver Road, and the U.S. 280 ramps will also result in fewer start and stop delays and smooth out traffic patterns. Finally, the internal roads which will be constructed within the Development provide, among other benefits, a direct link between Montevallo Road and Lane Park Road and may decrease the traffic at the intersection of Cahaba Road, Lane Park Road and the U.S. 280 ramps at heavy traffic periods as the public utilizes these internal roads like public streets, thereby alleviating traffic at the busier intersections.

In addition to the improvements generated by the internal site access system, Evson will make a number of changes construction to improve the traffic flow in and around Lane Parke. Evson is committed to (i) widening Lane Park Road to a three lane cross-section, plus right turn lanes into the accesses on Lane Park Road; (ii) constructing a right turn lane from Lane Park Road southbound onto the U.S. Highway 280 entrance ramp; (iii) widening Culver Road to a three lane cross-section which will allow for an improved alignment of traffic crossing from Culver Road onto the U.S. 280 ramp; and (iv) adding a phase to the traffic signal at the intersection of Cahaba Road/Lane Park Road/Culver Road/U.S. 280 ramps to allow for a protective green arrow for traffic exiting U.S. 280 to go north on Lane Park Road and Cahaba Road.

When the proposed improvements, both internal and external, are in place at each stage of construction, the Study demonstrates the traffic at the study intersections will operate at acceptable levels of service during both the a.m. and p.m. peak hours of traffic flow. Likewise, the Study demonstrates that all roadway segments studied will operate at acceptable levels of service on a daily basis. While the left turn exiting the site onto Montevallo Road is projected to continue to operate at a level of service "E" during the p.m. peak hour, this is unchanged from the current level of service. The Study also demonstrates that the projected queues at all the intersections do not block any other adjacent major intersections.

(A) View of the proposed restaurant and inn looking north along Lane Park Road.

(B) View of the inn looking south along Lane Park Road.

C View of the proposed retail at the northwest intersection Main Street and Jemison Lane.

D View north along Main Street of the proposed retail and office/commercial space.

(E) View of the proposed retail at the northeast intersection Lane Park Road and Jemison Lane.

(F) View of the proposed grocery looking northwest along Jemison Lane.

G View of the proposed residential space at the corner of Main Street and Park Lane Court South.

H View east along Jemison Lane of the proposed Village Green and office/commercial space.

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MINDFUL OF THE PAST, LOOKING TO THE FUTURE

EVSON, INC. | DANIEL CORPORATION | GOODWYN, MILLS AND CAWOOD, INC. | HISTORICAL CONCEPTS

SHARED PARKING ANALYSIS

LANE PARKE

MOUNTAIN BROOK, ALABAMA

Prepared for:
GOODWYN, MILLS, & CAWOOD, INC.

FEBRUARY, 2012

WALKER
PARKING CONSULTANTS

Walker Parking Consultants
6602 East 75th Street Suite 210
Indianapolis, IN 46250

Voice: 317.842.6890
Fax: 317.577.6500
www.walkerparking.com

January 6, 2012
Updated February 2, 2012

Jeffrey Brewer
Goodwyn, Mills, and Cawood, Inc.
2701 1st Avenue South
Birmingham, AL 35233

Re: Shared Use Analysis
Lane Parke Mixed-Use Development
Mountain Brook, Alabama
Walker Project # 15-1901.00
FINAL REPORT

Dear Mr. Brewer:

Goodwyn, Mills, and Cawood, Inc. retained Walker Parking Consultants (Walker) to perform a shared parking analysis on the Lane Parke Mixed-Use Development in Mountain Brook, Alabama. The following report details our methodology, analysis and findings surrounding the projected parking demand for this development.

When evaluating parking supply needs for Lane Parke, Walker projected the parking demand exerted during the busiest hour of the busiest month of the year. The philosophy behind this approach is simple; if the planned supply is adequate to meet demand at the pinnacle hour of the year, it will be adequate to meet demand during the other 8,759 hours of the year as well.

PROJECT BACKGROUND

The development at Lane Parke is a mixed-used development featuring retail, office space, restaurant space, and residential. The following uses are planned at build out:

- 94,273 square feet of retail space;
- 9,951 square feet of pharmacy space;
- 13,505 square feet of fine/casual dining space;
- 8,230 square feet of family restaurant space;
- 8,229 square feet of fast food restaurant space;
- 4,500 square feet of bank space;
- 27,312 square feet of grocery space;
- 25,043 square feet of office space.
- 276 Apartments; and
- 100 room hotel space.

METHODOLOGY

Walker designed a shared use parking demand model specifically for Lane Parke. This model is developed from basic demand ratios developed by Walker, the Urban Land Institute, the Institute of Transportation Engineers and other agencies. Base ratios are developed by observing hourly accumulations of vehicles around standalone land uses during the course of a standard year (365 consecutive days) and identifying design conditions for a weekday and a weekend. At the peak hour of the year, a comparison is made between the total number of cars parked and a key driver specific to the land use (square footage for most land uses, rooms for a hotel, bedrooms for a residential complex, seats for a theater or cinema, etc.)

Some base ratios were supplemented by additional data and fieldwork. Base ratios are shown in the following table.

Table 1: Recommended Parking Ratios

	Weekday		**Weekend**				**Total**	
Land Use	Visitor	Employee	Visitor	Employee	Unit	Source	Weekday	Weekend
Retail	2.90	0.70	3.20	0.80	/ksf GLA	1	3.60	4.00
Pharmacy	4.90	1.20	4.00	1.00	/ksf GLA	2	6.10	5.00
Fine/Casual Dining	15.25	2.75	17.00	3.00	/ksf GLA	2	18.00	20.00
Family Restaurant	9.00	1.50	12.75	2.25	/ksf GLA	2	10.50	15.00
Fast Food	12.75	2.25	12.00	2.00	/ksf GLA	2	15.00	14.00
Hotel-Business	1.00	0.25	0.90	0.18	/room	2,5	1.25	1.08
Residential Shared, Rental	0.15	1.5	0.15	1.5	/unit	2,3	1.65	1.65
Office <25,000sq ft	0.30	3.50	0.03	0.35	/ksf GLA	2	3.80	0.38
Bank (Drive In Branch)	3.00	1.60	3.00	1.60	/ksf GLA	2	4.60	4.60
Grocery	3.80	1.00	4.90	0.90	/ksf GLA		4.80	5.80

Sources

1. *Parking Requirements for Shopping Centers*, Second Edition. Washington DC: ULI-The Urban Land Institute, 1999
2. *Parking Generation,* Third Edition. Washington DC: Institute of Transportation Engineers, 2004
3. Data collected by Team Members
5. Gerald Salzman, "Hotel Parking: How Much Is Enough?" *Urban Land*, January 1988.

Walker utilized these basic ratios and specifically tailored them to Lane Parke using three factors to customize the model.

The first factor is a driving ratio. The driving ratio represents the percentage of users arriving at the site by means other than personal vehicle. According to the 2000 U.S. Census, approximately 97 percent of Mountain Brook residents arrive to work via private vehicle.

The second factor is the non-captive ratio. Non-captive ratios are typically expressed as a percentage of users who create no incremental parking demand when visiting more than one land use on the same trip. (For example, the office building employee who walks to a retailer during lunch.) Overall, the effects of the captive market can be significant. The use of the non-captive ratio factor ensures that patrons are not counted twice in the overall parking demand estimate for the study area.

Walker based the non-captive ratios on actual observations at mixed-use developments around the country. Adjustments to base demand ratios to render project-specific ratios are shown in the following table.

Table 2: Adjustments to Base Ratios for Driving and Captive Users at Build-Out

	Driving Ratio				Non Captive Ratio			
	Weekday		Weekend		Weekday		Weekend	
Land Use	**Daytime**	**Evening**	**Daytime**	**Evening**	**Daytime**	**Evening**	**Daytime**	**Evening**
Retail	95%	97%	95%	95%	90%	90%	90%	90%
Employee	90%	90%	90%	90%	100%	100%	100%	100%
Pharmacy	95%	97%	95%	95%	100%	100%	100%	95%
Employee	90%	90%	90%	90%	100%	100%	100%	100%
Fine/Casual Dining	95%	97%	95%	95%	80%	80%	80%	80%
Employee	90%	90%	90%	90%	100%	100%	100%	100%
Family Restaurant	95%	97%	95%	95%	80%	80%	80%	80%
Employee	90%	90%	90%	90%	100%	100%	100%	100%
Fast Food	95%	97%	95%	95%	10%	15%	30%	40%
Employee	90%	90%	90%	90%	100%	100%	100%	100%
Hotel-Business	66%	66%	77%	77%	100%	100%	100%	100%
Employee	90%	90%	90%	90%	100%	100%	100%	100%
Residential Guest	100%	100%	100%	100%	100%	100%	100%	100%
Residential Shared, Rental	100%	100%	100%	100%	100%	100%	100%	100%
Office = 100k sq ft	95%	97%	95%	95%	100%	100%	100%	100%
Employee	90%	90%	90%	90%	100%	100%	100%	100%
Bank (Drive In Branch)	95%	97%	95%	95%	95%	100%	95%	100%
Employee	90%	90%	90%	90%	100%	100%	100%	100%
Grocery	95%	97%	95%	95%	90%	90%	90%	90%
Employee	90%	90%	90%	90%	100%	100%	100%	100%

Walker Parking Consultants

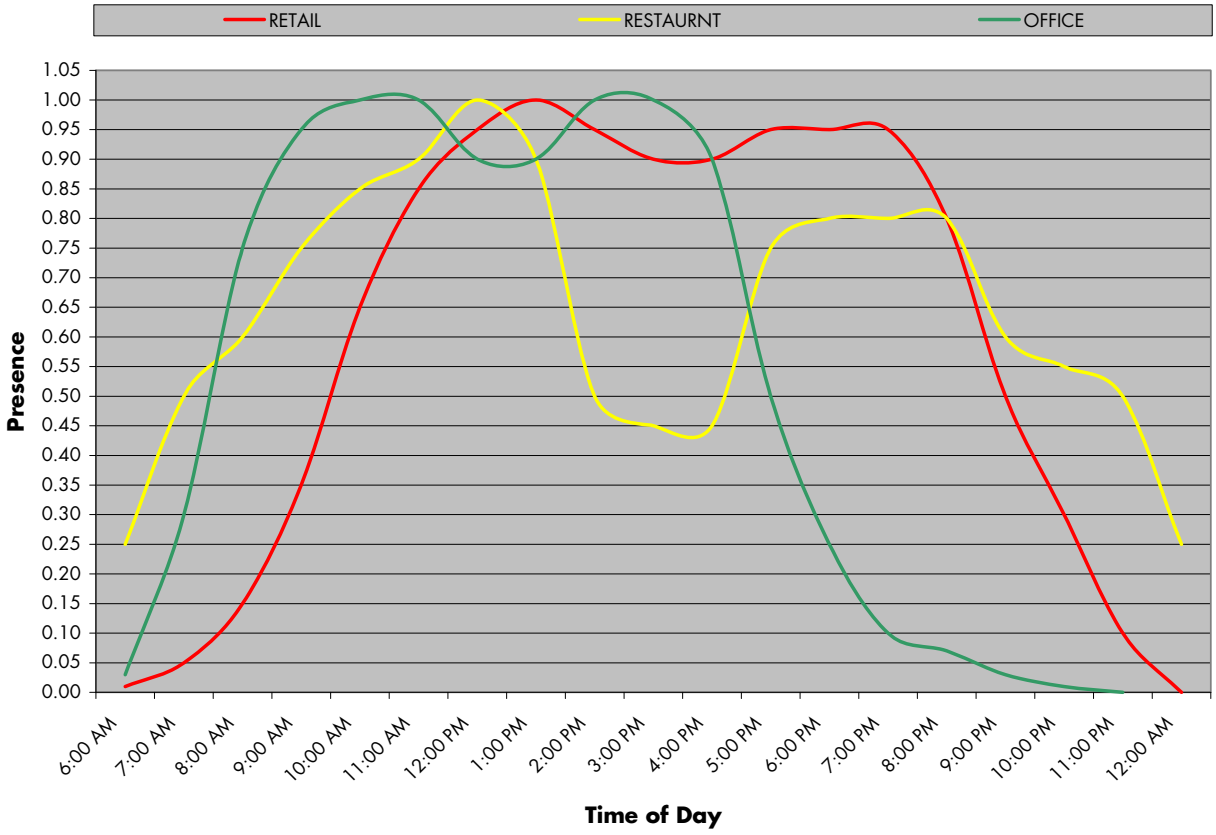
The final factor applied to the shared use analysis was presence. Presence is expressed as a percentage of peak potential demand modified for time of day and month of year. Presence can have a significant effect on parking demand in a mixed-use development. For example, a 10,000 square feet retail store has a peak parking demand equal to 36 parking spaces on a weekday or 40 spaces on weekend day at the peak hour. However, this demand is dependent upon the time of day. At 3:00 a.m., the store is unlikely to project any parking demand at all.

Historically, when designing a new development, planners calculated the parking demand for each land use component as a stand-alone entity, providing each use with an independent parking supply. This assured a parking surplus for the development, but increased the developed area and amount of impervious area. In reality fluctuating patterns of demand allow different land uses to share some or all of the same facility, thereby reducing the total number of parking spaces and thus impervious area needed to support a development. By ensuring a development offers an appropriate parking supply for the busiest hour of the year (without an unneeded surplus), owners are also able to maximize open space and undeveloped area.

The more the individual utilization patterns of land uses differ from each other, the more complimentary they are to shared parking use. For example, an office and a retail component are complimentary as they experience peak demand periods at different times during the day and days of the week.

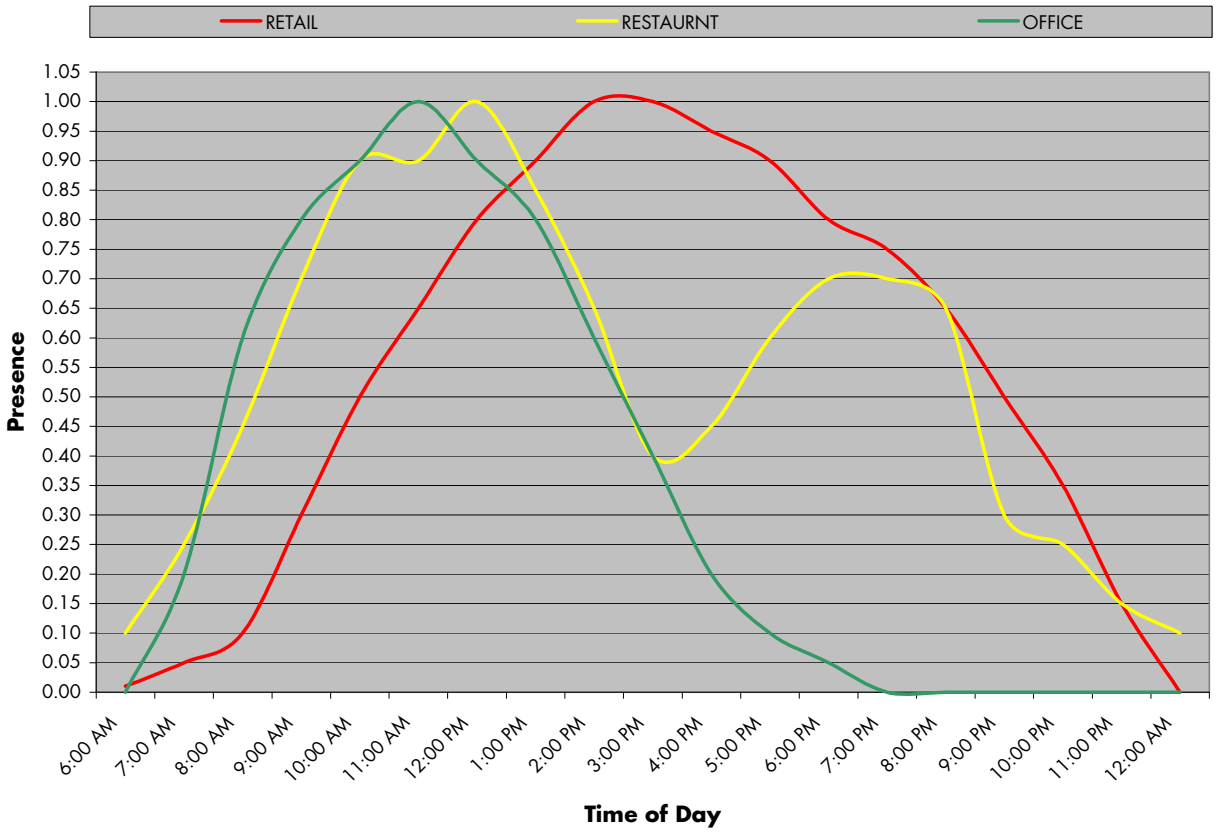
Figure 1 illustrates hourly variations in presence on a weekday and weekend for some the major land uses planned for the project.

Figure 1: Example of Variations in Presence by Time of Day - Weekday



Walker Parking Consultants

Figure 2: Example of Variations in Presence by Time of Day - Weekend



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Parking demand is also influenced by the time of year. The volume of patronage for a retail establishment peaks during the holiday season and decreases rapidly thereafter. Subsequently, so does parking demand for the overall development. Retailers report peak annual activity the two weeks prior to Christmas. During this time, parking demand may equal 100 percent of peak projections. Inversely, office demand decreases as employees are absent on vacation. These variations for time of day and time of year were also calculated for Lane Parke and applied to the model.

PARKING DEMAND PROJECTIONS

Parking demand is a dynamic, fluid force, subject to variations according to the availability of alternative transportation, the proximity of complimentary land uses, variations of user presence according to time of day and time of year, building occupancy rates and a host of other factors. Inversely, parking supply tends to be a fixed quantity, limited by the amount of space that can be allocated to parking facilities. The parking ratios expressed in this analysis have been based on observations of similar developments. Walker has conducted numerous studies and consulted leading organizations, such as the Institute of Transportation Engineers (ITE), the Urban Land Institute (ULI), and the international council of shopping centers (ICSC) in determining the appropriate ratios to be used in the shared parking model

The peak hour is projected to occur at 7:00 p.m. on a December weekend. The projected peak hour demand for the new uses at the development (i.e. the busiest hour of the busiest weekday of the year) based on shared parking, drive ratios, and captive ratios, is 1,136± spaces (1,655 unadjusted). Parking demand accumulations for the busiest hour of the busiest weekday and weekend of the year are presented in the following tables.

Table 3: Peak Hour Demand Projections – Weekday

			Weekday			
Land Use	Unadjusted Demand	Month Adj December	Pk Hr Adj 6:00 PM	Non Captive Evening	Drive Ratio Evening	Demand December 6:00 PM
Retail	273	100%	80%	90%	97%	191
Employee	66	100%	95%	100%	90%	56
Pharmacy	49	100%	70%	100%	97%	33
Employee	12	100%	75%	100%	90%	8
Fine/Casual Dining	206	100%	95%	80%	97%	152
Employee	37	100%	100%	100%	90%	33
Family Restaurant	74	100%	80%	80%	97%	46
Employee	12	100%	95%	100%	90%	10
Fast Food	105	100%	85%	15%	97%	13
Employee	19	100%	90%	100%	90%	15
Hotel-Business	100	67%	75%	100%	66%	33
Employee	25	100%	40%	100%	90%	9
Residential Guest	7	100%	60%	100%	100%	4
Residential Shared, Rental	414	100%	90%	100%	100%	373
Office = 100k sq ft	6	100%	5%	100%	97%	0
Employee	79	100%	25%	100%	90%	18
Bank (Drive In Branch)	14	100%	0%	100%	97%	0
Employee	7	100%	0%	100%	90%	0
Grocery	104	95%	70%	90%	97%	60
Employee	27	100%	80%	100%	90%	19
Subtotal Customer/Guest Spaces	938					532
Subtotal Employee Spaces	698					541
Subtotal Reserved Spaces	0					0
Total Parking Spaces	1,636					1,073
Shared Parking Reduction	**Spaces:**					**563**
					% reduction	**34%**

Table 4: Peak Hour Demand Projections – Weekend

			Weekend			
Land Use	Unadjusted Demand	Month Adj December	Pk Hr Adj 7:00 PM	Non Captive Evening	Drive Ratio Evening	Demand December 7:00 PM
Retail	302	100%	75%	90%	95%	194
Employee	75	100%	80%	100%	90%	54
Pharmacy	40	100%	100%	95%	95%	36
Employee	10	100%	100%	100%	90%	9
Fine/Casual Dining	230	100%	95%	80%	95%	166
Employee	41	100%	100%	100%	90%	37
Family Restaurant	105	100%	70%	80%	95%	56
Employee	19	100%	95%	100%	90%	16
Fast Food	99	100%	80%	40%	95%	30
Employee	16	100%	90%	100%	90%	13
Hotel-Business	90	67%	75%	100%	77%	35
Employee	18	100%	55%	100%	90%	9
Residential Guest	7	100%	100%	100%	100%	7
Residential Shared, Rental	414	100%	97%	100%	100%	402
Office = 100k sq ft	1	100%	0%	100%	95%	0
Employee	8	100%	0%	100%	90%	0
Bank (Drive In Branch)	14	100%	0%	100%	95%	0
Employee	7	100%	0%	100%	90%	0
Grocery	134	95%	58%	90%	95%	63
Employee	25	100%	40%	100%	90%	9
Subtotal Customer/Guest Spaces	1,022					587
Subtotal Employee Spaces	633					549
Subtotal Reserved Spaces	0					0
Total Parking Spaces	1,655					1,136
Shared Parking Reduction	**Spaces:**					**519**
				% reduction		**31%**

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DEMAND BY USER

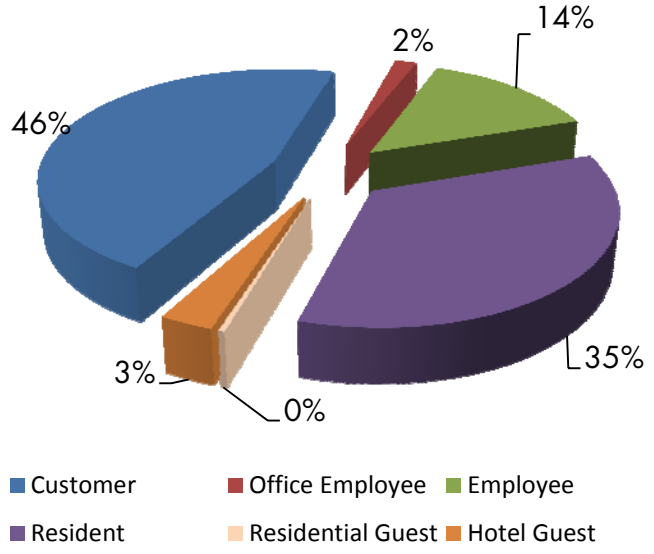
The premise of shared parking is the ability to reduce the required parking supply due to the different parking needs of different users and different land use types. Identifying parking demand by user type is even more important as the tasks of designating parking areas and managing parking assets come into play.

Some user groups will accept different levels of service. That is, some users will walk farther from parking to their destinations, while some will demand closer, more convenient parking. Generally, office employees will walk farther from parking locations to work. However, office workers typically like to park in the same area every day, in order to reduce search times. Retail/restaurant customers typically require nearby parking that is easy to identify. Residents require designated, secure parking areas that are protected from weather and adjacent to residential units.

The following tables and graphs depict parking demand by user type.

Figure 3: Parking Demand by User Type – Weekday

User	Weekday @ 6:00 PM
Customer	495
Office Employee	18
Employee	150
Resident	373
Residential Guest	4
Hotel Guest	33
Total	**1,073**



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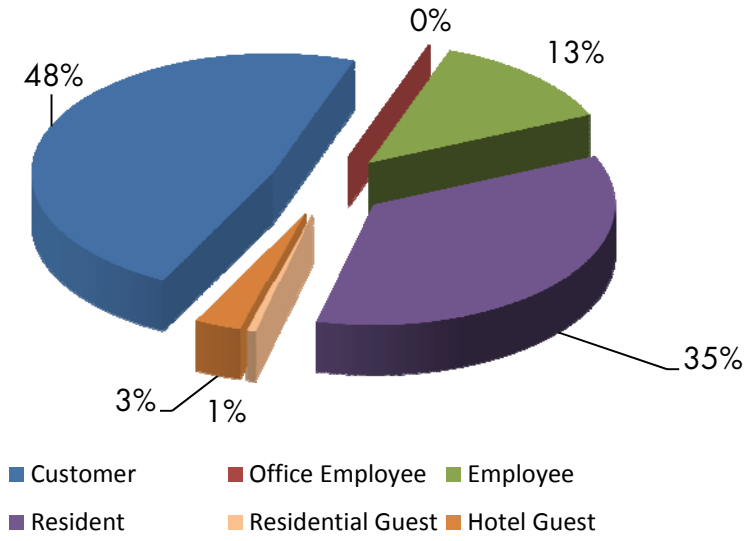
Weekday parking conditions peak during the 6:00 p.m. hour with 1,073 spaces occupied. Approximately 46% of the peak demand is generated by retail and restaurant customers, while residents make up an estimated 35% of demand during peak conditions.

Figure 4: Parking Demand by User Type – Weekend

User	Weekend @ 7:00 PM
Customer	545
Office Employee	0
Employee	147
Resident	402
Residential Guest	7
Hotel Guest	35
Total	**1,136**



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During peak weekend conditions, retail and restaurant customers at 48% and residents at 35% account for the largest percentage of demand.

SEASONALITY

An integral part of calculating shared parking demand is to understand the seasonality of demand for each land use type. The monthly factors established by ULI's "Shared Parking, 2nd Edition" are used not only to determine the interplay between uses during different times of the year, but also combine to determine the overall demand throughout the year. The recommended design demand for the overall site is 1,136 spaces for the base programming, as stated in Table 4. However, this design demand is projected to occur at a particular time and does not represent the year-round demand for the development as shown in the following table and graph.

Table 5: Seasonality of Demand

	Shared Weekday		Shared Weekend	
	Demand	% of Peak	Demand	% of Peak
January	931	87%	989	87%
February	938	87%	998	88%
March	980	91%	1,047	92%
April	975	91%	1,040	92%
May	990	92%	1,058	93%
June	991	92%	1,057	93%
July	991	92%	1,057	93%
August	991	92%	1,060	93%
September	971	90%	1,035	91%
October	988	92%	1,055	93%
November	1,003	93%	1,064	94%
December	1,073	100%	1,136	100%
Late December	992	92%	1,037	91%

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Figure 5: Peak Demand by Month

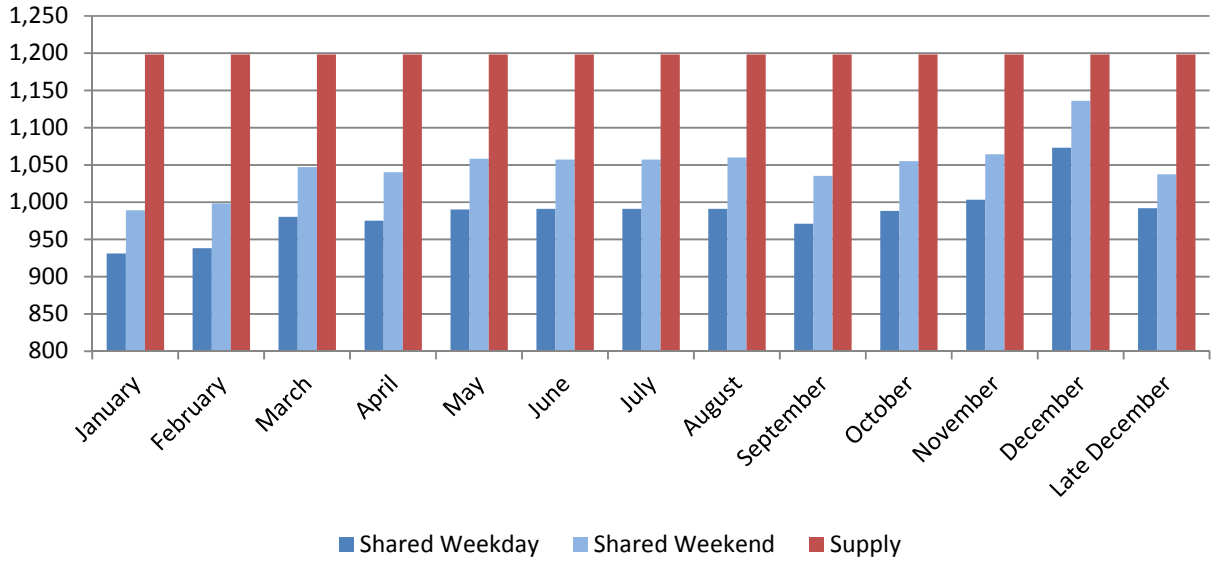

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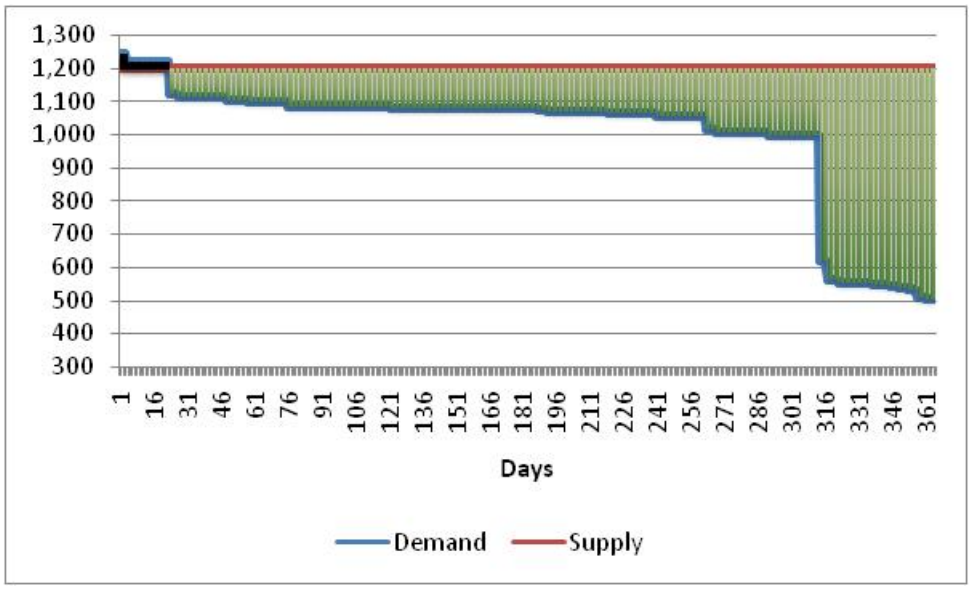
Figure 6: Projected Parking Surplus by Day



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LOCAL REQUIREMENTS

The planning parking supply does meet current code requirements when comparing the planning parking supply to parking needs using shared parking methodology as permitted by the Village Overlay Standards. Even though local code for unshared parking in Mountain Brook dictates that 1,475 spaces should be established to support the base programming, the Village Overlay Standards, as described below, permit reductions for shared parking arrangements.

Table 6: Local Code Requirements (unshared)

Land Use	Required Parking Ratio	Total Units	Total Spaces
Retail	5.0 per 1,000 sf	144,265	722
Office	4 per 1,000 sf	25,043	101
Hotel	1 per key	100	100
Residential	2 per du	276	552
Required			1,475
Supply			1,201
Over/(Short)			(274)

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In our experience, many municipalities are now allowing for shared parking reductions, through individual requests (supported by a professional analysis) or adopted into the ordinances as a standard. Using the Village Overlay Standards, [Article XXXI. Section 129-555.(b) (3)], a reduction considering shared parking methodology may be proposed.

> "d. The cumulative requirements of uses sharing the parking may be reduced for uses having different hours of operation or different peak period of demand. The proposed reduction shall be based upon recognized industry sources, such as the more recent edition of the Urban Land Institute Shared Parking Model or other similar and equivalent study or data, and upon evidence that such model is applicable to the agreement…"

Consequently, we prepared a model replacing the ULI base parking demand ratios with the current code required ratios, thereby applying the shared parking concept to the local parking requirements. The resultant is a need for 974 spaces, which is less than the planned 1,201 spaces.

Table 7: Code Requirement, Adjusted for Shared Parking

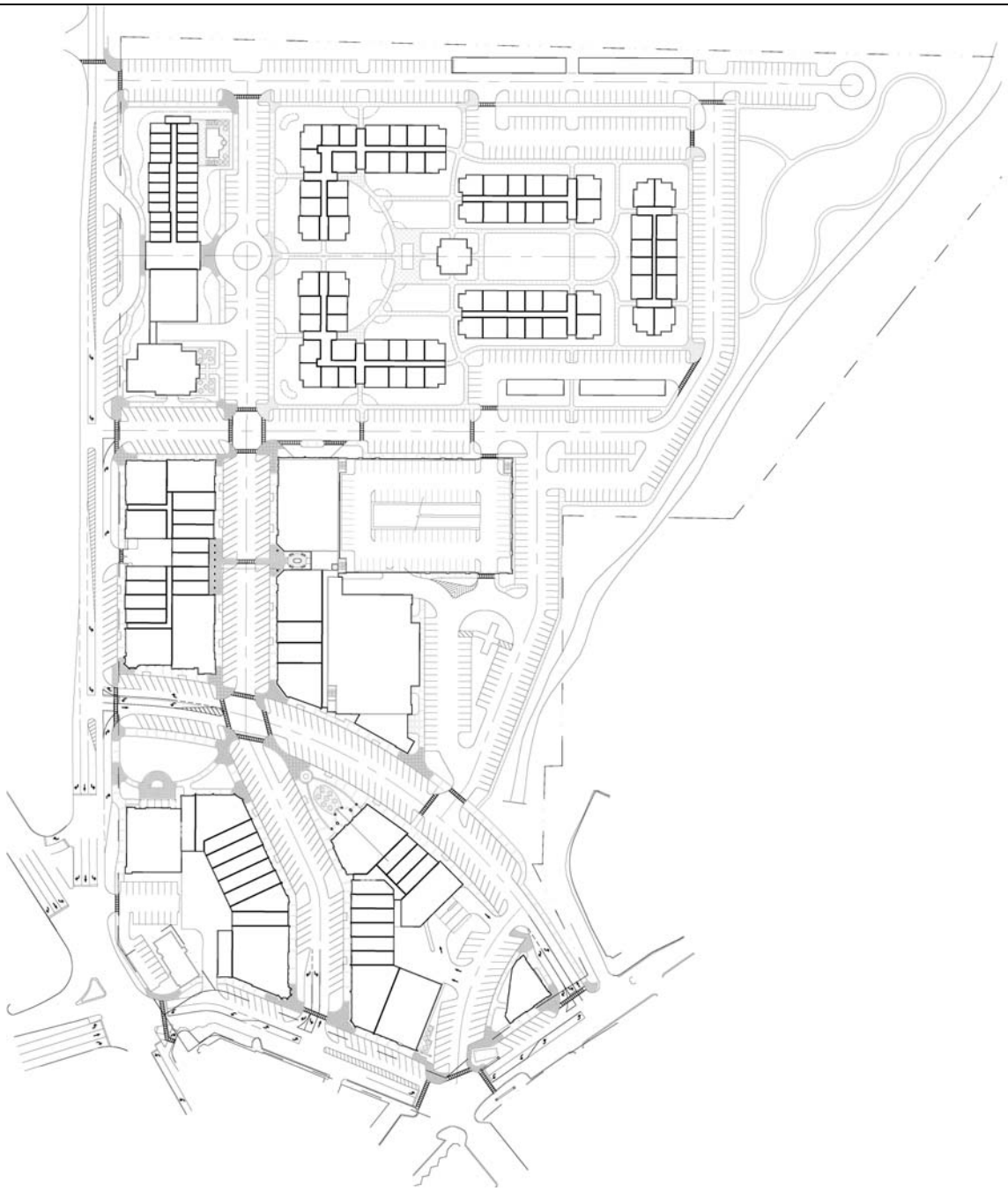
Land Use	Unadjusted Code Requirement	Demand December 6:00 PM
Retail	377	263
Employee	94	80
Pharmacy	40	27
Employee	10	7
Fine/Casual Dining	54	40
Employee	14	13
Family Restaurant	33	20
Employee	8	7
Fast Food	33	4
Employee	8	6
Hotel-Business	100	33
Employee	0	0
Residential Guest	0	0
Residential Shared, Rental	414	373
Office = 100k sq ft	20	1
Employee	80	18
Bank (Drive In Branch)	18	0
Employee	5	0
Grocery	109	63
Employee	27	19
Subtotal Customer/Guest Spaces	784	451
Subtotal Employee Spaces	660	523
Subtotal Reserved Spaces	0	0
Total Parking Spaces	1,444	974

Shared Parking Reduction	**Spaces:**	**470**
		33%

PARKING SUPPLY/SITE PLAN

Lane Parke will provide approximately 1,201± spaces on-site in multiple surface lots and one parking structure, shown on the following figure.

Figure 7: Site



ALTERNATE PARKING LOCATIONS

From time to time, additional parking may be needed for Lane Parke. The developer has identified off-site parking facilities that may be available to accommodate parking during peak holiday periods. The developer is currently investigating one or more of the following options:

1. Botanical Gardens: 215± spaces
2. Birmingham Zoo: 515± spaces
3. Shades Valley Presbyterian: 110± spaces
4. Mountain Brook Elementary: 76± spaces (plus an underground parking facility, size unknown at this time)
5. George Ladd Building: 100± spaces
6. Office Park Circle: 900± spaces
7. BB & T Office Building: 375± spaces

VALET PARKING

EXPLORING OPPORTUNITIES FOR VALET PARKING

The opportunity may exist to offer seasonal valet parking to the restaurant patrons. This alternative may increase the level of service provided and may increase the utilization of less desirable, unused parking spaces. Several restaurants typically offer valet parking as an amenity to their guests, and as a way to maximize parking resources.

Walker has worked to identify valet storage areas in the parking structure, for each level. These spaces incorporate a modest stacking scheme that would require movement of cars to retrieve cars blocked in by the valet stack. Level one could comfortably accommodate 14± extra cars, with minimal stacking. Level two could accommodate 12± extra cars, with minimal stacking. Level three could accommodate 12± extra cars, with minimal stacking. To accommodate more cars during periods of extreme peak demand, additional stacking is shown on an option for level 3. This would require more maneuvering of vehicles, but may result in 38± additional cars. The following figures illustrate potential valet parking schemes for the parking structure.

Figure 8: Valet Level 1

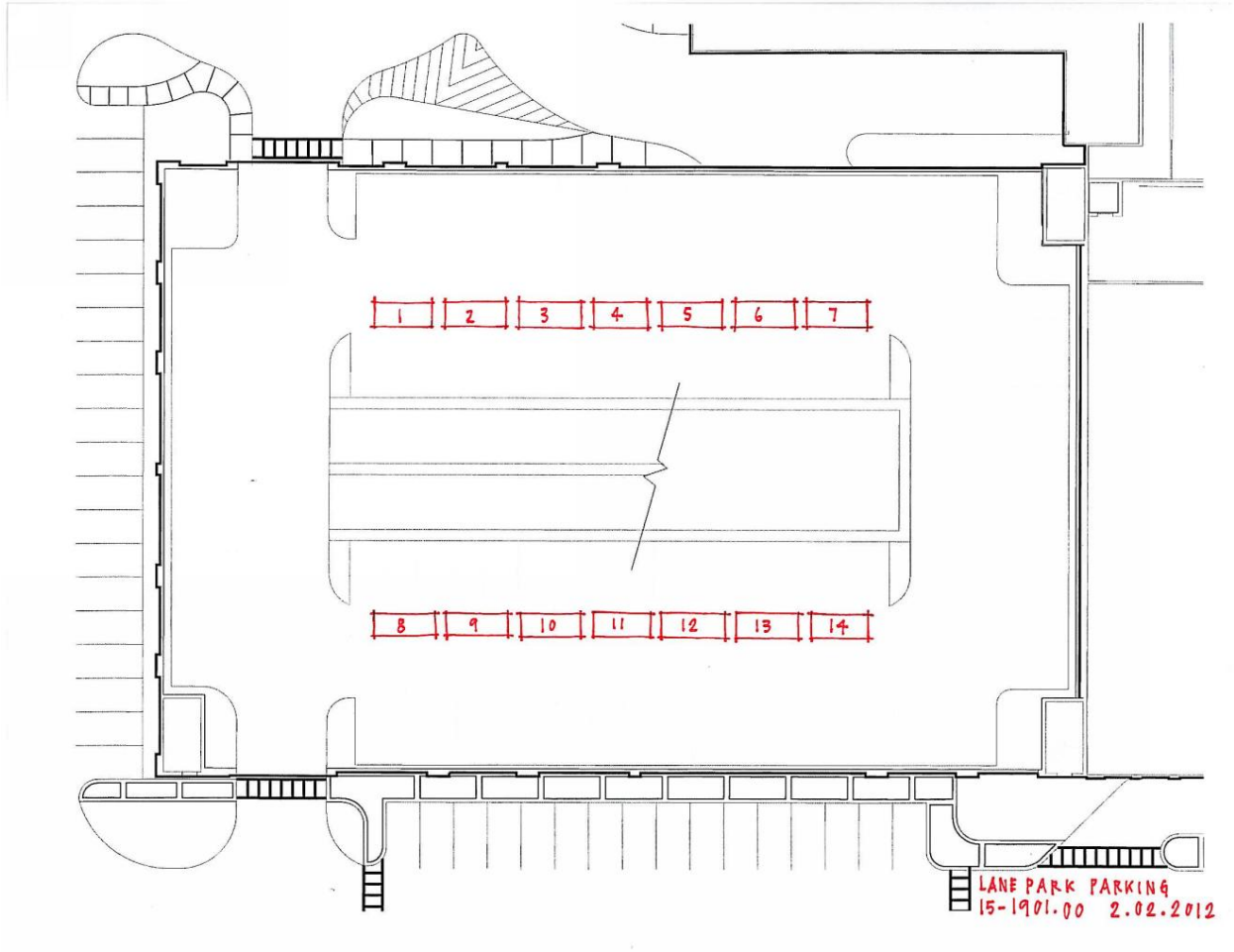


Figure 9: Valet Level 2

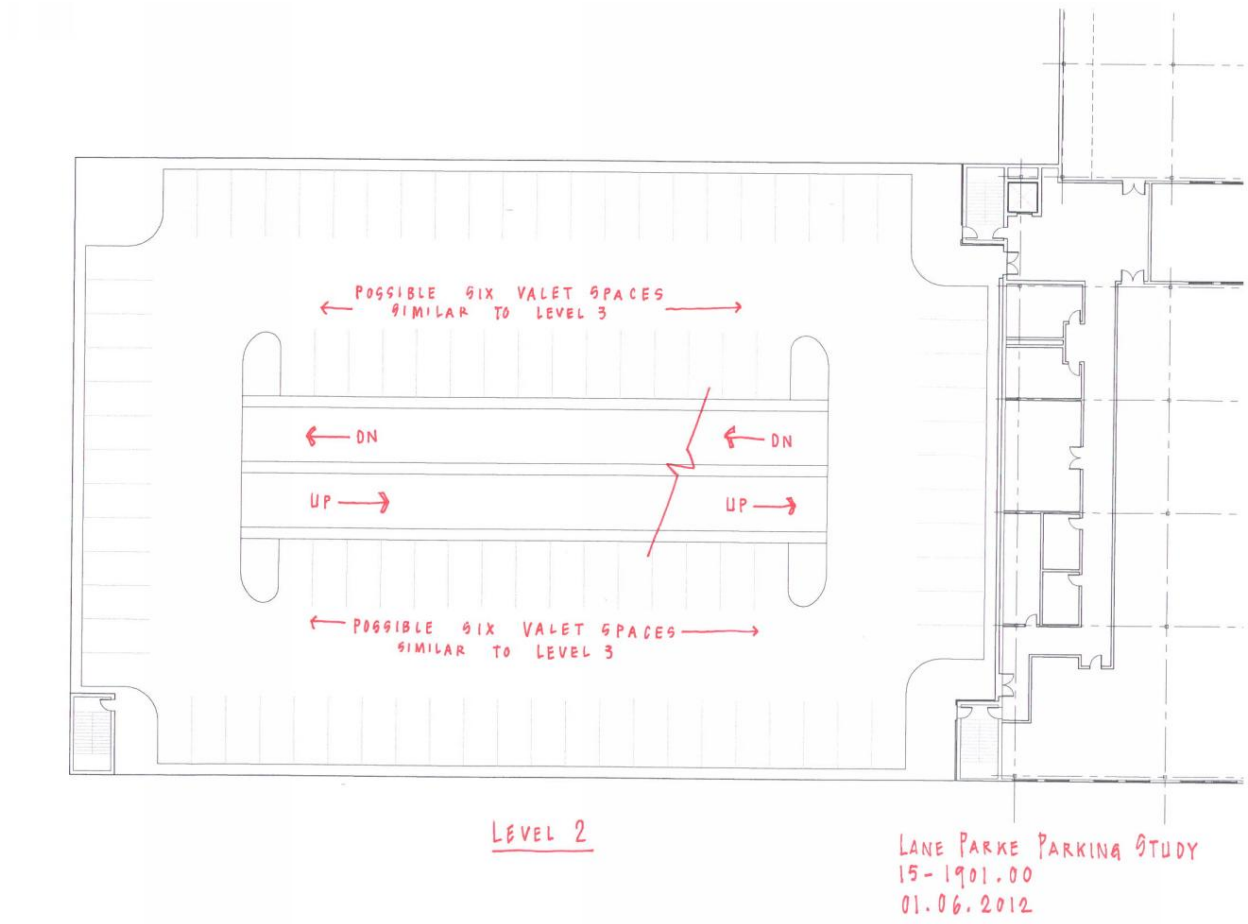


Figure 10: Valet Level 3

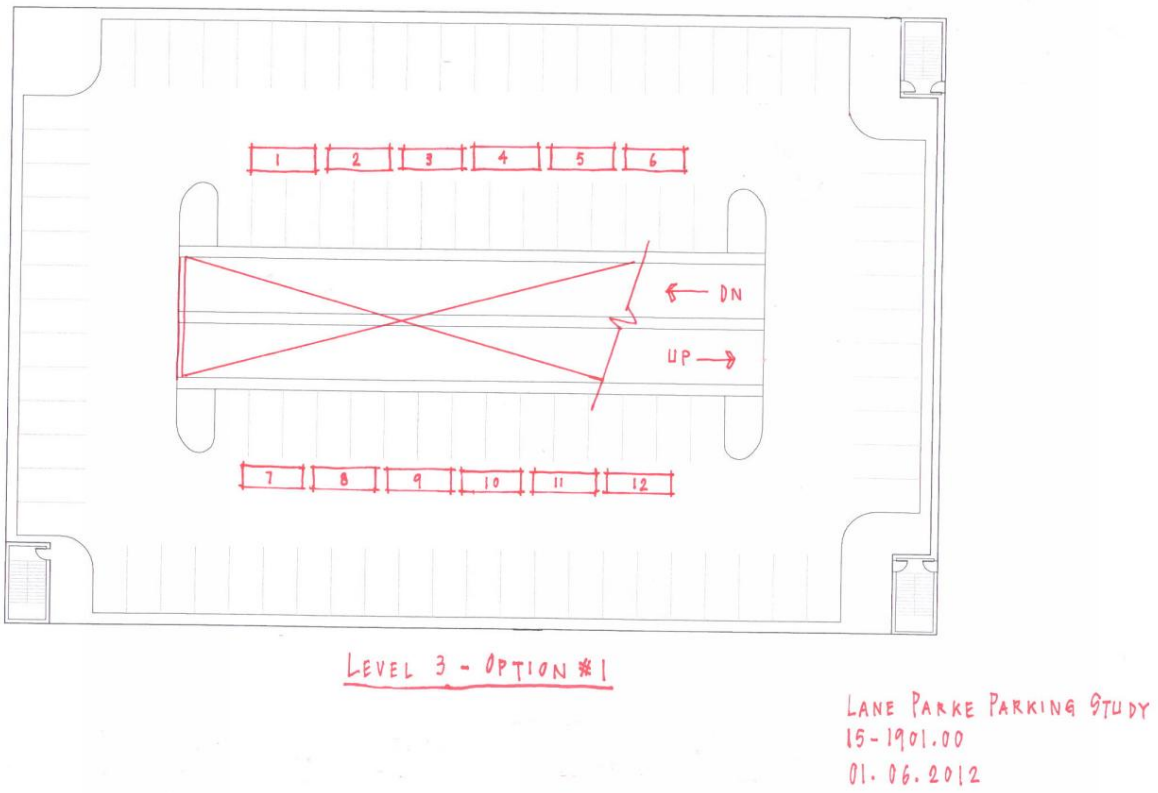
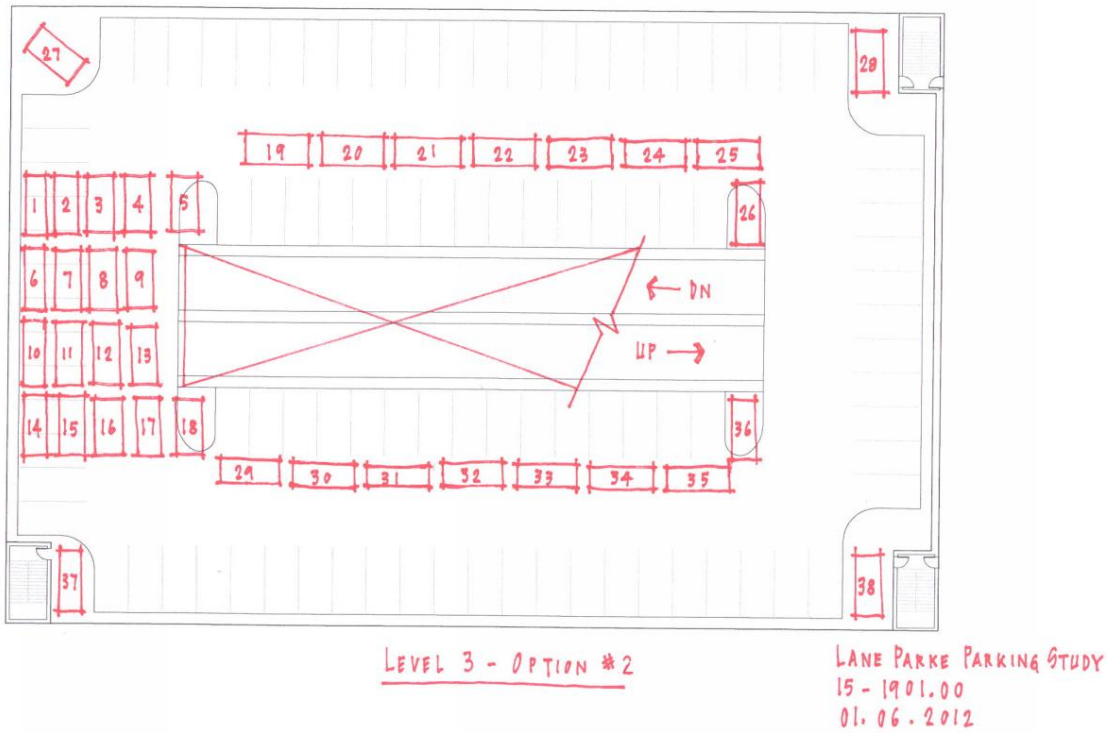


Figure 11: Valet Level 3 OPTIONAL



PARKING SUPPLY/DEMAND SUMMARY

For weekends, the peak hour of the year is projected to occur at 7:00 p.m. in December. Based on the proposed mix of uses and applying shared parking, drive ratios, and captive ratios, the projected annual peak hour demand figure for Lane Parke is 1,136± spaces (1,073± spaces for weekday).

Lane Parke will provide approximately 1,201± spaces on-site in surface lots and one parking structure (up to 1,265± with valet in the parking structure). Peak demand is projected at 1,136±, leaving a parking surplus of approximately 65± spaces (without valet).

We hope you have found this analysis informative and useful.

Respectfully Submitted,
WALKER PARKING CONSULTANTS

Jeffrey A. Colvin, AICP
Parking Consultant

TRAFFIC IMPACT STUDY

Lane Parke

Mountain Brook, Alabama

Prepared for:

GOODWYN, MILLS AND CAWOOD, INC.

Prepared by:

SKIPPER CONSULTING INC.

September 2009

Revision 1: May 2010

Revision 2: January 2012

Revision 3: March 2012

SKIPPER
CONSULTING INC.

Lane Parke

Mountain Brook, Alabama

Traffic Impact Study

Prepared for:

Goodwyn Mills & Cawood, Inc.
2701 1st Avenue South, Suite 100
Birmingham, Alabama 35233
Phone (205) 879-4462 Fax (205) 879-4493

Prepared by:

Skipper Consulting, Inc.
3644 Vann Road, Suite 100
Birmingham, Alabama 35235
Phone (205) 655-8855 Fax (205) 655-8825

September 2009
Revision 1: May 2010
Revision 2: January 2012
Revision 3: March 2012

ALABAMA REGISTERED No. 20061 PROFESSIONAL ENGINEER RICHARD LYN CAUDLE

SIGNED:
DATE: 3/28/12

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INTRODUCTION

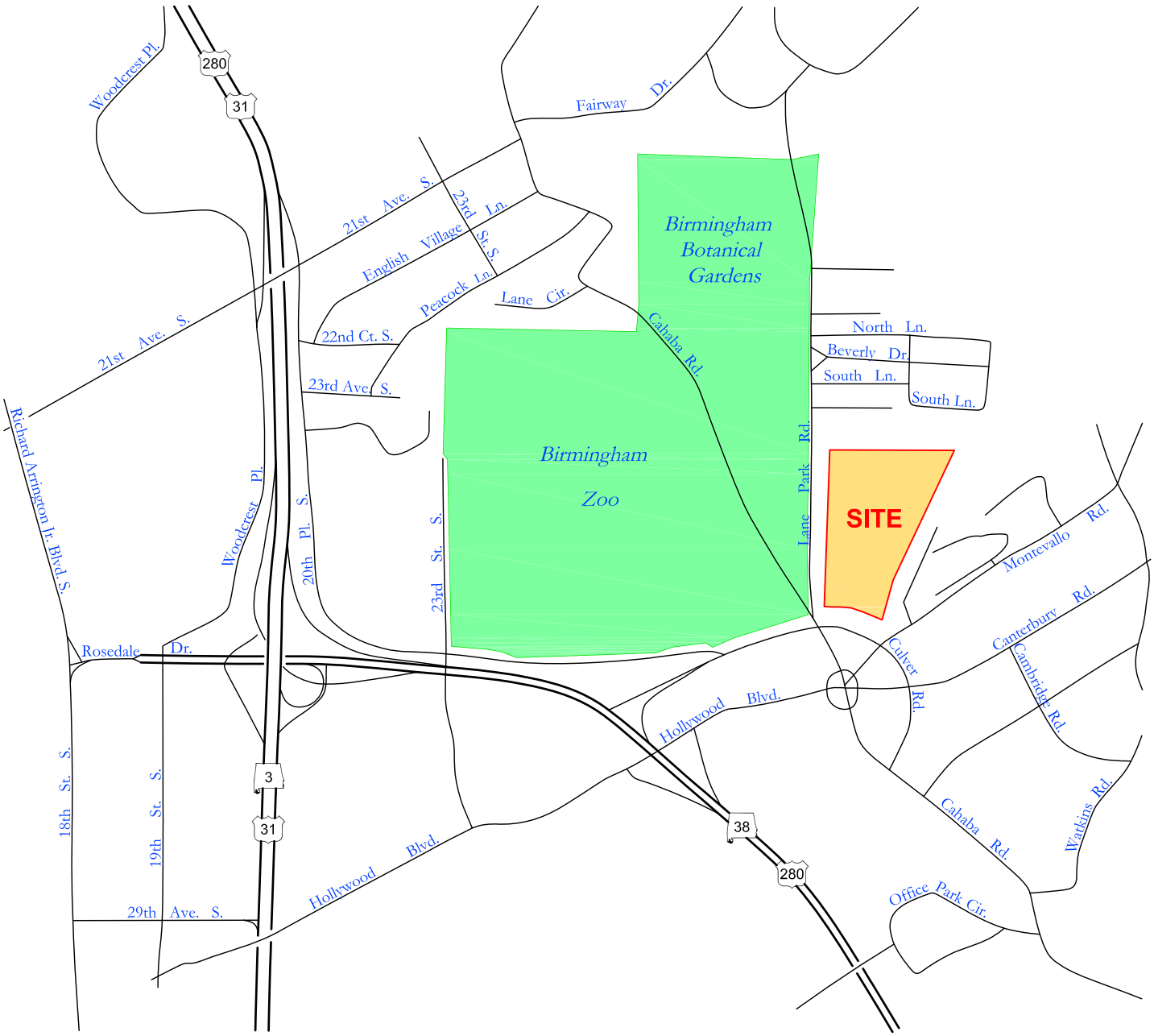
This report documents a revision to a traffic impact study performed for a proposed redevelopment of Mountain Brook Shopping Center and Park Lane Apartments in Mountain Brook, Alabama. The site is generally bounded by Montevallo Road, Culver Road, and Lane Park Road. The location of the site with respect to the area roadway network is shown in Figure 1.

The original traffic impact study was issued in April, 2009 and an addendum was issued in September, 2009. Revised studies were issued in May, 2010 and January, 2012. In order to respond to comments issued by the City of Mountain Brook, another revision of the report was necessary.

The existing site includes a variety of land uses, including a shopping center, bank, office building, and apartments. The proposed development is likewise mixed-use in nature. The primary land uses within the development will be retail, restaurants, a hotel, office, and apartments. The proposed master plan is included in Appendix A.

The purposes of this study are to:

- Analyze the existing traffic conditions on the roadways and intersections surrounding the site;
- Determine the magnitude of traffic which will be generated by the proposed development;
- Estimate the directions of approach of traffic generated by the proposed development;
- Assign the traffic anticipated to be generated by proposed development to the area roadways, intersections, and site accesses;



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North

Scale: n.t.s

Figure 1
Site Location Map

Lane Parke
Mountain Brook, Alabama

March 2012

1035.072

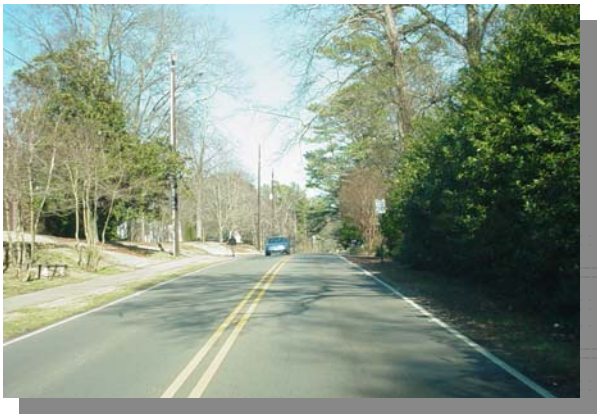
- Perform analyses to determine the traffic impacts of the proposed development;
- Develop recommended roadway improvements to mitigate the projected traffic impacts of the proposed development; and
- Analyze the proposed internal circulation plan of the proposed development.

Sources of information used in this study included: the City of Mountain Brook, Alabama, the City of Birmingham, Alabama, the Regional Planning Commission of Greater Birmingham, Goodwyn, Mills & Cawood, Inc., Evson, Inc., the Institute of Transportation Engineers, the Transportation Research Board, the Federal Highway Administration, and office files and field reconnaissance efforts of Skipper Consulting, Inc.

BACKGROUND INFORMATION

Roadway Descriptions

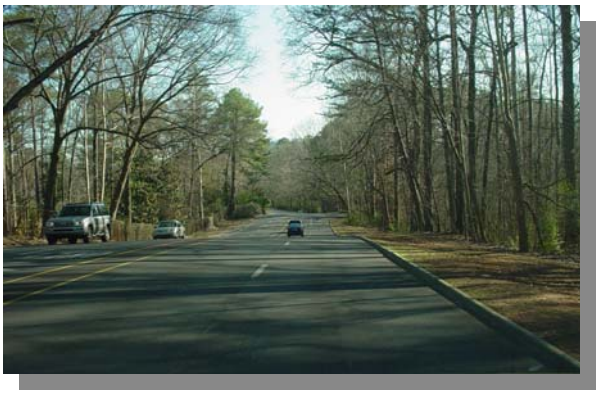
Montevallo Road. In the vicinity of the site, Montevallo Road is a two lane undivided collector roadway with a posted speed limit of 30 miles per hour.



Culver Road. In the vicinity of the site, Culver Road is a two lane local roadway with no posted speed limit.

Lane Park Road. In the vicinity of the site, Lane Park Road is a two lane collector roadway with a posted speed limit of 30 miles per hour.

Cahaba Road. In the vicinity of the site, Cahaba Road is a four lane undivided collector roadway with a posted speed limit of 30 miles per hour.



Study Locations

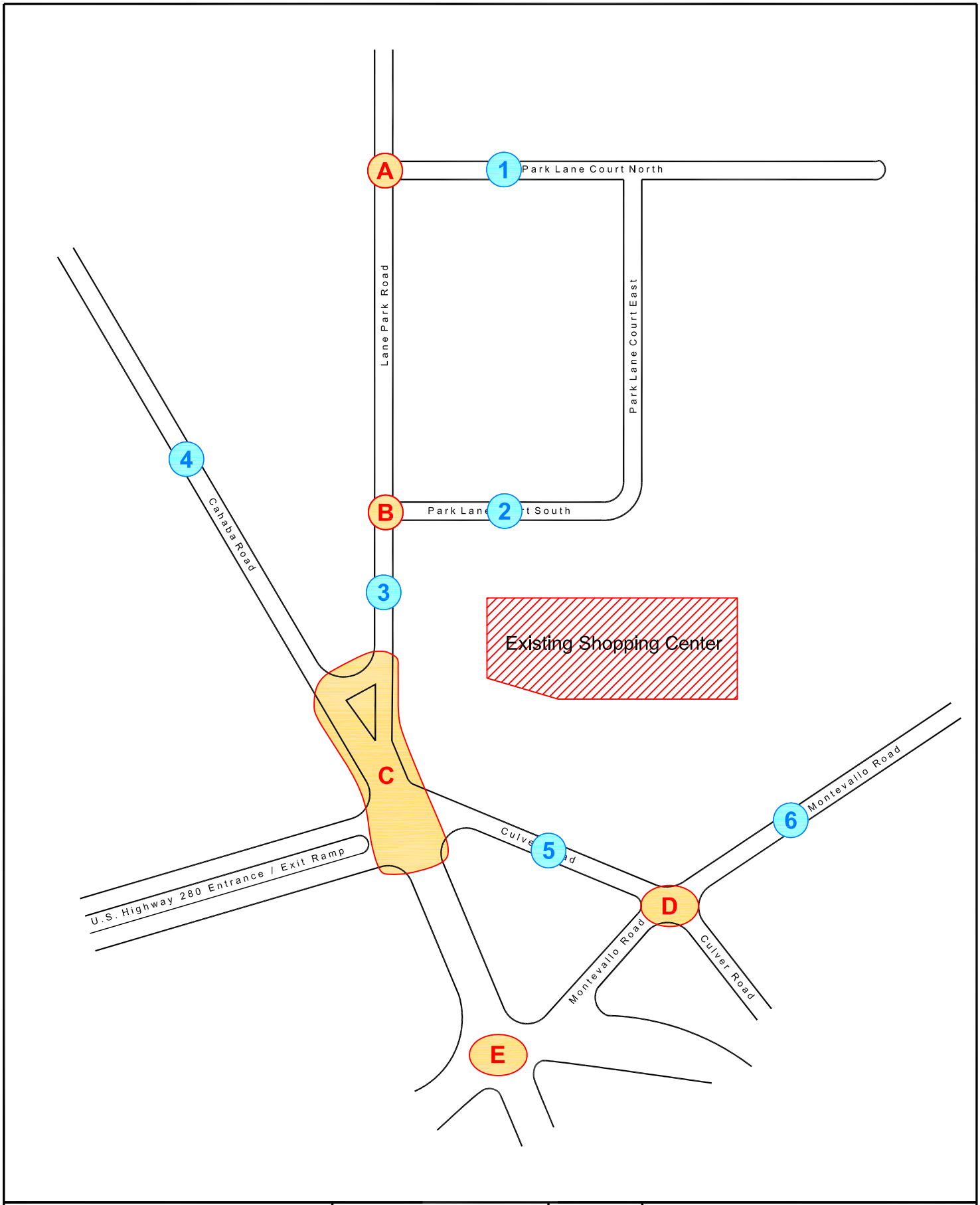
In order to quantify the traffic impacts of the proposed development, five (5) existing intersections were selected for analysis:

A Lane Park Road at Park Lane Court North
B Lane Park Road at Park Lane Court South
C Cahaba Road at Lane Park Road/Culver Road/U.S. 280 Ramp
D Montevallo Road at Culver Road
E Cahaba Road at Montevallo Road/Hollywood Boulevard/Canterbury Road

In addition, the following six (6) existing roadway segments were also selected for analysis:

1 Park Lane Court North east of Lane Park Road
2 Park Lane Court South east of Lane Park Road
3 Lane Park Road south of Park Lane Court South
4 Cahaba Road north of Lane Park Road
5 Culver Road east of Lane Park Road
6 Montevallo Road east of Culver Road

The locations of the study intersections and roadway segments are shown in Figure 2.



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LEGEND

A Study Intersections

5 Study Roadway Segments

North

Scale: n.t.s

Figure 2
Study Locations

Lane Parke
Mountain Brook, Alabama

March 2012

1035.072

Development Plan

Table 1 presents the site development plan for the redevelopment as depicted in the latest master plan. Included in Table 1 is the code from the Institute of Transportation Engineers' publication *Trip Generation, Eighth Edition* which most closely matches the assumed land use. Also included in Table 1 are the estimated mixed-use rates and intercept rates for each land use. These rates are described in a subsequent section of this report.

Table 1
Site Development Plan

Land Use	*Size*	*ITE Code*	*Mixed-Use Rate*	*Intercept Rate*
Pharmacy	9,951 sq.ft.	881	30%	49%
Grocery	27,312 sq.ft.	850	30%	36%
Retail	94,273 sq.ft.	820	30%	%
Restaurant (Fine/Casual)	6,505 sq.ft.	931	30%	44%
Restaurant (Fine/Casual)	7,000 sq.ft.	931	30%	44%
Restaurant (Fast/Casual – 8 total)	16,460 sq.ft.	932	30%	43%
Office	25,043 sq.ft.	710	22%	0%
Apartments (includes clubhouse)	276 units	220	38%	0%
Hotel (includes meeting space)	100 rooms	310	10%	0%
Bank	4,500 sq.ft.	912	30%	47%

The development is anticipated to be constructed and occupied by the year 2015.

Site Access Plan

The existing site is served by multiple access points. The proposed master plan for the redevelopment significantly reconstructs the entire site so that the access system is materially altered. The proposed master plan provides a total of six (6) major access points to the development. Minor access points are also provided for the hotel, the Ray-Poyner building, and service courts. The following is a summary of the proposed major access points to the development:

- A full-directional access to Montevallo Road just east of Culver Road
- An access at the intersection of Culver Road and Montevallo Road (inbound only)
- A full-directional access to Culver Road between Montevallo Road and Cahaba Road
- Three (3) full-directional accesses to Lane Park Road north of the intersection of Cahaba Road

The locations of the site access points are indicated on the master plan included in Appendix A.

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 over existing traffic for future year conditions. The historical traffic growth analysis is shown in Table 2.

Table 2
Historical Traffic Growth

Year	*Daily Traffic Volume*	
	Lane Park Road	*Montevallo Road*
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%

EXISTING CONDITIONS ANALYSIS

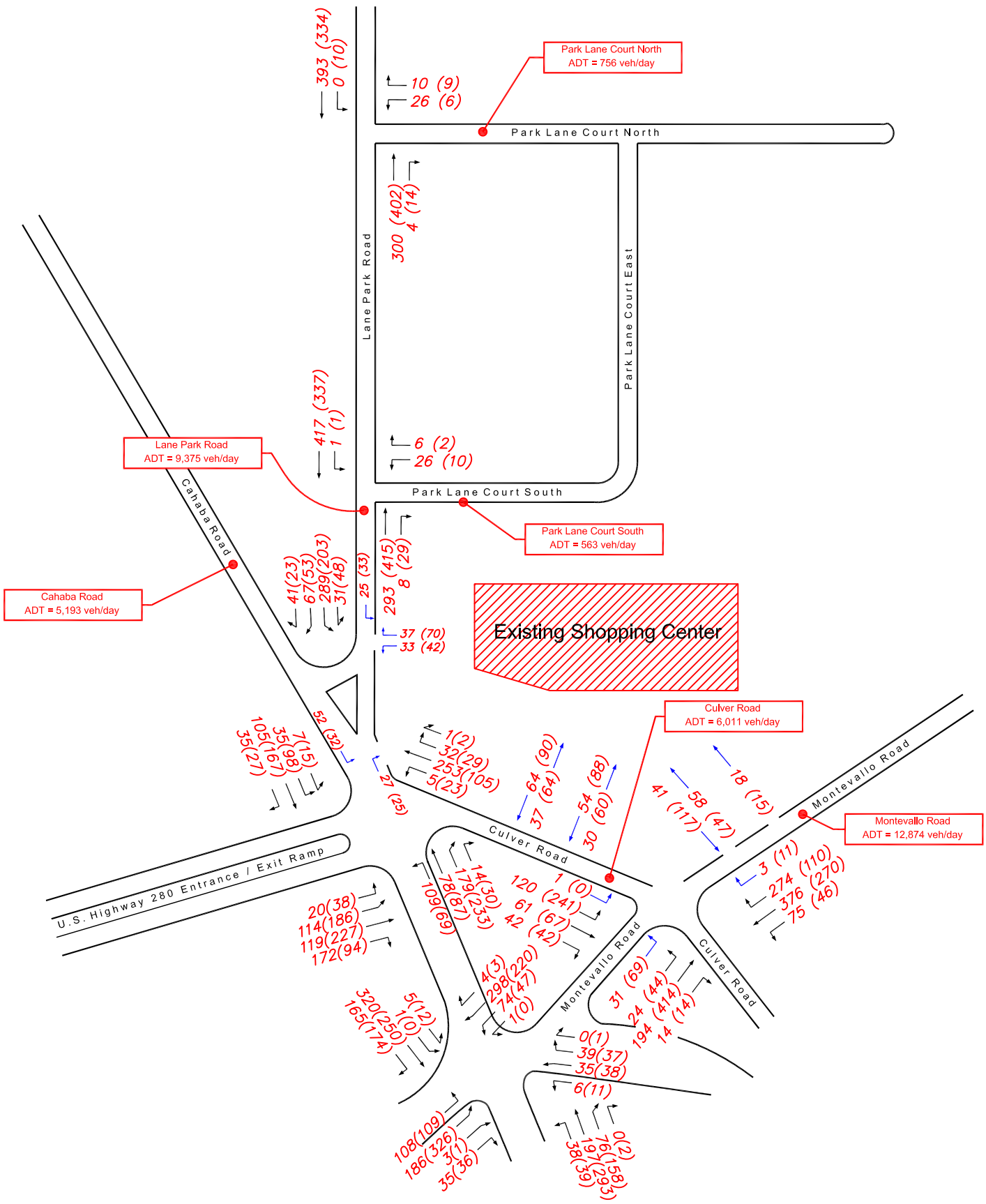
Existing Intersection Turning Movement Traffic Counts

Existing intersection turning movement traffic counts were performed at the five (5) study intersections as indicated in Figure 2 from 7:00 to 9:00 a.m. and 4:00 to 6:00 p.m. by Traffic Data, LLC on behalf of Skipper Consulting, Inc. in 2007 and 2009. The counts are included in Appendix B and peak hour traffic counts are summarized in Figure 3.

Existing traffic counts were also performed at all the major accesses to the existing shopping center on Thursday to Friday, November 29 to 30, 2007, from 7:00 to 9:00 a.m. and 4:00 to 6:00 p.m. by Traffic Data, LLC on behalf of Skipper Consulting, Inc. in 2007. The counts are included in Appendix C and peak hour traffic counts are summarized in Figure 3.

Existing Machine Traffic Counts

Existing machine traffic counts were performed on the six (6) study roadway segments as indicated in Figure 2 on Thursday to Friday, November 29 to 30, 2007 for a twenty-four (24) hour period by Traffic Data, LLC on behalf of Skipper Consulting, Inc. The counts are included in Appendix D and are summarized in Figure 3.



SKIPPER CONSULTING INC.

LEGEND

Shopping Center Accesses

Public Roadways

100 (100) AM (PM)

North

Scale: n.t.s

Figure 3
Existing Traffic Counts

Lane Parke
Mountain Brook, Alabama

March 2012

1035.072

Existing Intersection Capacity Analysis

Existing peak hour intersection capacity analyses for the study intersections were performed according to the methodology presented in the 2000 *Highway Capacity Manual*, published by the Transportation Research Board. Capacity is expressed as level of service, and ranges 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, while a level of service "D" is considered acceptable during peak hours of traffic flow. The results of the existing peak hour intersection capacity analyses are included in Appendix E and are summarized in Table 3.

Existing Daily Roadway Segment Capacity Analysis

Existing daily roadway segment capacity analyses were performed by comparing the existing daily traffic volumes as shown on Figure 3 with service flows by level of service calculated from information obtained from the Alabama Department of Transportation. The daily level of service chart based on traffic flows is included in Appendix F. Table 4 presents the results of the daily roadway segment capacity analyses.

Commuter Desire Lines

Existing intersection turning movement traffic counts were analyzed to produce a set of commuter desire lines for a.m. and p.m. peak hours of traffic flow. These desires lines are depicted in Figures 4 and 5, for the a.m. and p.m. peak hours, respectively.

Table 3
Existing Intersection Capacity Analysis

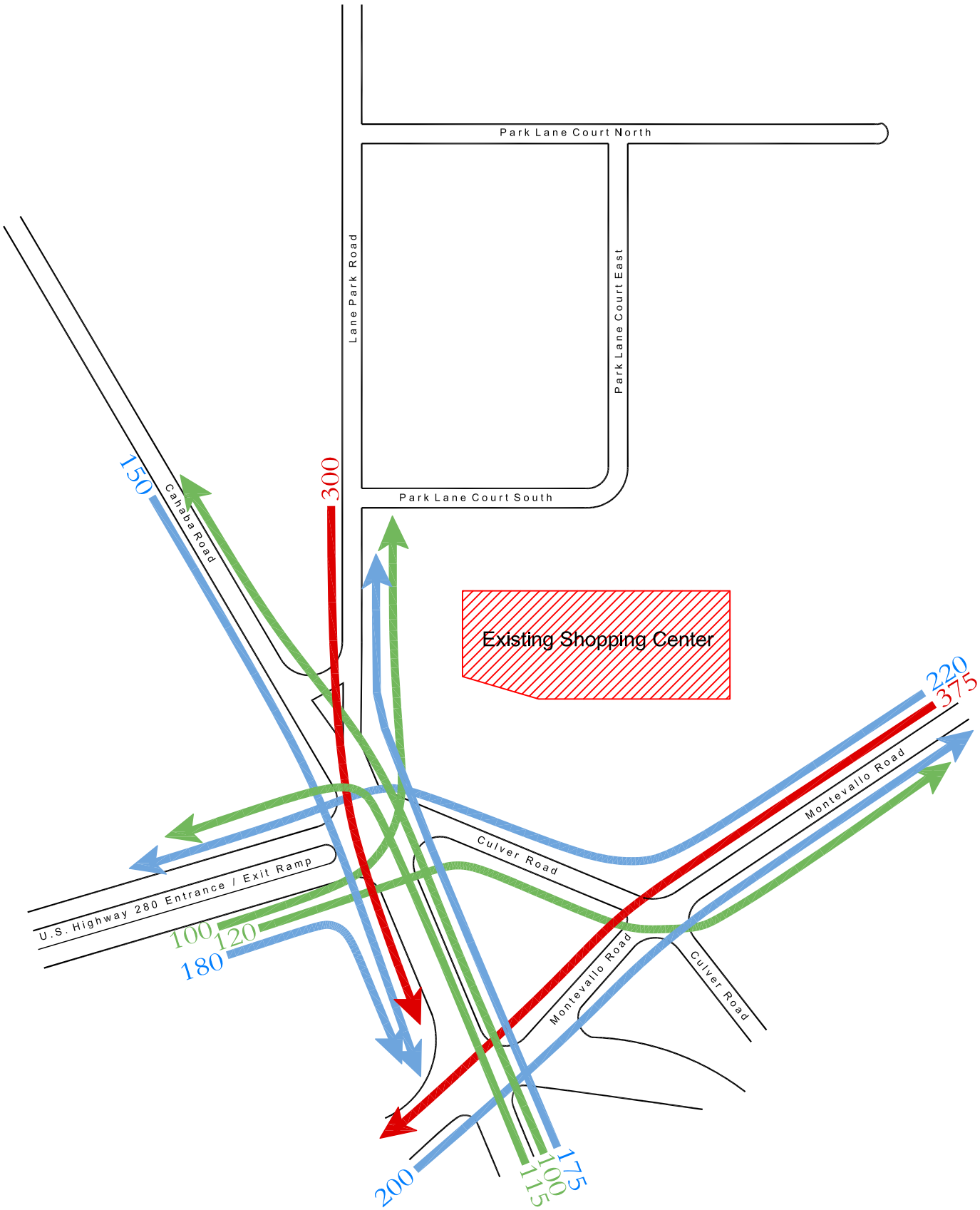
Intersection	*Approach*	*Movement*	*Level of Service*	
			AM	*PM*
Lane Park Road at Park Lane Court North	Park Lane Ct. N. Westbound	Left/Right	B	B
	Lane Park Road Southbound	Left/Through	A	A
Lane Park Road at Park Lane Court South	Park Lane Ct. S. Westbound	Left/Right	C	C
	Lane Park Road Southbound	Left/Through	A	A
Cahaba Road at Lane Park Road/ Culver Road/ U.S. Highway 280 Ramp	U.S. 280 Ramp Eastbound	Left	D	D
		Through	C	C
		Right	C	C
		Overall approach	*C*	*C*
	Culver Road Westbound	Left/Through/Right	C	C
	Cahaba Road Northbound	Left	C	C
		Through/Right	D	D
		Overall approach	*D*	*C*
	Cahaba Road Southbound	Left	C	E
		Through	C	C
		Right	C	C
		Overall approach	*C*	*D*
	Lane Park Road Southbound	Left/Through/Right	D	D
		Overall intersection	***C***	***C***
Montevallo Road at Culver Road	Culver Road Eastbound	Left	C	C
		Through/Right	C	C
		Overall approach	*C*	*C*
	Montevallo Road Northbound	Left	A	A
		Through/Right	A	A
		Overall approach	*A*	*A*
	Montevallo Road Southbound	Left	B	B
		Through/Right	C	B
		Overall approach	*C*	*B*
		Overall intersection	***C***	***B***

Table 3 (continued)
Existing Intersection Capacity Analysis

Intersection	*Approach*	*Movement*	*Level of Service*	
			AM	*PM*
Cahaba Road at Montevallo Road/ Hollywood Boulevard/ Canterbury Road	Hollywood Boulevard Eastbound	Left	D	C
		Through/Right	C	C
		Overall approach	*C*	*C*
	Montevallo Road Westbound	Left	C	C
		Through/Right	C	C
		Overall approach	*C*	*C*
	Cahaba Road Northbound	Left	B	B
		Through/Right	B	B
		Overall approach	*B*	*B*
	Cahaba Road Southbound	Left	B	B
		Through/Right	B	B
		Overall approach	*B*	*B*
	Canterbury Road Westbound	Left	C	C
		Through/Right	C	C
		Overall approach	*C*	*C*
		Overall intersection	***C***	***C***

Table 4
Existing Daily Roadway Segment Capacity Analysis

Roadway	*Segment*	*Daily Traffic Volume*	*Level of Service*
Park Lane Court North	East of Lane Park Road	756	A
Park Lake Court South	East of Lane Park Road	563	A
Lane Park Road	Park Lane Court South to Culver Road	9,375	C
Cahaba Road	Birmingham Zoo to Culver Road	5,193	A
Culver Road	Cahaba Road to Montevallo Road	6,011	B
Montevallo Road	Overhill Road to Culver Road	12,874	E



Generalized movements greater thatn 100 vehicles per hour.

SKIPPER CONSULTING INC.

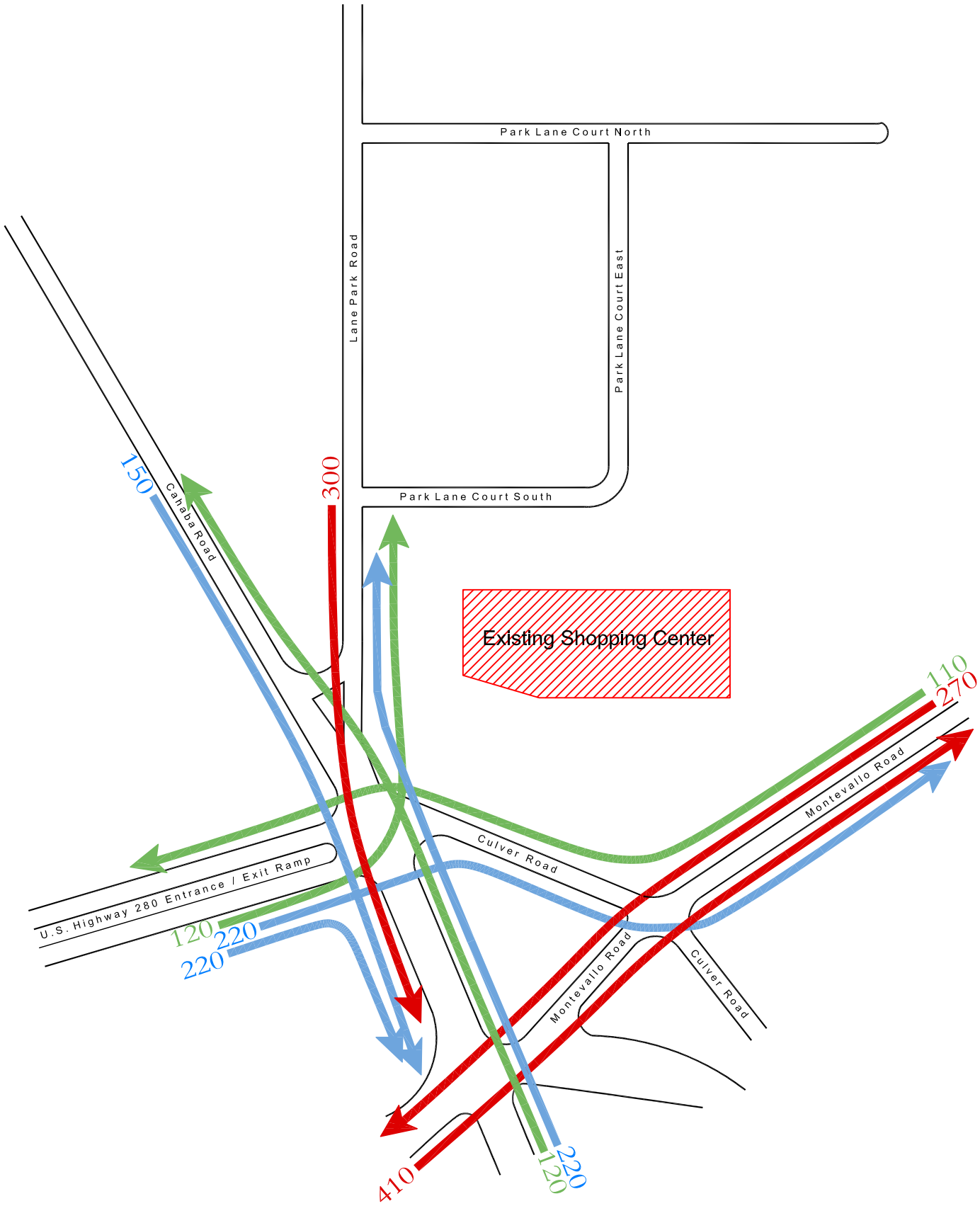
Legend
- High
- Moderate
- Low

North

Scale: n.t.s

Figure 4
Commuter Desire Lines
AM Peak Hour
Lane Parke
Mountain Brook, Alabama

March 2012 1035.072



Generalized movements greater thatn 100 vehicles per hour.

SKIPPER CONSULTING INC.

Legend
High
Moderate
Low

North

Scale: n.t.s

Figure 5
Commuter Desire Lines
PM Peak Hour
Lane Parke
Mountain Brook, Alabama

March 2012 1035.072

FUTURE CONDITIONS ANALYSIS

Trip Generation

An analysis was performed to determine the existing trip generation of the shopping center on the subject property. This analysis was performed using: 1) the existing traffic counts, and 2) the Institute of Transportation Engineers' publication *Trip Generation, Eight Edition*. The results of this analysis are shown in Table 5. As shown in Table 5, the existing shopping center generates significantly in excess of ITE Trip Generation estimates during the a.m. peak hour. The existing counts and the estimated trip generation are much closer for the p.m. peak hour.

Table 5
Trip Generation – Existing Shopping Center

Scenario	*AM Peak Hour*			*PM Peak Hour*		
	In	*Out*	*Total*	*In*	*Out*	*Total*
Existing Shopping Center based on Actual Counts	**282**	**229**	**511**	**356**	**407**	**763**
Existing Shopping Center based on ITE Trip Gen.						
Retail (45,687 sq.ft.)	28	18	46	184	192	376
Grocery (21,867 sq.ft.)	48	31	79	117	113	230
Apartments (176 d.u.'s)	18	72	90	74	40	114
Total	***94***	***121***	***215***	***375***	***345***	***720***

The trip generation of the proposed development was estimated based on information contained in the Institute of Transportation Engineers' publication *Trip Generation, Eighth Edition*. A portion of the trips generated by the site will be mixed-use trips, or trips which are generated internally from one use to another use within the site and will not use the public roadway network. A portion of the trips generated by the development will be intercepted trips, or trips which are currently in the traffic flows on the public roadways and will stop at the development while enroute to their final destination. The mixed-use rates and intercept rates were estimated based on information contained in the Institute of Transportation Engineers' publication *Trip Generation Handbook*. The estimated trip generation of the development is shown in Table 6. Refer back to Table 1 to determine the size of each land use, the ITE Code used to determine the trip generation, the estimated mixed-use trip rate, and the estimated intercept trip rate.

Directional Distribution

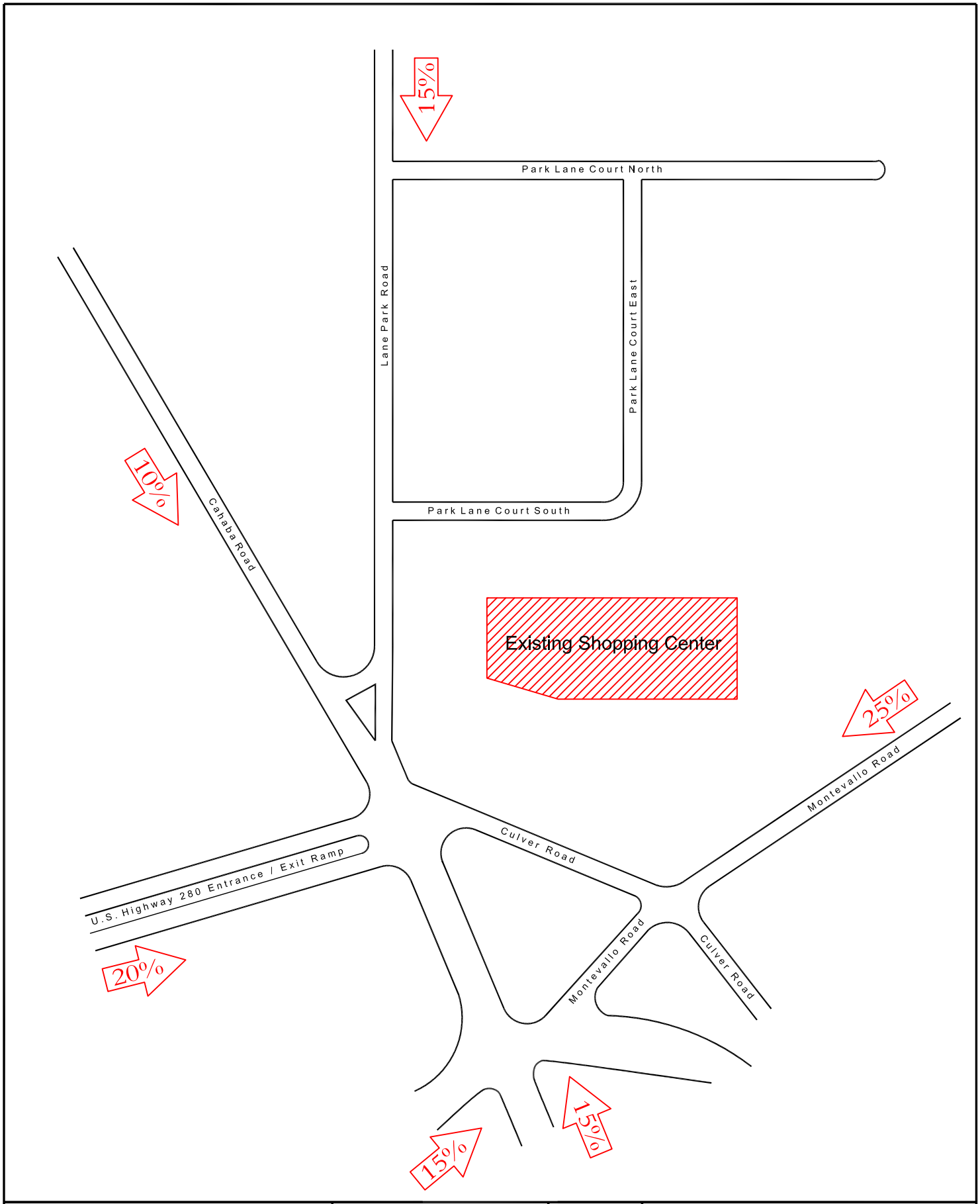
The directional distribution of traffic generated by the proposed development was estimated based on locations of population concentrations and existing traffic flow patterns on the roadway network. The estimated directional distribution of traffic is shown in Figure 6.

Table 6
Trip Generation

Land Use	Total Trip Generation								
	Weekday			AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total	In	Out	Total
Pharmacy	439	439	878	15	11	26	51	51	102
Grocery	1,534	1,534	3,068	66	42	108	161	154	315
Retail	3,268	3,268	6,536	58	37	95	300	312	612
Restaurant (Fine/Casual)	293	293	586	3	2	5	33	16	49
Restaurant (Fine/Casual)	315	315	630	4	2	6	35	17	52
Restaurant (Fast/Casual)	252	252	504	24	22	46	26	18	44
Restaurant (Fast/Casual)	193	193	386	18	17	35	20	14	34
Restaurant (Fast/Casual)	138	138	276	13	12	25	14	10	24
Restaurant (Fast/Casual)	93	93	186	9	8	17	10	7	17
Restaurant (Fast/Casual)	93	93	186	9	8	17	10	7	17
Restaurant (Fast/Casual)	93	93	186	9	8	17	10	7	17
Restaurant (Fast/Casual)	93	93	186	9	8	17	10	7	17
Restaurant (Fast/Casual)	93	93	186	9	8	17	10	7	17
Office	230	230	460	55	7	62	18	89	107
Apartments	898	898	1,796	28	111	139	110	59	169
Hotel	261	261	522	25	16	41	31	28	59
Bank	333	333	666	31	24	55	58	58	116
total	***8,619***	***8,619***	***17,238***	***385***	***343***	***728***	***907***	***861***	***1,768***
Land Use	***Mixed-Use Trip Generation***								
Pharmacy	132	132	264	5	3	8	15	15	30
Grocery	460	460	920	20	13	33	48	46	94
Retail	980	980	1,960	17	11	28	90	94	184
Restaurant (Fine/Casual)	88	88	176	1	1	2	10	5	15
Restaurant (Fine/Casual)	94	94	188	1	1	2	11	5	16
Restaurant (Fast/Casual)	76	76	152	7	7	14	8	5	13
Restaurant (Fast/Casual)	58	58	116	5	5	10	6	4	10
Restaurant (Fast/Casual)	41	41	82	4	4	8	4	3	7
Restaurant (Fast/Casual)	28	28	56	3	2	5	3	2	5
Restaurant (Fast/Casual)	28	28	56	3	2	5	3	2	5
Restaurant (Fast/Casual)	28	28	56	3	2	5	3	2	5
Restaurant (Fast/Casual)	28	28	56	3	2	5	3	2	5
Restaurant (Fast/Casual)	28	28	56	3	2	5	3	2	5
Office	51	51	102	12	2	14	4	20	24
Apartments	341	341	682	11	42	53	42	23	65
Hotel	26	26	52	2	2	4	3	3	6
Bank	100	100	200	9	7	16	17	17	34
total	***2,587***	***2,587***	***5,174***	***109***	***108***	***217***	***273***	***250***	***523***

Table 6 (continued)
Trip Generation

Land Use	External Trip Generation								
	Weekday			AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total	In	Out	Total
Pharmacy	307	307	614	11	8	19	36	36	72
Grocery	1,074	1,074	2,148	46	29	75	112	108	220
Retail	2,287	2,287	4,574	40	26	66	210	218	428
Restaurant (Fine/Casual)	205	205	410	2	1	3	23	11	34
Restaurant (Fine/Casual)	220	220	440	2	2	4	25	12	37
Restaurant (Fast/Casual)	176	176	352	17	15	32	18	13	31
Restaurant (Fast/Casual)	135	135	270	13	12	25	14	10	24
Restaurant (Fast/Casual)	97	97	194	9	8	17	10	7	17
Restaurant (Fast/Casual)	65	65	130	6	6	12	7	5	12
Restaurant (Fast/Casual)	65	65	130	6	6	12	7	5	12
Restaurant (Fast/Casual)	65	65	130	6	6	12	7	5	12
Restaurant (Fast/Casual)	65	65	130	6	6	12	7	5	12
Restaurant (Fast/Casual)	65	65	130	6	6	12	7	5	12
Office	179	179	358	43	6	49	14	69	83
Apartments	557	557	1,114	17	69	86	68	37	105
Hotel	235	235	470	22	14	36	28	25	53
Bank	233	233	466	22	17	39	41	41	82
total	***6,030***	***6,030***	***12,060***	***274***	***237***	***511***	***634***	***612***	***1,246***
Land Use	***Intercept Trip Generation***								
Pharmacy	150	150	300	5	4	9	18	18	36
Grocery	386	386	772	17	11	28	40	39	79
Retail	905	905	1,810	16	10	26	83	86	169
Restaurant (Fine/Casual)	90	90	180	1	1	2	10	5	15
Restaurant (Fine/Casual)	97	97	194	1	1	2	11	5	16
Restaurant (Fast/Casual)	76	76	152	7	7	14	8	5	13
Restaurant (Fast/Casual)	58	58	116	5	5	10	6	4	10
Restaurant (Fast/Casual)	42	42	84	4	4	8	4	3	7
Restaurant (Fast/Casual)	28	28	56	3	2	5	3	2	5
Restaurant (Fast/Casual)	28	28	56	3	2	5	3	2	5
Restaurant (Fast/Casual)	28	28	56	3	2	5	3	2	5
Restaurant (Fast/Casual)	28	28	56	3	2	5	3	2	5
Restaurant (Fast/Casual)	28	28	56	3	2	5	3	2	5
Office	0	0	0	0	0	0	0	0	0
Apartments	0	0	0	0	0	0	0	0	0
Hotel	0	0	0	0	0	0	0	0	0
Bank	110	110	220	10	8	18	19	19	38
total	***2,054***	***2,054***	***4,108***	***81***	***61***	***142***	***214***	***194***	***408***



SKIPPER CONSULTING INC.

North

Scale: n.t.s

Figure 6
Directional Distribution

Lane Parke
Mountain Brook, Alabama

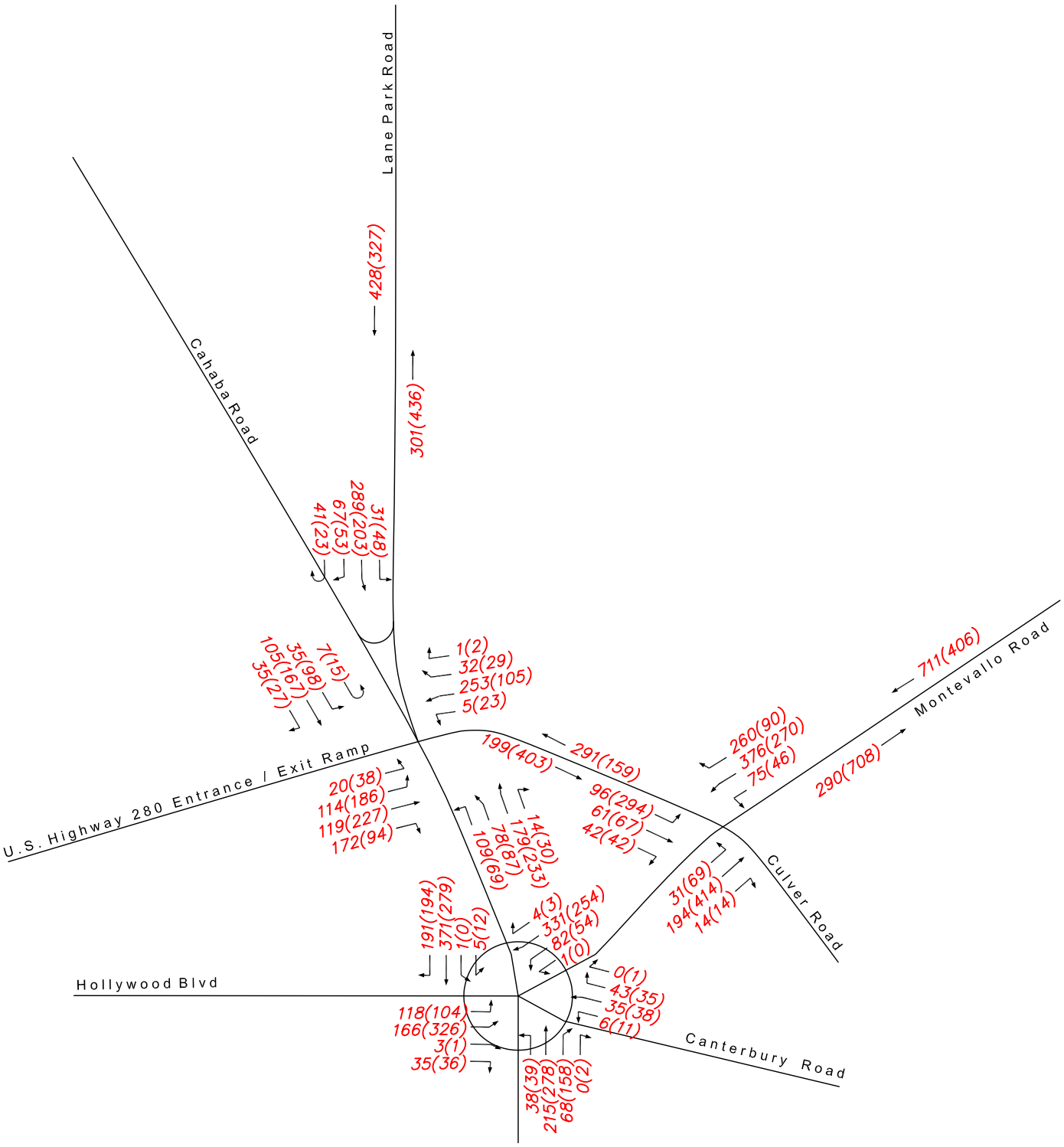
March 2012

1035.072

Traffic Assignment

The vehicle trips projected to be generated by the proposed development for buildout conditions were assigned to the area roadway network according to the directional distribution and access usage assumptions, and then added to background 2015 traffic volumes. Future 2015 traffic volumes were derived by:

1) Balancing traffic on all roadways and intersections using the 2009 traffic counts at the intersection of Cahaba Road/Lane Park Road/Culver Road/U.S. 280 Ramps as a base. The balanced 2009 traffic volumes are shown in Figure 7.
2) Removing existing traffic generated by the current development on the site from the roadway network. The traffic subtracted from the network from the existing shopping center is shown in Figure 8.
3) Factoring the remaining traffic by +1.0% per year from 2009 to 2015 to account for historical traffic growth. The background 2015 traffic volumes with no development are shown in Figure 9.
4) Traffic generated by the proposed development was assigned to the roadway network based on the directional distribution. The traffic assignment is shown in Figure 10.
5) Traffic generated by the proposed development was added to background 2015 traffic volumes. The resultant future a.m. and p.m. peak hour traffic volumes for buildout conditions are shown in Figure 11.



SKIPPER CONSULTING INC.

LEGEND

100 (100) AM (PM)

North

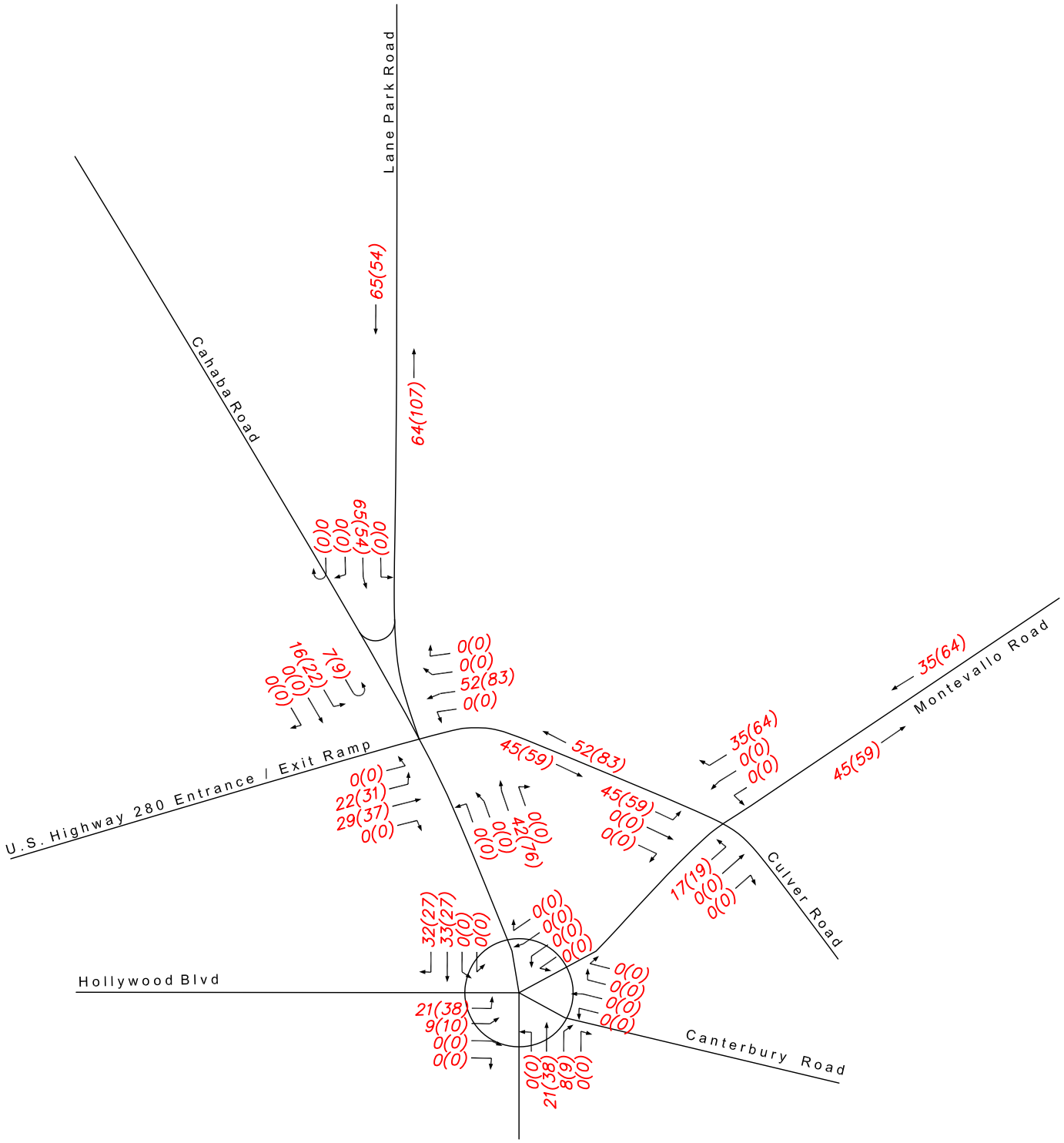
Scale: n.t.s

Figure 7
Balanced 2009 Traffic Volumes

Lane Parke
Mountain Brook, Alabama

March 2012

1035.072



SKIPPER CONSULTING INC.

LEGEND

100 (100) AM (PM)

North

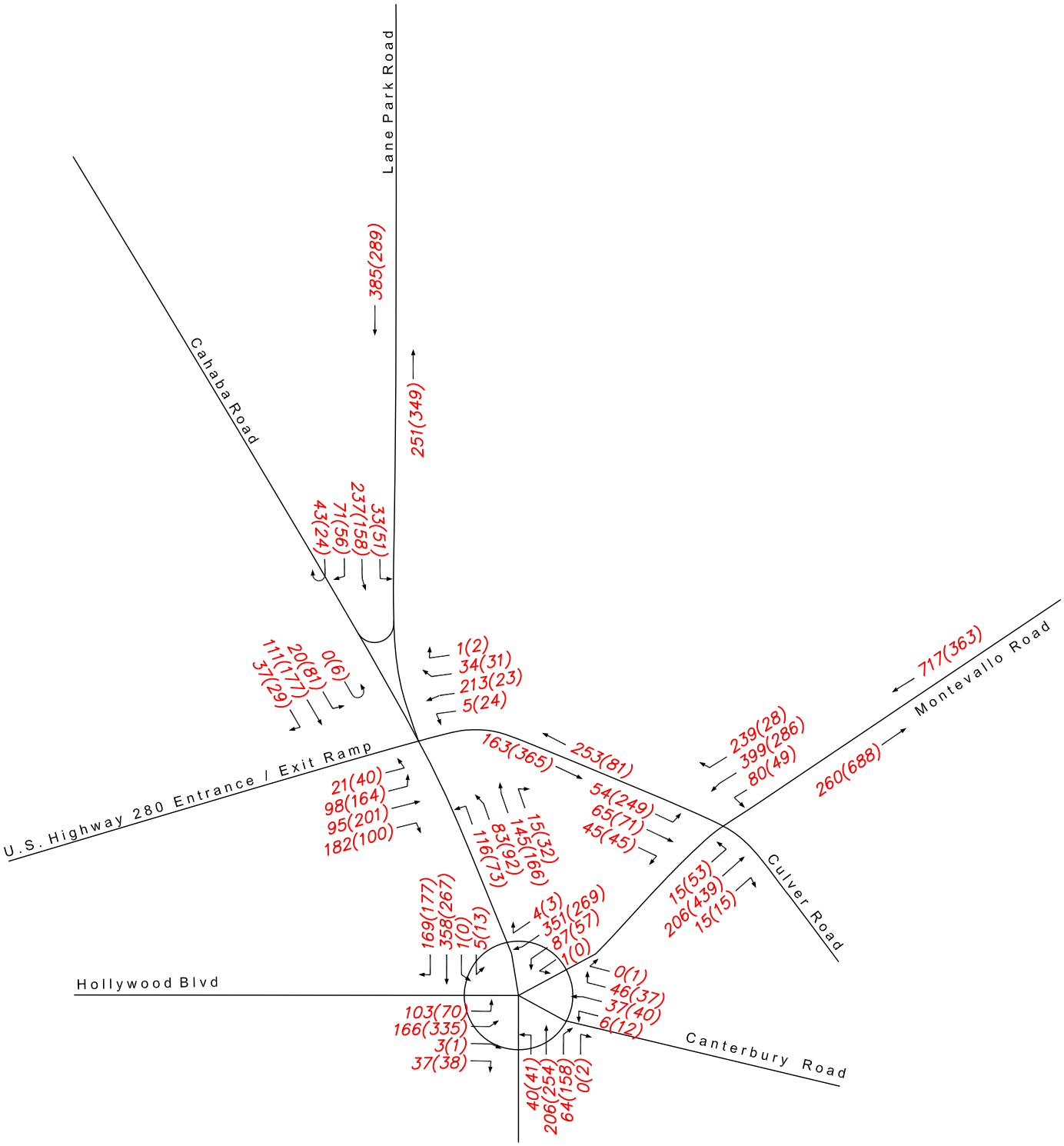
Scale: n.t.s

Figure 8
Existing Development Traffic

Lane Parke
Mountain Brook, Alabama

March 2012

1035.072



SKIPPER CONSULTING INC.

LEGEND

100 (100) AM (PM)

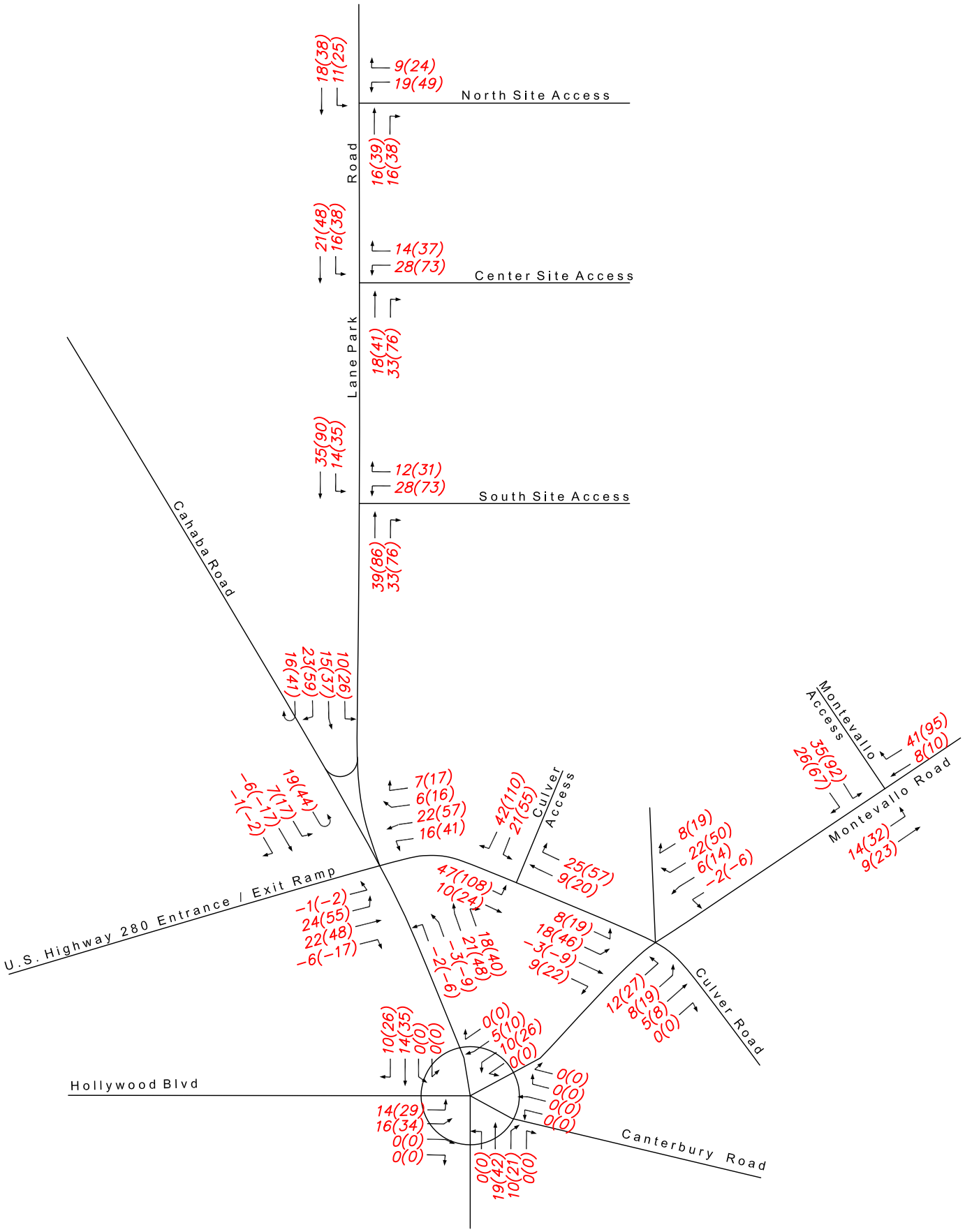
North

Scale: n.t.s

Figure 9
Background 2015 Traffic Volumes

Lane Parke
Mountain Brook, Alabama

March 2012 1035.072



SKIPPER CONSULTING INC.

LEGEND

100 (100) AM (PM)

North

Scale: n.t.s

Figure 10
Traffic Assignment

Lane Parke
Mountain Brook, Alabama

March 2012

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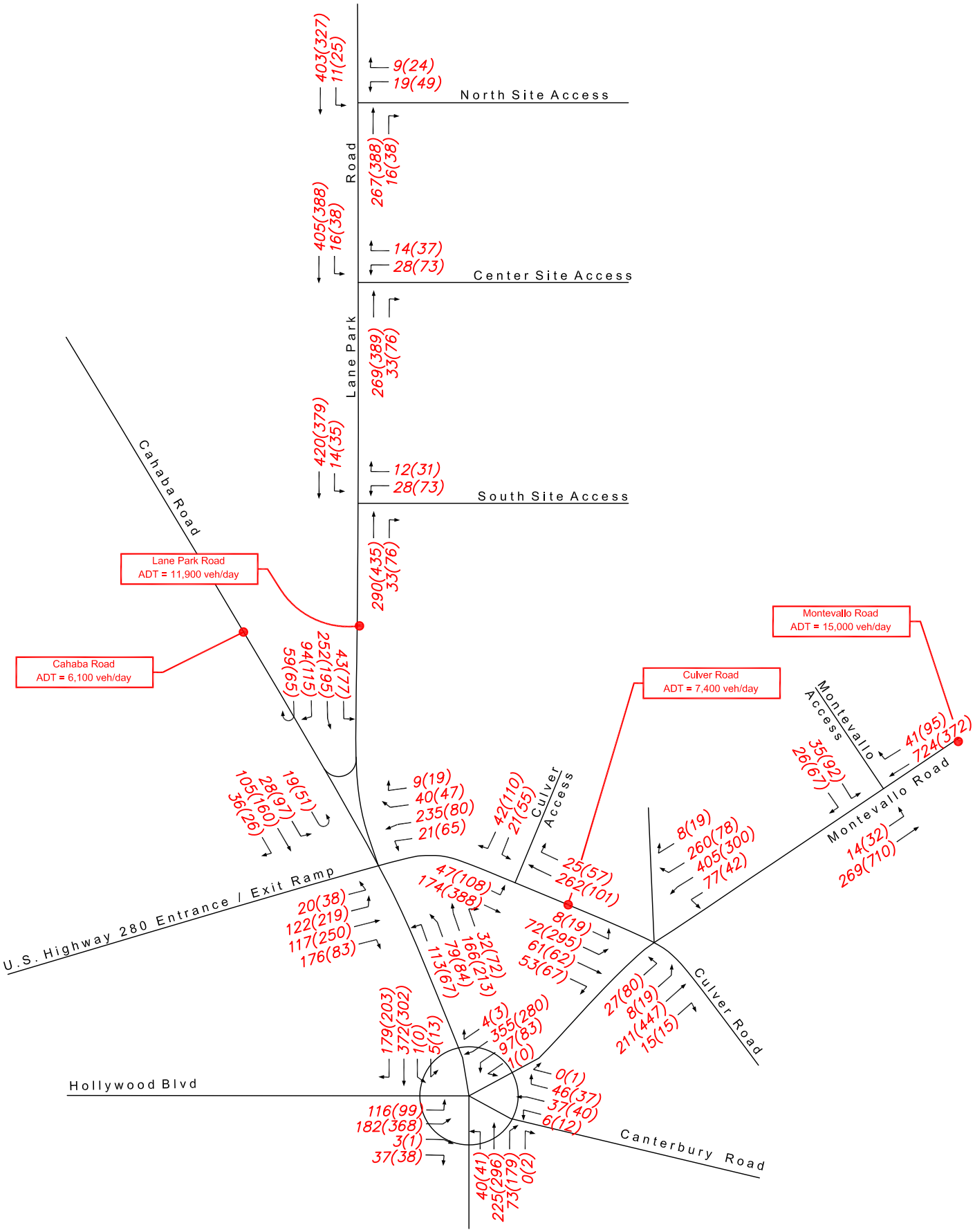

SKIPPER CONSULTING INC.

LEGEND

100 (100) AM (PM)

North

Scale: n.t.s

Figure 11
Future Traffic Volumes

Lane Parke
Mountain Brook, Alabama

March 2012

1035.072

Future Intersection Capacity Analysis

Future peak hour intersection capacity analyses for the study intersections were performed according to the methodology presented in the 2000 *Highway Capacity Manual*, published by the Transportation Research Board. The results of the future peak hour intersection capacity analyses are included in Appendix G and are summarized in Table 7.

Future Daily Roadway Segment Capacity Analysis

Future daily roadway segment capacity analyses were performed by comparing the future daily traffic volumes as shown on Figure 11 with service flows by level of service calculated from information obtained from the Alabama Department of Transportation. The daily level of service chart based on traffic flows is included in Appendix F. Table 8 presents the results of the daily roadway segment capacity analyses.

Table 7
Future Intersection Capacity Analysis

Intersection	*Approach*	*Movement*	*Level of Service*	
			AM	*PM*
Lane Park Road at North Site Access	North Site Access Westbound	Left/Right	B	B
	Lane Park Road Southbound	Left/Through	A	A
Lane Park Road at Center Site Access	Center Site Access Westbound	Left/Right	B	C
	Lane Park Road Southbound	Left	A	A
Lane Park Road at South Site Access	South Site Access Westbound	Left	C	D
		Right	B	B
		Overall approach	*B*	*C*
	Lane Park Road Southbound	Left	A	A
Cahaba Road at Lane Park Road/ Culver Road/ U.S. Highway 280 Ramp	U.S. 280 Ramp Eastbound	Left	C	D
		Through	B	C
		Right	B	C
		Overall approach	*B*	*C*
	Culver Road Westbound	Left	C	C
		Through/Right	D	D
		Overall approach	*C*	*D*
	Cahaba Road Northbound	Left	C	B
		Through/Right	C	C
		Overall approach	*C*	*C*
	Cahaba Road Southbound	Left	C	D
		Through	C	B
		Right	C	B
		Overall approach	*C*	*C*
	Lane Park Road Southbound	Left	C	C
		Through	D	D
		Right	C	D
		Overall approach	*C*	*D*
		Overall intersection	***C***	***C***

Table 7 (continued)
Future Intersection Capacity Analysis

Intersection	*Approach*	*Movement*	*Level of Service*	
			AM	*PM*
Culver Road at Site Access	Culver Road Eastbound	Left	A	A
	Site Access Southbound	Left	B	C
		Right	B	A
		Overall approach	*B*	*B*
Montevallo Road at Culver Road	Culver Road Eastbound	Left	C	C
		Through/Right	C	B
		Overall approach	*C*	*C*
	Montevallo Road Northbound	Left	A	A
		Through/Right	A	A
		Overall approach	*A*	*A*
	Montevallo Road Southbound	Left	A	B
		Through/Right	B	B
		Overall approach	*A*	*B*
		Overall intersection	***B***	***B***
Montevallo Road at Site Access	Site Access Eastbound	Left	D	F
		Right	C	B
		Overall approach	*C*	*E*
	Montevallo Road Northbound	Left	A	A
Cahaba Road at Montevallo Road/ Hollywood Boulevard/ Canterbury Road	Hollywood Boulevard Eastbound	Left	D	C
		Through/Right	B	C
		Overall approach	*C*	*C*
	Montevallo Road Westbound	Left	B	D
		Through/Right	C	C
		Overall approach	*C*	*C*
	Cahaba Road Northbound	Left	C	B
		Through/Right	B	C
		Overall approach	*B*	*C*
	Cahaba Road Southbound	Left	B	B
		Through/Right	C	C
		Overall approach	*C*	*C*
	Canterbury Road Westbound	Left	C	C
		Through/Right	D	C
		Overall approach	*D*	*C*
		Overall intersection	***C***	***C***

Table 8
Future Daily Roadway Segment Capacity Analysis

Roadway	*Segment*	*Daily Traffic Volume*	*Level of Service*
Lane Park Road	South Access to Culver Road	11,900	D
Cahaba Road	Birmingham Zoo to Culver Road	6,100	A
Culver Road	Site Access to Montevallo Road	7,400	B
Montevallo Road	Overhill Road to Site Access	15,000	E

Turn Lane Warrant Analysis

Left Turn Lane Warrant Analysis

Recommendations for the addition of left turn lanes for ingress to the proposed site accesses for future conditions were evaluated using methods outlined in the *Intersection Channelization Design Guide, Report 279*, published by the Transportation Research Board. According to the design guide, the following guidelines are suggested when considering the addition of a left turn lane:

- Left turn lanes should be considered at all median crossovers on divided, high speed highways.
- Left turn lanes should be provided at all unstopped (i.e. through) approaches of primary high-speed rural highway intersections with other arterials or collectors.
- Left turn lanes are recommended at approaches to intersections for which the combination of through left, and opposing volumes exceeds the warrants shown in Figure 4-12 provided as Figure 4 of the TRB report.

- Left turn lanes on stopped or secondary approaches should be provided based on analysis of the capacity and operations of the unsignalized intersection. Considerations include minimizing delays to right turning or through vehicles, and total approach capacity.
- Left turn lanes should be considered at intersection approaches that experience a significant number of left-turn involved accidents. A total of 4 or more such accidents in 12 months or 6 or more in 24 months, is considered appropriate.

The left turn lane warrant analysis graph as referenced from the TRB report is included in Appendix H. The analyses were performed using the p.m. peak hour volumes for full buildout conditions since this represents the peak projected left turn traffic. The results of the left turn lane warrant analyses are summarized in Table 9.

Table 9
Left Turn Lane Warrant Analysis

Intersection	*Approach*	*Opposing Volume (V_o)*	*Advancing Volume (V_A)*	*Left Turns in V_A*	*Left Turn Lane Warranted?*
Lane Park Road at North Access	Lane Park Road Southbound	426	352	25 (7%)	No
Lane Park Road at Center Access	Lane Park Road Southbound	465	426	38 (9%)	Yes
Lane Park Road at South Access	Lane Park Road Southbound	511	414	35 (8%)	Yes
Culver Road at Access	Culver Road Eastbound	158	496	108 (22%)	Yes
Montevallo Road at Access	Montevallo Road Northbound	467	742	32 (4%)	Yes

Right Turn Lane Warrant Analysis

Recommendations for the addition of right turn lanes for ingress to the proposed site accesses for future conditions were evaluated using methods outlined in the *Intersection Channelization Design Guide, Report 279*, published by the Transportation Research Board. According to the design guide, the following guidelines are suggested when considering the addition of a right turn lane:

- Right turn lanes should be considered intersections when a significant percentage of the approach volume is the right turning volume.
- Right turn lanes should be considered intersections when there is a presence of pedestrians who could conflict with right-turning vehicles.
- Right turn lanes should be considered intersections when there is a severe skew or grade that increases the difficulty of right turns.

The right turn lane warrant analysis graph as referenced from the TRB report is included in Appendix H. The analyses were performed using the p.m. peak hour volumes for full buildout conditions since this represents the peak projected right turn traffic. The results of the right turn lane warrant analyses are summarized in Table 10.

Table 10
Right Turn Lane Warrant Analysis

Intersection	*Approach*	*Approach Volume*	*Right Turns*	*Right Turn Lane Warranted?*
Lane Park Road at North Access	Lane Park Road Northbound	426	38	No
Lane Park Road at Center Access	Lane Park Road Northbound	465	76	Yes
Lane Park Road at South Access	Lane Park Road Northbound	511	76	Yes
Culver Road at Access	Culver Road Westbound	158	57	No
Montevallo Road at Access	Montevallo Road Westbound	467	95	Yes

It should be noted that a right turn lane is warranted at one location where the physical constraints of the existing roadway system will not allow construction, namely Montevallo Road westbound at the site access. In this case, it is recommended that as large as radius as practical be provided for the right turn movement.

Queue Analysis

Queue lengths during the p.m. peak hour of traffic flow for critical movements at the major study intersections were evaluated using a variety of analysis techniques including NCHRP Report 457 and the Synchro software. The 95th percentile queue lengths calculated are shown in Table 11.

Table 11
Queue Lengths

Intersection	*Approach*	*Lane Group*	*95th %tile Queue Length (PM Peak – Buildout)*
Lane Park Road at North Access (Unsignalized)	Lane Park Road Southbound	Left	70’
	North Access Westbound	Left/Right	35’
Lane Park Road at Center Access (Unsignalized)	Lane Park Road Southbound	Left	70’
	Center Access Westbound	Left/Right	80’
Lane Park Road at South Access (Unsignalized)	Lane Park Road Southbound	Left	70’
	South Access Westbound	Left	45’
		Right	25’
Cahaba Road at Lane Park Road/ Culver Road/ U.S. 280 Ramp (Signalized)	U.S. 280 Ramp Eastbound	Left	250’
		Through	210’
		Right	35’
	Culver Road Westbound	Left	80’
		Through/Right	150’
	Cahaba Road Northbound	Left	70’
		Through/Right	365’
	Cahaba Road Southbound	Left	245’
		Through	140’
		Right	20’
	Lane Park Road Southbound	Left	90’
		Through	200’
		Right	170’
Culver Road at Access (Unsignalized)	Culver Road Eastbound	Left	70’
	Access Southbound	Left	25’
		Right	35’

Table 11 (continued)
Queue Lengths

Intersection	*Approach*	*Lane Group*	*95th %tile Queue Length (PM Peak – Buildout)*
Montevallo Road at Culver Road (Signalized)	Culver Road Eastbound	Left	205’
		Through/Right	100’
	Montevallo Road Northbound	Left	35’
		Through/Right	175’
	Montevallo Road Southbound	Left	35’
		Through/Right	235’
Montevallo Road at Access (Unsignalized)	Montevallo Road Northbound	Left	70’
	Access Eastbound	Left	135’
		Right	25’
Cahaba Road at Montevallo Road/Hollywood Blvd./Canterbury Rd. (Signalized)	Hollywood Blvd. Eastbound	Left	85’
		Through/Right	285’
	Montevallo Road Westbound	Left	80’
		Through/Right	185’
	Cahaba Road Northbound	Left	55’
		Through/Right	400’
	Cahaba Road Southbound	Left	20’
		Through/Right	405’
	Canterbury Road Westbound	Left	65’
		Through/Right	50’

Ray-Poyner Building

The proposed development plan includes retaining the existing Ray-Poyner office building. Parking for the Ray-Poyner building is proposed for the north and west sides of the building. Access to the parking for the building is proposed to remain in its current location on Lane Park Road, which is within the confines of the intersection of Cahaba Road/Lane Park Road/Culver Road/U.S. 280 Ramps. This location is not ideal for traffic flow, but is necessary to accommodate the existing condition. Over the course of the development of the project various attempts have been made to deal with the Ray-Poyner Building and its accesses to the public roadway system. These attempts have not been successful in addressing the traffic flow concerns caused by the Ray-Poyner Building.

Table 12 summarizes the trip generation of the Ray-Poyner Building developed according to ITE *Trip Generation, 8th Edition*. As shown, the contribution of traffic to the roadway network during the peak hours of traffic flow is minimal.

Table 12
Ray-Poyner Building Trip Generation

Land Use	*ITE Code*	*Size*	*Weekday*			*AM Peak Hour*			*PM Peak Hour*		
			In	*Out*	*Total*	*In*	*Out*	*Total*	*In*	*Out*	*Total*
Office	715	4,822 sq.ft.	28	28	56	8	1	9	1	7	8

RECOMMENDED IMPROVEMENTS

The proposed access schematic depicting cross sections and traffic control of all access points and improvements to the public roadway system are depicted in Figure 12. The following is a listing of improvements required to support the proposed development:

- Widen Lane Park Road to a three lane cross section from north of the center access to the intersection of Cahaba Road/Culver Road/U.S. 280 ramps.
- Construct right turn lanes into the south and center accesses on Lane Park Road.
- Construct a right turn lane on Lane Park Road southbound turning onto the U.S. Highway 280 entrance ramp.
- Widen Culver Road to a three lane cross section.
- Restripe Montevallo Road to provide a left turn lane into the site access.
- Modify the traffic signal at the intersection of Cahaba Road/Lane Park Road/Culver Road/U.S. 280 Ramps to provide a protected-permissive left turn arrow for traffic turning left from the U.S. 280 ramp northbound onto Cahaba Road and Lane Park Road.

Design Issues

The proposed site plan as included in Appendix A is schematic in nature and does not represent construction drawings. There are design issues which should be addressed when construction drawings are prepared for the project. These issues include, but are not limited to:

- Maintaining proper sight distance triangles at intersections. This includes proper placement and control of on-street parking and landscaping.
- Reviewing the placement of on-street parking to control vehicles backing into intersections.

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Legend

Traffic Signal

North

Scale: n.t.s

Figure 12
Recommended Access Schematic

Lane Parke
Mountain Brook, Alabama

March 2012

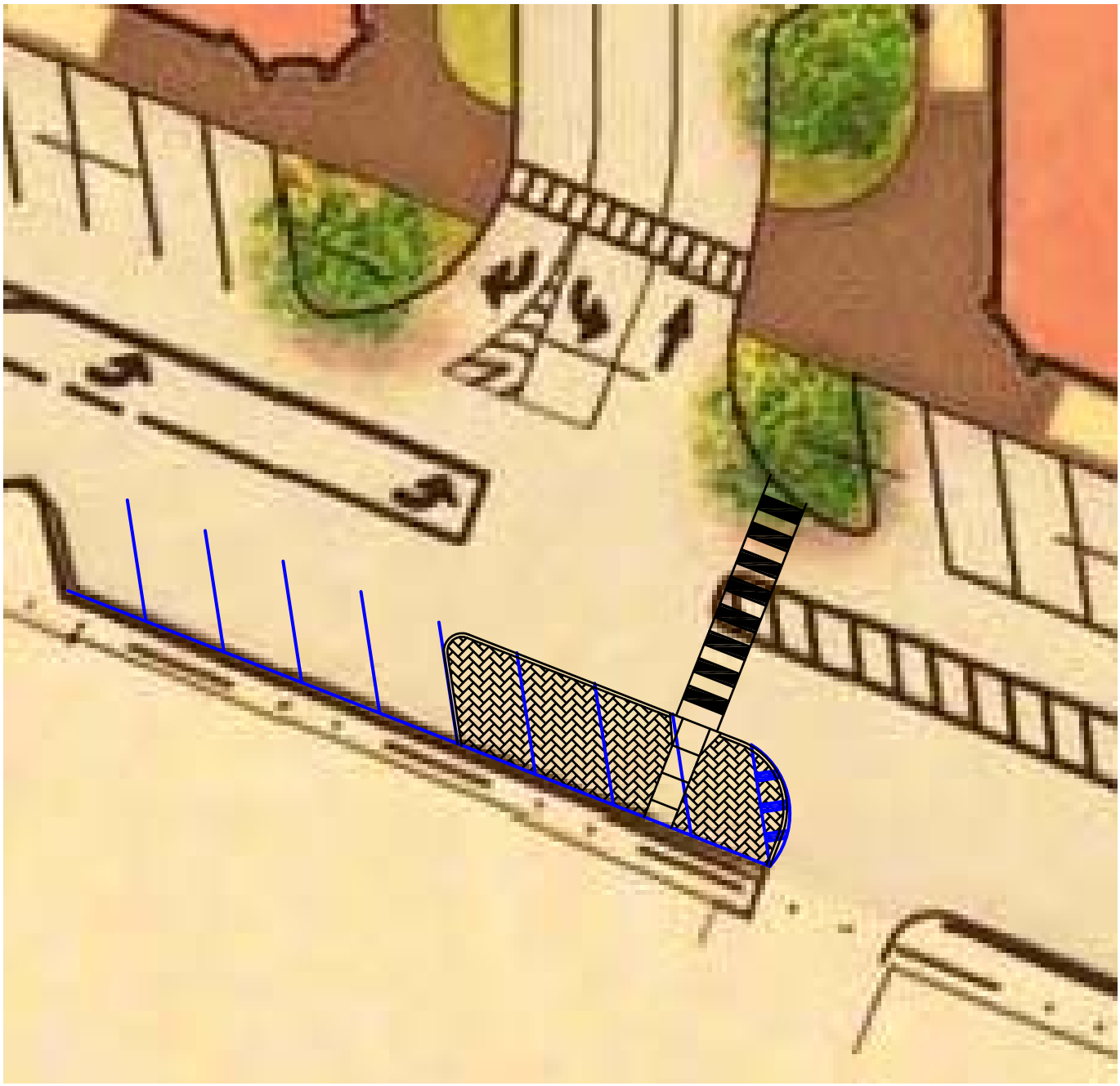
1035.072

- Determining locations where "back-out" buffers are needed and practical for the on-street parking on major public roadways.
- Proper signing and striping of pedestrian crossings.
- Proper signing and striping of intersections.
- Proper turn radii at intersections, including detailed analysis and design of the turning movements into the inbound-only access to the development at the intersection of Montevallo Road and Culver Road.
- Detailed analysis and design of pedestrian crossing features crossing the inbound-only access at the intersection of Montevallo Road and Culver Road, including determining the need for right turn on red restrictions.

Pedestrian Crossings

Culver Road at Main Street

The first pedestrian crossing discussed in this report is a proposed crossing of Culver Road on the east side of Main Street, crossing to the Sneaky Pete's. This crosswalk is not shown on the current site plan, but has been included on site plans in the past. It was recognized that pedestrians currently cross in this area today and will likely continue to do so in the future. Providing a marked pedestrian crossing in this area is problematic, but not insurmountable. The primary difficulties associated with providing a marked pedestrian crosswalk is the loss of on-street parking. In order for the crossing to be placed in the safest location and a location which has the least impact on traffic, parking spaces may need to be removed in front of the Sneaky Pete's. There have been concerns raised about this crossing being too close to adjacent pedestrian crossings at signalized intersections and concerns were also raised about parking in front of Sneaky Pete's having to back into the intersection of Culver Road and Main Street when exiting. A sketch of the proposed crossing is included in Figure 13.



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LEGEND

North

Scale: n.t.s

Figure 13
Culver Road Pedestrian Crossing

Lane Parke
Mountain Brook, Alabama

March 2012

1035.072

Lane Parke Road at Botanical Gardens

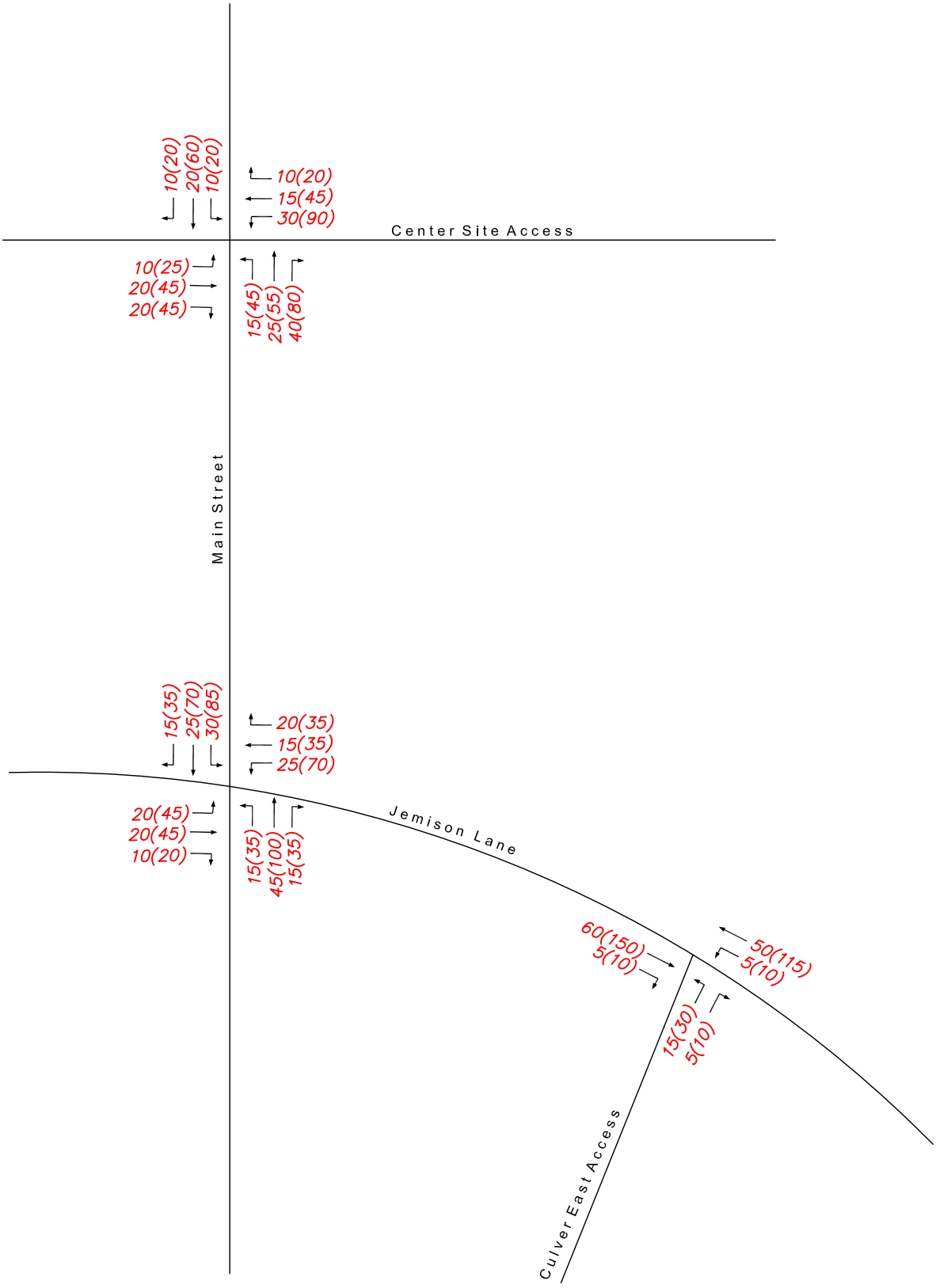
The second pedestrian crossing discussed in this report is a crossing of Lane Parke Road at the north end of the subject property, crossing to the Botanical Gardens. This crosswalk is shown in the master site plan. The location of the crosswalk should begin on the south edge of the Botanical Gardens drive and extend to the north side of the north Lane Parke access. This crosswalk would need some type of semi-active control, such as flashing warning beacons activated by pedestrian pushbuttons. Concern has been expressed that there must be appropriate pedestrian facilities on the Botanical Gardens side of the roadway to receive the proposed crosswalk. Birmingham Botanical Gardens has been consulted and they are agreeable to constructing a sidewalk on the south side of their driveway and parking area.

Internal Circulation

An analysis was performed for the major internal intersections of the proposed development for buildout conditions in the year 2015. The intersections included in this analysis were:

- Main Street at Jemison Lane
- Main Street at the Center Site Access
- Jemison Lane at the Culver East Access

Traffic volumes were estimated based on the projected traffic volumes entering and exiting the site at each of the site access points to the surrounding roadway network. The projected traffic volumes at the internal intersections for the a.m. and p.m. peak hours of traffic flow are shown in Figure 14.



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LEGEND

100 (100) AM (PM)

North

Scale: n.t.s

Figure 14
Internal Traffic Volumes

Lane Parke
Mountain Brook, Alabama

March 2012

1035.072

It should be noted that cut-through traffic on Jemison Lane from Montevallo Road to Lane Park Road was not estimated and is assumed to be negligible in this study. A nominal volume of cut-through traffic on Jemison Lane would not change the results of analyses or the recommendations of this report.

The capacity of the internal intersections was evaluated using the 2000 *Highway Capacity Manual* procedures in order to determine quality of operation and proper traffic control. The results of the analyses are included in Appendix I and are summarized in Table 13. As shown, all movements at all internal intersections are expected to operate at a level of service “A” or “B”. The recommended traffic control at the internal intersections is as follows:

Main Street at Jemison Lane	Multi-way Stop
Main Street at Center Site Access	Side Street Stop (stop signs on Main Street)
Jemison Lane at Culver East Access	Side Street Stop (stop sign on Culver East Access)

Table 13
Internal Intersection Capacity Analysis

Intersection	*Approach*	*Movement*	*Level of Service*	
			AM Peak	*PM Peak*
Main Street at Jemison Lane	Jemison Lane Eastbound	Left-Through-Right	A	A
	Jemison Lane Westbound	Left-Through-Right	A	A
	Main Street Northbound	Left-Through-Right	A	A
	Main Street Southbound	Left-Through-Right	A	A
Main Street at Center Site Access	Center Access Eastbound	Left-Through-Right	A	A
	Center Access Westbound	Left-Through-Right	A	A
	Main Street Northbound	Left-Through-Right	A	B
	Main Street Southbound	Left-Through-Right	A	B
Jemison Lane at Culver East Access	Jemison Lane Westbound	Left-Through	A	A
	Culver East Access Northbound	Left-Right	A	B

Appendix A

Site Plan

Appendix B

Intersection Turning Movement Traffic Counts

A

TRAFFIC DATA, LLC

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

Mountain Brook, AL

File Name : mtbrook03
Site Code : 00000000
Start Date : 11/29/2007
Page No : 1

Groups Printed- 1 - Unshifted

	LANE PARK RD Southbound		PARK LANE CT N Westbound		LANE PARK RD Northbound		
Start Time	Left	Thru	Left	Right	Thru	Right	Int. Total
04:00 PM	0	67	2	0	91	1	161
04:15 PM	1	92	3	1	79	4	180
04:30 PM	4	87	1	1	89	2	184
04:45 PM	3	84	2	2	107	4	202
Total	8	330	8	4	366	11	727
05:00 PM	2	71	1	2	92	3	171
05:15 PM	7	71	0	5	104	4	191
05:30 PM	7	89	3	0	99	3	201
05:45 PM	5	76	2	2	93	5	183
Total	21	307	6	9	388	15	746
07:00 AM	0	45	3	1	72	0	121
07:15 AM	0	68	2	3	71	0	144
07:30 AM	0	96	5	2	79	1	183
07:45 AM	0	106	9	4	78	3	200
Total	0	315	19	10	300	4	648
08:00 AM	0	101	8	2	62	0	173
08:15 AM	0	90	4	2	59	0	155
08:30 AM	0	77	6	1	75	3	162
08:45 AM	0	47	5	2	62	1	117
Total	0	315	23	7	258	4	607
Grand Total	29	1267	56	30	1312	34	2728
Apprch %	2.2	97.8	65.1	34.9	97.5	2.5	
Total %	1.1	46.4	2.1	1.1	48.1	1.2	

	LANE PARK RD Southbound			PARK LANE CT N Westbound			LANE PARK RD Northbound				
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1											
Intersection	04:45 PM										
Volume	19	315	334	6	9	15	402	14	416	0	765
Percent	5.7	94.3		40.0	60.0		96.6	3.4			
04:45 Volume	3	84	87	2	2	4	107	4	111	0	202
Peak Factor											0.947
High Int.	05:30 PM			05:15 PM			04:45 PM			3:45:00 PM	
Volume	7	89	96	0	5	5	107	4	111		
Peak Factor			0.870			0.750			0.937		
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1											
By Approach	04:15 PM			04:45 PM			04:45 PM			04:00 PM	
Volume	10	334	344	6	9	15	402	14	416	0	
Percent	2.9	97.1		40.0	60.0		96.6	3.4			
High Int.	04:15 PM			05:15 PM			04:45 PM			-	
Volume	1	92	93	0	5	5	107	4	111	-	
Peak Factor			0.925			0.750			0.937	-	

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

File Name : mtbrook03
Site Code : 00000000
Start Date : 11/29/2007
Page No : 2

	LANE PARK RD Southbound			PARK LANE CT N Westbound			LANE PARK RD Northbound				
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1											
Intersection	07:30 AM										
Volume	0	393	393	26	10	36	278	4	282	0	711
Percent	0.0	100.0		72.2	27.8		98.6	1.4			
07:45 Volume	0	106	106	9	4	13	78	3	81	0	200
Peak Factor											0.889
High Int.	07:45 AM			07:45 AM			07:45 AM				
Volume	0	106	106	9	4	13	78	3	81		
Peak Factor			0.927			0.692			0.870		
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1											
By Approach	07:30 AM			07:30 AM			07:00 AM			07:00 AM	
Volume	0	393	393	26	10	36	300	4	304	0	
Percent	0.0	100.0		72.2	27.8		98.7	1.3			
High Int.	07:45 AM			07:45 AM			07:45 AM			-	
Volume	0	106	106	9	4	13	78	3	81	-	
Peak Factor			0.927			0.692			0.938	-	

B

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1409 Turnham Lane
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Mountain Brook, AL

File Name : mtbrook05
Site Code : 00000000
Start Date : 11/29/2007
Page No : 1

Groups Printed- 1 - Unshifted

	LANE PARK RD Southbound		PARK LANE CT S Westbound		LANE PARK RD Northbound		
Start Time	Left	Thru	Left	Right	Thru	Right	Int. Total
04:00 PM	1	77	1	0	89	5	173
04:15 PM	0	87	2	1	84	4	178
04:30 PM	0	92	4	0	103	4	203
04:45 PM	0	81	2	0	101	4	188
Total	1	337	9	1	377	17	742
05:00 PM	1	75	2	1	99	11	189
05:15 PM	1	83	1	1	112	7	205
05:30 PM	1	90	4	0	103	7	205
05:45 PM	2	71	2	1	96	8	180
Total	5	319	9	3	410	33	779
07:00 AM	0	44	8	1	75	2	130
07:15 AM	0	70	4	0	62	1	137
07:30 AM	1	111	12	2	83	1	210
07:45 AM	0	118	2	3	73	4	200
Total	1	343	26	6	293	8	677
08:00 AM	0	100	2	0	65	0	167
08:15 AM	0	88	3	1	67	1	160
08:30 AM	0	81	8	0	71	2	162
08:45 AM	0	59	6	0	62	0	127
Total	0	328	19	1	265	3	616
Grand Total	7	1327	63	11	1345	61	2814
Apprch %	0.5	99.5	85.1	14.9	95.7	4.3	
Total %	0.2	47.2	2.2	0.4	47.8	2.2	

	LANE PARK RD Southbound			PARK LANE CT S Westbound			LANE PARK RD Northbound				
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1											
Intersection	04:45 PM										
Volume	3	329	332	9	2	11	415	29	444	0	787
Percent	0.9	99.1		81.8	18.2		93.5	6.5			
05:30 Volume	1	90	91	4	0	4	103	7	110	0	205
Peak Factor											0.960
High Int.	05:30 PM			05:30 PM			05:15 PM			3:45:00 PM	
Volume	1	90	91	4	0	4	112	7	119		
Peak Factor			0.912			0.688			0.933		
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1											
By Approach	04:00 PM			04:15 PM			04:45 PM			04:00 PM	
Volume	1	337	338	10	2	12	415	29	444	0	
Percent	0.3	99.7		83.3	16.7		93.5	6.5			
High Int.	04:30 PM			04:30 PM			05:15 PM			-	
Volume	0	92	92	4	0	4	112	7	119	-	
Peak Factor			0.918			0.750			0.933	-	

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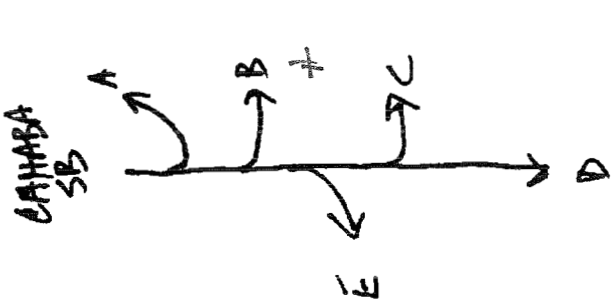
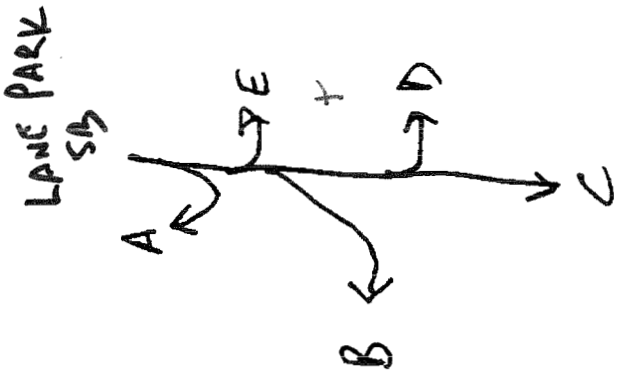
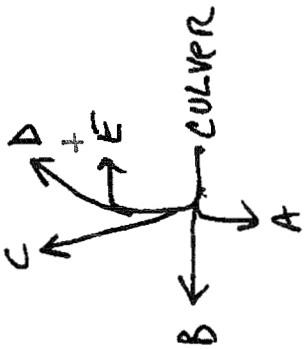
1409 Turnham Lane
Birmingham, AL 35216
205-824-0125

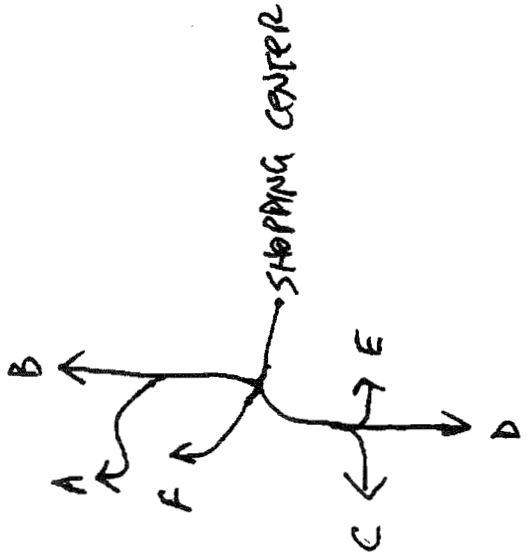
File Name : mtbrook05
Site Code : 00000000
Start Date : 11/29/2007
Page No : 2

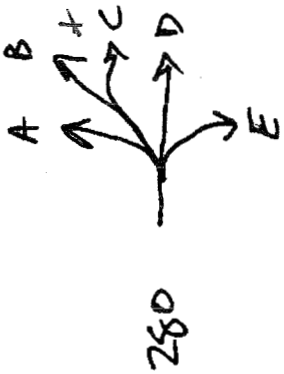
	LANE PARK RD Southbound			PARK LANE CT S Westbound			LANE PARK RD Northbound				
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1											
Intersection	07:30 AM										
Volume	1	417	418	19	6	25	288	6	294	0	737
Percent	0.2	99.8		76.0	24.0		98.0	2.0			
07:30 Volume	1	111	112	12	2	14	83	1	84	0	210
Peak Factor											0.877
High Int.	07:45 AM			07:30 AM			07:30 AM				
Volume	0	118	118	12	2	14	83	1	84		
Peak Factor			0.886			0.446			0.875		
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1											
By Approach	07:30 AM			07:00 AM			07:00 AM			07:00 AM	
Volume	1	417	418	26	6	32	293	8	301	0	
Percent	0.2	99.8		81.3	18.8		97.3	2.7			
High Int.	07:45 AM			07:30 AM			07:30 AM			-	
Volume	0	118	118	12	2	14	83	1	84	-	
Peak Factor			0.886			0.571			0.896	-	

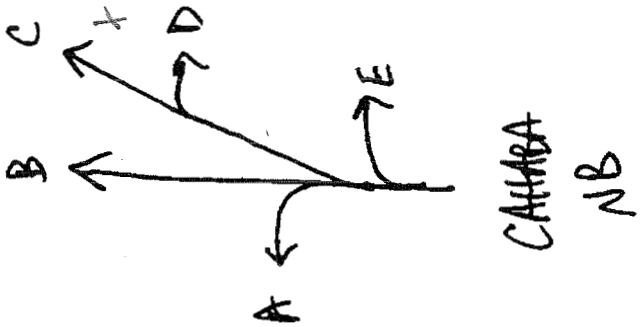

CAHABA SB
A
B
C
D
E


LAKE PARK SB
A
B
C
D
E


CULVER
A
B
C
D
E


SHOPPING CENTER
A
B
C
D
E
F


280
A
B
C
D
E


CAHABA NB
A
B
C
D
E

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

Mountain Brook, AL

File Name : mbrook08
Site Code : 00000000
Start Date : 09/08/2009
Page No : 1

Groups Printed- Unshifted

	HWY 280 RAMPS Eastbound					
Start Time	A	B	C	D	E	Int. Total
11:00 AM	10	29	4	25	18	86
11:15 AM	13	27	5	36	15	96
11:30 AM	10	31	9	40	29	119
11:45 AM	7	24	2	45	28	106
Total	40	111	20	146	90	407
12:00 PM	11	23	4	28	22	88
12:15 PM	13	29	6	43	17	108
12:30 PM	7	28	4	33	25	97
12:45 PM	6	20	5	41	29	101
Total	37	100	19	145	93	394
04:00 PM	8	36	3	42	10	99
04:15 PM	1	23	4	41	19	88
04:30 PM	3	27	7	45	10	92
04:45 PM	8	46	3	59	23	139
Total	20	132	17	187	62	418
05:00 PM	9	35	4	59	28	135
05:15 PM	10	44	4	57	23	138
05:30 PM	11	47	3	52	20	133
05:45 PM	15	34	2	58	29	138
Total	45	160	13	226	100	544
07:00 AM	9	30	1	23	28	91
07:15 AM	5	26	0	16	45	92
07:30 AM	7	22	4	24	35	92
07:45 AM	6	19	1	30	43	99
Total	27	97	6	93	151	374
08:00 AM	4	35	0	34	57	130
08:15 AM	3	30	3	31	37	104
08:30 AM	4	23	2	18	36	83
08:45 AM	9	29	9	24	27	98
Total	20	117	14	107	157	415
Grand Total	189	717	89	904	653	2552
Apprch %	7.4	28.1	3.5	35.4	25.6	
Total %	7.4	28.1	3.5	35.4	25.6	

				HWY 280 RAMPS Eastbound						
Start Time	App. Total	App. Total	App. Total	A	B	C	D	E	App. Total	Int. Total
Peak Hour From 11:00 AM to 12:45 PM - Peak 1 of 1										
Intersection	11:30 AM									
Volume	0	0	0	41	107	21	156	96	421	421
Percent				9.7	25.4	5.0	37.1	22.8		
11:30 Volume	0	0	0	10	31	9	40	29	119	119
Peak Factor										0.884
High Int.	10:45:00 AM	10:45:00 AM	10:45:00 AM	11:30 AM						
Volume	0	0	0	10	31	9	40	29	119	
Peak Factor									0.884	

TRAFFIC DATA, LLC

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File Name : mbrook08
Site Code : 00000000
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				HWY 280 RAMPS Eastbound						
Start Time	App. Total	App. Total	App. Total	A	B	C	D	E	App. Total	Int. Total
Peak Hour From 11:00 AM to 12:45 PM - Peak 1 of 1										
By Approach	11:00 AM	11:00 AM	11:00 AM	11:30 AM						
Volume	0	0	0	41	107	21	156	96	421	
Percent				9.7	25.4	5.0	37.1	22.8		
High Int.	-	-	-	11:30 AM						
Volume	-	-	-	10	31	9	40	29	119	
Peak Factor	-	-	-						0.884	
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1										
Intersection	04:45 PM									
Volume	0	0	0	38	172	14	227	94	545	545
Percent				7.0	31.6	2.6	41.7	17.2		
04:45 Volume	0	0	0	8	46	3	59	23	139	139
Peak Factor										0.980
High Int.				04:45 PM						
Volume	0	0	0	8	46	3	59	23	139	
Peak Factor									0.980	
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1										
By Approach	04:00 PM	04:00 PM	04:00 PM	04:45 PM						
Volume	0	0	0	38	172	14	227	94	545	
Percent				7.0	31.6	2.6	41.7	17.2		
High Int.	-	-	-	04:45 PM						
Volume	-	-	-	8	46	3	59	23	139	
Peak Factor	-	-	-						0.980	
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1										
Intersection	07:30 AM									
Volume	0	0	0	20	106	8	119	172	425	425
Percent				4.7	24.9	1.9	28.0	40.5		
08:00 Volume	0	0	0	4	35	0	34	57	130	130
Peak Factor										0.817
High Int.				08:00 AM						
Volume	0	0	0	4	35	0	34	57	130	
Peak Factor									0.817	
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1										
By Approach	07:00 AM	07:00 AM	07:00 AM	07:30 AM						
Volume	0	0	0	20	106	8	119	172	425	
Percent				4.7	24.9	1.9	28.0	40.5		
High Int.	-	-	-	08:00 AM						
Volume	-	-	-	4	35	0	34	57	130	
Peak Factor	-	-	-						0.817	

TRAFFIC DATA, LLC

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Mountain Brook, AL

File Name : mbrook14
Site Code : 00000000
Start Date : 09/08/2009
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Groups Printed- Unshifted

	CAHABA RD Northbound					
Start Time	A	B	C	D	E	Int. Total
11:00 AM	16	19	28	6	17	86
11:15 AM	13	19	28	5	16	81
11:30 AM	16	17	29	4	3	69
11:45 AM	14	30	42	6	3	95
Total	59	85	127	21	39	331
12:00 PM	21	15	26	5	10	77
12:15 PM	19	18	42	6	9	94
12:30 PM	17	14	29	4	17	81
12:45 PM	24	24	39	7	12	106
Total	81	71	136	22	48	358
04:00 PM	16	24	39	6	11	96
04:15 PM	19	15	36	5	8	83
04:30 PM	15	17	46	12	4	94
04:45 PM	22	23	43	7	8	103
Total	72	79	164	30	31	376
05:00 PM	18	24	45	9	15	111
05:15 PM	14	23	66	5	3	111
05:30 PM	19	24	42	4	5	94
05:45 PM	15	24	34	3	9	85
Total	66	95	187	21	32	401
07:00 AM	14	7	27	2	2	52
07:15 AM	12	17	34	2	1	66
07:30 AM	34	26	31	2	4	97
07:45 AM	30	24	53	0	1	108
Total	90	74	145	6	8	323
08:00 AM	20	14	51	3	4	92
08:15 AM	25	14	37	2	5	83
08:30 AM	21	13	30	0	1	65
08:45 AM	20	19	33	8	4	84
Total	86	60	151	13	14	324
Grand Total	454	464	910	113	172	2113
Apprch %	21.5	22.0	43.1	5.3	8.1	
Total %	21.5	22.0	43.1	5.3	8.1	

			CAHABA RD Northbound							
Start Time	App. Total	App. Total	A	B	C	D	E	App. Total	App. Total	Int. Total
Peak Hour From 11:00 AM to 12:45 PM - Peak 1 of 1										
Intersection	12:00 PM									
Volume	0	0	81	71	136	22	48	358	0	358
Percent			22.6	19.8	38.0	6.1	13.4			
12:45 Volume	0	0	24	24	39	7	12	106	0	106
Peak Factor										0.844
High Int.	10:45:00 AM	10:45:00 AM	12:45 PM						10:45:00 AM	
Volume	0	0	24	24	39	7	12	106		
Peak Factor								0.844		

TRAFFIC DATA, LLC

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File Name : mbrook14
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			CAHABA RD Northbound							
Start Time	App. Total	App. Total	A	B	C	D	E	App. Total	App. Total	Int. Total
Peak Hour From 11:00 AM to 12:45 PM - Peak 1 of 1										
By Approach	11:00 AM	11:00 AM	12:00 PM						11:00 AM	
Volume	0	0	81	71	136	22	48	358	0	
Percent			22.6	19.8	38.0	6.1	13.4			
High Int.	-	-	12:45 PM						-	
Volume	-	-	24	24	39	7	12	106	-	
Peak Factor	-	-						0.844	-	
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1										
Intersection	04:30 PM									
Volume	0	0	69	87	200	33	30	419	0	419
Percent			16.5	20.8	47.7	7.9	7.2			
05:15 Volume	0	0	14	23	66	5	3	111	0	111
Peak Factor										0.944
High Int.			05:00 PM							
Volume	0	0	18	24	45	9	15	111		
Peak Factor								0.944		
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1										
By Approach	04:00 PM	04:00 PM	04:30 PM						04:00 PM	
Volume	0	0	69	87	200	33	30	419	0	
Percent			16.5	20.8	47.7	7.9	7.2			
High Int.	-	-	05:00 PM						-	
Volume	-	-	18	24	45	9	15	111	-	
Peak Factor	-	-						0.944	-	
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1										
Intersection	07:30 AM									
Volume	0	0	109	78	172	7	14	380	0	380
Percent			28.7	20.5	45.3	1.8	3.7			
07:45 Volume	0	0	30	24	53	0	1	108	0	108
Peak Factor										0.880
High Int.			07:45 AM							
Volume	0	0	30	24	53	0	1	108		
Peak Factor								0.880		
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1										
By Approach	07:00 AM	07:00 AM	07:30 AM						07:00 AM	
Volume	0	0	109	78	172	7	14	380	0	
Percent			28.7	20.5	45.3	1.8	3.7			
High Int.	-	-	07:45 AM						-	
Volume	-	-	30	24	53	0	1	108	-	
Peak Factor	-	-						0.880	-	

TRAFFIC DATA, LLC

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Mountain Brook, AL

File Name : mbrook09
Site Code : 00000000
Start Date : 09/08/2009
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Groups Printed- 1 - Unshifted

	CULVER RD Westbound					
Start Time	A	B	C	D	E	Int. Total
11:00 AM	6	21	10	0	0	37
11:15 AM	9	22	3	0	0	34
11:30 AM	7	28	10	0	0	45
11:45 AM	4	32	5	0	0	41
Total	26	103	28	0	0	157
12:00 PM	4	28	7	2	0	41
12:15 PM	5	27	7	1	0	40
12:30 PM	8	20	5	0	0	33
12:45 PM	7	39	6	0	0	52
Total	24	114	25	3	0	166
04:00 PM	2	27	8	0	0	37
04:15 PM	7	25	7	0	0	39
04:30 PM	5	30	6	0	2	43
04:45 PM	9	23	8	0	0	40
Total	23	105	29	0	2	159
05:00 PM	4	21	4	0	0	29
05:15 PM	2	32	9	0	1	44
05:30 PM	6	28	7	0	0	41
05:45 PM	1	16	7	0	0	24
Total	13	97	27	0	1	138
07:00 AM	1	32	6	0	0	39
07:15 AM	2	42	8	0	0	52
07:30 AM	1	52	8	0	0	61
07:45 AM	1	74	14	0	0	89
Total	5	200	36	0	0	241
08:00 AM	1	79	6	1	0	87
08:15 AM	2	48	4	0	0	54
08:30 AM	2	38	3	0	0	43
08:45 AM	3	45	2	0	0	50
Total	8	210	15	1	0	234
Grand Total	99	829	160	4	3	1095
Apprch %	9.0	75.7	14.6	0.4	0.3	
Total %	9.0	75.7	14.6	0.4	0.3	

		CULVER RD Westbound								
Start Time	App. Total	A	B	C	D	E	App. Total	App. Total	App. Total	Int. Total
Peak Hour From 11:00 AM to 12:45 PM - Peak 1 of 1										
Intersection	11:30 AM									
Volume	0	20	115	29	3	0	167	0	0	167
Percent		12.0	68.9	17.4	1.8	0.0				
11:30 Volume	0	7	28	10	0	0	45	0	0	45
Peak Factor										0.928
High Int.	10:45:00 AM	11:30 AM						10:45:00 AM	10:45:00 AM	
Volume	0	7	28	10	0	0	45			
Peak Factor							0.928			

TRAFFIC DATA, LLC

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File Name : mbrook09
Site Code : 00000000
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		CULVER RD Westbound								
Start Time	App. Total	A	B	C	D	E	App. Total	App. Total	App. Total	Int. Total
Peak Hour From 11:00 AM to 12:45 PM - Peak 1 of 1										
By Approach	11:00 AM	11:30 AM						11:00 AM	11:00 AM	
Volume	0	20	115	29	3	0	167	0	0	
Percent		12.0	68.9	17.4	1.8	0.0				
High Int.	-	11:30 AM						-	-	
Volume	-	7	28	10	0	0	45	-	-	
Peak Factor	-						0.928	-	-	
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1										
Intersection	04:00 PM									
Volume	0	23	105	29	0	2	159	0	0	159
Percent		14.5	66.0	18.2	0.0	1.3				
04:30 Volume	0	5	30	6	0	2	43	0	0	43
Peak Factor										0.924
High Int.		04:30 PM								
Volume	0	5	30	6	0	2	43			
Peak Factor							0.924			
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1										
By Approach	04:00 PM	04:00 PM						04:00 PM	04:00 PM	
Volume	0	23	105	29	0	2	159	0	0	
Percent		14.5	66.0	18.2	0.0	1.3				
High Int.	-	04:30 PM						-	-	
Volume	-	5	30	6	0	2	43	-	-	
Peak Factor	-						0.924	-	-	
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1										
Intersection	07:30 AM									
Volume	0	5	253	32	1	0	291	0	0	291
Percent		1.7	86.9	11.0	0.3	0.0				
07:45 Volume	0	1	74	14	0	0	89	0	0	89
Peak Factor										0.817
High Int.		07:45 AM								
Volume	0	1	74	14	0	0	89			
Peak Factor							0.817			
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1										
By Approach	07:00 AM	07:30 AM						07:00 AM	07:00 AM	
Volume	0	5	253	32	1	0	291	0	0	
Percent		1.7	86.9	11.0	0.3	0.0				
High Int.	-	07:45 AM						-	-	
Volume	-	1	74	14	0	0	89	-	-	
Peak Factor	-						0.817	-	-	

TRAFFIC DATA, LLC

1409 Turnham Lane
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Mountain Brook, AL

one way (wrong way)

File Name : mbrook10
Site Code : 00000000
Start Date : 09/08/2009
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Groups Printed- 1 - Unshifted

	SHOPPING CENTER DRWY Westbound						
Start Time	A	B	C	D	E	F	Int. Total
11:30 AM	0	1	0	0	0	0	1
Total	0	1	0	0	0	0	1
12:00 PM	1	0	0	0	0	2	3
12:15 PM	0	0	0	0	0	1	1
Total	1	0	0	0	0	3	4
04:15 PM	0	1	0	0	0	0	1
04:30 PM	0	1	0	0	0	0	1
04:45 PM	0	1	0	0	0	0	1
Total	0	3	0	0	0	0	3
05:30 PM	1	0	0	0	0	0	1
05:45 PM	1	0	0	0	0	0	1
Total	2	0	0	0	0	0	2
07:00 AM	0	1	0	0	0	0	1
07:45 AM	0	1	0	1	0	0	2
Total	0	2	0	1	0	0	3
08:00 AM	0	0	0	0	0	1	1
Total	0	0	0	0	0	1	1
Grand Total	3	6	0	1	0	4	14
Apprch %	21.4	42.9	0.0	7.1	0.0	28.6	
Total %	21.4	42.9	0.0	7.1	0.0	28.6	

		SHOPPING CENTER DRWY Westbound									
Start Time	App. Total	A	B	C	D	E	F	App. Total	App. Total	App. Total	Int. Total
Peak Hour From 11:00 AM to 12:45 PM - Peak 1 of 1											
Intersection	11:30 AM										
Volume	0	1	1	0	0	0	3	5	0	0	5
Percent		20.0	20.0	0.0	0.0	0.0	60.0				
12:00 Volume	0	1	0	0	0	0	2	3	0	0	3
Peak Factor											0.417
High Int.	10:45:00 AM	12:00 PM							10:45:00 AM	10:45:00 AM	
Volume	0	1	0	0	0	0	2	3			
Peak Factor								0.417			

TRAFFIC DATA, LLC

1409 Turnham Lane
Birmingham, AL 35216
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File Name : mbrook10
Site Code : 00000000
Start Date : 09/08/2009
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		SHOPPING CENTER DRWY Westbound									
Start Time	App. Total	A	B	C	D	E	F	App. Total	App. Total	App. Total	Int. Total
Peak Hour From 11:00 AM to 12:45 PM - Peak 1 of 1											
By Approach	11:00 AM	11:30 AM							11:00 AM	11:00 AM	
Volume	0	1	1	0	0	0	3	5	0	0	
Percent		20.0	20.0	0.0	0.0	0.0	60.0				
High Int.	-	12:00 PM							-	-	
Volume	-	1	0	0	0	0	2	3	-	-	
Peak Factor	-							0.417	-	-	
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1											
Intersection	04:00 PM										
Volume	0	0	3	0	0	0	0	3	0	0	3
Percent		0.0	100.0	0.0	0.0	0.0	0.0				
04:45 Volume	0	0	1	0	0	0	0	1	0	0	1
Peak Factor											0.750
High Int.		04:15 PM									
Volume	0	0	1	0	0	0	0	1			
Peak Factor								0.750			
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1											
By Approach	04:00 PM	04:00 PM							04:00 PM	04:00 PM	
Volume	0	0	3	0	0	0	0	3	0	0	
Percent		0.0	100.0	0.0	0.0	0.0	0.0				
High Int.	-	04:15 PM							-	-	
Volume	-	0	1	0	0	0	0	1	-	-	
Peak Factor	-							0.750	-	-	
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1											
Intersection	07:00 AM										
Volume	0	0	2	0	1	0	0	3	0	0	3
Percent		0.0	66.7	0.0	33.3	0.0	0.0				
07:45 Volume	0	0	1	0	1	0	0	2	0	0	2
Peak Factor											0.375
High Int.		07:45 AM									
Volume	0	0	1	0	1	0	0	2			
Peak Factor								0.375			
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1											
By Approach	07:00 AM	07:00 AM							07:00 AM	07:00 AM	
Volume	0	0	2	0	1	0	0	3	0	0	
Percent		0.0	66.7	0.0	33.3	0.0	0.0				
High Int.	-	07:45 AM							-	-	
Volume	-	0	1	0	1	0	0	2	-	-	
Peak Factor	-							0.375	-	-	

TRAFFIC DATA, LLC

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Mountain Brook, AL

File Name : mbrook12
Site Code : 00000000
Start Date : 09/08/2009
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Groups Printed- 1 - Unshifted

	CAHABA RD Southbound					
Start Time	A	B	C	D	E	Int. Total
11:00 AM	0	5	4	20	9	38
11:15 AM	3	5	0	27	9	44
11:30 AM	1	9	2	28	5	45
11:45 AM	1	9	5	21	8	44
Total	5	28	11	96	31	171
12:00 PM	3	6	8	26	6	49
12:15 PM	2	7	9	26	14	58
12:30 PM	1	9	6	31	8	55
12:45 PM	4	5	6	32	15	62
Total	10	27	29	115	43	224
04:00 PM	1	6	10	30	5	52
04:15 PM	0	4	5	28	6	43
04:30 PM	1	6	9	22	11	49
04:45 PM	5	4	9	31	4	53
Total	7	20	33	111	26	197
05:00 PM	8	9	13	53	13	96
05:15 PM	5	10	12	39	5	71
05:30 PM	2	11	10	34	7	64
05:45 PM	0	5	8	41	2	56
Total	15	35	43	167	27	287
07:00 AM	1	0	3	15	2	21
07:15 AM	0	6	3	32	2	43
07:30 AM	2	3	4	30	4	43
07:45 AM	1	2	4	31	10	48
Total	4	11	14	108	18	155
08:00 AM	1	3	7	18	10	39
08:15 AM	2	2	3	30	8	45
08:30 AM	3	7	5	26	7	48
08:45 AM	0	4	4	30	6	44
Total	6	16	19	104	31	176
Grand Total	47	137	149	701	176	1210
Apprch %	3.9	11.3	12.3	57.9	14.5	
Total %	3.9	11.3	12.3	57.9	14.5	

	CAHABA RD Southbound									
Start Time	A	B	C	D	E	App. Total	App. Total	App. Total	App. Total	Int. Total
Peak Hour From 11:00 AM to 12:45 PM - Peak 1 of 1										
Intersection	12:00 PM									
Volume	10	27	29	115	43	224	0	0	0	224
Percent	4.5	12.1	12.9	51.3	19.2					
12:45 Volume	4	5	6	32	15	62	0	0	0	62
Peak Factor										0.903
High Int.	12:45 PM						10:45:00 AM	10:45:00 AM	10:45:00 AM	
Volume	4	5	6	32	15	62				
Peak Factor						0.903				

TRAFFIC DATA, LLC

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Birmingham, AL 35216
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File Name : mbrook12
Site Code : 00000000
Start Date : 09/08/2009
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	CAHABA RD Southbound									
Start Time	A	B	C	D	E	App. Total	App. Total	App. Total	App. Total	Int. Total
Peak Hour From 11:00 AM to 12:45 PM - Peak 1 of 1										
By Approach	12:00 PM						11:00 AM	11:00 AM	11:00 AM	
Volume	10	27	29	115	43	224	0	0	0	
Percent	4.5	12.1	12.9	51.3	19.2					
High Int.	12:45 PM						-	-	-	
Volume	4	5	6	32	15	62	-	-	-	
Peak Factor						0.903	-	-	-	
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1										
Intersection	05:00 PM									
Volume	15	35	43	167	27	287	0	0	0	287
Percent	5.2	12.2	15.0	58.2	9.4					
05:00 Volume	8	9	13	53	13	96	0	0	0	96
Peak Factor										0.747
High Int.	05:00 PM									
Volume	8	9	13	53	13	96				
Peak Factor						0.747				
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1										
By Approach	05:00 PM						04:00 PM	04:00 PM	04:00 PM	
Volume	15	35	43	167	27	287	0	0	0	
Percent	5.2	12.2	15.0	58.2	9.4					
High Int.	05:00 PM						-	-	-	
Volume	8	9	13	53	13	96	-	-	-	
Peak Factor						0.747	-	-	-	
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1										
Intersection	07:45 AM									
Volume	7	14	19	105	35	180	0	0	0	180
Percent	3.9	7.8	10.6	58.3	19.4					
08:30 Volume	3	7	5	26	7	48	0	0	0	48
Peak Factor										0.938
High Int.	07:45 AM									
Volume	1	2	4	31	10	48				
Peak Factor						0.938				
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1										
By Approach	07:45 AM						07:00 AM	07:00 AM	07:00 AM	
Volume	7	14	19	105	35	180	0	0	0	
Percent	3.9	7.8	10.6	58.3	19.4					
High Int.	07:45 AM						-	-	-	
Volume	1	2	4	31	10	48	-	-	-	
Peak Factor						0.938	-	-	-	

TRAFFIC DATA, LLC

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

Mountain Brook, AL

File Name : mbrook13
Site Code : 00000000
Start Date : 09/08/2009
Page No : 1

Groups Printed- 1 - Unshifted

	LANE PARK RD Southbound					
Start Time	A	B	C	D	E	Int. Total
11:00 AM	5	8	47	0	7	67
11:15 AM	7	9	50	2	5	73
11:30 AM	11	12	54	3	12	92
11:45 AM	8	17	50	4	7	86
Total	31	46	201	9	31	318
12:00 PM	8	18	61	2	7	96
12:15 PM	10	11	51	5	7	84
12:30 PM	15	14	67	3	7	106
12:45 PM	16	15	48	5	5	89
Total	49	58	227	15	26	375
04:00 PM	1	13	55	4	8	81
04:15 PM	3	22	60	5	7	97
04:30 PM	3	8	39	4	11	65
04:45 PM	8	9	54	2	7	80
Total	15	52	208	15	33	323
05:00 PM	9	14	50	4	8	85
05:15 PM	11	17	34	3	9	74
05:30 PM	5	18	48	3	10	84
05:45 PM	11	8	49	4	7	79
Total	36	57	181	14	34	322
07:00 AM	4	7	29	3	3	46
07:15 AM	7	15	48	5	1	76
07:30 AM	8	16	95	5	3	127
07:45 AM	9	22	80	3	4	118
Total	28	60	252	16	11	367
08:00 AM	14	19	57	2	8	100
08:15 AM	10	10	57	1	5	83
08:30 AM	15	15	52	3	6	91
08:45 AM	8	17	44	5	5	79
Total	47	61	210	11	24	353
Grand Total	206	334	1279	80	159	2058
Apprch %	10.0	16.2	62.1	3.9	7.7	
Total %	10.0	16.2	62.1	3.9	7.7	

	LANE PARK RD Southbound									
Start Time	A	B	C	D	E	App. Total	App. Total	App. Total	App. Total	Int. Total
Peak Hour From 11:00 AM to 12:45 PM - Peak 1 of 1										
Intersection	12:00 PM									
Volume	49	58	227	15	26	375	0	0	0	375
Percent	13.1	15.5	60.5	4.0	6.9					
12:30 Volume	15	14	67	3	7	106	0	0	0	106
Peak Factor										0.884
High Int.	12:30 PM						10:45:00 AM	10:45:00 AM	10:45:00 AM	
Volume	15	14	67	3	7	106				
Peak Factor						0.884				

TRAFFIC DATA, LLC

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

File Name : mbrook13
Site Code : 00000000
Start Date : 09/08/2009
Page No : 2

	LANE PARK RD Southbound									
Start Time	A	B	C	D	E	App. Total	App. Total	App. Total	App. Total	Int. Total
Peak Hour From 11:00 AM to 12:45 PM - Peak 1 of 1										
By Approach	12:00 PM						11:00 AM	11:00 AM	11:00 AM	
Volume	49	58	227	15	26	375	0	0	0	
Percent	13.1	15.5	60.5	4.0	6.9					
High Int.	12:30 PM						-	-	-	
Volume	15	14	67	3	7	106	-	-	-	
Peak Factor						0.884	-	-	-	
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1										
Intersection	04:15 PM									
Volume	23	53	203	15	33	327	0	0	0	327
Percent	7.0	16.2	62.1	4.6	10.1					
04:15 Volume	3	22	60	5	7	97	0	0	0	97
Peak Factor										0.843
High Int.	04:15 PM									
Volume	3	22	60	5	7	97				
Peak Factor						0.843				
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1										
By Approach	04:15 PM						04:00 PM	04:00 PM	04:00 PM	
Volume	23	53	203	15	33	327	0	0	0	
Percent	7.0	16.2	62.1	4.6	10.1					
High Int.	04:15 PM						-	-	-	
Volume	3	22	60	5	7	97	-	-	-	
Peak Factor						0.843	-	-	-	
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1										
Intersection	07:30 AM									
Volume	41	67	289	11	20	428	0	0	0	428
Percent	9.6	15.7	67.5	2.6	4.7					
07:30 Volume	8	16	95	5	3	127	0	0	0	127
Peak Factor										0.843
High Int.	07:30 AM									
Volume	8	16	95	5	3	127				
Peak Factor						0.843				
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1										
By Approach	07:30 AM						07:00 AM	07:00 AM	07:00 AM	
Volume	41	67	289	11	20	428	0	0	0	
Percent	9.6	15.7	67.5	2.6	4.7					
High Int.	07:30 AM						-	-	-	
Volume	8	16	95	5	3	127	-	-	-	
Peak Factor						0.843	-	-	-	

D

TRAFFIC DATA, LLC

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

Mountain Brook, AL

File Name : mtbrook08
Site Code : 00000000
Start Date : 11/29/2007
Page No : 1

Groups Printed- 1 - Unshifted

	CULVER RD Southbound				MONTEVALLO RD Westbound				MONTEVALLO RD Eastbound				
Start Time	Left	Thru	Right	s/c	Left	Thru	Right	s/c	Left	Thru	Right	s/c	Int. Total
04:00 PM	33	13	18	0	13	56	24	2	7	92	14	15	287
04:15 PM	40	24	9	0	14	62	32	4	16	92	8	12	313
04:30 PM	56	13	6	0	12	56	28	3	17	114	12	15	332
04:45 PM	50	20	9	0	10	73	26	3	9	83	1	18	302
Total	179	70	42	0	49	247	110	12	49	381	35	60	1234
05:00 PM	61	17	14	0	10	79	24	1	8	106	1	12	333
05:15 PM	74	17	13	0	13	54	23	2	10	111	0	24	341
05:30 PM	42	12	10	0	12	68	18	0	15	103	0	17	297
05:45 PM	48	18	14	0	8	63	31	1	5	84	2	8	282
Total	225	64	51	0	43	264	96	4	38	404	3	61	1253
07:00 AM	22	7	8	0	4	51	40	2	1	29	0	8	172
07:15 AM	17	13	5	0	9	67	40	1	6	34	1	2	195
07:30 AM	26	5	7	0	24	88	77	0	11	52	5	6	301
07:45 AM	26	17	5	0	20	94	77	0	7	44	2	6	298
Total	91	42	25	0	57	300	234	3	25	159	8	22	966
08:00 AM	21	17	5	0	17	120	66	2	3	52	3	10	316
08:15 AM	27	13	15	0	14	74	54	1	6	41	3	5	253
08:30 AM	23	14	14	0	14	74	40	0	7	40	3	7	236
08:45 AM	49	17	8	1	14	58	47	3	8	61	5	9	280
Total	120	61	42	1	59	326	207	6	24	194	14	31	1085
Grand Total	615	237	160	1	208	1137	647	25	136	1138	60	174	4538
Apprch %	60.7	23.4	15.8	0.1	10.3	56.4	32.1	1.2	9.0	75.5	4.0	11.5	
Total %	13.6	5.2	3.5	0.0	4.6	25.1	14.3	0.6	3.0	25.1	1.3	3.8	

	CULVER RD Southbound					MONTEVALLO RD Westbound						MONTEVALLO RD Eastbound					
Start Time	Left	Thru	Right	s/c	App. Total	Left	Thru	Right	s/c	App. Total	App. Total	Left	Thru	Right	s/c	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Intersection	04:30 PM																
Volume	241	67	42	0	350	45	262	101	9	417	0	44	414	14	69	541	1308
Percent	68.9	19.1	12.0	0.0		10.8	62.8	24.2	2.2			8.1	76.5	2.6	12.8		
05:15 Volume	74	17	13	0	104	13	54	23	2	92	0	10	111	0	24	145	341
Peak Factor																	0.959
High Int.	05:15 PM					05:00 PM					3:45:00 PM	04:30 PM					
Volume	74	17	13	0	104	10	79	24	1	114	0	17	114	12	15	158	
Peak Factor					0.841					0.914						0.856	
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																	
By Approach	04:30 PM					04:15 PM					04:00 PM	04:30 PM					
Volume	241	67	42	0	350	46	270	110	11	437	0	44	414	14	69	541	
Percent	68.9	19.1	12.0	0.0		10.5	61.8	25.2	2.5			8.1	76.5	2.6	12.8		
High Int.	05:15 PM					05:00 PM					-	04:30 PM					
Volume	74	17	13	0	104	10	79	24	1	114	-	17	114	12	15	158	
Peak Factor					0.841					0.958	-					0.856	

TRAFFIC DATA, LLC

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

File Name : mtbrook08
Site Code : 00000000
Start Date : 11/29/2007
Page No : 2

	CULVER RD Southbound					MONTEVALLO RD Westbound						MONTEVALLO RD Eastbound					
Start Time	Left	Thru	Right	s/c	App. Total	Left	Thru	Right	s/c	App. Total	App. Total	Left	Thru	Right	s/c	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Intersection	07:30 AM																
Volume	100	52	32	0	184	75	376	274	3	728	0	27	189	13	27	256	1168
Percent	54.3	28.3	17.4	0.0		10.3	51.6	37.6	0.4			10.5	73.8	5.1	10.5		
08:00 Volume	21	17	5	0	43	17	120	66	2	205	0	3	52	3	10	68	316
Peak Factor																	0.924
High Int.	08:15 AM					08:00 AM						07:30 AM					
Volume	27	13	15	0	55	17	120	66	2	205	0	11	52	5	6	74	
Peak Factor					0.836					0.888						0.865	
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																	
By Approach	08:00 AM					07:30 AM					07:00 AM	08:00 AM					
Volume	120	61	42	1	224	75	376	274	3	728	0	24	194	14	31	263	
Percent	53.6	27.2	18.8	0.4		10.3	51.6	37.6	0.4			9.1	73.8	5.3	11.8		
High Int.	08:45 AM					08:00 AM					-	08:45 AM					
Volume	49	17	8	1	75	17	120	66	2	205	-	8	61	5	9	83	
Peak Factor					0.747					0.888	-					0.792	

TRAFFIC DATA, LLC

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

Mountain Brook, AL

cant=Canterbury Rd

File Name : mtbrook01a
Site Code : 00000000
Start Date : 08/27/2009
Page No : 1

Groups Printed- Unshifted

	CAHABA RD Southbound				MONTEVALLO RD Westbound				CAHABA RD Northbound				MONTEVALLO RD Eastbound				
Start Time	Left	Thru	Right	cant	Left	Thru	Right	cant	Left	Thru	Right	cant	Left	Thru	Right	cant	Int. Total
04:00 PM	4	47	49	0	13	61	0	0	14	43	32	0	19	59	9	2	352
04:15 PM	2	49	35	0	10	39	1	1	16	58	27	0	23	72	6	0	339
04:30 PM	4	49	43	0	8	51	1	0	11	59	37	1	27	74	18	0	383
04:45 PM	4	65	33	0	11	60	1	1	6	70	41	0	23	76	8	0	399
Total	14	210	160	0	42	211	3	2	47	230	137	1	92	281	41	2	1473
05:00 PM	3	70	35	0	18	55	1	0	12	82	45	2	37	88	8	0	456
05:15 PM	4	77	44	0	8	50	1	0	12	74	34	0	22	84	5	1	416
05:30 PM	0	53	38	0	10	55	0	0	9	67	38	0	27	78	15	0	390
05:45 PM	5	50	57	0	10	52	1	0	16	51	33	0	26	72	5	0	378
Total	12	250	174	0	46	212	3	0	49	274	150	2	112	322	33	1	1640
Grand Total	26	460	334	0	88	423	6	2	96	504	287	3	204	603	74	3	3113
Apprch %	3.2	56.1	40.7	0.0	17.0	81.5	1.2	0.4	10.8	56.6	32.2	0.3	23.1	68.2	8.4	0.3	
Total %	0.8	14.8	10.7	0.0	2.8	13.6	0.2	0.1	3.1	16.2	9.2	0.1	6.6	19.4	2.4	0.1	

	CAHABA RD Southbound					MONTEVALLO RD Westbound					CAHABA RD Northbound					MONTEVALLO RD Eastbound					
Start Time	Left	Thru	Right	cant	App. Total	Left	Thru	Right	cant	App. Total	Left	Thru	Right	cant	App. Total	Left	Thru	Right	cant	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	04:45 PM																				
Volume	11	265	150	0	426	47	220	3	1	271	39	293	158	2	492	109	326	36	1	472	1661
Percent	2.6	62.2	35.2	0.0		17.3	81.2	1.1	0.4		7.9	59.6	32.1	0.4		23.1	69.1	7.6	0.2		
05:00 Volume	3	70	35	0	108	18	55	1	0	74	12	82	45	2	141	37	88	8	0	133	456
Peak Factor																					0.911
High Int.	05:15 PM					05:00 PM					05:00 PM					05:00 PM					
Volume	4	77	44	0	125	18	55	1	0	74	12	82	45	2	141	37	88	8	0	133	
Peak Factor					0.852					0.916					0.872					0.887	
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
By Approach	05:00 PM					04:45 PM					04:45 PM					04:45 PM					
Volume	12	250	174	0	436	47	220	3	1	271	39	293	158	2	492	109	326	36	1	472	
Percent	2.8	57.3	39.9	0.0		17.3	81.2	1.1	0.4		7.9	59.6	32.1	0.4		23.1	69.1	7.6	0.2		
High Int.	05:15 PM					05:00 PM					05:00 PM					05:00 PM					
Volume	4	77	44	0	125	18	55	1	0	74	12	82	45	2	141	37	88	8	0	133	
Peak Factor					0.872					0.916					0.872					0.887	

TRAFFIC DATA, LLC

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

Mountain Brook, AL

mont=Montevallo Rd hard right

File Name : mtbrook01b
Site Code : 00000000
Start Date : 08/27/2009
Page No : 1

Groups Printed- Unshifted

	CANTERBURY RD Westbound				
Start Time	Left	Thru	Right	mont	Int. Total
04:00 PM	2	13	9	0	24
04:15 PM	4	11	11	0	26
04:30 PM	2	8	9	1	20
04:45 PM	3	6	8	0	17
Total	11	38	37	1	87
05:00 PM	0	7	7	1	15
05:15 PM	1	5	3	0	9
05:30 PM	1	4	5	0	10
05:45 PM	3	4	1	0	8
Total	5	20	16	1	42
Grand Total	16	58	53	2	129
Apprch %	12.4	45.0	41.1	1.6	
Total %	12.4	45.0	41.1	1.6	

		CANTERBURY RD Westbound							
Start Time	App. Total	Left	Thru	Right	mont	App. Total	App. Total	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1									
Intersection	04:00 PM								
Volume	0	11	38	37	1	87	0	0	87
Percent		12.6	43.7	42.5	1.1				
04:15 Volume	0	4	11	11	0	26	0	0	26
Peak Factor									0.837
High Int.	3:45:00 PM	04:15 PM					3:45:00 PM	3:45:00 PM	
Volume	0	4	11	11	0	26			
Peak Factor						0.837			
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1									
By Approach	04:00 PM	04:00 PM					04:00 PM	04:00 PM	
Volume	0	11	38	37	1	87	0	0	
Percent		12.6	43.7	42.5	1.1				
High Int.	-	04:15 PM					-	-	
Volume	-	4	11	11	0	26	-	-	
Peak Factor	-					0.837	-	-	

TRAFFIC DATA, LLC

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

Mountain Brook, AL

cant=Canterbury Rd

File Name : mtbrook02a
Site Code : 00000000
Start Date : 08/28/2009
Page No : 1

Groups Printed- Unshifted

	CAHABA RD Southbound				MONTEVALLO RD Westbound				CAHABA RD Northbound				MONTEVALLO RD Eastbound				
Start Time	Left	Thru	Right	cant	Left	Thru	Right	cant	Left	Thru	Right	cant	Left	Thru	Right	cant	Int. Total
07:00 AM	2	50	24	0	10	39	1	0	6	27	4	0	19	26	5	0	213
07:15 AM	0	78	32	0	19	62	0	0	4	47	16	0	14	31	6	0	309
07:30 AM	1	79	37	1	17	62	0	0	18	63	22	0	21	30	10	0	361
07:45 AM	0	90	57	0	20	92	2	0	4	52	21	0	18	34	7	1	398
Total	3	297	150	1	66	255	3	0	32	189	63	0	72	121	28	1	1281
08:00 AM	3	67	39	0	18	82	2	1	12	35	17	0	33	44	13	1	367
08:15 AM	1	84	32	0	18	58	0	0	3	50	9	0	29	43	11	1	339
08:30 AM	1	56	32	0	14	62	0	0	3	35	16	0	23	44	7	1	294
08:45 AM	0	54	44	0	18	55	0	0	9	41	12	0	23	55	4	0	315
Total	5	261	147	0	68	257	2	1	27	161	54	0	108	186	35	3	1315
Grand Total	8	558	297	1	134	512	5	1	59	350	117	0	180	307	63	4	2596
Apprch %	0.9	64.6	34.4	0.1	20.6	78.5	0.8	0.2	11.2	66.5	22.2	0.0	32.5	55.4	11.4	0.7	
Total %	0.3	21.5	11.4	0.0	5.2	19.7	0.2	0.0	2.3	13.5	4.5	0.0	6.9	11.8	2.4	0.2	

	CAHABA RD Southbound					MONTEVALLO RD Westbound					CAHABA RD Northbound					MONTEVALLO RD Eastbound					
Start Time	Left	Thru	Right	cant	App. Total	Left	Thru	Right	cant	App. Total	Left	Thru	Right	cant	App. Total	Left	Thru	Right	cant	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Intersection	07:30 AM																				
Volume	5	320	165	1	491	73	294	4	1	372	37	200	69	0	306	101	151	41	3	296	1465
Percent	1.0	65.2	33.6	0.2		19.6	79.0	1.1	0.3		12.1	65.4	22.5	0.0		34.1	51.0	13.9	1.0		
07:45 Volume	0	90	57	0	147	20	92	2	0	114	4	52	21	0	77	18	34	7	1	60	398
Peak Factor																					0.920
High Int.	07:45 AM					07:45 AM					07:30 AM					08:00 AM					
Volume	0	90	57	0	147	20	92	2	0	114	18	63	22	0	103	33	44	13	1	91	
Peak Factor					0.835					0.816					0.743					0.813	
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																					
By Approach	07:30 AM					07:15 AM					07:15 AM					08:00 AM					
Volume	5	320	165	1	491	74	298	4	1	377	38	197	76	0	311	108	186	35	3	332	
Percent	1.0	65.2	33.6	0.2		19.6	79.0	1.1	0.3		12.2	63.3	24.4	0.0		32.5	56.0	10.5	0.9		
High Int.	07:45 AM					07:45 AM					07:30 AM					08:00 AM					
Volume	0	90	57	0	147	20	92	2	0	114	18	63	22	0	103	33	44	13	1	91	
Peak Factor					0.835					0.827					0.755					0.912	

TRAFFIC DATA, LLC

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

Mountain Brook, AL

mont=Montevallo Rd

File Name : mtbrook02a
Site Code : 00000000
Start Date : 08/28/2009
Page No : 1

Groups Printed- Bank 1

	CANTERBURY RD Westbound				
Start Time	Left	Thru	Right	mont	Int. Total
07:00 AM	0	4	0	0	4
07:15 AM	2	5	4	0	11
07:30 AM	3	15	14	0	32
07:45 AM	1	5	19	0	25
Total	6	29	37	0	72
08:00 AM	0	10	2	0	12
08:15 AM	1	5	5	0	11
08:30 AM	0	3	5	0	8
08:45 AM	0	4	5	0	9
Total	1	22	17	0	40
Grand Total	7	51	54	0	112
Apprch %	6.3	45.5	48.2	0.0	
Total %	6.3	45.5	48.2	0.0	

		CANTERBURY RD Westbound							
Start Time	App. Total	Left	Thru	Right	mont	App. Total	App. Total	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1									
Intersection	07:15 AM								
Volume	0	6	35	39	0	80	0	0	80
Percent		7.5	43.8	48.8	0.0				
07:30 Volume	0	3	15	14	0	32	0	0	32
Peak Factor									0.625
High Int.	6:45:00 AM	07:30 AM					6:45:00 AM	6:45:00 AM	
Volume	0	3	15	14	0	32			
Peak Factor						0.625			
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1									
By Approach	07:00 AM	07:15 AM					07:00 AM	07:00 AM	
Volume	0	6	35	39	0	80	0	0	
Percent		7.5	43.8	48.8	0.0				
High Int.	-	07:30 AM					-	-	
Volume	-	3	15	14	0	32	-	-	
Peak Factor	-					0.625	-	-	

TRAFFIC DATA, LLC

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

Mountain Brook, AL

Cant=Canterbury Rd

File Name : mbrook11
Site Code : 00000000
Start Date : 09/09/2009
Page No : 1

Groups Printed- Unshifted

	CAHABA RD Southbound				MONTEVALLO RD Westbound				CAHABA RD Northbound				HOLLYWOOD BLVD Eastbound				
Start Time	Left	Thru	Right	Cant	Left	Thru	Right	Cant	Left	Thru	Right	Cant	Left	Thru	Right	Cant	Int. Total
11:00 AM	2	39	37	1	14	48	1	0	13	43	15	1	22	59	9	0	304
11:15 AM	5	52	26	1	22	74	0	0	14	51	24	1	36	62	4	0	372
11:30 AM	2	45	37	1	11	53	1	0	9	54	33	0	19	56	11	0	332
11:45 AM	4	50	35	1	17	62	0	0	17	51	45	0	18	78	9	2	389
Total	13	186	135	4	64	237	2	0	53	199	117	2	95	255	33	2	1397
12:00 PM	1	55	38	1	18	57	1	0	16	55	29	1	10	57	14	0	353
12:15 PM	5	56	41	0	16	69	1	0	12	68	26	0	19	62	12	2	389
12:30 PM	4	58	35	0	8	74	0	0	13	46	19	0	21	70	17	2	367
12:45 PM	2	71	48	1	17	75	1	0	12	56	26	0	14	61	16	1	401
Total	12	240	162	2	59	275	3	0	53	225	100	1	64	250	59	5	1510
Grand Total	25	426	297	6	123	512	5	0	106	424	217	3	159	505	92	7	2907
Apprch %	3.3	56.5	39.4	0.8	19.2	80.0	0.8	0.0	14.1	56.5	28.9	0.4	20.8	66.2	12.1	0.9	
Total %	0.9	14.7	10.2	0.2	4.2	17.6	0.2	0.0	3.6	14.6	7.5	0.1	5.5	17.4	3.2	0.2	

	CAHABA RD Southbound					MONTEVALLO RD Westbound					CAHABA RD Northbound					HOLLYWOOD BLVD Eastbound					
Start Time	Left	Thru	Right	Cant	App. Total	Left	Thru	Right	Cant	App. Total	Left	Thru	Right	Cant	App. Total	Left	Thru	Right	Cant	App. Total	Int. Total
Peak Hour From 11:00 AM to 12:45 PM - Peak 1 of 1																					
Intersection	12:00 PM																				
Volume	12	240	162	2	416	59	275	3	0	337	53	225	100	1	379	64	250	59	5	378	1510
Percent	2.9	57.7	38.9	0.5		17.5	81.6	0.9	0.0		14.0	59.4	26.4	0.3		16.9	66.1	15.6	1.3		
12:45 Volume	2	71	48	1	122	17	75	1	0	93	12	56	26	0	94	14	61	16	1	92	401
Peak Factor																					0.941
High Int.	12:45 PM					12:45 PM					12:15 PM					12:30 PM					
Volume	2	71	48	1	122	17	75	1	0	93	12	68	26	0	106	21	70	17	2	110	
Peak Factor					0.852					0.906					0.894					0.859	
Peak Hour From 11:00 AM to 12:45 PM - Peak 1 of 1																					
By Approach	12:00 PM					12:00 PM					11:30 AM					11:45 AM					
Volume	12	240	162	2	416	59	275	3	0	337	54	228	133	1	416	68	267	52	6	393	
Percent	2.9	57.7	38.9	0.5		17.5	81.6	0.9	0.0		13.0	54.8	32.0	0.2		17.3	67.9	13.2	1.5		
High Int.	12:45 PM					12:45 PM					11:45 AM					12:30 PM					
Volume	2	71	48	1	122	17	75	1	0	93	17	51	45	0	113	21	70	17	2	110	
Peak Factor					0.852					0.906					0.920					0.893	

TRAFFIC DATA, LLC

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

Mountain Brook, AL

Mont=Montevallo Rd

File Name : mbrook11x
Site Code : 00000000
Start Date : 09/09/2009
Page No : 1

Groups Printed- Bank 1

	CANTABURY RD Westbound				
Start Time	Left	Thru	Right	Mont	Int. Total
11:00 AM	0	15	7	0	22
11:15 AM	5	8	8	1	22
11:30 AM	4	16	5	0	25
11:45 AM	3	9	6	0	18
Total	12	48	26	1	87
12:00 PM	3	4	2	0	9
12:15 PM	9	13	8	0	30
12:30 PM	2	14	12	0	28
12:45 PM	3	12	9	0	24
Total	17	43	31	0	91
Grand Total	29	91	57	1	178
Apprch %	16.3	51.1	32.0	0.6	
Total %	16.3	51.1	32.0	0.6	

		CANTABURY RD Westbound							
Start Time	App. Total	Left	Thru	Right	Mont	App. Total	App. Total	App. Total	Int. Total
Peak Hour From 11:00 AM to 12:45 PM - Peak 1 of 1									
Intersection	12:00 PM								
Volume	0	17	43	31	0	91	0	0	91
Percent		18.7	47.3	34.1	0.0				
12:15 Volume	0	9	13	8	0	30	0	0	30
Peak Factor									0.758
High Int.	10:45:00 AM	12:15 PM					10:45:00 AM	10:45:00 AM	
Volume	0	9	13	8	0	30			
Peak Factor						0.758			
Peak Hour From 11:00 AM to 12:45 PM - Peak 1 of 1									
By Approach	11:00 AM	12:00 PM					11:00 AM	11:00 AM	
Volume	0	17	43	31	0	91	0	0	
Percent		18.7	47.3	34.1	0.0				
High Int.	-	12:15 PM					-	-	
Volume	-	9	13	8	0	30	-	-	
Peak Factor	-					0.758	-	-	

Appendix C

Site Access Counts

1-2

TRAFFIC DATA, LLC

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

Mountain Brook, AL

File Name : mtbrook06
Site Code : 00000000
Start Date : 11/29/2007
Page No : 1

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1

Groups Printed- 1 - Unshifted

	S/C DRWY from MONTEVALLO RD		REGIONS DRWY from MONTEVALLO RD	
Start Time	Outbound	Inbound	Inbound	Int. Total
04:00 PM	26	12	3	41
04:15 PM	30	11	6	47
04:30 PM	29	10	3	42
04:45 PM	21	12	3	36
Total	106	45	15	166
05:00 PM	35	14	0	49
05:15 PM	32	11	2	45
05:30 PM	21	8	3	32
05:45 PM	16	10	2	28
Total	104	43	7	154
07:00 AM	7	8	0	15
07:15 AM	5	7	3	15
07:30 AM	12	12	4	28
07:45 AM	10	16	6	32
Total	34	43	13	90
08:00 AM	10	15	5	30
08:15 AM	9	15	0	24
08:30 AM	8	9	0	17
08:45 AM	6	13	5	24
Total	33	52	10	95
Grand Total	277	183	45	505
Apprch %	60.2	39.8	100.0	
Total %	54.9	36.2	8.9	

	S/C DRWY from MONTEVALLO RD Southbound			REGIONS DRWY from MONTEVALLO RD Westbound				
Start Time	Outbound	Inbound	App. Total	Inbound	App. Total	App. Total	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1								
Intersection	04:15 PM							
Volume	115	47	162	12	12	0	0	174
Percent	71.0	29.0		100.0				
05:00 Volume	35	14	49	0	0	0	0	49
Peak Factor								0.888
High Int.	05:00 PM			04:15 PM		3:45:00 PM	3:45:00 PM	
Volume	35	14	49	6	6			
Peak Factor			0.827		0.500			
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1								
By Approach	04:30 PM			04:00 PM		04:00 PM	04:00 PM	
Volume	117	47	164	15	15	0	0	
Percent	71.3	28.7		100.0				
High Int.	05:00 PM			04:15 PM		-	-	
Volume	35	14	49	6	6	-	-	
Peak Factor			0.837		0.625	-	-	

TRAFFIC DATA, LLC

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

File Name : mtbrook06
Site Code : 00000000
Start Date : 11/29/2007
Page No : 2

	S/C DRWY from MONTEVALLO RD Southbound			REGIONS DRWY from MONTEVALLO RD Westbound				
Start Time	Outbound	Inbound	App. Total	Inbound	App. Total	App. Total	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1								
Intersection	07:30 AM							
Volume	41	58	99	15	15	0	0	114
Percent	41.4	58.6		100.0				
07:45 Volume	10	16	26	6	6	0	0	32
Peak Factor								0.891
High Int.	07:45 AM			07:45 AM				
Volume	10	16	26	6	6			
Peak Factor			0.952		0.625			
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1								
By Approach	07:30 AM			07:15 AM		07:00 AM	07:00 AM	
Volume	41	58	99	18	18	0	0	
Percent	41.4	58.6		100.0				
High Int.	07:45 AM			07:45 AM		-	-	
Volume	10	16	26	6	6	-	-	
Peak Factor			0.952		0.750	-	-	

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TRAFFIC DATA, LLC

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

Mountain Brook, AL

File Name : mtbrook09
Site Code : 00000000
Start Date : 11/29/2007
Page No : 1

3 4

Groups Printed- 1 - Unshifted

	E S/C from CULVER		W S/C from CULVER		
Start Time	Inbound	Outbound	Inbound	Outbound	Int. Total
04:00 PM	17	20	13	24	74
04:15 PM	19	27	20	8	74
04:30 PM	17	21	14	24	76
04:45 PM	7	20	19	19	65
Total	60	88	66	75	289
05:00 PM	14	20	16	24	74
05:15 PM	12	25	15	23	75
05:30 PM	10	20	17	18	65
05:45 PM	14	22	11	19	66
Total	50	87	59	84	280
07:00 AM	2	9	5	6	22
07:15 AM	7	8	5	10	30
07:30 AM	12	6	11	8	37
07:45 AM	8	14	11	10	43
Total	29	37	32	34	132
08:00 AM	4	13	7	8	32
08:15 AM	9	14	10	18	51
08:30 AM	9	13	9	26	57
08:45 AM	7	8	12	12	39
Total	29	48	38	64	179
Grand Total	168	260	195	257	880
Apprch %	39.3	60.7	43.1	56.9	
Total %	19.1	29.5	22.2	29.2	

		E S/C from CULVER Westbound			W S/C from CULVER Northbound				
Start Time	App. Total	Inbound	Outbound	App. Total	Inbound	Outbound	App. Total	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1									
Intersection	04:30 PM								
Volume	0	50	86	136	64	90	154	0	290
Percent		36.8	63.2		41.6	58.4			
04:30 Volume	0	17	21	38	14	24	38	0	76
Peak Factor									0.954
High Int.	3:45:00 PM	04:30 PM			05:00 PM			3:45:00 PM	
Volume	0	17	21	38	16	24	40		
Peak Factor				0.895			0.963		
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1									
By Approach	04:00 PM	04:00 PM			04:30 PM			04:00 PM	
Volume	0	60	88	148	64	90	154	0	
Percent		40.5	59.5		41.6	58.4			
High Int.	-	04:15 PM			05:00 PM			-	
Volume	-	19	27	46	16	24	40	-	
Peak Factor	-			0.804			0.963	-	

TRAFFIC DATA, LLC

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

File Name : mtbrook09
Site Code : 00000000
Start Date : 11/29/2007
Page No : 2

		E S/C from CULVER Westbound			W S/C from CULVER Northbound				
Start Time	App. Total	Inbound	Outbound	App. Total	Inbound	Outbound	App. Total	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1									
Intersection	07:45 AM								
Volume	0	30	54	84	37	62	99	0	183
Percent		35.7	64.3		37.4	62.6			
08:30 Volume	0	9	13	22	9	26	35	0	57
Peak Factor									0.803
High Int.		08:15 AM			08:30 AM				
Volume	0	9	14	23	9	26	35		
Peak Factor				0.913			0.707		

Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1									
By Approach	07:00 AM	07:45 AM			08:00 AM			07:00 AM	
Volume	0	30	54	84	38	64	102	0	
Percent		35.7	64.3		37.3	62.7			
High Int.	-	08:15 AM			08:30 AM			-	
Volume	-	9	14	23	9	26	35	-	
Peak Factor	-			0.913			0.729	-	

TRAFFIC DATA, LLC

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

Mountain Brook, AL

File Name : mtbrook04
Site Code : 00000000
Start Date : 11/29/2007
Page No : 1

Groups Printed- 1 - Unshifted

	N S/C DRWY Westbound		LANE PARK RD		
Start Time	Left	Right	Thru /L	Right	Int. Total
04:00 PM	9	14	0	2	25
04:15 PM	11	17	0	0	28
04:30 PM	11	20	0	1	32
04:45 PM	11	15	0	4	30
Total	42	66	0	7	115
05:00 PM	9	18	0	3	30
05:15 PM	5	12	0	0	17
05:30 PM	5	15	2	1	23
05:45 PM	2	15	1	2	20
Total	21	60	3	6	90
07:00 AM	3	6	2	1	12
07:15 AM	3	5	1	0	9
07:30 AM	7	16	1	0	24
07:45 AM	9	8	1	0	18
Total	22	35	5	1	63
08:00 AM	11	7	0	0	18
08:15 AM	6	6	1	1	14
08:30 AM	5	5	0	0	10
08:45 AM	4	6	0	2	12
Total	26	24	1	3	54
Grand Total	111	185	9	17	322
Apprch %	37.5	62.5	34.6	65.4	
Total %	34.5	57.5	2.8	5.3	

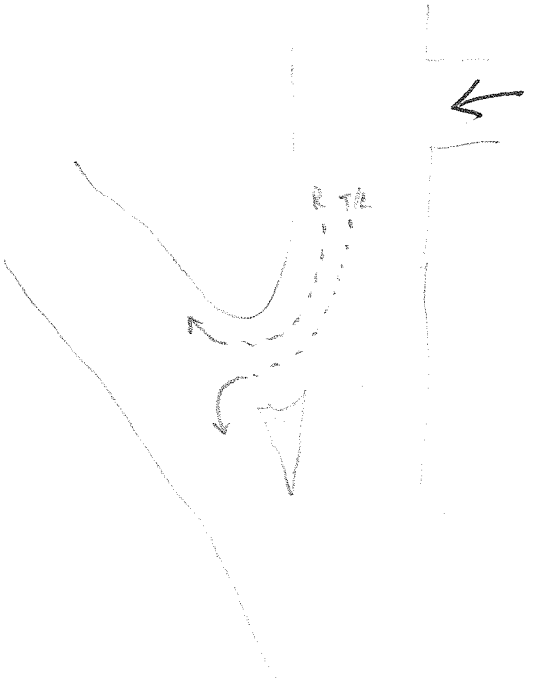
		N S/C DRWY Westbound			LANE PARK RD Northbound				
Start Time	App. Total	Left	Right	App. Total	Thru /L	Right	App. Total	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1									
Intersection	04:15 PM								
Volume	0	42	70	112	0	8	8	0	120
Percent		37.5	62.5		0.0	100.0			
04:30 Volume	0	11	20	31	0	1	1	0	32
Peak Factor									0.938
High Int.	3:45:00 PM	04:30 PM			04:45 PM			3:45:00 PM	
Volume	0	11	20	31	0	4	4		
Peak Factor				0.903			0.500		
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1									
By Approach	04:00 PM	04:15 PM			04:45 PM			04:00 PM	
Volume	0	42	70	112	2	8	10	0	
Percent		37.5	62.5		20.0	80.0			
High Int.	-	04:30 PM			04:45 PM			-	
Volume	-	11	20	31	0	4	4	-	
Peak Factor	-			0.903			0.625	-	

TRAFFIC DATA, LLC

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

File Name : mtbrook04
Site Code : 00000000
Start Date : 11/29/2007
Page No : 2

		N S/C DRWY Westbound			LANE PARK RD Northbound				
Start Time	App. Total	Left	Right	App. Total	Thru /L	Right	App. Total	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1									
Intersection	07:30 AM								
Volume	0	33	37	70	3	1	4	0	74
Percent		47.1	52.9		75.0	25.0			
07:30 Volume	0	7	16	23	1	0	1	0	24
Peak Factor									0.771
High Int.		07:30 AM			08:15 AM				
Volume	0	7	16	23	1	1	2		
Peak Factor				0.761			0.500		
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1									
By Approach	07:00 AM	07:30 AM			07:00 AM			07:00 AM	
Volume	0	33	37	70	5	1	6	0	
Percent		47.1	52.9		83.3	16.7			
High Int.	-	07:30 AM			07:00 AM			-	
Volume	-	7	16	23	2	1	3	-	
Peak Factor	-			0.761			0.500	-	



Appendix D

Machine Traffic Counts

TRAFFIC DATA, LLC 205-824-0125

Location: PARK LANE CT N east of LANE PARK RD - MT BROOK
Count Interval: 15 minutes
Count Date: Thursday - November 29, 2007 /Friday - November 30, 2007

Time	EastBound Volume	WestBound Volume	Total Volume
9:00 - 9:14	1	5	6
9:15 - 9:29	3	8	11
9:30 - 9:44	0	9	9
9:45 - 9:59	5	9	14
Hour Total	9	31	40
10:00 - 10:14	1	2	3
10:15 - 10:29	2	8	10
10:30 - 10:44	3	8	11
10:45 - 10:59	2	11	13
Hour Total	8	29	37
11:00 - 11:14	1	2	3
11:15 - 11:29	2	9	11
11:30 - 11:44	2	9	11
11:45 - 11:59	2	3	5
Hour Total	7	23	30
12:00 - 12:14	3	4	7
12:15 - 12:29	6	19	25
12:30 - 12:44	5	17	22
12:45 - 12:59	4	5	9
Hour Total	18	45	63
13:00 - 13:14	2	14	16
13:15 - 13:29	3	7	10
13:30 - 13:44	5	13	18
13:45 - 13:59	6	8	14
Hour Total	16	42	58
14:00 - 14:14	6	10	16
14:15 - 14:29	0	13	13
14:30 - 14:44	1	13	14
14:45 - 14:59	1	8	9
Hour Total	8	44	52
15:00 - 15:14	2	8	10
15:15 - 15:29	1	11	12
15:30 - 15:44	2	2	4
15:45 - 15:59	4	7	11
Hour Total	9	28	37
16:00 - 16:14	1	2	3
16:15 - 16:29	2	10	12
16:30 - 16:44	8	1	9

Location: PARK LANE CT N east of LANE PARK RD - MT BROOK
Count Date: Thursday - November 29, 2007 /Friday - November 30, 2007

Time	EastBound Volume	WestBound Volume	Total Volume
16:45 - 16:59	3	11	14
Hour Total	14	24	38
17:00 - 17:14	5	11	16
17:15 - 17:29	11	9	20
17:30 - 17:44	6	8	14
17:45 - 17:59	6	5	11
Hour Total	28	33	61
18:00 - 18:14	4	7	11
18:15 - 18:29	3	6	9
18:30 - 18:44	1	11	12
18:45 - 18:59	2	9	11
Hour Total	10	33	43
19:00 - 19:14	2	12	14
19:15 - 19:29	3	13	16
19:30 - 19:44	2	14	16
19:45 - 19:59	1	6	7
Hour Total	8	45	53
20:00 - 20:14	3	6	9
20:15 - 20:29	2	5	7
20:30 - 20:44	1	4	5
20:45 - 20:59	3	8	11
Hour Total	9	23	32
21:00 - 21:14	3	5	8
21:15 - 21:29	1	7	8
21:30 - 21:44	2	6	8
21:45 - 21:59	3	4	7
Hour Total	9	22	31
22:00 - 22:14	0	2	2
22:15 - 22:29	1	2	3
22:30 - 22:44	0	3	3
23:45 - 22:59	2	3	5
Hour Total	3	10	13
23:00 - 23:14	1	9	10
23:15 - 23:29	0	3	3
23:30 - 23:44	0	3	3
23:45 - 23:59	0	1	1
Hour Total	1	16	17
Mid - 12:14	0	0	0
12:15 - 12:29	0	0	0
12:30 - 12:44	0	3	3
12:45 - 12:59	0	0	0
Hour Total	0	3	3
1:00 - 1:14	0	1	1
1:15 - 1:29	0	2	2
1:30 - 1:44	0	2	2
1:45 - 1:59	0	0	0
Hour Total	0	5	5

Location: PARK LANE CT N east of LANE PARK RD - MT BROOK
Count Date: Thursday - November 29, 2007 /Friday - November 30, 2007

Time	EastBound Volume	WestBound Volume	Total Volume
2:00 - 2:14	1	1	2
2:15 - 2:29	0	4	4
2:30 - 2:44	0	1	1
2:45 - 2:59	0	0	0
Hour Total	1	6	7
3:00 - 3:14	0	4	4
3:15 - 3:29	0	0	0
3:30 - 3:44	0	0	0
3:45 - 3:59	1	1	2
Hour Total	1	5	6
4:00 - 4:14	0	0	0
4:15 - 4:29	0	0	0
4:30 - 4:44	0	0	0
4:45 - 4:59	0	0	0
Hour Total	0	0	0
5:00 - 5:14	0	0	0
5:15 - 5:29	0	2	2
5:30 - 5:44	0	0	0
5:45 - 5:59	0	1	1
Hour Total	0	3	3
6:00 - 6:14	0	0	0
6:15 - 6:29	0	8	8
6:30 - 6:44	3	6	9
6:45 - 6:59	1	7	8
Hour Total	4	21	25
7:00 - 7:14	0	3	3
7:15 - 7:29	0	9	9
7:30 - 7:44	2	13	15
7:45 - 7:59	2	20	22
Hour Total	4	45	49
8:00 - 8:14	0	14	14
8:15 - 8:29	1	10	11
8:30 - 8:44	2	11	13
8:45 - 8:59	2	13	15
Hour Total	5	48	53
ADT :	172	584	756
AM Peak Time :	9:45-10:45	7:30- 8:30	7:30- 8:30
AM Peak Volume:	11	57	62
PM Peak Time :	17:00-18:00	12:15-13:15	12:15-13:15
PM Peak Volume:	28	55	72

TRAFFIC DATA, LLC 205-824-0125

Location: PARK LANE CT S east of LANE PARK RD - MT BROOK
Count Interval: 15 minutes
Count Date: Thursday - November 29, 2007 /Friday - November 30, 2007

Time	EastBound Volume	WestBound Volume	Total Volume
9:00 - 9:14	0	2	2
9:15 - 9:29	2	11	13
9:30 - 9:44	3	6	9
9:45 - 9:59	0	7	7
Hour Total	5	26	31
10:00 - 10:14	1	7	8
10:15 - 10:29	1	2	3
10:30 - 10:44	2	2	4
10:45 - 10:59	1	1	2
Hour Total	5	12	17
11:00 - 11:14	1	2	3
11:15 - 11:29	2	4	6
11:30 - 11:44	4	8	12
11:45 - 11:59	1	7	8
Hour Total	8	21	29
12:00 - 12:14	1	3	4
12:15 - 12:29	2	6	8
12:30 - 12:44	4	4	8
12:45 - 12:59	2	4	6
Hour Total	9	17	26
13:00 - 13:14	5	9	14
13:15 - 13:29	3	5	8
13:30 - 13:44	1	6	7
13:45 - 13:59	5	3	8
Hour Total	14	23	37
14:00 - 14:14	1	7	8
14:15 - 14:29	1	2	3
14:30 - 14:44	3	4	7
14:45 - 14:59	4	2	6
Hour Total	9	15	24
15:00 - 15:14	4	1	5
15:15 - 15:29	2	4	6
15:30 - 15:44	5	1	6
15:45 - 15:59	2	6	8
Hour Total	13	12	25
16:00 - 16:14	5	5	10
16:15 - 16:29	3	5	8
16:30 - 16:44	1	9	10

Location: PARK LANE CT S east of LANE PARK RD - MT BROOK
Count Date: Thursday - November 29, 2007 /Friday - November 30, 2007

Time	EastBound Volume	WestBound Volume	Total Volume
16:45 - 16:59	1	7	8
Hour Total	10	26	36
17:00 - 17:14	4	12	16
17:15 - 17:29	4	11	15
17:30 - 17:44	5	8	13
17:45 - 17:59	6	14	20
Hour Total	19	45	64
18:00 - 18:14	0	15	15
18:15 - 18:29	3	14	17
18:30 - 18:44	5	10	15
18:45 - 18:59	2	11	13
Hour Total	10	50	60
19:00 - 19:14	1	6	7
19:15 - 19:29	2	12	14
19:30 - 19:44	0	5	5
19:45 - 19:59	0	7	7
Hour Total	3	30	33
20:00 - 20:14	2	5	7
20:15 - 20:29	0	4	4
20:30 - 20:44	4	2	6
20:45 - 20:59	3	3	6
Hour Total	9	14	23
21:00 - 21:14	0	2	2
21:15 - 21:29	2	6	8
21:30 - 21:44	1	2	3
21:45 - 21:59	1	4	5
Hour Total	4	14	18
22:00 - 22:14	1	4	5
22:15 - 22:29	0	2	2
22:30 - 22:44	0	2	2
23:45 - 22:59	1	7	8
Hour Total	2	15	17
23:00 - 23:14	0	6	6
23:15 - 23:29	0	1	1
23:30 - 23:44	0	2	2
23:45 - 23:59	0	0	0
Hour Total	0	9	9
Mid - 12:14	0	0	0
12:15 - 12:29	0	0	0
12:30 - 12:44	0	2	2
12:45 - 12:59	0	0	0
Hour Total	0	2	2
1:00 - 1:14	1	0	1
1:15 - 1:29	0	1	1
1:30 - 1:44	0	0	0
1:45 - 1:59	0	1	1
Hour Total	1	2	3

Location: PARK LANE CT S east of LANE PARK RD - MT BROOK
Count Date: Thursday - November 29, 2007 /Friday - November 30, 2007

Time	EastBound Volume	WestBound Volume	Total Volume
2:00 - 2:14	0	1	1
2:15 - 2:29	0	0	0
2:30 - 2:44	0	0	0
2:45 - 2:59	0	0	0
Hour Total	0	1	1
3:00 - 3:14	0	2	2
3:15 - 3:29	0	0	0
3:30 - 3:44	0	2	2
3:45 - 3:59	0	0	0
Hour Total	0	4	4
4:00 - 4:14	1	0	1
4:15 - 4:29	1	1	2
4:30 - 4:44	0	0	0
4:45 - 4:59	0	1	1
Hour Total	2	2	4
5:00 - 5:14	0	0	0
5:15 - 5:29	0	1	1
5:30 - 5:44	0	0	0
5:45 - 5:59	0	0	0
Hour Total	0	1	1
6:00 - 6:14	0	2	2
6:15 - 6:29	0	3	3
6:30 - 6:44	0	7	7
6:45 - 6:59	0	3	3
Hour Total	0	15	15
7:00 - 7:14	1	13	14
7:15 - 7:29	0	10	10
7:30 - 7:44	2	21	23
7:45 - 7:59	2	7	9
Hour Total	5	51	56
8:00 - 8:14	0	6	6
8:15 - 8:29	0	3	3
8:30 - 8:44	1	13	14
8:45 - 8:59	0	5	5
Hour Total	1	27	28
ADT :	129	434	563
AM Peak Time :	10:45-11:45	7:00- 8:00	7:00- 8:00
AM Peak Volume:	8	51	56
PM Peak Time :	17:00-18:00	17:45-18:45	17:45-18:45
PM Peak Volume:	19	53	67

TRAFFIC DATA, LLC 205-824-0125

Location: LANE PARK RD south of PARK LANE CT S - MT BROOK
Count Interval: 15 minutes
Count Date: Thursday - November 29, 2007 /Friday - November 30, 2007

Time	SouthBound Volume	NorthBound Volume	Total Volume
9:00 - 9:14	68	58	126
9:15 - 9:29	66	72	138
9:30 - 9:44	63	70	133
9:45 - 9:59	70	68	138
Hour Total	267	268	535
10:00 - 10:14	54	69	123
10:15 - 10:29	64	65	129
10:30 - 10:44	76	70	146
10:45 - 10:59	65	93	158
Hour Total	259	297	556
11:00 - 11:14	75	80	155
11:15 - 11:29	63	99	162
11:30 - 11:44	69	77	146
11:45 - 11:59	75	93	168
Hour Total	282	349	631
12:00 - 12:14	75	90	165
12:15 - 12:29	100	87	187
12:30 - 12:44	86	66	152
12:45 - 12:59	115	85	200
Hour Total	376	328	704
13:00 - 13:14	98	92	190
13:15 - 13:29	83	95	178
13:30 - 13:44	94	63	157
13:45 - 13:59	81	80	161
Hour Total	356	330	686
14:00 - 14:14	81	75	156
14:15 - 14:29	79	76	155
14:30 - 14:44	88	82	170
14:45 - 14:59	78	88	166
Hour Total	326	321	647
15:00 - 15:14	83	111	194
15:15 - 15:29	88	89	177
15:30 - 15:44	110	70	180
15:45 - 15:59	72	95	167
Hour Total	353	365	718
16:00 - 16:14	80	88	168
16:15 - 16:29	89	90	179
16:30 - 16:44	94	90	184

Location: LANE PARK RD south of PARK LANE CT S - MT BROOK
Count Date: Thursday - November 29, 2007 /Friday - November 30, 2007

Time	SouthBound Volume	NorthBound Volume	Total Volume
16:45 - 16:59	77	111	188
Hour Total	340	379	719
17:00 - 17:14	71	109	180
17:15 - 17:29	83	112	195
17:30 - 17:44	79	106	185
17:45 - 17:59	75	99	174
Hour Total	308	426	734
18:00 - 18:14	79	95	174
18:15 - 18:29	55	108	163
18:30 - 18:44	59	76	135
18:45 - 18:59	66	65	131
Hour Total	259	344	603
19:00 - 19:14	48	59	107
19:15 - 19:29	63	53	116
19:30 - 19:44	41	49	90
19:45 - 19:59	31	45	76
Hour Total	183	206	389
20:00 - 20:14	34	44	78
20:15 - 20:29	37	34	71
20:30 - 20:44	27	34	61
20:45 - 20:59	33	34	67
Hour Total	131	146	277
21:00 - 21:14	25	43	68
21:15 - 21:29	26	29	55
21:30 - 21:44	17	38	55
21:45 - 21:59	21	23	44
Hour Total	89	133	222
22:00 - 22:14	14	21	35
22:15 - 22:29	23	21	44
22:30 - 22:44	8	20	28
23:45 - 22:59	4	25	29
Hour Total	49	87	136
23:00 - 23:14	13	10	23
23:15 - 23:29	4	11	15
23:30 - 23:44	4	11	15
23:45 - 23:59	2	6	8
Hour Total	23	38	61
Mid - 12:14	3	3	6
12:15 - 12:29	3	2	5
12:30 - 12:44	4	3	7
12:45 - 12:59	3	0	3
Hour Total	13	8	21
1:00 - 1:14	2	3	5
1:15 - 1:29	2	3	5
1:30 - 1:44	2	3	5
1:45 - 1:59	0	4	4
Hour Total	6	13	19

Location: LANE PARK RD south of PARK LANE CT S - MT BROOK
Count Date: Thursday - November 29, 2007 /Friday - November 30, 2007

Time	SouthBound Volume	NorthBound Volume	Total Volume
2:00 - 2:14	3	3	6
2:15 - 2:29	1	5	6
2:30 - 2:44	2	1	3
2:45 - 2:59	0	0	0
Hour Total	6	9	15
3:00 - 3:14	2	4	6
3:15 - 3:29	0	1	1
3:30 - 3:44	0	3	3
3:45 - 3:59	0	2	2
Hour Total	2	10	12
4:00 - 4:14	1	1	2
4:15 - 4:29	2	3	5
4:30 - 4:44	2	4	6
4:45 - 4:59	4	7	11
Hour Total	9	15	24
5:00 - 5:14	4	8	12
5:15 - 5:29	6	12	18
5:30 - 5:44	12	13	25
5:45 - 5:59	10	18	28
Hour Total	32	51	83
6:00 - 6:14	14	34	48
6:15 - 6:29	22	37	59
6:30 - 6:44	28	55	83
6:45 - 6:59	47	54	101
Hour Total	111	180	291
7:00 - 7:14	54	77	131
7:15 - 7:29	76	66	142
7:30 - 7:44	112	87	199
7:45 - 7:59	129	68	197
Hour Total	371	298	669
8:00 - 8:14	107	59	166
8:15 - 8:29	90	78	168
8:30 - 8:44	88	69	157
8:45 - 8:59	68	64	132
Hour Total	353	270	623
ADT :	4504	4871	9375
AM Peak Time :	7:30- 8:30	11:15-12:15	7:30- 8:30
AM Peak Volume:	438	359	730
PM Peak Time :	12:15-13:15	16:45-17:45	16:45-17:45
PM Peak Volume:	399	438	748

TRAFFIC DATA, LLC 205-824-0125

Location: CAHABA RD north of LANE PARK RD - MT BROOK
Count Interval: 15 minutes
Count Date: Thursday - November 29, 2007 /Friday - November 30, 2007

Time	NorthBound Volume	SouthBound Volume	Total Volume
9:00 - 9:14	22	37	59
9:15 - 9:29	44	36	80
9:30 - 9:44	44	28	72
9:45 - 9:59	43	37	80
Hour Total	153	138	291
10:00 - 10:14	29	40	69
10:15 - 10:29	38	40	78
10:30 - 10:44	38	46	84
10:45 - 10:59	34	38	72
Hour Total	139	164	303
11:00 - 11:14	55	57	112
11:15 - 11:29	42	51	93
11:30 - 11:44	37	50	87
11:45 - 11:59	43	41	84
Hour Total	177	199	376
12:00 - 12:14	49	58	107
12:15 - 12:29	58	64	122
12:30 - 12:44	60	63	123
12:45 - 12:59	47	60	107
Hour Total	214	245	459
13:00 - 13:14	43	51	94
13:15 - 13:29	46	48	94
13:30 - 13:44	49	42	91
13:45 - 13:59	40	49	89
Hour Total	178	190	368
14:00 - 14:14	48	45	93
14:15 - 14:29	46	43	89
14:30 - 14:44	33	51	84
14:45 - 14:59	47	51	98
Hour Total	174	190	364
15:00 - 15:14	55	58	113
15:15 - 15:29	56	35	91
15:30 - 15:44	46	56	102
15:45 - 15:59	43	39	82
Hour Total	200	188	388
16:00 - 16:14	37	49	86
16:15 - 16:29	41	47	88
16:30 - 16:44	39	59	98

Location: CAHABA RD north of LANE PARK RD - MT BROOK
Count Date: Thursday - November 29, 2007 /Friday - November 30, 2007

Time	NorthBound Volume	SouthBound Volume	Total Volume
16:45 - 16:59	43	72	115
Hour Total	160	227	387
17:00 - 17:14	60	62	122
17:15 - 17:29	51	75	126
17:30 - 17:44	42	85	127
17:45 - 17:59	57	93	150
Hour Total	210	315	525
18:00 - 18:14	35	60	95
18:15 - 18:29	31	25	56
18:30 - 18:44	32	33	65
18:45 - 18:59	43	29	72
Hour Total	141	147	288
19:00 - 19:14	45	24	69
19:15 - 19:29	31	15	46
19:30 - 19:44	27	26	53
19:45 - 19:59	31	18	49
Hour Total	134	83	217
20:00 - 20:14	32	27	59
20:15 - 20:29	20	20	40
20:30 - 20:44	33	21	54
20:45 - 20:59	20	17	37
Hour Total	105	85	190
21:00 - 21:14	14	16	30
21:15 - 21:29	12	19	31
21:30 - 21:44	11	14	25
21:45 - 21:59	14	14	28
Hour Total	51	63	114
22:00 - 22:14	7	14	21
22:15 - 22:29	8	11	19
22:30 - 22:44	2	9	11
23:45 - 22:59	7	12	19
Hour Total	24	46	70
23:00 - 23:14	5	7	12
23:15 - 23:29	5	7	12
23:30 - 23:44	5	4	9
23:45 - 23:59	2	4	6
Hour Total	17	22	39
Mid - 12:14	3	0	3
12:15 - 12:29	1	0	1
12:30 - 12:44	2	2	4
12:45 - 12:59	1	9	10
Hour Total	7	11	18
1:00 - 1:14	1	1	2
1:15 - 1:29	1	0	1
1:30 - 1:44	2	1	3
1:45 - 1:59	3	4	7
Hour Total	7	6	13

Location: CAHABA RD north of LANE PARK RD - MT BROOK
Count Date: Thursday - November 29, 2007 /Friday - November 30, 2007

Time	NorthBound Volume	SouthBound Volume	Total Volume
2:00 - 2:14	0	2	2
2:15 - 2:29	0	0	0
2:30 - 2:44	1	2	3
2:45 - 2:59	0	1	1
Hour Total	1	5	6
3:00 - 3:14	1	3	4
3:15 - 3:29	0	1	1
3:30 - 3:44	0	0	0
3:45 - 3:59	0	0	0
Hour Total	1	4	5
4:00 - 4:14	0	1	1
4:15 - 4:29	1	0	1
4:30 - 4:44	1	0	1
4:45 - 4:59	3	3	6
Hour Total	5	4	9
5:00 - 5:14	1	0	1
5:15 - 5:29	0	2	2
5:30 - 5:44	5	4	9
5:45 - 5:59	5	4	9
Hour Total	11	10	21
6:00 - 6:14	8	13	21
6:15 - 6:29	8	11	19
6:30 - 6:44	9	13	22
6:45 - 6:59	24	17	41
Hour Total	49	54	103
7:00 - 7:14	21	34	55
7:15 - 7:29	36	29	65
7:30 - 7:44	36	39	75
7:45 - 7:59	57	49	106
Hour Total	150	151	301
8:00 - 8:14	51	40	91
8:15 - 8:29	50	39	89
8:30 - 8:44	36	43	79
8:45 - 8:59	36	43	79
Hour Total	173	165	338
ADT :	2481	2712	5193
AM Peak Time :	7:30- 8:30	11:15-12:15	11:00-12:00
AM Peak Volume:	194	200	376
PM Peak Time :	12:00-13:00	17:00-18:00	17:00-18:00
PM Peak Volume:	214	315	525

TRAFFIC DATA, LLC 205-824-0125

Location: CULVER RD east of LANE PARK RD - MT BROOK
Count Interval: 15 minutes
Count Date: Thursday - November 29, 2007 /Friday - November 30, 2007

Time	WestBound Volume	EastBound Volume	Total Volume
10:00 - 10:14	38	48	86
10:15 - 10:29	41	45	86
10:30 - 10:44	46	67	113
10:45 - 10:59	40	52	92
Hour Total	165	212	377
11:00 - 11:14	48	77	125
11:15 - 11:29	49	71	120
11:30 - 11:44	61	72	133
11:45 - 11:59	46	63	109
Hour Total	204	283	487
12:00 - 12:14	50	74	124
12:15 - 12:29	48	53	101
12:30 - 12:44	55	70	125
12:45 - 12:59	72	71	143
Hour Total	225	268	493
13:00 - 13:14	64	75	139
13:15 - 13:29	58	62	120
13:30 - 13:44	60	49	109
13:45 - 13:59	54	73	127
Hour Total	236	259	495
14:00 - 14:14	58	76	134
14:15 - 14:29	38	67	105
14:30 - 14:44	51	72	123
14:45 - 14:59	65	84	149
Hour Total	212	299	511
15:00 - 15:14	46	78	124
15:15 - 15:29	72	43	115
15:30 - 15:44	50	60	110
15:45 - 15:59	45	57	102
Hour Total	213	238	451
16:00 - 16:14	51	70	121
16:15 - 16:29	50	74	124
16:30 - 16:44	52	70	122
16:45 - 16:59	42	88	130
Hour Total	195	302	497
17:00 - 17:14	49	85	134
17:15 - 17:29	49	82	131
17:30 - 17:44	42	61	103

Location: CULVER RD east of LANE PARK RD - MT BROOK
Count Date: Thursday - November 29, 2007 /Friday - November 30, 2007

Time	WestBound Volume	EastBound Volume	Total Volume
17:45 - 17:59	47	61	108
Hour Total	187	289	476
18:00 - 18:14	43	76	119
18:15 - 18:29	37	44	81
18:30 - 18:44	34	51	85
18:45 - 18:59	34	35	69
Hour Total	148	206	354
19:00 - 19:14	25	40	65
19:15 - 19:29	21	41	62
19:30 - 19:44	22	18	40
19:45 - 19:59	21	21	42
Hour Total	89	120	209
20:00 - 20:14	24	21	45
20:15 - 20:29	7	20	27
20:30 - 20:44	17	28	45
20:45 - 20:59	15	19	34
Hour Total	63	88	151
21:00 - 21:14	11	12	23
21:15 - 21:29	10	11	21
21:30 - 21:44	6	13	19
21:45 - 21:59	6	10	16
Hour Total	33	46	79
22:00 - 22:14	5	10	15
22:15 - 22:29	6	6	12
22:30 - 22:44	4	6	10
23:45 - 22:59	5	8	13
Hour Total	20	30	50
23:00 - 23:14	3	5	8
23:15 - 23:29	4	5	9
23:30 - 23:44	1	3	4
23:45 - 23:59	4	3	7
Hour Total	12	16	28
Mid - 12:14	3	0	3
12:15 - 12:29	0	0	0
12:30 - 12:44	1	1	2
12:45 - 12:59	2	5	7
Hour Total	6	6	12
1:00 - 1:14	2	0	2
1:15 - 1:29	0	1	1
1:30 - 1:44	0	0	0
1:45 - 1:59	0	0	0
Hour Total	2	1	3
2:00 - 2:14	0	0	0
2:15 - 2:29	0	3	3
2:30 - 2:44	0	0	0
2:45 - 2:59	0	1	1
Hour Total	0	4	4

Location: CULVER RD east of LANE PARK RD - MT BROOK
Count Date: Thursday - November 29, 2007 /Friday - November 30, 2007

Time	WestBound Volume	EastBound Volume	Total Volume
3:00 - 3:14	0	1	1
3:15 - 3:29	0	0	0
3:30 - 3:44	0	2	2
3:45 - 3:59	2	0	2
Hour Total	2	3	5
4:00 - 4:14	2	1	3
4:15 - 4:29	1	3	4
4:30 - 4:44	2	1	3
4:45 - 4:59	7	1	8
Hour Total	12	6	18
5:00 - 5:14	3	2	5
5:15 - 5:29	7	2	9
5:30 - 5:44	6	1	7
5:45 - 5:59	7	9	16
Hour Total	23	14	37
6:00 - 6:14	12	19	31
6:15 - 6:29	15	23	38
6:30 - 6:44	19	32	51
6:45 - 6:59	31	42	73
Hour Total	77	116	193
7:00 - 7:14	50	25	75
7:15 - 7:29	50	40	90
7:30 - 7:44	80	57	137
7:45 - 7:59	82	39	121
Hour Total	262	161	423
8:00 - 8:14	78	51	129
8:15 - 8:29	57	51	108
8:30 - 8:44	53	43	96
8:45 - 8:59	46	62	108
Hour Total	234	207	441
9:00 - 9:14	54	73	127
9:15 - 9:29	51	39	90
9:30 - 9:44	0	0	0
9:45 - 9:59	0	0	0
Hour Total	105	112	217
ADT :	2725	3286	6011
AM Peak Time :	7:30- 8:30	11:00-12:00	7:30- 8:30
AM Peak Volume:	297	283	495
PM Peak Time :	12:45-13:45	16:30-17:30	12:30-13:30
PM Peak Volume:	254	325	527

TRAFFIC DATA, LLC 205-824-0125

Location: MONTEVALLO RD east of CULVER RD - MOUNTAIN BROOK
Count Interval: 15 minutes
Count Date: Wednesday - December 5, 2007 /Thursday - December 6, 2007

Time	WestBound Volume	EastBound Volume	Total Volume
14:00 - 14:14	112	114	226
14:15 - 14:29	110	108	218
14:30 - 14:44	118	108	226
14:45 - 14:59	107	156	263
Hour Total	447	486	933
15:00 - 15:14	158	145	303
15:15 - 15:29	153	129	282
15:30 - 15:44	133	116	249
15:45 - 15:59	103	132	235
Hour Total	547	522	1069
16:00 - 16:14	119	131	250
16:15 - 16:29	119	141	260
16:30 - 16:44	104	164	268
16:45 - 16:59	84	164	248
Hour Total	426	600	1026
17:00 - 17:14	100	192	292
17:15 - 17:29	110	179	289
17:30 - 17:44	115	179	294
17:45 - 17:59	95	133	228
Hour Total	420	683	1103
18:00 - 18:14	98	129	227
18:15 - 18:29	87	91	178
18:30 - 18:44	72	94	166
18:45 - 18:59	61	104	165
Hour Total	318	418	736
19:00 - 19:14	52	88	140
19:15 - 19:29	46	59	105
19:30 - 19:44	38	61	99
19:45 - 19:59	38	58	96
Hour Total	174	266	440
20:00 - 20:14	40	59	99
20:15 - 20:29	38	71	109
20:30 - 20:44	29	53	82
20:45 - 20:59	28	32	60
Hour Total	135	215	350
21:00 - 21:14	27	53	80
21:15 - 21:29	34	28	62
21:30 - 21:44	23	46	69

Location: MONTEVALLO RD east of CULVER RD - MOUNTAIN BROOK
Count Date: Wednesday - December 5, 2007 /Thursday - December 6, 2007

Time	WestBound Volume	EastBound Volume	Total Volume
21:45 - 21:59	10	21	31
Hour Total	94	148	242
22:00 - 22:14	20	19	39
22:15 - 22:29	13	19	32
22:30 - 22:44	4	12	16
23:45 - 22:59	5	9	14
Hour Total	42	59	101
23:00 - 23:14	6	5	11
23:15 - 23:29	5	6	11
23:30 - 23:44	3	4	7
23:45 - 23:59	5	4	9
Hour Total	19	19	38
Mid - 12:14	5	6	11
12:15 - 12:29	0	3	3
12:30 - 12:44	1	0	1
12:45 - 12:59	2	5	7
Hour Total	8	14	22
1:00 - 1:14	2	0	2
1:15 - 1:29	1	2	3
1:30 - 1:44	0	0	0
1:45 - 1:59	1	1	2
Hour Total	4	3	7
2:00 - 2:14	1	2	3
2:15 - 2:29	2	1	3
2:30 - 2:44	1	0	1
2:45 - 2:59	1	1	2
Hour Total	5	4	9
3:00 - 3:14	0	2	2
3:15 - 3:29	1	2	3
3:30 - 3:44	0	1	1
3:45 - 3:59	0	2	2
Hour Total	1	7	8
4:00 - 4:14	2	1	3
4:15 - 4:29	1	1	2
4:30 - 4:44	1	1	2
4:45 - 4:59	10	0	10
Hour Total	14	3	17
5:00 - 5:14	5	2	7
5:15 - 5:29	12	3	15
5:30 - 5:44	10	9	19
5:45 - 5:59	29	16	45
Hour Total	56	30	86
6:00 - 6:14	16	7	23
6:15 - 6:29	29	15	44
6:30 - 6:44	50	34	84
6:45 - 6:59	80	83	163
Hour Total	175	139	314

Location: MONTEVALLO RD east of CULVER RD - MOUNTAIN BROOK
Count Date: Wednesday - December 5, 2007 /Thursday - December 6, 2007

Time	WestBound Volume	EastBound Volume	Total Volume
7:00 - 7:14	121	50	171
7:15 - 7:29	140	66	206
7:30 - 7:44	195	80	275
7:45 - 7:59	219	64	283
Hour Total	675	260	935
8:00 - 8:14	167	88	255
8:15 - 8:29	156	82	238
8:30 - 8:44	140	80	220
8:45 - 8:59	124	96	220
Hour Total	587	346	933
9:00 - 9:14	128	97	225
9:15 - 9:29	140	85	225
9:30 - 9:44	123	86	209
9:45 - 9:59	119	82	201
Hour Total	510	350	860
10:00 - 10:14	145	74	219
10:15 - 10:29	114	85	199
10:30 - 10:44	105	104	209
10:45 - 10:59	132	87	219
Hour Total	496	350	846
11:00 - 11:14	127	92	219
11:15 - 11:29	101	97	198
11:30 - 11:44	118	105	223
11:45 - 11:59	114	121	235
Hour Total	460	415	875
12:00 - 12:14	131	102	233
12:15 - 12:29	103	110	213
12:30 - 12:44	127	109	236
12:45 - 12:59	130	130	260
Hour Total	491	451	942
13:00 - 13:14	160	94	254
13:15 - 13:29	116	125	241
13:30 - 13:44	122	121	243
13:45 - 13:59	126	118	244
Hour Total	524	458	982
ADT :	6628	6246	12874
AM Peak Time :	7:30- 8:30	11:15-12:15	7:30- 8:30
AM Peak Volume:	737	425	1051
PM Peak Time :	14:45-15:45	16:45-17:45	16:45-17:45
PM Peak Volume:	551	714	1123

Appendix E

Existing Capacity Analysis Worksheets

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*RLC*	Intersection	*Lane Park at Court North*
Agency/Co.	*Skipper Consulting*	Jurisdiction	*City of Mountain Brook*
Date Performed	*2/17/2009*	Analysis Year	*Existing 2007*
Analysis Time Period	*AM Peak Hour*		

Project Description *Mountain Brook Urban Village*

East/West Street: *Park Lane Court North* | North/South Street: *Lane Park 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)		*300*	*4*	*0*	*393*	
Peak-Hour Factor, PHF	*1.00*	*0.90*	*0.90*	*0.90*	*0.90*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*333*	*4*	*0*	*436*	*0*
Percent Heavy Vehicles	*0*	--	--	*3*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration			*TR*	*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)				*26*		*10*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*0.90*	*1.00*	*0.90*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*28*	*0*	*11*
Percent Heavy Vehicles	*0*	*0*	*0*	*3*	*0*	*3*
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)		*0*		*39*				
C (m) (veh/h)		*1217*		*424*				
v/c		*0.00*		*0.09*				
95% queue length		*0.00*		*0.30*				
Control Delay (s/veh)		*8.0*		*14.3*				
LOS		*A*		*B*				
Approach Delay (s/veh)	--	--	*14.3*					
Approach LOS	--	--	*B*					

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*RLC*	Intersection	*Lane Park at Court North*
Agency/Co.	*Skipper Consulting*	Jurisdiction	*City of Mountain Brook*
Date Performed	*2/17/2009*	Analysis Year	*Existing 2007*
Analysis Time Period	*PM Peak Hour*		

Project Description *Mountain Brook Urban Village*

East/West Street: *Park Lane Court North* | North/South Street: *Lane Park 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)		*402*	*14*	*10*	*334*	
Peak-Hour Factor, PHF	*1.00*	*0.90*	*0.90*	*0.90*	*0.90*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*446*	*15*	*11*	*371*	*0*
Percent Heavy Vehicles	*0*	--	--	*3*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration			*TR*	*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)				*6*		*9*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*0.90*	*1.00*	*0.90*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*6*	*0*	*10*
Percent Heavy Vehicles	*0*	*0*	*0*	*3*	*0*	*3*
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)		*11*		*16*				
C (m) (veh/h)		*1095*		*459*				
v/c		*0.01*		*0.03*				
95% queue length		*0.03*		*0.11*				
Control Delay (s/veh)		*8.3*		*13.1*				
LOS		*A*		*B*				
Approach Delay (s/veh)	--	--	*13.1*					
Approach LOS	--	--	*B*					

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*RLC*	Intersection	*Lane Park at Court South*
Agency/Co.	*Skipper Consulting*	Jurisdiction	*City of Mountain Brook*
Date Performed	*2/17/2009*	Analysis Year	*Existing 2007*
Analysis Time Period	*AM Peak Hour*		

Project Description *Mountain Brook Urban Village*

East/West Street: *Park Lane Court South* | North/South Street: *Lane Park 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)		*293*	*8*	*1*	*417*	
Peak-Hour Factor, PHF	*1.00*	*0.90*	*0.90*	*0.90*	*0.90*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*325*	*8*	*1*	*463*	*0*
Percent Heavy Vehicles	*0*	--	--	*3*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration			*TR*	*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)				*26*		*6*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*0.90*	*1.00*	*0.90*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*28*	*0*	*6*
Percent Heavy Vehicles	*0*	*0*	*0*	*3*	*0*	*3*
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)		*1*		*34*				
C (m) (veh/h)		*1221*		*390*				
v/c		*0.00*		*0.09*				
95% queue length		*0.00*		*0.28*				
Control Delay (s/veh)		*8.0*		*15.1*				
LOS		*A*		*C*				
Approach Delay (s/veh)	--	--	*15.1*					
Approach LOS	--	--	*C*					

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*RLC*	Intersection	*Lane Park at Court South*
Agency/Co.	*Skipper Consulting*	Jurisdiction	*City of Mountain Brook*
Date Performed	*2/17/2009*	Analysis Year	*Existing 2007*
Analysis Time Period	*PM Peak Hour*		

Project Description *Mountain Brook Urban Village*

East/West Street: *Park Lane Court South* | North/South Street: *Lane Park 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)		*415*	*29*	*1*	*337*	
Peak-Hour Factor, PHF	*1.00*	*0.90*	*0.90*	*0.90*	*0.90*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*461*	*32*	*1*	*374*	*0*
Percent Heavy Vehicles	*0*	--	--	*3*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration			*TR*	*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)				*10*		*2*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*0.90*	*1.00*	*0.90*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*11*	*0*	*2*
Percent Heavy Vehicles	*0*	*0*	*0*	*3*	*0*	*3*
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)		*1*		*13*				
C (m) (veh/h)		*1065*		*352*				
v/c		*0.00*		*0.04*				
95% queue length		*0.00*		*0.11*				
Control Delay (s/veh)		*8.4*		*15.6*				
LOS		*A*		*C*				
Approach Delay (s/veh)	--	--	*15.6*					
Approach LOS	--	--	*C*					

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Movement	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0		4.0			4.0	4.0		
Lane Util. Factor		1.00	1.00	1.00		1.00			1.00	1.00		
Frt		1.00	1.00	0.85		0.98			1.00	0.89		
Flt Protected		0.95	1.00	1.00		1.00			0.95	1.00		
Satd. Flow (prot)		1752	1845	1568		1815			1752	1648		
Flt Permitted		0.38	1.00	1.00		1.00			0.66	1.00		
Satd. Flow (perm)		702	1845	1568		1809			1209	1648		
Volume (vph)	20	114	119	172	5	253	32	1	109	78	179	14
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	22	127	132	191	6	281	36	1	121	87	199	16
RTOR Reduction (vph)	0	0	0	133	0	0	0	0	0	2	0	0
Lane Group Flow (vph)	0	149	132	58	0	324	0	0	121	300	0	0
Turn Type	Perm	Perm		Perm	Perm				Perm			
Protected Phases			4			4				2		
Permitted Phases	4	4		4	4				2			
Actuated Green, G (s)		27.8	27.8	27.8		27.8			22.3	22.3		
Effective Green, g (s)		28.3	28.3	28.3		28.3			22.8	22.8		
Actuated g/C Ratio		0.30	0.30	0.30		0.30			0.25	0.25		
Clearance Time (s)		4.5	4.5	4.5		4.5			4.5	4.5		
Vehicle Extension (s)		3.0	3.0	3.0		3.0			3.0	3.0		
Lane Grp Cap (vph)		214	562	478		551			297	404		
v/s Ratio Prot			0.07							c0.18		
v/s Ratio Perm		c0.21		0.04		0.18			0.10			
v/c Ratio		0.70	0.23	0.12		0.59			0.41	0.74		
Uniform Delay, d1		28.5	24.2	23.3		27.4			29.4	32.3		
Progression Factor		1.00	1.00	1.00		1.00			1.00	1.00		
Incremental Delay, d2		9.4	0.2	0.1		1.6			0.9	7.2		
Delay (s)		38.0	24.4	23.4		29.0			30.3	39.5		
Level of Service		D	C	C		C			C	D		
Approach Delay (s)			28.3			29.0				36.9		
Approach LOS			C			C				D		

Intersection Summary			
HCM Average Control Delay	33.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	92.9	Sum of lost time (s)	12.0
Intersection Capacity Utilization	83.3%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBL2	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2
Lane Configurations								
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0		4.0		
Lane Util. Factor		1.00	1.00	1.00		1.00		
Frt		1.00	1.00	0.85		0.97		
Flt Protected		0.95	1.00	1.00		0.96		
Satd. Flow (prot)		1752	1845	1568		1718		
Flt Permitted		0.32	1.00	1.00		0.96		
Satd. Flow (perm)		590	1845	1568		1718		
Volume (vph)	7	33	105	35	31	289	67	41
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	8	37	117	39	34	321	74	46
RTOR Reduction (vph)	0	0	0	29	0	3	0	0
Lane Group Flow (vph)	0	45	117	10	0	472	0	0
Turn Type	Perm	Perm		Perm	Perm			
Protected Phases			2			3		
Permitted Phases	2	2		2	3			
Actuated Green, G (s)		22.3	22.3	22.3		29.3		
Effective Green, g (s)		22.8	22.8	22.8		29.8		
Actuated g/C Ratio		0.25	0.25	0.25		0.32		
Clearance Time (s)		4.5	4.5	4.5		4.5		
Vehicle Extension (s)		3.0	3.0	3.0		3.0		
Lane Grp Cap (vph)		145	453	385		551		
v/s Ratio Prot			0.06					
v/s Ratio Perm		0.08		0.01		0.27		
v/c Ratio		0.31	0.26	0.02		0.86		
Uniform Delay, d1		28.6	28.2	26.6		29.5		
Progression Factor		1.00	1.00	1.00		1.00		
Incremental Delay, d2		1.2	0.3	0.0		12.4		
Delay (s)		29.9	28.5	26.6		41.9		
Level of Service		C	C	C		D		
Approach Delay (s)			28.5			41.9		
Approach LOS			C			D		

Intersection Summary

Movement	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0		4.0			4.0	4.0		
Lane Util. Factor		1.00	1.00	1.00		1.00			1.00	1.00		
Frt		1.00	1.00	0.85		0.97			1.00	0.89		
Flt Protected		0.95	1.00	1.00		0.99			0.95	1.00		
Satd. Flow (prot)		1752	1845	1568		1784			1752	1637		
Flt Permitted		0.58	1.00	1.00		0.93			0.56	1.00		
Satd. Flow (perm)		1062	1845	1568		1677			1036	1637		
Volume (vph)	38	186	227	94	23	105	29	2	69	87	233	30
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	42	207	252	104	26	117	32	2	77	97	259	33
RTOR Reduction (vph)	0	0	0	72	0	0	0	0	0	3	0	0
Lane Group Flow (vph)	0	249	252	32	0	177	0	0	77	386	0	0
Turn Type	Perm	Perm		Perm	Perm				Perm			
Protected Phases			4			4				2		
Permitted Phases	4	4		4	4				2			
Actuated Green, G (s)		27.7	27.7	27.7		27.7			27.8	27.8		
Effective Green, g (s)		28.2	28.2	28.2		28.2			28.3	28.3		
Actuated g/C Ratio		0.30	0.30	0.30		0.30			0.30	0.30		
Clearance Time (s)		4.5	4.5	4.5		4.5			4.5	4.5		
Vehicle Extension (s)		3.0	3.0	3.0		3.0			3.0	3.0		
Lane Grp Cap (vph)		322	559	475		508			315	498		
v/s Ratio Prot			0.14							0.24		
v/s Ratio Perm		c0.23		0.02		0.11			0.07			
v/c Ratio		0.77	0.45	0.07		0.35			0.24	0.78		
Uniform Delay, d1		29.5	26.2	23.1		25.3			24.4	29.5		
Progression Factor		1.00	1.00	1.00		1.00			1.00	1.00		
Incremental Delay, d2		11.0	0.6	0.1		0.4			0.4	7.4		
Delay (s)		40.5	26.8	23.1		25.7			24.8	36.9		
Level of Service		D	C	C		C			C	D		
Approach Delay (s)			31.8			25.7				34.9		
Approach LOS			C			C				C		

Intersection Summary			
HCM Average Control Delay	34.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	93.1	Sum of lost time (s)	12.0
Intersection Capacity Utilization	83.3%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBL2	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2
Lane Configurations								
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0		4.0		
Lane Util. Factor		1.00	1.00	1.00		1.00		
Frt		1.00	1.00	0.85		0.97		
Flt Protected		0.95	1.00	1.00		0.96		
Satd. Flow (prot)		1752	1845	1568		1721		
Flt Permitted		0.27	1.00	1.00		0.96		
Satd. Flow (perm)		500	1845	1568		1721		
Volume (vph)	15	98	167	27	48	203	53	23
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	17	109	186	30	53	226	59	26
RTOR Reduction (vph)	0	0	0	21	0	3	0	0
Lane Group Flow (vph)	0	126	186	9	0	361	0	0
Turn Type	Perm	Perm		Perm	Perm			
Protected Phases			2			3		
Permitted Phases	2	2		2	3			
Actuated Green, G (s)		27.8	27.8	27.8		24.1		
Effective Green, g (s)		28.3	28.3	28.3		24.6		
Actuated g/C Ratio		0.30	0.30	0.30		0.26		
Clearance Time (s)		4.5	4.5	4.5		4.5		
Vehicle Extension (s)		3.0	3.0	3.0		3.0		
Lane Grp Cap (vph)		152	561	477		455		
v/s Ratio Prot			0.10					
v/s Ratio Perm		c0.25		0.01		0.21		
v/c Ratio		0.83	0.33	0.02		0.79		
Uniform Delay, d1		30.1	25.1	22.7		31.9		
Progression Factor		1.00	1.00	1.00		1.00		
Incremental Delay, d2		29.5	0.3	0.0		9.2		
Delay (s)		59.7	25.4	22.7		41.1		
Level of Service		E	C	C		D		
Approach Delay (s)			37.8			41.1		
Approach LOS			D			D		

Intersection Summary

SHORT REPORT

General Information		Site Information	
Analyst	*RLC*	Intersection	*Montevallo at Culver*
Agency or Co.	*Skipper Consulting*	Area Type	*All other areas*
Date Performed	*2/17/2009*	Jurisdiction	*City of Mountain Brook*
Time Period	*AM Peak Hour*	Analysis Year	*Existing 2007*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	1	1	0				1	1	0	1	1	0
Lane Group	L	TR					L	TR		L	TR	
Volume (vph)	121	61	42				55	194	14	75	376	277
% Heavy Vehicles	3	3	3				3	3	3	3	3	3
PHF	0.90	0.90	0.90				0.90	0.90	0.90	0.90	0.90	0.90
Pretimed/Actuated (P/A)	A	A	A				A	A	A	A	A	A
Startup Lost Time	2.0	2.0					2.0	2.0		2.0	2.0	
Extension of Effective Green	2.0	2.0					2.0	2.0		2.0	2.0	
Arrival Type	3	3					3	3		3	3	
Unit Extension	3.0	3.0					3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	20	0	4	20	0		20	0	1	20	0	28
Lane Width	12.0	12.0					12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	Y	N	0	N
Parking/Hour									20			
Bus Stops/Hour	0	0					0	0		0	0	
Minimum Pedestrian Time		3.3			3.3			3.3			3.3	

Phasing	EB Only	02	03	04	NB Only	NS Perm	07	08
Timing	G = 18.0	G =	G =	G =	G = 15.0	G = 40.0	G =	G =
	Y = 4	Y =	Y =	Y =	Y = 5	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 87.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	134	110					61	230		83	695	
Lane Group Capacity	362	353					431	1007		514	791	
v/c Ratio	0.37	0.31					0.14	0.23		0.16	0.88	
Green Ratio	0.21	0.21					0.69	0.69		0.46	0.46	
Uniform Delay d_1	29.6	29.2					9.8	5.0		13.7	21.3	
Delay Factor k	0.11	0.11					0.11	0.11		0.11	0.41	
Incremental Delay d_2	0.6	0.5					0.2	0.1		0.1	11.1	
PF Factor	1.000	1.000					1.000	1.000		1.000	1.000	
Control Delay	30.3	29.8					10.0	5.1		13.9	32.4	
Lane Group LOS	C	C					A	A		B	C	
Approach Delay	30.0						6.1			30.4		
Approach LOS	C						A			C		
Intersection Delay	25.0			Intersection LOS						C		

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SHORT REPORT

General Information		Site Information	
Analyst	*RLC*	Intersection	*Montevallo at Culver*
Agency or Co.	*Skipper Consulting*	Area Type	*All other areas*
Date Performed	*2/17/2009*	Jurisdiction	*City of Mountain Brook*
Time Period	*PM Peak Hour*	Analysis Year	*Existing 2007*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	1	1	0				1	1	0	1	1	0
Lane Group	L	TR					L	TR		L	TR	
Volume (vph)	241	67	42				113	414	14	46	270	121
% Heavy Vehicles	3	3	3				3	3	3	3	3	3
PHF	0.90	0.90	0.90				0.90	0.90	0.90	0.90	0.90	0.90
Pretimed/Actuated (P/A)	A	A	A				A	A	A	A	A	A
Startup Lost Time	2.0	2.0					2.0	2.0		2.0	2.0	
Extension of Effective Green	2.0	2.0					2.0	2.0		2.0	2.0	
Arrival Type	3	3					3	3		3	3	
Unit Extension	3.0	3.0					3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	20	0	4	20	0		20	0	1	20	0	12
Lane Width	12.0	12.0					12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	Y	N	0	N
Parking/Hour									20			
Bus Stops/Hour	0	0					0	0		0	0	
Minimum Pedestrian Time		3.3			3.3			3.3			3.3	

Phasing	EB Only	02	03	04	NB Only	NS Perm	07	08
Timing	G = 20.0	G =	G =	G =	G = 13.0	G = 40.0	G =	G =
	Y = 4	Y =	Y =	Y =	Y = 5	Y = 5	Y =	Y =

Duration of Analysis (hrs) = *0.25* Cycle Length C = *87.0*

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	268	116					126	474		51	421	
Lane Group Capacity	403	395					591	979		412	806	
v/c Ratio	0.67	0.29					0.21	0.48		0.12	0.52	
Green Ratio	0.23	0.23					0.67	0.67		0.46	0.46	
Uniform Delay d_1	30.5	27.7					6.6	7.1		13.5	16.7	
Delay Factor k	0.24	0.11					0.11	0.11		0.11	0.13	
Incremental Delay d_2	4.1	0.4					0.2	0.4		0.1	0.6	
PF Factor	1.000	1.000					1.000	1.000		1.000	1.000	
Control Delay	34.6	28.1					6.8	7.5		13.6	17.3	
Lane Group LOS	C	C					A	A		B	B	
Approach Delay	32.6						7.4			16.9		
Approach LOS	C						A			B		
Intersection Delay	17.1			Intersection LOS						B		

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Movement	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	SBL2
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0				4.0	4.0		4.0	4.0		
Lane Util. Factor	1.00	1.00				1.00	1.00		1.00	1.00		
Frt	1.00	0.97				1.00	1.00		1.00	0.96		
Flt Protected	0.95	1.00				0.95	1.00		0.95	1.00		
Satd. Flow (prot)	1770	1816				1770	1859		1770	1785		
Flt Permitted	0.30	1.00				0.49	1.00		0.25	1.00		
Satd. Flow (perm)	567	1816				908	1859		474	1785		
Volume (vph)	108	186	3	35	1	74	298	4	38	197	76	5
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.83	0.83	0.83	0.83	0.76	0.76	0.76	0.84
Adj. Flow (vph)	119	204	3	38	1	89	359	5	50	259	100	6
RTOR Reduction (vph)	0	9	0	0	0	0	1	0	0	0	0	0
Lane Group Flow (vph)	119	236	0	0	0	90	363	0	50	359	0	0
Turn Type	Perm				Perm	Perm			Perm			Perm
Protected Phases		3					3			2		
Permitted Phases	3				3	3			2			2
Actuated Green, G (s)	19.2	19.2				19.2	19.2		31.5	31.5		
Effective Green, g (s)	19.7	19.7				19.7	19.7		32.0	32.0		
Actuated g/C Ratio	0.28	0.28				0.28	0.28		0.46	0.46		
Clearance Time (s)	4.5	4.5				4.5	4.5		4.5	4.5		
Vehicle Extension (s)	3.0	3.0				3.0	3.0		3.0	3.0		
Lane Grp Cap (vph)	160	513				257	525		218	820		
v/s Ratio Prot		0.13					0.20			0.20		
v/s Ratio Perm	c0.21					0.10			0.11			
v/c Ratio	0.74	0.46				0.35	0.69		0.23	0.44		
Uniform Delay, d1	22.7	20.6				19.9	22.3		11.4	12.8		
Progression Factor	1.00	1.00				1.00	1.00		1.00	1.00		
Incremental Delay, d2	17.0	0.7				0.8	3.9		2.4	1.7		
Delay (s)	39.7	21.3				20.7	26.2		13.8	14.5		
Level of Service	D	C				C	C		B	B		
Approach Delay (s)		27.3					25.1			14.4		
Approach LOS		C					C			B		

Intersection Summary			
HCM Average Control Delay	22.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	69.7	Sum of lost time (s)	12.0
Intersection Capacity Utilization	72.7%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBL	SBT	SBR	NWL2	NWL	NWR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0
Lane Util. Factor	1.00	1.00			1.00	1.00
Frt	1.00	0.95			1.00	0.85
Flt Protected	0.95	1.00			0.95	1.00
Satd. Flow (prot)	1770	1768			1770	1583
Flt Permitted	0.45	1.00			0.95	1.00
Satd. Flow (perm)	847	1768			1770	1583
Volume (vph)	1	320	165	6	35	39
Peak-hour factor, PHF	0.84	0.84	0.84	0.63	0.63	0.63
Adj. Flow (vph)	1	381	196	10	56	62
RTOR Reduction (vph)	0	19	0	0	0	0
Lane Group Flow (vph)	7	558	0	0	66	62
Turn Type	Perm			Perm		Perm
Protected Phases		2			4	
Permitted Phases	2			4		4
Actuated Green, G (s)	31.5	31.5			5.5	5.5
Effective Green, g (s)	32.0	32.0			6.0	6.0
Actuated g/C Ratio	0.46	0.46			0.09	0.09
Clearance Time (s)	4.5	4.5			4.5	4.5
Vehicle Extension (s)	3.0	3.0			3.0	3.0
Lane Grp Cap (vph)	389	812			152	136
v/s Ratio Prot		c0.32				
v/s Ratio Perm	0.01				0.04	c0.04
v/c Ratio	0.02	0.69			0.43	0.46
Uniform Delay, d1	10.3	14.9			30.2	30.3
Progression Factor	1.00	1.00			1.00	1.00
Incremental Delay, d2	0.1	4.7			2.0	2.4
Delay (s)	10.4	19.6			32.2	32.7
Level of Service	B	B			C	C
Approach Delay (s)		19.5			32.5	
Approach LOS		B			C	

Intersection Summary

Movement	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	NBR2
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0				4.0	4.0		4.0	4.0		
Lane Util. Factor	1.00	1.00				1.00	1.00		1.00	1.00		
Frt	1.00	0.98				1.00	1.00		1.00	0.95		
Flt Protected	0.95	1.00				0.95	1.00		0.95	1.00		
Satd. Flow (prot)	1770	1835				1770	1859		1770	1764		
Flt Permitted	0.50	1.00				0.26	1.00		0.33	1.00		
Satd. Flow (perm)	931	1835				484	1859		608	1764		
Volume (vph)	109	326	1	36	1	47	220	3	39	293	158	2
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.92	0.92	0.92	0.92	0.87	0.87	0.87	0.87
Adj. Flow (vph)	122	366	1	40	1	51	239	3	45	337	182	2
RTOR Reduction (vph)	0	6	0	0	0	0	1	0	0	0	0	0
Lane Group Flow (vph)	122	401	0	0	0	52	241	0	45	521	0	0
Turn Type	Perm				Perm	Perm			Perm			
Protected Phases		3					3			2		
Permitted Phases	3				3	3			2			
Actuated Green, G (s)	20.6	20.6				20.6	20.6		31.5	31.5		
Effective Green, g (s)	21.1	21.1				21.1	21.1		32.0	32.0		
Actuated g/C Ratio	0.30	0.30				0.30	0.30		0.45	0.45		
Clearance Time (s)	4.5	4.5				4.5	4.5		4.5	4.5		
Vehicle Extension (s)	3.0	3.0				3.0	3.0		3.0	3.0		
Lane Grp Cap (vph)	276	545				144	552		274	794		
v/s Ratio Prot		c0.22					0.13			c0.30		
v/s Ratio Perm	0.13					0.11			0.07			
v/c Ratio	0.44	0.74				0.36	0.44		0.16	0.66		
Uniform Delay, d1	20.2	22.5				19.7	20.2		11.6	15.3		
Progression Factor	1.00	1.00				1.00	1.00		1.00	1.00		
Incremental Delay, d2	1.1	5.1				1.5	0.6		1.3	4.2		
Delay (s)	21.4	27.6				21.2	20.8		12.9	19.5		
Level of Service	C	C				C	C		B	B		
Approach Delay (s)		26.2					20.8			18.9		
Approach LOS		C					C			B		

Intersection Summary			
HCM Average Control Delay	21.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	71.1	Sum of lost time (s)	12.0
Intersection Capacity Utilization	76.8%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBL2	SBL	SBT	SBR	NWL2	NWL	NWR	NWR2
Lane Configurations								
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0			4.0	4.0	
Lane Util. Factor		1.00	1.00			1.00	1.00	
Frt		1.00	0.94			1.00	0.85	
Flt Protected		0.95	1.00			0.95	1.00	
Satd. Flow (prot)		1770	1748			1770	1583	
Flt Permitted		0.30	1.00			0.95	1.00	
Satd. Flow (perm)		550	1748			1770	1583	
Volume (vph)	12	0	250	174	11	38	37	1
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.84	0.84	0.84	0.84
Adj. Flow (vph)	14	0	287	200	13	45	44	1
RTOR Reduction (vph)	0	0	27	0	0	0	1	0
Lane Group Flow (vph)	0	14	460	0	0	58	44	0
Turn Type	Perm	Perm			Perm		Perm	
Protected Phases			2			4		
Permitted Phases	2	2			4		4	
Actuated Green, G (s)		31.5	31.5			5.5	5.5	
Effective Green, g (s)		32.0	32.0			6.0	6.0	
Actuated g/C Ratio		0.45	0.45			0.08	0.08	
Clearance Time (s)		4.5	4.5			4.5	4.5	
Vehicle Extension (s)		3.0	3.0			3.0	3.0	
Lane Grp Cap (vph)		248	787			149	134	
v/s Ratio Prot			0.26					
v/s Ratio Perm		0.03				0.03	0.03	
v/c Ratio		0.06	0.58			0.39	0.33	
Uniform Delay, d1		11.0	14.6			30.8	30.7	
Progression Factor		1.00	1.00			1.00	1.00	
Incremental Delay, d2		0.4	3.2			1.7	1.4	
Delay (s)		11.5	17.8			32.5	32.1	
Level of Service		B	B			C	C	
Approach Delay (s)			17.6			32.3		
Approach LOS			B			C		

Intersection Summary

Appendix F

Level of Service Chart

Level of Service Chart
By Roadway Type and Cross-Section
(based on ALDOT approved capacities)

Functional Classification	*Number of Lanes*	*Maximum Daily Flow Rate Related to Level of Service*					
		A	*B*	*C*	*D*	*E*	*F*
Freeway	4	23,800	34,000	42,160	51,000	68,000	>68,000
	6	35,700	51,000	63,240	76,500	102,000	>102,000
	8	47,600	68,000	84,320	102,000	136,000	>136,000
	10	59,500	85,000	105,400	127,500	170,000	>170,000
Expressway	4	17,500	25,000	31,000	37,500	50,000	>50,000
	6	26,250	37,500	46,500	56,250	75,000	>75,000
	8	35,000	50,000	62,000	75,000	100,000	>100,000
Arterial (Divided)	2	7,700	11,000	13,640	16,500	22,000	>22,000
	4	11,865	16,950	21,018	25,425	33,900	>33,900
	6	17,500	25,000	31,000	37,500	50,000	>50,000
	8	25,760	36,800	45,632	55,200	73,600	>73,600
Arterial (Undivided)	2	6,230	8,900	11,036	13,350	17,800	>17,800
	4	10,850	15,500	19,220	23,250	31,000	>31,000
	6	16,030	22,900	28,396	34,350	45,800	>45,800
	8	22,085	31,550	39,122	47,325	63,100	>63,100
Collector (Divided)	2	7,280	10,400	12,896	15,600	20,800	>20,800
	4	9,975	14,250	17,670	21,375	28,500	>28,500
	6	14,700	21,000	26,040	31,500	42,000	>42,000
Collector (Undivided)	2	5,810	8,300	10,292	12,450	16,600	>16,600
	4	9,170	13,100	16,244	19,650	26,200	>26,200
	6	13,545	19,350	23,994	29,025	38,700	>38,700

Appendix G

Future Capacity Analysis Worksheets

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*RLC*	Intersection	*Lane Park at North Access*
Agency/Co.	*Skipper Consulting*	Jurisdiction	*City of Mountain Brook*
Date Performed	*3/28/12*	Analysis Year	*2015 Buildout*
Analysis Time Period	*AM Peak Hour*		

Project Description *Lane Parke*

East/West Street: *North Access* | North/South Street: *Lane Park 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)		*267*	*16*	*11*	*403*	
Peak-Hour Factor, PHF	*1.00*	*0.90*	*0.90*	*0.90*	*0.90*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*296*	*17*	*12*	*447*	*0*
Percent Heavy Vehicles	*0*	--	--	*3*	--	--
Median Type	*Two Way Left Turn Lane*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration			*TR*	*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)				*19*		*9*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*0.90*	*1.00*	*0.90*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*21*	*0*	*10*
Percent Heavy Vehicles	*0*	*0*	*0*	*3*	*0*	*3*
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)		*12*		*31*				
C (m) (veh/h)		*1242*		*532*				
v/c		*0.01*		*0.06*				
95% queue length		*0.03*		*0.19*				
Control Delay (s/veh)		*7.9*		*12.2*				
LOS		*A*		*B*				
Approach Delay (s/veh)	--	--	*12.2*					
Approach LOS	--	--	*B*					

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*RLC*	Intersection	*Lane Park at North Access*
Agency/Co.	*Skipper Consulting*	Jurisdiction	*City of Mountain Brook*
Date Performed	*03/28/12*	Analysis Year	*2015 Buildout*
Analysis Time Period	*PM Peak Hour*		

Project Description *Lane Parke*

East/West Street: *North Access* | North/South Street: *Lane Park 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)		*388*	*38*	*25*	*327*	
Peak-Hour Factor, PHF	*1.00*	*0.90*	*0.90*	*0.90*	*0.90*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*431*	*42*	*27*	*363*	*0*
Percent Heavy Vehicles	*0*	--	--	*3*	--	--
Median Type	*Two Way Left Turn Lane*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration			*TR*	*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)				*49*		*24*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*0.90*	*1.00*	*0.90*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*54*	*0*	*26*
Percent Heavy Vehicles	*0*	*0*	*0*	*3*	*0*	*3*
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)		*27*		*80*				
C (m) (veh/h)		*1084*		*479*				
v/c		*0.02*		*0.17*				
95% queue length		*0.08*		*0.59*				
Control Delay (s/veh)		*8.4*		*14.0*				
LOS		*A*		*B*				
Approach Delay (s/veh)	--	--	*14.0*					
Approach LOS	--	--	*B*					

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*RLC*	Intersection	*Lane Park at Center Access*
Agency/Co.	*Skipper Consulting*	Jurisdiction	*City of Mountain Brook*
Date Performed	*03/28/12*	Analysis Year	*2015 Buildout*
Analysis Time Period	*AM Peak Hour*		

Project Description *Lane Parke*

East/West Street: *Center Access* | North/South Street: *Lane Park 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)		*269*	*33*	*16*	*405*	
Peak-Hour Factor, PHF	*1.00*	*0.90*	*0.90*	*0.90*	*0.90*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*298*	*36*	*17*	*450*	*0*
Percent Heavy Vehicles	*0*	--	--	*3*	--	--
Median Type	*Two Way Left Turn Lane*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*1*	*1*	*0*
Configuration			*TR*	*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)				*28*		*14*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*0.90*	*1.00*	*0.90*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*31*	*0*	*15*
Percent Heavy Vehicles	*0*	*0*	*0*	*3*	*0*	*3*
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)		*17*		*46*				
C (m) (veh/h)		*1220*		*522*				
v/c		*0.01*		*0.09*				
95% queue length		*0.04*		*0.29*				
Control Delay (s/veh)		*8.0*		*12.6*				
LOS		*A*		*B*				
Approach Delay (s/veh)	--	--	*12.6*					
Approach LOS	--	--	*B*					

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*RLC*	Intersection	*Lane Park at Center Access*
Agency/Co.	*Skipper Consulting*	Jurisdiction	*City of Mountain Brook*
Date Performed	*03/28/12*	Analysis Year	*2015 Buildout*
Analysis Time Period	*PM Peak Hour*		

Project Description *Lane Parke*

East/West Street: *Center Access* | North/South Street: *Lane Park 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)		*389*	*76*	*38*	*388*	
Peak-Hour Factor, PHF	*1.00*	*0.90*	*0.90*	*0.90*	*0.90*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*432*	*84*	*42*	*431*	*0*
Percent Heavy Vehicles	*0*	--	--	*3*	--	--
Median Type	*Two Way Left Turn Lane*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*1*	*1*	*0*
Configuration			*TR*	*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)				*73*		*37*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*0.90*	*1.00*	*0.90*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*81*	*0*	*41*
Percent Heavy Vehicles	*0*	*0*	*0*	*3*	*0*	*3*
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)		*42*		*122*				
C (m) (veh/h)		*1045*		*441*				
v/c		*0.04*		*0.28*				
95% queue length		*0.13*		*1.12*				
Control Delay (s/veh)		*8.6*		*16.3*				
LOS		*A*		*C*				
Approach Delay (s/veh)	--	--	*16.3*					
Approach LOS	--	--	*C*					

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*RLC*	Intersection	*Lane Park at South Access*
Agency/Co.	*Skipper Consulting*	Jurisdiction	*City of Mountain Brook*
Date Performed	*03/28/12*	Analysis Year	*2015 Buildout*
Analysis Time Period	*AM Peak Hour*		

Project Description *Lane Parke*

East/West Street: *South Access* | North/South Street: *Lane Park 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)		*290*	*33*	*14*	*420*	
Peak-Hour Factor, PHF	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*
Hourly Flow Rate, HFR (veh/h)	*0*	*322*	*36*	*15*	*466*	*0*
Percent Heavy Vehicles	*0*	--	--	*3*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*1*	*1*	*0*
Configuration			*TR*	*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)				*28*		*12*
Peak-Hour Factor, PHF	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*31*	*0*	*13*
Percent Heavy Vehicles	*0*	*0*	*0*	*3*	*0*	*3*
Percent Grade (%)	*0*			*0*		
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*1*	*0*	*1*
Configuration				*L*		*R*

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*L*	*L*		*R*			
v (veh/h)		*15*	*31*		*13*			
C (m) (veh/h)		*1195*	*332*		*700*			
v/c		*0.01*	*0.09*		*0.02*			
95% queue length		*0.04*	*0.31*		*0.06*			
Control Delay (s/veh)		*8.1*	*17.0*		*10.2*			
LOS		*A*	*C*		*B*			
Approach Delay (s/veh)	--	--	*15.0*					
Approach LOS	--	--	*B*					

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*RLC*	Intersection	*Lane Park at South Access*
Agency/Co.	*Skipper Consulting*	Jurisdiction	*City of Mountain Brook*
Date Performed	*03/28/12*	Analysis Year	*2015 Buildout*
Analysis Time Period	*PM Peak Hour*		

Project Description *Lane Parke*

East/West Street: *South Access* | North/South Street: *Lane Park 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)		*435*	*76*	*35*	*379*	
Peak-Hour Factor, PHF	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*
Hourly Flow Rate, HFR (veh/h)	*0*	*483*	*84*	*38*	*421*	*0*
Percent Heavy Vehicles	*0*	--	--	*3*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*1*	*1*	*0*
Configuration			*TR*	*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)				*73*		*31*
Peak-Hour Factor, PHF	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*81*	*0*	*34*
Percent Heavy Vehicles	*0*	*0*	*0*	*3*	*0*	*3*
Percent Grade (%)	*0*			*0*		
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*1*	*0*	*1*
Configuration				*L*		*R*

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*L*	*L*		*R*			
v (veh/h)		*38*	*81*		*34*			
C (m) (veh/h)		*1000*	*250*		*551*			
v/c		*0.04*	*0.32*		*0.06*			
95% queue length		*0.12*	*1.35*		*0.20*			
Control Delay (s/veh)		*8.7*	*26.2*		*12.0*			
LOS		*A*	*D*		*B*			
Approach Delay (s/veh)	--	--	*22.0*					
Approach LOS	--	--	*C*					

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Movement	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0	4.0			4.0	4.0		
Lane Util. Factor		1.00	1.00	1.00	1.00	1.00			1.00	1.00		
Frt		1.00	1.00	0.85	1.00	0.97			1.00	0.89		
Flt Protected		0.95	1.00	1.00	0.95	1.00			0.95	1.00		
Satd. Flow (prot)		1752	1845	1568	1752	1797			1752	1647		
Flt Permitted		0.25	1.00	1.00	0.67	1.00			0.67	1.00		
Satd. Flow (perm)		467	1845	1568	1243	1797			1237	1647		
Volume (vph)	20	122	117	176	21	235	40	9	113	79	166	32
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	22	136	130	196	23	261	44	10	126	88	184	36
RTOR Reduction (vph)	0	0	0	121	0	1	0	0	0	5	0	0
Lane Group Flow (vph)	0	158	130	75	23	314	0	0	126	303	0	0
Turn Type	pm+pt	pm+pt		Perm	Perm				Perm			
Protected Phases	1	1	6			2				3		
Permitted Phases	6	6		6	2				3			
Actuated Green, G (s)		31.6	31.6	31.6	19.9	19.9			21.1	21.1		
Effective Green, g (s)		32.1	32.1	32.1	20.4	20.4			21.6	21.6		
Actuated g/C Ratio		0.38	0.38	0.38	0.24	0.24			0.26	0.26		
Clearance Time (s)		4.5	4.5	4.5	4.5	4.5			4.5	4.5		
Vehicle Extension (s)		3.0	3.0	3.0	3.0	3.0			3.0	3.0		
Lane Grp Cap (vph)		295	703	597	301	435			317	422		
v/s Ratio Prot		c0.05	0.07			c0.17				c0.18		
v/s Ratio Perm		0.16		0.05	0.02				0.10			
v/c Ratio		0.54	0.18	0.13	0.08	0.72			0.40	0.72		
Uniform Delay, d1		19.0	17.4	17.0	24.7	29.3			26.0	28.6		
Progression Factor		1.00	1.00	1.00	1.00	1.00			1.00	1.00		
Incremental Delay, d2		1.9	0.1	0.1	0.1	5.8			0.8	5.7		
Delay (s)		20.9	17.5	17.1	24.8	35.2			26.8	34.3		
Level of Service		C	B	B	C	D			C	C		
Approach Delay (s)			18.4			34.5				32.1		
Approach LOS			B			C				C		

Intersection Summary			
HCM Average Control Delay	28.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	84.3	Sum of lost time (s)	16.0
Intersection Capacity Utilization	73.5%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBL2	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2
Lane Configurations								
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00	1.00	1.00	
Frt		1.00	1.00	0.85	1.00	1.00	0.85	
Flt Protected		0.95	1.00	1.00	0.95	0.95	1.00	
Satd. Flow (prot)		1752	1845	1568	1752	1752	1568	
Flt Permitted		0.34	1.00	1.00	0.95	0.95	1.00	
Satd. Flow (perm)		619	1845	1568	1752	1752	1568	
Volume (vph)	19	28	105	36	43	252	94	59
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	21	31	117	40	48	280	104	66
RTOR Reduction (vph)	0	0	0	30	0	0	19	0
Lane Group Flow (vph)	0	52	117	10	48	280	151	0
Turn Type	Perm	Perm		Perm	Perm		Perm	
Protected Phases			3			4		
Permitted Phases	3	3		3	4		4	
Actuated Green, G (s)		21.1	21.1	21.1	18.1	18.1	18.1	
Effective Green, g (s)		21.6	21.6	21.6	18.6	18.6	18.6	
Actuated g/C Ratio		0.26	0.26	0.26	0.22	0.22	0.22	
Clearance Time (s)		4.5	4.5	4.5	4.5	4.5	4.5	
Vehicle Extension (s)		3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		159	473	402	387	387	346	
v/s Ratio Prot			0.06			c0.16		
v/s Ratio Perm		0.08		0.01	0.03		0.10	
v/c Ratio		0.33	0.25	0.03	0.12	0.72	0.44	
Uniform Delay, d1		25.4	24.9	23.5	26.3	30.5	28.3	
Progression Factor		1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		1.2	0.3	0.0	0.1	6.6	0.9	
Delay (s)		26.7	25.2	23.5	26.5	37.0	29.2	
Level of Service		C	C	C	C	D	C	
Approach Delay (s)			25.2			33.3		
Approach LOS			C			C		

Intersection Summary

Movement	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0	4.0			4.0	4.0		
Lane Util. Factor		1.00	1.00	1.00	1.00	1.00			1.00	1.00		
Frt		1.00	1.00	0.85	1.00	0.93			1.00	0.88		
Flt Protected		0.95	1.00	1.00	0.95	1.00			0.95	1.00		
Satd. Flow (prot)		1752	1845	1568	1752	1720			1752	1631		
Flt Permitted		0.39	1.00	1.00	0.59	1.00			0.60	1.00		
Satd. Flow (perm)		712	1845	1568	1086	1720			1116	1631		
Volume (vph)	38	219	250	83	65	80	47	19	67	84	213	72
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	42	243	278	92	72	89	52	21	74	93	237	80
RTOR Reduction (vph)	0	0	0	63	0	6	0	0	0	8	0	0
Lane Group Flow (vph)	0	285	278	29	72	156	0	0	74	402	0	0
Turn Type	pm+pt	pm+pt		Perm	Perm				Perm			
Protected Phases	1	1	6			2				3		
Permitted Phases	6	6		6	2				3			
Actuated Green, G (s)		26.0	26.0	26.0	12.9	12.9			30.8	30.8		
Effective Green, g (s)		26.5	26.5	26.5	13.4	13.4			31.3	31.3		
Actuated g/C Ratio		0.31	0.31	0.31	0.16	0.16			0.37	0.37		
Clearance Time (s)		4.5	4.5	4.5	4.5	4.5			4.5	4.5		
Vehicle Extension (s)		3.0	3.0	3.0	3.0	3.0			3.0	3.0		
Lane Grp Cap (vph)		331	572	486	170	270			409	597		
v/s Ratio Prot		c0.09	0.15			0.09				0.25		
v/s Ratio Perm		c0.17		0.02	0.07				0.07			
v/c Ratio		0.86	0.49	0.06	0.42	0.58			0.18	0.67		
Uniform Delay, d1		26.1	24.0	20.7	32.6	33.4			18.4	22.8		
Progression Factor		1.00	1.00	1.00	1.00	1.00			1.00	1.00		
Incremental Delay, d2		19.8	0.7	0.1	1.7	3.0			0.2	3.0		
Delay (s)		46.0	24.6	20.8	34.3	36.4			18.6	25.8		
Level of Service		D	C	C	C	D			B	C		
Approach Delay (s)			33.4			35.8				24.7		
Approach LOS			C			D				C		

Intersection Summary			
HCM Average Control Delay	31.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	85.5	Sum of lost time (s)	12.0
Intersection Capacity Utilization	80.5%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBL2	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2
Lane Configurations								
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00	1.00	1.00	
Frt		1.00	1.00	0.85	1.00	1.00	0.85	
Flt Protected		0.95	1.00	1.00	0.95	0.95	1.00	
Satd. Flow (prot)		1752	1845	1568	1752	1752	1568	
Flt Permitted		0.32	1.00	1.00	0.95	0.95	1.00	
Satd. Flow (perm)		594	1845	1568	1752	1752	1568	
Volume (vph)	51	97	160	26	77	195	115	65
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	57	108	178	29	86	217	128	72
RTOR Reduction (vph)	0	0	0	18	0	0	22	0
Lane Group Flow (vph)	0	165	178	11	86	217	178	0
Turn Type	Perm	Perm		Perm	Perm		Perm	
Protected Phases			3			4		
Permitted Phases	3	3		3	4		4	
Actuated Green, G (s)		30.8	30.8	30.8	15.2	15.2	15.2	
Effective Green, g (s)		31.3	31.3	31.3	15.7	15.7	15.7	
Actuated g/C Ratio		0.37	0.37	0.37	0.18	0.18	0.18	
Clearance Time (s)		4.5	4.5	4.5	4.5	4.5	4.5	
Vehicle Extension (s)		3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		217	675	574	322	322	288	
v/s Ratio Prot			0.10			c0.12		
v/s Ratio Perm		c0.28		0.01	0.05		0.11	
v/c Ratio		0.76	0.26	0.02	0.27	0.67	0.62	
Uniform Delay, d1		23.8	19.0	17.3	30.0	32.5	32.1	
Progression Factor		1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		14.5	0.2	0.0	0.4	5.5	3.9	
Delay (s)		38.3	19.2	17.3	30.4	38.0	36.1	
Level of Service		D	B	B	C	D	D	
Approach Delay (s)			27.5			35.9		
Approach LOS			C			D		

Intersection Summary

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*RLC*	Intersection	*Culver at Access*
Agency/Co.	*Skipper Consulting*	Jurisdiction	*City of Mountain Brook*
Date Performed	*03/28/12*	Analysis Year	*2015 Buildout*
Analysis Time Period	*AM Peak Hour*		

Project Description *Lane Parke*

East/West Street: *Culver Road* | North/South Street: *Access*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*47*	*174*			*262*	*25*
Peak-Hour Factor, PHF	*0.90*	*0.90*	*1.00*	*1.00*	*0.90*	*0.90*
Hourly Flow Rate, HFR (veh/h)	*52*	*193*	*0*	*0*	*291*	*27*
Percent Heavy Vehicles	*3*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*1*	*1*	*0*	*0*	*1*	*0*
Configuration	*L*	*T*				*TR*
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)				*21*		*42*
Peak-Hour Factor, PHF	*0.90*	*1.00*	*0.90*	*0.90*	*1.00*	*0.90*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*23*	*0*	*46*
Percent Heavy Vehicles	*3*	*0*	*3*	*3*	*0*	*3*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*1*	*0*	*1*
Configuration				*L*		*R*

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*L*					*L*		*R*
v (veh/h)	*52*					*23*		*46*
C (m) (veh/h)	*1236*					*443*		*733*
v/c	*0.04*					*0.05*		*0.06*
95% queue length	*0.13*					*0.16*		*0.20*
Control Delay (s/veh)	*8.0*					*13.6*		*10.2*
LOS	*A*					*B*		*B*
Approach Delay (s/veh)	--	--				*11.4*		
Approach LOS	--	--				*B*		

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*RLC*	Intersection	*Culver at Access*
Agency/Co.	*Skipper Consulting*	Jurisdiction	*City of Mountain Brook*
Date Performed	*03/28/12*	Analysis Year	*2015 Buildout*
Analysis Time Period	*PM Peak Hour*		

Project Description *Lane Parke*

East/West Street: *Culver Road* | North/South Street: *Access*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*108*	*388*			*101*	*57*
Peak-Hour Factor, PHF	*0.90*	*0.90*	*1.00*	*1.00*	*0.90*	*0.90*
Hourly Flow Rate, HFR (veh/h)	*120*	*431*	*0*	*0*	*112*	*63*
Percent Heavy Vehicles	*3*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*1*	*1*	*0*	*0*	*1*	*0*
Configuration	*L*	*T*				*TR*
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)				*55*		*110*
Peak-Hour Factor, PHF	*0.90*	*1.00*	*0.90*	*0.90*	*1.00*	*0.90*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*61*	*0*	*122*
Percent Heavy Vehicles	*3*	*0*	*3*	*3*	*0*	*3*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*1*	*0*	*1*
Configuration				*L*		*R*

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*L*					*L*		*R*
v (veh/h)	*120*					*61*		*122*
C (m) (veh/h)	*1395*					*316*		*901*
v/c	*0.09*					*0.19*		*0.14*
95% queue length	*0.28*					*0.70*		*0.47*
Control Delay (s/veh)	*7.8*					*19.1*		*9.6*
LOS	*A*					*C*		*A*
Approach Delay (s/veh)	--	--				*12.8*		
Approach LOS	--	--				*B*		

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Movement	EBL2	EBL	EBR	EBR2	NEL2	NEL	NET	NER	SWL	SWT	SWR	SWR2
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0			4.0	4.0		4.0	4.0		
Lane Util. Factor		1.00	1.00			1.00	1.00		1.00	1.00		
Frt		1.00	0.85			1.00	0.99		1.00	0.94		
Flt Protected		0.95	1.00			0.95	1.00		0.95	1.00		
Satd. Flow (prot)		1752	1568			1752	1826		1752	1734		
Flt Permitted		0.95	1.00			0.24	1.00		0.60	1.00		
Satd. Flow (perm)		1752	1568			445	1826		1113	1734		
Volume (vph)	8	72	61	53	27	8	211	15	77	405	260	8
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	9	80	68	59	30	9	234	17	86	450	289	9
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	89	127	0	0	39	251	0	86	748	0	0
Turn Type	Perm		Perm		pm+pt	pm+pt			Perm			
Protected Phases		4			1	1	6			2		
Permitted Phases	4		4		6	6			2			
Actuated Green, G (s)		10.2	10.2			56.0	56.0		47.2	47.2		
Effective Green, g (s)		10.2	10.2			57.0	57.0		48.2	48.2		
Actuated g/C Ratio		0.14	0.14			0.76	0.76		0.64	0.64		
Clearance Time (s)		4.0	4.0			5.0	5.0		5.0	5.0		
Vehicle Extension (s)		3.0	3.0			3.0	3.0		3.0	3.0		
Lane Grp Cap (vph)		238	213			421	1384		713	1111		
v/s Ratio Prot						0.01	c0.14			c0.43		
v/s Ratio Perm		0.05	c0.08			0.06			0.08			
v/c Ratio		0.37	0.60			0.09	0.18		0.12	0.67		
Uniform Delay, d1		29.6	30.6			4.8	2.6		5.3	8.5		
Progression Factor		1.00	1.00			1.00	1.00		1.00	1.00		
Incremental Delay, d2		1.0	4.4			0.1	0.1		0.1	1.6		
Delay (s)		30.6	35.0			4.9	2.6		5.3	10.2		
Level of Service		C	C			A	A		A	B		
Approach Delay (s)		33.2					2.9			9.7		
Approach LOS		C					A			A		

Intersection Summary			
HCM Average Control Delay	12.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	75.2	Sum of lost time (s)	12.0
Intersection Capacity Utilization	58.1%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL2	EBL	EBR	EBR2	NEL2	NEL	NET	NER	SWL	SWT	SWR	SWR2
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0			4.0	4.0		4.0	4.0		
Lane Util. Factor		1.00	1.00			1.00	1.00		1.00	1.00		
Frt		1.00	0.85			1.00	1.00		1.00	0.96		
Flt Protected		0.95	1.00			0.95	1.00		0.95	1.00		
Satd. Flow (prot)		1752	1568			1752	1836		1752	1777		
Flt Permitted		0.95	1.00			0.30	1.00		0.47	1.00		
Satd. Flow (perm)		1752	1568			548	1836		874	1777		
Volume (vph)	19	295	62	67	80	19	447	15	42	300	78	19
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	21	328	69	74	89	21	497	17	47	333	87	21
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	349	143	0	0	110	514	0	47	441	0	0
Turn Type	Perm		Perm		pm+pt	pm+pt			Perm			
Protected Phases		4			1	1	6			2		
Permitted Phases	4		4		6	6			2			
Actuated Green, G (s)		16.3	16.3			33.1	33.1		22.4	22.4		
Effective Green, g (s)		16.3	16.3			34.1	34.1		23.4	23.4		
Actuated g/C Ratio		0.28	0.28			0.58	0.58		0.40	0.40		
Clearance Time (s)		4.0	4.0			5.0	5.0		5.0	5.0		
Vehicle Extension (s)		3.0	3.0			3.0	3.0		3.0	3.0		
Lane Grp Cap (vph)		489	438			458	1072		350	712		
v/s Ratio Prot						0.03	c0.28			c0.25		
v/s Ratio Perm		0.20	0.09			0.11			0.05			
v/c Ratio		0.71	0.33			0.24	0.48		0.13	0.62		
Uniform Delay, d1		18.9	16.7			6.6	7.0		11.1	14.0		
Progression Factor		1.00	1.00			1.00	1.00		1.00	1.00		
Incremental Delay, d2		4.9	0.4			0.3	0.3		0.2	1.6		
Delay (s)		23.8	17.1			6.9	7.4		11.3	15.6		
Level of Service		C	B			A	A		B	B		
Approach Delay (s)		21.9					7.3			15.1		
Approach LOS		C					A			B		

Intersection Summary			
HCM Average Control Delay	14.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	58.4	Sum of lost time (s)	12.0
Intersection Capacity Utilization	55.2%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*RLC*	Intersection	*Montevallo at Access*
Agency/Co.	*Skipper Consulting*	Jurisdiction	*City of Mountain Brook*
Date Performed	*03/28/12*	Analysis Year	*2015 Buildout*
Analysis Time Period	*AM Peak Hour*		

Project Description *Lane Parke*

East/West Street: *Access* | North/South Street: *Montevallo 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)	*14*	*269*			*724*	*41*
Peak-Hour Factor, PHF	*0.90*	*0.90*	*1.00*	*1.00*	*0.90*	*0.90*
Hourly Flow Rate, HFR (veh/h)	*15*	*298*	*0*	*0*	*804*	*45*
Percent Heavy Vehicles	*3*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*1*	*1*	*0*	*0*	*1*	*0*
Configuration	*L*	*T*				*TR*
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*35*		*26*			
Peak-Hour Factor, PHF	*0.90*	*1.00*	*0.90*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*38*	*0*	*28*	*0*	*0*	*0*
Percent Heavy Vehicles	*3*	*0*	*3*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*1*	*0*	*1*	*0*	*0*	*0*
Configuration	*L*		*R*			

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*L*					*L*		*R*
v (veh/h)	*15*					*38*		*28*
C (m) (veh/h)	*785*					*213*		*370*
v/c	*0.02*					*0.18*		*0.08*
95% queue length	*0.06*					*0.63*		*0.24*
Control Delay (s/veh)	*9.7*					*25.5*		*15.5*
LOS	*A*					*D*		*C*
Approach Delay (s/veh)	--	--				*21.3*		
Approach LOS	--	--				*C*		

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*RLC*	Intersection	*Montevallo at Access*
Agency/Co.	*Skipper Consulting*	Jurisdiction	*City of Mountain Brook*
Date Performed	*03/28/12*	Analysis Year	*2015 Buildout*
Analysis Time Period	*PM Peak Hour*		

Project Description *Lane Parke*

East/West Street: *Access* | North/South Street: *Montevallo 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)	*32*	*710*			*372*	*95*
Peak-Hour Factor, PHF	*0.90*	*0.90*	*1.00*	*1.00*	*0.90*	*0.90*
Hourly Flow Rate, HFR (veh/h)	*35*	*788*	*0*	*0*	*413*	*105*
Percent Heavy Vehicles	*3*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*1*	*1*	*0*	*0*	*1*	*0*
Configuration	*L*	*T*				*TR*
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*92*		*67*			
Peak-Hour Factor, PHF	*0.90*	*1.00*	*0.90*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*102*	*0*	*74*	*0*	*0*	*0*
Percent Heavy Vehicles	*3*	*0*	*3*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*1*	*0*	*1*	*0*	*0*	*0*
Configuration	*L*		*R*			

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*L*					*L*		*R*
v (veh/h)	*35*					*102*		*74*
C (m) (veh/h)	*1043*					*165*		*595*
v/c	*0.03*					*0.62*		*0.12*
95% queue length	*0.10*					*3.39*		*0.42*
Control Delay (s/veh)	*8.6*					*56.9*		*11.9*
LOS	*A*					*F*		*B*
Approach Delay (s/veh)	--	--				*38.0*		
Approach LOS	--	--				*E*		

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Movement	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	SBL2
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0				4.0	4.0		4.0	4.0		
Lane Util. Factor	1.00	1.00				1.00	1.00		1.00	1.00		
Frt	1.00	0.97				1.00	1.00		1.00	0.96		
Flt Protected	0.95	1.00				0.95	1.00		0.95	1.00		
Satd. Flow (prot)	1770	1812				1770	1860		1770	1794		
Flt Permitted	0.26	1.00				0.51	1.00		0.16	1.00		
Satd. Flow (perm)	481	1812				957	1860		290	1794		
Volume (vph)	116	182	3	37	1	97	355	4	40	225	73	5
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.83	0.83	0.83	0.83	0.76	0.76	0.76	0.84
Adj. Flow (vph)	127	200	3	41	1	117	428	5	53	296	96	6
RTOR Reduction (vph)	0	10	0	0	0	0	1	0	0	0	0	0
Lane Group Flow (vph)	127	234	0	0	0	118	432	0	53	392	0	0
Turn Type	Perm				Perm	Perm			Perm			Perm
Protected Phases		3					3			2		
Permitted Phases	3				3	3			2			2
Actuated Green, G (s)	21.8	21.8				21.8	21.8		29.5	29.5		
Effective Green, g (s)	22.3	22.3				22.3	22.3		30.0	30.0		
Actuated g/C Ratio	0.32	0.32				0.32	0.32		0.43	0.43		
Clearance Time (s)	4.5	4.5				4.5	4.5		4.5	4.5		
Vehicle Extension (s)	3.0	3.0				3.0	3.0		3.0	3.0		
Lane Grp Cap (vph)	154	580				306	595		125	772		
v/s Ratio Prot		0.13					0.23			0.22		
v/s Ratio Perm	c0.26					0.12			0.18			
v/c Ratio	0.82	0.40				0.39	0.73		0.42	0.51		
Uniform Delay, d1	21.9	18.5				18.4	21.0		13.8	14.5		
Progression Factor	1.00	1.00				1.00	1.00		1.00	1.00		
Incremental Delay, d2	28.7	0.5				0.8	4.4		10.2	2.4		
Delay (s)	50.6	19.0				19.2	25.4		24.0	16.8		
Level of Service	D	B				B	C		C	B		
Approach Delay (s)		29.8					24.1			17.7		
Approach LOS		C					C			B		

Intersection Summary			
HCM Average Control Delay	25.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	69.7	Sum of lost time (s)	12.0
Intersection Capacity Utilization	77.8%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBL	SBT	SBR	NWL2	NWL	NWR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0
Lane Util. Factor	1.00	1.00			1.00	1.00
Frt	1.00	0.95			1.00	0.85
Flt Protected	0.95	1.00			0.95	1.00
Satd. Flow (prot)	1770	1772			1770	1583
Flt Permitted	0.41	1.00			0.95	1.00
Satd. Flow (perm)	756	1772			1770	1583
Volume (vph)	1	372	179	6	37	46
Peak-hour factor, PHF	0.84	0.84	0.84	0.63	0.63	0.63
Adj. Flow (vph)	1	443	213	10	59	73
RTOR Reduction (vph)	0	19	0	0	0	0
Lane Group Flow (vph)	7	637	0	0	69	73
Turn Type	Perm			Perm		Perm
Protected Phases		2			4	
Permitted Phases	2			4		4
Actuated Green, G (s)	29.5	29.5			4.9	4.9
Effective Green, g (s)	30.0	30.0			5.4	5.4
Actuated g/C Ratio	0.43	0.43			0.08	0.08
Clearance Time (s)	4.5	4.5			4.5	4.5
Vehicle Extension (s)	3.0	3.0			3.0	3.0
Lane Grp Cap (vph)	325	763			137	123
v/s Ratio Prot		c0.36				
v/s Ratio Perm	0.01				0.04	c0.05
v/c Ratio	0.02	0.84			0.50	0.59
Uniform Delay, d1	11.4	17.7			30.9	31.1
Progression Factor	1.00	1.00			1.00	1.00
Incremental Delay, d2	0.1	10.5			2.9	7.5
Delay (s)	11.5	28.1			33.8	38.6
Level of Service	B	C			C	D
Approach Delay (s)		27.9			36.2	
Approach LOS		C			D	

Intersection Summary

HCM Signalized Intersection Capacity Analysis
4: Hollywood Blvd & Cahaba Road

3/28/2012

Movement	EBL	EBT	EBR	EBR2	WBL	WBT	WBR	NBL	NBT	NBR	NBR2	SBL2
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0		4.0	4.0			
Lane Util. Factor	1.00	1.00			1.00	1.00		1.00	1.00			
Frt	1.00	0.99			1.00	1.00		1.00	0.94			
Flt Protected	0.95	1.00			0.95	1.00		0.95	1.00			
Satd. Flow (prot)	1770	1836			1770	1860		1770	1757			
Flt Permitted	0.42	1.00			0.22	1.00		0.23	1.00			
Satd. Flow (perm)	779	1836			409	1860		426	1757			
Volume (vph)	99	368	1	38	83	280	3	41	296	179	2	13
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.92	0.92	0.92	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	111	413	1	43	90	304	3	47	340	206	2	15
RTOR Reduction (vph)	0	5	0	0	0	1	0	0	0	0	0	0
Lane Group Flow (vph)	111	452	0	0	90	306	0	47	548	0	0	0
Turn Type	Perm				Perm			Perm				Perm
Protected Phases		3				3			2			
Permitted Phases	3				3			2				2
Actuated Green, G (s)	22.7	22.7			22.7	22.7		31.5	31.5			
Effective Green, g (s)	23.2	23.2			23.2	23.2		32.0	32.0			
Actuated g/C Ratio	0.32	0.32			0.32	0.32		0.44	0.44			
Clearance Time (s)	4.5	4.5			4.5	4.5		4.5	4.5			
Vehicle Extension (s)	3.0	3.0			3.0	3.0		3.0	3.0			
Lane Grp Cap (vph)	247	582			130	590		186	768			
v/s Ratio Prot		c0.25				0.16			0.31			
v/s Ratio Perm	0.14				0.22			0.11				
v/c Ratio	0.45	0.78			0.69	0.52		0.25	0.71			
Uniform Delay, d1	19.9	22.7			21.9	20.4		13.0	16.9			
Progression Factor	1.00	1.00			1.00	1.00		1.00	1.00			
Incremental Delay, d2	1.3	6.5			14.8	0.8		3.2	5.6			
Delay (s)	21.2	29.1			36.6	21.2		16.3	22.4			
Level of Service	C	C			D	C		B	C			
Approach Delay (s)		27.6				24.7			22.0			
Approach LOS		C				C			C			

Intersection Summary			
HCM Average Control Delay	24.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	73.2	Sum of lost time (s)	12.0
Intersection Capacity Utilization	80.8%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBL	SBT	SBR	NWL2	NWL	NWR	NWR2
Lane Configurations							
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	
Lane Util. Factor	1.00	1.00			1.00	1.00	
Frt	1.00	0.94			1.00	0.85	
Flt Protected	0.95	1.00			0.95	1.00	
Satd. Flow (prot)	1770	1750			1770	1583	
Flt Permitted	0.26	1.00			0.95	1.00	
Satd. Flow (perm)	480	1750			1770	1583	
Volume (vph)	0	302	203	12	40	37	1
Peak-hour factor, PHF	0.87	0.87	0.87	0.84	0.84	0.84	0.84
Adj. Flow (vph)	0	347	233	14	48	44	1
RTOR Reduction (vph)	0	26	0	0	0	1	0
Lane Group Flow (vph)	15	554	0	0	62	44	0
Turn Type	Perm			Perm		Perm	
Protected Phases		2			4		
Permitted Phases	2			4		4	
Actuated Green, G (s)	31.5	31.5			5.5	5.5	
Effective Green, g (s)	32.0	32.0			6.0	6.0	
Actuated g/C Ratio	0.44	0.44			0.08	0.08	
Clearance Time (s)	4.5	4.5			4.5	4.5	
Vehicle Extension (s)	3.0	3.0			3.0	3.0	
Lane Grp Cap (vph)	210	765			145	130	
v/s Ratio Prot		c0.32					
v/s Ratio Perm	0.03				0.04	0.03	
v/c Ratio	0.07	0.72			0.43	0.34	
Uniform Delay, d1	12.0	17.0			32.0	31.7	
Progression Factor	1.00	1.00			1.00	1.00	
Incremental Delay, d2	0.7	5.9			2.0	1.6	
Delay (s)	12.6	22.8			34.0	33.3	
Level of Service	B	C			C	C	
Approach Delay (s)		22.6			33.7		
Approach LOS		C			C		

Intersection Summary

Appendix H

Turn Lane Warrant Graphs

Left Turn Lane Warrant

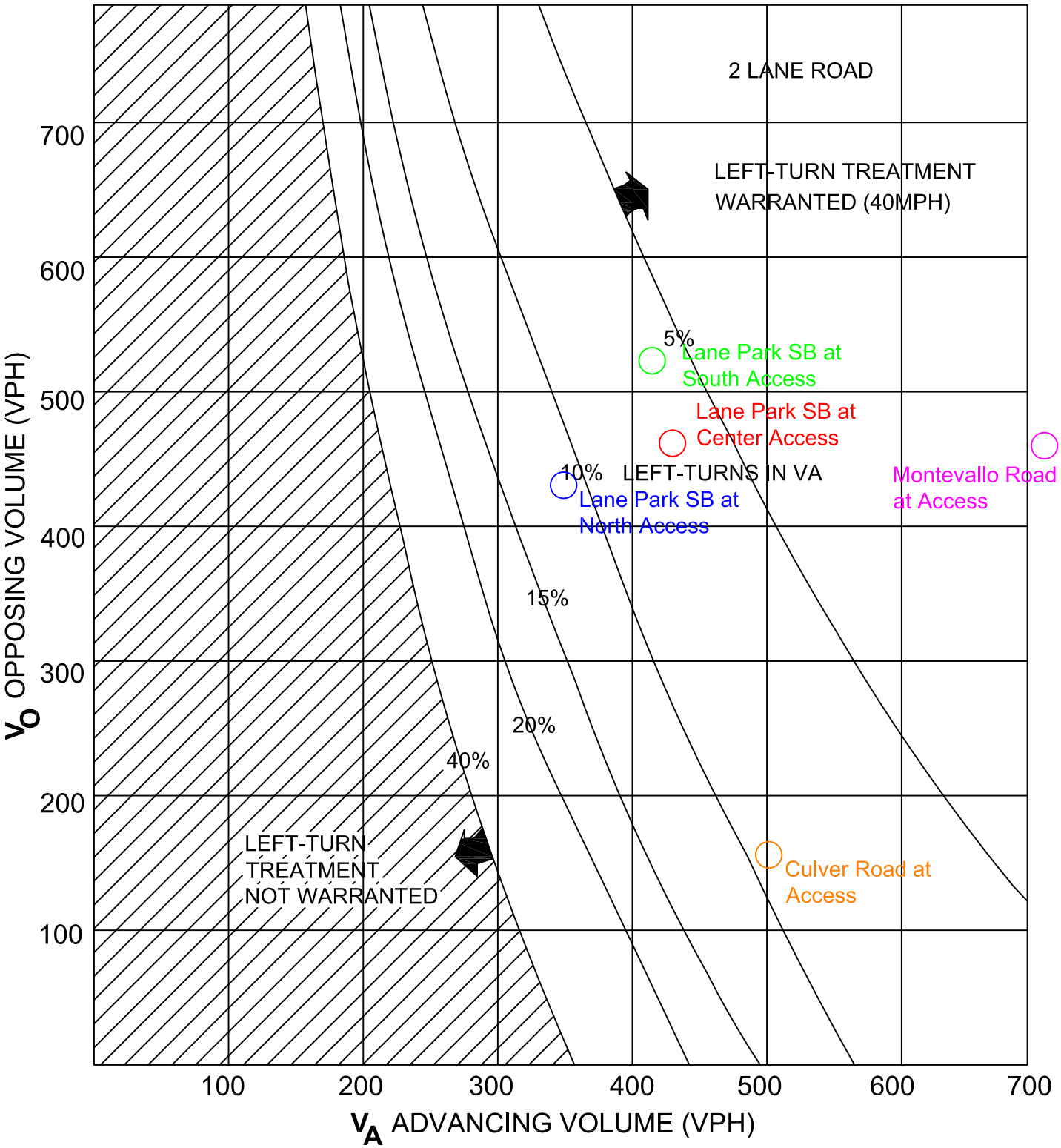
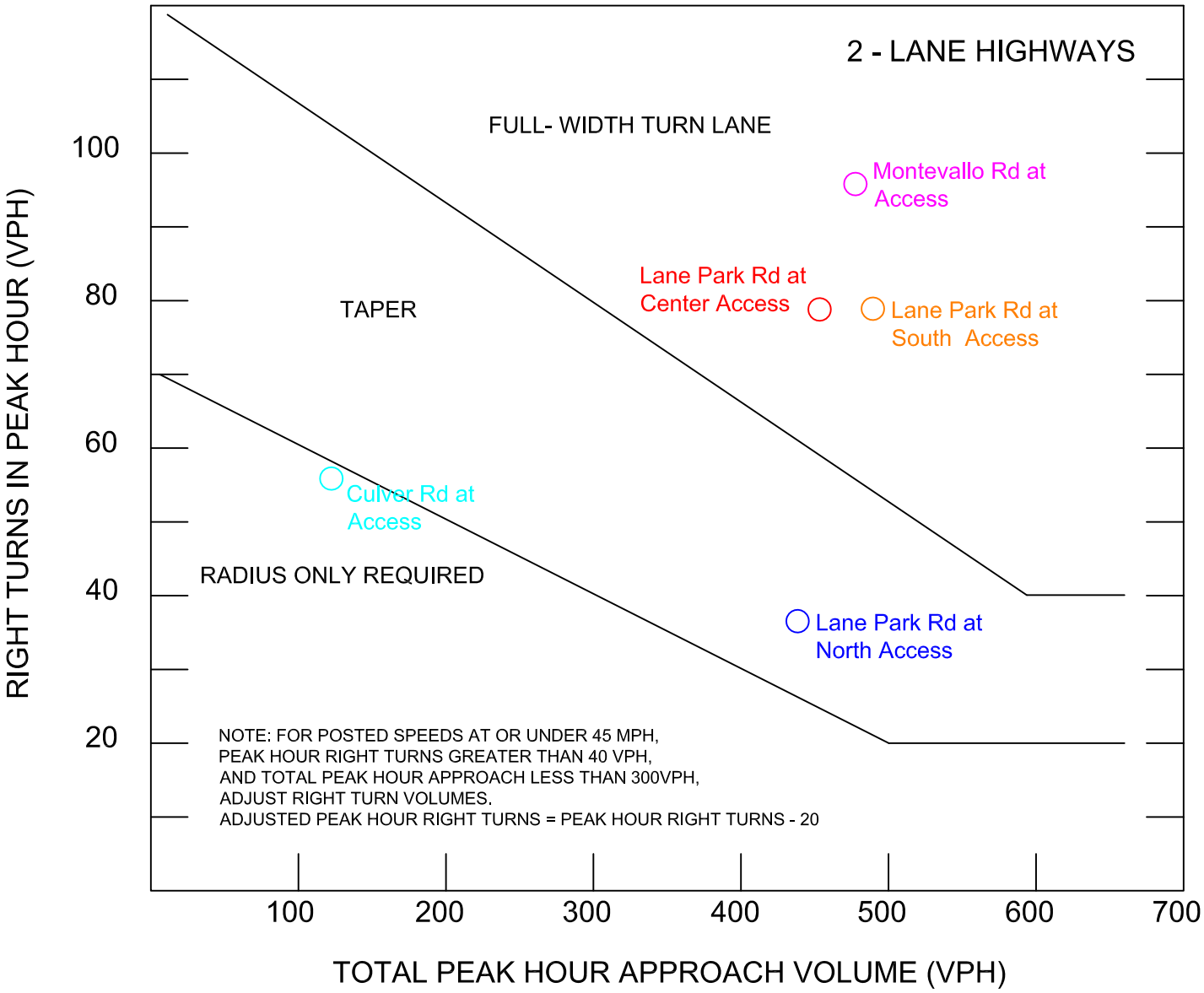


Figure taken from Figure 4-12 from the Intersection Channelization Design Guide, Report 279

RIGHT TURN LANE WARRANT



Appendix I

Internal Intersection Capacity Analysis Worksheets

ALL-WAY STOP CONTROL ANALYSIS

General Information

Analyst	*RLC*
Agency/Co.	*Skipper Consulting*
Date Performed	*3/29/12*
Analysis Time Period	*AM Peak Hour*

Site Information

Intersection	*Main St at Jemison Ln*
Jurisdiction	*City of Mountain Brook*
Analysis Year	*Future 2015*

Project ID *Lane Parke*

East/West Street: *Jemsion Lane* North/South Street: *Main Street*

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	20	20	10	25	15	20
%Thrus Left Lane						

Approach	Northbound			Southbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	15	45	15	30	25	15
%Thrus Left Lane						

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LTR		LTR	
PHF	0.90		0.90		0.90		0.90	
Flow Rate (veh/h)	55		65		82		76	
% Heavy Vehicles	3		3		3		3	
No. Lanes	1		1		1		1	
Geometry Group	1		1		1		1	
Duration, T	0.25							

Saturation Headway Adjustment Worksheet

Prop. Left-Turns	0.4		0.4		0.2		0.4	
Prop. Right-Turns	0.2		0.3		0.2		0.2	
Prop. Heavy Vehicle	0.0		0.0		0.0		0.0	
hLT-adj	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
hRT-adj	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
hadj, computed	0.0		-0.1		-0.0		0.0	

Departure Headway and Service Time

hd, initial value (s)	3.20		3.20		3.20		3.20	
x, initial	0.05		0.06		0.07		0.07	
hd, final value (s)	4.34		4.25		4.23		4.27	
x, final value	0.07		0.08		0.10		0.09	
Move-up time, m (s)	2.0		2.0		2.0		2.0	
Service Time, t_s (s)	2.3		2.2		2.2		2.3	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	305		315		332		326	
Delay (s/veh)	7.64		7.60		7.68		7.69	
LOS	A		A		A		A	
Approach: Delay (s/veh)	7.64		7.60		7.68		7.69	
LOS	A		A		A		A	
Intersection Delay (s/veh)	7.66							
Intersection LOS	A							

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ALL-WAY STOP CONTROL ANALYSIS

General Information

Analyst	*RLC*
Agency/Co.	*Skipper Consulting*
Date Performed	*3/29/12*
Analysis Time Period	*PM Peak Hour*

Site Information

Intersection	*Main St at Jemison Ln*
Jurisdiction	*City of Mountain Brook*
Analysis Year	*Future 2015*

Project ID *Lane Parke*

East/West Street: *Jemsion Lane* North/South Street: *Main Street*

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	45	45	20	70	35	35
%Thrus Left Lane						

Approach	Northbound			Southbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	35	100	35	85	70	35
%Thrus Left Lane						

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LTR		LTR	
PHF	0.90		0.90		0.90		0.90	
Flow Rate (veh/h)	122		153		187		209	
% Heavy Vehicles	3		3		3		3	
No. Lanes	1		1		1		1	
Geometry Group	1		1		1		1	
Duration, T	0.25							

Saturation Headway Adjustment Worksheet

Prop. Left-Turns	0.4		0.5		0.2		0.4	
Prop. Right-Turns	0.2		0.2		0.2		0.2	
Prop. Heavy Vehicle	0.0		0.0		0.0		0.0	
hLT-adj	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
hRT-adj	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
hadj, computed	0.0		0.0		-0.0		0.0	

Departure Headway and Service Time

hd, initial value (s)	3.20		3.20		3.20		3.20	
x, initial	0.11		0.14		0.17		0.19	
hd, final value (s)	5.17		5.10		4.90		4.93	
x, final value	0.18		0.22		0.25		0.29	
Move-up time, m (s)	2.0		2.0		2.0		2.0	
Service Time, t_s (s)	3.2		3.1		2.9		2.9	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	372		403		437		459	
Delay (s/veh)	9.27		9.51		9.57		9.90	
LOS	A		A		A		A	
Approach: Delay (s/veh)	9.27		9.51		9.57		9.90	
LOS	A		A		A		A	
Intersection Delay (s/veh)	9.60							
Intersection LOS	A							

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*RLC*	Intersection	*Main St at Center Access*
Agency/Co.	*Skipper Consulting*	Jurisdiction	*City of Mountain Brook*
Date Performed	*3/29/12*	Analysis Year	*Future 2015*
Analysis Time Period	*AM Peak Hour*		

Project Description *Lane Parke*

East/West Street: *Center Access* North/South Street: *Main Street*

Intersection Orientation: *East-West* Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*10*	*20*	*20*	*30*	*15*	*10*
Peak-Hour Factor, PHF	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*
Hourly Flow Rate, HFR (veh/h)	*11*	*22*	*22*	*33*	*16*	*11*
Percent Heavy Vehicles	*3*	--	--	*3*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LTR*			*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*15*	*25*	*40*	*10*	*20*	*10*
Peak-Hour Factor, PHF	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*
Hourly Flow Rate, HFR (veh/h)	*16*	*27*	*44*	*11*	*22*	*11*
Percent Heavy Vehicles	*3*	*3*	*3*	*3*	*3*	*3*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LTR*	*LTR*		*LTR*			*LTR*	
v (veh/h)	*11*	*33*		*87*			*44*	
C (m) (veh/h)	*1580*	*1558*		*862*			*776*	
v/c	*0.01*	*0.02*		*0.10*			*0.06*	
95% queue length	*0.02*	*0.06*		*0.34*			*0.18*	
Control Delay (s/veh)	*7.3*	*7.4*		*9.6*			*9.9*	
LOS	*A*	*A*		*A*			*A*	
Approach Delay (s/veh)	--	--	*9.6*			*9.9*		
Approach LOS	--	--	*A*			*A*		

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*RLC*	Intersection	*Main St at Center Access*
Agency/Co.	*Skipper Consulting*	Jurisdiction	*City of Mountain Brook*
Date Performed	*3/29/12*	Analysis Year	*Future 2015*
Analysis Time Period	*PM Peak Hour*		

Project Description *Lane Parke*

East/West Street: *Center Access* North/South Street: *Main Street*

Intersection Orientation: *East-West* Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*25*	*45*	*45*	*90*	*45*	*20*
Peak-Hour Factor, PHF	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*
Hourly Flow Rate, HFR (veh/h)	*27*	*50*	*50*	*100*	*50*	*22*
Percent Heavy Vehicles	*3*	--	--	*3*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LTR*			*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*45*	*55*	*80*	*20*	*60*	*20*
Peak-Hour Factor, PHF	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*
Hourly Flow Rate, HFR (veh/h)	*50*	*61*	*88*	*22*	*66*	*22*
Percent Heavy Vehicles	*3*	*3*	*3*	*3*	*3*	*3*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LTR*	*LTR*		*LTR*			*LTR*	
v (veh/h)	*27*	*100*		*199*			*110*	
C (m) (veh/h)	*1522*	*1486*		*604*			*509*	
v/c	*0.02*	*0.07*		*0.33*			*0.22*	
95% queue length	*0.05*	*0.22*		*1.43*			*0.81*	
Control Delay (s/veh)	*7.4*	*7.6*		*13.9*			*14.0*	
LOS	*A*	*A*		*B*			*B*	
Approach Delay (s/veh)	--	--	*13.9*			*14.0*		
Approach LOS	--	--	*B*			*B*		

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*RLC*	Intersection	*Jemison Lane at Culver East*
Agency/Co.	*Skipper Consulting*	Jurisdiction	*City of Mountain Brook*
Date Performed	*3/29/2012*	Analysis Year	*Future 2015*
Analysis Time Period	*AM Peak Hour*		

Project Description *Lane Parke*

East/West Street: *Jemison Ln* | North/South Street: *Culver East Access*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		60	5	50	5	
Peak-Hour Factor, PHF	1.00	0.90	0.90	0.90	0.90	1.00
Hourly Flow Rate, HFR (veh/h)	0	66	5	55	5	0
Percent Heavy Vehicles	0	--	--	3	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration			TR	LT		
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	15		5			
Peak-Hour Factor, PHF	0.90	1.00	0.90	1.00	1.00	1.00
Hourly Flow Rate, HFR (veh/h)	16	0	5	0	0	0
Percent Heavy Vehicles	3	0	3	0	0	0
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	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		LT		LR				
v (veh/h)		55		21				
C (m) (veh/h)		1523		818				
v/c		0.04		0.03				
95% queue length		0.11		0.08				
Control Delay (s/veh)		7.5		9.5				
LOS		A		A				
Approach Delay (s/veh)	--	--	9.5					
Approach LOS	--	--	A					

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*RLC*	Intersection	*Jemison Lane at Culver East*
Agency/Co.	*Skipper Consulting*	Jurisdiction	*City of Mountain Brook*
Date Performed	*3/29/2012*	Analysis Year	*Future 2015*
Analysis Time Period	*PM Peak Hour*		

Project Description *Lane Parke*

East/West Street: *Jemison Ln* | North/South Street: *Culver East Access*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		*150*	*10*	*10*	*115*	
Peak-Hour Factor, PHF	*1.00*	*0.90*	*0.90*	*0.90*	*0.90*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*166*	*11*	*11*	*127*	*0*
Percent Heavy Vehicles	*0*	--	--	*3*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration			*TR*	*LT*		
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*30*		*10*			
Peak-Hour Factor, PHF	*0.90*	*1.00*	*0.90*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*33*	*0*	*11*	*0*	*0*	*0*
Percent Heavy Vehicles	*3*	*0*	*3*	*0*	*0*	*0*
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	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*LT*		*LR*				
v (veh/h)		*11*		*44*				
C (m) (veh/h)		*1393*		*707*				
v/c		*0.01*		*0.06*				
95% queue length		*0.02*		*0.20*				
Control Delay (s/veh)		*7.6*		*10.4*				
LOS		*A*		*B*				
Approach Delay (s/veh)	--	--	*10.4*					
Approach LOS	--	--	*B*					

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SKIPPER
CONSULTING INC.

3644 Vann Road, Suite 100
Birmingham, Alabama 35235
Phone (205) 655-8855 Fax (205) 655-8825

April 17, 2012

Mr. Jeffery Brewer
Goodwyn Mills & Cawood, Inc.
2701 1st Avenue South, Suite 100
Birmingham, Alabama 35233-2723

Re: Lane Parke – Traffic Impact Study
Addendum #1

Dear Mr. Brewer:

At your request we have examined elements of our "Traffic Impact Study" issued in March 2012 for the Lane Parke redevelopment located in Mountain Brook, Alabama. Specifically, responding to the City of Mountain Brook's stated policy to maintain and foster retail frontage in the Village overlay district and on Lane Park Road, we have examined the necessity for the construction of right turn lanes at the planned southern and middle access points to the development. Our examination reviewed warrant studies conducted for each of these access points, as summarized in Table 10 of the traffic impact study, and a desire to locate on street angled parking on Lane Park Road in lieu of such right turn lanes. The results of our examination are summarized as follows:

- The necessity for the construction of right turn lanes for any circumstance should be based on an assessment of traffic operations and subsequent warrants for such lanes. Warrants for the construction of right turn lanes at both the southern and middle access points planned on Lane Park Road for forecast post development conditions indicated that right turn lanes were warranted (see Table 10 of the Traffic Impact Study). Capacity analysis for each of these intersections with right turn lanes added indicated acceptable traffic operations would be found for post development conditions. Subsequent capacity analysis conducted for the planned middle access point without a northbound right turn lane indicated that acceptable traffic operations would also result if no right turn lane were constructed. The conclusion from this follow-up analysis indicates if a right turn lane is not constructed on Lane Park Road at the middle access point, acceptable traffic operations would be maintained.
- Specific geometric elements of a roadway (lane width, lane use, crosswalks, sidewalks, on street parking, etc) are generally consistent with elements of surrounding roadways. In general roadways in the vicinity of the Mountain Brook village do not provide right turn lanes at private driveways or minor streets. Right turn lanes are employed at major intersections where higher volumes of traffic are present and added street capacity is needed. In general, the streets in the village vicinity all have on street parking, have widths that are conducive to shorter walking distances for pedestrians, employ minimal lanes and discourage higher travel speeds. In this context, a decision to provide on street parking in lieu of a right turn lane is not inconsistent with streets in the immediate vicinity especially if traffic operations are not negatively impacted.
- The provision of on street parking in the Mountain Brook Village is utilized to foster street front retail development, pedestrian activity and lower travel speeds. The concept of providing on street parking on Lane Park Road is consistent with the prevalent environment in the vicinity.

In conclusion, if the decision is made to provide on street parking on the east side of Lane Park Road near the middle access to the Lane Park development in lieu of providing a right turn lane, our analysis indicated acceptable traffic operations would result for post development conditions.

If further examination of elements of our traffic impact study dated in March 2012 are felt to be needed, please feel free to contact us.

Sincerely,

Darrell B. Skipper, P.E.
Skipper Consulting, Inc.