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## BEST BUY SP 07-78

### **BEST BUY, SP07-78**

Public Hearing on the request of Professional Engineering Associates for recommendation to City Council for Preliminary Site Plan and Special Land Use Permit approval and approval of the Stormwater Management Plan. The subject property is located in Section 14, on the east side of Novi Road, between I-96 and Twelve Mile Road, in the RC, Regional Center District. The subject property is approximately 3.3 acres and the applicant is proposing to remove the closed bank and furniture store and construct a 30,891 square foot store.

### **Required Action**

Recommend approval/denial of the Preliminary Site Plan and Special Land Use Permit and approval/denial of the Storm Water Management Plan

REVIEW	RESULT	DATE	COMMENTS
Planning	Approval recommended	01/23/08	<ul style="list-style-type: none"> <li>• <b>Special Land Use Permit required.</b></li> <li>• <b>Zoning Board of Appeals variance required for the northern and eastern building setbacks.</b></li> <li>• <b>Zoning Board of Appeals variance required to allow the loading area in an exterior side yard.</b></li> <li>• <b>Zoning Board of Appeals variance to allow the trash compactor in an exterior side yard.</b></li> <li>• Minor items to be addressed at time of Final Site Plan submittal.</li> </ul>
Landscaping	Approval recommended	01/02/08	<ul style="list-style-type: none"> <li>• <b>Planning Commission waiver requested for berm requirement along Novi Road.</b></li> <li>• Minor items to be addressed at time of Final Site Plan submittal.</li> </ul>
Traffic	Approval recommended	01/22/08	<ul style="list-style-type: none"> <li>• Approval of Traffic Impact Assessment recommended.</li> <li>• Minor items to be addressed at time of Final Site Plan submittal.</li> </ul>
Engineering	Approval recommended	01/28/08	Minor items to be addressed at time of Final Site Plan submittal.
Façade	<b>Approval not recommended</b>	01/28/08	<b>Section 9 waiver requested. Approval not recommended because the design does not meet the intent and purpose of the ordinance.</b>
Fire	Approval recommended	01/28/08	Minor items to be addressed at time of Final Site Plan submittal.

## **Motions**

### **Recommend Approval- Special Land Use**

In the matter of Best Buy, SP 07-78, motion to recommend **approval** of the Special Land Use permit, subject to the following:

- a. Consideration of the following factors under Section 2516.2.c for the Special Land Use permit:
  - Whether, relative to other feasible uses of the site, the proposed use **will not** cause any detrimental impact on existing thoroughfares.
  - Whether, relative to other feasible uses of the site, the proposed use **will not** cause any detrimental impact on the capabilities of public services and facilities.
  - Whether, relative to other feasible uses of the site, the proposed use is compatible with the natural features and characteristics of the land.
  - Whether, relative to other feasible uses of the site, the proposed use is compatible with adjacent uses of land in terms of location, size, character, and impact on adjacent property or the surrounding neighborhood.
  - Whether, relative to other feasible uses of the site, the proposed use is consistent with the goals, objectives and recommendations of the City's Master Plan for Land Use.
  - Whether, relative to other feasible uses of the site, the proposed use will promote the use of land in a socially and economically desirable manner.
  - Whether, relative to other feasible uses of the site, the proposed use is (1) listed among the provision of uses requiring special land use review as set forth in the various zoning districts of this Ordinance, and (2) is in harmony with the purposes and conforms to the applicable site design regulations of the zoning district in which it is located.
- b. Compliance with all conditions and requirements listed in the staff and consultant review letters,
- c. *(Insert specific considerations here)*

for the following reasons... *(because it is otherwise in compliance with all applicable provisions of the Zoning Ordinance.)*

**Recommend Approval – Preliminary Site Plan**

In the matter of Best Buy, SP 07-78, motion to **recommend approval** of the Preliminary Site Plan, subject to the following:

- a. Planning Commission waiver for the berm requirement along Novi Road;
- b. Zoning Board of Appeals variance for the northern and eastern building setbacks;
- c. Zoning Board of Appeals variance to allow the loading area in an exterior side yard;
- d. Zoning Board of Appeals variance to allow the trash compactor in an exterior side yard;
- e. Applicant revising the underground parking spaces to be 19 feet in length;
- f. Applicant revising the façade to meet the intent and purpose of the façade ordinance;
- g. The conditions and items listed in the staff and consultant review letters being addressed on the Final Site Plan; and
- h. *(additional conditions here if any)*

for the following reasons... *(because it is otherwise in compliance with Section 2406.4.A, Article 17, Article 24 and Article 25 of the Zoning Ordinance and all other applicable provisions of the Ordinance.)*

**Approval – Storm Water Management Plan**

In the matter of Best Buy, SP 07-78, motion to **approve** the Storm Water Management Plan, subject to:

- a. The conditions and items listed in the staff and consultant review letters being addressed on the Final Site Plan; and
- b. *(additional conditions here if any)*

for the following reasons...*(because it otherwise in compliance with Chapter 11 of the Code of Ordinances and all other applicable provisions of the Ordinance.)*

**Recommend Denial - Special Land Use**

In the matter of Best Buy, SP 07-78, motion to **recommend denial** of the Special Land Use permit, *for the following reasons...*

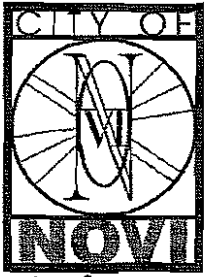
**Recommend Denial - Preliminary Site Plan**

In the matter of Best Buy, SP 07-78, motion to **recommend denial** of the Preliminary Site Plan, for the following reasons...*(because it is not in compliance with the Ordinance.)*

**Denial - Storm Water Management Plan**

In the matter of Best Buy, SP 07-78, motion to **deny** the Storm Water Management Plan, for the following reasons...*(because it is not in compliance with Chapter 11 of the Ordinance.)*

## PLANNING REVIEW



cityofnovi.org

## PLAN REVIEW CENTER REPORT

January 23, 2008

### Planning Review

Best Buy  
SP #07-78

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#### Petitioner

Professional Engineering Associates (Steven A. Sorensen, PE)

#### Review Type

Preliminary Site Plan and Special Land Use Request

#### Property Characteristics

- Site Location: Northeast corner of Novi Road and West Oaks Drive
- Site School District: Novi Community School District
- Site Zoning: RC, Regional Commercial
- Adjoining Zoning: North, East, West and South: RC, Regional Commercial
- Site Use(s): Former site of Newton Furniture Store and Comerica Bank
- Adjoining Uses: North: Novi Office Center; East: Twelve Oaks Mall; South: Red Lobster; West: Novi Road, West Oaks Shopping Center
- Site Size: 3.3 acres
- Proposed Building Size: 30,891 square feet
- Plan Date: Site Plan 12/21/07

#### Project Summary

The applicant is proposing to construct a 30,891 square foot Best Buy at the northeast corner of Novi Road and West Oaks Drive, the former site of Newton Furniture Store and Comerica Bank, both of which are now closed. As part of the proposed store, a portion of the parking would be provided underground.

#### Recommendation

Provided the applicant can get the necessary waivers from the Zoning Board of Appeals, approval of the **Preliminary Site Plan and Special Land Use Permit is recommended**. Considering the size of the property in question, some of these variance requests may be unavoidable. In order to meet the building setbacks on all four sides of the proposed building, the applicant would have to reduce the size of the building by almost half. There are minor Planning related items to be addressed at the time of Final Site Plan submittal. In its recommendation to the City Council, the Planning Commission will also need to consider the standards for Special Land Use consideration as well as the standards of the site plan review section of the Planned Development option (Section 2406.4)

#### Ordinance Requirements

This project was reviewed for conformance with the Zoning Ordinance with respect to Article 17 (RC, Regional Center District), Article 24 (Schedule of Regulations), Article 25 (General Provisions), and any other applicable provisions of the Zoning Ordinance. Please see the attached charts for information pertaining to ordinance requirements. Applicable sections of the Zoning Ordinance and other regulatory documents are highlighted in gray on the attached chart. Items in **bold** below must

be addressed by the applicant, Planning Commission or City Council before Preliminary Site Plan Approval may be granted.

1. **Building Setbacks:** The proposed building should be setback one-hundred feet from all property lines. The building setback on the northern side of the property is approximately 46 feet and the building setback on the eastern side of the property is approximately 63 feet. **The applicant should revise the site to meet the building setback requirements or seek a Zoning Board of Appeals variance.**
2. **Parking Space Dimensions:** Per Section 2506 of the Zoning Ordinance, 90° parking layouts require spaces that are 19 feet in length. The spaces along the perimeter of the underground parking are approximately 18 feet in length. **The applicant should adjust the underground parking to meet the parking space length requirements or seek a Zoning Board of Appeals variance.**
3. **Barrier Free Spaces:** Seven barrier free accessible spaces must be provided per the Barrier Free Code. Presently, four barrier free spaces have been provided in the above ground parking lot. **The applicant should add three additional barrier free spaces.**
4. **Loading Space:** Loading areas must be located in the rear yard or interior side yard (of a double-fronted lot). **The applicant should relocate the loading area to the rear yard or seek a Zoning Board of Appeals variance.**
5. **Trash Compactor:** Accessory structures must be located in the rear yard or interior side yard. **The applicant should relocate the proposed trash compactor or seek a Zoning Board of Appeals variance.** The screen wall proposed for the trash compactor should be at least one foot higher than the compactor. **The applicant should indicate the height of the trash compactor.**
6. **Exterior Lighting:** A photometric plan was submitted with the Preliminary Site Plan. There were a number of deficiencies. Please see the attached lighting review chart for additional information.

### **Special Land Use Considerations**

In the RC District, a retail establishment whose principal activity is the sale of merchandise in an enclosed building falls under the Special Land Use requirements (Section 1903.11). One of the main planning related requirements with respect to Special Land Use is the submittal of a noise analysis. The applicant has submitted a noise analysis prepared by Kolano and Saha Engineers Inc. discussing noise pollution from outdoor mechanical equipment and truck deliveries. The report indicates that the noise emanating from rooftop mechanical equipment and delivery activities during peak periods of operation would be well below the ordinance limits for adjacent non-residential receiving zones.

Section 2516.2.c of the Zoning Ordinance outlines specific factors the Planning Commission shall consider in the review and recommendation to City Council of the Special Land Use Permit request:

- Whether, relative to other feasible uses of the site, the proposed use will cause any detrimental impact on existing thoroughfares in terms of overall volumes, capacity, safety, vehicular turning patterns, intersections, view obstructions, line of sight, ingress and egress, acceleration/deceleration lanes, off-street parking, off-street loading/unloading, travel times and thoroughfare level of service.
- Whether, relative to other feasible uses of the site, the proposed use will cause any detrimental impact on the capabilities of public services and facilities, including water service,

sanitary sewer service, storm water disposal and police and fire protection to service existing and planned uses in the area.

- Whether, relative to other feasible uses of the site, the proposed use is compatible with the natural features and characteristics of the land, including existing woodlands, wetlands, watercourses and wildlife habitats.
- Whether, relative to other feasible uses of the site, the proposed use is compatible with adjacent uses of land in terms of location, size, character, and impact on adjacent property or the surrounding neighborhood.
- Whether, relative to other feasible uses of the site, the proposed use is consistent with the goals, objectives and recommendations of the City's Master Plan for Land Use.
- Whether, relative to other feasible uses of the site, the proposed use will promote the use of land in a socially and economically desirable manner.
- Whether, relative to other feasible uses of the site, the proposed use is (1) listed among the provision of uses requiring special land use review as set forth in the various zoning districts of this Ordinance, and (2) is in harmony with the purposes and conforms to the applicable site design regulations of the zoning district in which it is located.

### **Additional Requirements**

In the RC District, there are additional requirements for enclosed retail establishments as noted in Section 1702.1. Namely, the proposed retail establishment should be part of an existing or developing planned commercial shopping center. The proposed Best Buy would be located on the Twelve Oaks Mall ring road and therefore considered a part of the existing Twelve Oaks Mall shopping area. In addition, retail establishments are also subject to the site plan review requirements of Section 2406.4 of the ordinance. This would require the Preliminary Site Plan to receive a recommendation for approval or denial from the Planning Commission with City Council ultimately approving or denying the proposed plan.

Section 2406.4.A of the Zoning Ordinance outlines specific factors the Planning Commission and City Council shall consider in the review:

1. The plan meets all the requirements of Section 2516 of this Ordinance for Preliminary Site Plans and the requirements set forth in the City's Site Plan and Development Manual. *Deficiencies and appropriate relief remedies are indicated in the review letters.*
2. The plan satisfies the intent of the Special Land Use provisions as stated in Section 2516.2.c. *See the Special Land Use Considerations noted in this Plan Review Letter.*
3. The Community Impact Statement and Traffic Study are provided, regardless of site size, in accordance with the requirements set forth in the City's Site Plan and Development Manual. *The applicant has provided a Community Impact Statement and Traffic Study. See the attached Traffic Review Letter for additional information regarding the Traffic Study.*
4. The plan satisfies the intent of this Section with respect to use of the land and principal and accessory use relationships within the site as well as with uses on adjacent sites.
5. That all existing or proposed streets, road, utilities and marginal access service drives, as are required, are correctly located on the site plan in accordance with the approved plans for these improvements. *See the attached Engineering Review Letter for additional information.*
6. The plan meets all the applicable standards of this Ordinance relative to height, bulk and area requirements, building setbacks, off-street parking and preliminary site



- engineering requirements. *See the attached Plan Review Chart for additional information.*
7. That there exists a reasonable harmonious relationship between the location of buildings on the site relative to buildings on lands in the surrounding area; that there is a reasonable architectural and functional compatibility between all structures on the site and structures within the surrounding area to assure proper relationships between:
    - a. The topography of the adjoining lands as well as that of the site itself including any significant natural or manmade features. *Minimal topography for adjacent properties is included in the Preliminary Site Plan package.*
    - b. The relationship of one building to another whether on-site or on adjacent land, i.e., entrances, service areas and mechanical appurtenances. *The applicant has adequately screened mechanical appurtenances and service areas from adjacent properties.*
    - c. The rooftops of buildings that may lie below street levels or from windows of higher adjacent buildings. *The Planning Commission may want to see an additional graphical illustration of the proposed buildings in relation to surrounding buildings and roadways due to the grade changes in the area.*
    - d. Landscape plantings, off-street parking areas and service drives on adjacent lands. *See the Landscape Review Letter for additional information.*
    - e. Compliance with street, road and public utility layouts approved for the area. *See the Engineering and Traffic Review Letters for additional information.*
    - f. The architecture of the proposed building including overall design and façade materials used. Architectural design and façade material are to be complimentary to existing or proposed buildings within the site and the surrounding area. It is not intended that contrasts in architectural design and use of façade materials is to be discouraged, but care shall be taken so that any such contrasts will not be so out of character with existing building designs and façade materials so as to create an adverse effect on the stability and value of the surrounding area. *See the Façade Review Letter for additional information.*

Section 2406.4.B indicates the City Council shall review the proposed plan considering the Planning Commission's recommendation and the requirements of Section 2406.4.A. As part of its approval of the Preliminary Site Plan, the Council is permitted to impose conditions that are reasonably related to the purposes of this section and that will:

1. Insure that public services and facilities affected by a proposed land use or activity will be capable of accommodating increased services and facility loads caused by the land use or activity;
2. Protect the natural environment and conserving natural resources and energy;
3. Insure compatibility with adjacent use of land; and
4. Promote the use of land in a socially and economically desirable manner.

### **Response Letter**

A letter from either the applicant or the applicant's representative addressing comments in this, and in the other review letters, is requested **prior to the matter being reviewed by the Planning Commission.** Additionally, a letter from the applicant is requested to be submitted with the next set of plans submitted highlighting the changes made to the plans addressing each of the comments listed above.

### **Pre-Construction Meeting**

**Planning Review of Preliminary Site Plan**

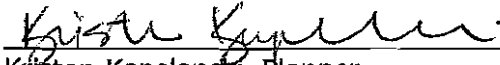
Best Buy  
SP#07-78

January 23, 2008

Page 5 of 5

Prior to the start of any work on the site, Pre-Construction (Pre-Con) meetings must be held with the applicant's contractor and the City's consulting engineer. Pre-Con meetings are generally held after Stamping Sets have been issued and prior to the start of any work on the site. There are a variety of requirements, fees and permits that must be issued before a Pre-Con can be scheduled. To give you an advance notice of the requirements and what must be in place prior to the Pre-Con, a sample Pre-Con checklist is attached. If you have questions regarding the checklist or the Pre-Con itself, please contact Sarah Marchioni [248.347.0430 or smarchioni@cityofnovi.org] in the Community Development Department.

If the applicant has any questions concerning the above review or the process in general, do not hesitate to contact me at 248.347.0586 or kkapelanski@cityofnovi.org.



Kristen Kapelanski, Planner

Attachments: Planning Review Chart  
Lighting Review Chart

**Planning Review Summary Chart**

Best Buy

Preliminary Site Plan

January 23, 2008

Item	Required	Proposed	Meets Requirements?	Comments
Master Plan	Regional Commercial	Regional Commercial	Yes	
Zoning	RC	RC	Yes	
Use	Retail businesses or service establishments permitted as a special land use.	Retail business – Best Buy	Yes	Special Land Use permit required.
Building Height (Sec. 2400)	Maximum 45 feet	Maximum 35 feet	Yes	
<b>Building Setbacks (Section 2400)</b>				
Front (south)	100 feet	165 feet	Yes	
Exterior Side (west)	100 feet	112 feet	Yes	
Exterior Side (east)	100 feet	<b>63 feet</b>	<b>No</b>	<b>Applicant should adjust the site plan to meet the requirements or seek a Zoning Board of Appeals variance.</b>
Rear (north)	100 feet	<b>46 feet</b>		
<b>Parking Setbacks (Section 2400)</b>				
Front (south)	20 feet	20 feet	Yes	
Exterior Side (west)	20 feet	30 feet	Yes	
Exterior Side (east)	20 feet	20 feet	Yes	
Rear (north)	10 feet	20 feet	Yes	
Number of Parking Spaces (Sec. 2505)	1/200 sq. ft. GLA = <b>155 spaces required</b>	201 spaces (99 below-ground)	Yes	<u>Applicant may want to consider reducing some parking on-site.</u>
Parking Space Dimensions (Sec. 2506)	9' x 19' parking space dimensions and 24' wide drives.	Above-ground parking has 9' x 19' parking space dimensions with 24' wide drive. Parking spaces along the western building edge are 17' long (with 4" curb indicated).  Below-ground parking has 9' x 19' and <b>9' x 18'</b> with a minimum 24' wide drive.	<b>No</b>	<b>Applicant should adjust the underground perimeter parking spaces to be 19' in length.</b>

Item	Required	Proposed	Meets Requirements?	Comments
Barrier Free Spaces (Barrier Free Code)	7 accessible spaces; 2 spaces must be van accessible	<b>4 barrier free van accessible spaces provided (above ground).</b>	No	<b>Applicant should include 3 additional barrier free spaces.</b>
Barrier Free Space Dimensions (Barrier Free Code)	8' wide with a 5' wide access aisle (8' wide access aisle for van accessible)	9' wide with a 9' wide access aisle for above ground parking.	Yes	
Barrier Free Signs (Barrier Free Design Graphics Manual)	One barrier free sign is required per space.	Barrier free signs shown.	Yes	
Loading Spaces (Sec. 2507.5)	10 square feet per front foot of building = 190 x 10 = 1,900 sq. ft.  All loading shall be in the rear yard or interior side yard if double fronted lot.	1,925 sq. ft. provided in the <b>exterior side yard.</b>	No	<b>Loading areas should be located in the rear of the property (or interior side yard). Applicant should relocate the loading area or seek a Zoning Board of Appeals variance.</b>
Loading Space Screening (Sec. 2502A.1)	In the RC District, view of loading and waiting areas must be shielded from rights of way and adjacent properties.	Landscaping and screen wall provided.	Yes	
Accessory Structure Setback-Dumpster (Sec. 2503)	Accessory structures should be setback a minimum of 10 feet from any building unless structurally attached to the building and setback the same as parking from all property lines; in addition, the structure must be in the rear or interior side yard.	Trash compactor location indicated setback 52' from the eastern property line and 58' feet from the northern property line and attached to the building located in the <b>exterior side yard.</b>	No	<b>Applicant should relocate trash compactor to the rear yard or seek a Zoning Board of Appeals variance.</b>
Dumpster (Chap. 21, Sec. 21-145)	Screening of not less than 5 feet on 3 sides of trash compactor required. Enclosure to match building materials and be at least one foot taller than height of refuse bin.	8' screen wall indicated for proposed trash compactor to match façade of building.	No	<b>Applicant should indicate height of proposed trash compactor.</b>

Item	Required	Proposed	Meets Requirements?	Comments
Exterior Signs	Exterior Signage is not regulated by the Planning Department or Planning Commission.			Please contact Alan Amolsch (248.347.0436) in the neighborhood services department.
Exterior Lighting <del>Sec 2511</del>	Photometric plan and exterior lighting details needed at final site plan.	Photometric plan submitted.	<b>No</b>	<b>See attached lighting review chart.</b>
Sidewalks (City Code Sec. 11-276(b))	An 8' wide sidewalk shall be provided along Novi Road as required by the City's Pedestrian and Bicycle Master Plan.  Building exits must be connected to sidewalk system or parking lot.	8' pathway provided along Novi Road and all building exits connected to the parking lot.	Yes	Applicant may want to consider providing a connection between the proposed sidewalk and the proposed parking lot along the western edge of the site.

Prepared by Kristen Kapelanski, (248) 347-0586 or kkapelanski@cityofnovi.org

## Lighting Review Summary Chart

Best Buy

Preliminary Site Plan SP #07-78

Plan Date: 12/20/07

**Bolded items must be addressed at the time of Final Site Plan**

Item	Required	Meets Requirements?	Comments
Intent (Section 2511.1)	Establish appropriate minimum levels, prevent unnecessary glare, reduce spillover onto adjacent properties, reduce unnecessary transmission of light into the night sky	No	See comments below.
Lighting plan (Section 2511.2.a.1)	Site plan showing location of all existing and proposed buildings, landscaping, streets, drives, parking areas and exterior lighting fixtures	No	Applicant should provide a photometric plan for the underground parking.
Lighting Plan (Section 2511.2.a.2)	Specifications for all proposed and existing lighting fixtures including: <ul style="list-style-type: none"> <li>• Photometric data</li> <li>• Fixture height</li> <li>• Mounting &amp; design</li> <li>• Glare control devices</li> <li>• Type and color rendition of lamps</li> <li>• Hours of operation</li> <li>• Photometric plan</li> </ul>	No	Applicant should provide manufacturer's details for all proposed fixtures.
Required conditions (Section 2511.3.a)	Height not to exceed maximum height of zoning district or 25 feet where adjacent to residential districts or uses.	Yes	
Required Notes (Section 2511.3.b)	<ul style="list-style-type: none"> <li>• Electrical service to light fixtures shall be placed underground</li> <li>• No flashing light shall be permitted</li> <li>• Only necessary lighting for security purposes and limited operations shall be permitted after a site's hours of operation.</li> </ul>	No	Applicant should include the required notes on the photometric plan.

Item	Required	Meets Requirements?	Comments
Required conditions (Section 25.11.3.e)	Average light level of the surface being lit to the lowest light of the surface being lit shall not exceed 4:1.	No	Applicant should adjust light levels to obtain an average to minimum ratio of 4:1.
Required conditions (Section 25.11.3.f)	Use of true color rendering lamps such as metal halide is preferred over high and low pressure sodium lamps.	No	Applicant should indicate whether proposed lighting will be metal halide or sodium lamps.
Minimum Illumination (Section 25.11.3.k)	<ul style="list-style-type: none"> <li>• Parking areas 0.2 min</li> <li>• Loading and unloading areas 0.4 min</li> <li>• Walkways 0.2 min</li> <li>• Building entrances, frequent use 1.0 min</li> <li>• Building entrances, infrequent use 0.2 min</li> </ul>	No	Applicant should provide photometric data for underground parking.
Maximum Illumination adjacent to Non-Residential (Section 25.11.3.l)	When site abuts a non-residential district, maximum illumination at the property line shall not exceed 1 foot candle	Yes	
Cut off Angles (Section 25.11.3.2)	All cut off angles of fixtures must be 90 degrees when adjacent to residential districts	No	Applicant should provide manufacturer's specifications for all proposed lighting fixtures.

## LANDSCAPE REVIEW





## PLAN REVIEW CENTER REPORT

January 2, 2008

### Preliminary Landscape Review

Novi Best Buy 07-78

#### **Petitioner**

Professional Engineering Associates, Inc.

#### **Property Characteristics**

- Site Location: Novi Road
- Site Zoning: RC – Regional Center
- Site Use(s): Retail Sales
- Plan Date: 12/20/07 (per plan)

#### **Recommendation**

**Approval of the Final Landscape Plan for 07-78 Novi Best Buy is recommended provided the Applicant receives the necessary waiver from the Planning Commission and addresses all comments below.**

#### **Ordinance Considerations**

##### **Residential Adjacent to Non-Residential (Sec. 2509.3.a)**

1. The property is not adjacent to residentially zoned or utilized property.

##### **Adjacent to Rights-of-Way (Sec. 2509.3.b)**

1. A 3' high berm with a 2' crest is required along public and private road frontages adjacent to parking or vehicular access areas. Due to the extreme grades along Novi Road, it is not practical to install a berm along this frontage. A sizeable retaining wall is proposed in order to facilitate the proposed construction. As the site parking and building will be far lower and screened from Novi Road, any berm in this area would be of little consequence. **Staff would support a Planning Commission waiver for the landscape berm along Novi Road.** Other adjacent vehicular access drives are neither public nor private roads. Although no berms are required along these access drives, the Applicant has provided a landscape berm east of the loading zone to provide for additional buffering.
2. A 20' wide greenbelt is required adjacent to parking. The greenbelt has been provided and labeled.
3. The Applicant has met the requirements for greenbelt Canopy and Sub-canopy Trees.
4. Canopy Street Trees are required at one per 45 linear feet along the Novi Road frontage. This requirement has been met. The Applicant has requested a waiver for Canopy Street Trees along the secondary access roads. After discussion with Planning Staff, it has been determined that no sidewalks or Street Trees are a

requirement under the Ordinance due to the nature of these roadways solely for access to parking areas. No waiver is required. Please note that any work occurring within the Novi Road right-of-way will require permit from the Road Commission for Oakland County.

5. Multiple existing trees are proposed to remain. Any trees to remain must be guaranteed to survive and maintain good health through the landscape warranty period.

**Parking Area Landscape Requirements (Sec. 2509.3.c)**

1. A total of 2,792 SF of parking island landscape area is required. The Applicant has met this requirement.
2. Perimeter Canopy Trees are required at an average of 1 per 35 LF around parking and vehicular access areas. The Applicant has provided the required number of Perimeter Trees. The Ordinance does not require that Perimeter Trees be placed at exact 35' centers. Due to the presence of underground utilities, it is not practical to place Perimeter Trees along the northerly access drive. The Applicant has agreed to preserve the existing cedar row along this property line and has noted such on the plans. Should these cedars not be protected and preserved during construction activities, they will be replaced to assure screening.

**Building Perimeter Landscaping (Sec. 2509.3.d. & LDM)**

1. Per Section 2509.3.d.(2)(b), "For the front and any other facades visible from a public street, a minimum of sixty (60) percent of the exterior building perimeter will be greenspace planted with trees, shrubs and groundcovers, perennials, grasses annuals and bulbs." The Applicant has provided these building perimeter plantings where appropriate.
2. A 4' wide landscape bed is required around the entire perimeter and has been provided.
3. A total of 5,590 SF of building foundation landscape area is required and has been adequately provided.

**Loading/ Unloading Area (Sec. 2507)**

1. Loading zones are required to be placed in the rear of the proposed building, but may be allowed within the side yard for multi-fronted buildings. In each case they must be aesthetically and effectively screened from view from adjoining properties or streets. The Applicant has effectively screened the loading area and trash dumpster area through the use of screen walls matching the building architecture.

**Plant List (LDM)**

1. The Plant List meets the requirements of the Ordinance and Landscape Design Manual with the exception that no costs are listed. Please list the plant material, seed/sod and mulch costs on the Plant List.

**Plan Notes & Details (Sec. 2509. 4. 5. 6. & 7.)**

1. Plan Notations and Details meet the requirements of the Ordinance and Landscape Design Manual.

**General Requirements**

1. Please provide an Irrigation Plan and Cost Estimate with the Final Site Plan Submittal.

**Please follow guidelines of the Zoning Ordinance and Landscape Design Guidelines. This review is a summary and not intended to substitute for any Ordinance. The appropriate section of the applicable ordinance is indicated in parenthesis. For the landscape requirements, see the Zoning Ordinance landscape section on 2509, Landscape Design Manual and the appropriate items in the applicable zoning classification.**

**TRAFFIC REVIEW**

January 22, 2008

Ms. Barbara E. McBeth  
Deputy Director Community Development  
45175 West Ten Mile Road  
Novi, MI 48375-3024



**Re: Best Buy Twelve Oaks – Preliminary – 1<sup>st</sup> Review**  
SP No. 07-78  
OHM Job No. 163-07-0412

As requested, we have reviewed the final site plan submitted for proposed Best Buy store at Twelve Oaks mall. The plans were prepared by Professional Engineering Associates, Inc. and are dated December 21, 2007.

#### **OHM RECOMMENDATION**

At this time, we recommend approval of the preliminary site plan, subject to the items listed below being corrected prior to final plan submittal.

#### **DEVELOPMENT BACKGROUND**

- The site is currently zoned as RC (Regional Center).
- The property contains approximately 3.30 acres.
- Applicant is proposing a 30,891 SFT (gross) electronic superstore on the subject property.

#### **ROADWAY NETWORK**

The development is located east of Novi Road on the south side of 12 Mile Road. Novi Road is functionally classified as an arterial route with a posted speed of 40 mph. and is under the jurisdiction of the Road Commission of Oakland County (RCOC). 12 Mile Road is considered a major arterial with a posted speed limit of 45 mph, and falls within the jurisdiction of the RCOC.

#### **SITE PLAN CORRECTIONS**

1. Sidewalk:

- A sign with the message "SIDEWALK ENDS" should be provided at the northern end of the proposed sidewalk along Novi Road, where the sidewalk terminates at the subject property line.
- We noted that the proposed sidewalk along Novi Road bends westward at the southern mall access drive. Due to this, the pedestrian are forced close to the vehicular traffic on Novi Road creating a safety hazard. We recommend that the horizontal alignment of the proposed sidewalk be continued up to the southern mall access drive. Please see attached Sketch.

2. Pedestrian Path: The pedestrian pathway leading to the proposed building should be provided from the Novi Road sidewalk. We noted that due to the retaining wall on the western side of the building, a direct connection from the sidewalk to the building may not be provided. We recommend that a sidewalk be constructed parallel to the southern mall access drive, south of the proposed development, with its western end intersecting the proposed sidewalk along Novi Road and eastern end, at the end of the retaining wall, providing the connection to the building. Please see attached sketch.

3. ADA Ramps: An ADA compliant sidewalk ramp should be provided along Novi Road south of

southern mall access drive.

4. Barrier-free Parking:

- The barrier-free parking spaces provided at each parking level should be based on total parking spaces provided at each level as opposed to the combined total parking provided. Hence, based on ADA guidelines, 5 barrier-free parking spaces should be provided at upper level parking lot and 4 barrier-free parking spaces should be provided at under ground parking lot.
- The barrier-free parking spaces should be clearly denoted on both the upper and lower level parking.

5. Sidewalk Ramps Details: The most current MDOT details for ADA compliant ramps shall be provided in the plan set.

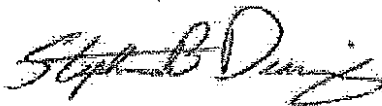
6. Signs: The correct MMUTCD sign code for the "NO PARKING FIRE LANE" sign is R7-9a (mod). This correction should be made on the site plans. Also, the message "NO PARKING" should be represented graphically.

7. Sign Mounting Height: The mounting height of all signs should be 7' from the grade level to the bottom of the parent sign. The correction should be made for "Sign and Post Installation in Paved Areas" detail on sheet SP-5.

8. Sign Quantity Table: The sign quantity table should be updated based on revised barrier-free parking provisions.

If you have any concerns or questions, please feel free to contact us at 734-522-6711.

Sincerely,  
Orchard, Hiltz & McCliment, Inc.



Stephen B. Dearing, P.E., PTOE.  
Manager of Traffic Engineering



Anita S. Katkar, P.E.  
Traffic Project Engineer



January 22, 2008

Ms. Barbara E. McBeth  
Deputy Director Community Development  
45175 West Ten Mile Road  
Novi, MI 48375-3024



**Re: Best Buy – Traffic Impact Assessment**  
OHM Job No. 163-07-0416

As requested, we have reviewed the Traffic Impact Assessment (TIA) submitted for the proposed Best Buy store. The TIA was prepared by Birchler Arroyo, Inc. and is dated December 2007.

**OHM RECOMMENDATION**

At this time, we recommend the approval of the TIA and its recommendations.

If you have any concerns or questions, please feel free to contact us at 734-522-6711.

Sincerely,  
Orchard, Hiltz & McCliment, Inc.

A handwritten signature in black ink, appearing to read "Stephen B. Dearing".

Stephen B. Dearing, P.E., PTOE.  
Manager of Traffic Engineering

A handwritten signature in black ink, appearing to read "Anita S. Katkar".

Anita S. Katkar, P.E.  
Traffic Project Engineer

P:\0126\_0165\SITE\_NoviCity\2007\0163070410\_BestBuy\\_Traffic\163070416\_Bestbuy\_TIS.doc



**ENGINEERING REVIEW**



## **PLAN REVIEW CENTER REPORT**

January 28, 2008

### **Engineering Review**

Novi Best Buy

SP #07-78

---

#### **Petitioner**

Wolf Investment, LLC

#### **Review Type**

Preliminary Site Plan

#### **Property Characteristics**

- Site Location: South of Twelve Mile, East of Novi Road
- Site Size: 3.3 acres
- Date Received: December 27<sup>th</sup>, 2007

#### **Project Summary**

- Construction of an approximately 30,891 square-foot retail store and associated parking. Site access would be provided by two approaches from the Twelve Oaks Ring Road.
- Water service would be provided by an 8-inch extension from the existing 30-inch water main along the east side of Novi Rd. A domestic lead and a fire lead will be provided to serve the building, along with 3 additional hydrants.
- Sanitary sewer service would be provided by using an existing drop connection lead connected to an existing 10-inch sanitary sewer running along the east side of the site.
- Storm water would be collected by a single storm sewer collection system and detained at Twelve Oaks Lake. The storm water will be pre-treated by pre-treatment structures on site.

#### **Recommendation**

**Approval of the Preliminary Site Plan and Preliminary Storm Water Management Plan is recommended.**

**Comments:**

The Preliminary Site Plan meets the general requirements of Chapter 11 and the Storm Water Management Ordinance, with the following items to be addressed at the time of Final Site Plan submittal (further engineering detail will be required at the time of the final site plan submittal):

**General**

1. Provide a note on the plans that all work shall conform to the current City of Novi standards and specifications.
2. The City standard detail sheets are not required for the Final Site Plan submittal. They will be required with the Stamping Set submittal.
3. The Non-domestic User Survey form shall be submitted to the City so it can be forwarded to Oakland County. This form was included in the original site plan package.
4. A guard rail shall be required wherever the retaining wall exceeds a height of 4-feet. The guard rail shall be a minimum of 42-inches and conform to all Building Department requirements for the City of Novi.
5. Show all proposed permanent SESC measures for the swale along the west side of the site on the plan.
6. Show a hatched area on relevant sheets representing the ingress/egress easement (24 feet wide) from the Twelve Oaks Ring Road entrance to the secondary connection to the adjoining property.
7. Provide a construction materials table on the Utility Plan listing the quantity and material type for each utility (water, sanitary and storm) being proposed.
8. Provide a utility crossing table indicating that at least 18-inch vertical clearance will be provided, or that additional bedding measures will be utilized at points of conflict where adequate clearance cannot be maintained.
9. Provide a note stating if dewatering is anticipated or encountered during construction a dewatering plan must be submitted to the Engineering Department for review.
10. Show the locations of all light poles on the utility plan and indicate the typical foundation depth for the pole to verify that no conflicts with utilities will occur.
11. Provide a note on the Utility Plan stating the sanitary lead will be buried at least 5 feet deep if a portion of the lead is proposed within the influence of pavement.

**Water Main**

12. Provide a detailed plan for the removal of 8-inch water main along the west side of the site, including phasing.
13. Label the size of the water leads on the plan.
14. All water mains shall have a 20-foot easement (10-foot from center). This includes the existing water main on the property (which currently only has a 12-foot easement).

**Sanitary Sewer**

15. Note on the construction materials table that 6-inch sanitary leads shall be a minimum SDR 23.5, and mains shall be SDR 26.

16. It is the developer's/owners responsibility to insure the existing sanitary lead drop connection is sufficient.
17. Provide a sanitary sewer basis of design for the development on the utility plan sheet.

Storm Sewer

18. Provide a schedule listing the casting type for each proposed catch basin on the utility plan.

Storm Water Management Plan

19. The Storm Water Management Plan for this development shall be designed in accordance with the Storm Water Ordinance and Chapter 5 of the new Engineering Design Manual.
20. Provide manufacturers details and sizing calculations for the pretreatment structures within the plans. Provide drainage area and runoff coefficient calculations specific to the area tributary to each treatment structure. The combined treated flow rate should be based on the 1-year storm event intensity (~1.6 In/Hr), resulting in a flow rate of approximately 3.7 CFS. Higher flows shall be bypassed.

Paving & Grading

21. Detectable warning surfaces are required at all barrier free ramps and hazardous vehicular crossings. The barrier-free ramps shall comply with current MDOT specifications for ADA Sidewalk Ramps. Provide the MDOT standard detail (R-28-F) for detectable surfaces. This includes the entire barrier free span along the front entrance.
22. Label specific ramp locations on the plans (or label as typical), and specify the product proposed and provide a detail for the detectable warning surface for barrier free ramps. The product shall be the concrete-embedded detectable warning plates, or equal, and shall be approved by the Engineering Department. Stamped concrete will not be acceptable.
23. A sidewalk easement shall be required for the proposed sidewalk along the west side of the site.
24. Provide a note on the Grading Plan stating the right-of-way pathway will match existing grades at both ends.
25. The City standard straight-faced curb (MDOT C-4 curb detail) shall be provided. Revise details accordingly.
26. Provide top of curb/walk and pavement/gutter grades to indicate height of curb adjacent to parking stalls or drive areas.
27. The end islands shall conform to the City standard island design, or variations of the standard design, while still conforming to the standards given in Section 2506 of Appendix A of the Zoning ordinance. Currently, the end islands shown in the above ground parking are 30-feet in length (15-feet per stall). The City of Novi standard calls for 32-feet (16-feet per stall). Also, there is currently an end island missing on the east side of the underground parking structure layout.
28. Provide a line designation representing the effective 19-foot stall length adjacent to 17-foot perimeter stalls. Currently, the underground parking structure does not

- provide the required 19-feet through a majority of the spaces. The length of the stalls on the east side as well as the required end island can be achieved on the east side of the parking structure by relocating the existing columns one spot to the west.
29. A license Agreement will be required for the retaining wall proposed within a water main easement. The agreement shall state that the wall and all site facilities within the influence of the wall that may be removed or damaged in the event the utility requires maintenance will be the responsibility of the property owner to repair or replace. Additionally, a cross-section shall be included with the agreement showing the distance between the wall foundation and the utility. A template agreement is available from the Engineering Department.
  30. Verify the slopes along the ingress/egress routing to the building from the barrier-free stalls comply with Michigan Barrier-Free regulations.

**Off-Site Easements**

31. If any off-site easements are required, permanent or temporary, please note them on the next site plan submittal.

**The following must be provided at the time of Preliminary Site Plan resubmittal:**

32. A letter from either the applicant or the applicant's engineer must be submitted with the Final Site Plan highlighting the changes made to the plans addressing each of the comments listed above and indicating the revised sheets involved.

**The following must be submitted at the time of Final Site Plan submittal:**

33. An itemized construction cost estimate must be submitted to the Community Development Department at the time of Final Site Plan submittal for the determination of plan review and construction inspection fees. This estimate should only include the civil site work and not any costs associated with construction of the building or any demolition work. ***The cost estimate must be itemized*** for each utility (water, sanitary, storm sewer), on-site paving, right-of-way paving (including proposed right-of-way), grading, and the storm water basin (basin construction, control structure, pretreatment structure and restoration).

**The following must be submitted at the time of Stamping Set submittal:**

34. A draft copy of the private ingress/egress easement for shared use of the drive entries from the Twelve Oaks Ring Road must be submitted to the Community Development Department.
35. A draft copy of the 20-foot wide easement for the water main to be constructed on the site must be submitted to the Community Development Department.
36. Executed copies of any required off-site utility easements must be submitted to the Community Development Department.

**The following must be addressed prior to construction:**

37. A City of Novi Grading Permit will be required prior to any grading on the site. This permit will be issued at the pre-construction meeting. Once determined, a grading permit fee must be paid to the City Treasurer's Office.

38. A Soil Erosion Control Permit must be obtained from the City of Novi. Contact Sarah Marchioni in the Community Development Department (248-347-0430) for forms and information.
39. A permit for work within the right-of-way of Novi Road must be obtained from the City of Novi. The application is available from the City Engineering Department and should be filed at the time of Final Site Plan submittal. Please contact the Engineering Department at 248-347-0454 for further information.
40. A permit for work within the right-of-way of Novi Road must be obtained from the Road Commission for Oakland County. Please contact the RCOC (248-858-4835) directly with any questions. The applicant must forward a copy of this permit to the City. Provide a note on the plans indicating all work within the right-of-way will be constructed in accordance with the Road Commission for Oakland County standards.
41. A permit for water main construction must be obtained from the MDEQ. This permit application must be submitted through the City Engineer after the water main plans have been approved.
42. Construction Inspection Fees to be determined once the construction cost estimate is submitted must be paid prior to the pre-construction meeting.
43. An incomplete site work performance guarantee for this development will be calculated (equal to 1.5 times the amount required to complete the site improvements, excluding the storm water facilities) as specified in the Performance Guarantee Ordinance. This guarantee will be posted prior to TCO, at which time it may be reduced based on percentage of construction completed.
44. A street sign financial guarantee in an amount to be determined (\$400 per traffic control sign proposed) must be posted at the Treasurer's Office.
45. Permits for the construction of each retaining wall must be obtained from the Community Development Department (248-347-0415).

Please contact Lindon K. Ivezaj at (248) 735-5694 with any questions or concerns.



cc: Rob Hayes, City Engineer  
Kristen Kapelanski, Community Development Department  
Tina Glenn, Water & Sewer Dept.

**FAÇADE REVIEW**

# **METCO SERVICES, INC.**

ENGINEERS, ARCHITECTS, & SURVEYORS

23917 Cass St. · Farmington · Michigan · 48335 · (248) 478-3423 · Fax (248) 478-5656

January 28, 2008

City of Novi Planning Department  
45175 W. 10 Mile Rd.  
Novi, MI 48375-3024

Attn: Ms. Barb McBeth – Deputy Director Community Development

Re: **FACADE ORDINANCE – Preliminary Site Plan Review**  
**Best Buy (SP07-78)**  
Façade Region: 1  
Zoning District: RC  
Size: (1) Building – 1 story above ground with underground parking (30,891 Sq. Ft.)

Dear Ms. McBeth:

The following is the Façade Review for preliminary site plan review regarding the drawings prepared by Maxwell Johanson Maher, dated 12-19-07 for compliance with Novi Ordinance 2520; the Façade Ordinance. The percentages of materials proposed are as shown below. A "check" by the percentage signifies that the range is within the ordinance guidelines, while an "x" indicates an overage. The maximum percentages allowed by the Schedule Regulating Façade Materials are shown in the right hand column.

<b>Drawings Dated 12-19-07</b>	<b>NORTH FACADE (Rear)</b>	<b>SOUTH FACADE (Front)</b>	<b>EAST FACADE (Right)</b>	<b>WEST FACADE (Left)</b>	<b>ORDINANCE FACADE MAXIMUM</b>
NATURAL BRICK	95.0% ✓	81.0% ✓	94.5% ✓	95.3% ✓	100% (30% Min.)
TRIM (Pre-finished Metal Coping)	5.0% ✓	5.2% ✓	3.2% ✓	2.3% ✓	15%
E.I.F.S.	0.0% ✓	13.8% ✓	2.3% ✓	2.4% ✓	25%

## **Recommendations:**

1. The percentages of proposed materials are in compliance with the façade chart for region 1. The 18" rectangular bands that cap the protruding roof lines is not defined and assumed to be metal coping.
2. Section 2520, item 2 states that all façade colors shall be harmonious with adjacent buildings in the area. The term "harmonious" is defined in the ordinance as colors which are complementary in hue, tone, and intensity. It also states that dissonant or intense color façade materials shall be deemed inconsistent with the ordinance. In this case, the custom blue color of the E.I.F.S. panels would not be harmonious with the surrounding buildings and would also be considered as an intense color selection.
3. Section 2520, item 2 also states that the use of façade materials to form a background in a sign or to increase the visual presence of the building for the purpose of advertising shall be deemed inconsistent with the façade ordinance. The unique shape and blue colored E.I.F.S. panels are designed in such a way as to form a background for signage.
4. The architectural drawings indicate that the trash enclosure and truck screening walls will be composed of materials that match the color and texture of the building. The Civil Engineering drawings provide a typical wall section that allows for brick on one side of the wall and exposed C.M.U. on the inside faces (Sheet SP-5). Any type of C.M.U. or unfinished concrete that is visible to the public is prohibited in region 1 and both of these areas will have the inside faces of these walls exposed.
5. All roof appurtenances shall be screened from view. (Section 2520, Item 3).
6. The materials shown on the sample board are consistent with the façade ordinance, but will require a sample of the metal coping material.



**It is therefore our recommendation that the design does not meet the intent and purpose of the ordinance and a Section 9 Waiver not be granted based on items 2 and 3.**

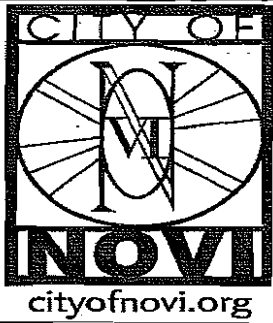
If you have any questions regarding this matter, please contact me at your convenience.

Sincerely,  
Metco Services

A handwritten signature in black ink, appearing to read "Douglas R. Necci". The signature is fluid and cursive, written over the printed name below.

Douglas R. Necci AIA

## **FIRE REVIEW**



# Novi Fire Department

42975 Grand River Avenue  
Novi, MI 48375

248.349.2162 fax 248.349.1724

January 28, 2008

TO: Barbara McBeth, Deputy Director  
Community Development, City of Novi

RE: Best Buy @ Twelve Oaks, SP07-78, Preliminary Site Plan  
Fire Department Review

Dear Ms. McBeth,

The above plan has been reviewed and is **Recommended for Approval** with the following items being corrected on the next plan submittal.

1. The plans shall indicate the load design for the parking lot area on the west side of the building. This parking lot is over the underground parking area and shall be designed to support a 35 ton fire apparatus.
2. A rapid access KNOX Box shall be installed at the front door main entry to the building. The contractor can order this box directly from the KNOX Company at [www.knoxbox.com](http://www.knoxbox.com).
3. The fire protection water main shall be controlled by a gate valve that is located within a well.

Sincerely,

Michael W. Evans  
Fire Marshal

cc: file

**APPLICANT RESPONSE LETTER(S)**



**PROFESSIONAL ENGINEERING ASSOCIATES, INC.**  
*CONSULTING CIVIL ENGINEERS / LAND SURVEYORS / LAND PLANNERS*  
2430 Rochester Court, Suite 100, Troy, MI 48083-1872  
(248) 689-9090 www.peainc.com fax (248) 689-1044

*James P. Butler, PE*  
*President*  
*David E. Cole, PS*  
*Vice President*  
*Wendy E. Graham, PE*  
*Vice President*  
*John A. Harvey, PE*  
*Vice President*  
*David N. Hunter, PE*  
*Vice President*

February 20, 2008  
PEA Job No: 2007-088

Ms. Kristen Kapelanski  
Planner  
City of Novi  
45175 West Ten Mile Road  
Novi, MI 48375

**RE: PRELIMINARY SITE PLAN REVIEW COMMENTS FOR  
BEST BUY  
CITY OF NOVI, OAKLAND COUNTY, MICHIGAN**

Dear Ms. Kapelanski:

Upon receipt of the preliminary site plan review comments dated January 23, 2008 we have reviewed them and are prepared to comment at this time. The purpose of this letter is to address each comment and offer solutions to any discrepancies noted in this preliminary review.

**Planning**

1. We have worked extensively with City staff to bring forward a site plan that will work for this site. The underlying RC zoning has 100 foot setback requirements that simply cannot be met on site of this size. We are utilizing setbacks that are greater than those provided currently on the existing site. A variance will be requested from the Zoning Board of Appeals.
2. The plans will be revised at Final Site Plan.
3. The plans will be revised at Final Site Plan.
4. Given that the site has three road frontages, this requirement would be difficult to comply with no matter what the use of the site. We have utilized the current loading location in order to have the ability to effectively screen the area from our neighbors to the East at Twelve Oaks Mall. If we utilize the rear yard to the North, not only would it make access to the underground parking impractical, it would expose the loading area to the Mall Ring Road. Additionally, Twelve Oaks Mall has indicated that they would not accept the loading area on the North side of the building for the same reason referenced above.
5. See comment #4.
6. The plans will be revised at Final Site Plan.

**Howell Office** 2900 E. Grand River Avenue, Howell, MI 48843 • (517) 546-8583 • Fax (517) 546-8973  
**Florida Office** 2400 First Street, Suite 200, Fort Myers, FL 33901 • (239) 217-6059 • Fax (239) 217-6124

**Engineering**

1. Note will be provided at Final Site Plan.
2. City standard detail sheets will be provided with Stamping Set submittal.
3. The Domestic User Form was submitted with the original application, an additional copy can be provided at Final Site Plan is necessary.
4. A guard rail will be added where retaining wall exceeds a height of 4 feet that conforms to all Building Department requirements at Final Site Plan.
5. All permanent SESC measures for the swale will be provided at Final Site Plan.
6. Ingress/Egress easement will be shown at Final Site Plan.
7. Construction materials table will be provided on the Utility Plan at Final Site Plan.
8. Utility crossing table will be provided at Final Site Plan.
9. Note will be provided at Final Site Plan.
10. Light pole locations and foundation depth will be provided at Final Site Plan.
11. Note will be provided at Final Site Plan.
12. Detailed plan for removal of 8" water main will be provided at Final Site Plan.
13. Size of water leads will be provided at Final Site Plan.
14. Easements for water main will be provided at Final Site Plan.
15. Note will be provided at Final Site Plan.
16. No comment.
17. Sanitary sewer basis of design will be provided at Final Site Plan.
18. Casting type for each catch basin will be provided at Final Site Plan.
19. Plan will be designed in accordance with Storm Water Ordinance at Final Site Plan.
20. Requested details and calculations will be provided at Final Site Plan.
21. MDOT detail will be provided at Final Site Plan.

22. Ramp locations and detail for detectable warning surface will be provided at Final Site Plan.
23. Easement will be provided at Final Site Plan.
24. Note will be provided at Final Site Plan.
25. City standard straight-faced curb shall be provided at Final Site Plan.
26. Grades as requested will be provided at Final Site Plan.
27. The plans will be revised at Final Site Plan.
28. Line designation will be provided at Final Site Plan.
29. The license agreement will be provided at Final Site Plan.
30. Slopes along the ingress/egress routing from the barrier free stalls will verified to comply with Michigan Barrier Free regulations at Final Site Plan.
31. Any off-site easements will be noted at Final Site Plan.

**Traffic**

1. "Sidewalk Ends" sign will be provided at northern end of walk at Final Site Plan. Revising the walk at the southern end as requested is not possible due to location of traffic signal pole.
2. There is no precedent for a sidewalk along the southern property line, as there is no existing sidewalk across the mall access road on the property to our South. Furthermore, this sidewalk will affect the drainage and landscaping which is already designed for this area. Lastly, the applicant has already agreed to provide the required sidewalk along Novi Road on their own property because there is no sufficient room within the ROW. The same condition would apply at this location and would also require that the applicant sacrifice additional property for the installation of this sidewalk.
3. Requested HC ramp does not apply if sidewalk requested in item 2 above is not required.
4. Per our conversation with the Planner and per the planning review, we are providing barrier free parking spaces for the site as a whole.
5. Current MDOT details for ADA compliant ramps will be provided at Final Site Plan.
6. We will review and make corrections to signs as necessary at Final Site Plan.
7. Detail will be revised at Final Site Plan.
8. Sign table will be updated at Final Site Plan.

### Landscape

#### Adjacent to Right-of-Way(Sec. 2509.3.b)

4. A waiver is not required for canopy trees along the secondary access roads as determined by the City of Novi review. (See sheet L-1)

#### Parking Area Landscape Requirements(Sec. 2509.3.c)

1. The existing cedar trees along the north property line will be preserved to meet the required visual screen along the north property line. Unhealthy trees will be replaced to assure screening along the property line.  
(See notes on sheet L-1.)

#### Plant List(LDM)

1. The landscape cost opinion, has been shown on the plant list & provided on sheet L-2.

#### General Requirements

1. An Irrigation plan and Cost Estimate will be provided with the Final Site Plan.

### Facade

1. The rectangular band at the top of the walls is EIFS coping, and the EIFS percentage was included in the material calculations provided on elevations dated 12-19-07.
2. The proposed blue color is an accent color on the proposed elevations, and makes up a very small percentage of the surface area of the elevations. In fact, the allowable square footage of EIFS per the ordinance was not maximized on any elevation, with the bulk of exterior material being brick. Furthermore, the "intensity" of the proposed blue is a subjective determination that is not supported by the applicant. Last, the prototypical blue entry element is designed to have an overall surface area of 1,594 square feet, with a height at the peak of 38'-0". In deference to the City of Novi zoning ordinance, the applicant has reduced the size of this entry element to 864 square feet of surface area, which is a reduction in size of almost half. The height has also been reduced to 31'-6". It is the opinion of the applicant that considerable adjustments have been made to meet the intent of the Zoning ordinance and that the proposed elevations are not inconsistent with said ordinance.
3. See response to item 2.
4. The plans will be revised at Final Site Plan.
5. No comment.



6. See response to item 1.

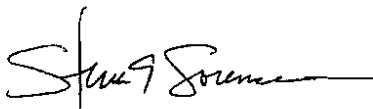
**Fire Department**

1. Load design for requested parking lot area will be indicated on the plans at Final Site Plan.
2. A KNOX Box will be provided at Final Site Plan.
3. Gate Valve in Well will be provided on fire protection water main at Final Site Plan.

We feel that we have made the best use of this difficult site and have worked extensively with City Staff to insure that this plan is agreeable for all parties. We also feel that the concerns presented in the preliminary site plan review letters can be handled during the Final Site Plan review process and look forward to addressing the Planning Commission on February 27, 2008. If you have any questions, or need any additional information, please call.

Sincerely,

**PROFESSIONAL ENGINEERING ASSOCIATES, INC.**



Steven A. Sorensen, PE  
Project Manager

SAS

**REDUCED SITE PLAN**



## COMMUNITY IMPACT STATEMENT

December 20, 2007

Kristen Kapelanski  
City of Novi Planning Department  
45175 West Ten Nile  
Novi, MI 48375

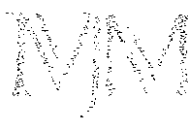
Re: Community Impact Statement  
Best Buy Store – Novi, MI (Twelve Oaks Mall)  
MJM Project # 07102

Dear Ms. Kapelanski:

We are pleased to provide the following information to satisfy the requirements of the Community Impact Statement:

- The expected annual number of police responses is (5).
- The expected annual number of fire responses is (0).
- Anticipated number of employees is (37) full time, (51) part time, and (15) seasonal.
- Best Buy agrees to comply with the City Performance Standards, section 2519 of the Zoning Ordinance.
- Best Buy shall have (1) sewer and (1) water tap for this project.
- Best Buy is a new retail store which will be located on the ring road of Twelve Oaks Mall. The adjacent properties are also Retail uses, and the existing uses on this site (bank and furniture store) are Retail. Therefore, there should be no impact to the surrounding uses.
- The new Best Buy store will be a 31,324 sf retail store with a 44,793 sf sub-grade parking garage below the store. The store includes a Car Stereo Install Bay, which shall be located in the parking garage.
- There are no natural features on this site, as the site is currently fully developed (bank and furniture store).
- The stormwater is to be discharged to the existing mall underground storm sewer system and detained in the regional detention basin.
- No hazardous or toxic materials are anticipated.
- No underground storage tanks are anticipated.
- There is no existing wildlife as the site is currently fully developed.
- The existing bank and furniture stores will be demolished and replaced with the new Best Buy retail store.
- A traffic impact study has been submitted for review. No significant LOS loss is anticipated.
- A 5'-0" wide public sidewalk is proposed inside the ROW along Novi Road.
- This project is not expected to increase the permanent population of the City of Novi, as the store will be staffed with existing members of the community.

Thank you,  
Jaima Darsinos, RA  
Principal



105 Broadway Avenue  
Nashville, Tennessee 37201  
615-244-8170 Fax 615-244-8141  
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## **NOISE ANALYSIS**



2007-229  
January 10, 2008

Ms. Jaima Darsinos, RA  
MJM Architects  
105 Broadway  
Nashville, TN 37201

Subject: **Prediction of Property Line Sound Levels**  
re: Proposed Best Buy Store in 'Twelve Oaks No. 1'  
Novi, Michigan

Dear Ms. Darsinos:

At your request and authorization, Kolano and Saha Engineers, Inc. (K&SE) conducted an investigation to predict property line sound levels expected from operation of the proposed Best Buy retail store. Our investigation evaluated the impact of noise due to outdoor mechanical equipment and limited truck activity on the adjacent properties. These sound levels were evaluated against the limits established by the City of Novi Ordinance.

**Proposed Site**

The location of the proposed Best Buy is on the Twelve Oaks No. 1 sites 3 and 4. Properties adjacent to the proposed site are zoned commercial/retail. The City of Novi noise code limits for Business receiving land use applies to all adjacent properties.

Sound level predictions were based on the location of property lines, structures, screen walls, mechanical equipment and manufacturer's data of the mechanical equipment. The following documents were utilized for the predictions:

- Site Plan Drawings: Best Buy, Novi, Michigan, dated 12/21/2007.
- Sound power data provided for the proposed rooftop mechanical equipment by Trane and Loren Cook.
- K&SE sound measurement data for Truck and Trash Compactor Noise.

### City of Novi Noise Code

The City of Novi Code, Appendix A – Zoning, Section 10 Noise, restricts receiving property noise levels to 75dB(A) daytime and 70dB(A) nighttime for business districts. It is expected that the proposed Best Buy retail store will systems operating during both day and nighttime periods and would be subject to the 70 dB(A) nighttime limit to the adjacent receiving properties.

### Sound Level Prediction

Predictions of sound levels are based on the data and information identified in this report, which is entered in to an advanced three dimensional computer model. This sophisticated modeling program relies on international noise calculation standards, such as ISO 9613, to predict sound levels for numerous criteria.

### Outdoor Building Mechanical Equipment

The proposed Best Buy store is planned to include multiple rooftop air handling units, exhaust fans (including exhaust fans for the parking garage) and a trash compactor. Noise from this equipment may have potential noise impact on the adjacent properties. We have made predictions based on the equipment manufacturer's data and K&SE measured sound data for trucks and trash compactors to determine the maximum sound level expected at the property line due to all outdoor mechanical equipment. The predicted worst-case sound level due to all the mechanical equipment operating at this facility is **57 dB(A)** at the east property line, though it will be less beyond the 12 Oaks Drive at an adjacent receiving property. Predicted sound levels at all other receiving property lines are less than this. The results of this predictive study are presented graphically in **Exhibit 1** as a sound level contour plot overlaid on the site plan.

### Addition of Truck Activities On-site

Generally, truck pass-by noise levels are regulated by the State of Michigan and Federal regulations, though certain truck activities are not related to pass-by. For our evaluation of Trucks on-site of the proposed Best Buy we limited our study to truck backup and loading/unloading activities. Sound data for these truck activities comes from our extensive sound measurement database of truck noise. With the outdoor mechanical equipment, our predictions of the on-site truck activities produces an estimated maximum sound level of 71 dB(A) along the east property line. Beyond the 12 Oaks Mall Dr. at adjacent receiving properties, the estimated maximum sound level is expected to be **64 dB(A)**. **This is the combined maximum expected noise from the Best Buy site for outdoor mechanical equipment and applicable truck activities.** Noise from these sources are expected to less at all other boundary lines as indicated in **Exhibit 2**



Ms. Jaima Darsinos, RA  
MJM Architects

Page 3 of 3  
January 10, 2008

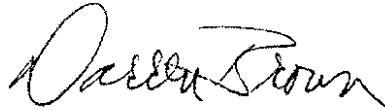
**Conclusions**

Based the information we reviewed, the proposed Best Buy retail store is expected to comply with the City of Novi Noise Code. Predicted sound levels for outdoor mechanical equipment are expected to be below the ordinance limits for applicable business receiving zones.

Ms. Darsinos, we appreciate your calling us for this study. Please call if you have questions or concerns or need additional assistance in this matter.

Sincerely,

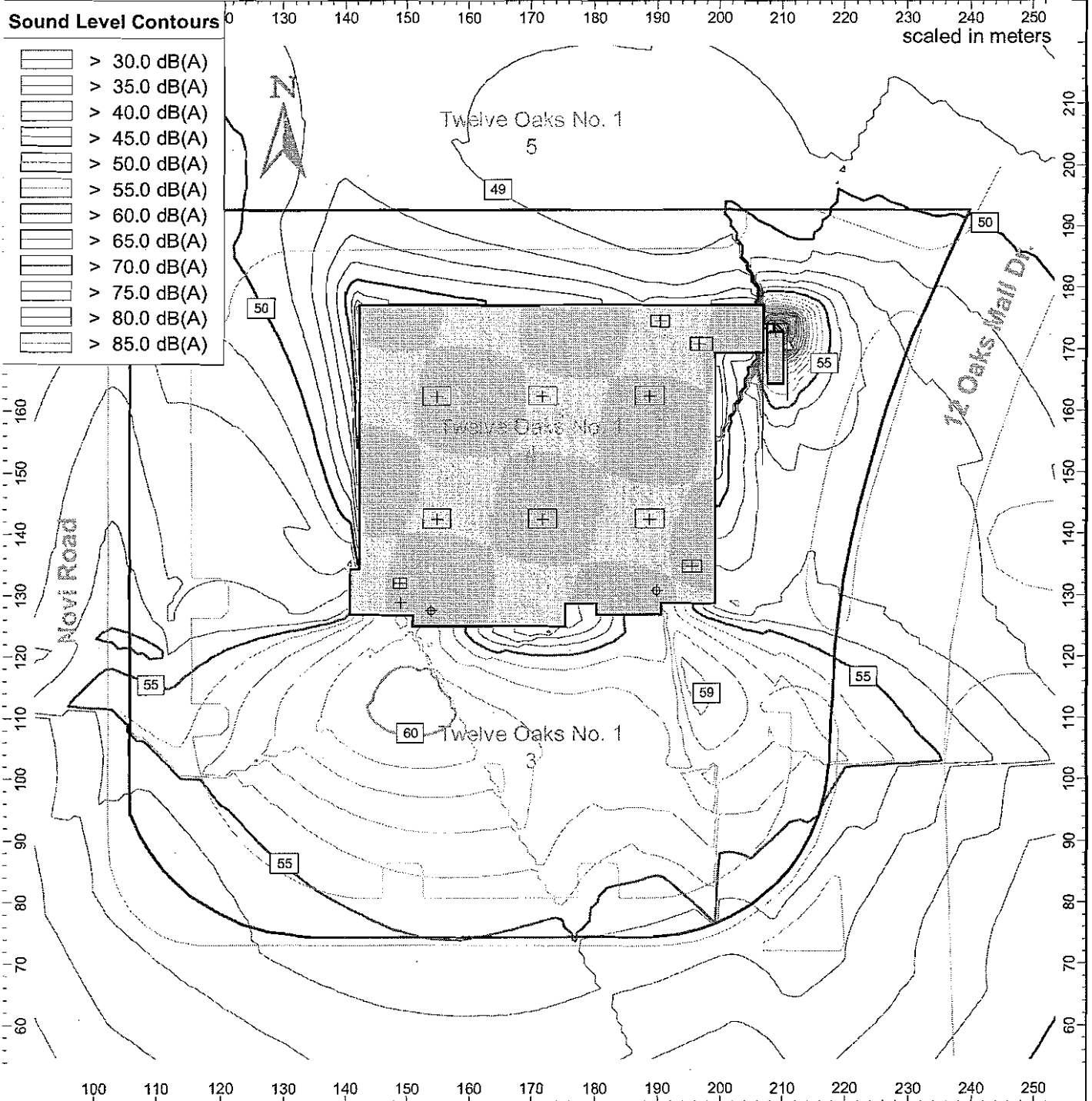
**KOLANO AND SAHA ENGINEERS, INC.**

A handwritten signature in black ink, appearing to read "Darren Brown". The signature is written in a cursive, flowing style.

Darren Brown, P.E.  
INCE Board Certified Noise Control Engineer  
Consultant

EXHIBIT 1

SOUND LEVEL CONTOUR PLOT OF  
OUTDOOR MECHANICAL EQUIPMENT FOR  
THE PROPOSED BEST BUY RETAIL STORE IN NOVI, MI



Kolano and Saha Engineers, Inc. - 3559 Sashabaw Road, Waterford, MI 48329



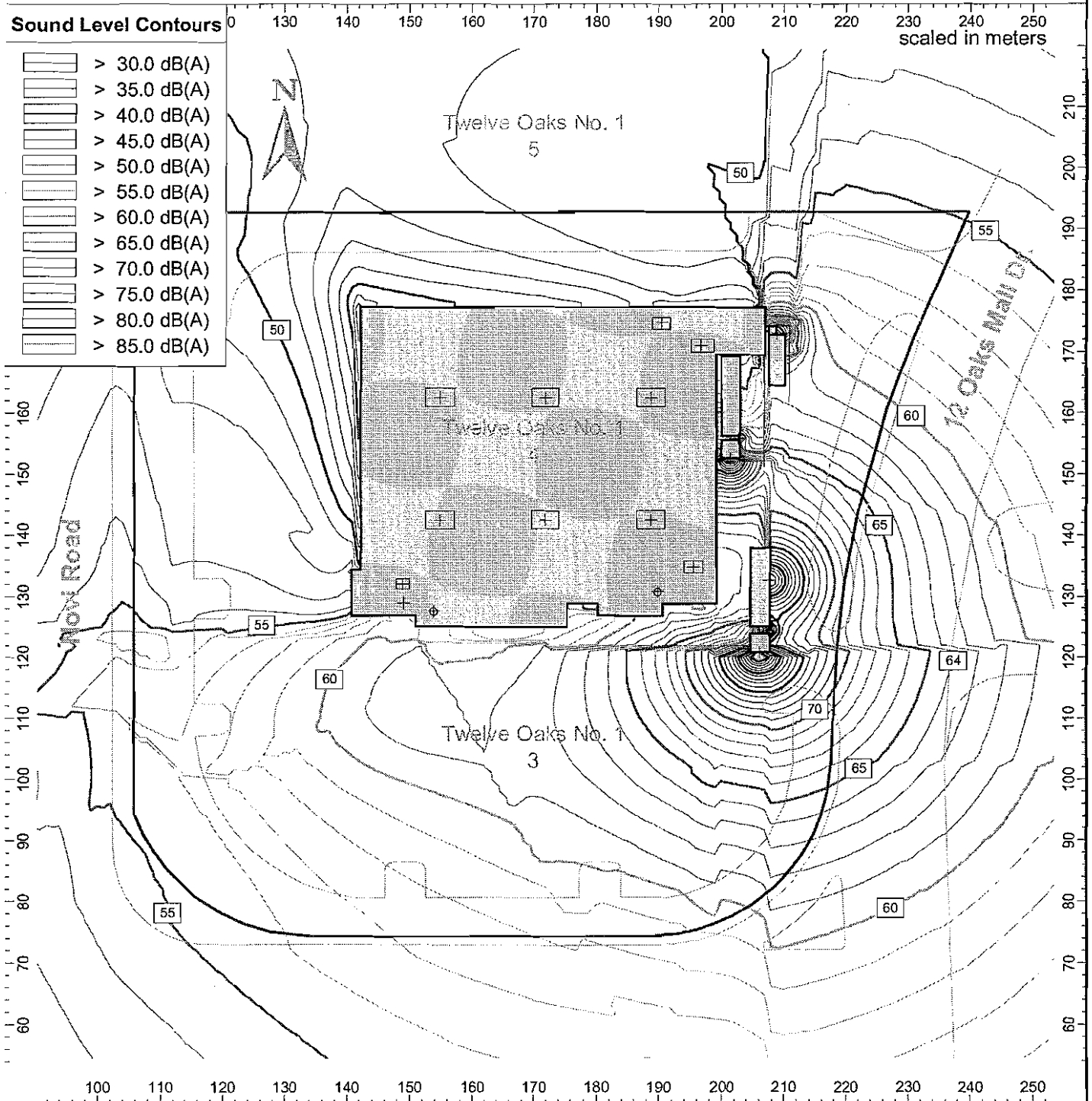
Project No.  
2007-229

Best Buy - Novi, MI  
Conducted for: MJM Architects

Sound Level Evaluation Modeling Conducted on - January 8, 2008

**EXHIBIT 2**

**SOUND LEVEL CONTOUR PLOT OF  
OUTDOOR MECHANICAL EQUIPMENT AND DELIVERY TRUCK ACTIVITIES FOR  
THE PROPOSED BEST BUY RETAIL STORE IN NOVI, MI**



Kolano and Saha Engineers, Inc. - 3559 Sashabaw Road, Waterford, MI 48329



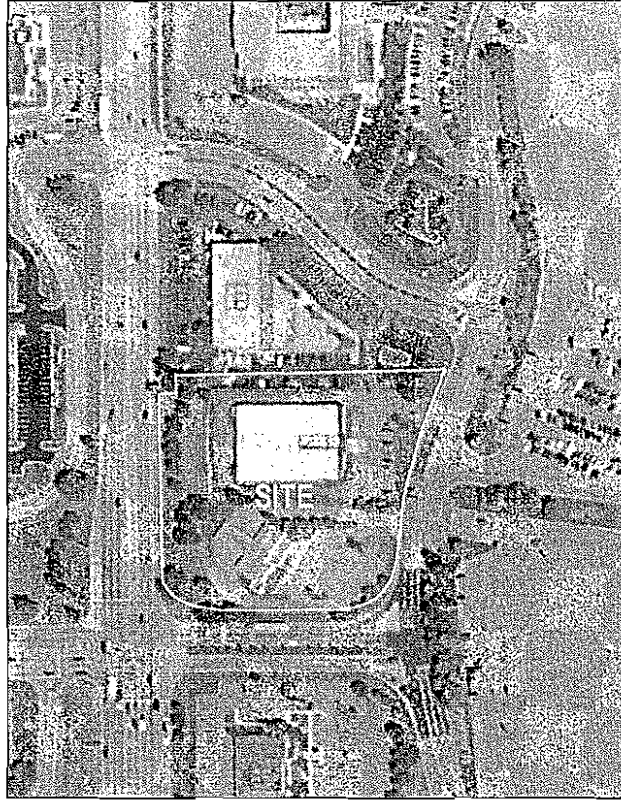
Project No.  
2007-229

Best Buy - Novi, MI  
Conducted for: MJM Architects

Sound Level Evaluation Modeling Conducted on - January 8, 2008

# TRAFFIC IMPACT STATEMENT

TRAFFIC IMPACT ASSESSMENT FOR THE PROPOSED  
**BEST BUY STORE**  
NOVI, MI



Prepared for  
BEST BUY  
Richfield, MN  
&  
PROFESSIONAL ENGINEERING ASSOCIATES, INC.  
Troy, MI

By  
BIRCHLER ARROYO ASSOCIATES, INC.  
Lathrup Village, MI

December 2007

**CONTENTS**

EXECUTIVE SUMMARY ..... ii

INTRODUCTION ..... 1

EXISTING CONDITIONS ..... 1

    Land Uses ..... 1

    Road Network ..... 1

    Traffic Volumes ..... 5

FUTURE CONDITIONS ..... 5

    Land Uses ..... 5

    Road Network ..... 5

    Background Traffic ..... 5

    Trip Generation ..... 8

    Trip Distribution ..... 8

    Traffic Assignment ..... 12

ACCESS CONSIDERATIONS..... 12

    Ring Road Striping ..... 12

    Macy's North Driveway ..... 18

    Pedestrian Access ..... 18

IMPACT ANALYSES ..... 19

    Method and Criteria ..... 19

    Results..... 20

CONCLUSIONS AND RECOMMENDATIONS ..... 22

APPENDICES

    A: Resumes

    B: Traffic Counts

    C: Trip Generation Rates for Electronic Superstore

    D: Capacity Analyses

## TRAFFIC IMPACT ASSESSMENT OF THE PROPOSED BEST BUY STORE IN NOVI, MI

### EXECUTIVE SUMMARY

This study examines the potential traffic impacts of a 30,891-s.f. Best Buy store proposed to replace a vacant bank and operating furniture store now occupying the first two outlots north of the Twelve Oaks Mall entrance opposite West Oaks Drive. The store is assumed to be in full operation by the fall of 2008.

The proposed Best Buy will have a 103-space parking garage under the store as well as a 97-space surface parking lot south and west of the store. The garage will be accessed via a ramp along the north side of the building. The site will continue to be accessed at its current three locations, with two points of direct access to the Ring Road and a cross-access connection to the neighboring baby store to the north. The two drives on the Ring Road will be connected with a two-way service drive paralleling the Ring Road and also providing access for delivery and trash trucks to the east side of the store.

Birchler Arroyo Associates, Inc. was retained to conduct a traffic impact assessment of the proposed development. Pre-application comments by the City Engineer and the City's traffic consultant were considered in conducting this assessment. Issues of primary interest include a trip generation comparison between the proposed and existing uses; future (2008) versus current (2007) traffic volumes near the site during the weekday and Saturday PM peak hours; and the safety and efficiency of site access. This report documents the traffic impact assessment. Key findings and recommendations are as follows:

- The proposed Best Buy is expected to generate 139 one-way driveway trips in the weekday PM peak hour, or 32% fewer than the existing bank and furniture store may have once generated. During the more critical Saturday PM peak hour, however, Best Buy is expected to generate 220 one-way driveway trips, or 26% more than the existing uses may have once generated.
- During peak hours on a Saturday afternoon when southbound Ring Road traffic backs up more frequently from the stop sign at the south finger drive, the site's north drive will likely serve more of the Best Buy traffic approaching the site from the south and leaving the site to the north. In both of the peak hours evaluated, however, the two site drives are expected to operate at level of service B or better on a weekday and level of service C or better on a Saturday.
- Based on analyses discussed in this report, it is recommended that:
  - Consideration be given to re-striping the Ring Road's center lane with standard two-way left-turn lane striping, from the grade arm between Sears and Macy's south to a point about 50 ft north of the southbound stop bar (leaving in place some of the the

cross-hatching intended to keep southbound vehicles from entering the intersection in that lane). Such changes to the Ring Road would require approval of its owner.

- The Mall owner be approached regarding its willingness to convert the middle lane exiting Macy's to a through-only lane (to ensure that traffic crossing over to Best Buy uses a single appropriate lane).
- No improvements be made along the Ring Road that might encourage pedestrians to cross between the Mall and Best Buy. The Best Buy site is proposed to have 46 more parking spaces than required by the City's Zoning Ordinance, which will help accommodate peak parking occurrences. However, to accommodate an unlikely – but possible – seasonal parking overflow from Best Buy, consideration could be given to having store employees park in the adjacent office building parking lot on weekends (subject to the approval of the office building owner).



## **INTRODUCTION**

This study examines the potential traffic impacts of a 30,891-s.f. Best Buy store proposed to replace a vacant bank and operating furniture store now occupying the first two outlots north of the Twelve Oaks Mall entrance opposite West Oaks Drive (Figures 1-2). For purposes of this study, the store is assumed to be in full operation by the fall of 2008.

The proposed Best Buy (Figure 3) will have a 103-space parking garage under the store as well as a 97-space surface parking lot south and west of the store. The garage will be accessed via a ramp along the north side of the building. The site will continue to be accessed at its current three locations, with two points of direct access to the Ring Road and a cross-access connection to the neighboring baby store to the north. The two drives on the Ring Road will be connected with a two-way service drive paralleling the Ring Road and also providing access for delivery and trash trucks to the east side of the store.

Birchler Arroyo Associates, Inc. was retained by the Applicant's engineer to conduct a traffic impact assessment of the proposed development. Pre-application comments by the City Engineer and the City's traffic consultant were considered in conducting this assessment. Issues of primary interest include a trip generation comparison between the proposed and existing uses; future (2008) versus current (2007) traffic volumes near the site during the weekday and Saturday PM peak hours; and the safety and efficiency of site access. This report documents the study's methodology, findings, conclusions, and recommendations.

## **EXISTING CONDITIONS**

### **Land Uses**

As can be seen in the Figure 2, the subject site is entirely surrounded by similar retail uses. Neighboring the site to the north is a baby store attached to a multi-story office building. The office building's parking lot, between the building and Novi Road, may be available on weekends to accommodate Best Buy's employee parking and/or potential customer overflow parking needs.

### **Road Network**

All roadways east of Novi Road near the site are private driveways owned by the Taubman Company. As indicated in Figure 2, this study refers to the main circulating driveway along the east side of the subject site as the Ring Road, and the two drives connecting the Ring Road to Novi Road opposite West Oaks Drive and the West Oaks II driveway as the south and north finger roads, respectively. Both finger roads provide signalized access to Novi Road, and are controlled at their Ring Road intersections by all-way stop signs (with free right turns for vehicles exiting the Mall). The Ring Road is five lanes wide and has a 25-mph posted speed limit. Additional discussion regarding the center of the five lanes appears later in this report.

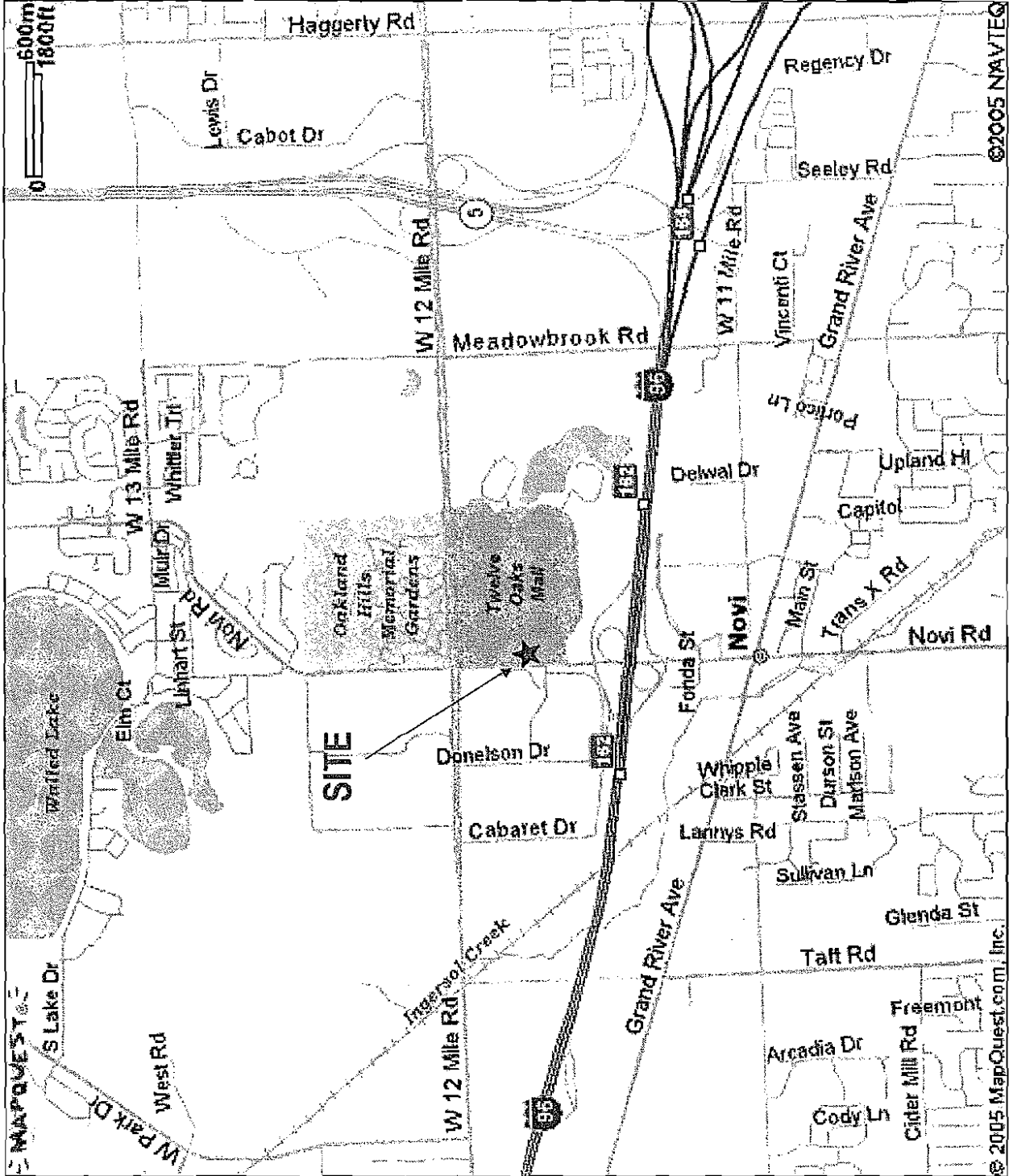
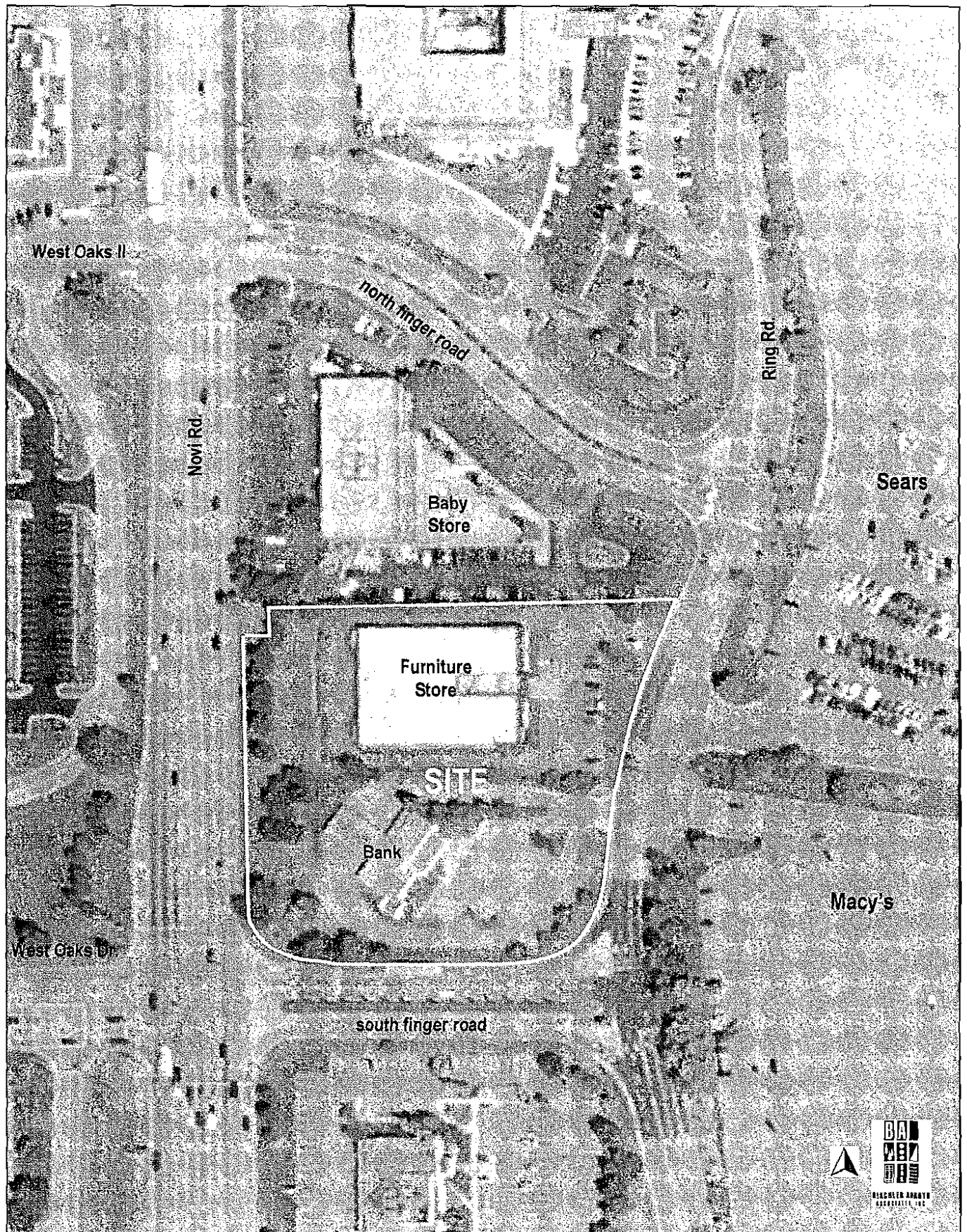


Figure 1. Vicinity Map



BIRCHLER ARROYO ASSOCIATES, INC.



Source: City of Novi GIS

Note: Site boundaries approximate

Figure 2. Vicinity Aerial





## **Traffic Volumes**

Birchler Arroyo Associates conducted manual traffic counts adjacent to the site during the weekday late-afternoon peak period (4:00-6:00 p.m.) on Tuesday, October 23, 2007. Although this date was prior to the normal onset of most seasonally increased shopping, the counted volumes were likely conservatively high relative to most of a typical year. Specifically, those volumes may reflect something of a “bridge” between the elevated volumes caused by the grand opening of the recent Mall expansion, and the normal traffic increase due to holiday shopping.

Traffic was counted on two Saturdays in the summer of 2005 as it entered the Mall via the entry-only driveway from Novi Road, and as it exited the Mall via the south finger road (i.e., at the two highest-volume access drives). As can be seen by the resulting hourly profile appearing in appendix Table B-1, the combination of entering and exiting traffic peaked broadly throughout Saturday afternoon, between 2:00 p.m. and 6:00 p.m. Given this finding, the current study also conducted manual counts adjacent to the site between 4:00 p.m. and 6:00 p.m. on Saturday, October 20, 2007.

Detailed results from the recent manual counts are tabulated in Appendix B of this report. Appendix Table B-2 tallies these counts over alternative peak hours, and identifies the overall study area's peak hours as 4:45-5:45 p.m. on a weekday and 4:00-5:00 p.m. on a Saturday. The volumes over these two hours are summarized graphically in Figures 4a and 4b (below).

## **FUTURE CONDITIONS**

### **Land Uses**

It appears reasonable to conclude that no other land use changes will occur over the next year that might significantly impact current traffic volumes adjacent to the site.

### **Road Network**

The only expected change in the area road network over the next year is Taubman's planned introduction of a system of trailblazing signs around the Ring Road to encourage more Mall traffic to exit via Twelve Mile Road as opposed to Novi Road.

### **Background Traffic**

Given the relatively short build-out period expected for the proposed Best Buy store, and the conservatively high nature of the recent traffic counts, it does not appear necessary or appropriate to assume that the counted volumes will increase prior to the store's opening.

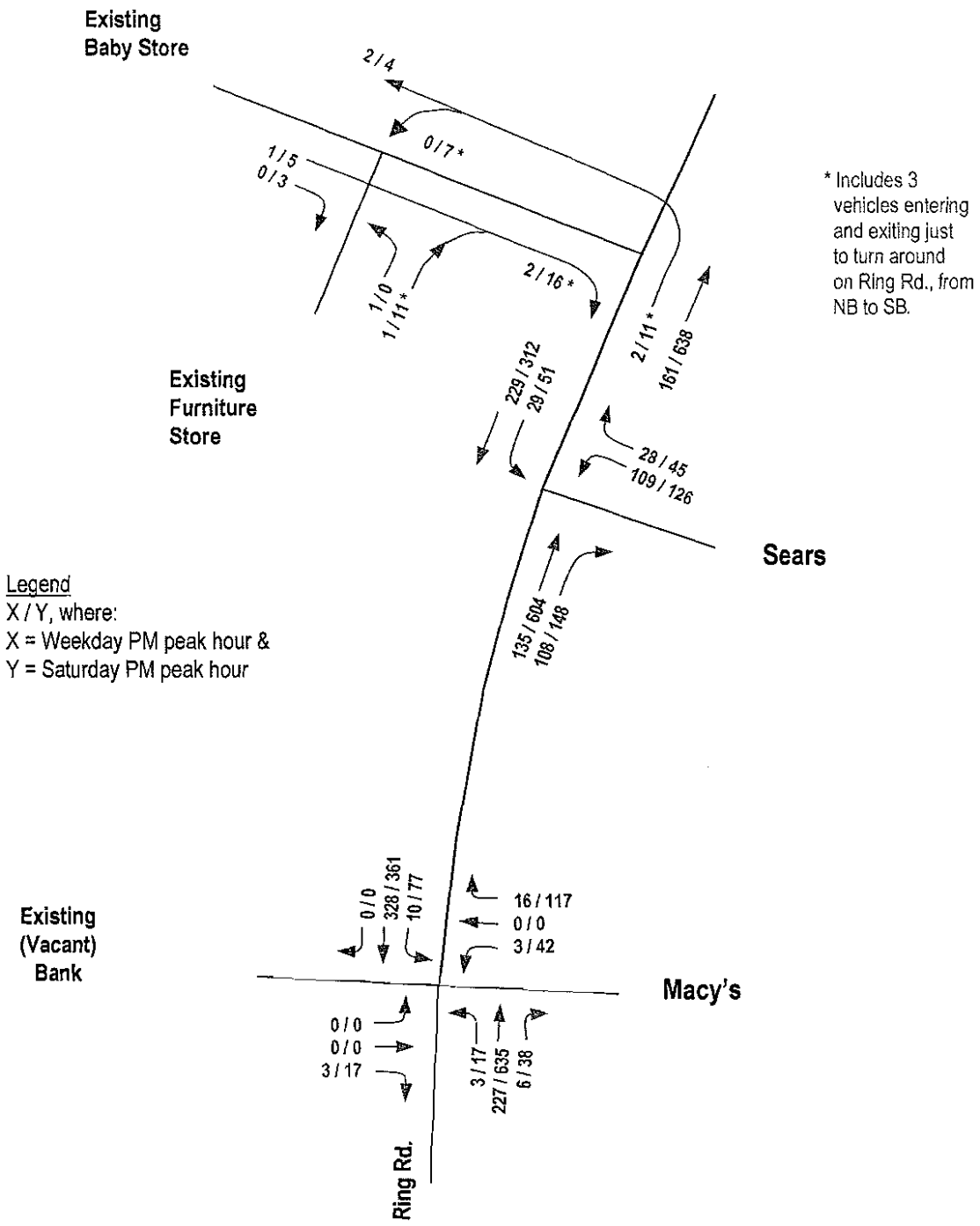


Figure 4a. Current Peak-Hour Traffic Volumes to / from South

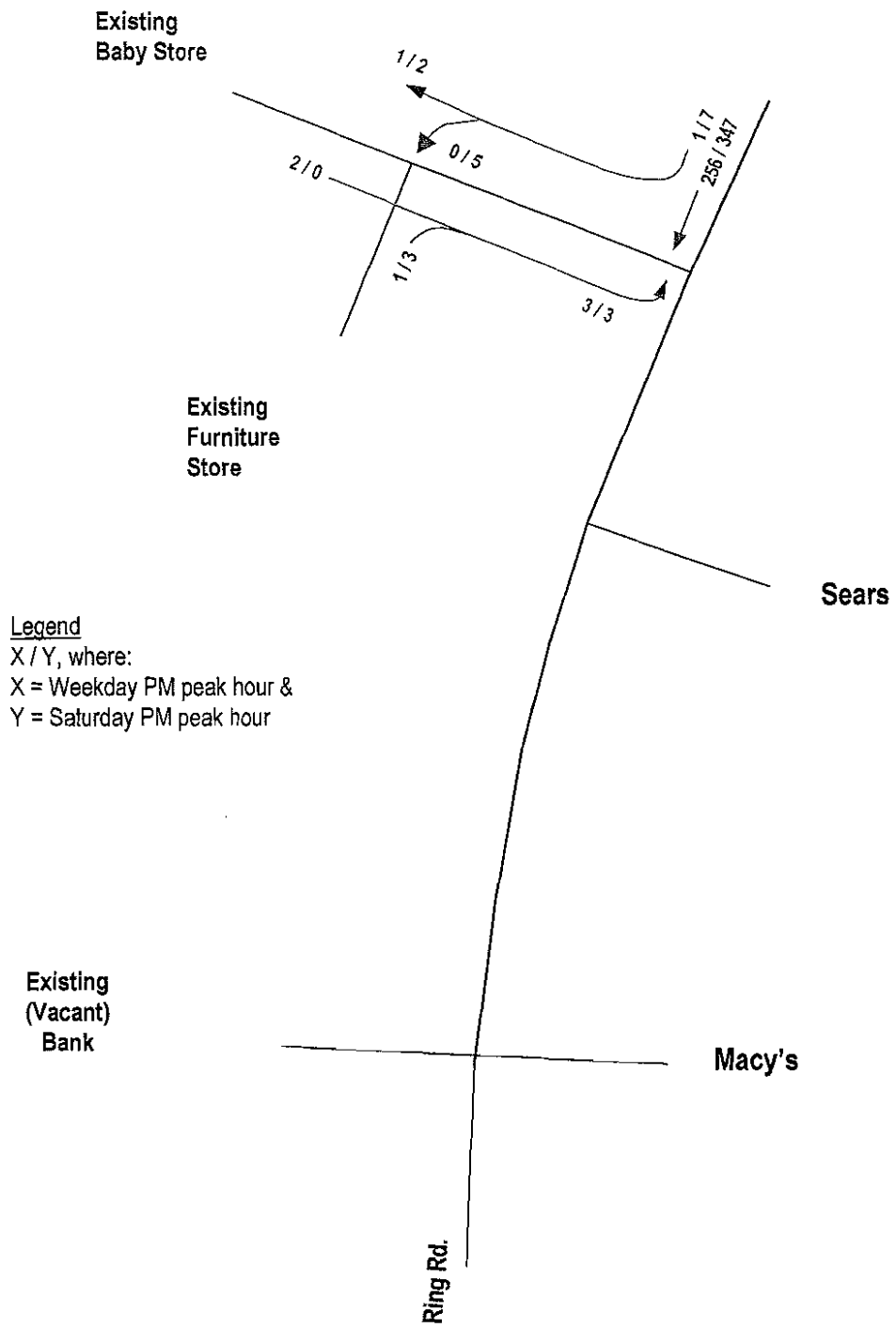


Figure 4b. Current Peak-Hour Traffic Volumes to / from North

## Trip Generation

Data and methodology recommended by the Institute of Transportation Engineers (in *Trip Generation – 7<sup>th</sup> Edition, 2003*, and *Trip Generation Handbook – 2<sup>nd</sup> Edition, 2004*) were used to forecast the traffic likely to be generated by:

- The existing bank and furniture store on the subject outlots, hypothetically assuming that both were generating traffic at industry-average rates.
- The proposed Best Buy store (or, in ITE nomenclature, an electronic superstore).

According to the forecasts summarized in Table 1 (below), the proposed new use of the two outlots will generate about 1,391 weekday driveway trips, an increase of 240 trips (21%) relative to the trip generation potential of the two existing uses to be replaced. During the late-PM peak hour of that typical weekday, however, the total number of one-way driveway trips is expected to be 139 – some 65 trips or 32% less than the trip generation potential of the two existing uses.

Table 1 shows that the proposed new use will generate more traffic over all 24 hours of a typical Saturday than the two existing uses may have once generated. With respect to the busiest single hour of a Saturday, the trip generation increase with site redevelopment will be a modest 26% (220 trips versus 174 trips).

Table 1 also forecasts pass-by trips, or in this case, site driveway trips made by vehicles already traveling along Novi Road on their way to primary destinations elsewhere. However, since pass-by rates for the more critical Saturday conditions are unavailable, and since no intersections along Novi Road are evaluated, this study conservatively assumes that all site-generated driveway trips will be new to the Ring Road.

## Trip Distribution

Site-generated traffic was assumed to generally follow existing traffic patterns along the Ring Road between the bank drive / north Macy's drive and the furniture store drive. Distribution models for the two peak hours are shown in Figures 5a and 5b. The weekday model (Figure 5a) is considered the base case, since traffic was free-flowing during that hour. This model distributes site traffic:

- |  |   |
|--|---|
| <input type="checkbox"/> 45% to/from south via Ring Road | <input type="checkbox"/> 35% from north via Ring Road             |
| <input type="checkbox"/> 5% to/from Macy's parking field | <input type="checkbox"/> 5% from north via baby store cut-through |
| <input type="checkbox"/> 10% to/from Sears parking field | <input type="checkbox"/> 40% to north via Ring Road               |

During the weekday PM peak hour, there were no significant southbound traffic backups on the Ring Road due to the all-way stop at the south finger drive. Hence, entering traffic was distributed between the two direct access drives in proportion to the corresponding number of parking spaces primarily served by each drive (i.e., north drive for lower level and south drive for upper level).



**Table 1. Trip Generation Comparison<sup>1</sup>**

Land Use(s)	ITE Code	Size / Type of Trip	Weekday				Saturday				
			24-Hour Trips	PM Peak-Hour Trips			24-Hour Trips	PM Peak-Hour Trips			
				In	Out	Total		In	Out	Total	
<b>Potential Trip Generation by Existing Uses</b>											
Drive-In Bank	912	4,261 s.f.	1,050	98	97	195	303	81	77	158	
		<i>47% Weekday PM Pass-By</i>	-	46	46	92	-	-	-	-	-
Furniture Store	890	20,053 s.f.	101	4	5	9	99	9	7	16	
		<i>53% Weekday PM Pass-By</i>	-	2	3	5	-	-	-	-	-
Both		24,314 s.f.	1,151	102	102	<b>204</b>	402	90	84	<b>174</b>	
		<i>Weekday PM Pass-By</i>	-	48	49	97	-	-	-	-	-
		Max. Potential New	1,151	54	53	107	402	90	84	174	
<b>Forecasted Trip Generation by Proposed Use</b>											
Electronic Superstore <sup>3</sup>	863	30,891 s.f.	1,391	68	71	<b>139</b>	1,864	116	104	<b>220</b>	
		<i>40% Weekday PM Pass-By</i>	-	27	29	56	-	-	-	-	-
		Max. Potential New	1,391	41	42	83	1,864	116	104	220	
Ratio of Driveway Trips for Proposed Use to Driveway Trips for Existing Uses			1.21	0.67	0.70	0.68	4.6	1.29	1.24	1.26	

<sup>1</sup> A trip is a one-directional vehicle movement into or out of the site. Driveway trips (in the first line within each block of the table) are based on the average rates found in *Trip Generation – 7<sup>th</sup> Edition* (Institute of Transportation Engineers, 2003), consistent with ITE-recommended practice found in the *Trip Generation Handbook – 2<sup>nd</sup> Edition* (ITE, 2004).

<sup>2</sup> Pass-by trips are driveway trips already passing the site en route to primary destinations elsewhere. The percentages assumed here are the use-specific sample averages reported in the *Trip Generation Handbook*. Pass-by percentages are not available for the overall weekday or anytime on Saturday. Where such percentages are not available, they have been conservatively assumed here to be zero. New (or primary) trips are driveway trips less pass-by trips.

<sup>3</sup> See Table C-1 for trip generation rates.

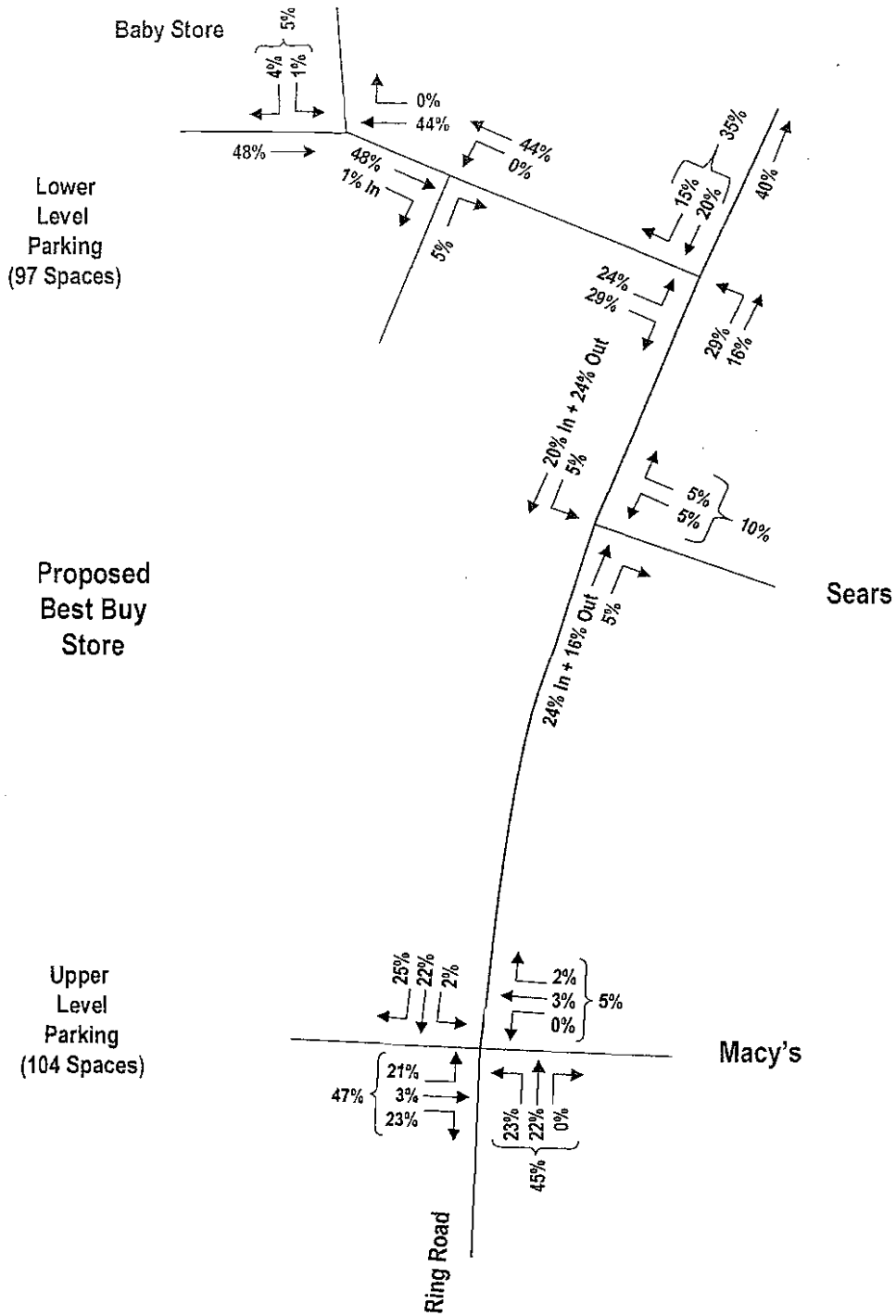


Figure 5a. Trip Distribution Model for Weekday PM Peak Hour



BIRCHLER ARROYO ASSOCIATES, INC.

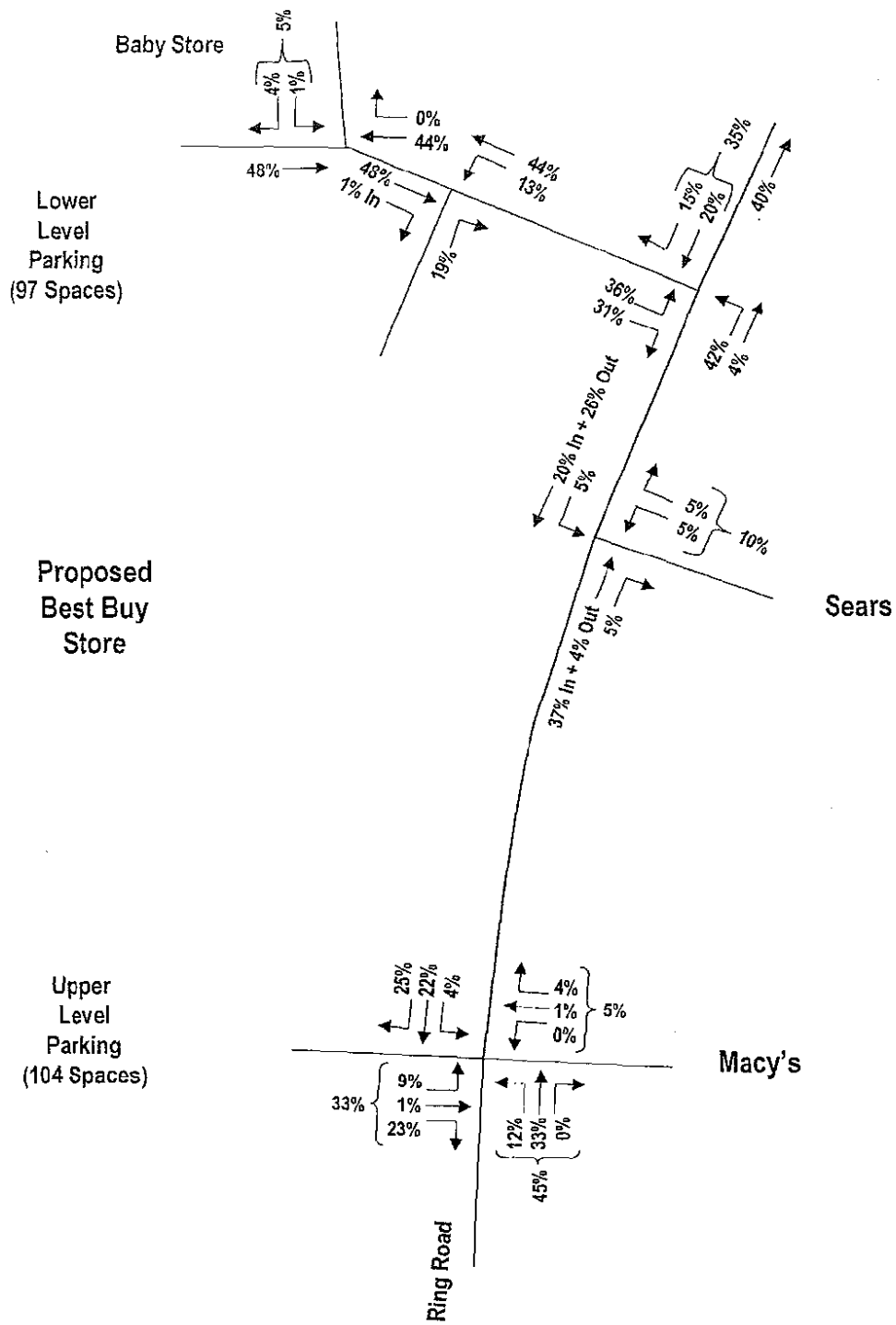


Figure 5b. Trip Distribution Model for Saturday PM Peak Hour

Due to the occasional southbound traffic backups observed during the Saturday PM peak hour, however, the distribution model for that hour (Figure 5b) assumes that some customers arriving from the south will reach the upper-level parking lot indirectly, by proceeding to the north drive and returning to the parking lot via the two-way service drive paralleling the Ring Road. For similar reasons, this model also assumes that a greater percentage of customers exiting to the north from the upper-level lot will use the service drive to exit via the north drive.

### **Traffic Assignment**

Figures 6a and 6b assign site trips to the various possible traffic movements in the study area, by multiplying the site's total trip generation (from Table 1) by the movement-specific percentages shown in Figures 5a and 5b.

Finally, future total peak-hour volumes are shown in Figures 7a and 7b. These volumes were obtained by 1) first subtracting the traffic now generated by the furniture store from the current traffic throughout the study area, and 2) then adding to the above-adjusted current traffic the future site-generated traffic forecasted in Figures 6a and 6b.

## **ACCESS CONSIDERATIONS**

### **Ring Road Striping**

Since the Ring Road is neither a public nor a private street, Birchler Arroyo does not believe that the driveway spacing standards found in the City's Zoning Ordinance literally apply (pre-application comments by the City Engineer state that "spacing waivers will be required for both approaches"). While the Ordinance's same-side minimum driveway spacing along a 25-mph road (105 ft near-curb to near-curb) would be satisfied here, the opposite-side minimum driveway spacing (150-200 ft, center-to-center) clearly would not. In fact, the latter standard would likely not be met along very many mall ring roads generally (certainly not along the west and north sides of Twelve Oaks Mall).

One of the main objectives of providing a minimum opposite-side driveway spacing is to minimize conflicts between vehicles simultaneously trying to turn left into or out of site access drives to/from opposite directions. Of greatest interest from a safety standpoint is the potential for left-turn "interlocks" between vehicles attempting to enter adversely offset opposite-side driveways from a two-way left-turn lane (TWLTL).

If the Ring Road's center lane were marked as a TWLTL along the *entire* frontage of the subject site, a northbound driver attempting to enter Best Buy via the north drive could find himself or herself in a "stand-off" situation relative to a southbound driver attempting to enter Sears via its south drive (next to the grade arm between Sears and Macy's). Per Figure 2 (above) and Figures 8-9 (below), however, the above left-turn interlock should not be occurring with the existing striping, since the center lane north of the Sears access is striped as a northbound-only left-turn lane for the

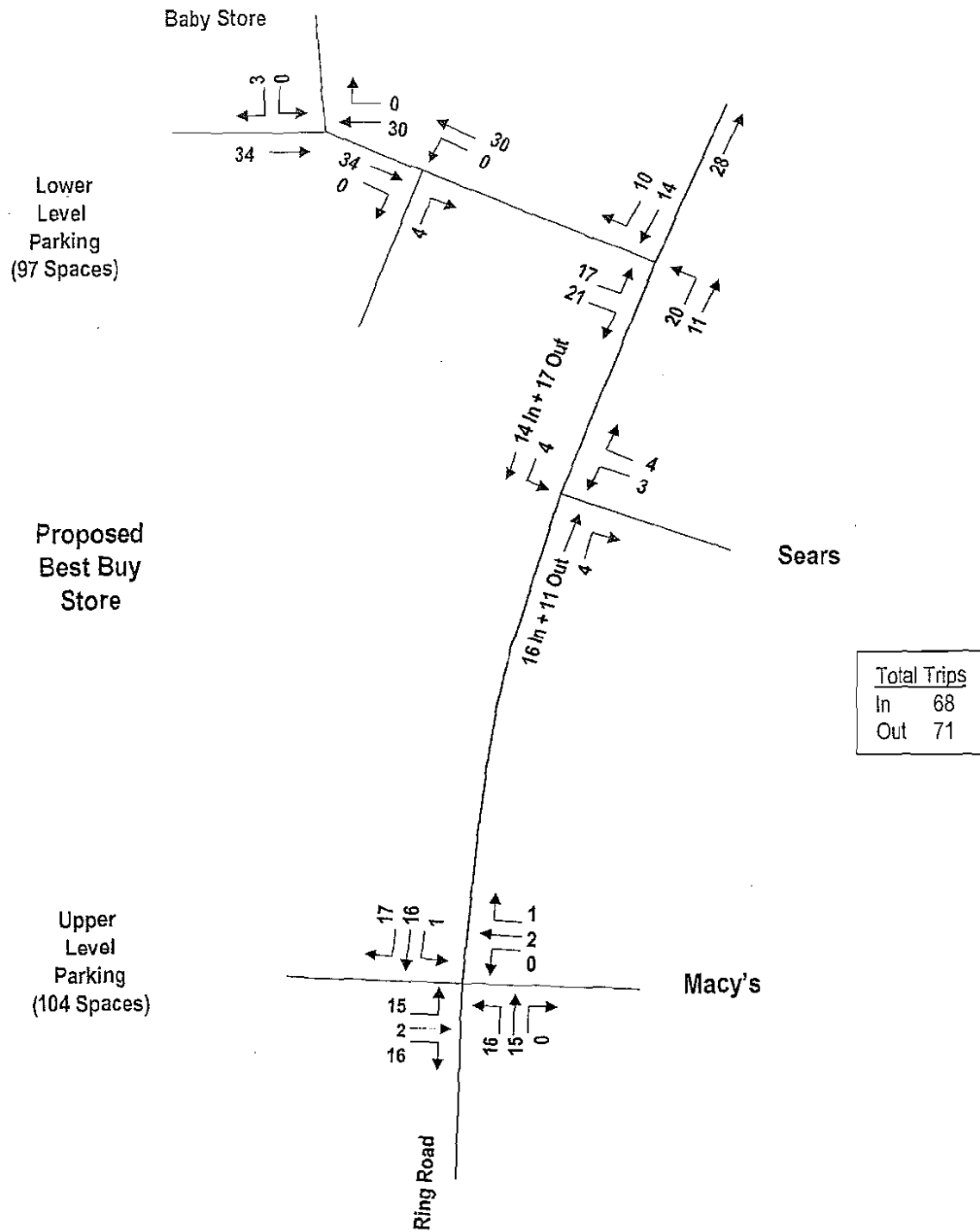


Figure 6a. Site Traffic in Weekday PM Peak Hour



BIRCHLER ARROYO ASSOCIATES, INC.

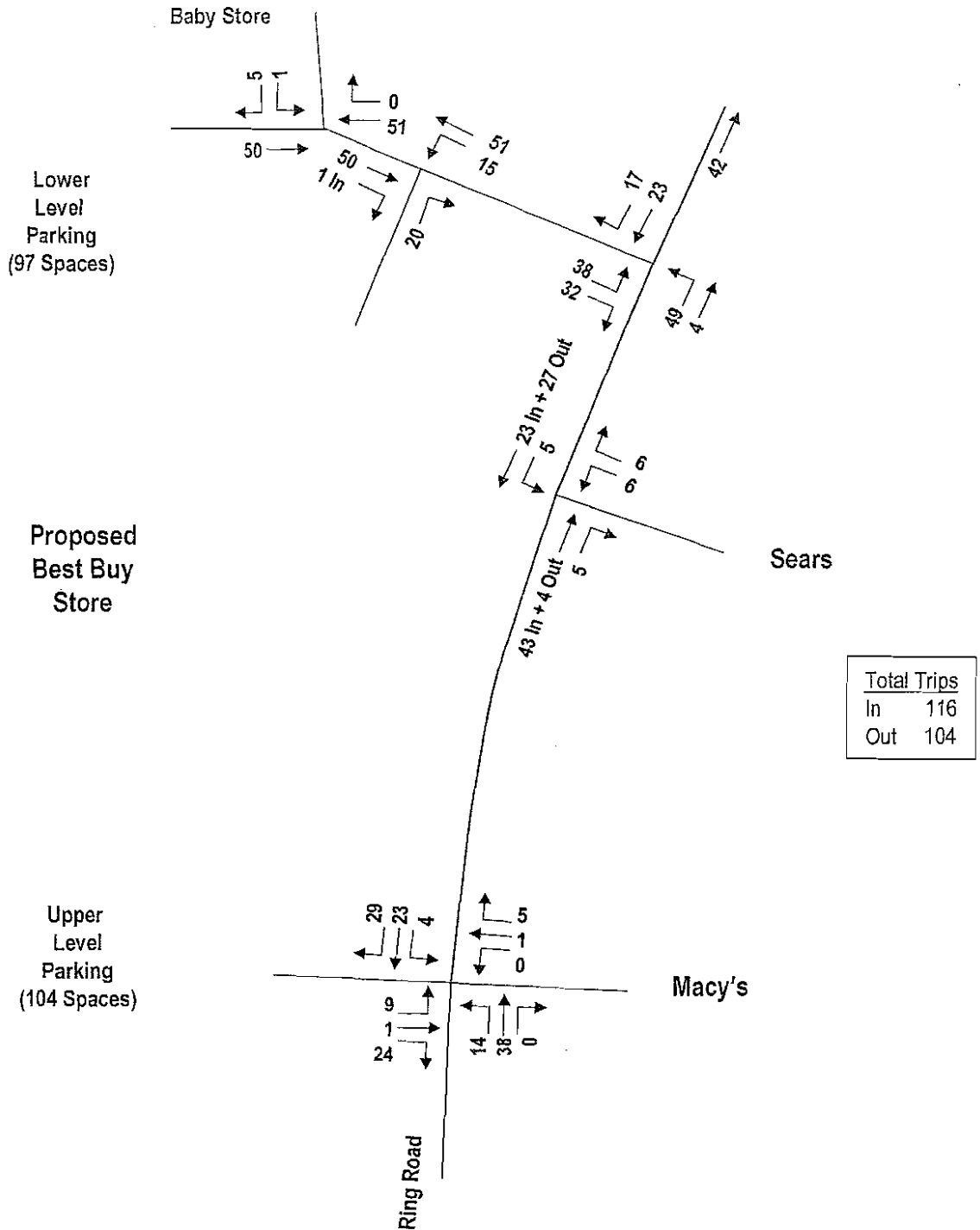


Figure 6b. Site Traffic in Saturday PM Peak Hour



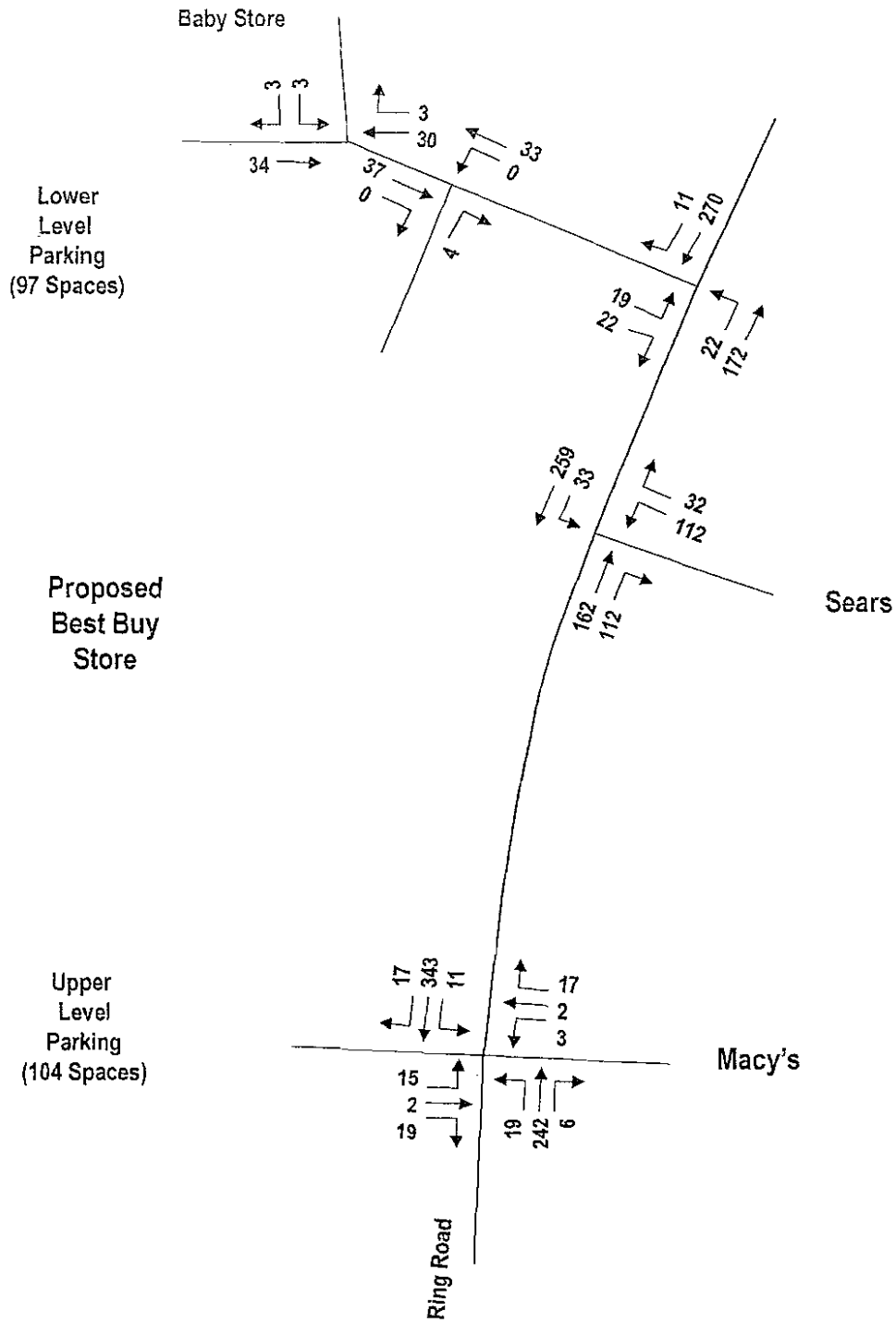
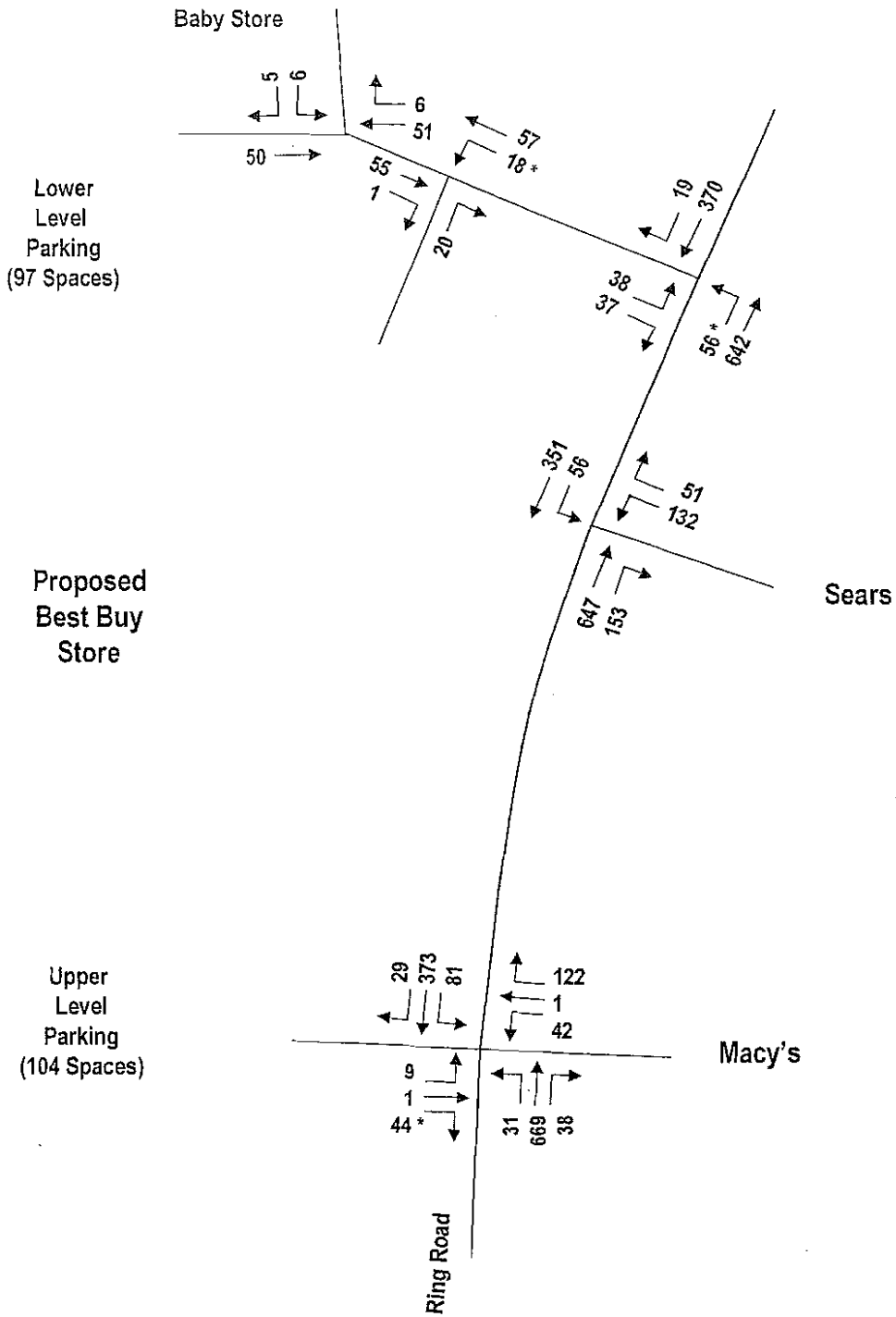


Figure 7a. Total Weekday PM Peak-Hour Volumes with Best Buy in Operation



\* Includes 3 vehicles that will cut through site and exit south drive SB (now turning around at furniture store, per Figure 4a).

Figure 7b. Total Saturday PM Peak-Hour Volumes with Best Buy in Operation







Figure 8. Looking South on Ring Road, with Subject Site on Right



Figure 9. Looking North on Ring Road, with Subject Site on Left

furniture store and north finger drive. Although the center lane south of that point is striped with a non-standard single solid yellow line on each side, drivers generally treat it as a two-way left-turn lane both north and south of the south site drive / north Macy's drive.

Another potential interlock for entering left turns might be between the site's existing north drive and Macy's north drive. However, the site plan shows about 184 ft between these two drives, which should be adequate for accommodating opposite-direction left turns within the Ring Road's center lane with reasonable safety, given the operating environment and relatively low speeds.

If the City wishes to see the Ring Road lane striping brought into compliance with the *Michigan Manual of Uniform Traffic Control Devices (MMUTCD)*, dashed lines should be added along the inside of the single solid-yellow striping now used to delineate the center lane. To avoid encouraging the type of left-turn interlock described above, however, the TWLTL adjacent to the site should not extend north of the grade arm between Sears and Macy's. Per standard local practice, the single yellow stripe following the reverse curve along the entry to the dedicated northbound left-turn lane would be removed, and there would simply be a gap (preferably no longer than 40-50 ft) between the TWLTL striping south of Sears and the single solid white stripe delineating the east side of the dedicated northbound left-turn lane. The above re-striping would require the permission of the Ring Road (and Mall) owner, who may be concerned about the precedent these changes may establish relative to other sections of the Ring Road.

### **Macy's North Driveway**

The existing pavement markings in the Macy's drive across from the current bank drive / future Best Buy drive do not allow for the possibility of crossing directly over to the subject site. The Macy's approach to the Ring Road features a single right-turn-only lane and two left-turn-only lanes. To avoid possible driver confusion as to which lane to use for crossing over to Best Buy, the center of these three approach lanes should be changed to a combination left-through lane or (preferably) a through-only lane (the capacity analyses discussed below assume the latter). Such changes will also require the permission of the Mall owner.

### **Pedestrian Access**

Given its size and location between three roadways carrying significant traffic volumes (Novi Road, the Twelve Oaks Ring Road, and the Mall's south finger road), the subject site is not conducive to the safe accommodation of all possible pedestrian movements. In its pre-application review comments, the City's traffic consultant called for 1) a sidewalk along the Novi Road frontage, 2) a pedestrian pathway connecting this sidewalk to the proposed building, and 3) some discussion in the traffic study about the implications of pedestrians potentially crossing the Ring Road due to overflow parking to the east during the peak shopping season. Birchler Arroyo has no comment regarding the first two of these recommendations.

With respect to the possibility of pedestrians crossing the Ring Road near the site, there is no good location for such, and BA would recommend not encouraging it. Specifically:

- ❑ Through traffic on the Ring Road must stop at the south finger road, but exiting right-turn traffic flows freely and does not expect pedestrians crossing there. In any event, most pedestrians wanting to cross between the Best Buy store and the Macy's parking field would likely jaywalk in lieu of walking out-of-direction to cross at the all-way stop.
- ❑ Attempting to accommodate pedestrians wanting to cross near the Best Buy south drive / Macy's north drive with a crosswalk would be inappropriate. Crosswalks on multi-lane roadways at unsignalized locations have a poor safety record and should generally be avoided. This is especially true at the subject location, where occasional southbound traffic backups from the stop sign could obscure crossing pedestrians.

Birchler Arroyo believes that Best Buy's proposed on-site parking supply – 200 spaces or 46 more than required by the City's Zoning Ordinance – should be more than adequate virtually all of the time. If the City remains concerned about possible seasonal parking overflows, however, consideration might be given to having the Applicant to explore the possibility of obtaining a weekend parking easement in the office building lot just north of the store's northwest corner. With most office employees presumably not at work over the weekend, that lot might be available for Best Buy employee parking (at a minimum) or if need be, by customer overflow parking as well.

## IMPACT ANALYSES

### Method and Criteria

Capacity analyses were conducted for the intersection of Ring Road and two Best Buy drives using *HCS 2000* software, based on methodologies contained in the *Highway Capacity Manual* (Transportation Research Board, 2000). The primary objective of such analyses is to determine the *level of service*, a qualitative measure of the "ease" of traffic flow based on average vehicular delay. Analytical models are used to estimate the average delay for specific vehicular movements – and in the case of all-way stop-controlled and signalized intersections – each approach and the overall intersection as well. The models account for lane configuration, grade (if any), type of traffic control, traffic volume and composition, and other traffic flow parameters.

Level of service (LOS) is expressed using a letter-based grading scale, with A being the highest level and F being the lowest level. Table 2 (below) defines LOS, in terms of average delay per vehicle, for unsignalized intersections (including site access drives intersecting abutting drives). Maintaining or achieving an *overall intersection* LOS of D is the usual objective in urban and suburban areas. However, many driveway approaches to busy roads experience LOS E or F.

According to the *Highway Capacity Manual*, level of service at a one- or two-way stop-controlled intersection is defined only for minor movements (i.e., minor approach left and right turns and major approach left turns). LOS is not defined for the intersection as a whole, since most vehicles pass through the intersection without stopping and therefore experience negligible delay.

**Table 2. Level of Service Criteria for Unsignalized Intersections**

Level of Service	Average Control Delay per Vehicle (seconds)
A	$\leq 10$
B	$> 10$ and $\leq 15$
C	$> 15$ and $\leq 25$
D	$> 25$ and $\leq 35$
E	$> 35$ and $\leq 50$
F	$> 50$

## Results

Detailed *HCS 2000* printouts appear in Appendix D, and their results are summarized in Tables 3 and 4. Key findings indicated in the tables are as follows:

- Best Buy's south driveway (Table 3) will experience level of service B in the weekday PM peak hour and level of service C in the Saturday PM peak hour.
- The existing Macy's drive across from Best Buy's south drive will experience LOS B in the weekday PM peak hour and LOS D in the Saturday PM peak hour. Due to increased traffic in front of and across from this driveway, left turns exiting Macy's at this location will likely see some increase in delay; however, drivers exiting the large Macy's parking field have an easy option of seeking more convenient points of egress (that are not so close to the south finger drive).
- Best Buy's north driveway (Table 4) will also experience level of service B in the weekday PM peak hour and level of service C in the Saturday PM peak hour.

(text continues after tables)

**Table 3. Levels of Service at Ring Road and South Site Drive / Macy's Drive**

Approach	Movement(s)	Weekday PM Peak Hour			Saturday PM Peak Hour		
		Volume (veh)	Avg. Delay (sec/veh)	LOS	Volume (veh)	Avg. Delay (sec/veh)	LOS
<b>Current Traffic</b>							
EB	L + T + R	3	9.4	A	17	9.5	A
WB	L <sup>1</sup>	3	12.8	B	42	49.1	E
	R	16	9.1	A	117	13.1	B
	L <sup>1</sup> + R	19	9.6	A	159	22.6	C
NB	L	3	8.1	A	17	8.1	A
SB	L	10	7.8	A	77	9.6	A
<b>Future Traffic</b>							
EB	L + T + R	36	13.1	B	54	16.0	C
WB	L <sup>1</sup>	3	14.0	B	42	66.9	F
	T	2	16.1	C	1	35.8	E
	R	17	9.2	A	122	13.4	B
	L <sup>1</sup> + T + R	22	10.3	B	165	27.1	D
NB	L	19	8.2	A	31	8.2	A
SB	L	11	7.8	A	81	9.8	A

<sup>1</sup> Delay is overstated somewhat, at least for current traffic conditions, since the *HCS 2000* analysis assumes only a single left-turn lane in the driveway (the software does not accommodate the dual-left-turn lanes now present).

**Table 4. Levels of Service at Ring Road and North Site Drive**

Approach	Movement(s)	Weekday PM Peak Hour			Saturday PM Peak Hour		
		Volume (veh)	Avg. Delay (sec/veh)	LOS	Volume (veh)	Avg. Delay (sec/veh)	LOS
<b>Current Traffic</b>							
EB	L + R	5	10.5	B	19	10.6	B
NB	L	2	7.9	A	11	8.0	A
<b>Future Traffic</b>							
EB	L + R	41	11.1	B	75	16.7	C
NB	L	22	8.0	A	56	8.3	A

## CONCLUSIONS AND RECOMMENDATIONS

- ❑ The proposed Best Buy store is expected to generate 139 one-way driveway trips in the weekday PM peak hour, or 32% fewer than the existing bank and furniture store may have once generated. During the more critical Saturday PM peak hour, however, Best Buy is expected to generate 220 one-way driveway trips, or 26% more than the existing uses may have once generated.
- ❑ During the peak hours on a Saturday afternoon when southbound Ring Road traffic backs up more frequently from the stop sign at the south finger drive, the site's north drive will likely serve more of the Best Buy traffic approaching the site from the south and leaving the site to the north. In both of the peak hours evaluated, however, the two site drives are expected to operate at level of service B or better on a weekday and level of service C or better on a Saturday.
- ❑ Based on analyses discussed in this report, it is recommended that:
  - Consideration be given to re-striping the Ring Road's center lane with standard two-way left-turn lane striping, from the grade arm between Sears and Macy's south to a point about 50 ft north of the southbound stop bar (leaving in place some of the crosshatching intended to keep southbound vehicles from entering the intersection in that lane). Such changes to the Ring Road would require approval of its owner.
  - The Mall owner be approached regarding its willingness to convert the middle lane exiting Macy's to a through-only lane (to ensure that traffic crossing over to Best Buy uses a single appropriate lane).
  - No improvements be made along the Ring Road that might encourage pedestrians to cross between the Mall and Best Buy. The Best Buy site is proposed to have 46 more parking spaces than required by the City's Zoning Ordinance, which will help accommodate peak parking occurrences. However, to accommodate an unlikely – but possible – seasonal parking overflow from Best Buy, consideration could be given to having store employees park in the adjacent office building parking lot on weekends (subject to the approval of the office building owner).

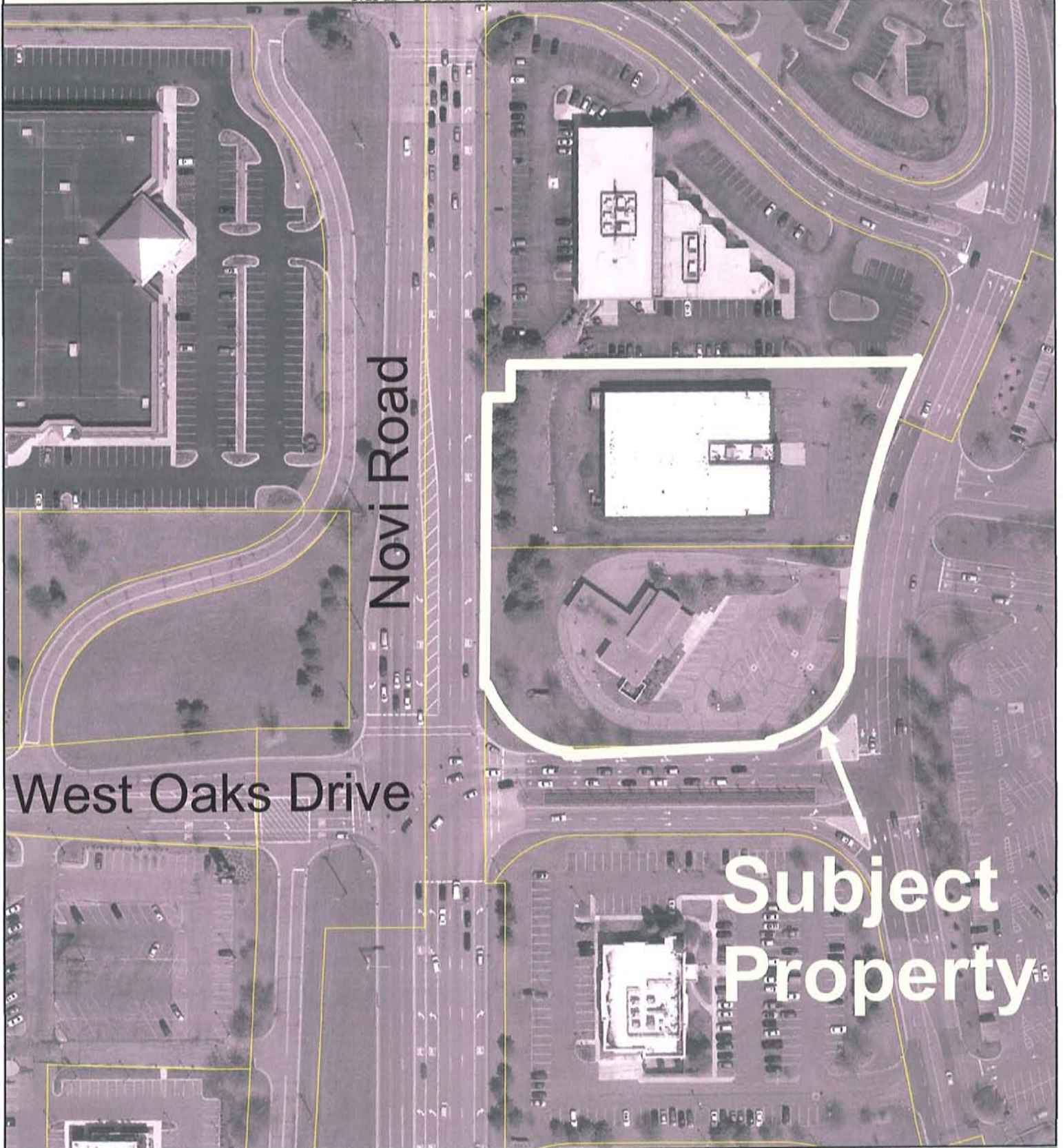
**MAPS**

**Location/Air Photo  
Zoning  
Future Land Use  
Natural Features**

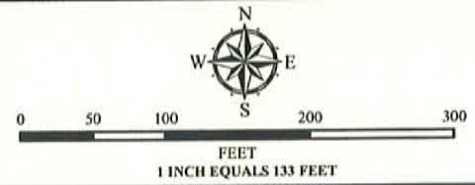
# Best Buy SP 07-78

Location

MAP CREATED: JANUARY 31, 2008



**CITY OF NOVI**  
COMMUNITY DEVELOPMENT DEPARTMENT  
PLAN REVIEW CENTER  
NOVI CITY HALL/CIVIC CENTER  
45175 W. TEN MILE ROAD  
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MAP AUTHOR: KRISTEN KAPELANSKI



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# Best Buy SP 07-78

## Zoning

MAP CREATED: JANUARY 31, 2008

### Legend

 RC: Regional Center District

Novi Road

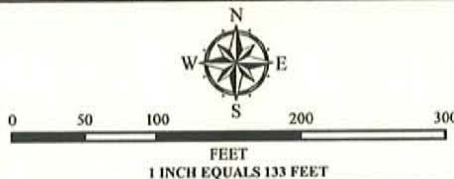
West Oaks Drive



**Subject  
Property**



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# Best Buy SP 07-78

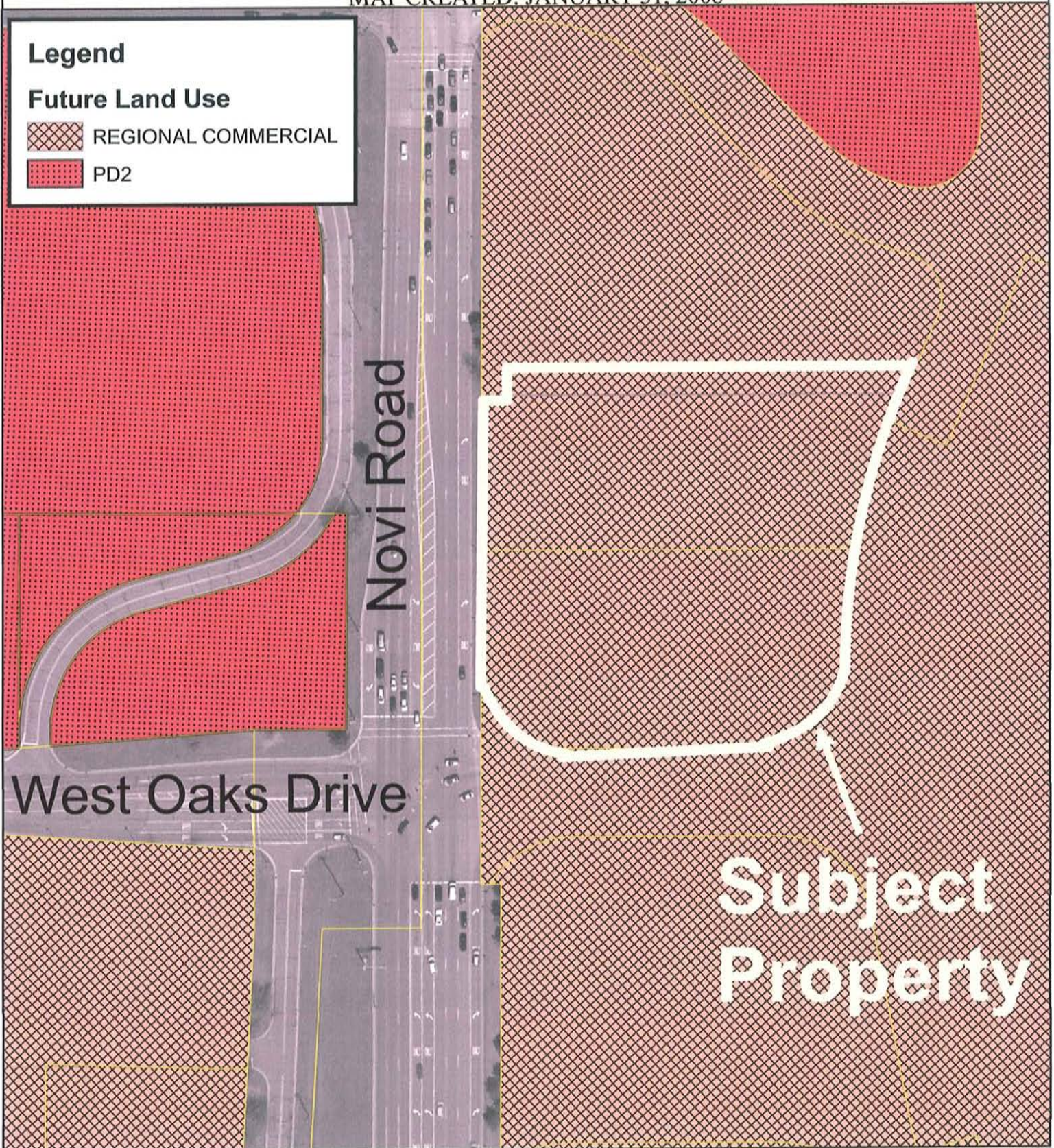
## Future Land Use

MAP CREATED: JANUARY 31, 2008

### Legend

#### Future Land Use

-  REGIONAL COMMERCIAL
-  PD2



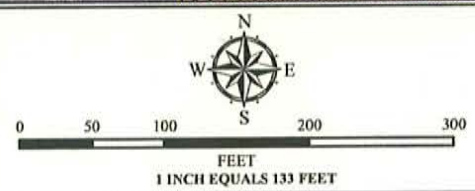
West Oaks Drive

Novi Road

Subject Property



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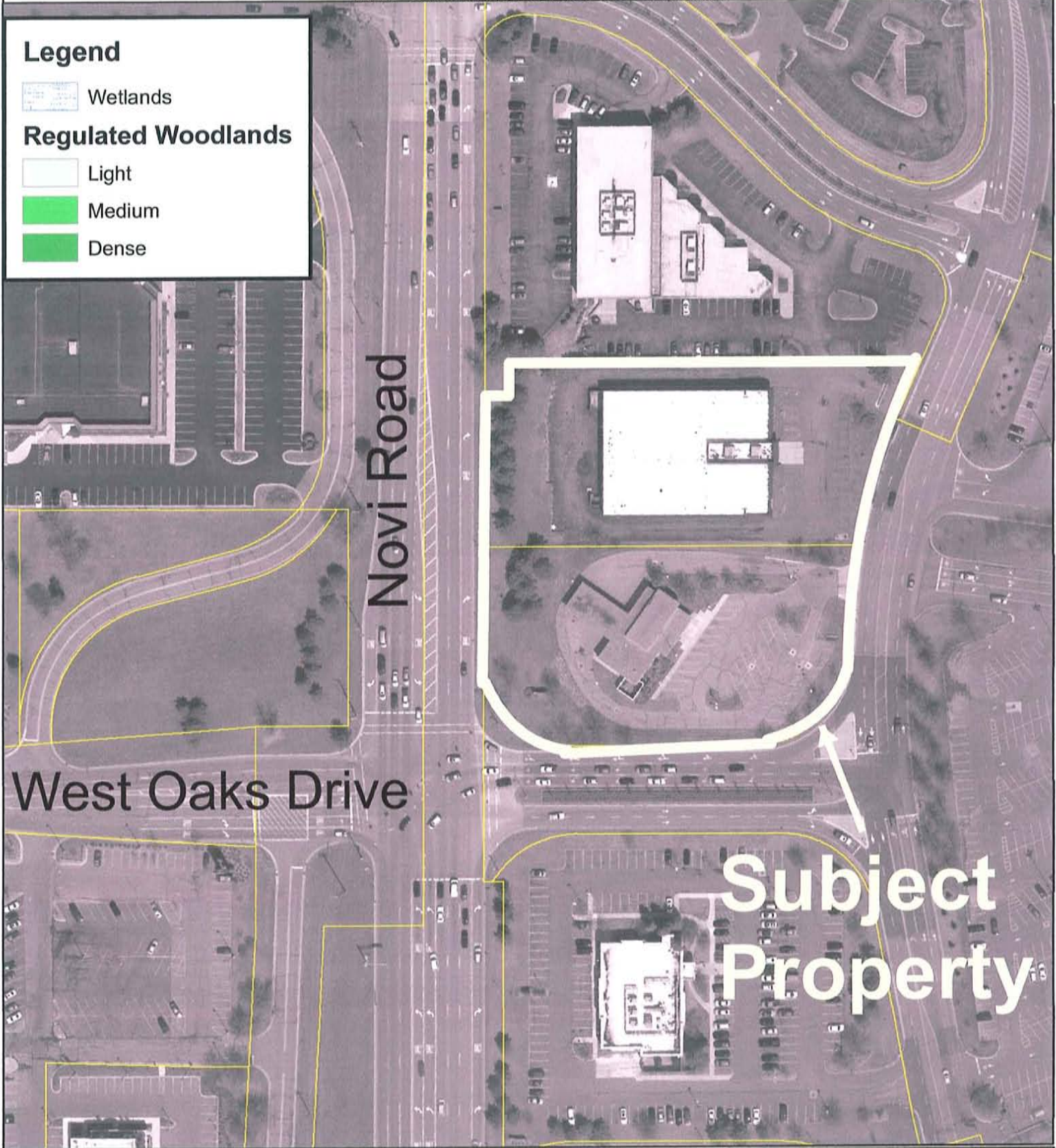


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# Best Buy SP 07-78

## Natural Features

MAP CREATED: JANUARY 31, 2008



### Legend

Wetlands

### Regulated Woodlands

Light

Medium

Dense

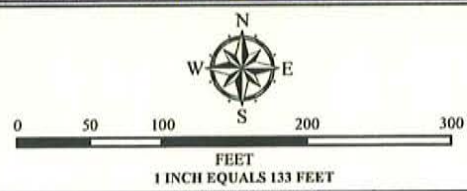
Novi Road

West Oaks Drive

Subject Property



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