

# CITY of NOVI CITY COUNCIL



## Agenda Item 2 April 1, 2019

**SUBJECT:** Approval of the request of Ramco West Oaks II LLC for JSP 18-33 Starbucks Expansion with a Drive-Through for a Special Land Use, a Preliminary Site Plan with a PD-2, Planned Development Option, and a Storm Water Management Plan. The subject property is located on the west side of Novi Road, south of Twelve Mile Road in West Oaks Shopping Center in Section 15. The applicant is proposing an expansion of the existing Starbucks coffee shop with an addition of a drive-through facility.

**SUBMITTING DEPARTMENT:** Community Development Department - Planning *Bach*

**CITY MANAGER APPROVAL:** *[Signature]*

### BACKGROUND INFORMATION:

The applicant is proposing an expansion of existing Starbucks coffee shop near the northeast corner of the West Oaks II Shopping Center. The expansion includes a 1,396 square foot addition to an existing 6,716 square foot building. It includes new kitchen area, dining area and outdoor seating area for 10 customers. It also includes adding a drive-through facility on the north side of the building. The drive-through expansion results in loss of 130 parking spaces. The applicant will be utilizing the Planned Development (PD-2) option to propose a drive-through.

The intent of the PD Planned Development Options, as listed in Section 3.31 of the Zoning Ordinance, is to provide for alternative means of land use development within designated zoning districts, such as RC, Regional Center Zoning District, and to insure that alternative land development permitted under these options will allow site designs that create a desirable environment providing for the harmonious relationship between land use types with respect to: uses of land, the location of uses on the land and the architectural and functional compatibility between uses. The options contained herein shall be considered only within those areas of the City which are specifically designated for their application on the City's Master Plan for Land Use Map.

The applicant has submitted a site plan with building elevations and a drive-up lane queuing study. All reviews are recommending approval of Preliminary Site Plan with additional comments to be addressed with final site plan. The review by the City's Landscape Architect recommends the applicant consider revising the plans to minimize the landscaping deviation that is being requested. The proposed expansion is mostly in conformance with ordinance requirements except for the few deviations noted below:

- a. Deviation to waive the requirement for a Community Impact statement as the proposed development is an extension to an existing business and does not create additional impacts.
- b. Deviation to allow a Queuing study in lieu of Traffic Impact statement.
- c. Deviation to waive the requirement for a noise impact statement as the proposed development is an extension to an existing business and does not create additional impacts.
- d. Shortage in landscape area provided. Refer to landscape review for more detail.
- e. Shortage in frontage of building addition facing Novi road that is landscaped. Refer to landscape review for more detail.

Findings of queuing study are further discussed later in this motion sheet.

### **Planned Development Option Conditions**

Section 3.31.4 outlines specific factors the City Council shall consider in their review:

1. The plan meets all the requirements of Section 6.1 of this Ordinance for Preliminary Site Plans and the requirements set forth in the City's Site Plan and Development Manual. **The plan meets all the requirements except a couple minor deviations as noted in Landscape review letter, which staff has recommended that the applicant try to minimize.**
2. The plan satisfies the intent of the Special Land Use provisions as stated in Section 6.1.2.c. **See the Special Land Use Considerations as provided in the suggested motion.**
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 is requesting a waiver of the Community Impact Statement and to allow a Queuing study in lieu of Traffic Study. Staff supports both the requests.**
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 and Traffic 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. **The plan is in general conformance with the code 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:
  - i. The topography of the adjoining lands as well as that of the site itself including any significant natural or manmade features. **No changes to existing site grading proposed**
  - ii. 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.**

- iii. The rooftops of buildings that may lie below street levels or from windows of higher adjacent buildings.
- iv. Landscape plantings, off-street parking areas and service drives on adjacent lands. **Landscape generally conforms to the requirements. See the Landscape Review Letter for additional information.**
- v. Compliance with street, road and public utility layouts approved for the area. **See the Engineering and Traffic Review Letters for additional information.**
- vi. 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 3.31.4.B indicates the City Council shall review the proposed plan considering the Planning Commission's recommendation and the requirements of Section 3.31.4.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.

#### **Revised Queuing study prepared after the Planning Commission meeting**

At the Planning Commission meeting, there was a good discussion about the drive-through traffic impacts on the shopping center's internal circulation as well as the traffic along Novi Road. The points of discussion primarily included the following, among other minor comments. A copy of the meeting minutes is attached. Staff comments are provided in **bold**.

1. The applicant was asked to provide additional information to support the data that was input into the Queuing Study. This is required in order to confirm whether additional Queuing spaces are required. **The applicant has provided a revised study after the Planning Commission meeting. Our consultant and City's Traffic Engineer has concluded that the 12 queuing spaces including one space at the service window are sufficient for this location based on revised information submitted.**
2. The Planning Commission requested a circulation diagram indicating the typical path for a car that enters the site, accesses the drive-through and exits. **The applicant provided a circulation plan indicating how vehicles would enter and exit**

**the drive-through. The applicant shows an exit sign to be located in the island area that would be visible to vehicles as they complete the drive-through process. The City's Traffic Engineering consultant has noted that the applicant should consider additional signage that would direct vehicles that wish to travel northbound on Novi Road to turn left towards West Oaks Drive so they may access Novi Road via a signalized intersection. The applicant has agreed to provide the requested information on the Final Site Plan.**

3. The City's Traffic Engineering consultant also recommended some wayfinding signage to direct people to the proposed drive-through from Novi Road. The applicant has provided a plan that indicates wayfinding signage that would direct traffic coming from Novi Road towards the drive-through entrance. The locations that are indicated are currently in painted island areas. The applicant would need to relocate these signs to a protected island, or add curbed islands in these locations. Adding the islands would be preferred. **The applicant has agreed to provide the information at the time of Final Site Plan review.**
4. The Planning Commission noted that the plans indicate a left-turn restriction or "pork chop" in the northernmost driveway to West Oaks at Novi Road, as had been shown on a prior site plan. Staff confirmed that the restriction was removed when road work in Novi Road was done by Oakland County a couple of years ago. The City's Traffic Engineering Consultant recommended that a "No Left Turn/Right Turn Only" sign be installed at that entrance, due to concerns with traffic safety in that vicinity. **The applicant has agreed to install the requested signage.**

The City's Traffic Consultant is in general agreement with the findings of the Queueing Study. As noted in the review letter (attached), the current neighboring land uses within the West Oaks Shopping Center likely experience low activity during the AM peak period when the proposed drive-through queues may spill into the parking lot aisles. Caution could be given to the potential for other adjacent future land uses to have similar peak periods, and the impacts that may occur as a result. Because of the layout of the parking lot and the various maneuvering lanes throughout, access to/from adjacent land uses to/from the driveways is not expected to be an issue as a result of drive-through spillback.

#### **Planning Commission Action**

On January 9, 2019, the Planning Commission held a public hearing and made a favorable recommendation to City Council for approval of the Special Land Use, Preliminary Site Plan with PD-2, and Storm Water Management Plan based on the motion listed in the action summary attached. Draft meeting minutes are attached.

Section 3.31.4 of the ordinance outlines the review procedures for Preliminary Site Plans using the PD-2 Option. This requires 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. Following the City Council's approval, the Final Site Plan approval may be granted administratively.

#### **RECOMMENDED ACTION: TWO part motion:**

##### **Part 1**

Approval at the request of Ramco West Oaks II LLC for JSP 18-33 Starbucks Expansion with a Drive-Through, for Special Land Use based on and subject to the following:



1. The proposed use will not cause any detrimental impact on existing thoroughfares *(based on Traffic review)*;
2. The proposed use will not cause any detrimental impact on the capabilities of public services and facilities *(based on Engineering review)*;
3. The proposed use is compatible with the natural features and characteristics of the land *(because there are no regulated natural features on site)*;
4. The proposed use is compatible with adjacent uses of land *(because the proposed use is an expansion to an existing use)*;
5. The proposed use is consistent with the goals, objectives, and recommendations of the City's Master Plan for Land Use *(as it fulfills one of the Master Plan objectives to retain existing businesses within City of Novi)*;
6. The proposed use will promote the use of land in a socially and economically desirable manner *(as it fulfills one of the Master Plan objectives to retain existing businesses within City of Novi)*;
7. 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.
8. The applicant shall work with the landscape architect to identify alternate options to completely screen the loading areas from Novi Road at the time of Final Site Plan approval;
9. The applicant shall revise the Final Site Plan as shown in the revised Preliminary Site Plan provided via e-mail dated December 17, 2018;
10. The applicant shall comply with the recommendations of the Queueing study, wayfinding signage, and traffic control signage as noted in this motion sheet; and
11. The findings of compliance with Ordinance standards in the staff and consultant review letters, and the conditions and items listed in those letters being addressed on the Final Site Plan.

This motion is made because the plan is otherwise in compliance with Article 3, Article 4, Article 5, and Article 6 of the Zoning Ordinance and all other applicable provisions of the Ordinance

**Part 2:**

Approval at the request of Ramco West Oaks II LLC for JSP 18-33 Starbucks Expansion with a Drive-Through, for Preliminary Site Plan with a PD-2 Option, and a Stormwater Management Plan approval, based on and subject to the following:

1. Findings that the standards of Section 3.31.4 of the Zoning Ordinance are adequately addressed, as identified in the Planning Review Letter;
2. City Council approval of an ordinance deviation to waive the requirement for a Community Impact statement as listed in the Section 3.31.4.A.iii. of our Zoning Ordinance, as the proposed development is an extension to an existing business and does not create additional impacts;
3. City Council approval of an ordinance deviation to allow a Queueing study in lieu of Traffic Study as listed in the Section 3.31.4.A.iii. of our Zoning Ordinance, as the proposed development is an extension to an existing business;
4. City Council approval of an ordinance deviation to waive the requirement for a noise impact statement as listed in Section 5.14.10.B. of our Zoning Ordinance, as the

- proposed development is an extension to an existing business and does not create additional impacts;
5. Landscape waiver for not meeting the minimum requirements for building foundation landscaping as listed in Section 5.5.3.D. for less than 60 percent of building frontage facing Novi Road not being landscaped, provided the applicant provides most of the required landscaping subject to Landscape Architects approval at the time of Final Site Plan approval, it is hereby granted;
  6. Landscape waiver for not meeting the minimum requirements for building foundation landscaping as listed in Section 5.5.3.D. for placing some of the required foundation landscape away from the building, subject to Landscape Architects approval at the time of Final Site Plan approval, is hereby granted;
  7. The applicant shall work with the landscape architect to identify alternate options to completely screen the loading areas from Novi Road at the time of Final Site Plan approval;
  8. The applicant shall revise the Final Site Plan as shown in the revised Preliminary Site Plan provided via e-mail dated December 17, 2018;
  9. The applicant shall comply with the recommendations of the Queueing study, wayfinding signage, and traffic control signage as noted in this motion sheet; and
  10. The findings of compliance with Ordinance standards in the staff and consultant review letters, and the conditions and items listed in those letters being addressed on the Final Site Plan.

*The City Council's approval of the deviations listed above includes the following findings:*

- A. *That each zoning ordinance provision from which a deviation is sought would, if the deviation were not granted, prohibit an enhancement of the development that would be in the public interest;*
- B. *That approving the proposed deviation would be compatible with the existing and planned uses in the surrounding area;*
- C. *That the proposed deviation would not be detrimental to the natural features and resources of the affected property and surrounding area, or would enhance or preserve such natural features and resources;*
- D. *That the proposed deviation would not be injurious to the safety or convenience of vehicular or pedestrian traffic; and*
- E. *That the proposed deviation would not cause an adverse fiscal or financial impact on the City's ability to provide services and facilities to the property or to the public as a whole.*

This motion is made because the plan is otherwise in compliance with Article 3, Article 4, and Article 5 of the Zoning Ordinance, and with Chapter 11 of the Code of Ordinances, and all other applicable provisions of the Ordinance.

**MAPS**

Location

Zoning

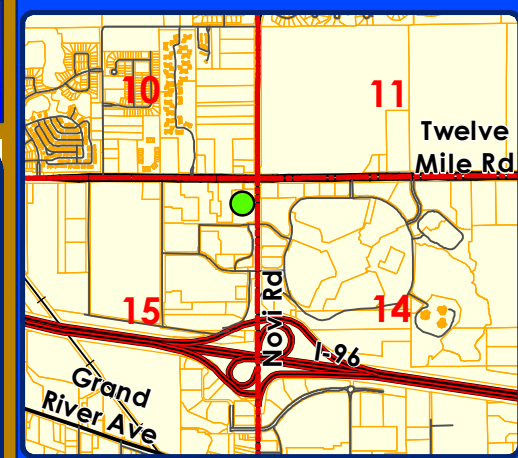
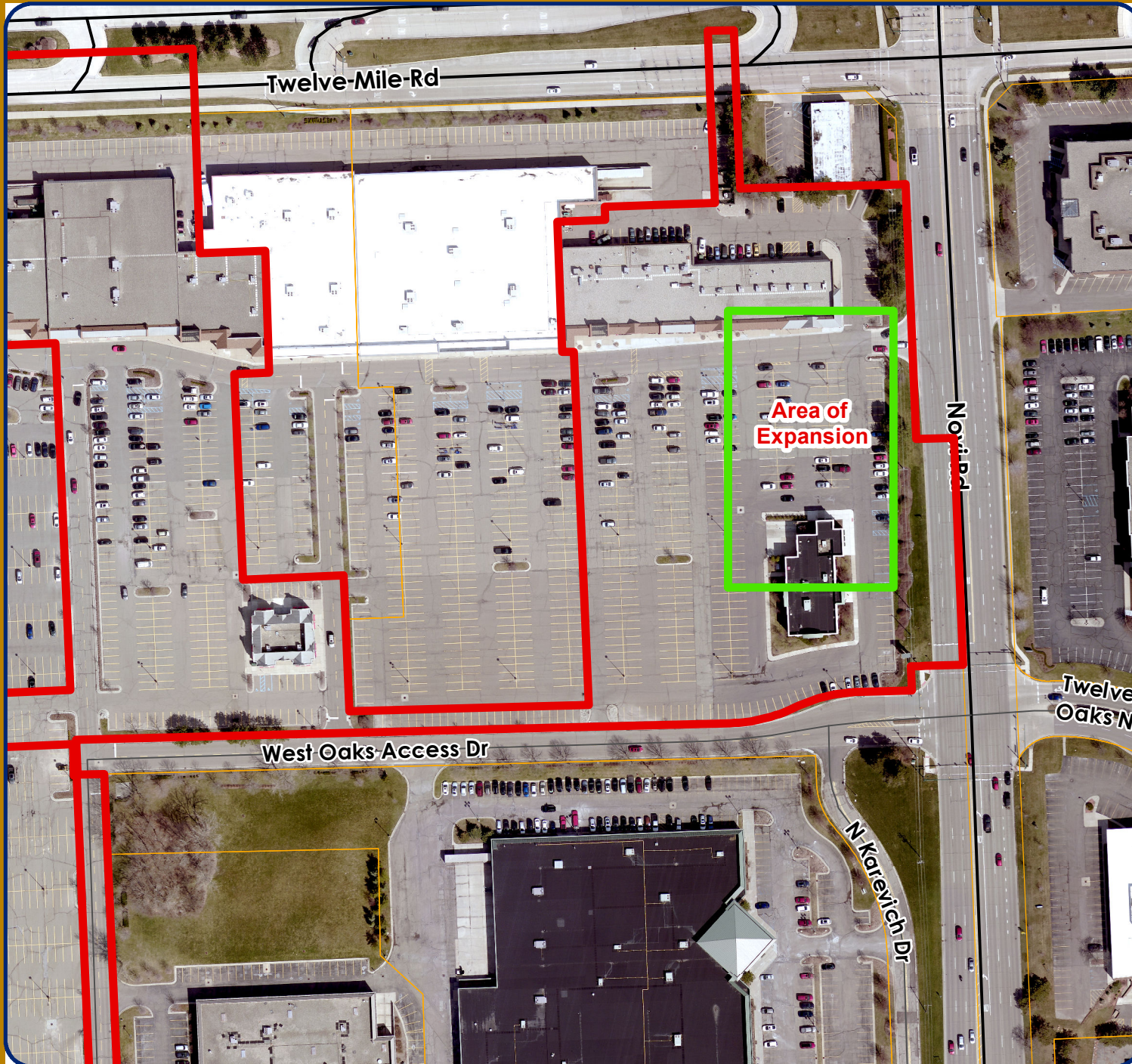
Future Landuse

Natural Features



# JSP 18-33: STARBUCKS EXPANSION WITH A DRIVE-THRU

Location



### LEGEND

 Sections



## City of Novi

Dept. of Community Development  
City Hall / Civic Center  
45175 W Ten Mile Rd  
Novi, MI 48375  
cityofnovi.org

Map Author: Sri Komaragiri  
Date: 12/20/18  
Project: JSP 18-33: STARBUCKS EXPANSION WITH A DRIVE-THRU  
Version #: 1



1 inch = 167 feet



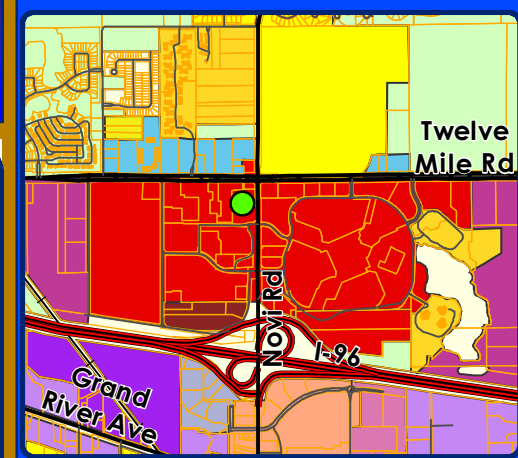
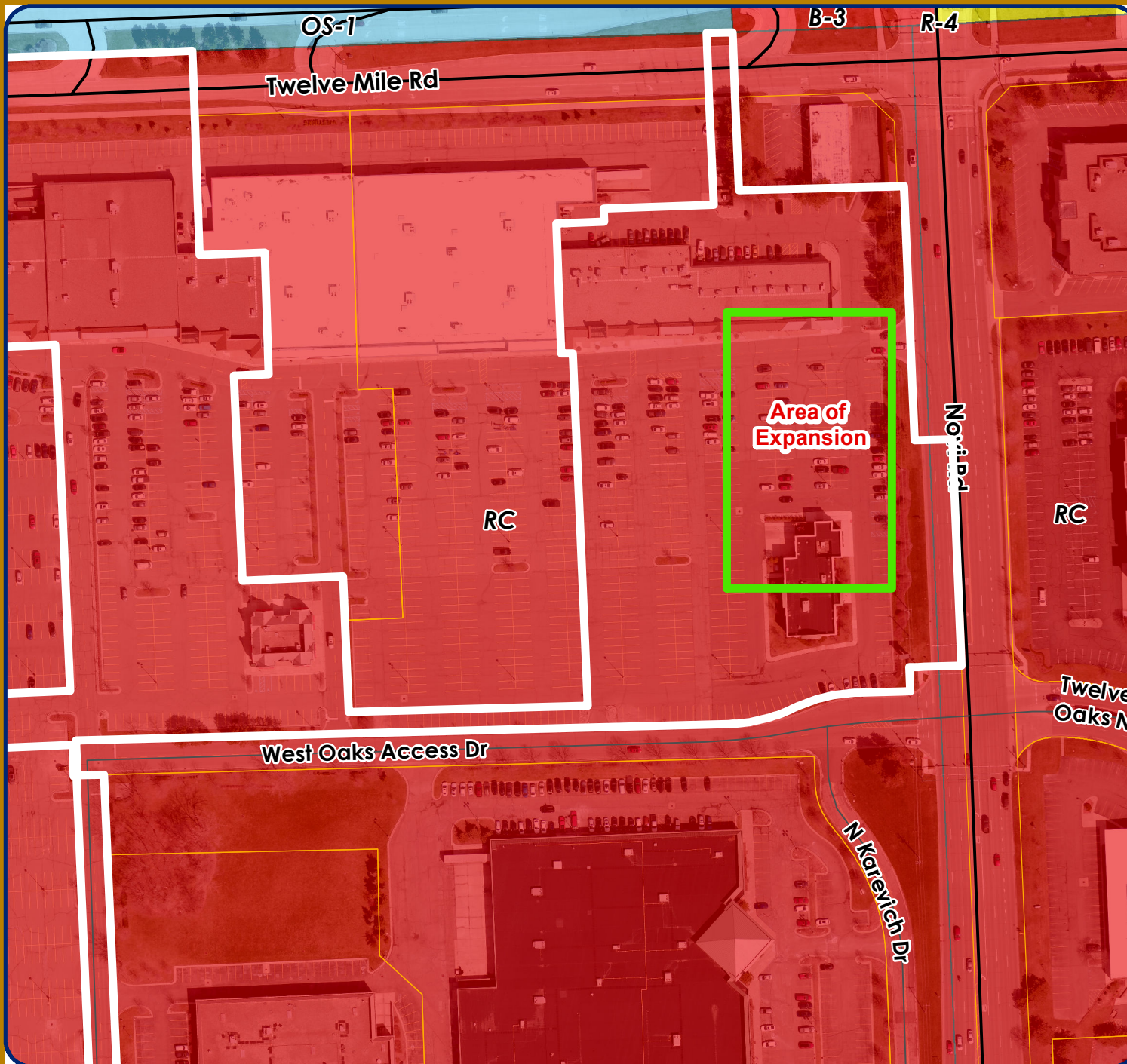
### MAP INTERPRETATION NOTICE

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# JSP 18-33: STARBUCKS EXPANSION WITH A DRIVE-THRU

## Zoning



**LEGEND**

- R-A: Residential Acreage
- R-1: One-Family Residential District
- R-4: One-Family Residential District
- RM-1: Low-Density Multiple Family
- B-3: General Business District
- C: Conference District
- EXPO: EXPO District
- I-1: Light Industrial District
- I-2: General Industrial District
- OS-1: Office Service District
- OSC: Office Service Commercial
- OST: Office Service Technology
- RC: Regional Center District
- TC: Town Center District

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Feet  
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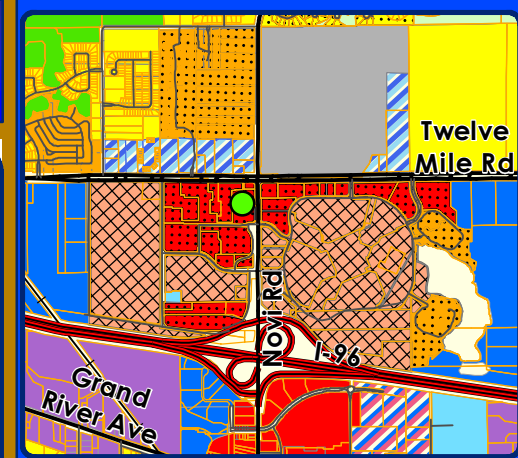
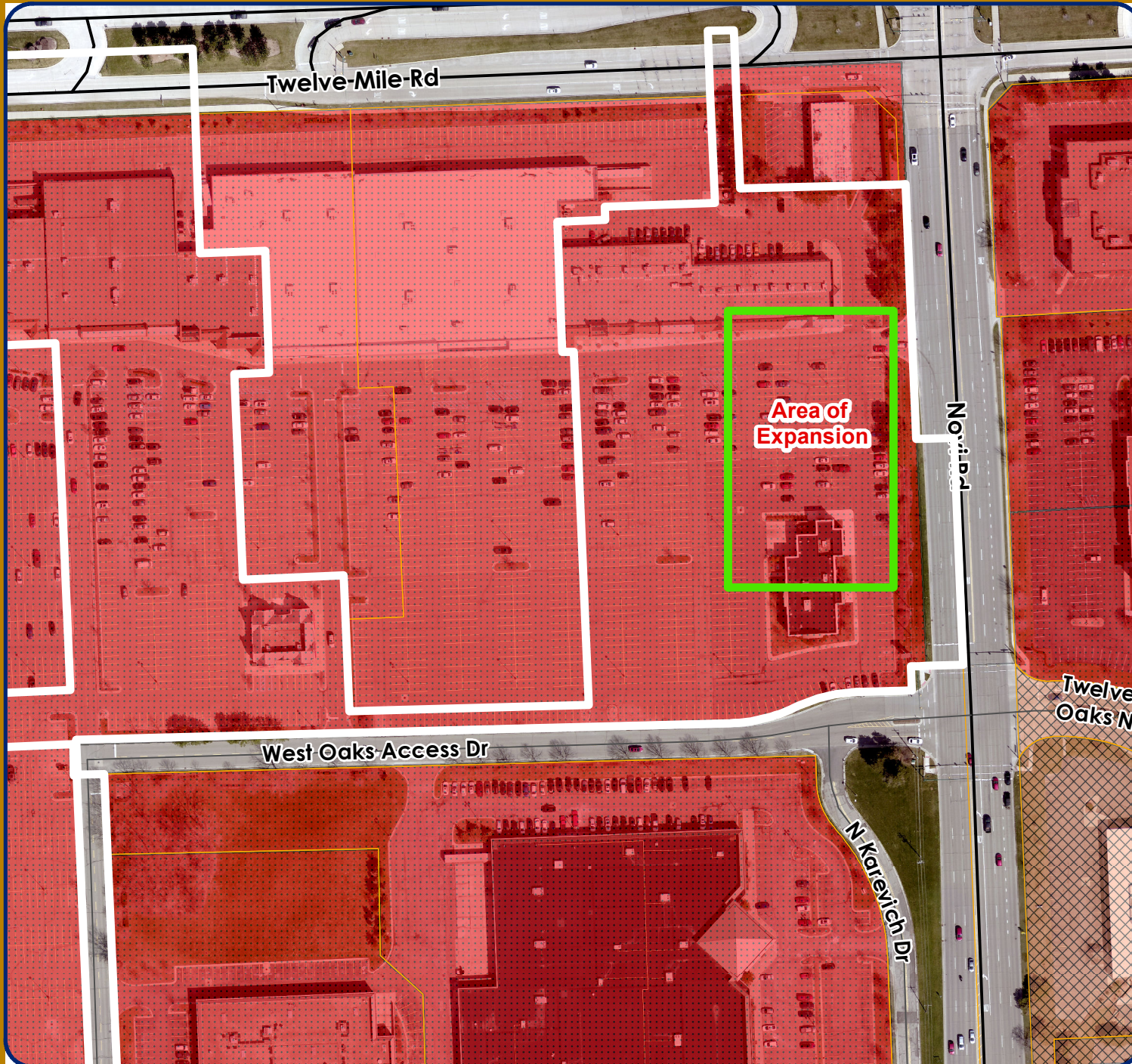
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# JSP 18-33: STARBUCKS EXPANSION WITH A DRIVE-THRU

Future Landuse



**LEGEND**

FUTURE LAND USE

- Single Family
- PUD
- Multiple Family
- PD1
- Community Office
- Office RD Tech
- Office Commercial
- Industrial RD Tech
- Regional Commercial
- TC Commercial
- PD2
- Educational Facility
- Public
- Public Park
- Private Park
- Cemetery

**City of Novi**  
 Dept. of Community Development  
 City Hall / Civic Center  
 45175 W Ten Mile Rd  
 Novi, MI 48375  
[cityofnovi.org](http://cityofnovi.org)

Map Author: Sri Komaragiri  
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Feet  
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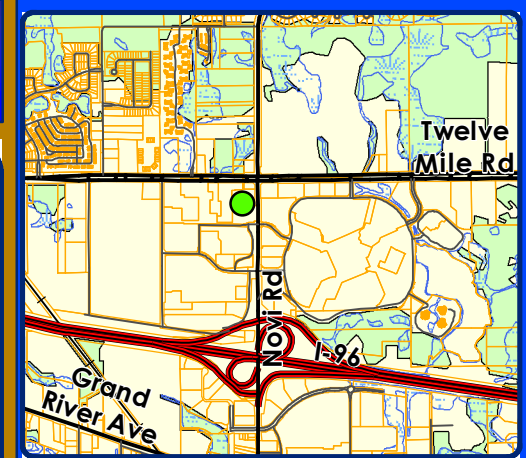
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# JSP 18-33: STARBUCKS EXPANSION WITH A DRIVE-THRU

## Natural Features



### LEGEND

- WETLANDS
- WOODLANDS



## City of Novi

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### MAP INTERPRETATION NOTICE

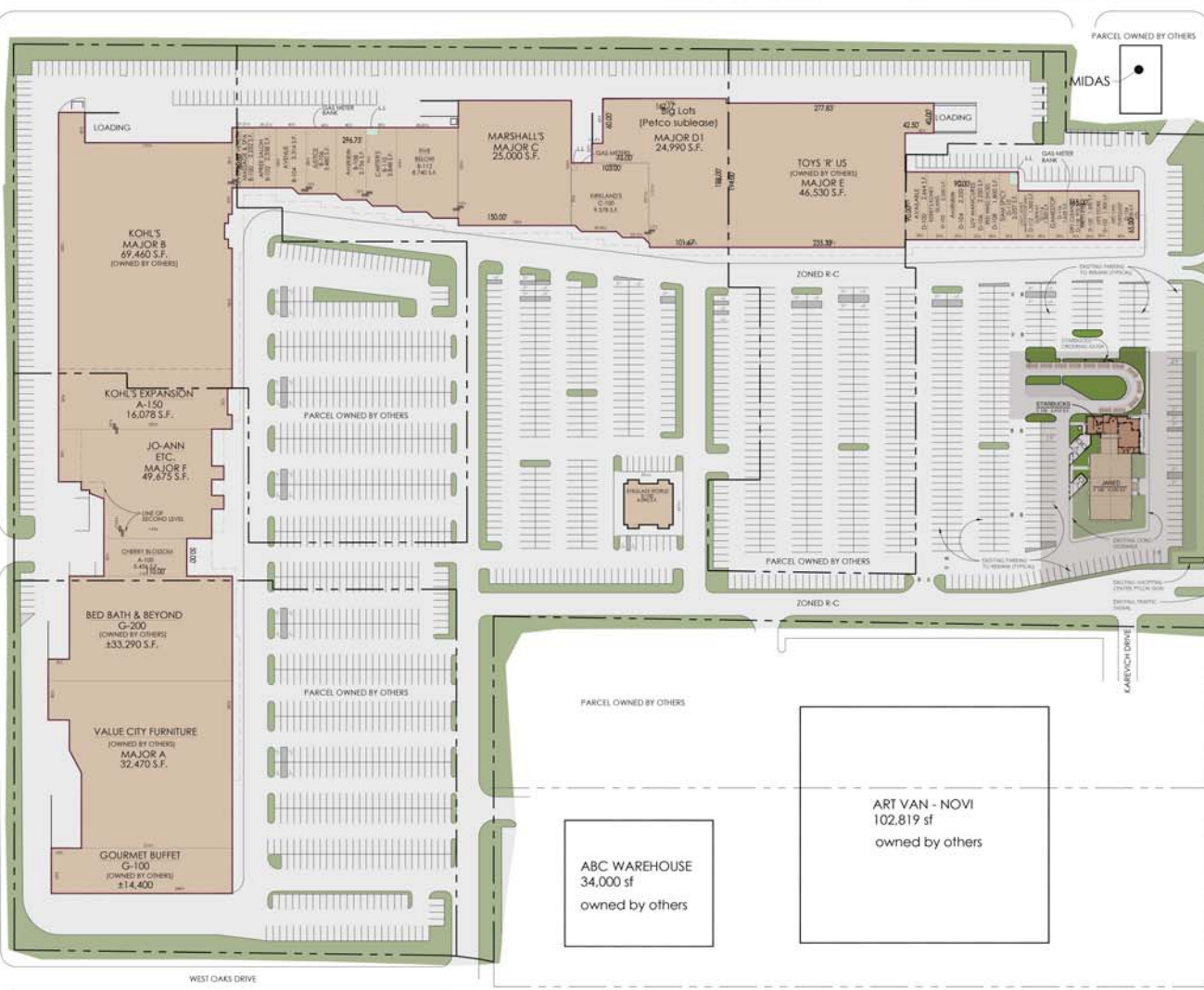
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**SITE PLAN**

(Full size drawings available for viewing at the Community Development Department)



TWELVE MILE ROAD (S/F R.O.W.)



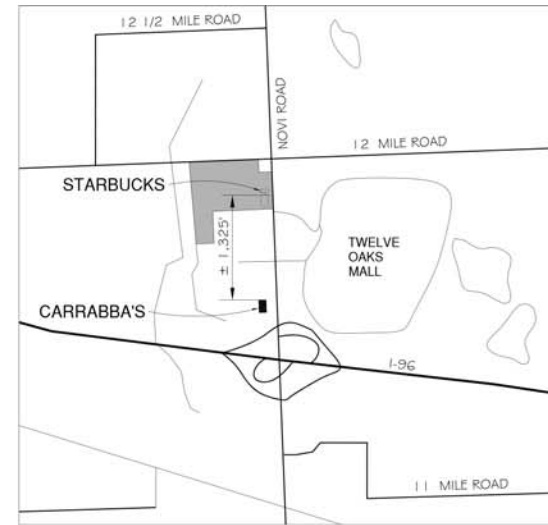
**SITE PLAN**

SCALE: 1" = 50'-0"

SECTION 15

FARCEL NUMBER: 22-15-200-059

RC ZONING WITH PD-2 OPTION



**LOCATION MAP**

SCALE: 1" = 100'



**SHOPPING CENTER DATA**

**BUILDING AREA:**

MAJOR A (NOT OWNED)	32,470 S.F.
MAJOR B (NOT OWNED)	33,462 S.F.
MAJOR C	25,000 S.F.
MAJOR D1	24,990 S.F.
MAJOR E (NOT OWNED)	42,530 S.F.
MAJOR F	49,675 S.F.
RETAIL A	21,534 S.F.
RETAIL B	27,710 S.F.
RETAIL C	9,576 S.F.
RETAIL D	23,651 S.F.
RETAIL E	4,090 S.F.
RETAIL F	6,112 S.F.
RETAIL G (NOT OWNED)	47,690 S.F.
<b>TOTAL</b>	<b>390,490 S.F.</b>
<b>TOTAL (OWNED)</b>	<b>194,340 S.F.</b>

**SHOPPING CENTER DATA**

**PARKING:**

TOTAL PARKING PROVIDED	1,970 SPACES
TOTAL PARKING (OWNED)	877 SPACES
TOTAL PARKING RATIO	5.04 / 1,000 S.F.
PARKING RATIO (OWNED)	4.51 / 1,000 S.F.
TOTAL PARKING REQUIRED PER ORDINANCE = 390,490 S.F. / 250 = 1,562 SPACES	
NOTE THAT ± 130 PARKING SPACES HAVE BEEN LOST DUE TO BUILDING "F" EXPANSION AND DRIVE-THRU.	

**LAND AREA:**

RIGHT OWNED	± 17.03 ACRES
OWNED BY OTHERS	± 16.83 ACRES
<b>TOTAL LAND AREA</b>	<b>± 33.86 ACRES</b>

TOTAL LOT COVERAGE FOR ENTIRE SHOPPING CENTER = 390,490 S.F. OF BUILDING AREA DIVIDED BY 1,474,842 S.F. OF LAND AREA = ± 26.5 %

NOTE: BUILDING "F" FARCEL = 1.5 ACRES  
6,112 S.F.  
63 PARKING SPACES

**WEST OAKS II  
STARBUCKS  
EXPANSION AND DRIVE-THRU**

NOVI, MICHIGAN

OWNER:



**RAMCO GERSHENSON**  
PROPERTIES TRUST

RAMCO-GERSHENSON, INC.  
2150 NORTHWESTERN HIGHWAY  
SUITE 300  
FARMINGTON HILLS, MI 48334



**WAH YEE ASSOCIATES**  
ARCHITECTS & PLANNERS

42400 GRAND RIVER AVENUE, SUITE 200  
NOVI, MICHIGAN 48375  
PHONE: 248-489-9160  
PROJECT NO. 4969

All ideas, designs, arrangements, analyses and plans or recommendations, etc. prepared are made for the property of their "as shown" and are intended to be used in connection with the project. No other use, reproduction or distribution of any kind is permitted without the written permission of Wah Yee Associates.

**PRELIMINARY**  
NOT FOR CONSTRUCTION

P1.1

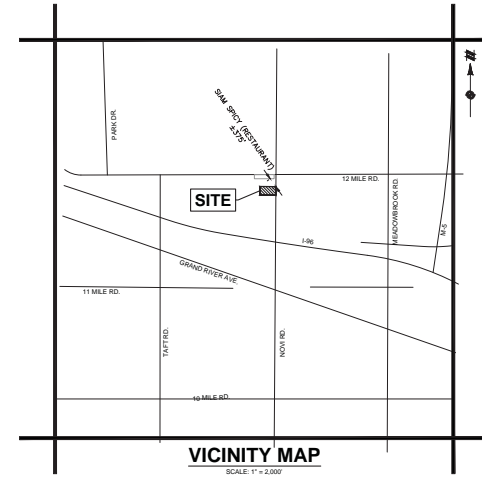
CAD DWG 4969\_P1.1.DWG

SUBMITTED FOR: OWNER REVIEW 3-24-18  
PRE-APP: SUBMITAL 5-25-18  
OWNER REVIEW 10-22-18  
PRELIM. & FINAL: SUBMITAL 10-30-18  
PUBLIC HEARING: SUBMITAL 12-17-18

# STARBUCKS EXPANSION & DRIVE-THRU

AT WEST OAKS II  
27795 NOVI ROAD  
CITY OF NOVI, OAKLAND COUNTY, MICHIGAN

## FINAL SITE PLANS



**811**  
Know what's below.  
Call before you dig.  
The location of existing underground utilities are shown on an information map and used for some of its representation. The contractor shall determine the exact location of utilities to be utilized before commencing work. It is the contractor's responsibility for any and all damages which may be incurred by exacting, locating and measuring any and all underground utilities.  
NOTICE:  
CONSTRUCTION OF THIS SHEET IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE EXACT LOCATION OF UTILITIES AND SHALL BE RESPONSIBLE FOR NOTIFYING THE UTILITY OWNERS OF ANY OTHER PERSONS.

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**ATWELL**  
Civil & Mechanical Engineers  
Two Southfield, MI 48074  
248-441-2000

### DEVELOPMENT TEAM

**APPLICANT/DEVELOPER** RAMCO GERSHENSON  
31500 NORTHWESTERN HWY, SUITE 300  
FARMINGTON HILLS, MI 48334  
CONTACT: ROSS GALLETINE  
PHONE: 248-592-6326

**ARCHITECT** WAH YEE ASSOCIATES  
42400 GRAND RIVER AVENUE, SUITE 200  
NOVI, MICHIGAN  
CONTACT: MATT NILES  
PHONE: 248-489-9160

**CIVIL ENGINEER** ATWELL LLC  
2 TOWNE SQUARE, SUITE 700  
SOUTHFIELD, MI 48076  
PHONE: (248) 447-2000  
CONTACT: MICHAEL McPHERSON

### GOVERNING AGENCIES / UTILITY CONTACTS

**MUNICIPALITY** CITY OF NOVI  
45175 10 MILE ROAD  
NOVI, MICHIGAN 48375  
PHONE: 248-347-0456

**GAS** CONSUMERS ENERGY  
ONE ENERGY PLAZA  
JACKSON, MI 49201-2276  
PHONE: 855-477-9027

**DATA/TELEPHONE** COMCAST  
27800 FRANKLIN ROAD  
SOUTHFIELD, MI 48034

**ELECTRIC** DTE ENERGY  
ONE ENERGY PLAZA, RM 1230 WCB  
DETROIT, MI 48226  
PHONE: 248-427-2947

### PROJECT NARRATIVE

THIS PROJECT PROPOSES TO CONSTRUCT A 1,386 SF ADDITION TO AN EXISTING STARBUCKS. THE PROPOSED EXPANSION INCLUDES THE ADDITION OF A DRIVE-THRU, A STACKING AND ORDERING AREA, DUMPSTER ENCLOSURES AND ASSOCIATED SITE IMPROVEMENTS.

### FLOODPLAIN NOTE

PER THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) MAP NO. 26125C0626F DATED 9/29/2006, THE SITE LIES WITHIN ZONE X WHICH ARE AREAS DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN.

### WETLANDS

NO EXISTING WETLANDS LOCATED ON-SITE.

### NOTES

- ALL WORK SHALL BE DONE IN ACCORDANCE WITH CITY OF NOVI AND OAKLAND COUNTY STANDARDS.
- THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL FRANCHISE UTILITY (GAS, ELECTRIC, DATA) CONSTRUCTION, REMOVAL, AND RELOCATIONS. ANY FRANCHISE UTILITY INFORMATION ON THESE PLANS IS SHOWN FOR REFERENCE ONLY.

### SHEET INDEX

- C00 COVER
- C01 NOTES
- C02 SECC PLAN
- C03 SECC NOTES
- C04 LAYOUT PLAN
- C05 GRADING PLAN
- C06 GRADING PLAN
- C07 STORM SEWER PLAN
- C08 UTILITY PLAN
- C09 LANDSCAPE PLAN
- C10 LANDSCAPE NOTES & DETAILS
- C11 DETAILS

### ATTACHED PLANS

- TOPOGRAPHIC SURVEY
- CITY OF NOVI STANDARD DETAILS
  - STORM SEWER (2 PAGES)
  - SANITARY SEWER (3 PAGES)
  - WATER MAIN (5 PAGES)
  - PAVING (2 PAGES)
- OCWRC SOIL EROSION STANDARD DETAIL SHEET
- P1.1 OVERALL SITE PLAN
- P2.1 BUILDING FLOOR PLAN
- P4.1 BUILDING ELEVATIONS
- PHOTOMETRIC PLAN

SECTION 15  
TOWN 1 NORTH, RANGE 8 EAST  
CITY OF NOVI  
OAKLAND COUNTY, MICHIGAN

RAMCO GERSHENSON  
WEST OAKS II - STARBUCKS  
EXPANSION & DRIVE-THRU  
SITE PLANS  
COVER

DATE: MAY 25, 2016  
REVISIONS/SUBMITTALS  
05-25-2016 PRE-APP MEETING  
10-29-2016 FDP SUBMITTAL

NO SCALE  
DRAWN BY: EM/JC  
CHECKED BY: EM  
PROJECT MANAGER: MMC  
JOB #: 1702265  
FILE CODE: CP  
SHEET NO. C00

## GENERAL CONSTRUCTION NOTES

- ALL ON-SITE WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CURRENT SPECIFICATIONS AND STANDARD DETAILS OF THE AUTHORITY HAVING JURISDICTION, UNLESS OTHERWISE SPECIFIED.
- SITE CONSTRUCTION SHALL NOT COMMENCE WITHOUT APPROVAL OF THE ENGINEERING PLANS.
- MUNICIPAL UTILITIES (WATER, SANITARY, AND STORM SEWER) MAY NOT BEGIN PRIOR TO ENGINEERING APPROVAL.
- CONTRACTOR IS RESPONSIBLE FOR PROTECTION OF ALL PROPERTY CORNERS.
- CONTRACTOR SHALL MATCH PROPOSED CURB AND GUTTER, CONCRETE, AND PAVEMENT TO EXISTING IN GRADE AND ALIGNMENT.
- THE EARTHWORK FOR ALL BUILDING FOUNDATIONS AND SLABS SHALL BE IN ACCORDANCE WITH ARCHITECTURAL BUILDING PLANS AND SPECIFICATIONS.
- CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR ACTUAL DIMENSIONS, POND AND RAMF LOCATIONS.
- THE SITE CONTRACTOR SHALL COORDINATE THEIR WORK WITH THE BUILDING CONTRACTOR.
- THE CONTRACTOR IS RESPONSIBLE FOR PROPER TRAFFIC CONTROL DURING CONSTRUCTION.
- CONSTRUCTION SHALL COMPLY WITH ALL GOVERNING CODES AND BE CONSTRUCTED TO SAME.
- HAZARDOUS MATERIAL OR WASTE SHALL NOT BE STORED ON-SITE.
- CONTRACTOR IS RESPONSIBLE FOR RELOCATING AND/OR PLACING PEDESTRIAN CROSSING SIGNS IN NEW LOCATION AS INDICATED ON PLANS. CONTRACTOR TO VERIFY EXACT NUMBER OF SIGNS REQUIRED.
- CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL REQUIRED RELOCATIONS INCLUDING UTILITIES, STRUCTURES, SIGNS, ETC. ALL WORK SHALL BE IN ACCORDANCE WITH GOVERNING AUTHORITIES' SPECIFICATIONS AND SHALL BE APPROVED BY SUCH.
- ALL TOPSOIL AND ANY BURIED ORGANIC SOIL WITHIN THE PLANNED BUILDING FOOTPRINT AND PAVEMENT SURFACE SHOULD BE REMOVED IN THEIR ENTIRETY OR AS DIRECTED FOR THE GEOLOGICAL REPORT.
- ALL ACCESSIBLE PARKING, SIGNAGE AND STRIPING SHALL BE CONSTRUCTED IN ACCORDANCE WITH ADA STANDARDS.
- THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN ON THIS PLAN HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THEIR ACCURACY. PRIOR TO THE START OF ANY DEMOLITION OR CONSTRUCTION ACTIVITY, THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES FOR ONSITE LOCATIONS OF EXISTING UTILITIES.
- CONTRACTOR IS RESPONSIBLE FOR REPAIRING THE DAMAGE DONE TO ANY EXISTING ITEM DURING CONSTRUCTION, SUCH AS, BUT NOT LIMITED TO, DRAINAGE, UTILITIES, PAVEMENT, STRIPING, CURBS, SIGNS, ETC. REPAIRS SHALL BE EQUAL TO, OR BETTER THAN, EXISTING CONDITIONS. CONTRACTOR IS RESPONSIBLE TO DOCUMENT ALL EXISTING DAMAGE AND NOTIFY CONSTRUCTION MANAGER PRIOR TO CONSTRUCTION START.

## PAVING NOTES

- CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR ACTUAL BUILDING DIMENSIONS, POND AND RAMF LOCATIONS.
- ALL PAVING SHALL CONFORM TO THE CURRENT STANDARDS AND SPECIFICATIONS OF THE CITY OF NOV. STANDARD SPECIFICATIONS FOR CONSTRUCTION AS APPLICABLE.
- ANY SIDEWALK DAMAGED DURING CONSTRUCTION SHALL BE REPLACED AT NO ADDITIONAL COST TO THE OWNER.
- PROVIDE 1/2" EXPANSION JOINT WHERE PROPOSED CURB IS TO MATCH EXISTING CURB.
- PROVIDE 1" EXPANSION JOINT WHERE PROPOSED SIDEWALK IS TO MATCH EXISTING SIDEWALK.
- CONTRACTOR TO INSTALL JOINTS IN CONCRETE PAVEMENT IN ORDER TO OBTAIN APPROXIMATELY 10'x10' SQUARES. ALL JOINTS TO BE SEALED WITH AN APPROVED SEALANT MATERIAL. CONTRACTOR TO INSTALL EXPANSION JOINTS BETWEEN PAVEMENTS AND CURBING.
- APPLY SUCCESSION LIFTS OF ASPHALTIC CONCRETE IN TRANSVERSE DIRECTIONS WITH SURFACE COURSE PLACED PARALLEL TO FLOW OF TRAFFIC. PLACE ASPHALTIC PAVING IN TYPICAL STRIPS NOT LESS THAN 10'-0" WIDE.
- ALL ACCESSIBLE PARKING SPACES SHALL COMPLY WITH CURRENT ADA DESIGN CRITERIA.
- ALL PEDESTRIAN RAMPS SHALL HAVE DETECTABLE WARNING SURFACES.
- CONTRACTOR TO CONSTRUCT ADA ACCESS ROUTES PER STATE AND NATIONAL STANDARDS AND SPECIFICATIONS, IN ADDITION TO THE INFORMATION PROVIDED IN THE CONSTRUCTION DRAWINGS. IF A CONFLICT EXISTS, THE LOCAL, STATE OR NATIONAL STANDARDS AND SPECIFICATIONS WILL GOVERN. CONTRACTOR TO CONTACT THE ENGINEER AND OWNER WITH ANY QUESTIONS AND/OR COMMENTS.
- CONTRACTOR TO INSURE 1:12 (4%) MAX CROSS SLOPE IS INSTALLED ACROSS CURB DROP AT ADA RAMPS. DETECTABLE WARNINGS AS SHOWN ON THE CURB RAMP DETAIL SHALL BE PLACED AT ALL CURB RAMPS AND ISLAND CUT-THROUGHS WHERE THE PEDESTRIAN WALKWAY IS DIRECTED INTO A VEHICULAR TRAFFIC AREA UNLESS NOTED OTHERWISE.
- DETECTABLE WARNINGS, AS SHOWN ON THE CURB RAMP DETAIL, SHALL BE PLACED AT ALL CURB RAMPS ENTERING A RIGHT-OF-WAY, UNLESS NOTED OTHERWISE.
- ALL CONCRETE TO HAVE A MINIMUM 28 DAY COMPRESSION STRENGTH OF 3000 PSI.

## STRIPING NOTES

- ALL STANDARD PARKING SPACES SHALL BE 4" WIDE, SOLID YELLOW, SINGLE LINE STRIPING, UNLESS OTHERWISE NOTED.
- ALL STRIPED ISLANDS (EXCEPT THOSE FRONTING ADA PARKING) SHALL BE 4" SOLID YELLOW, SINGLE LINE STRIPING, 2' ON CENTER @ 45°, UNLESS OTHERWISE NOTED.
- ALL LOADING ZONES SHALL BE 4" WIDE, SOLID YELLOW, SINGLE LINE STRIPING, 10' ON CENTER AT 45°, UNLESS OTHERWISE NOTED.

## UTILITY NOTES

- DRAWINGS DO NOT PURPORT TO SHOW ALL EXISTING UTILITIES. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF EXISTING UTILITIES IN THE FIELD PRIOR TO CONSTRUCTION AND INSTALLATION OF UTILITIES. SEE TOPOGRAPHIC SURVEY FOR EXISTING UTILITY AND EASEMENT INFORMATION. NOTIFY THE ENGINEER IMMEDIATELY REGARDING ANY UTILITY CONFLICTS, ADDITIONAL UTILITIES AND/OR ANY OTHER UTILITY INFORMATION.
- CONTRACTOR IS RESPONSIBLE FOR REPAIRS OF DAMAGE TO ANY EXISTING UTILITY DURING CONSTRUCTION AT NO COST TO THE OWNER.
- ALL FILL MATERIAL IS TO BE IN PLACE, AND COMPACTED BEFORE INSTALLATION OF PROPOSED UTILITIES.
- CONTRACTOR SHALL NOTIFY THE UTILITY AUTHORITIES INSPECTORS 72 HOURS BEFORE CONNECTING TO ANY EXISTING LINE.
- CONTRACTOR SHALL NOTIFY THE CITY OF NOV ENGINEERING DIVISION AT LEAST ONE BUSINESS DAY BEFORE COMMENCEMENT OF WORK.
- LINES UNDERGROUND SHALL BE INSTALLED, INSPECTED AND APPROVED BEFORE BACKFILLING.
- THE CONTRACTOR MUST CALL 811 AT LEAST 2 WORKING DAYS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES.
- ALL NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODES AND/OR UTILITY SERVICE COMPANIES SHALL BE PERFORMED PRIOR TO ANNOUNCED BUILDING POSSESSION AND THE FINAL CONNECTION OF SERVICE.
- CONTRACTOR SHALL COORDINATE WITH ALL UTILITY COMPANIES FOR INSTALLATION REQUIREMENTS AND SPECIFICATIONS.
- CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS AND SPECIFICATIONS FOR ACTUAL LOCATION OF ALL UTILITY ENTRANCES TO INCLUDE SANITARY SEWER, LATERALS, DOMESTIC AND FIRE PROTECTION WATER SERVICE, ELECTRICAL, TELEPHONE, AND GAS SERVICE. CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES, IN SUCH A MANNER AS TO AVOID CONFLICTS AND ASSURE PROPER DEPTHS ARE ACHIEVED AS WELL AS COORDINATING WITH REQUISITE UTILITY REQUIREMENTS AS TO LOCATION AND SCHEDULING FOR TIE-INS/CONNECTIONS PRIOR TO CONNECTING TO EXISTING UTILITIES.
- CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES, IN SUCH A MANNER AS TO AVOID CONFLICTS, AS WELL AS COORDINATING WITH LOCAL UTILITY REQUIREMENTS AS TO ASSURE PROPER LOCATION AND SCHEDULING FOR TIE-INS/CONNECTIONS PRIOR TO CONNECTING TO EXISTING UTILITIES.
- THE CONTRACTOR SHALL CONDUCT ALL REQUIRED TESTS TO THE SATISFACTION OF THE RESPECTIVE UTILITY COMPANIES AND THE OWNER'S INSPECTING AUTHORITIES.
- CONTRACTOR SHALL COMPLY TO THE FULLEST EXTENT WITH THE LATEST STANDARDS OF OSHA, DIRECTIVES OR ANY OTHER AGENCY HAVING JURISDICTION FOR EXCAVATION AND TRENCHING PROCEDURES. THE CONTRACTOR SHALL USE SUPPORT SYSTEMS, SHIELDING, BRACING, AND OTHER MEANS OF PROTECTION, THIS TO INCLUDE BUT NOT LIMITED TO ACCESS AND EGRESS EXCAVATION AND TRENCHING.
- MAINTAIN A MINIMUM 18" VERTICAL SEPARATION BETWEEN SANITARY, WATER, STORM, AND ALL FRANCHISE UTILITY LINES. MEASUREMENTS SHALL BE TAKEN FROM THE NEAREST EDGE OF THE UTILITY IN QUESTION.
- MAINTAIN A MINIMUM 18" VERTICAL SEPARATION BETWEEN SANITARY UTILITY LINES.
- ALL UTILITIES SHALL MAINTAIN TEN (10') OF HORIZONTAL SEPARATION (PARALLEL CENTER TO CENTER) OR WHEN CROSSING, 18" VERTICAL CLEARANCE (OUTSIDE EDGE OF PIPE TO OUTSIDE EDGE OF PIPE).
- CONTRACTOR SHALL MAINTAIN A MINIMUM OF 6'-0" COVER ON ALL WATERLINES.
- CONTRACTOR SHALL MAINTAIN A MINIMUM OF 30" COVER ON ALL UNDERGROUND GAS LINES.
- CONTRACTOR SHALL MAINTAIN A MINIMUM OF 2'-0" COVER ON ALL UNDERGROUND ELECTRIC AND DATA LINES.
- CONTRACTOR ASSUMES FULL RESPONSIBILITY FOR DETERMINING DEFLECTION ANGLES AND LOCATION OF ALL VERTICAL BENDS IN THE WATER MAIN IN ACCORDANCE WITH CITY OF SOUTHFIELD STANDARDS FOR WATER MAIN CONSTRUCTION. ANY QUESTIONS OR CONFLICTS WITH OTHER UTILITIES IN THE CONSTRUCTION PLANS MUST BE PROVIDED TO THE DESIGN ENGINEER IN WRITING PRIOR TO THE START OF CONSTRUCTION.
- CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH THE GOVERNING AGENCY STANDARD DETAILS, SPECIFICATIONS AND OPERATIONAL SPECIFICATIONS WITH REGARD TO MATERIALS AND INSTALLATION OF THE WATER AND SEWER LINES.
- REFER TO BUILDING PLANS FOR SITE LIGHTING ELECTRICAL PLAN.
- WATER MAINS SHALL BE IDENTIFIED AND HAVE A BACTERIAL ANALYSIS IN ACCORDANCE WITH ANWA STANDARD G050 PRIOR TO BEING PUT INTO SERVICE.
- WATER MAINS SHALL BE LEAKAGE AND PRESSURE TESTED IN ACCORDANCE WITH ANWA STANDARD G050 FOR DUCTILE IRON AND ANWA G055 FOR PVC PIPE.
- BEDDING AND BACKFILL INSTALLATION SHALL BE IN ACCORDANCE WITH ANWA G060 FOR DUCTILE IRON AND ANWA G065 FOR PVC PIPE.
- JOINTS SHALL BE IN ACCORDANCE WITH ANWA C111 AND/OR C115 AND FITTINGS MUST BE IN ACCORDANCE WITH ANWA C110 OR C153.

## GRADING AND DRAINAGE NOTES

- ALL ON-SITE WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CURRENT SPECIFICATIONS AND STANDARD DETAILS OF THE CITY OF NOV UNLESS OTHERWISE SPECIFIED.
- THE CONTRACTOR SHALL CAUSE NOTICE TO BE GIVEN TO MISS DIG, THE CITY OF NOV ENGINEERING DEPARTMENT, AND TO THE OWNERS OF THE UTILITY FACILITIES SHOWN ON THE PLAN.
- PRIOR TO CONSTRUCTION, ADDITIONAL BENCHMARKS SHALL BE SET AROUND THE SITE TO INSURE AN ACCURATE BENCHMARK WILL REMAIN AT ALL TIMES.
- CONTRACTOR SHALL ASSURE POSITIVE DRAINAGE AWAY FROM BUILDINGS FOR ALL NATURAL AND PAVED AREAS.
- THE FLOW IN ALL SEWERS, DRAINS, AND WATERCOURSES ENCOUNTERED SHALL BE MAINTAINED.
- ALL DRAIN TILE AND STORM SEWERS TO REMAIN THAT ARE DAMAGED, DISTURBED, OR REMOVED AS A RESULT OF THE CONTRACTOR'S OPERATIONS SHALL BE REPLACED WITH THE SAME QUALITY PIPE OR BETTER, MAINTAINING THE SAME GRADIENT AS EXISTING. REPLACED DRAIN TILE SHALL BE LAD ON COMPACTED BEDDING EQUAL IN DENSITY TO SURROUNDING STRATUM. REPLACEMENT SHALL BE DONE AT THE TIME OF THE BACKFILL OPERATION.
- ALL DISTURBED AREAS SHALL BE RESTORED IN ACCORDANCE WITH THE STANDARDS OF THE ENTITY WHICH HOLDS JURISDICTION.
- ALL SOIL EROSION AND SILT MUST BE CONTROLLED AND CONTAINED ON-SITE.
- ALL CUT OR FILL SLOPES SHALL BE 4:1 OR FLATTER UNLESS OTHERWISE NOTED.
- ALL INTERIOR ISLANDS SHALL BE MOUNDING. MINIMUM GRADE FOR POSITIVE DRAINAGE SHALL BE 3%.
- ALL STORM SEWER MANHOLES IN PAVED AREAS SHALL BE FLUSH WITH PAVEMENT, AND SHALL HAVE TRAFFIC BEARING LIDS. MANHOLES IN UNPAVED AREAS SHALL BE FLUSH WITH FINISH GRADE. LIDS SHALL BE LABELED PER GOVERNING AGENCY REQUIREMENTS.
- THE CONTRACTOR SHALL ADHERE TO ALL TERMS & CONDITIONS AS OUTLINED IN THE GENERAL N.P.D.E.S. PERMIT FOR STORMWATER DISCHARGE ASSOCIATED WITH CONSTRUCTION ACTIVITIES (IF N.P.D.E.S. PERMIT REQUIRED).
- CONTRACTOR SHALL ADJUST AND/OR CUT EXISTING PAVEMENT AS NECESSARY TO ASSURE A SMOOTH FIT AND CONTINUOUS GRADE.
- ALL UNSURFACED AREAS DISTURBED BY GRADING OPERATION SHALL RECEIVE A INCHES OF TOPSOIL. CONTRACTOR SHALL APPLY STABILIZATION FABRIC TO ALL SLOPES 3:1V OR STEEPER. CONTRACTOR SHALL STABILIZE DISTURBED AREAS IN ACCORDANCE WITH CITY SPECIFICATIONS UNTIL A HEALTHY STAND OF VEGETATION IS OBTAINED.
- CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE GOVERNING CODES AND BE CONSTRUCTED TO SAME.
- ALL STORM STRUCTURES SHALL HAVE A SMOOTH UNIFORM POURED MORTAR INVERT FROM INVERT IN TO INVERT OUT.
- CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL UTILITIES AND NOTIFYING THE APPROPRIATE UTILITY COMPANY PRIOR TO BEGINNING CONSTRUCTION.
- CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING STORM SEWER STRUCTURES, PIPES, AND ALL UTILITIES PRIOR TO CONSTRUCTION.
- ALL SPOT GRADES ARE TOP OF PAVEMENT OR FINISH GROUND UNLESS OTHERWISE NOTED.
- ALL ACCESSIBLE PARKING SPACES SHALL COMPLY WITH CURRENT ADA DESIGN CRITERIA.
- CONTRACTOR TO ENSURE 1:12 (4%) MAX CROSS SLOPE IS INSTALLED ACROSS CURB DROP AT RAMPS. DETECTABLE WARNINGS AS SHOWN ON THE CURB RAMP DETAIL SHALL BE PLACED AT ALL CURB RAMPS AND ISLAND CUT-THROUGHS WHERE THE PEDESTRIAN WALKWAY IS DIRECTED INTO A VEHICULAR TRAFFIC AREA UNLESS NOTED OTHERWISE.

## DEMOLITION NOTES

- ALL ON-SITE WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CURRENT SPECIFICATIONS AND STANDARD DETAILS OF THE AUTHORITY HAVING JURISDICTION, UNLESS OTHERWISE SPECIFIED.
- DEPTH AND LOCATION OF ON-SITE AND RIGHT-OF-WAY UTILITIES SHALL BE VERIFIED BY GENERAL CONTRACTOR AND/OR THE PROPER UTILITY COMPANY PROVIDING SERVICES. SEE EXISTING CONDITIONS PLAN FOR EXISTING UTILITY INFORMATION, NOTIFY THE ENGINEER IMMEDIATELY REGARDING ANY UTILITY CONFLICTS, ADDITIONAL UTILITIES AND/OR ANY OTHER UTILITY INFORMATION.
- PRIOR TO CONSTRUCTION, ADDITIONAL PERMANENT BENCH MARKS WILL BE SET ON SITE TO INSURE AN ACCURATE BENCH MARK WILL REMAIN AT ALL TIMES.
- THE CONTRACTOR SHALL REMOVE AND DISPOSE OF, OFF-SITE AT APPROVED LANDFILL, EXISTING STRUCTURES, FENCES, CONCRETE, AND PAVEMENT AS NOTED.
- THE CONTRACTOR SHALL OBTAIN THE NECESSARY PERMITS AND NOTIFY ALL AFFECTED UTILITY COMPANIES PRIOR TO THE DEMOLITION OF ANY EXISTING STRUCTURES. ALL EXISTING UTILITIES SHALL BE CAPPED OFF OR REMOVED SO AS NOT TO INTERFERE WITH THE CONSTRUCTION PROJECT. ALL DEBRIS SHALL BE HAULED AWAY FROM THE SITE AND DISPOSED OF AT AN APPROVED LANDFILL.
- THE CONTRACTOR SHALL COORDINATE WITH AFFECTED UTILITY COMPANIES FOR THE REMOVAL OR RELOCATION OF ALL UNDERGROUND AND OVERHEAD UTILITIES, UTILITY TRANSFORMER(S), AND LIGHT POLES.
- SAWOUT THE EDGE OF PAVEMENT AND CURB TO FULL DEPTH AT LOCATIONS WHERE EXISTING IS TO MEET PROPOSED TO PROVIDE A SMOOTH EDGE.
- THE FLOW IN ALL SEWERS, DRAINS, AND WATERCOURSES ENCOUNTERED SHALL BE MAINTAINED BY THE CONTRACTOR AT HIS OWN EXPENSE. WHENEVER SUCH WATERCOURSES AND DRAINS ARE DISTURBED OR DESTROYED DURING THE PROSECUTION OF THE WORK, THEY SHALL BE RESTORED BY THE CONTRACTOR AT HIS OWN COST AND EXPENSE, UNLESS SPECIFIC PROVISION IS MADE WITHIN THE PLANS.
- CONTINUOUS ACCESS SHALL BE MAINTAINED FOR THE SURROUNDING PROPERTIES AT ALL TIMES DURING DEMOLITION OF THE EXISTING FACILITIES.
- PRIOR TO DEMOLITION OCCURRING, ALL EROSION CONTROL DEVICES ARE TO BE INSTALLED.
- THE CONTRACTOR SHALL COORDINATE WATERMAIN WORK WITH THE FIRE DEPARTMENT AND THE AUTHORITY HAVING JURISDICTION TO PLAN PROPOSED IMPROVEMENTS AND TO ENSURE ADEQUATE FIRE PROTECTION IS CONSTANTLY AVAILABLE TO THE BUILDING AND SITE THROUGHOUT THIS SPECIFIC WORK AND THROUGH ALL PHASES OF CONSTRUCTION. CONTRACTOR WILL BE RESPONSIBLE FOR ARRANGING/PROVIDING ANY REQUIRED WATERMAIN SHUT-OFFS WITH THE AUTHORITY HAVING JURISDICTION DURING CONSTRUCTION. ANY COSTS ASSOCIATED WITH WATERMAIN SHUT-OFFS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR AND NO EXTRA COMPENSATION WILL BE PROVIDED.
- THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN ON THIS PLAN HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THEIR ACCURACY. PRIOR TO THE START OF ANY DEMOLITION OR CONSTRUCTION ACTIVITY, THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES FOR ONSITE LOCATIONS OF EXISTING UTILITIES.



Know what's below.

Call before you dig. The location of existing underground utilities are shown on the drawings. It is the contractor's responsibility to verify the location and depth of all utilities before excavation. The contractor shall be responsible for any damage to existing utilities before commencing work. It is the contractor's responsibility to call 811 to locate and mark all utilities before excavation. It is the contractor's responsibility to call 811 to locate and mark all utilities before excavation. It is the contractor's responsibility to call 811 to locate and mark all utilities before excavation.

NOTICE: CONSTRUCTION OF THIS PROJECT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE INFORMATION PROVIDED ON THESE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION AND DEPTH OF ALL UTILITIES BEFORE CONSTRUCTION. ANY COSTS ASSOCIATED WITH WATERMAIN SHUT-OFFS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR AND NO EXTRA COMPENSATION WILL BE PROVIDED.



SECTION 15  
TOWN 1 NORTH, RANGE 8 EAST  
CITY OF NOV  
OAKLAND COUNTY, MICHIGAN

RAMCO GERSEHNSON  
WEST OAKS - STARBUCKS  
EXPANSION & DRIVE-THRU  
SITE PLANS

DATE: MAY 25, 2018  
REVISIONS/SUBMITTALS  
05-25-2018 PRE-APP MEETING  
10-29-2018 PDP SUBMITTAL



DRAWN BY: EM/JC  
CHECKED BY: EM  
PROJECT MANAGER: MMC  
JOB #: 17022565  
FILE CODE: 0P  
SHEET NO. C01

**LEGEND**

- PROPERTY LINE
- - - - - EXISTING CONTOUR
- - - - - PROPOSED CONTOUR
- 600 --- STORM SEWER
- EROSION EEL (DETAIL ON C03)
- LIMITS OF DISTURBANCE
- PROPOSED PAVEMENT
- PERMANENT STABILIZATION (SEE LANDSCAPE PLAN)
- EXISTING / PROPOSED CATCH BASIN
- (F) INLET FILTER (REFER TO C02WV DETAILS)

**NOTES**

1. THE LOCATION OF CONSTRUCTION STAGING AREA IS SUBJECT TO CHANGE PER CONTRACTOR. STAGING AREA MAY BE ENCLOSED WITH TEMPORARY FENCE, CONSTRUCTION TRAILERS, TEMPORARY PARKING, AND ITEMS SUCH AS SOLID WASTE RECEPTILES, SANITARY FACILITIES, CONCRETE WASTE, FUEL TANKS, CONSTRUCTION MATERIALS, SUPPLIES, AND STOCKPILES SHALL BE PLACED IN THIS AREA IF NEEDED.
2. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CLEAN VEHICLES PRIOR TO THEM EXITING THE SITE. ANY SEDIMENT OR DUST THAT HAS ACCUMULATED AT THE CONSTRUCTION EXIT, OR ON ANY OTHER EXISTING STABILIZED SURFACE WITHIN THE LIMITS OF DISTURBANCE, SHALL BE CLEANED IMMEDIATELY. CONSIDERATION SHALL BE GIVEN TO A WHEEL WASH SYSTEM AND CONCRETE WASHOUT WHERE APPROPRIATE AND CONTRACTOR CAN DETERMINE BEST LOCATION. ANY WATER USED FOR CLEANING VEHICLES SHALL BE COLLECTED PRIOR TO LEAVING THE LIMITS OF DISTURBANCE OR BEFORE ENTERING AN EXISTING STORM DRAINAGE SYSTEM.
3. ALL SOIL DISTURBANCE SHALL BE LOCATED WITHIN THE LIMITS OF DISTURBANCE.
4. SEE SHEET C03 FOR ADDITIONAL SESC INFORMATION AND REQUIREMENTS.
5. CONTRACTOR SHALL SCRAPER SITE OF ALL TRACK-OUT/DEBRIS ON A DAILY BASIS AND SWEEP A MINIMUM OF ONCE PER WEEK.
6. REFER TO C02WV SESC DETAILS ATTACHED TO THIS SET.

**OWNER**

(RESPONSIBLE PARTY FOR PERMANENT EROSION CONTROL MEASURES)

**ON-SITE SESC CONTACT**

CONTRACTOR SHALL CONTACT CITY OF NOVI AND PROVIDE THEIR ON-SITE RESPONSIBLE PARTY INFORMATION.

**SOIL TYPES**

PER USDA WEB SOIL SURVEY, ALL SOIL WITHIN THE LIMITS OF DISTURBANCE IS CLASSIFIED AS:

10B MARLETTE SANDY LOAM, 1 TO 6 PERCENT SLOPES

**RECEIVING WATERS**

THE PROPOSED EXPANSION WILL UTILIZE THE EXISTING STORM WATER SYSTEM SERVING THE WEST OAKS SHOPPING CENTER.

**NEAREST WATERCOURSE**

UNNAMED WATERCOURSE, TRIBUTARY TO BISHOP CREEK, 2,285' SSW.

**LEGAL DESCRIPTION**

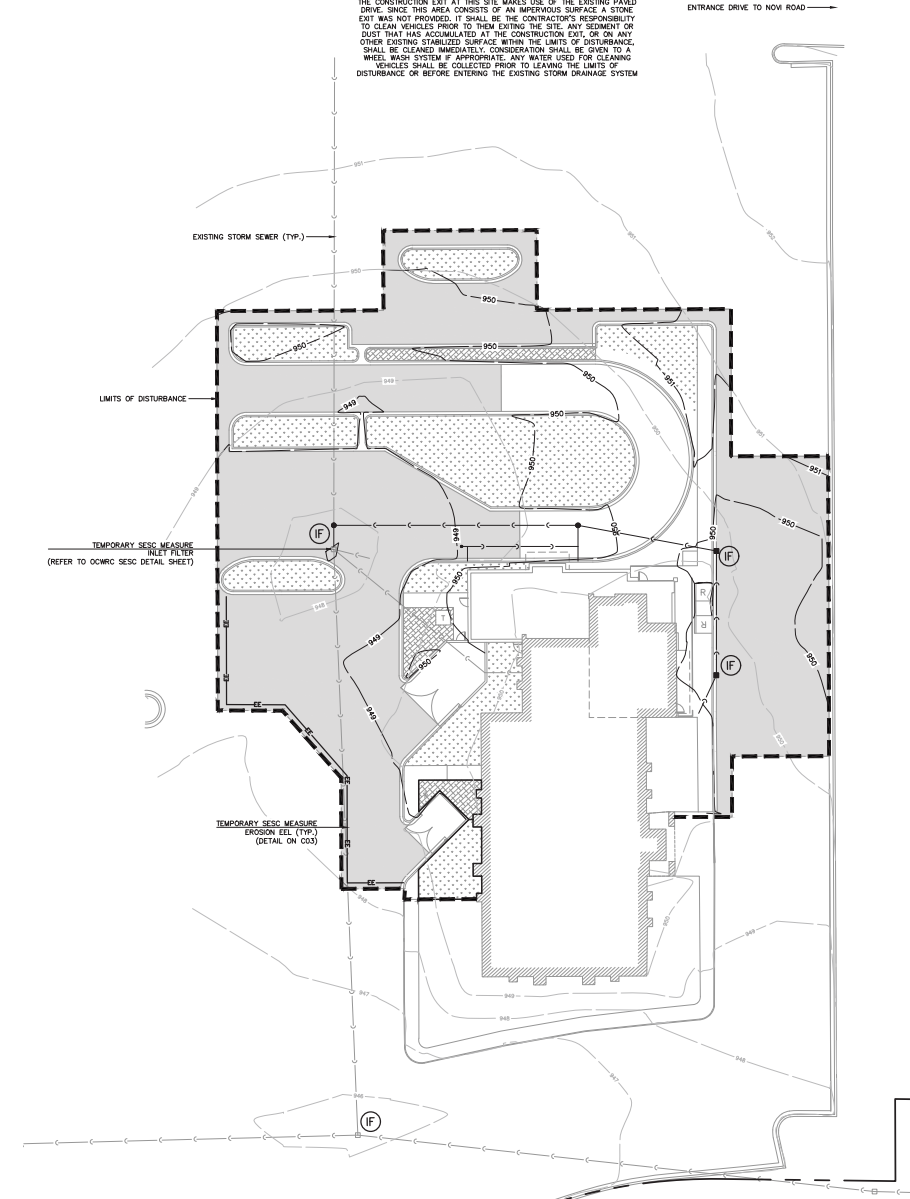
T1N, R8E, SEC 15 PART OF NE 1/4 BEG AT PT DIST S 88-35-37 W 263.00 FT FROM NE SEC COR, TH N 88-35-37 E 30.00 FT ALG DEN LINE TWELVE-MILE RD, TH S 01-49-18 E 182.09 FT, TH N 89-06-42 E 190.00 FT TO NLY R/W LINE NOVJ RD, TH S 01-49-18 E 293.00 FT, TH N 89-06-42 E 43.01 FT, TH S 01-49-18 E 261.00 FT ALG DEN LINE NOVJ RD, TH S 89-06-42 W 60.00 FT, TH S 01-49-18 E 28.00 FT, TH S 89-06-42 W 60.00 FT, TH ALG CURVE CONCAVE SW, RAD 183.78 FT, CHORD BEARS S 77-04-09 W 76.69 FT, TH ALG CURVE CONCAVE NLY, RAD 183.78 FT, CHORD BEARS S 77-04-09 W 76.69 FT, DIST OF 77.26 FT, TH S 89-06-42 W 750.07 FT, TH S 01-52-17 E 40.00 FT, TH N 89-06-42 E 34.00 FT, TH S 01-52-17 E 458.00 FT, TH ALG CURVE CONCAVE SW, RAD 354.80 FT, CHORD BEARS N 83-47-46 W 63.69 FT, DIST OF 63.77 FT, TH N 83-07-43 E 28.36 FT, TH N 01-52-17 W 50.00 FT, TH N 88-07-43 E 11.28 FT, TH N 01-52-17 W 378.50 FT, TH S 89-06-42 W 3.25 FT, TH N 01-52-17 W 36.27 FT, TH S 88-07-43 E 237.50 FT, TH N 01-52-17 W 11.70 FT, TH S 88-07-43 W 343.00 FT, TH N 01-52-17 W 275.00 FT, TH N 88-07-43 E 150.00 FT, TH S 01-52-17 E 20.00 FT, TH N 88-07-43 E 181.00 FT, TH S 01-52-17 E 204.70 FT, TH N 88-07-43 E 289.50 FT, TH N 01-52-17 W 399.12 FT, TH S 88-07-43 W 244.50 FT, TH N 01-52-17 W 45.00 FT, TH S 88-07-43 W 60.00 FT, TH N 01-52-17 W 290.00 FT, TH N 88-35-37 E 476.62 FT ALG DEN LINE TWELVE-MILE RD, TH S 01-24-23 E 235.00 FT, TH N 88-35-37 E 75.00 FT, TH N 01-52-17 W 140.00 FT, TH N 88-35-37 W 40.26 FT, TH S 01-49-18 E 236.72 FT, TH N 88-15-42 E 116.00 FT, TH S 01-49-18 E 135.91 FT, TH N 89-06-42 E 275.24 FT, TH N 01-49-18 W 408.28 FT, TH S 88-35-37 W 13.67 FT, TH N 01-24-23 W 150.00 FT, TH N 88-35-37 E 50.00 FT, TH N 01-24-23 W 15.00 FT, TH N 88-35-37 E 126.48 FT, TH N 01-49-18 W 198.00 FT TO BEG 14.9' A 10/09/00 FR 017 & 053.



**TYPICAL BMP INSTALLATION**  
NOT TO SCALE

**CONSTRUCTION EXIT NOTICE**

THE CONSTRUCTION EXIT AT THIS SITE MAKES USE OF THE EXISTING PAVED DRIVE SINCE THIS AREA CONSISTS OF AN IMPERVIOUS SURFACE A STONE EXIT WAS NOT PROVIDED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CLEAN VEHICLES PRIOR TO THEM EXITING THE SITE. ANY SEDIMENT OR DUST THAT HAS ACCUMULATED AT THE CONSTRUCTION EXIT, OR ON ANY OTHER EXISTING STABILIZED SURFACE WITHIN THE LIMITS OF DISTURBANCE, SHALL BE CLEANED IMMEDIATELY. CONSIDERATION SHALL BE GIVEN TO A WHEEL WASH SYSTEM IF APPROPRIATE. ANY WATER USED FOR CLEANING VEHICLES SHALL BE COLLECTED PRIOR TO LEAVING THE LIMITS OF DISTURBANCE OR BEFORE ENTERING THE EXISTING STORM DRAINAGE SYSTEM



**WEST OAKS DRIVE**  
(VARIABLE WIDTH)

ALL MUD/SILT TRACKED OFF-SITE THROUGHOUT THE CONSTRUCTION PERIOD SHALL BE IMMEDIATELY REMOVED BY THE CONTRACTOR



Know what's below.

Call before you dig. The location of existing underground utilities are shown on an approved utility map and used as a guide only. It is the responsibility of the contractor to determine the exact location of all utilities before commencing work. It is the contractor's responsibility for any and all damages which may be encountered. LOCAL AND FEDERAL LAW ENFORCEMENT AGENCIES SHOULD BE NOTIFIED.

NOTICE: THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE ACCURACY OF THE INFORMATION PROVIDED HEREIN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE SAFETY OF THE WORK, OF PERSONS OR PROPERTY, OF ANY MEMBER OF THE PUBLIC, OR OF ANY OTHER PERSONS.

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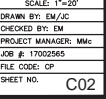
**ATWELL**  
CONSULTING ENGINEERS  
TWO SOUTHFIELD, SUITE 200  
SOUTHFIELD, MI 48076-7000  
248.441.2000

SECTION 15
TOWN 1 NORTH, RANGE 8 EAST
CITY OF NOVJ
OKLAND COUNTY, MICHIGAN

RAMCO GERSHENSON
WEST OAKS - STARBUCKS EXPANSION & DRIVE-THRU
SITE PLANS
SESC PLAN

DATE	MAY 25, 2018
REVISIONS/SUBMITTALS	05-25-2018 PRE-APP MEETING
	10-20-2018 FIP SUBMITTAL

DRAWN BY:	EM/JJC
CHECKED BY:	EM
PROJECT MANAGER:	MMC
JOB #:	17022665
FILE CODE:	CP
SHEET NO.:	C02



SCALE: 1"=20'

**NOT FOR CONSTRUCTION**





# LEGEND

	PROPERTY LINE		TRAFFIC FLOW ARROWS (DETAIL ON C11)
	PROPOSED CURB & GUTTER (REFER TO CITY STANDARD DETAILS)		PROPOSED SIGN (DETAIL ON C11)
	PROPOSED SIDEWALK (REFER TO CITY STANDARD DETAILS)		ACCESSIBLE PARKING SPACE (DETAIL ON C11)
	PROPOSED CONCRETE (DETAIL ON C11)		PROPOSED LIGHT POLE
	PROPOSED ASPHALT PAVEMENT (DETAIL ON C11)		EXISTING UTILITY POLE
	PROPOSED BUILDING EXPANSION		
	LOADING AREA		
	PAVEMENT MATCH LINE		

# NOTES

1. REFERENCE THE STANDARD NOTES SHEET FOR ADDITIONAL INFORMATION.
2. FOR ALL APPLICABLE CONSTRUCTION DETAILS REFERENCE THE STANDARD DETAILS SHEET(S) AND ANY MUNICIPAL/JURISDICTIONAL DETAILS ATTACHED TO THIS PLAN SET.
3. REFERENCE THE ALTA/ACSM LAND TITLE SURVEY FOR ADDITIONAL EXISTING FEATURES AND PROPERTY BOUNDARY INFORMATION.
4. ALL DIMENSIONS ARE TO EDGE OF BUILDING, FACE OF CURB, OR EDGE OF PAVEMENT, UNLESS OTHERWISE NOTED.
5. REFERENCE ARCHITECTURAL / FOUNDATION PLANS FOR BUILDING DIMENSIONS.
6. OUTDOOR SEATING SHALL BE PERMITTED BETWEEN MARCH 1ST AND NOVEMBER 30TH WITH ALL FURNITURE AND FIXTURES INCLUDING, BUT NOT LIMITED TO, TABLES, CHAIRS AND WASTE RECEPTACLES REMOVED FROM THE EXTERIOR PREMISES AFTER NOVEMBER 30TH. OUTDOOR SEATING SHALL NOT BE THE PRIMARY SEATING OF THE RESTAURANT.

# SITE DATA

**PARCEL SUMMARY**

PARCEL ID#	ZONING
22-15-200-059	RC - REGIONAL CENTER

**BUILDING HEIGHT**

EXISTING STARBUCKS	28'
EXPANSION STARBUCKS	27'

\*BUILDING HEIGHTS PROVIDED FOR QUICK REFERENCE. REFER TO ARCHITECTURAL PLANS FOR DETAIL.

**BUILDING AREA**

EXISTING STARBUCKS	1,016 SF
EXPANSION STARBUCKS	1,396 SF
EXISTING JARED	5,700 SF
TOTAL	8,112 SF

LOT COVERAGE = 12.4%  
(BUILDING FOOTPRINT/TOTAL LOT SIZE x100 = (8,112/65,340)x100 = 12.4%)

**PARKING DATA**

PROPOSED	REQUIRED	SPACES REMOVED	FORMULA
65 SPACES	32 SPACES	6 SPACES	1 SPACE PER 250 SQ. FT GROSS LEASABLE AREA.

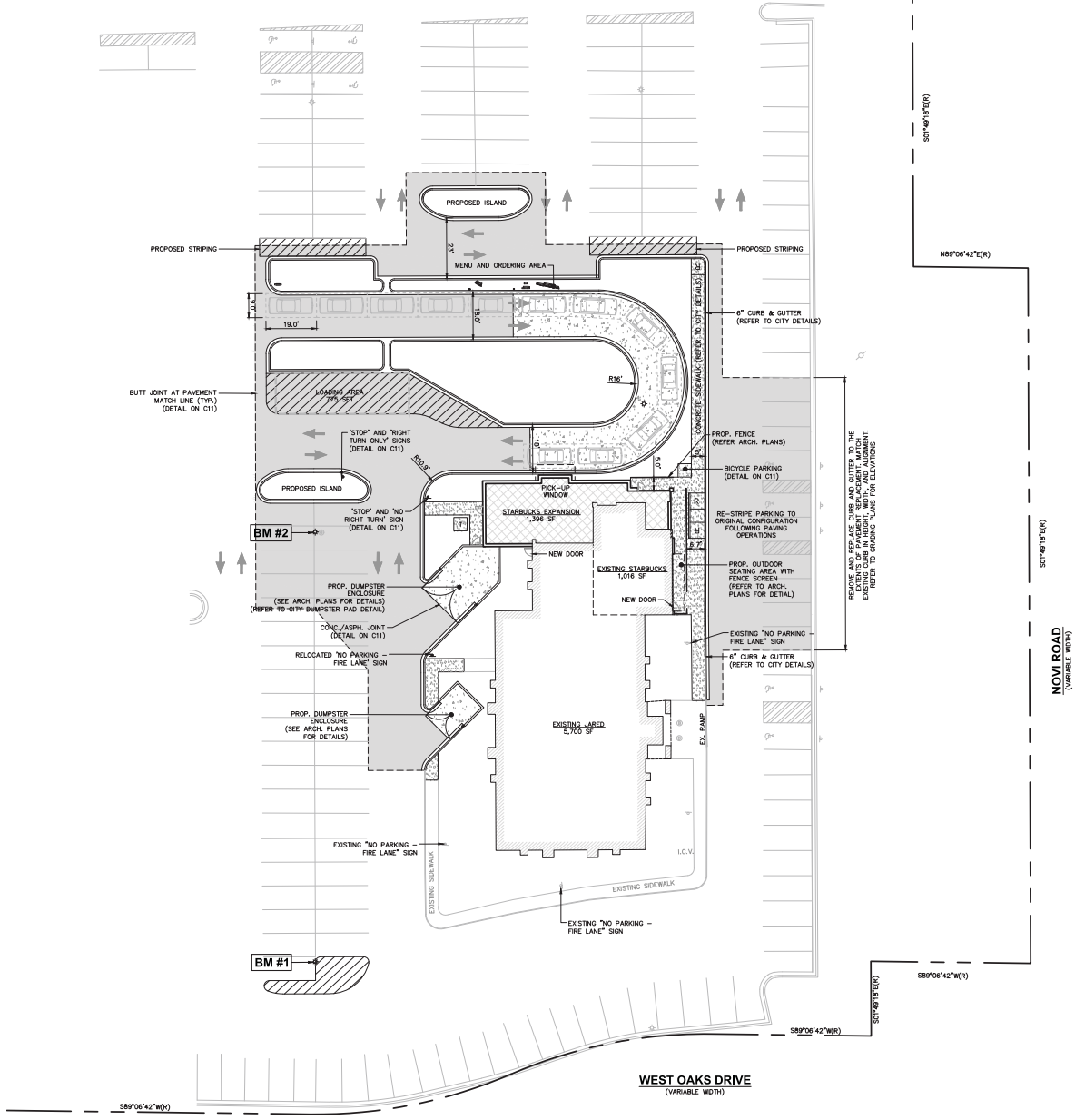
**LOADING DATA**

STORE	PROPOSED	REQUIRED	FORMULA
STARBUCKS	775 SQ. FT.	660 SQ. FT.	10 SQ. FT./FOOT OF BUILDING FRONTAGE

**DRIVE-THRU STACKING**

LOCATION	REQUIRED	PROPOSED
BETWEEN ORDER AND PICK-UP	4 SPACES	5 SPACES
ADVANCE OF ORDER	4 SPACES	5 SPACES
TOTAL STACKING SPACES	N/A	12 SPACES

HOURS OF OPERATION: 5:30AM - 10:00PM



Know what's below.  
Call before you dig.  
The location of existing underground utilities are shown on an approved plan and used for some of its representation. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES BEFORE CONSTRUCTION. ANY UTILITIES NOT SHOWN ON THIS PLAN SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. LOCAL AND FEDERAL MAY NOT ALL UNDERGROUND UTILITIES.

NOTICE: THE CONTRACTOR SHALL BE THE SOLE RESPONSIBILITY FOR ANY AND ALL DAMAGES INCURRED BY ANYONE EXCEPT THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF THE WORK, OF PERSONS OR PROPERTY OF ANY OTHER PERSONS.

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SECTION 15  
TOWN 1 NORTH, RANGE 8 EAST  
CITY OF NOVI  
OAKLAND COUNTY, MICHIGAN

RAMCO GERSHENSON  
WEST OAKS II - STARBUCKS  
EXPANSION & DRIVE-THRU  
SITE PLANS  
LAYOUT PLAN

DATE: MAY 25, 2018  
REVISIONS/SUBMITTALS  
05-25-2018 PRE-APP MEETING  
10-29-2018 FOR SUBMITTAL

0 10 20  
SCALE: 1"=20'

DRAWN BY: EM/JJC  
CHECKED BY: EM  
PROJECT MANAGER: MMC  
JOB #: 17002665  
FILE CODE: 0P  
SHEET NO. **C04**

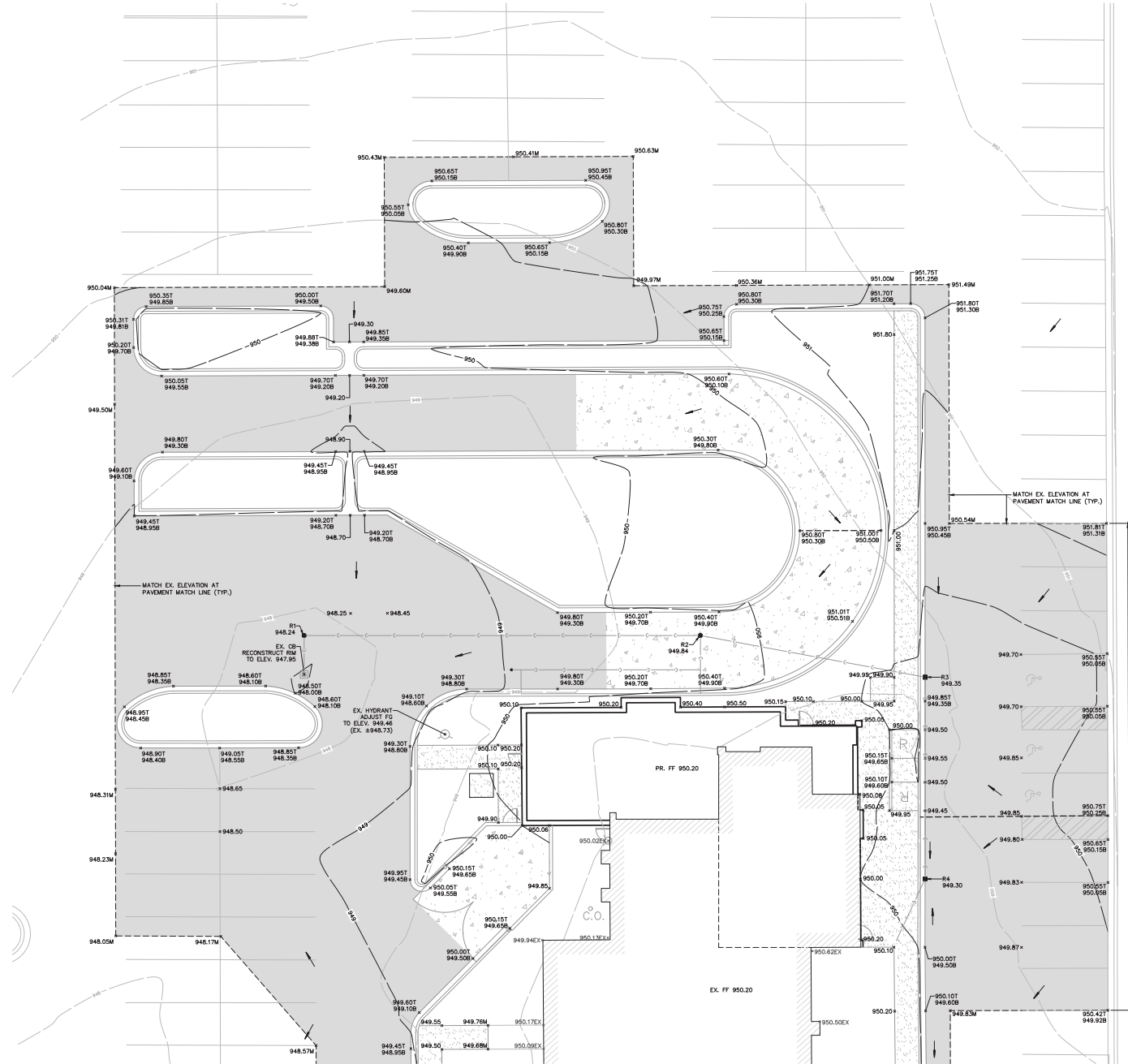
NOT FOR CONSTRUCTION

**LEGEND**

- PROPERTY LINE
- 900 EXISTING CONTOUR
- 900 PROPOSED CONTOUR
- PROPOSED RIDGE LINE
- PAVEMENT MATCH LINE
- PROPOSED REVERSE CURB (DETAIL ON 94)
- ===== EXISTING ELEVATION
- >900.00X PROPOSED TOP OF PAVEMENT/FINISH GRADE ELEVATION
- >900.00M MATCH EXISTING ELEVATION
- DRAINAGE ARROW
- EXISTING MANHOLE / CATCH BASIN
- PROPOSED MANHOLE / CATCH BASIN
- ⊕ PROPOSED VALVE / HYDRANT
- T TOP ELEVATION
- B BOTTOM ELEVATION

**NOTES**

1. FOR ADDITIONAL INFORMATION REFERENCE THE STANDARD NOTES SHEET, STANDARD DETAILS SHEETS, AND ANY MUNICIPALITY AND/OR JURISDICTIONAL DETAILS ATTACHED TO THIS PLAN SET.
2. ALL ELEVATIONS SHOWN ARE TOP OF PAVEMENT/FINISH GRADE UNLESS OTHERWISE NOTED.
3. PROPOSED ELEVATIONS FOR STRUCTURES ARE:  
 HYDRANT = BASE FLANGE  
 VALVE/MANHOLE/GEARHOUS = RIM  
 CATCH BASIN/INLET = RIM/FLOW LINE



SECTION OF CURB & GUTTER TO BE REMOVED AND REPLACED WITH MATCH EXISTING ELEVATION AT PAVEMENT MATCH LINE. GRADE TO MATCH EXISTING GRADE AND FINISH AT CURB.



Know what's below.  
**Call** before you dig.  
 The location of existing underground utilities are shown on this map. It is your responsibility to verify the accuracy of this information. Call before you dig to locate underground utilities. If you do not call, you are responsible for any damage to underground utilities. Call 811 or your local utility company for more information.

**ATWELL**  
 CIVIL ENGINEERING & SURVEYING  
 2500 HUNTERS HILL, SUITE 100  
 FARMINGTON HILLS, MI 48334  
 TEL: 248.441.2000  
 FAX: 248.441.2001

SECTION 15  
 TOWN 1 NORTH, RANGE 8 EAST  
 CITY OF NOVI  
 OAKLAND COUNTY, MICHIGAN

RAMCO GERSHENSON  
 WEST OAKS I - STARBUCKS  
 EXPANSION & DRIVE-THRU  
 SITE PLANS  
 GRADING PLAN

DATE: MAY 25, 2018  
 REVISIONS/SUBMITTALS  
 05-25-2018 PRE-APP MEETING  
 10-29-2018 PDP SUBMITTAL

SCALE: 1"=10'  
 DRAWN BY: EM/JJC  
 CHECKED BY: EM  
 PROJECT MANAGER: MMC  
 JOB #: 17002565  
 FILE CODE: GP  
 SHEET NO. **C05**

**LEGEND**

- PROPERTY LINE
- - - - - EXISTING CONTOUR
- - - - - PROPOSED CONTOUR
- - - - - PROPOSED RIDGE LINE
- - - - - PAVEMENT MATCH LINE
- ===== PROPOSED REVERSE CURB (DETAIL ON 14)
- ===== EXISTING ELEVATION
- >900.00X PROPOSED TOP OF PAVEMENT/FINISH GRADE ELEVATION
- >900.00M MATCH EXISTING ELEVATION
- DRAINAGE ARROW
- EXISTING MANHOLE / CATCH BASIN
- PROPOSED MANHOLE / CATCH BASIN
- ⊗ PROPOSED VALVE / HYDRANT
- T TOP ELEVATION
- B BOTTOM ELEVATION

**NOTES**

1. FOR ADDITIONAL INFORMATION REFERENCE THE STANDARD NOTES SHEET, STANDARD DETAILS SHEETS, AND ANY MUNICIPALITY AND/OR JURISDICTIONAL DETAILS ATTACHED TO THIS PLAN SET.
2. ALL ELEVATIONS SHOWN ARE TOP OF PAVEMENT/FINISH GRADE UNLESS OTHERWISE NOTED.
3. PROPOSED ELEVATIONS FOR STRUCTURES ARE:  
 HYDRANT = BASE FLANGE  
 VALVE/MANHOLE/OLEANOUT = RIM  
 CATCH BASIN/INLET = RIM/FLOW LINE



SECTION OF CURB & GUTTER TO BE REMOVED AND REPLACED. MATCH EXISTING GRASS AREA. MAXIMUM 4" SLOPE.



Know what's below.  
 Call before you dig.  
 The location of existing underground utilities are shown on this map. It is the responsibility of the contractor to verify the location of all utilities before commencing work. CALL BEFORE YOU DIG.

NOTICE:  
 CONSTRUCTION OF THIS PROJECT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM ALL APPLICABLE AGENCIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM ALL APPLICABLE AGENCIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM ALL APPLICABLE AGENCIES.

**ATWELL**  
 CONSULTING ENGINEERS  
 2501 W. BROADWAY, SUITE 100  
 TROY, MI 48064-1200  
 TEL: 313.781.1000  
 FAX: 313.781.1001  
 WWW.ATWELL-LLC.COM

SECTION 15
TOWN 1 NORTH, RANGE 8 EAST
CITY OF NOVI
OAKLAND COUNTY, MICHIGAN

RAMCO GERSHENSON
WEST OAKS II - STARBUCKS
EXPANSION & DRIVE-THRU
SITE PLANS
GRADING PLAN

DATE: MAY 25, 2018
REVISIONS/SUBMITTALS
05-25-2018 PRE-APP MEETING
10-29-2018 PDP SUBMITTAL

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SCALE: 1"=10'		
DRAWN BY: EM/JC		
CHECKED BY: EM		
PROJECT MANAGER: MMC		
JOB #: 17002665		
FILE CODE: GP		
SHEET NO. C06		

NOT FOR CONSTRUCTION



**LEGEND**

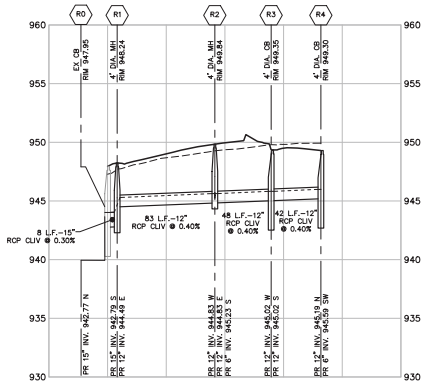
	PROPERTY LINE		EXISTING / PROPOSED MANHOLE
	EXISTING STORM SEWER		EXISTING / PROPOSED LIGHT POLE
	PROPOSED STORM SEWER		EXISTING / PROPOSED CATCH BASIN
	PROPOSED UNDERDRAIN		PROPOSED CLEANOUT
	SANITARY SEWER		EXISTING UTILITY POLE
	WATER		
	UNDERGROUND ELECTRIC		
	GAS		
	UNDERGROUND TELEPHONE/DATA		
	PROPOSED GRANULAR BACKFILL (PER CITY STANDARDS)		

**NOTES**

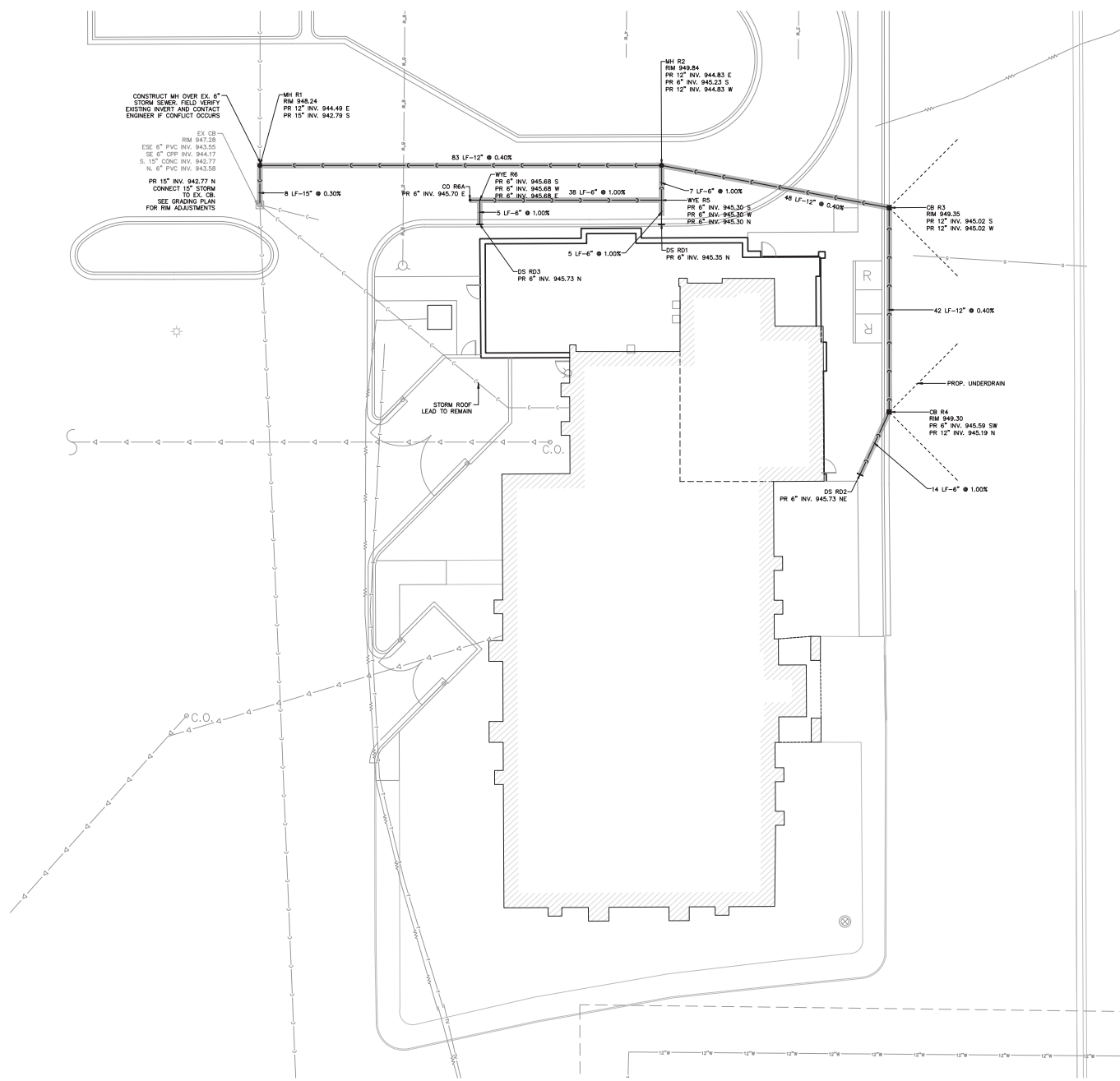
1. FOR ADDITIONAL INFORMATION REFERENCE THE ATTACHED STANDARD DETAILS.
2. ALL STORM SEWER 12" DIAMETER OR LARGER SHALL BE CLIV ROP WITH PREMIUM JOINTS UNLESS OTHERWISE NOTED.
3. ALL STORM SEWER 10" DIAMETER OR SMALLER SHALL BE PVC SDR 23.5.
4. PROVIDE A TOTAL OF 40-LF OF EDGE DRAIN AT DRAINAGE STRUCTURES. EDGE DRAIN SHALL BE PERFORATED POLYETHYLENE PIPE WITH GEOTEXTILE WRAP, MINIMUM 6" DIAMETER.

**STORMWATER NARRATIVE**

EXISTING STORMWATER FACILITIES WILL BE UTILIZED TO SERVICE THE EXPANSION. THE EXISTING DRAINAGE PATTERN WILL REMAIN WITH THE ADDITION OF TWO DRAINAGE STRUCTURES. IMPERVIOUS AREA IS REDUCED BY 5,319 SQUARE FEET WHICH WILL RESULT IN A REDUCTION OF OVERALL STORM WATER RUN OFF.



STORM SEWER PROFILE  
VERT: 1"=1'  
HORIZ: 1"=10'



**911**

Know what's below.  
Call before you dig.  
The location of existing underground utilities are shown on this map. It is the responsibility of the contractor to verify the location of all utilities before commencing work. The contractor shall be responsible for any damage to existing utilities. Local and pressure gas are not shown on this map. Call before you dig. Call 811 for more information. Call 811 before you dig. Call 811 before you dig. Call 811 before you dig.

NOTICE:  
CONSTRUCTION SERVICES, INC. HAS THE SOLE RESPONSIBILITY OF THE CONTRACTOR FOR THE ACCURACY OF THE INFORMATION PROVIDED ON THIS MAP. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION OF ALL UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING UTILITIES. LOCAL AND PRESSURE GAS ARE NOT SHOWN ON THIS MAP. CALL BEFORE YOU DIG. CALL 811 FOR MORE INFORMATION. CALL 811 BEFORE YOU DIG. CALL 811 BEFORE YOU DIG.

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**ATWELL**  
CONSULTING ENGINEERS  
P.L.L.C.  
150 SOUTHFIELD BLVD., SUITE 700  
ANN ARBOR, MI 48106-1700  
248.441.2000

SECTION 15
TOWN 1 NORTH, RANGE 8 EAST
CITY OF NOVI
OAKLAND COUNTY, MICHIGAN

RAMCO GERSEHNSON  
WEST OAKS II - STARBUCKS  
EXPANSION & DRIVE-THRU  
SITE PLANS  
STORM SEWER PLAN

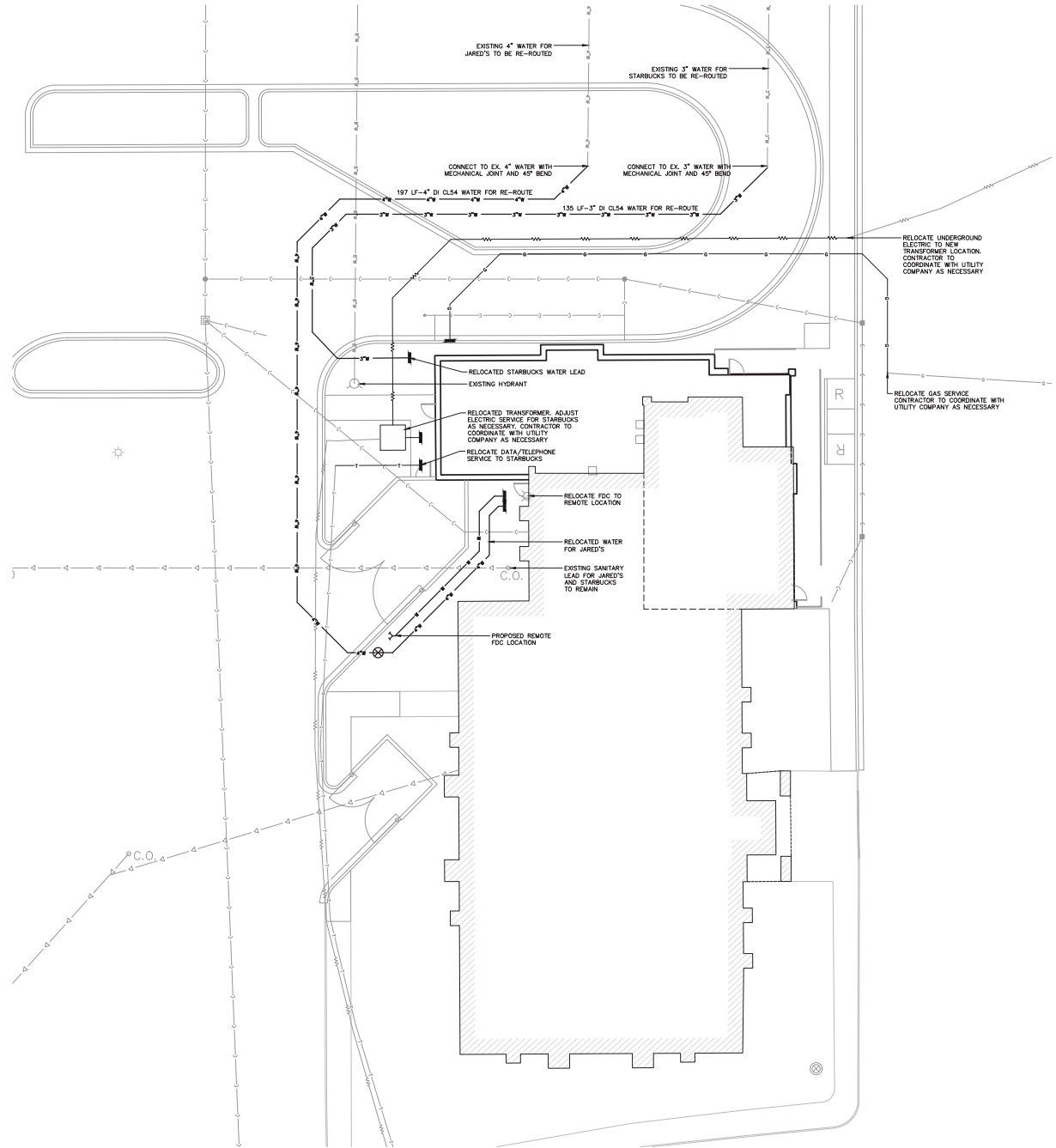
DATE	MAY 25, 2018
REVISIONS/SUBMITTALS	05-25-2018 PRE-APP MEETING 10-29-2018 FDP SUBMITTAL

0 5 10  
SCALE: 1"=10'

DRAWN BY: EM/JC  
CHECKED BY: EM  
PROJECT MANAGER: MMC  
JOB #: 17002665  
FILE CODE: CP  
SHEET NO. C07

**LEGEND**

- — — — — PROPERTY LINE
- — — — — EXISTING OVERHEAD LINES
- — — — — EXISTING STORM SEWER
- — — — — EXISTING SANITARY SEWER
- — — — — EXISTING WATER
- — — — — PROPOSED SANITARY SEWER
- — — — — PROPOSED WATER
- — — — — PROPOSED STORM SEWER
- — — — — PROPOSED UNDERGROUND ELECTRIC
- — — — — PROPOSED GAS
- — — — — PROPOSED UNDERGROUND TELEPHONE/DATA
- ● EXISTING / PROPOSED MANHOLE
- ▭ EXISTING / PROPOSED HYDRANT
- ⊙ EXISTING / PROPOSED VALVE OR STOP BOX
- ⊕ EXISTING / PROPOSED LIGHT POLE
- PROPOSED CLEANOUT
- ⊘ EXISTING UTILITY POLE



**Know what's below.**  
**Call** before you dig. The location of existing underground utilities are shown on this plan. However, they may not be shown in some cases. It is the responsibility of the contractor to verify the location of all utilities before commencing work. It is the contractor's responsibility for any and all damages resulting from any excavation work. Call 811 for more information. For more information, visit [www.811.com](http://www.811.com).

**NOTICE:**  
 CONTRACTOR SHALL VERIFY ALL THE DATA INFORMATION OF THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF THE WORK. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE WITH ALL OTHER PERMITS.

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**ATWELL**  
 CONSULTING ENGINEERS ARCHITECTS  
 TWO SOUTHFIELD AVENUE, SUITE 700  
 SOUTHFIELD, MI 48074  
 248.441.2000

SECTION 15  
 TOWN 1 NORTH, RANGE 8 EAST  
 CITY OF NOVI  
 OAKLAND COUNTY, MICHIGAN

RAMCO GERSHENSON  
 WEST OAKS II - STARBUCK'S  
 EXPANSION & DRIVE-THRU  
 SITE PLANS  
 UTILITY PLAN

DATE: MAY 25, 2016  
 REVISIONS/SUBMITTALS  
 05-25-2016 PRE-APP MEETING  
 10-29-2016 FOR SUBMITTAL

0 0 10  
 SCALE: 1"=10'

DRAWN BY: EM/JC  
 CHECKED BY: EM  
 PROJECT MANAGER: MMC  
 JOB #: 17002665  
 FILE CODE: 0P

SHEET NO. **C08**

### LEGEND

	PROPERTY LINE
	SANITARY SEWER
	STORM SEWER
	WATERMAIN
	GAS
	UNDERGROUND ELECTRIC
	UNDERGROUND TELEPHONE
	FENCE
	PROPOSED MULCH
	PROPOSED SOD/SEED
	PROPOSED ANNUAL PLANTINGS
	PROPOSED TREE
	PROPOSED PERENNIAL GRASS
	PROPOSED EVERGREEN SHRUB
	EXISTING TREE
	EXISTING TREE TO BE REMOVED

### NOTES

- ALL DISEASED, DAMAGED, OR DEAD PLANTING MATERIALS SHALL BE REMOVED IN ACCORDANCE WITH STANDARDS OF THE CITY OF NOVI ZONING ORDINANCE.
- ALL PLANTS SHALL CONFORM TO THE CURRENT ISSUE OF THE AMERICAN STANDARD FOR NURSERY STOCK PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERMEN AND SHALL HAVE PASSED INSPECTIONS REQUIRED UNDER STATE REGULATIONS.
- SITE IRRIGATION TO BE PROVIDED FOR ALL PROPOSED LANDSCAPE IMPROVEMENT AREAS AND LAWN AREAS.
- ALL PLANTINGS TO BE AT LEAST 10' FROM HYDRANTS AND UTILITY STRUCTURES.
- NO OVERHEAD WIRES EXIST WITHIN PROJECT AREA.
- FOR EXISTING SOIL TYPES, REFER TO SHEET 002.
- SCREENING PLANTINGS TO BE MAINTAINED AT A HEIGHT NO LESS THAN THE TRANSFORMER. REFER TO CITY OF NOVI SCREENING DETAIL ON SHEET C10.
- APPROXIMATE LANDSCAPING INSTALLATION DATE: APRIL 2019. REFER TO SHEET 003 FOR APPROXIMATE CONSTRUCTION SCHEDULE.

### PROJECT NARRATIVE

THIS PROJECT PROPOSES TO CONSTRUCT A 1,416 SF ADDITION TO AN EXISTING STARBUCKS. THE PROPOSED EXPANSION INCLUDES THE ADDITION OF A DRIVE-THRU, A STACKING AND ORDERING AREA, DUMPSTER ENCLOSURES AND ASSOCIATED SITE IMPROVEMENTS.

### APPLICANT/DEVELOPER

RAMCO GERSHENSON  
31500 NORTHWESTERN HWY, SUITE 300  
FARMINGTON HILLS, MI 48334  
CONTACT: ROSS GALLENTE  
PHONE: 248-592-4328

### LANDSCAPE REQUIREMENTS SUMMARY

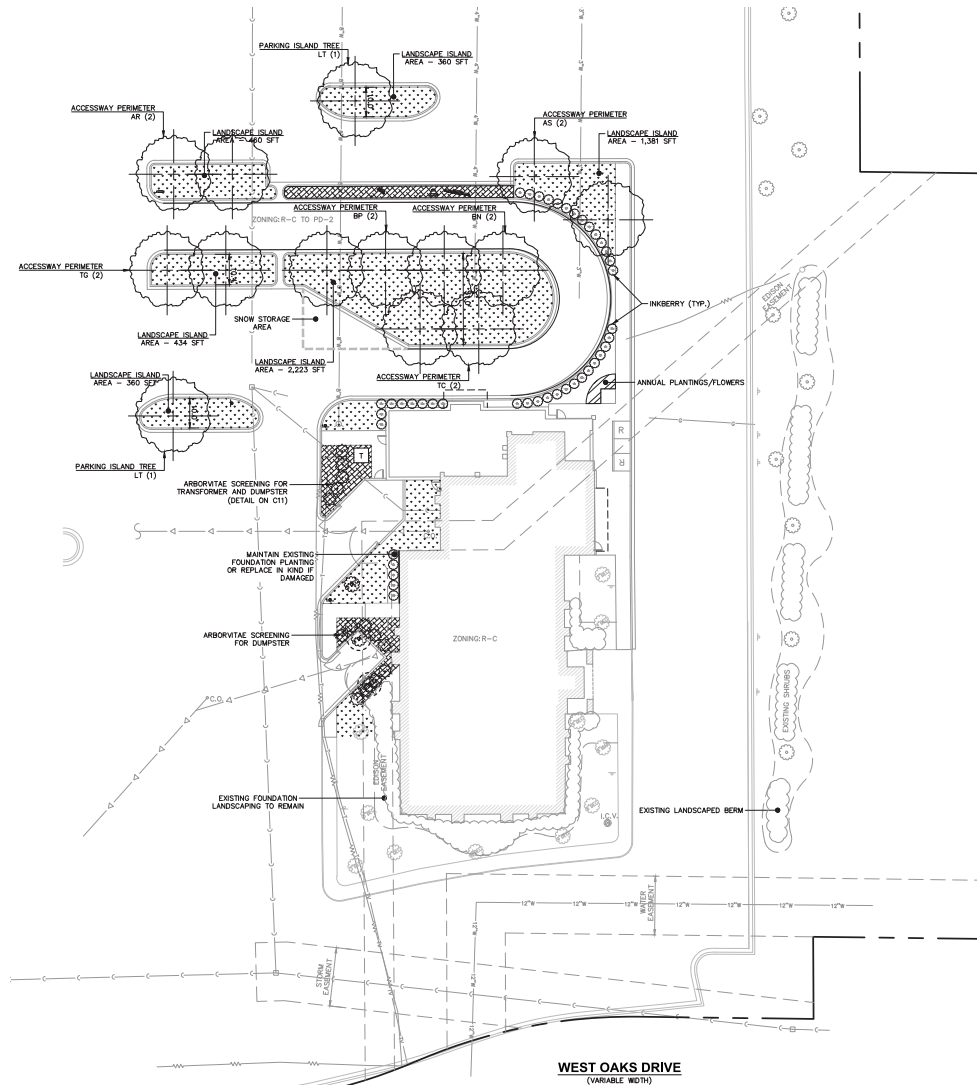
ITEM	QTY. PROVIDED	QTY. REQUIRED	FORMULA
INTERIOR SITE LANDSCAPING			
FOUNDATION PLANTING	2,058 SF	3,712 SF	BUILDING PERIMETER x 8
GREENSPACE	67 LF	64 LF	(BUILDING FRONTAGE - DOORWAYS) x .6
LANDSCAPE ISLANDS	220 SF		
LANDSCAPE ISLAND TREES	4		LANDSCAPE ISLAND SF/200
ACCESSWAY PERIMETER TREES	12	12	1 TREE/35 LF

### PLANT SCHEDULE

SYMBOL	NEI	QTY	BOTANICAL NAME	COMMON NAME	SIZE	NOTES
AR	2		ACER RUBRUM	"RED MAPLE"	3" CAL.	B & B
AS	2		ACER SACCHARINUM	"SUGAR MAPLE"	3" CAL.	B & B
TG	2		TILIA CORDATA "GREENSPIRE"	"GREENSPIRE LITTLELEAF LINDEN"	3" CAL.	B & B
TC	2		TILIA CORDATA "CHANCELLOR"	"CHANCELLOR LITTLELEAF LINDEN"	3" CAL.	B & B
BN	2		BETULA NIGRA	"WIVER BIRCH"	3" CAL.	B & B
BP	2		BETULA PAPPYRIFERA	"PAPER BIRCH"	3" CAL.	B & B
LT	2		LIRIODENDRON TULIPIFERA	"TULIP TREE"	3" CAL.	B & B
IG	45		ILEX GLABRA	INKBERRY	24"	B & B
TO	7		THUJA OCCIDENTALIS "TECHNY"	TECHNY ARBORVITAE	4" HT.	CONT.

### LANDSCAPE COST ESTIMATE

ITEM	QUANTITY	UNIT PRICE	TOTAL
DECIDUOUS CANOPY TREE	14 EA	\$400.00	\$5,600.00
SHRUB	52 EA	\$250.00	\$12,500.00
SEED	628 SY	\$3.00	\$1,884.00
MULCH	7 CY	\$35.00	\$245.00
<b>TOTAL COST:</b>			<b>\$18,229.00</b>



NOVI ROAD  
(VARIABLE WIDTH)

WEST OAKS DRIVE  
(VARIABLE WIDTH)



Know what's below.

Call before you dig.  
The location of existing underground utilities are shown on this information only and does not constitute any warranty on the part of its representatives. The contractor shall determine the exact location of all utilities before commencing work. Any holes to be drilled are the responsibility of the contractor. LOCAL AND FEDERAL LAWS AND REGULATIONS APPLY TO ALL UNDERGROUND UTILITIES.

NOTICE:  
CONTRACTOR SHALL VERIFY THE EXISTENCE OF ALL UTILITIES AND BE RESPONSIBLE FOR THE SAFETY OF THE WORK. ANY NUMBER OF UTILITIES OR ANY OTHER PERSONS.

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SECTION 15  
TOWN 1 NORTH, RANGE 8 EAST  
CITY OF NOVI  
OAKLAND COUNTY, MICHIGAN

RAMCO GERSHENSON  
WEST OAKS II - STARBUCKS  
EXPANSION & DRIVE-THRU  
SITE PLANS  
LANDSCAPE PLAN

DATE: MAY 25, 2018  
REVISIONS/SUBMITTALS  
05-25-2018 PRE-APP MEETING  
10-29-2018 FSP SUBMITTAL

0 10 20  
SCALE: 1" = 20'

DRAWN BY: EM/JC  
CHECKED BY: EM  
PROJECT MANAGER: MMC  
JOB #: 17022685  
FILE CODE: 0P  
SHEET NO. C09

NOT FOR CONSTRUCTION



## GENERAL NOTES

- LANDSCAPE CONTRACTOR (CONTRACTOR) SHALL VISIT SITE, INSPECT EXISTING CONDITIONS AND REVIEW PROPOSED PLANTINGS AND RELATED WORK. LANDSCAPE CONTRACTOR TO VERIFY ALL UTILITY LOCATIONS ON PROPERTY WITH THE GENERAL CONTRACTOR AND BY CALLING BI PRIOR TO STARTING PLANT LOCATIONS. IN CASE OF DISCREPANCY BETWEEN PLAN AND PLANT LIST, PLAN SHALL GOVERN QUANTITIES CONTACT LANDSCAPE ARCHITECT AND/OR OWNER'S REPRESENTATIVE WITH ANY CONCERNS. PLANTS ORDERED IN THE PLANT LIST ARE MINIMUM QUANTITIES TO WHICH THE PLANTS ARE TO BE INSTALLED.
- PRIOR TO ANY LAND CLEARING OR CONSTRUCTION, TREE PROTECTION FENCING IS TO BE INSTALLED BY THE CONTRACTOR. THIS FENCING SHALL BE INSTALLED AT THE DWP LINE OF ALL TREES AND SHRUBS AND MUST BE MAINTAINED AS APPROVED FOR THE DURATION OF THE PROJECT. NO CUTTING, FLUING OR TREPPASING SHALL OCCUR INSIDE THE FENCED AREAS.
- LANDSCAPE CONTRACTOR SHALL COORDINATE THE PHASES OF CONSTRUCTION AND PLANTING INSTALLATIONS WITH OTHER CONTRACTORS WORKING ON SITE.
- WHERE EXISTING TREES AND/OR SIGNIFICANT SHRUBS MASSINGS ARE FOUND ON SITE, WHETHER SHOWN ON THE DRAWING OR NOT, THEY SHALL BE PROTECTED AND SAVED UNLESS NOTED TO BE REMOVED AND/OR ARE IN AN AREA TO BE GRADED. ANY QUESTION REGARDING WHETHER PLANT MATERIAL SHOULD REMAIN OR NOT SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT AND/OR OWNER'S REPRESENTATIVE PRIOR TO REMOVAL.
- ALL EXISTING TREES TO REMAIN TO BE FERTILIZED AND PRUNED TO REMOVE DEAD WOOD AND DAMAGED OR RUBBER BRANCHES.
- NO PLANT MATERIAL SUBSTITUTIONS WILL BE ACCEPTED UNLESS APPROVAL IS REQUESTED OF THE LANDSCAPE ARCHITECT AND OWNER BY THE LANDSCAPE CONTRACTOR PRIOR TO INSTALLATION.
- ALL PLANT MATERIAL SHALL COMPLY WITH THE LATEST EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK, AMERICAN ASSOCIATION OF NURSERYMEN. ALL LANDSCAPING SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE STANDARDS OF THE AUTHORITY HAVING JURISDICTION AND IN ACCORDANCE WITH CURRENT INDUSTRY STANDARDS IN A NEAT, HEALTHY AND NEED FREE CONDITION.
- CONTRACTOR WILL SUPPLY FINISHED GRADE AND EXCAVATE AS NECESSARY TO SUPPLY 4" TOPSOIL DEPTH IN ALL PLANTING BEDS AND 4" TOPSOIL DEPTH IN ALL LAWN AREAS. SHOULD THERE BE EXISTING LOT ISLANDS OR OTHER ADJACENT CURBS WITH TOPSOIL, SHOULDN'T DIRECTLY BEHIND ALL CURBS AND ALONG SIDEWALKS AND DRIVEWAYS TO BE MAINTAINED TO SUPPORT WALK TO SUPPORT VEHICLE AND PEDESTRIAN WEIGHT WITHOUT SETTING.
- ACCEPTANCE OF GRADING AND SOO/SEED SHALL BE BY LANDSCAPE ARCHITECT AND/OR PROJECT REPRESENTATIVE. THE LANDSCAPE CONTRACTOR SHALL ASSUME MAINTENANCE RESPONSIBILITY UNTIL ACCEPTANCE HAS BEEN RECEIVED. DURING MAINTENANCE SHALL INCLUDE WATERING, WEEDING, REPLACEMENT OF WASH-OUTS AND OTHER OPERATIONS NECESSARY TO KEEP SOO/SEED IN A FINISHING CONDITION UPON FINAL ACCEPTANCE BY LANDSCAPE ARCHITECT AND/OR OWNER'S REPRESENTATIVE. THE OWNER WILL ASSUME ALL MAINTENANCE RESPONSIBILITIES.
- PLANT MATERIAL LOCATIONS SHOWN ARE DIAGRAMMATIC AND MAY BE SUBJECT TO CHANGE IN THE FIELD AS REQUIRED.
- REPAIR ALL DAMAGE TO PROPERTY FROM PLANTING OPERATIONS AT NO COST TO THE OWNER.
- OWNER OR OWNER'S REPRESENTATIVE SHALL INSPECT LANDSCAPE INSTALLATION AND HAVE THE RIGHT TO REFUSE AND WITHHOLD PAYMENT ON ANY PLANT MATERIAL(S) OF DAMAGED OR POOR QUALITY OR NOT MEETING SPECIFICATIONS.
- LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEAR-UP OF SITE AT THE COMPLETION OF LANDSCAPING EACH DAY. AT ALL TIMES THE SIDEWALKS SHALL BE MAINTAINED CLEAN AND FREE OF DEBRIS. REMOVE SURPLUS SOIL AND WASTE MATERIAL, TRASH AND DEBRIS FROM THE SITE AND LEGALLY DISPOSE OF SAME IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL CODES AND REGULATIONS.
- LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR SOIL EROSION AND DUST CONTROL MEASURES PRIOR TO AND DURING CONSTRUCTION. THE LANDSCAPE CONTRACTOR SHALL PREVENT EROSION AND DUST CONTROL BY INSTALLING WATER AND ASPHALT DUST DUNT ADJACENT PROPERTIES AND INTO THE PUBLIC CORRIDOR FACILITIES. REFER TO EROSION CONTROL PLANS FOR DETAILS.

- MANUFACTURER'S INSTRUCTIONS UNLESS NOTED OTHERWISE.
- MULCH MATERIAL: AS SPECIFIED ON THE LANDSCAPE PLANS. MASS MULCH ALL PLANTING BEDS TO 3" DEPTH. ALL SHRUB PLANTING BEDS TO RECEIVE 3" DEEP MULCH. ALL EVERGREEN AND DECIDUOUS TREES (IF USED) TO RECEIVE 6" DEEP SHREDDED HARDWOOD MULCH WITH NO MORE DIRECT CONTACT WITH TREE TRUNK. EXTENT OF MULCH TO BE 5'-0" DIA. AT TREES AND 18" BEYOND SHRUB DRIP LINES.
- TREE STAKING: IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO STAKE AND/OR GUY THE TREES ACCORDING TO THE DETAILS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO TAKE EVERY STEP NECESSARY TO MAINTAIN THE TREES AND SHRUBS IN AN UPRIGHT AND PLUMB CONDITION AT ALL TIMES UNTIL THE END OF THE PLANT GUARANTEE PERIOD. ESPECIALLY WIND, VANUASIM, SOIL OR WIND CONDITIONS ARE A PROBLEM. AT END OF GUARANTEE PERIOD ALL STAKES SHALL BE REMOVED BY LANDSCAPE CONTRACTOR. ALL STAKES USED FOR TREE SUPPORTS SHALL POINT AWAY FROM ANY AND ALL CIRCULATION ROUTES.
- TREE WRAPPING: WRAPPING MATERIAL SHALL BE QUALITY, HEAVY WATERPROOF DEEP PAPER MANUFACTURED FOR THIS PURPOSE. WRAP ALL DECIDUOUS TREES PLANTED IN THE FALL PRIOR TO 12-1 AND REMOVE ALL WRAPPING AFTER 5-1.
- EDGING: EDGING SHALL BE SPAN EDGED.
- FERTILIZER: AMP-SHOT ROOT STIMULATOR AS MANUFACTURED BY AGRI, OR APPROVED EQUAL, SHALL BE APPLIED TO THE SOIL BACKFILL OF EACH PLANT DURING INSTALLATION.
- PLANT SIZING: MEASURE TREES AND SHRUBS ACCORDING TO AOS 2003 STANDARDS. TAKE CALIPER MEASUREMENTS 8 INCHES ABOVE GROUND FOR TREES UP TO 4" CALIPER AND 12 INCHES ABOVE GROUND FOR LARGER TREES. ALWAYS HANDLE BALLED AND BURLAPPED MATERIAL BY THE ROOT BALL. PLANT MATERIAL SHALL BE DELIVERED TO THE SITE AND PLANTED THE SAME DAY.

- PLANTING PLAN: ALL PROPOSED PLANTS SHALL BE LOCATED CAREFULLY AS SHOWN ON THE PLANS. PLANT TAGS PRECEDENCE OVER PLANTING DETAIL. IN CASE OF DISCREPANCIES IN QUANTITIES EXIST. SPECIFICATIONS TAKE PRECEDENCE OVER NOTES. REGISTRET STATE DIMENSIONS DO NOT SCALE DRAWING.

## MAINTENANCE / WARRANTY

- MAINTENANCE OF PLANT MATERIALS AND LAWN AREAS SHALL BEGAIN IMMEDIATELY AFTER INSTALLATION AND SHALL CONTINUE UNTIL FINAL ACCEPTANCE, BUT IN NO CASE LESS THAN THE FOLLOWING STATED PERIODS:  
PLANT MATERIALS: 90 DAYS AFTER SUBSTANTIAL COMPLETION  
LAWN AREAS: 60 DAYS AFTER SUBSTANTIAL COMPLETION
- AFTER REQUIRED MAINTENANCE PERIOD, THE OWNER, UPON REQUEST, WILL MAKE AN INSPECTION TO DETERMINE ACCEPTABILITY. UNACCEPTABLE WORK SHALL BE REPAIRED OR REPLACED AND RESPECTED BEFORE FINAL ACCEPTANCE IS GRANTED.
- A WRITTEN WARRANTY SHALL BE PROVIDED TO THE OWNER GUARANTEEING THAT ALL PLANT MATERIALS WILL BE THRUING FOR TWO YEARS AFTER FINAL ACCEPTANCE. WARRANTY SHALL INCLUDE A MINIMUM OF ONE VISITATION IN JUNE, JULY AND AUGUST FOR THE 3-YEAR WARRANTY PERIOD.
- THE CONTRACTOR SHALL PROVIDE THE OWNER WITH WRITTEN INSTRUCTIONS REGARDING MAINTENANCE OF EACH TYPE OF VEGETATION. THE OWNER IS RESPONSIBLE FOR PROPER MAINTENANCE OF THE MATERIALS DURING THE WARRANTY PERIOD AS OUTLINED IN THE MAINTENANCE INSTRUCTIONS. THE CONTRACTOR SHALL MAKE PERIODIC INSPECTIONS OF THE SITE AND WILL INFORM THE OWNER OF ANY LACK OF PROPER MAINTENANCE IN WRITING. OWNER'S FAILURE TO COMPLY WITH THE MAINTENANCE PROGRAM SHALL RENDER THE WARRANTY NULL AND VOID.
- THE CONTRACTOR IS NOT RESPONSIBLE FOR ACTS OF NATURE INCLUDING AIRBORNAL WEATHER CONDITIONS (DRIZZLE, VANDALISM, HAIL DAMAGES BY OTHERS). IF ANY CONDITIONS BEYOND THE CONTROL OF THE CONTRACTOR SHOULD OCCUR, THE MATERIALS AFFECTED WILL NO LONGER BE COVERED BY THE WARRANTY.

## PLANT MATERIALS

- PROVIDE PLANTS OF QUANTITY, SIZE, GENUIS, SPECIES, AND VARIETY SHOWN AND SCHEDULED AND IN CONFORMANCE WITH THE REQUIREMENTS OF AOS 2003. "AMERICAN STANDARDS FOR NURSERY STOCK". PLANTS SHALL HAVE BEEN GROWN IN A REGISTERED NURSERY IN ACCORDANCE WITH GOOD HORTICULTURAL PRACTICES.
- ALL PLANTS SHALL BE FULLY BRANCHED PLANTS CHARACTERISTIC OF THE SPECIES. PLANTS SHALL BE FREE OF DISEASE, INSECTS, EGGS, LARVAE, AND DEFECTS SUCH AS SMITHS, SCALD, WAJERS, ABNORMALS, OR DISFIGUREMENTS.
- PLANT STOCK SHALL HAVE BEEN GROWN UNDER CONDITIONS SIMILAR TO CONDITIONS IN THE LOCALITY OF THE PROJECT.
- LABEL AT LEAST ONE PLANT OF EACH KIND WITH A CLEARLY ATTACHED WATERPROOF TAG BEARING LEGIBLE DESIGNATION OF BOTANICAL AND COMMON NAME.
- PROVIDE FRESHLY DUG BALLED & BURLAPPED PLANT MATERIALS. DO NOT DROP BALLED & BURLAPPED STOCK DURING DELIVERY.
- DO NOT REMOVE CONTAINER-GROWN STOCK FROM CONTAINERS UNTIL PLANTING TIME.

## INSTALLATION

- INSTALL TREES AND SHRUBS ACCORDING TO STANDARD DETAILS SHOWN ON THE PLAN.
- ALL TREE SAUCERS SHALL BE SOAKED WITH WATER AND MULCHED IMMEDIATELY FOLLOWING PLANTING.
- ALL TREE SAUCERS AND SHRUB BEDS SHALL BE MULCHED WITH A 3-INCH LAYER OF ORGAINC TRIPLE SHREDDED HARDWOOD BARK MULCH. NON-ORGAINC MULCHES SUCH AS GRAVEL, CRUSHED BRICK, LAWN ROCK, ETC. ARE UNACCEPTABLE.
- TREE GUYING SHALL BE REMOVED AFTER ONE FULL GROWING SEASON.
- APPLY 12 CUBIC FEET OF PEAT MOSS PER 100 SQUARE FEET AND 20 POUNDS OF 8-8-8 FERTILIZER PER 100 SQUARE FEET OF GROUND COVER PLANTING BEDS. SOO THE BEDS TO A DEPTH OF 6 INCHES AND ADD TO AN EVEN AND UNIFORM SURFACE. PLANT GROUND COVER MATERIALS, APPLY 2 INCHES OF FRESH MULCH AND WATER.

## PLANTING NOTES

- NO PLANTING TO BE INSTALLED UNTIL GRADING AND CONSTRUCTION HAS BEEN COMPLETED IN THE IMMEDIATE AREA.
- SEE CIVIL/SITE PLAN FOR ALL SITE DIMENSIONS, SQUARE FOOTAGES, PARKING CALCULATIONS, AND DETAILS OF ALL SITE IMPROVEMENTS.
- IF THE LANDSCAPE CONTRACTOR PERCEIVES ANY DEFICIENCIES IN THE PLANT SELECTIONS, SOIL CONDITIONS, OR ANY OTHER SITE CONDITION WHICH MIGHT NEGATIVELY AFFECT PLANT MATERIAL ESTABLISHMENT, SURVIVAL, OR GUARANTEE, THEY SHALL BRING THESE DEFICIENCIES TO THE ATTENTION OF THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
- PRIOR TO ANY LAND CLEARING OR CONSTRUCTION, TREE PROTECTION FENCING IS TO BE INSTALLED BY THE CONTRACTOR. THIS FENCING SHALL BE INSTALLED AT THE DWP LINE OF ALL TREES AND SHRUBS (TO BE PROTECTED) ACCORDING TO THE TREE PROTECTION DETAIL AND MUST BE MAINTAINED FOR THE DURATION OF THE PROJECT. NO CUTTING, FLUING OR TREPPASING SHALL OCCUR INSIDE THE FENCED AREAS WITHOUT APPROVAL.
- ALL PLANTS TO BE INSTALLED AS PER PLANTING DETAILS. PLANT MATERIALS ARE TO BE PLANTED IN THE SAME MANNER AS THEY WERE GROWN IN THE NURSERY CONDITIONS. IF WELL, CLAY SOILS OR POOR DRAINING SOILS ARE EXISTENT, PLANT HOLE SHOULD BE MADE ALL THE WAY AND BURLAP FROM TOP 1/3 OF ROOT BALL AND FROM TREE TRUNKS.
- ONE SHRUB PER TYPE AND SIZE IN EACH PLANTING BED AND EVERY TREE SHALL BE CLEARLY IDENTIFIED (DOWN OR LAWN MARKING) WITH A PLASTIC TAG WHICH SHALL NOT BE REMOVED PRIOR TO OWNER ACCEPTANCE.
- SEED AND/OR SOO ALL AREAS DISTURBED DUE TO GRADING AND CONSTRUCTION ACTIVITIES. WHERE SOO/SEED ABEUTS PAVED SURFACES, FINISHED GRADE OF SOO/SEED SHALL BE HELD AT MINUS SURFACE ELEVATION OF THAT SURF. CURB, ETC. SOO SHALL BE LAD PARALLEL TO THE CONTOURS AND SHALL HAVE ENLARGED JOINTS. ON SLOPES STEEPER THAN 3:1 OR IN DRAINAGE CHANNELS, THE SOO SHALL BE STAKED TO THE GROUND. REFER TO PLAN FOR SOO/SEED LOCATIONS.
- PRUNE, TRIM AND SHAPE TREES AND SHRUBS ACCORDING TO STANDARD HORTICULTURAL PRACTICES. APPLY MINIMUM 4" MULCH CUP AT ALL TREES NOT PLANTED IN PLANTING BEDS.
- EXISTING LAWN AREAS TO BE SAVED AND AREAS THAT ARE DAMAGED DURING CONSTRUCTION MUST BE RESTORED TO ORIGINAL MAINTENANCE. IF THE EXISTING LAWN IS FOUND TO BE LEVEL, HEALTHY, DENSE & FREE FROM WEEDS, LAWN MAY NOT REQUIRE REPLACEMENT OR RENOVATION. IF RENOVATION IS REQUIRED AS PART OF THE APPROVED PLAN, THEN THE FOLLOWING REQUIREMENTS WILL APPLY:  
EXISTING LAWN FOUND TO BE IN POOR CONDITION MUST FIRST BE SPRAYED WITH ROUND-UP (OR EQUAL) TO KILL THE EXISTING LAWN AND WEEDS. WAIT A MIN. OF (30) DAYS FOR THE HERBICIDE TO TAKE EFFECT, THEN REMOVE ALL DEAD SOO & WEEDS TO A MIN. DEPTH OF (2) INCHES. ADD A MIN. OF 6" TOPSOIL TO THE TOP OF ALL CURBS & WALKS PRIOR TO ZODDING. SEPARATE TO ELIMINATE ALL BUMP & DEPRESSIONS AND REDDUS Holes.  
EXISTING LAWN FOUND TO BE IN GOOD CONDITION, BUT WITH BARE, SPARSE OR WEEDY AREAS MUST BE RENOVATED BY FILLING IN LOW AREAS, RAKING, OVERSEEDING AND TOP DRESSING ALL SPARSE AND BARE SPOTS AND BY INITIATING A WEED AND FEED PROGRAM.

- CONVERSION OF ALL ASPHALT AND GRAVEL AREAS TO LANDSCAPE SHALL BE DONE IN THE FOLLOWING MANNER:  
A. REMOVE ALL ASPHALT, GRAVEL AND COMPACTED EARTH TO A DEPTH OF 24"-30" DEPENDING ON THE DEPTH OF SUB BASE AND DISPOSE OF OFF SITE.  
B. REPLACE EXCAVATED MATERIAL W/ 5000 MESH TEXTURED PLANTING SOIL (LOW OR LIGHT YELLOW CLAY) TO A MIN. OF 2" ABOVE TOP OF CURB AND SIDEWALK. ADD 4"-6" OF TOPSOIL AND ADD A MIN. OF 6" ABOVE ADJACENT CURB AND WALK AFTER LATER SETTING, UNLESS NOTED OTHERWISE ON THE PLANS.  
C. CONVERSION TO LANDSCAPE COVER IN AN EXISTING (OR BETWEEN) LANDSCAPE AREAS, REPLACE EXCAVATED MATERIAL TO 6"-8" BELOW ADJACENT CURB OR WALK. REPLACE WITH PLANTING SOIL (LOW OR LIGHT YELLOW CLAY) AND ADD 4"-6" OF TOPSOIL TO MEET EXISTING GRADES AFTER LATER SETTING.
- ALL TREE PITS MUST BE TESTED FOR PROPER DRAINAGE PRIOR TO PLANTING TREES. A DRAINAGE SYSTEM MUST BE INSTALLED IF PLANTING PIT DOES NOT DRAIN SUFFICIENTLY. (REQUIRED IN HEAVY CLAY SOILS)
- ALL LANDSCAPE AREAS SHALL HAVE PROPER DRAINAGE THAT PREVENTS EXCESS WATER FROM STANDING ON LAWN AREAS OR AROUND TREES & SHRUBS.
- ALL MULCH RINGS AND SHRUB BEDS IN LAWN AREAS SHALL BE EGGED WITH A MANUFACTURED EDGE OR WITH MANUFACTURED EDGING AS INDICATED.
- MULCHING AND WATERING OF ALL PLANTS & TREES SHALL BE IMMEDIATELY OR WITHIN 16 HOURS AFTER INSTALLATION.

## LAWN INSTALLATION

- LAWN AREAS SHALL BE PREPARED ACCORDING TO THE SECTION BELOW ENTITLED "SEEDING PREPARATION".
- LOCAL-GROWN SOO SHALL BE PROVIDED IN AREAS WHERE SEEDING IS NORMALLY UNACCEPTABLE, BUT BE UNACCEPTABLE DUE TO CLIMATE, SEASON, OR OTHER SIGNIFICANT CONSTRAINT. SOO SHALL BE STRONGLY ROTTED, FREE OF WEEDS, AND OF UNIFORM THICKNESS WITH NO MORE THAN 1.5 INCHES OR LESS THAN 1" THICK OF SOIL.
- SOO SHALL BE THOROUGHLY TITTED TOGETHER. ENDS AND EDGES SHALL MEET WITHOUT OVERLAP AND JOINTS SHALL BE STAGGERED WITH ADJACENT PASSES. AFTER INSTALLATION, SOO SHALL BE THOROUGHLY WATERED. ON SLOPES STEEPER THAN 2:1, SOO SHALL BE HELD IN PLACE WITH WOODEN STAKES SPACED 6" INCH SQUARE BY 8 INCHES LONG. STAKES SHALL BE DRIVEN FLUSH WITH THE TOP OF THE SOO'S SOIL LAYER.
- PROVIDE GRASS SEED THAT IS FRESH, CLEAN, NEW-CROP SEED COMPLYING WITH

TOLERANCE FOR PURITY AND GERMINATION ESTABLISHED BY OFFICIAL SEED ANALYSTS OF NORTH AMERICA. PROVIDE SEED TYPE OR SEED MIX WITH BEST RECORD OF SUCCESS IN LOCALITY OF PROJECT OR PER PROJECT SPECIFICATIONS. REFER TO PLAN.

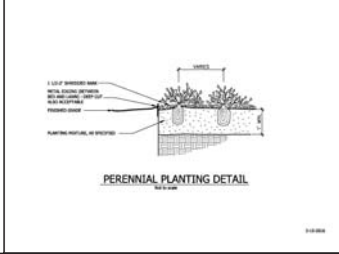
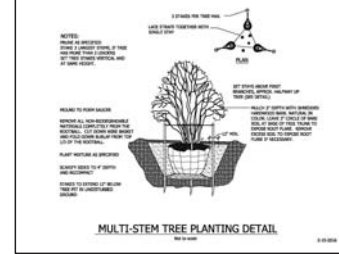
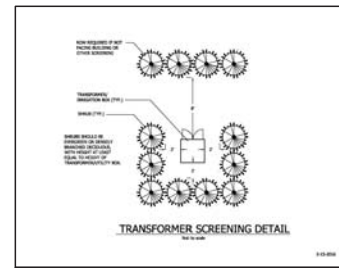
- APPLY SEED AT THE APPROPRIATE RATE, PER M.D.T. SPECIFICATIONS, FOR ESTABLISHING A NEW LAWN. SOO SEED USING A SPREADER OR SEEDING MACHINE. DISTRIBUTE SEED EVENLY OVER ENTIRE AREA BY SPENDING EQUAL QUANTITY IN 2 DIRECTIONS AT RIGHT ANGLES TO EACH OTHER. BARE SEED LIGHTLY INTO TOP 1/2-INCH OF SOIL. ROLL LIGHTLY AND WATER WITH A FINE SPRAY.
- PROTECT ALL SEEDS AGAINST AGENT BY SPREADING A CLEAN, SEED FREE SALT OR OTHER STRAW OF WHEAT, RYE, OATS, OR BARLEY. SPREAD UNIFORM TO FORM A CONTINUOUS BLANKET NOT LESS THAN 1.5 INCHES LOOSE MEASUREMENT OVER SEEDED AREA.
- TREATMENTS SUCH AS AITE, MEXA, EXCELSDOR MATING, OR FERBRIGLASS RIVING SHALL BE USED TO STABILIZE DITCHES OR STEEP SLOPES SUSCEPTIBLE TO EROSION. THE TREATMENT SHALL BE INSTALLED PRIOR TO THE MULCHING OPERATION.

## SEEDBED PREPARATION

- ALL DISTURBED AREAS SHALL BE DRESSED TO THE TYPICAL SECTIONS AND/OR GRADES SHOWN AND FLOVED TO A DEPTH OF 5 INCHES. THE TOP 2 INCHES SHALL BE FLOVED TO PROVIDE A UNIFORM SEEDBED.
- REMOVE ALL LOOSE ROCK, ROOTS, AND OTHER DEBRIS LEAVING SURFACE REASONABLY SMOOTH AND UNIFORM. SOIL LEVEL SHALL BE APPROXIMATELY 1 INCH BELOW ALL TOPS OF CURBS AND WALKWAYS.
- APPLY LIME AND FERTILIZER WITH NECESSARY EQUIPMENT TO ENSURE UNIFORM DISTRIBUTION OF THE MATERIALS. THE HAND/BUCKET METHOD IS NOT ACCEPTABLE. THE RATES AND TYPES OF MATERIALS TO BE APPLIED ARE AS FOLLOWS:  
TURFGRASS FERTILIZER WITH SLOW RELEASE NITROGEN (16-24-10) 50 LBS PER 1000 SQUARE FEET THAT WILL PROVIDE 1.0 LB OF PHOSPHORUS PER 1000 SQUARE FEET  
LIMESTONE - 75 LBS PER 1000 SQUARE FEET  
(LIMESTONE MUST BE WAVED IF EXISTING PH IS GREATER THAN 5.5.)
- MOSTEN PREPARED LAWN AREAS BEFORE PLANTING IF SOIL IS DRY. ALLOW SURFACE MOISTURE TO DRY BEFORE PLANTING LAWN. DO NOT CREATE A MUDDY SOIL CONDITION.

## CITY OF NOVI NOTES

- PLANT SOURCE SHALL BE NORTHERN NURSERY GROWN, NO.1 GRADE.
- CITY MUST APPROVE ANY SUBSTITUTIONS IN WRITING PRIOR TO INSTALLATION.
- REFER TO MAINTENANCE/WARRANTY SECTION, NOTE #3 ON THIS SHEET FOR WARRANTY REQUIREMENTS.



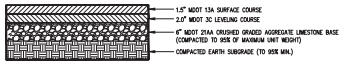
**811**  
Know what's below.  
Call before you dig.  
The location of existing underground utilities are shown on an approved utility map and are the responsibility of the utility owner. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF ALL PERSONNEL AND PROPERTY AT ALL TIMES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF ALL PERSONNEL AND PROPERTY AT ALL TIMES.

**ATWELL**  
LANDSCAPE ARCHITECTS  
2401 W. GRAND AVENUE, SUITE 100  
TROY, MI 48064-1000  
PH: 248.441.2000  
WWW.ATWELL-LLC.COM

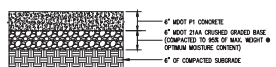
SECTION 15  
TOWN 1 NORTH, RANGE 8 EAST  
CITY OF NOVI  
OAKLAND COUNTY, MICHIGAN  
LANDSCAPE NOTES & DETAILS

DATE: MAY 25, 2018  
REVISIONS/SUBMITALS  
05-25-2018 PRE-APP MEETING  
10-29-2018 FOR SUBMITAL  
DRAWN BY: EM/JC  
CHECKED BY: EM  
PROJECT MANAGER: MMC  
NOV 20 2018  
FILE CODE: 0P  
SHEET NO. C10

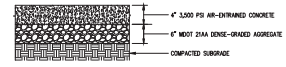
NOT FOR CONSTRUCTION



**STANDARD DUTY ASPHALT PAVEMENT SECTION**  
NOT TO SCALE



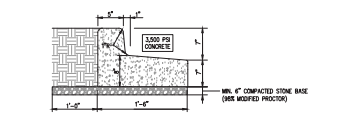
**CONCRETE PAVEMENT SECTION**  
FOR ON-SITE CONCRETE AREAS  
NOT TO SCALE



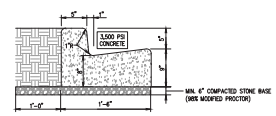
**CONCRETE SIDEWALK DETAIL**  
NOT TO SCALE



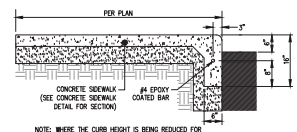
**BUTT JOINT DETAIL**  
NOT TO SCALE



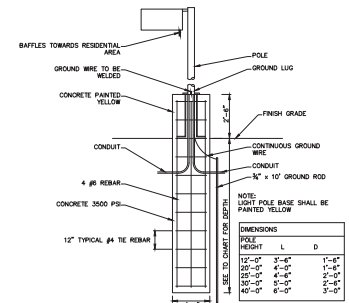
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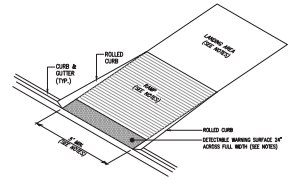
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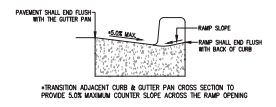
**INTEGRAL CURB & SIDEWALK**  
NOT TO SCALE



**LIGHT POLE BASE DETAIL**  
NOT TO SCALE

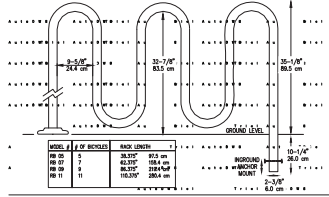


**SIDEWALK RAMP TYPE R**  
NOT TO SCALE

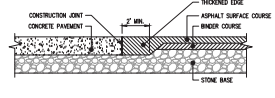


**SIDEWALK RAMP SECTIONS**  
NOT TO SCALE

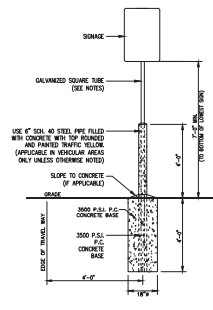
- NOTES:**
- SEE SIDEWALK RAMP SECTION DETAIL ON THIS SHEET FOR ADDITIONAL INFORMATION.
  - MAXIMUM RAMP CROSS SLOPE IS 2.5% RAMPING SLOPE 8.3% MAXIMUM.
  - MAXIMUM LANDING AREA SLOPE IS 2.5% IN EACH DIRECTION. MINIMUM DIMENSIONS SHALL BE 5'-0\"/>



**BIKE RACK DETAIL**  
NOT TO SCALE



**CONCRETE/ASPHALT JOINT DETAIL**  
NOT TO SCALE



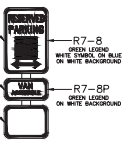
**SIGN POST DETAIL (IN GROUND)**  
NOT TO SCALE



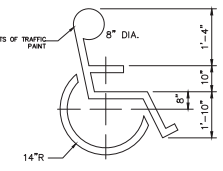
**NO RIGHT TURN SIGN**  
NOT TO SCALE



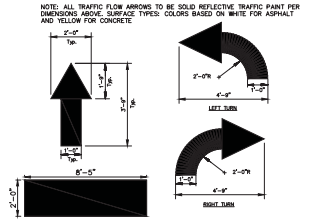
**RIGHT TURN ONLY SIGN**  
NOT TO SCALE



**ACCESSIBLE PARKING SIGN**  
NOT TO SCALE



**ACCESSIBLE PARKING SYMBOL**  
LOCATED AT THE EDGE OF PARKING SPACE  
NOT TO SCALE



**PAVEMENT MARKING - DIRECTIONAL ARROWS**  
NOT TO SCALE

**811**  
Know what's below.  
Call before you dig.  
The location of existing underground utilities are shown on an approved utility map and used in some cases as a representative indication of their location. It is the user's responsibility to verify the utility location and depth before commencing work. Users shall be held responsible for any and all damages resulting from excavation work. Users shall be held responsible for any and all damages resulting from excavation work. Users shall be held responsible for any and all damages resulting from excavation work.

**ATWELL**  
CONSTRUCTION SERVICES  
TWO SOUTHFIELD AVENUE, SUITE 100  
ANN ARBOR, MI 48106  
734.769.1200

SECTION 15  
TOWN 1 NORTH, RANGE 8 EAST  
CITY OF NOVI  
OAKLAND COUNTY, MICHIGAN

RAMCO GERSEHNSON  
WEST OAKS II - STARBUCKS  
EXPANSION & DRIVE-THRU  
SITE PLANS  
DETAILS

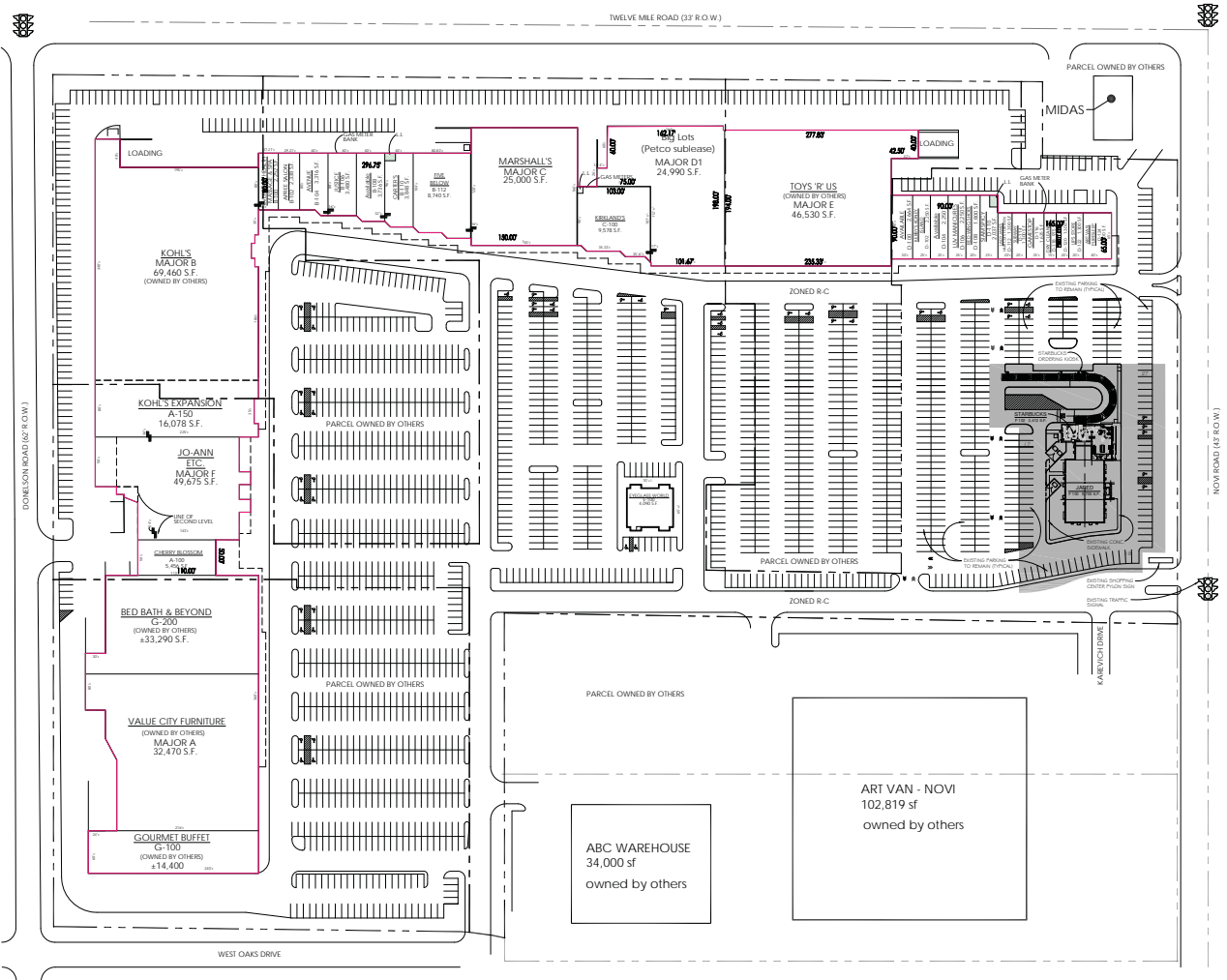
DATE: MAY 25, 2018  
REVISIONS/SUBMITTALS  
05-25-2018 PRE-APP MEETING  
10-29-2018 PDP SUBMITTAL

DRAWN BY: EM/JC  
CHECKED BY: EM  
PROJECT MANAGER: MMC  
JOB #: 17022665  
FILE CODE: 0P  
SHEET NO.: C11

NOT FOR CONSTRUCTION

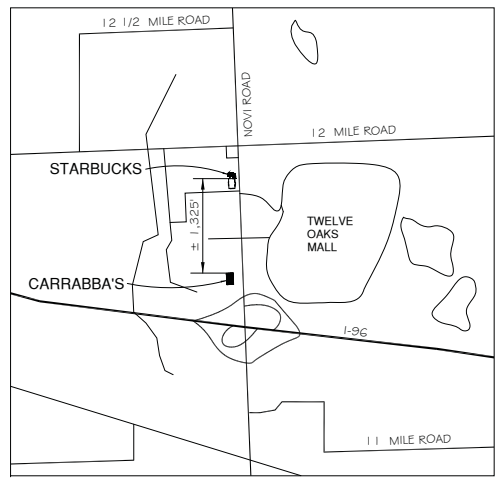






**SITE PLAN**  
SCALE: 1" = 20'-0"

SECTION 15  
PARCEL NUMBER:  
22-15-200-059  
RC ZONING WITH PD-2 OPTION



**LOCATION MAP**  
SCALE: NO SCALE

SHOPPING CENTER DATA	
<b>BUILDING AREA</b>	
MAJOR A (NOT OWNED)	32,470 S.F.
MAJOR B (NOT OWNED)	69,460 S.F.
MAJOR C	23,000 S.F.
MAJOR D	24,990 S.F.
MAJOR E (NOT OWNED)	46,530 S.F.
MAJOR F	49,675 S.F.
RETAIL A	21,534 S.F.
RETAIL B	27,710 S.F.
RETAIL C	9,278 S.F.
RETAIL D	23,051 S.F.
RETAIL E	4,090 S.F.
RETAIL "F"	6,112 S.F.
RETAIL G (NOT OWNED)	47,630 S.F.
<b>TOTAL</b>	<b>390,490 S.F.</b>
<b>TOTAL (OWNED)</b>	<b>194,340 S.F.</b>

SHOPPING CENTER DATA	
<b>PARKING</b>	
<b>TOTAL PARKING PROVIDED</b>	<b>1,970 SPACES</b>
<b>TOTAL PARKING (OWNED)</b>	<b>877 SPACES</b>
<b>TOTAL PARKING RATIO</b>	<b>5.04 / 1,000 S.F.</b>
<b>PARKING RATIO (OWNED)</b>	<b>4.51 / 1,000 S.F.</b>
<b>TOTAL PARKING REQUIRED PER ORDINANCE =</b>	<b>390,490 S.F. / 250 = 1,562 SPACES</b>
NOTE THAT ± 130 PARKING SPACES HAVE BEEN LOST DUE TO BUILDING "F" EXPANSION AND DRIVE-THRU.	
<b>LAND AREA</b>	
<b>RGPT OWNED</b>	<b>± 17.03 ACRES</b>
<b>OWNED BY OTHERS</b>	<b>± 16.83 ACRES</b>
<b>TOTAL LAND AREA</b>	<b>± 33.86 ACRES</b>

**TOTAL LOT COVERAGE FOR ENTIRE SHOPPING CENTER = 390,490 S.F. OF BUILDING AREA DIVIDED BY 1,474,942 S.F. OF LAND AREA = ± 26.5 %**

**NOTE:**  
BUILDING "F" PARCEL ± 1.5 ACRES  
± 112 S.F.  
63 PARKING SPACES

# WEST OAKS II STARBUCKS EXPANSION AND DRIVE-THRU

NOVI, MICHIGAN



**RAMCO GERSHENSON**  
PROPERTIES TRUST  
RAMCO GERSHENSON, INC.  
3160 NORTHEAST HIGHWAY  
SUITE 300  
FARMINGTON HILLS, MI 48334



**WAH YEE ASSOCIATES**  
ARCHITECTS & PLANNERS  
42450 GRAND DYER AVENUE, SUITE 200  
NOVI, MICHIGAN 48275  
PHONE 248.489.9160  
PROJECT NO. 4989

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**PRELIMINARY**  
NOT FOR CONSTRUCTION

P101

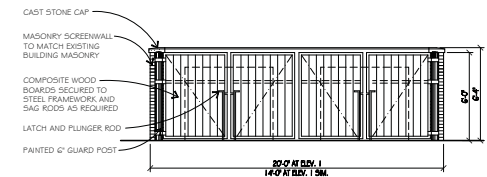
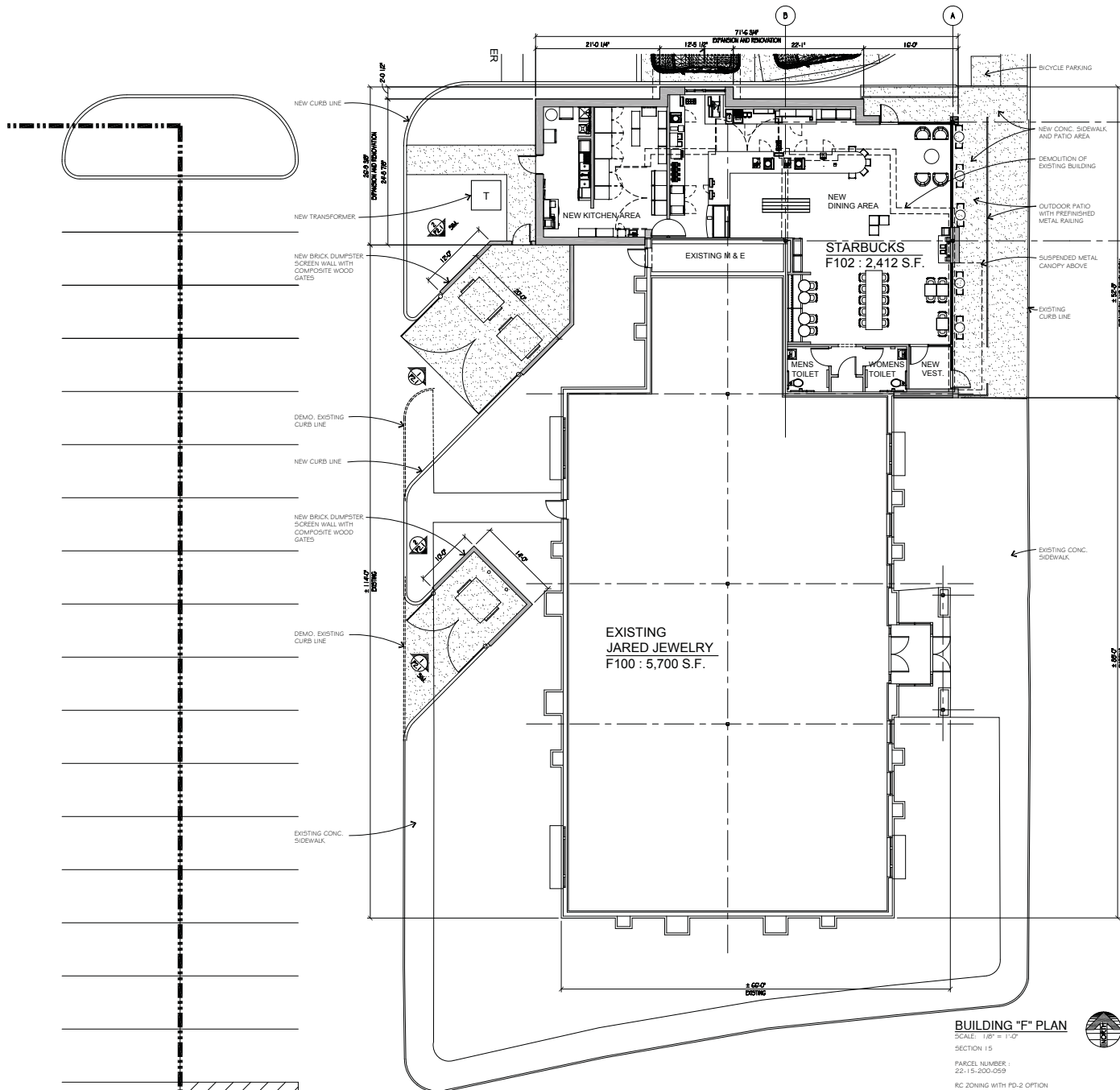
CAD DWG 4989\_P1.1.DWG

SUBMITTED FOR OWNER REVIEW 5-21-18

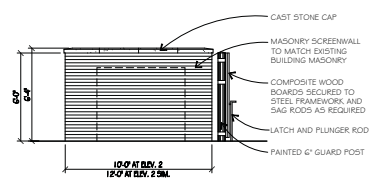
PRE-APP. SUBMITTAL 5-25-18

OWNER REVIEW 10-22-18

PRELIM. & FINAL SUBMITTAL 10-30-18



**DUMPSTER ENCLOSURE ELEVATION** (P2.1)  
SCALE: 1/4" = 1'-0"



**DUMPSTER ENCLOSURE ELEVATION** (P2.1)  
SCALE: 1/4" = 1'-0"

**BUILDING 'F' AREA CALCULATIONS**

EXISTING STARBUCKS	1,016 S.F.
EXISTING JARED JEWELRY	5,700 S.F.
<b>TOTAL EXISTING AREA</b>	<b>6,716 S.F.</b>
STARBUCKS EXPANSION AREA	1,396 S.F.
<b>TOTAL NEW BUILDING AREA</b>	<b>8,112 S.F.</b>
<b>BUILDING 'F' PARCEL</b>	<b>≈ 1.5 ACRES</b>

- GENERAL NOTES**
- NO WORK PROPOSED TO EXISTING SOUTH FACADE OF BUILDING.
  - ALL NEW BRICK TO MATCH EXISTING BUILDING BRICK.
  - TOTAL EXPANSION AREA = 1,396 S.F.
  - ALL EXISTING CONDITIONS MUST BE FIELD VERIFIED.
  - NO ALCOHOL WILL BE SERVED; METAL RAILING IS PROPOSED.
  - HOURS OF OPERATION: M-TH 5:30 am - 9:00 pm, F 5:30 am - 9:30 pm, SAT 6:00 am - 10:00 pm, SUN 6:30 am - 9:00 pm.
  - EXISTING AND OR NEW STARBUCKS ROOF TOP MECHANICAL EQUIPMENT WILL BE SCREENED BY BUILDING PARAPETS.
  - OUTDOOR SEATING SHALL BE PERMITTED BETWEEN MARCH 1st AND NOVEMBER 30th WITH ALL FURNITURE AND FIXTURES INCLUDING, BUT NOT LIMITED TO, TABLES, CHAIRS AND WASTE RECEPTACLES REMOVED FROM THE EXTERIOR PREMISES AFTER NOVEMBER 30th. OUTDOOR SEATING SHALL NOT BE THE PRIMARY SEATING OF THE RESTAURANT.

# WEST OAKS II STARBUCKS EXPANSION AND DRIVE-THRU

NOVI, MICHIGAN

**OWNER:**  
**RAMCO GERSHENSON**  
PROPERTIES TRUST  
RAMCO GERSHENSON, INC.  
3160 NORTHWESTERN HIGHWAY  
SUITE 100  
FARMINGTON HILLS, MI 48334

**Wah Yee Associates**  
ARCHITECTS & PLANNERS  
42450 GRAND RIVER AVENUE, SUITE 200  
NOVI, MICHIGAN 48275  
PHONE 248.489.9160  
PROJECT NO. 4989

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**PRELIMINARY  
NOT FOR CONSTRUCTION**  
P2.1

**BUILDING 'F' PLAN**  
SCALE: 1/8" = 1'-0"  
SECTION 15  
PARCEL NUMBER:  
22-15-200-0559  
RC ZONING WITH PD-2 OPTION

SUBMITTED FOR:  
OWNER REVIEW  
5-26-18  
PRE-APP  
SUBMITTAL 5-25-18  
OWNER REVIEW  
10-22-18  
PRELIM & FINAL  
SUBMITTAL 10-30-18



**LEGEND**

	PROPERTY LINE		PAINTED STOP BAR W/ STOP SIGN
	PROPOSED CURB & GUTTER		TRAFFIC FLOW ARROWS
	PROPOSED SIDEWALK		PROPOSED SIGN
	PROPOSED CONCRETE		PARKING SIGN CANT
	PROPOSED ASPHALT PAVEMENT		ACCESSIBLE PARKING SPACE
	PROPOSED BUILDING EXPANSION		PROPOSED LIGHT POLE
			EXISTING UTILITY POLE

**NOTES**

1. REFERENCE THE STANDARD NOTES SHEET FOR ADDITIONAL INFORMATION.
2. FOR ALL UTILITIES AND CONSTRUCTION DETAILS REFERENCED, THE STANDARD DETAILS (SHEET) MAY BE FOUND IN THE STANDARD DETAILS ATTACHED TO THIS PLAN SET.
3. REFERENCE THE ALTAIR/ALTAIR TITLE SURVEY FOR ADDITIONAL EXISTING FEATURES AND PROPERTY BOUNDARY INFORMATION.
4. ALL DIMENSIONS ARE TO EDGE OF BUILDING, FACE OF CURB, OR EDGE OF PAVEMENT, UNLESS OTHERWISE NOTED.
5. REFERENCE ARCHITECTURAL / FOUNDATION PLANS FOR BUILDING DIMENSIONS.

**SITE DATA**

**PARCEL SUMMARY**

PARCEL ID: 12-18-350-028 ZONING: RC - REGIONAL CENTER

**BUILDING AREA**

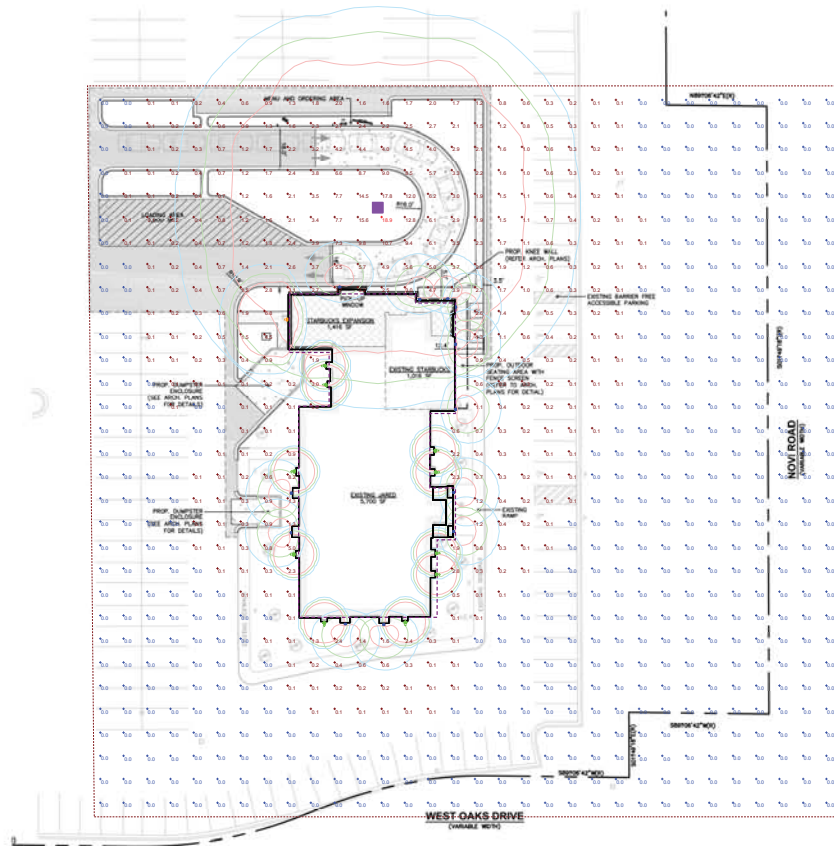
EXISTING STAMBOUK: 1,316 SF  
 EXPANSION STAMBOUK: 1,418 SF  
 EXISTING GARAGE: 3,700 SF  
 TOTAL: 6,434 SF

**LOADING DATA**

AXLES: 2 STANDARD, 2 REQUIRED, 1 OVERHEAD  
 STAMBOUK: 1,000 SQ. FT. 840 SQ. FT. 10 SQ. FT./FOOT OF BUILDING FRONTAGE

**DRIVE-THRU STACKING**

LOCATION: BETWEEN ORDER AND PICK-UP + SPACES, 4 SPACES  
 ADVANCE OF ORDER + SPACES, 5 SPACES



**811**  
 Know what's below.  
 Call before you dig.

**ATWELL**  
 11000 N. HAVEN RD. SUITE 100  
 OAKLAND COUNTY, MICHIGAN 48867  
 TEL: 248.847.1100  
 WWW.ATWELLINC.COM

SECTION 15  
 TOWN 1 NORTH, RANGE 8 EAST  
 CITY OF NOV  
 OAKLAND COUNTY, MICHIGAN

**RANCO GERSHENSON**  
 WEST OAKS DRIVE EXPANSION & DRIVE-THRU  
 PRELIMINARY SITE PLANS  
 LAYOUT PLAN

MAY 25, 2018  
 REVISIONS: 01/25/18  
 01-25-2018 PRELIMINARY

SCALE BY: 1/8"=1'-0"  
 CHECKED BY: IM  
 PROJECT MANAGER: WJS  
 JOB #: 1702088  
 FILE CODE: 02  
 SHEET NO. **C01**

NOT FOR CONSTRUCTION

Symbol	Label	Quantity	Manufacturer or	Catalog Number	Description	Lamp	Number of Lamps	Filename	Lumens Per Lamp	Light Factor	Wattage
	VISA	12	VISA LIGHTING	QW1043	WALL SCONCE - HALF ROUNDER 20"	LED 3500K -H	1	QW1043-LED-HWH	1648	0.9	18.2
	WST	1	Lithonia Lighting	WST LED P2 40K W/ HWS1	WST LED, Performance Package 2, 4000 K, 4000 lumens forward throw, 10' ROUND N-DIRECTION WALL MOUNT (HWS1)	LED	1	WST_LED_P2_40K_W/ HWS1	3469	0.9	25
	A	10	Lithonia Lighting Inc.	WST1300B-840U-LED	8' ROUND N-DIRECTION WALL MOUNT (HWS1)		1	WST1300B-840U-LED	1068	0.9	14.55
	B	1	Spaulding	MSV-e-H1K-HF-F	OUTDOOR ARCHITECTURAL ROADWAY MOUNT, ACCENTUATED TORCH CLEAR, FLAT IR GLASS	1000W MET. HAL	1	MSV-e-H1K-HF-F	100000	0.65	1080

**Statistics**  
 Scale: 1" = 20'

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Calc Zone #1		0.6 fc	18.9 fc	0.0 fc	N/A	N/A

Siteplan Expansion  
 West Oaks Drive  
 Lighting Calculation



**OW161 - COOLPAGE** VISAL LIGHTING

Model: **OW161** | Part: **OW161-001** | Color: **White**

**Material Selection**

Part Name	Qty	Material	Part No.	Notes
OW161	1	Aluminum	OW161-001	

**Dimensions**

Height: 10.5" | Width: 10.5" | Depth: 10.5"

Page 1

**OW161 - COOLPAGE** VISAL LIGHTING

Model: **OW161** | Part: **OW161-001** | Color: **White**

**Material Selection**

Part Name	Qty	Material	Part No.	Notes
OW161	1	Aluminum	OW161-001	

**Dimensions**

Height: 10.5" | Width: 10.5" | Depth: 10.5"

Page 1

**Liton** THE CATALOG PROJECT

**WD1360 - 4" ROUND 1-DIRECTION WALL MOUNT (PWS) 1000LM/1500LM/2200LM/2500LM SURFACE 1-DIRECTION WALL MOUNT**

**SPECIFICATION**

**Application:** The WD1360 Series Directional Wall Mount can be used in both indoor and outdoor applications. It is ideal for use in areas where a directional light source is required, such as in a hallway, a room, or a garden.

**Material:** The WD1360 Series Directional Wall Mount is constructed from high-quality aluminum. It is available in a variety of finishes, including white, black, and bronze.

**Dimensions:** The WD1360 Series Directional Wall Mount has a diameter of 4 inches and a height of 1.3 inches. It is designed to be surface-mounted to a wall.

**Lighting:** The WD1360 Series Directional Wall Mount is available in four different light output options: 1000lm, 1500lm, 2200lm, and 2500lm. It is designed to provide a focused beam of light.

**Features:** The WD1360 Series Directional Wall Mount features a directional beam of light, a surface-mount design, and a variety of finish options.

Page 1

**WST LED** Architectural Tiled Surface

Model: **WST LED** | Part: **WST LED** | Color: **White**

**Specifications**

Height: 1.5" | Width: 1.5" | Depth: 1.5"

**Optional Back Box (PWS)**

Height: 1.5" | Width: 1.5" | Depth: 1.5"

**Optional Back Box (BWB)**

Height: 1.5" | Width: 1.5" | Depth: 1.5"

Page 1

**MSV SERIES** HUBBELL Outdoor Lighting

Model: **MSV** | Part: **MSV** | Color: **White**

**Ordering Information**

Model	Material	Finish	Light Output (lm)	Beam Angle	Mounting
MSV-1000	Aluminum	White	1000	30°	Surface
MSV-1500	Aluminum	White	1500	30°	Surface
MSV-2200	Aluminum	White	2200	30°	Surface
MSV-2500	Aluminum	White	2500	30°	Surface

**Dimensions**

Height: 1.5" | Width: 1.5" | Depth: 1.5"

Page 1

**MSV SERIES** HUBBELL Outdoor Lighting

Model: **MSV** | Part: **MSV** | Color: **White**

**Ordering Information**

Model	Material	Finish	Light Output (lm)	Beam Angle	Mounting
MSV-1000	Aluminum	White	1000	30°	Surface
MSV-1500	Aluminum	White	1500	30°	Surface
MSV-2200	Aluminum	White	2200	30°	Surface
MSV-2500	Aluminum	White	2500	30°	Surface

**Dimensions**

Height: 1.5" | Width: 1.5" | Depth: 1.5"

Page 1

**MSV SERIES** HUBBELL Outdoor Lighting

Model: **MSV** | Part: **MSV** | Color: **White**

**Ordering Information**

Model	Material	Finish	Light Output (lm)	Beam Angle	Mounting
MSV-1000	Aluminum	White	1000	30°	Surface
MSV-1500	Aluminum	White	1500	30°	Surface
MSV-2200	Aluminum	White	2200	30°	Surface
MSV-2500	Aluminum	White	2500	30°	Surface

**Dimensions**

Height: 1.5" | Width: 1.5" | Depth: 1.5"

Page 1



Sheets: Expansion  
Wrest Oaks: Max  
Lighting: Calculation

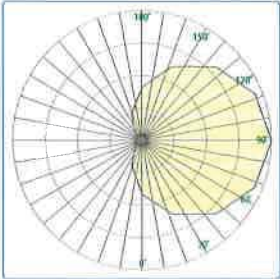
Designer  
Date: 7/20/2018  
Scale: Not to Scale  
Drawing No.  
Summary



**OW1043 – COLONNADE**  
Outdoor only



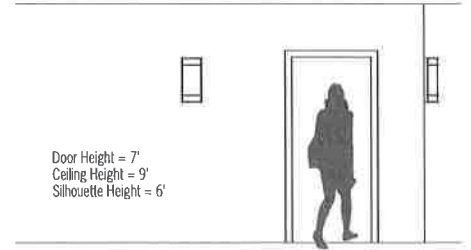
**Photometrics**



**Technical Information**

- Integral LED power supply
- Modular design for replacement of LED source and power supply
- Mounts to standard electrical junction box (by others) and wall with provided hardware
- Solid metal accent bars; sealed and gasketed construction
- 1/8" thick white acrylic diffuser
  - ♦ F1 rated, UV stable
  - ♦ UL-94 HB Flame Class rated
- No VOC powder coat paint finish
- ETL Listed for wet location mounting 4' above grade

**Relative Scale Drawing**



Specify color code when ordering. For accurate color matching, individual paint and finish samples are [available upon request](#). For additional information see [VisaLighting.com/materials-finishes](http://VisaLighting.com/materials-finishes)

**Painted Finishes (Standard)**



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# WST LED

## Architectural Wall Sconce



Catalog  
Number

Notes

STARBUCKS WEST OAKS - NOV1

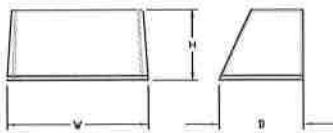
Type

SERVICE AREA

### Specifications

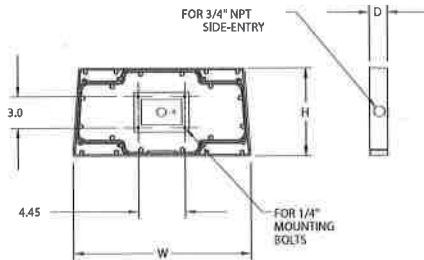
#### Luminaire

- Height:** 8-1/2"  
(21.59 cm)
- Width:** 17"  
(43.18 cm)
- Depth:** 10-3/16"  
(25.9 cm)
- Weight:** 20 lbs  
(9.1 kg)



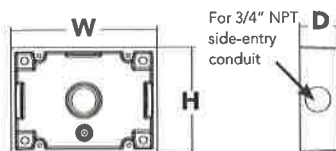
#### Optional Back Box (PBBW)

- Height:** 8.49"  
(21.56 cm)
- Width:** 17.01"  
(43.21 cm)
- Depth:** 1.70"  
(4.32 cm)



#### Optional Back Box (BBW)

- Height:** 4"  
(10.2 cm)
- Width:** 5-1/2"  
(14.0 cm)
- Depth:** 1-1/2"  
(3.8 cm)



### A+ Capable Luminaire

This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and system-level interoperability.

- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency
- This luminaire is A+ Certified when ordered with DTL® controls marked by a shaded background. DTL DLL equipped luminaires meet the A+ specification for luminaire to photocontrol interoperability<sup>1</sup>
- This luminaire is part of an A+ Certified solution for ROAM® or XPoint™ Wireless control networks, providing out-of-the-box control compatibility with simple commissioning, when ordered with drivers and control options marked by a shaded background<sup>1</sup>

To learn more about A+, visit [www.acuitybrands.com/aplus](http://www.acuitybrands.com/aplus).

See ordering tree for details.

A+ Certified Solutions for ROAM require the order of one ROAM node per luminaire. Sold Separately: [Link to Roam](#); [Link to DTL DLL](#)



A+ Capable options Indicated by this color background.

## Ordering Information

EXAMPLE: WST LED P1 40K VF MVOLT DDBTXD

### WST LED

Series	Performance Package	Color temperature	Distribution	Voltage	Mounting
WST LED	P1 1,500 Lumen package	27K 2700 K	VF Visual comfort forward throw	MVOLT <sup>1</sup> 277 <sup>2</sup>	<b>Shipped included</b> (blank) Surface mounting bracket <b>Shipped separately</b> BBW Surface-mounted back box <sup>3</sup> PBBW Premium surface-mounted back box <sup>3,4</sup>
	P2 3,000 Lumen package	30K 3000 K	VW Visual comfort wide	120 <sup>7</sup> 347 <sup>2</sup>	
	P3 6,000 Lumen package	40K 4000 K		208 <sup>2</sup> 480 <sup>2</sup>	
		50K 5000 K		240 <sup>2</sup>	

Options	Finish (required)
PE Photoelectric cell, button type <sup>5</sup>	DDBXD Dark bronze
PER NEMA twist-lock receptacle only (controls ordered separate) <sup>6</sup>	DBLXD Black
PERS Five-wire receptacle only (controls ordered separate) <sup>6</sup>	DNAXD Natural aluminum
PER7 Seven-wire receptacle only (controls ordered separate) <sup>6</sup>	DWHXD White
PIR Motion/Ambient Light Sensor, 8-15' mounting height <sup>7,8</sup>	DSSXD Sandstone
PIR1FC3V Motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 1fc <sup>7,8</sup>	DDBTXD Textured dark bronze
PIRH 180° motion/ambient light sensor, 15-30' mounting height <sup>7,8</sup>	DBLXD Textured black
PIRH1FC3V Motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 1fc <sup>7,8</sup>	DNATXD Textured natural aluminum
SF Single fuse (120, 277, 347V) <sup>9</sup>	DWHGXD Textured white
DF Double fuse (208, 240, 480V) <sup>9</sup>	DSSTXD Textured sandstone
DS Dual switching <sup>9</sup>	
E7WH Emergency battery backup, Non CEC compliant (7W) <sup>10</sup>	
E7WC Emergency battery backup, Non CEC compliant (cold, 7W) <sup>10,11</sup>	
E7WHR Remote emergency battery backup, Non CEC compliant (remote 7W) <sup>10,12</sup>	
E20WH Emergency battery pack 18W constant power, CEC compliant <sup>10</sup>	
E20WC Emergency battery pack -20°C 18W constant power, CEC compliant <sup>10,13</sup>	
E23WHR Remote emergency battery backup, Non CEC compliant (remote 20W) <sup>10,13,14</sup>	
LCE Left side conduit entry <sup>14</sup>	
RCE Right side conduit entry <sup>14</sup>	
<b>Shipped separately</b>	
RBPW Retrofit back plate <sup>3</sup>	
VG Vandal guard <sup>15</sup>	
WG Wire guard <sup>15</sup>	

### Accessories

Ordered and shipped separately

WSTVCPBBW DDBXD U	Premium Surface -mounted back box
WSTBWW DDBTX U	Surface -mounted back box
RBPW DDBXD U	Retrofit back plate

### NOTES

- MVOLT driver operates on any line voltage from 120-277V (50/60 Hz).
- Single fuse (SF) requires 120V, 277V or 347V. Double fuse (DF) requires 208V, 240V or 480V.
- Also available as a separate accessory; see accessories information.
- Top conduit entry standard.
- Need to specify 120, 208, 240 or 277 voltage.
- Photocell ordered and shipped as a separate line item from Acuity Brands Controls. Shorting Cap included.
- Not available with VG or WG. See PER Table.

- Reference Motion Sensor table.
- Not available with Emergency options, PE or PER options.
- Not available with 347/480V.
- Battery pack rated for -20° to 40°C.
- Comes with PBBW.
- Warranty period is 3-years.
- Not available with BBW.
- Must order with fixture; not an accessory.

## Emergency Battery Operation

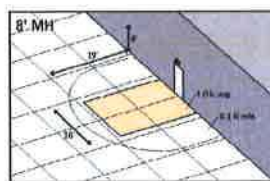
The emergency battery backup is integral to the luminaire — no external housing required! This design provides reliable emergency operation while maintaining the aesthetics of the product.

All emergency backup configurations include an independent secondary driver with an integral relay to immediately detect AC power loss, meeting interpretations of NFPA 70/NEC 2008 - 700.16

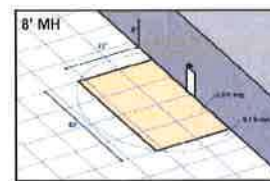
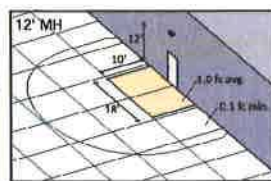
The emergency battery will power the luminaire for a minimum duration of 90 minutes (maximum duration of three hours) from the time supply power is lost, per International Building Code Section 1006 and NFPA 101 Life Safety Code Section 7.9, provided luminaires are mounted at an appropriate height and illuminate an open space with no major obstructions.

The examples below show illuminance of 1 fc average and 0.1 fc minimum of the P1 power package and VF distribution product in emergency mode.

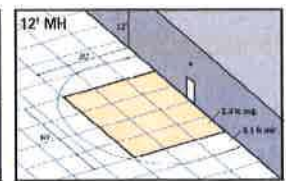
10' x 10' Gridlines  
8' and 12' Mounting Height



WST LED P1 27K VF MVOLT E7WH



WST LED P2 40K VF MVOLT E20WH



## Performance Data

### Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Ambient		Lumen Multiplier
0°C	32°F	1.03
10°C	50°F	1.02
20°C	68°F	1.01
25°C	77°F	1.00
30°C	86°F	0.99
40°C	104°F	0.98

### Projected LED Lumen Maintenance

Values calculated according to IESNA TM-21-11 methodology and valid up to 40°C.

Operating Hours	0	25,000	50,000	100,000
Lumen Maintenance Factor	1.0	>0.95	>0.92	>0.87

### Electrical Load

Performance package	System Watts	Current (A)					
		120	208	240	277	347	480
P1	11	0.1	0.06	0.05	0.04	---	---
	14	---	---	---	---	0.04	0.03
P1 DS	14	0.12	0.07	0.06	0.06	---	---
P2	25	0.21	0.13	0.11	0.1	---	---
	30	---	---	---	---	0.09	0.06
P2 DS	25	0.21	0.13	0.11	0.1	---	---
P3	50	0.42	0.24	0.21	0.19	---	---
	56	---	---	---	---	0.16	0.12
P3 DS	52	0.43	0.26	0.23	0.21	---	---

### Motion Sensor Default Settings

Option	Dimmed State	High Level (when triggered)	Photocell Operation	Ramp-up Time	Dwell Time	Ramp-down Time
*PIR or PIRH	3V (37%) Output	10V (100%) Output	Enabled @ 5FC	3 sec	5 min	5 min
PIR1FC3V or PIRH1FC3V	3V (37%) Output	10V (100%) Output	Enabled @ 1FC	3 sec	5 min	5 min

\*for use with centralize Dusk to Dawn

### PER Table

Control	PER (3 wire)	PERS (5 wire)			PER7 (7 wire)	
		Wire 4/Wire5	Wire 4/Wire5	Wire 6/Wire7		
Photocontrol Only (On/Off)	✓ ▲	Wired to dimming leads on driver	▲	Wired to dimming leads on driver	Wires Capped inside fixture	
ROAM	✗ ✓	Wired to dimming leads on driver	▲	Wired to dimming leads on driver	Wires Capped inside fixture	
ROAM with Motion	✗ ▲	Wired to dimming leads on driver	▲	Wired to dimming leads on driver	Wires Capped inside fixture	
Futureproof*	✗ ▲	Wired to dimming leads on driver	✓	Wired to dimming leads on driver	Wires Capped inside fixture	
Futureproof* with Motion	✗ ▲	Wired to dimming leads on driver	✓	Wired to dimming leads on driver	Wires Capped inside fixture	

- ✓ Recommended
- ✗ Will not work
- ▲ Alternate

\*Futureproof means: Ability to change controls in the future.

### Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts.

Performance Package	System Watt (MVOLET)	Dist. Type	27K (2700K, 70 CRI)					39K (3900K, 70 CRI)					50K (5000K, 70 CRI)					50K (5000K, 70 CRI)				
			Lumens	B	U	G	FPW	Lumens	B	U	G	FPW	Lumens	B	U	G	FPW	Lumens	B	U	G	FPW
P1	12W	VF	1,494	0	0	0	125	1,529	0	0	0	127	1,639	0	0	0	137	1,639	0	0	0	137
		VW	1,513	0	0	0	126	1,548	0	0	0	129	1,659	0	0	0	138	1,660	0	0	0	138
P2	25W	VF	3,163	1	0	1	127	3,237	1	0	1	129	3,469	1	0	1	139	3,468	1	0	1	139
		VW	3,201	1	0	0	128	3,276	1	0	0	131	3,512	1	0	0	140	3,512	1	0	0	140
P3	50W	VF	6,025	1	0	1	121	6,165	1	0	1	123	6,609	1	0	1	132	6,607	1	0	1	132
		VW	6,098	1	0	1	122	6,240	1	0	1	125	6,689	1	0	1	134	6,691	1	0	1	134



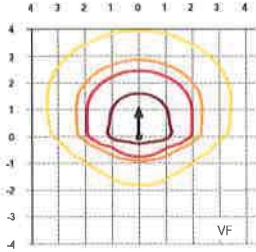


## Photometric Diagrams

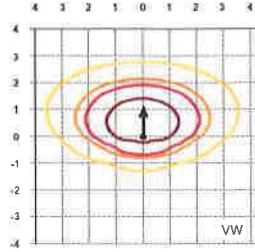
To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's WST LED homepage.

Isofootcandle plots for the WST LED P3 40K VF and VW. Distances are in units of mounting height (10').

### LEGEND



Test No. 30965P32 tested in accordance with IESNA LM-79-08.



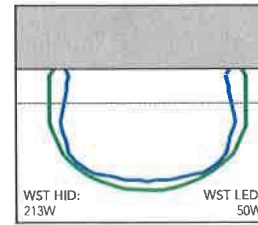
Test No. 3115P32 tested in accordance with IESNA LM-79-08.

Distribution overlay comparison to 175W metal halide.

### LEGEND



10' W Sidewalk  
LLDs:  
WST HID = 0.72  
WST LED = 0.95



WST LED P3 40K VF,  
WST 175M FT Probe, 12' Mounting Ht

## FEATURES & SPECIFICATIONS

### INTENDED USE

The classic architectural shape of the WST LED was designed for applications such as hospitals, schools, malls, restaurants, and commercial buildings. The long life LEDs and driver make this luminaire nearly maintenance-free.

### CONSTRUCTION

The single-piece die-cast aluminum housing integrates secondary heat sinks to optimize thermal transfer from the internal light engine heat sinks and promote long life. The driver is mounted in direct contact with the casting for a low operating temperature and long life. The die-cast door frame is fully gasketed with a one-piece solid silicone gasket to keep out moisture and dust, providing an IP65 rating for the luminaire.

### FINISH

Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a minimum 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling. Standard Super Durable colors include dark bronze, black, natural aluminum, sandstone and white. Available in textured and non-textured finishes.

### OPTICS

Well crafted reflector optics allow the light engine to be recessed within the luminaire, providing visual comfort, superior distribution, uniformity, and spacing in wall-mount applications. The WST LED has zero uplight and qualifies as a Nighttime Friendly™ product, meaning it is consistent with the LEED® and Green Globes™ criteria for eliminating wasteful uplight.

### ELECTRICAL

Light engine(s) consist of 98 high-efficacy LEDs mounted to a metal core circuit board and integral aluminum heat sinks to maximize heat dissipation and promote long life (100,000 hrs at 40°C, L87). Class 2 electronic driver has a power factor >90%, THD <20%. Easily-serviceable surge protection device meets a minimum Category B (per ANSI/IEEE C62.41.2).

### INSTALLATION

A universal mounting plate with integral mounting support arms allows the fixture to hinge down for easy access while making wiring connections.

### LISTINGS

CSA certified to U.S. and Canadian standards. Luminaire is IP65 rated. PIR and back box options are rated for wet location. Rated for -30°C to 40°C ambient.

DesignLights Consortium® (DLC) Premium qualified product. Not all versions of this product may be DLC Premium qualified. Please check the DLC Qualified Products List at [www.designlights.org/QPL](http://www.designlights.org/QPL) to confirm which versions are qualified.

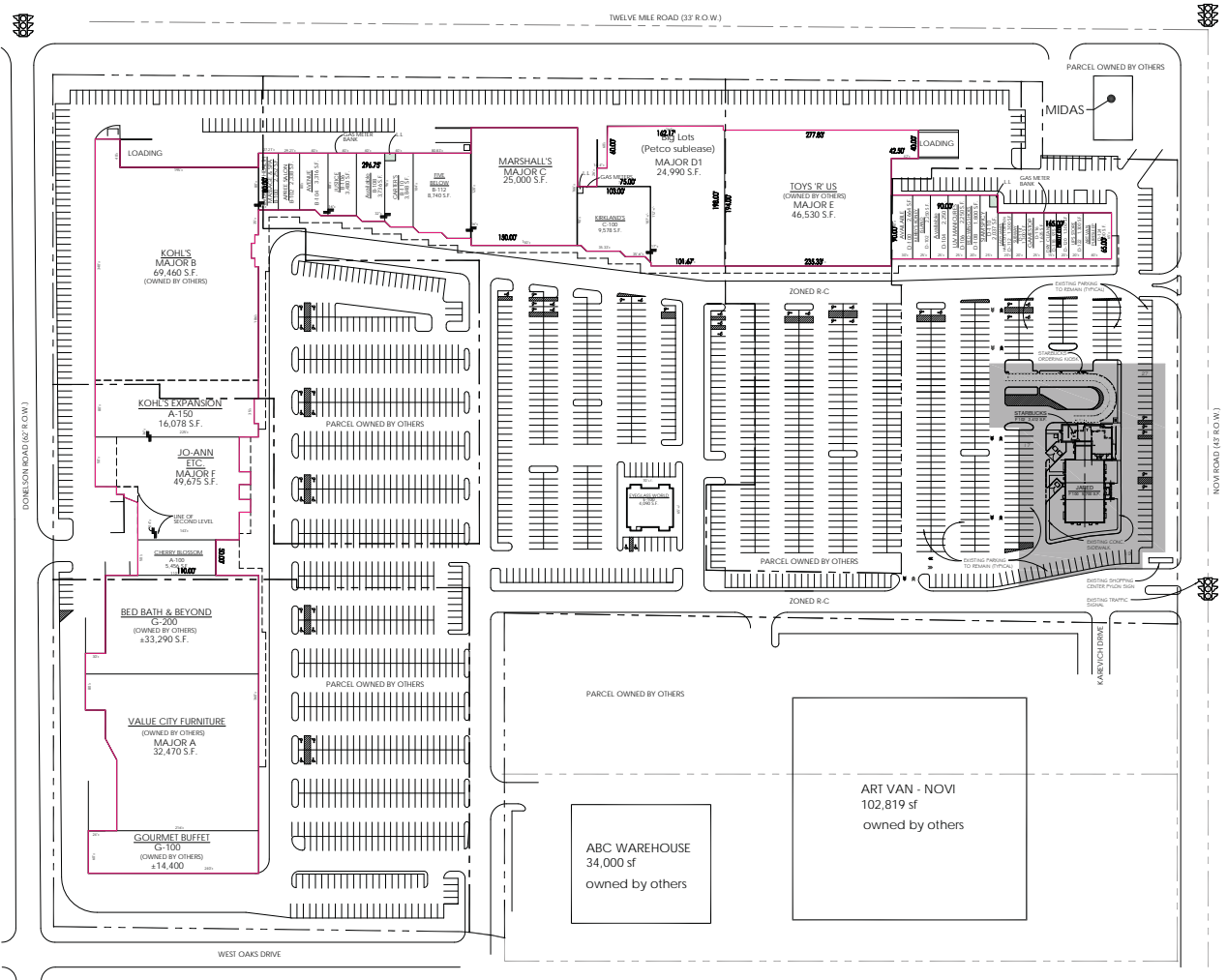
### WARRANTY

5-year limited warranty. Complete warranty terms located at: [www.acuitybrands.com/CustomerResources/Terms\\_and\\_conditions.aspx](http://www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx).

**Note:** Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.



REVISED SITE PLAN  
(E-mail dated 12-17-18)



TWELVE MILE ROAD (33' R.O.W.)

DOWNSIDE ROAD (25' R.O.W.)

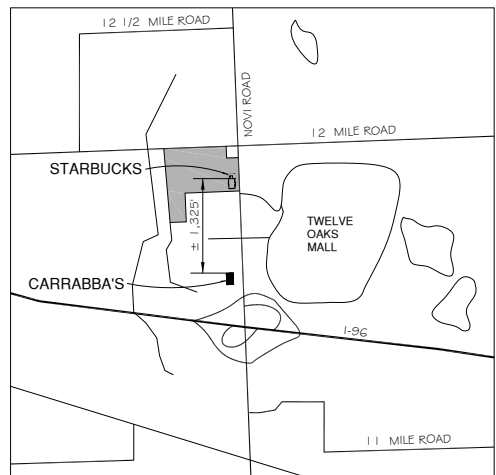
NOVI ROAD (45' R.O.W.)

WEST OAKS DRIVE

**SITE PLAN**  
SCALE: 1" = 20'-0"



SECTION 15  
PARCEL NUMBER:  
22-15-200-059  
RC ZONING WITH PD-2 OPTION



**LOCATION MAP**

SCALE: NO SCALE



**SHOPPING CENTER DATA**

BUILDING AREA	
MAJOR A (NOT OWNED)	32,470 S.F.
MAJOR B (NOT OWNED)	69,460 S.F.
MAJOR C	23,000 S.F.
MAJOR D	24,990 S.F.
MAJOR E (NOT OWNED)	46,530 S.F.
MAJOR F	49,675 S.F.
RETAIL A	21,534 S.F.
RETAIL B	27,710 S.F.
RETAIL C	9,278 S.F.
RETAIL D	23,051 S.F.
RETAIL E	4,090 S.F.
RETAIL "P"	6,112 S.F.
RETAIL G (NOT OWNED)	47,630 S.F.
<b>TOTAL</b>	<b>390,490 S.F.</b>
<b>TOTAL (OWNED)</b>	<b>194,340 S.F.</b>

**SHOPPING CENTER DATA**

PARKING	
TOTAL PARKING PROVIDED	1,970 SPACES
TOTAL PARKING (OWNED)	877 SPACES
TOTAL PARKING RATIO	5.04 / 1,000 S.F.
PARKING RATIO (OWNED)	4.51 / 1,000 S.F.
TOTAL PARKING REQUIRED PER ORDINANCE = 390,490 S.F. / 250 = 1,562 SPACES	
NOTE THAT ± 130 PARKING SPACES HAVE BEEN LOST DUE TO BUILDING "P" EXPANSION AND DRIVE-THRU.	
<b>LAND AREA :</b>	
RGPT OWNED	± 17.03 ACRES
OWNED BY OTHERS	± 16.83 ACRES
<b>TOTAL LAND AREA</b>	<b>± 33.86 ACRES</b>

TOTAL LOT COVERAGE FOR ENTIRE SHOPPING CENTER = 390,490 S.F. OF BUILDING AREA DIVIDED BY 1,474,942 S.F. OF LAND AREA = ± 26.5 %

NOTE :  
BUILDING "P" PARCEL ± 1.5 ACRES  
± 112 S.F.  
63 PARKING SPACES

**WEST OAKS II  
STARBUCKS  
EXPANSION AND DRIVE-THRU**

NOVI, MICHIGAN



**RAMCO GERSHENSON**  
PROPERTIES TRUST  
RAMCO GERSHENSON, INC.  
3100 NORTHWESTERN HIGHWAY  
SUITE 300  
FARMINGTON HILLS, MI 48334



**WAH YEE ASSOCIATES**  
ARCHITECTS & PLANNERS  
42400 GRAND DYER AVENUE, SUITE 200  
NOVI, MICHIGAN 48205  
PHONE 248.489.9160  
PROJECT NO. 4989

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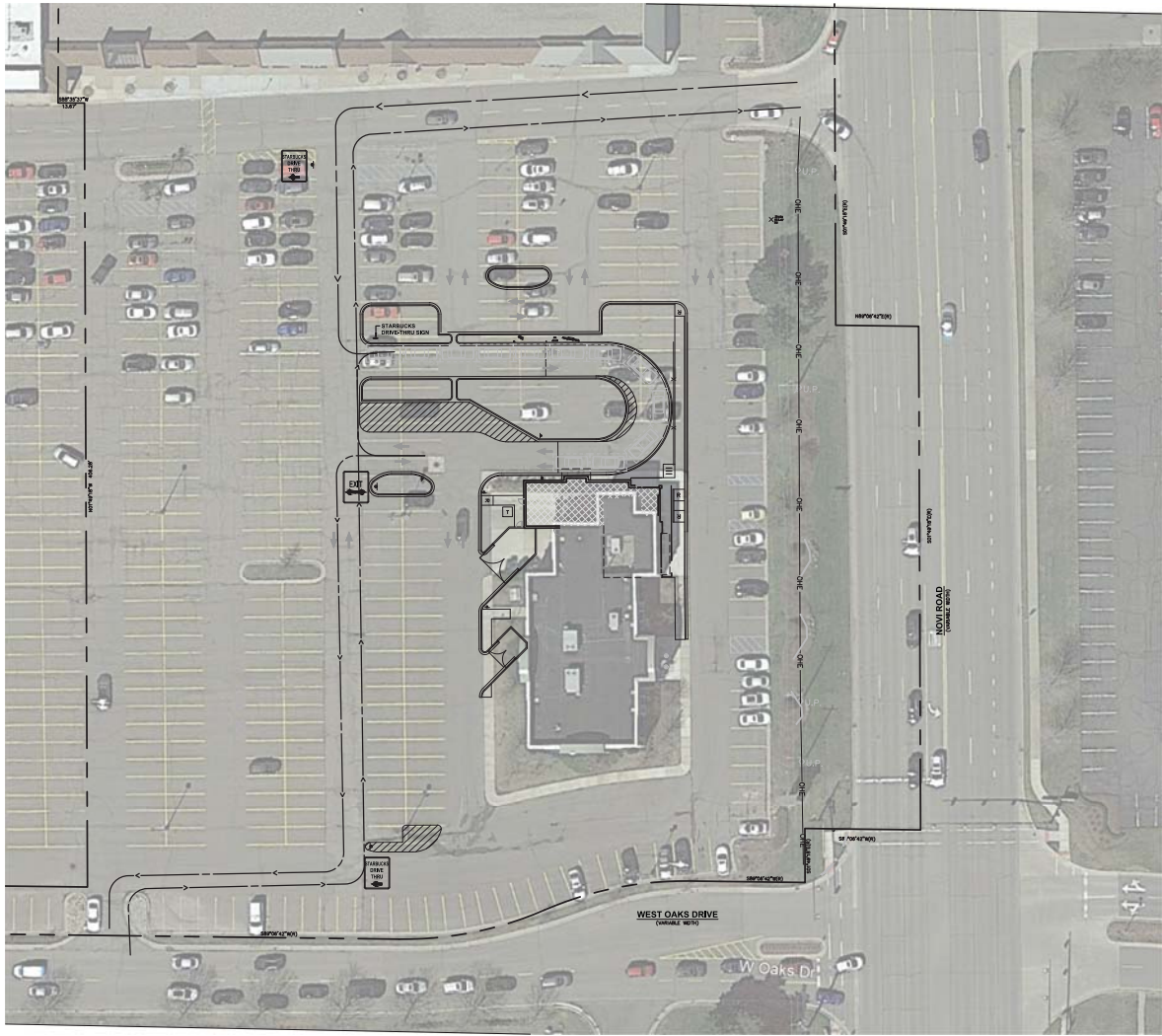
SUBMITTED FOR:  
OWNER REVIEW  
5.24.18  
PRE-APP  
SUBMITTAL 5-25-18

OWNER REVIEW  
10-22-18  
PRELIM & FINAL  
SUBMITTAL 10-30-18  
PUBLIC HEARING  
SUBMITTAL 12-17-18

**PRELIMINARY**  
NOT FOR CONSTRUCTION  
[P] [A]



**DRIVE-THRU CIRCULATION**



Know what's below.  
 Call before you dig.  
 The location of existing underground utilities are shown on an approximate basis and may not be exact. It is the responsibility of the contractor to verify the location of all utilities before commencing work. It is the contractor's responsibility for any and all damages which may be incurred by the contractor, its employees, agents, subcontractors, or any other persons, arising out of or from any excavation or drilling operations.

NOTICE:  
 CONSTRUCTION FOR SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF THE WORK, OF ANY OTHER PERSONNEL, OR ANY OTHER PERSONS.

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 ATWELL  
 1700 SOUTHFIELD AVENUE, SUITE 700  
 SOUTHFIELD, MI 48076-7000  
 248.941.2000



SECTION 15  
 TOWN 1 NORTH, RANGE 8 EAST  
 CITY OF NOVI  
 OAKLAND COUNTY, MICHIGAN

RAMCO GERSHENSON  
 WEST OAKS II - STARBUCKS  
 EXPANSION & DRIVE-THRU  
 SITE PLANS  
 DRIVE-THRU ACCESS EXHIBIT

DATE: MAY 25, 2018  
 REVISIONS/SUBMITTALS  
 05-25-2018 PRE-APP MEETING  
 10-29-2018 FOR SUBMITTAL  
 12-14-2018 REV. PER CITY

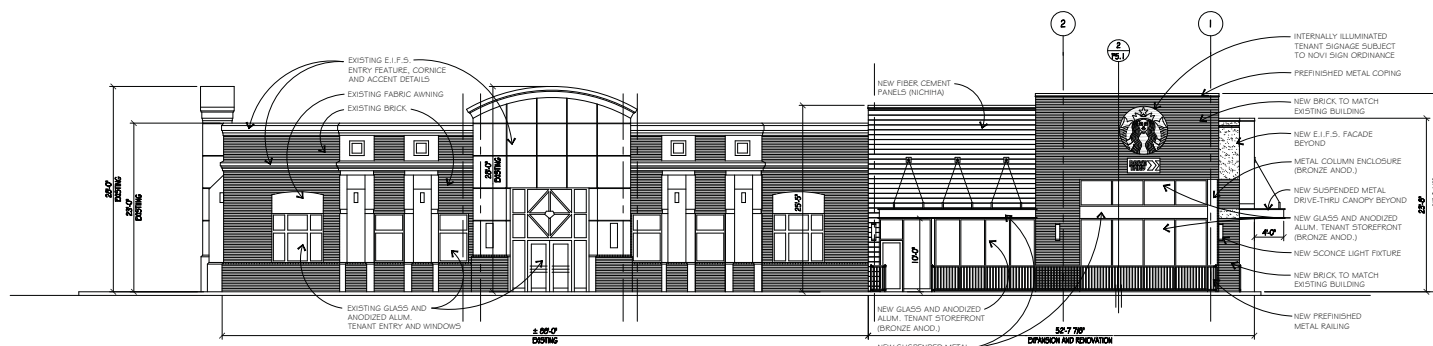


SCALE: 1"=30'  
 DRAWN BY: EM/JC  
 CHECKED BY: EM  
 PROJECT MANAGER: MMC  
 JOB #: 17002685  
 FILE CODE: 0P  
 SHEET NO.

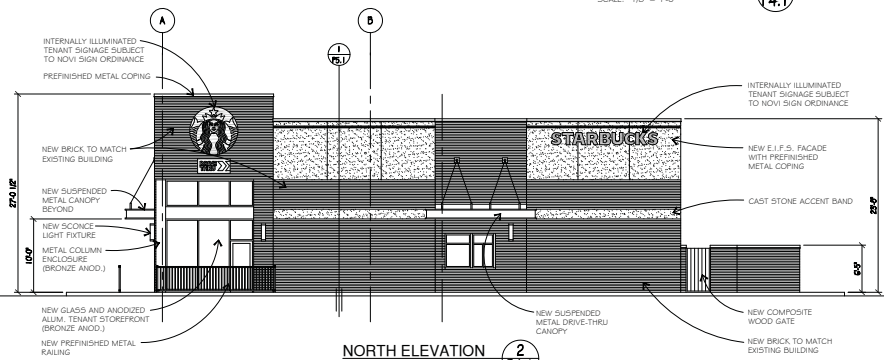
NOT FOR CONSTRUCTION

**BUILDING ELEVATIONS**

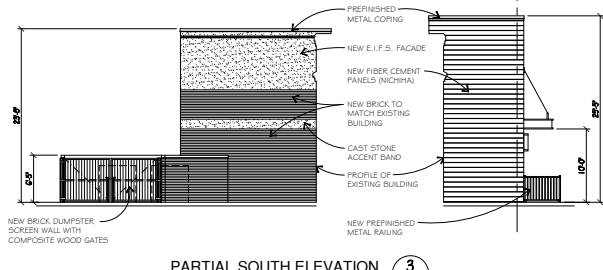




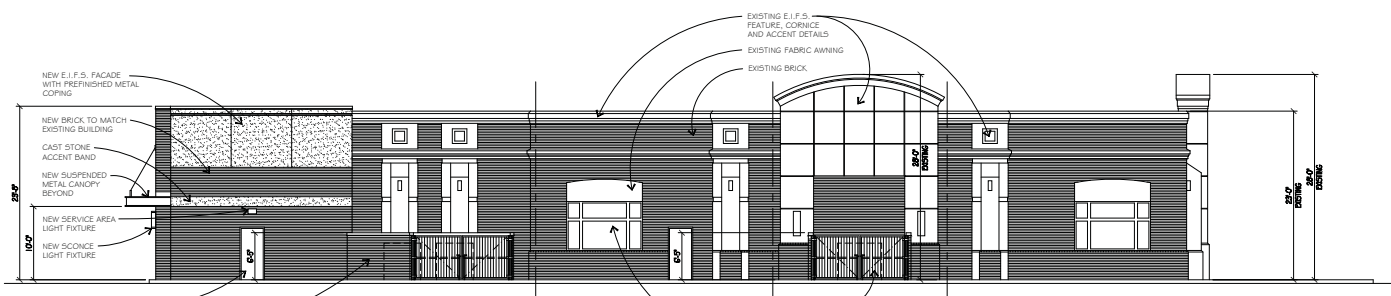
**EAST ELEVATION**  
SCALE: 1/8" = 1'-0"



**NORTH ELEVATION**  
SCALE: 1/8" = 1'-0"



**PARTIAL SOUTH ELEVATION**  
SCALE: 1/8" = 1'-0"



**WEST ELEVATION**  
SCALE: 1/8" = 1'-0"

**WEST ELEVATION MATERIALS**

MATERIAL	ALLOWABLE	PROPOSED	PERCENTAGE
BRICK (NATURAL CLAY)	100%	1,768 S.F.	58.3%
EXISTING E.I.F.S.	25%	908 S.F.	30.0%
NEW E.I.F.S.	25%	198 S.F.	6.5%
EXISTING FABRIC AWNING	10%	60 S.F.	2.0%
METAL CORNICE & TRIM	15%	65 S.F.	2.1%
CAST STONE	25%	33 S.F.	1.1%
<b>TOTAL</b>		<b>3,030 S.F.</b>	<b>100.0%</b>

NOTE: 1. TOTAL FACADE = 3,349 S.F. - GLASS STOREFRONT, WINDOWS & DOORS AREA OF 319 S.F. = 3,030 S.F.  
2. A SECTION 9 FACADE WAIVER IS BEING REQUESTED FOR EXISTING E.I.F.S. IN EXCESS OF 25% ALLOWABLE.

**PARTIAL SOUTH ELEVATION MATERIALS**

MATERIAL	ALLOWABLE	PROPOSED	PERCENTAGE
NEW BRICK (NATURAL CLAY)	100%	272 S.F.	11.9%
NEW E.I.F.S.	25%	147 S.F.	6.4%
NEW METAL CORNICE & TRIM	15%	21 S.F.	1.0%
FIBER CEMENT PANELS (NICHHA)	25%	275 S.F.	12.2%
NEW CAST STONE	25%	25 S.F.	1.1%
<b>EXISTING FACADE AREA</b>		<b>1,530 S.F.</b>	<b>67.4%</b>
<b>TOTAL</b>		<b>2,270 S.F.</b>	<b>100.0%</b>

NOTE: 1. TOTAL FACADE = ± 1,530 S.F. EXISTING AREA + 740 S.F. NEW AREA = ± 2,270 S.F.  
2. MATERIAL QUANTITIES ARE RELATIVE TO NEW CONSTRUCTION ONLY, WHILE PERCENTAGES ARE RELATIVE TO THE ENTIRE FACADE WHICH IS APPROXIMATELY 50% BRICK AND 50% E.I.F.S.

**NORTH ELEVATION MATERIALS**

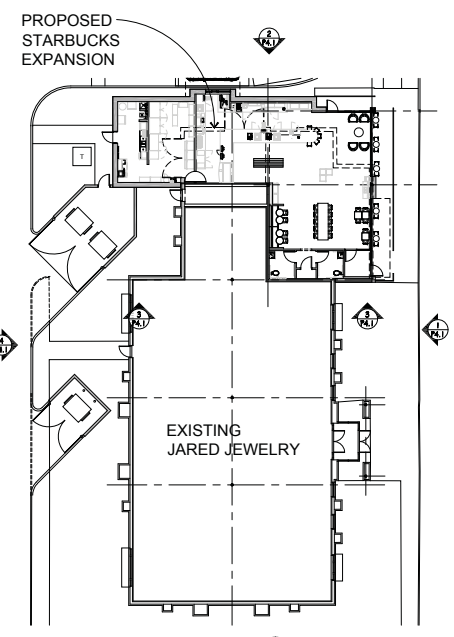
MATERIAL	ALLOWABLE	PROPOSED	PERCENTAGE
BRICK (NATURAL CLAY)	100%	1,149 S.F.	70.0%
EXISTING E.I.F.S.	25%	0 S.F.	0%
NEW E.I.F.S.	25%	342 S.F.	20.9%
EXISTING FABRIC AWNING	10%	0 S.F.	0%
METAL CORNICE & TRIM	15%	93 S.F.	5.7%
FIBER CEMENT PANELS (NICHHA)	25%	0 S.F.	0%
CAST STONE	25%	56 S.F.	3.4%
<b>TOTAL</b>		<b>1,640 S.F.</b>	<b>100.0%</b>

NOTE: 1. TOTAL FACADE = 1,856 S.F. - GLASS STOREFRONT, WINDOWS & DOORS AREA OF 216 S.F. = 1,640 S.F.

**EAST ELEVATION MATERIALS**

MATERIAL	ALLOWABLE	PROPOSED	PERCENTAGE
BRICK (NATURAL CLAY)	100%	1,302 S.F.	48.3%
EXISTING E.I.F.S.	25%	865 S.F.	32.1%
NEW E.I.F.S.	25%	22 S.F.	0.8%
EXISTING FABRIC AWNING	10%	40 S.F.	1.5%
METAL CORNICE & TRIM	15%	132 S.F.	5.0%
FIBER CEMENT PANELS (NICHHA)	25%	330 S.F.	12.2%
CAST STONE	25%	4 S.F.	0.1%
<b>TOTAL</b>		<b>2,695 S.F.</b>	<b>100.0%</b>

NOTE: 1. TOTAL FACADE = 3,456 S.F. - GLASS STOREFRONT, WINDOWS & DOORS AREA OF 741 S.F. = 2,695 S.F.  
2. A SECTION 9 FACADE WAIVER IS BEING REQUESTED FOR EXISTING E.I.F.S. IN EXCESS OF 25% ALLOWABLE.



**KEY PLAN**  
SCALE: N.T.S.  
SECTION: 15  
PARCEL NUMBER: 22-15-200-059  
RC ZONING WITH PD-2 OPTION

- GENERAL NOTES:**
- NO WORK PROPOSED TO EXISTING SOUTH FACADE OF BUILDING.
  - ALL NEW BRICK TO MATCH EXISTING BUILDING BRICK.
  - TOTAL EXPANSION AREA = 1,326 S.F.
  - ALL EXISTING CONDITIONS MUST BE FIELD VERIFIED.
  - NO ALCOHOL WILL BE SERVED. METAL RAILING IS PROPOSED.
  - HOURS OF OPERATION: MON 5:30 pm - 9:00 pm, F 5:30 pm - 9:30 pm, SAT 6:00 pm - 10:00 pm, SUN 6:30 am - 8:00 pm.
  - EXISTING AND/OR NEW STARBUCKS ROOF TOP MECHANICAL EQUIPMENT WILL BE SCREENED BY BUILDING PARAPETS.
  - OUTDOOR SEATING SHALL BE PERMITTED BETWEEN MARCH 1st AND NOVEMBER 30th WITH ALL FURNITURE AND FIXTURES INCLUDING, BUT NOT LIMITED TO, TABLES, CHAIRS AND WASTE RECEPTACLES REMOVED FROM THE EXTERIOR PREMISES AFTER NOVEMBER 30th. OUTDOOR SEATING SHALL NOT BE THE PRIMARY SEATING OF THE RESTAURANT.

# WEST OAKS II STARBUCKS EXPANSION AND DRIVE-THRU

NOVI, MICHIGAN



**RAMCO GERSHENSON**  
PROPERTIES TRUST  
RAMCO GERSHENSON INC.  
3100 NORTHWESTERN HIGHWAY  
SUITE 300  
FARMINGTON HILLS MI 48334



**WAH YEE ASSOCIATES**  
ARCHITECTS & PLANNERS  
14205 GRAND RIVER AVENUE, SUITE 200  
NOVI, MICHIGAN 48275  
PHONE 248-899-9160  
PROJECT NO. 4989

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**PRELIMINARY**  
NOT FOR CONSTRUCTION

SUBMITTED FOR:  
OWNER REVIEW  
5-21-18  
PRE-APP:  
SUBMITTAL 5-25-18  
OWNER REVIEW  
10-22-18  
PRELIM & FINAL  
SUBMITTAL 10-30-18

FAÇADE BOARD

METAL COLUMN AND  
ANOD. ALUM. STOREFRONT



CANOPY AND FASCIA



FIBER CEMENT PANELS (NICHHA)



BRICK TO MATCH EXISTING BUILDING



CAST STONE ACCENT BAND



NEW EIFS FINISH



NEW BRICK TO MATCH EXISTING BUILDING BRICK WAJNSCOT



EAST ELEVATION



NORTH ELEVATION

### WEST OAKS II STARBUCKS EXPANSION AND DRIVE-THRU

WEST OAKS, MISSOURI

OWNER:  
**RAMCO GERSHENSON**  
A DIVISION OF  
RAMCO HOLDINGS, INC.  
10000 W. 112TH ST.  
OVERLAND PARK, MO 66213

Wah Yee Associates  
ARCHITECTS & PLANNERS  
1400 GRAND RIVER AVENUE, SUITE 300  
ST. LOUIS, MISSOURI 63103  
PHONE: 314.481.1100  
PROJECT NO. 4099

PRELIMINARY  
NOT FOR CONSTRUCTION

## PLANNING REVIEW





# PLAN REVIEW CENTER REPORT

December 05, 2018

## Planning Review

### JSP 18-03 Starbucks Expansion/Drive-Thru

#### PETITIONER

Ramco West Oaks II LLC

#### REVIEW TYPE

Preliminary Site Plan with a Special Land Use and Final Site Plan

#### PROPERTY CHARACTERISTICS

Section	15	
Site Location	West Oaks Shopping Center (west side of Novi Road, north of Grand River)	
Tax Map Parcel	50-22-15-200-059	
Site School District	Novi Community School District	
Site Zoning	RC: Regional Commercial	
Adjoining Zoning	North	RC: Regional Commercial
	East	RC: Regional Commercial
	West	RC: Regional Commercial
	South	RC: Regional Commercial
Current Site Use	Shopping Center	
Adjoining Uses	North	Shopping Center
	East	Shopping Center
	West	Shopping Center
	South	Shopping Center
Site Size	14.92 Acres (Development boundary: 1.52 Acres)	
Plan Date	October 30, 2018	

#### PROJECT SUMMARY

The applicant is proposing an expansion of existing Starbucks coffee shop at the northeast corner of West Oaks Shopping Center. The expansion includes a 1,396 square foot addition to an existing 6,716 square foot building. It includes new kitchen area, dining area and outdoor seating area for 10 customers. It also includes adding a drive-thru facility to the north. The drive-thru expansion results in loss of 130 existing parking spaces. The applicant will be utilizing the Planned Development 2 (PD-2) option to propose a drive-thru.

#### RECOMMENDATION

Approval of the *Preliminary Site Plan, Special Land Use with PD-2 Option and Final Site Plan is recommended*. The plan mostly conforms to the requirements of the Zoning Ordinance, with a few deviations listed in this and other review letters. **City Council's approval for Special Land Use, Preliminary Site Plan, and Storm Water Management Plan is required.**

#### PLANNED DEVELOPMENT OPTION CONDITIONS

Section 3.31.4 of the ordinance outlines the review procedures for Preliminary Site Plans using the PD-2 Option. This requires 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. It also outlines specific factors the Planning Commission and City Council shall consider in the review:

1. The plan meets all the requirements of Section 6.1 of this Ordinance for Preliminary Site Plans and the requirements set forth in the City's Site Plan and Development Manual. **The plan meets all the requirements except a couple minor deviations as noted in Landscape review letter, which staff recommends trying to minimize.**
2. The plan satisfies the intent of the Special Land Use provisions as stated in Section 6.1.2.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 is requesting a waiver of the Community Impact Statement and to allow a Queuing study in lieu of Traffic Study. Staff supports both the requests.**
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 and Traffic 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. **The plan is in general conformance with the code 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. **No changes to existing site grading proposed**
  - 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.
  - d. Landscape plantings, off-street parking areas and service drives on adjacent lands. **Landscape generally conforms to the requirements. 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 3.31.4.B indicates the City Council shall review the proposed plan considering the Planning Commission's recommendation and the requirements of Section 3.31.4.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.

### **SPECIAL LAND USE CONSIDERATIONS**

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When the PD-2 Option is utilized, all uses fall under the Special Land Use requirements. Section 6.1.2.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:

- i. 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.
- ii. 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.
- iii. 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.
- iv. 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.
- v. 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.
- vi. 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.
- vii. Whether, relative to other feasible uses of the site, the proposed use is
  - a. Listed among the provision of uses requiring special land use review as set forth in the various zoning districts of this Ordinance, and
  - b. Is in harmony with the purposes and conforms to the applicable site design regulations of the zoning district in which it is located.

### **ORDINANCE REQUIREMENTS**

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This project was reviewed for conformance with the Zoning Ordinance with respect to Article 3 (Zoning Districts), Article 4 (Use Standards), Article 5 (Site Standards), and any other applicable provisions of the Zoning Ordinance. Comments in **bold** should be addressed with next submittal. Comments in **bold and underline** should be addressed prior to Planning Commission meeting:

1. **Drive-through Lanes Separation (Sec. 5.3.11.A,C)**: Staff requested additional pavement at the U-turn to provide some additional space for maneuverability. The additional pavement is supposed to be striped. **Please provide a revised layout in PDF format prior to Planning Commission meeting.**
2. **Deviations from the Ordinance requirements**: The proposed expansion is mostly in conformance with ordinance requirements except for the few noted below. Landscape review recommends consider revising plans to minimize the deviation sought.
  - a. Deviation to waive the requirement for a Community Impact statement as the proposed development is an extension to an existing business and does not create additional impacts.
  - b. Deviation to allow a Queuing study in lieu of Traffic Impact statement
  - c. Deviation to waive the requirement for a noise impact statement as the proposed development is an extension to an existing business and does not create additional impacts.
  - d. Shortage in landscape area provided. Refer to landscape review for more detail.

- e. Shortage in frontage of building addition facing Novi road that is landscaped. Refer to landscape review for more detail.
3. **Planning Review Chart:** Please refer to Planning review chart for additional minor comments to be addressed.
4. **Other Reviews**
  - a. **Engineering Review:** Additional comments to be addressed with revised Final Site Plan. Engineering recommends approval for Preliminary Site Plan, but not Final Site Plan..
  - b. **Landscape Review:** Landscape review has identified waivers that may be required. Refer to review letter for more comments. Additional comments to be addressed with revised Final Site Plan. Landscape recommends approval for Preliminary Site Plan, but not Final Site Plan.
  - c. **Traffic Review:** Additional comments to be addressed with revised Final Site Plan. Traffic recommends approval for Preliminary Site Plan, but not Final Site Plan..
  - d. **Queuing Study Review:** Traffic recommends approval, subject to a revised study submitted with revised final site plan submittal.
  - e. **Facade Review:** Façade recommends approval.
  - f. **Fire Review:** Fire recommends approval.

#### **NEXT STEP: PLANNING COMMISSION MEETING**

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This Site Plan can be scheduled to go before Planning Commission for **public hearing** on January 09, 2018. Please provide the following **no later than December 17, 2017** if you wish to keep the schedule.

1. Original Site plan submittal in PDF format. **NO CHANGES MADE. Provided with the initial submittal.**
2. A response letter addressing ALL the comments from ALL the review letters.
3. A revised site layout plan in PDF format, addressing Traffic Comments regarding additional pavement near the drive-thru U-turn and end islands.
4. A color rendering of the Site Plan, if any. **OPTIONAL**
5. A sample board of building materials if requested by our Façade Consultant.

#### **CITY COUNCIL MEETING**

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After receiving a favorable recommendation from Planning Commission for Preliminary Site Plan and Special Land Use, staff will place the item on City Council agenda for final approval. Additional information may be required depending on Planning Commission's recommendation.

#### **REVISED FINAL SITE PLAN SUBMITTAL**

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Traffic, Engineering and Landscape recommended approval for Preliminary Site plan and not for final site plan. After receiving the Preliminary Site Plan approval from City Council, please submit the following for Final site plan review and approval.

1. Site Plan Revision Application
2. Four copies of Final Site Plan addressing all comments from Preliminary review
3. Response letter **addressing all comments and refer to sheet numbers where the change is reflected.**
4. Revised Engineering Estimate
5. Revised Landscape Estimate
6. Revised Queuing Study
7. No Revision Façade Affidavit (if no changes are proposed for Façade)
8. Legal Documents (if required per the attached Planning and Engineering Legal Transmittals)

#### **ELECTRONIC STAMPING SET SUBMITTAL AND RESPONSE LETTER**

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After receiving Final Site Plan approval, please submit the following for Electronic stamping set approval:

1. Plans addressing the comments in all of the staff and consultant review letters in PDF format.
2. Response letter addressing all comments in ALL letters and ALL charts and **refer to sheet numbers where the change is reflected.**



### STAMPING SET APPROVAL

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Stamping sets are still required for this project. After having received all of the review letters from City staff the applicant should make the appropriate changes on the plans and submit **10 size 24" x 36" copies with original signature and original seals**, to the Community Development Department for final Stamping Set approval. Plans addressing the comments in all of the staff and consultant review letters should be submitted electronically for informal review and approval prior to printing Stamping Sets.

### PRE-CONSTRUCTION MEETING

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**A Pre-Construction meeting is required for this project.** 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. If you have questions regarding the checklist or the Pre-Con itself, please contact Sarah Marchioni [248.347.0430 or [smarchioni@cityofnovi.org](mailto:smarchioni@cityofnovi.org)] in the Community Development Department.

### CHAPTER 26.5

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Chapter 26.5 of the City of Novi Code of Ordinances generally requires all projects be completed within two years of the issuance of any starting permit. Please contact Sarah Marchioni [248.347.0430 or [smarchioni@cityofnovi.org](mailto:smarchioni@cityofnovi.org)] for additional information on starting permits. The applicant should review and be aware of the requirements of Chapter 26.5 before starting construction.

If the applicant has any questions concerning the above review or the process in general, do not hesitate to contact me at 248.735.5607 or [skomaragiri@cityofnovi.org](mailto:skomaragiri@cityofnovi.org).



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Sri Ravali Komaragiri – Planner



## PLANNING REVIEW CHART: RC with PD-2 Option

**Review Date:** December 3, 2018  
**Review Type:** Preliminary/Final Site Plan  
**Project Name:** JSP 18-33 Starbucks Expansion Drive-Thru  
**Plan Date:** October 29, 2018  
**Prepared by:** Sri Komaragiri, Planner  
**E-mail:** skomaragiri@cityofnovi.org; **Phone:** (248) 735-5607

Items in **Bold** need to be addressed by the applicant with next submittal. Underlined items need to be addressed on the Stamping set submittal.

Item	Required Code	Proposed	Meets Code	Comments
<b>Zoning and Use Requirements</b>				
<b>Master Plan</b> <i>(adopted July 27, 2017)</i>	PD-2: Planned Development Option 2	PD-2	Yes	
<b>Area Study</b>	None		NA	
<b>Zoning</b> <i>(Effective December 25, 2013)</i>	RC: Regional Commercial	RC with PD-2 Option	Yes	<b>PD-2 option is not proposed for the entire shopping center. It is limited to the proposed drive-thru improvements only.</b>
<b>Uses Permitted</b> (Sec 3.1.24.B & C)	Sec 3.1.24.B Principal Uses Permitted. Sec 3.1.24.C Special Land Uses	Fast food drive-thru  Permitted per conditions listed in 3.31	Yes?	<b>Subject to City Council approval upon Planning Commission's recommendation</b>  <b>It requires a Special land use with a 15 day public hearing</b>
<b>Phasing</b>	Provide phases lines and detail description of activities in each phase	Phasing not proposed	NA	
<b>Planned Development Site Plan Submittal Requirements (Sec. 3.31.4.A)</b>				
<b>Special Land Use</b> <i>(Sec. 3.31.4.A.ii)</i>	Special Land use requirements listed in Sec. 6.1.2.C.	To be determined at the time of site plan review	Yes?	<b>This would require a 15 day public hearing notice</b>
<b>Community Impact Statement</b> <i>(Sec. 3.31.4.A.iii)</i>	Required according to site plan manual	The applicant has requested a waiver from this requirement	Yes	<b>The proposed improvements include a drive-thru additional</b>

Item	Required Code	Proposed	Meets Code	Comments
				to an existing established business. No additional impacts are proposed. The request is supported
<b>Traffic Study</b> (Sec. 3.31.4.A.iii)	Required according to site plan manual	<b>A queuing study is provided in lieu of a Traffic study</b>	Yes?	Traffic requested revisions to the study to be submitted with next submittal
<b>Planning Commission Findings for Site plan review</b> (Sec. 3.31.4.A)	The proposed site plan meets the intent of other items listed in Section	To be determined	TBD	
<b>Use Conditions for Allowable uses under PD-2 Option (Sec. 3.31.7.B)</b>				
<b>Fast food drive-thru</b> (Sec. 3.31.7.B.v.a)	When restaurants are independently freestanding uses and not attached to or otherwise clearly accessory to a principle use, they shall be located no closer than one-thousand (1,000) feet from any other such use on the same side of the street	Carabbas is located 1,325 feet away as shown in sheet P1.1	Yes	
<b>Minimum parcel size</b> (Sec. 3.31.7.B.v.b)	1.25 acres.	Parent parcel is approximately 14.92 acres  Limits of current rebuild is approximately 1.5 acres	Yes	
<b>Traffic Circulation</b> (Sec. 3.31.7.B.v.c)	The site plan shall be designed to achieve traffic circulation features both within the site and in relation to access streets that assure safety and convenience of both vehicular and pedestrian traffic.	The site plan addressed Traffic concerns	Yes?	<b>Refer to Traffic review for additional comments</b>
<b>Restaurant in the Character of a Fast Food Carryout, Drive-In, Fast Food Drive-Through, or Fast Food Sit Down</b> (Sec. 4.40.)				
<b>Noise Impact Statement</b> (Sec. 4.40.1)	A noise impact statement is required subject to the standards of Sec. 5.14.10.B.	The applicant has requested a waiver from this requirement	Yes	<b>The proposed improvements include a drive-thru additional to an existing established business.</b>

Item	Required Code	Proposed	Meets Code	Comments
				No additional impacts are proposed. The request is supported
<b>Drive-through Lanes (Sec. 5.3.11)</b>				
<b>Drive-through Lanes Separation (Sec. 5.3.11.A,C)</b>	Drive-through lanes shall be separate from the circulation routes & lanes necessary for ingress to & egress from the property	They are separated. <b>Extra maneuvering space is recommended at the U-turn</b>	Yes	<b>Refer to Traffic Review for further comments.</b>
<b>Drive-through setbacks (Sec. 5.3.11.A,B)</b>	Drive through shall follow parking setback requirements and applicable parking lot landscaping requirements	Drive-through conforms to the parking setbacks	Yes	
<b>Bypass Lane for Drive-through (Sec. 5.3.11.D)</b>	Drive-through facilities shall provide 1 bypass lane, min. of 18 ft. in width, unless otherwise determined by the Fire Marshal	A bypass lane (with a minimum width of 18 ft. including the drive-through and bypass lane)	Yes	
<b>Width &amp; Centerline Radius of Drive-through Lanes (Sec. 5.3.11.E,F,H)</b>	Drive-through lanes shall have a minimum 9 ft. width, centerline radius of 25 ft. and a minimum length of 19 ft.	18 ft. width provided; centerline radius 35 ft.	Yes	
<b>Drive-Thru Stacking Spaces (Sec. 5.3.11.I)</b>	The distance between the order board and the pick-up window shall store four (4) vehicles, and four (4) vehicles shall be stored in advance of the menu board (not including the vehicles at the pick-up window and menu board).	5 vehicles in advance of menu board	Yes	
<b>Drive-through Lane Delineated (Sec. 5.3.11.G)</b>	Drive-through lanes shall be striped, marked, or otherwise delineated	Delineated with landscape island	Yes	
<b>Height, bulk, density and area limitations (Sec 3.1.23.D)</b>				
<b>Frontage on a Public Street (Sec. 5.12)</b> <b>Access To Major Thoroughfare (Sec. 5.12)</b>	Frontage on a Public Street is required.	The site has frontage and access to Novi Road	Yes	



Item	Required Code	Proposed	Meets Code	Comments
<b>Minimum Zoning Lot Size</b> for each Unit in Acres (Sec 3.6.2.D)	Except where otherwise provided in this Ordinance, the minimum lot area and width, and the maximum percent of lot coverage shall be determined on the basis of off-street parking, loading, greenbelt screening, yard setback, or usable open space.		NA	
<b>Minimum Zoning Lot Size</b> for each Unit: Width in Feet (Sec 3.6.2.D)			NA	
<b>Open Space Area</b>	----	---	---	---
<b>Maximum % of Lot Area Covered</b> (By All Buildings)	(Sec 3.6.2.D)	26.5 5 for entire shopping area	Yes	
<b>Building Height</b> (Sec. 3.20)	45 ft. or 3 stories whichever is less	No change to existing building height	Yes	
<b>Outdoor Restaurants (Sec. 4.84)</b>				
<b>Accessory Use</b> (Sec. 4.84)	Outdoor seating as an accessory use is allowed per section 4.84.	Outdoor seating for 10 people is proposed.	Yes	
<b>Site Plan Review</b> (Sec. 4.84.1)	If the seating area is proposed as part of a site plan application it shall require site plan review and approval by the Planning Commission	The seating will be reviewed along with the current site plan	Yes	
<b>Building and fire codes</b> (Sec. 4.84.1)	Outdoor seating areas shall also comply with all applicable building and fire codes	Will be reviewed with Outdoor seating permit	NA	
<b>Timings</b> (Sec. 4.84.2)	Permitted between March 1 <sup>st</sup> and November 30 <sup>th</sup> .	Note added to plan	Yes	
<b>Pathway</b> (Sec. 4.84.4)	Outdoor seating areas shall be located in a manner to maintain a minimum pathway width of six (6) feet (clear of structures such as light poles, trees and hydrants) along the sidewalk	6 feet clear space appears to be indicated	Yes	<b>Provide the distance to verify conformance</b>
<b>Enclosure</b> (Sec. 4.84.4)	It shall be enclosed where there is alcohol service.	Note added that no alcohol will be served; Metal railing is proposed	Yes	
<b>Location</b> (Sec. 4.84.5)	If located in public, ROW, then approval from all relate agencies is required.	It is not located in Public-Right of way	NA	

Item	Required Code	Proposed	Meets Code	Comments
	Additional requirements may apply.			
<b>Parking</b> (Sec. 4.84.6)	For more than 20 seating, parking shall be calculated.	Additional parking not required; Outdoor seating for 10 people is proposed	NA	
<b>Hours of Operation</b> (Sec. 4.84.7)	Hours of operation same as inside restaurant.	Shown on sheet P2.1	Yes	
<b>Building Setbacks (Sec 3.31.7.D)</b>				
Front and Exterior side yard	50 ft.	No changes proposed to existing setbacks	Yes	
Rear	35 ft.			
Side	35 feet (total of 70 ft)			
<b>Parking Setback (Sec 3.31.7.D)</b>				
Front and Exterior side yard	20 ft.	No changes proposed to existing setbacks	Yes	
Rear and interior side	10 ft.			
Side	20 ft.			
<b>Note To District Standards for RC district (Sec 3.6.2)</b>				
<b>Exterior Side Yard Abutting a Street</b> (Sec 3.6.2.C)	All exterior side yards abutting a street shall be provided with a setback equal to front yard.	Existing parking lot and development	Yes	
<b>Off-Street Parking in Front Yard</b> (Sec 3.6.2.E)	Off-street parking is allowed in front yard.	All existing parking	Yes	
<b>Distance between buildings</b> (Sec 3.6.2.H)	It is governed by sec. 3.8.2 or by the minimum setback requirements, whichever is greater.	Existing buildings	NA	
<b>Wetland/Watercourse Setback (Sec 3.6.2.M)</b>	A setback of 25ft from wetlands and from high watermark course shall be maintained.	No wetlands on site	NA	
<b>Additional Building height</b> (Sec 3.6.2.O)	Additional height upto 65 ft. may be allowed for properties within 1200 ft from a freeway subject to additional conditions	Not applicable	NA	

Item	Required Code	Proposed	Meets Code	Comments
<b>Parking setback screening</b> (Sec 3.6.2.P)	Required parking setback area shall be landscaped per sec 5.5.3.	A landscape plan is provided.	Yes	<b>Please refer to Landscape Review for additional information</b>
<b>Modification of parking setback requirements</b> (Sec 3.6.2.Q)	The Planning Commission may modify parking setback requirements based on its determination according to Sec 3.6.2.Q.	Parking setbacks conform to the minimum required.	NA	
<b>Parking, Loading and Dumpster Requirements</b>				
<b>Number of Parking Spaces</b>	Sec. 5.2.12.C. Planned commercial or shopping centers will apply	Total required spaces: 1,562 Total provided: 1, 970 spaces Total after drive-thru: 1,840 spaces	Yes	<b>130 spaces being removed for the current improvements</b>
<b>Parking Space Dimensions and Maneuvering Lanes</b> (Sec. 5.3.2)	90° spaces: 9 ft. x 19 ft. parking spaces with 24 ft. drives	9 ft. x 19 ft. parking spaces with 24 ft. drives	Yes	
	9 ft. x 17 ft. parking spaces along 7 ft. interior sidewalks, provided a 4 in. curb at these locations & along landscaping	9 ft. x 17 ft. parking spaces with 24 ft. drives		
<b>Parking stall located adjacent to a parking lot entrance</b> (public or private) (Sec. 5.3.13)	- shall not be located closer than twenty-five (25) feet from the street right-of-way (ROW) line, street easement or sidewalk, whichever is closer	25 ft. setback.	NA	
<b>End Islands</b> (Sec. 5.3.12)	- End Islands with landscaping and raised curbs are required at the end of all parking bays that abut traffic circulation aisles. - The end islands shall generally be at least 8 feet wide, have an outside radius of 15 feet, and be constructed 3' shorter than the adjacent parking stall as illustrated in the Zoning Ordinance	End islands conform to code.	Yes?	<b>Check Traffic Review to confirm end islands meet code requirements. Traffic has raised some operational concerns near the dead-end north of the proposed drive-thru</b>
<b>Barrier Free Spaces</b> <i>Barrier Free Code</i>	Existing	Existing	NA	
<b>Barrier Free Space</b>	- 8' wide with an 8' wide	Existing.	NA	

Item	Required Code	Proposed	Meets Code	Comments
<b>Dimensions</b> <i>Barrier Free Code</i>	access aisle for van accessible spaces - 5' wide with a 5' wide access aisle for regular accessible spaces			
<b>Barrier Free Signs</b> <i>Barrier Free Code</i>	One sign for each accessible parking space.	Existing.	NA	
<b>Minimum number of Bicycle Parking</b> <i>(Sec. 5.16.1)</i>	Five (5) percent of required automobile spaces, minimum two (2) spaces For 84 spaces: 4 spaces	1wave style bike rack proposed that holds 4 bikes	Yes	
<b>Bicycle Parking General requirements</b> <i>(Sec. 5.16)</i>	No farther than 120 ft. from the entrance being served	Appears to be within 120 ft.		
	When 4 or more spaces are required for a building with multiple entrances, the spaces shall be provided in multiple locations	4 spaces proposed		
	Spaces to be paved and the bike rack shall be inverted "U" design Shall be accessible via 6 ft. paved sidewalk	1wave style bike rack proposed that holds 4 bikes		
<b>Bicycle Parking Lot layout</b> <i>(Sec 5.16.6)</i>	Parking space width: 6 ft. One tier width: 10 ft. Two tier width: 16 ft. Maneuvering lane width: 4 ft. Parking space depth: 2 ft. single, 2 ½ ft. double	Not indicated	No	<b>Indicate the layout that fits the bike rack proposed</b>
<b>Loading Spaces</b> <i>Sec. 5.4.1</i>	- Within the OS districts, loading space shall be provided in the rear yard or - in the case of a double frontage lot, in the interior side yard, - In the ratio of five (5) square feet per front foot of building up to a total area of three-hundred sixty (360) square feet per building.	The building is located as part of a shopping center. Loading area is proposed within internal parking lot	Yes	



Item	Required Code	Proposed	Meets Code	Comments
<b>Dumpster</b> <i>Sec 4.19.2.F</i>	<ul style="list-style-type: none"> <li>- Located in rear yard</li> <li>- Attached to the building or</li> <li>- No closer than 10 ft. from building if not attached</li> <li>- Not located in parking setback</li> <li>- If no setback, then it cannot be any closer than 10 ft., from property line.</li> <li>- Away from Barrier free spaces</li> </ul>	<p>Two dumpsters provided</p> <p>1 attached to the building</p> <p>Other detached, appears to be less than 10 feet from the building</p>	No	<b><u>Dumpster near Jared Jewelers do not meet the minimum separation requirements</u></b>
<b>Dumpster Enclosure</b> <i>Sec. 21-145. (c)</i> <i>Chapter 21 of City Code of Ordinances</i>	<ul style="list-style-type: none"> <li>- Screened from public view</li> <li>- A wall or fence 1 ft. higher than height of refuse bin</li> <li>- And no less than 5 ft. on three sides</li> <li>- Posts or bumpers to protect the screening</li> <li>- Hard surface pad.</li> <li>- Screening Materials: Masonry, wood or evergreen shrubbery</li> </ul>	Elevations provided	Yes	<b>Refer to Façade review for more details</b>
<b>Exterior lighting</b> <i>Sec. 5.7</i>	Photometric plan and exterior lighting details needed at time of Final Site Plan submittal.	A lighting plan is not provided at this time	Yes?	
<b>Roof top equipment and wall mounted utility equipment</b> <i>Sec. 4.19.2.E.ii</i>	- All roof top equipment must be screened and all wall mounted utility equipment must be enclosed and integrated into the design and color of the building.	A note on the plan indicates that the existing and new rooftop equipment will be screened by parapet	Yes?	
<b>Roof top appurtenances screening</b>	Roof top appurtenances shall be screened in accordance with applicable facade regulations, and shall not be visible from any street, road, or adjacent property.			
<b>Non-Motorized Facilities</b>				
<b>Article XI. Off-Road Non-Motorized Facilities</b>	<p>A 6 foot sidewalk is required along collector and arterial roads</p> <p>Building exits must be connected to sidewalk system or parking lot.</p>	Proposed as required	Yes	

Item	Required Code	Proposed	Meets Code	Comments
<b>Pedestrian Connectivity</b>	Assure safety and convenience of both vehicular and pedestrian traffic both within the site and in relation to access streets	Proposed, but do not meet requirements	Yes?	
<b>Other Requirements</b>				
<b>Design and Construction Standards Manual</b>	Land description, Sidwell number (metes and bounds for acreage parcel, lot number(s), Liber, and page for subdivisions).	Provided	Yes	
<b>General layout and dimension of proposed physical improvements</b>	Location of all existing and proposed buildings, proposed building heights, building layouts, (floor area in square feet), location of proposed parking and parking layout, streets and drives, and indicate square footage of pavement area (indicate public or private).	Mostly provided	Yes?	<b>Refer to all review for additional information requested</b>
<b>Economic Impact</b>	<ul style="list-style-type: none"> <li>- Total cost of the proposed building &amp; site improvements</li> <li>- Number of anticipated jobs created (during construction &amp; after building is occupied, if known)</li> </ul>	Not provided at this time	No	<b>Please provide information prior to Planning Commission meeting</b>
<b>Development/ Business Sign &amp; Street addressing</b>	<ul style="list-style-type: none"> <li>- Signage if proposed requires a permit.</li> <li>- The applicant should contact the Building Division for an address prior to applying for a building permit.</li> </ul>	Not proposed at this time		<u>For further information contact Ordinance 248-347-0438 if a sign permit is required.</u>
<b>Project and Street naming</b>	Some projects may need approval from the Street and Project Naming Committee.	Not applicable	NA	
<b>Property Split</b>	The proposed property split must be submitted to the Assessing Department for approval.	No property splits proposed.	NA	
<b>Lighting and Photometric Plan (Sec. 5.7)</b>				

Item	Required Code	Proposed	Meets Code	Comments
<b>Intent</b> (Sec. 5.7.1)	Establish appropriate minimum levels, prevent unnecessary glare, reduce spillover onto adjacent properties, & reduce unnecessary transmission of light into the night sky.	A lighting plan is provided	Yes?	
	Site plan showing location of all existing & proposed buildings, landscaping, streets, drives, parking areas & exterior lighting fixtures.			
<b>Lighting Plan</b> (Sec.5.7.A.2)	Specifications for all proposed & existing lighting fixtures.	Provided	Yes	<p><b>Indicate the location of proposed light fixtures on the plan along with labels that correspond with the schedule.</b></p> <p><b>Are there any new pole lights proposed?</b></p> <p><b>Are there any new building lights proposed?</b></p>
	Photometric data	Provided	Yes	
	Fixture height			
	Mounting & design			
	Glare control devices			
	Type & color rendition of lamps	LED		
	Hours of operation	Provided	Yes	
	Photometric plan illustrating all light sources that impact the subject site, including spill-over information from neighboring properties.	Provided	Yes	
<b>Required Conditions</b> (Sec. 5.7.3.A)	Height not to exceed maximum height of zoning district (or 25 ft. where adjacent to residential districts or uses.			
<b>Required Conditions</b> (Sec. 5.7.3.B)	<ul style="list-style-type: none"> <li>- Electrical service to light fixtures shall be placed underground</li> <li>- Flashing light shall not be permitted</li> <li>- Only necessary lighting for security purposes &amp; limited operations shall be permitted after a site's hours of operation</li> </ul>	Not shown on plans	No	<b>Please add these notes to the plans</b>
<b>Required Conditions</b> (Sec.5.7.3.E)	Average light level of the surface being lit to the lowest	The proposed improvements are an	NA	

Item	Required Code	Proposed	Meets Code	Comments
	light of the surface being lit shall not exceed 4:1.	addition to the existing site layout. They do not warrant complying with the average to minimum ratio for the site, as new lot split is not proposed.		
<b>Required Conditions</b> (Sec. 5.7.3.F)	Use of true color rendering lamps such as metal halide is preferred over high & low pressure sodium lamps.	LED	Yes	
<b>Min. Illumination</b> (Sec. 5.7.3.K)	Parking areas: 0.2 min	Proposed pathways include 0.2 min	Yes	
	Loading & unloading areas: 0.4 min			
	Walkways: 0.2 min			
	Building entrances, frequent use: 1.0 min			
	Building entrances, infrequent use: 0.2 min			
<b>Max. Illumination adjacent to Non-Residential</b> (Sec. 5.7.3.K)	When site abuts a non-residential district: - Maximum illumination at the property line shall not exceed 1 foot candle.	Illumination levels at property line are kept under 1	Yes	
<b>Cut off Angles</b> (Sec. 5.7.3.L)	When adjacent to residential districts: - All cut off angles of fixtures must be 90°. - Maximum illumination at the property line shall not exceed 0.5 foot candle.	Not applicable	NA	

**NOTES:**

1. This table is a working summary chart and not intended to substitute for any Ordinance or City of Novi requirements or standards.
2. The section of the applicable ordinance or standard is indicated in parenthesis. Please refer to those sections in Article 3, 4 and 5 of the zoning ordinance for further details
3. Please include a written response to any points requiring clarification or for any corresponding site plan modifications to the City of Novi Planning Department with future submittals.



## ENGINEERING REVIEW



# PLAN REVIEW CENTER REPORT

November 30, 2018

## Engineering Review

Starbuck's Expansion and Drive-Thru  
JSP18-0033

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### Applicant

Ramco West Oaks II LLC

### Review Type

Combined Preliminary and Final Site Plan

### Property Characteristics

- Site Location: South of 12 Mile Rd, West of Novi Rd
- Site Size: 4 parcels of 33.86 ac shopping center
- Plan Date: 10/29/18
- Design Engineer: Atwell

### Project Summary

- Construction of an additional 1,396 square-foot to existing 6,716 square-foot building with drive-thru window and lane.
- Relocation of existing utility services will serve the building expansion.

### Recommendation

**Approval of the Preliminary Site Plan is recommended, with items to be addressed in a revised Final Site plan submittal.**

### Comments:

The Preliminary Site Plan meets the general requirements of Chapter 11 of the Code of Ordinances, the Storm Water Management Ordinance and the Engineering Design Manual with the following exceptions, which can be addressed in a revised Final Site Plan submittal:

#### General

1. Provide a minimum of two ties to established section or quarter section corners and include the information in the site plans.
2. Include the City benchmark information on the plan sheets and show and label city benchmark(s).
3. Provide the City's standard detail sheets for water main (5 sheets-rev. 02/16/2018), sanitary sewer (3 sheets- rev. 02/16/2018), storm sewer (2 sheets-

- rev. 02/16/2018), and paving (2 sheets-rev. 03/05/2018) at the time of the printed Stamping Set submittal (these sheets should NOT be printed with a revised final submittal). These details can be found on the City's website at this location: <http://cityofnovi.org/Government/City-Services/Public-Services/Engineering-Division/Engineering-Standards-and-Construction-Details.aspx>
4. Provide a sheet showing the existing conditions. Clearly distinguish between proposed improvements and existing features of the site.
  5. Show existing utility easements on the utility plan.
  6. Provide a traffic control sign table listing the quantities of each sign type proposed. Provide a note along with the table stating all traffic signage will comply with the current MMUTCD standards.
  7. Provide a construction materials table on the Paving Plan listing the quantity and material type for each pavement cross-section being proposed.
  8. Provide a note that compacted sand backfill shall be provided for all utilities within the influence of paved areas, and illustrate on the profiles.
  9. Provide a construction materials table on the Utility Plan listing the quantity and material type for each utility (water, sanitary and storm) being proposed.
  10. 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.
  11. Provide a note stating if dewatering is anticipated or encountered during construction a dewatering plan must be submitted to the Engineering Division for review.
  12. Generally, all proposed trees shall remain outside utility easements. Where proposed trees are required within a utility easement, the trees shall maintain a minimum 5-foot horizontal separation distance from any existing or proposed utility. All utilities shall be shown on the landscape plan, or other appropriate sheet, to confirm the separation distance.
  13. 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. Light poles in a utility easement will require a License Agreement.

#### Utilities

14. The utility plan indicates that an existing 4" water lead and an existing 3" water lead are to be re-routed but does not show existing conditions. Show on the plan where the water leads are being re-routed from.
15. Provide length and size of the lead to the remote FDC location.
16. Coordinate with Building Department for review and approval of internal grease interceptor.

#### Storm Sewer

17. Provide storm sewer sizing calculations.

18. Provide a schedule listing the casting type and other relevant information for each proposed storm structure on the utility plan. Round castings shall be provided on all catch basins except curb inlet structures.

#### Paving & Grading

19. Refer to city standard paving detail sheets for minimum pavement cross sections and mix types. Revise details on sheet C11 to be consistent with these standards and remove any redundant or conflicting details.
20. Detectable warning plates are required at all barrier free ramps, hazardous vehicular crossings and other areas where the sidewalk is flush with the adjacent drive or parking pavement. The barrier-free ramps shall comply with current MDOT specifications for ADA Sidewalk Ramps. Provide the latest version of the MDOT standard detail for detectable surfaces.
21. Label specific ramp locations on the plans where the detectible warning surface is to be installed.
22. 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. 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 (i.e. 2' minor radius, 15' major radius, minimum 8' wide, 3' shorter than adjacent 19' stall).

#### Off-Site Easements

24. Any off-site easements anticipated must be executed **prior to final approval of the plans**. Off-site easements are not anticipated at this time.

#### **The following must be submitted with the revised Final Site Plan:**

25. Revised itemized cost estimate including relocated remote FDC lead.
26. A letter from either the applicant or the applicant's engineer highlighting the changes made to the plans addressing each of the comments listed above and indicating the revised sheets involved. **Additionally, a statement must be provided stating that all changes to the plan have been discussed in the applicant's response letter.**

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

27. A pre-construction meeting shall be required prior to any site work being started. Please contact Sarah Marchioni in the Community Development Department to setup a meeting (248-347-0430).
28. 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 (no application required). No fee is required for this permit.



29. Material certifications must be submitted to Spalding DeDecker for review prior to the construction of any utilities on the site. Contact Ted Meadows at 248-844-5400 for more information.
30. Construction inspection fees in the estimated amount of \$9,359.97 must be paid to the Community Development Department. The amount will be finalized with the final cost estimate and provided at the time of pre-construction checklists.
31. A street sign financial guarantee (\$400 per traffic control sign proposed) must be posted at the Community Development Department. Signs must be installed in accordance with MMUTCD standards.

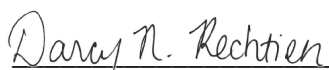
**The following must be addressed prior to issuance of a Temporary Certificate of Occupancy approval for the development:**

32. The amount of the incomplete site work performance guarantee for any outstanding site improvement items, limited to top course of pavement and other minor items, at 1.2 times the amount required to complete the site improvements as specified in the Performance Guarantee Ordinance.
33. All easements referenced above must be executed, notarized and approved by the City Attorney and City Engineer.
34. Spalding DeDecker will prepare the record drawings for this development. The record drawings will be prepared in accordance with Article XII, Design and Construction Standards, Chapter 11 of the Novi Code of Ordinances.

Prior to preparing stamping sets, the Applicant is advised to provide any revised sheets directly to the Engineering Division for an informal review and approval.

To the extent this review letter addresses items and requirements that require the approval of or a permit from an agency or entity other than the City, this review shall not be considered an indication or statement that such approvals or permits will be issued.

Please contact Darcy Rechtien at (248) 735-5695 with any questions.



Darcy N. Rechtien, P.E.

cc: Sri Komaragiri, Community Development  
George Melistas, Engineering

## LANDSCAPE REVIEW



# PLAN REVIEW CENTER REPORT

November 19, 2018

## Preliminary/Final Site Plan - Landscaping

### Starbucks Drive Thru – West Oaks

Review Type

Preliminary Landscape Review

Job #

JSP18-0033

Property Characteristics

- Site Location: West Oaks Shopping Center (west side of Novi Road, north of Grand River)
- Site Acreage: 14.92 Acres (Development boundary: 1.52 Acres)
- Site Zoning: RC: Regional Commercial
- Adjacent Zoning: RC: Regional Commercial
- Plan Date: 10/29/2018

Ordinance Considerations

This project was reviewed for conformance with Chapter 37: Woodland Protection, Zoning Article 5.5 Landscape Standards, the Landscape Design Manual and any other applicable provisions of the Zoning Ordinance. Items in **bold** below must be addressed and incorporated as part of the revised Preliminary/Final Site Plan submittal. Please follow guidelines of the Zoning Ordinance and Landscape Design Guidelines. This review and the accompanying Landscape Chart are summaries and are not intended to substitute for any Ordinance.

Recommendation

The project **is recommended for approval for Preliminary Site Plans, but not Final Site Plans**. The waivers listed below represent the most significant deviations from the ordinance, but additional information about the existing landscaping that will contribute to the drive-thru's screening needs to be provided in order to determine whether what is provided is sufficient.,

**LANDSCAPE WAIVERS REQUIRED:**

- Shortage in landscape area provided.
- Shortage in frontage of building addition facing Novi road that is landscaped

**POSSIBLE WAIVERS REQUIRED IF ADDITIONAL SCREENING IS NOT PROVIDED:**

- Insufficient loading zone/drive thru area screening

**Please work to remove as many landscape waivers as possible.**

**NOTE: The landscape plan must be created, finalized and stamped by a licensed or professional landscape architect.**

Ordinance Considerations

Existing Soils (Preliminary Site Plan checklist #10, #17)

Provided.

Existing and proposed overhead and underground utilities, including hydrants. (LDM 2.e.(4))

1. Provided.
2. There are no overhead utility lines in the vicinity of the project.

3. Please clearly show all utility lines and structures on the landscape plan and work to remove all tree/utility conflicts.

Existing Trees (Sec 37 Woodland Protection, Preliminary Site Plan checklist #17 and LDM 2.3 (2))

1. No woodland trees. Existing landscape trees are located and identified.
2. Please identify and show the sizes (dbh) of all existing trees near the site and in the greenbelt between the drive-thru and Novi Road.
3. Please include all existing plantings to remain on the landscape plan.

Adjacent to Residential - Buffer (Zoning Sec. 5.5.3.B.ii and iii)

Property is not adjacent to Residential.

Adjacent to Public Rights-of-Way – Berm (Wall) & Buffer (Zoning Sec. 5.5.3.B.ii and iii)

The project is not immediately adjacent to rights-of-way or an industrial subdivision road so no new right-of-way berms are required, **but the existing berms and landscaping must be shown accurately to assess whether they and the existing greenbelt provide sufficient screening from Novi Road or whether more is required.**

Street Tree Requirements (Zoning Sec. 5.5.3.E.i.c and LDM 1.d.)

The project is not immediately adjacent to a street so no new street trees are required.

Parking Lot Landscaping (Zoning Sec. 5.5.3.C.)

1. As the drive-thru is basically linear, only perimeter trees along the accessway are required, not interior space.
2. New endcap islands are required for all parking bays adjacent to the drive-thru area. Two are provided with sufficient area and a tree planted in it. **An additional island may be required north of the drive thru lane, depending on the traffic consultant's review. If it is required, it should also have a deciduous canopy tree planted in it.**

Parking Lot Perimeter Canopy Trees (Zoning Sec. 5.5.3.C.(3) Chart footnote)

1. It appears that there are sufficient trees provided, but that must be verified with correct calculations.
2. **Please graphically show the line used for calculation of the perimeter.**
3. **Please add calculations for parking lot perimeter trees required at 1 tree per 35lf on both sides of the drive-thru, except along the building.**

Drive Thru screening (Zoning Sec. 3.14, 3.15, 4.55, 4.56, 5.5)

1. The drive-thru lane is sufficiently screened from Novi Road by a line of inkberries, except for a fifteen foot gap in the center.
2. **Please provide some other form of screening at least 3 feet high in that gap. A low opaque fence is a possible solution.**

Loading Zone screening (Zoning Sec. 3.14, 3.15, 4.55, 4.56, 5.5)

1. The loading zone is mostly screened from Novi Road by the proposed canopy trees and drive-thru inkberries.
2. With the additional screening provided for the drive-thru, the screening should be sufficient.

Building Foundation Landscape (Zoning Sec 5.5.3.D.)

1. The required foundation landscaping is the perimeter of the addition (not the entire building), less doorways, times 8. It is unclear whether the calculation provided is for the entire building or the addition. **Please clarify that and correct the calculation if necessary or provide the required landscape area.** Currently, the calculations indicate



that 3,712sf are required but only 2,058sf are provided. This would require a landscape waiver.

2. 60% of the addition frontage facing Novi Road must have landscaping. The calculation indicates that 67lf are proposed while only 64lf are required, but no landscaping appears to be located along the Novi Road frontage. If the current situation is maintained, a landscape waiver would be required. **Please provide the required landscaping along the Novi Road frontage in a bed at least 4 feet wide.**
3. **Please label in SF all of the foundation landscaping areas to be counted toward the requirement. They should be planted with more than just lawn.**

Plant List (LDM 2.h. and t.)

Provided.

Planting Notations and Details (LDM)

1. Provided.
2. **Please revise the notes as requested on the Landscape Chart.**

Storm Basin Landscape (Zoning Sec 5.5.3.E.iv and LDM 1.d.(3))

1. No above-ground detention is proposed so no detention basin landscaping is required.
2. No Phragmites australis exists on the site.

Irrigation (LDM 1.a.(1)(e) and 2.s)

1. The proposed landscaping must be provided with sufficient water to become established and survive over the long term.
2. Please note how this will be accomplished if an irrigation plan is not provided.
3. If an irrigation plan will be provided, please include it in the electronic stamping sets.

Proposed topography. 2' contour minimum (LDM 2.e.(1))

1. Provided.
2. **Please show the contours of the existing berms between the drive-thru and Novi Road.**

Snow Deposit (LDM.2.q.)

Provided.

Proposed trees to be saved (Sec 37 Woodland Protection 37-9, LDM 2.e.(1))

1. No woodlands exist on the site and no trees are proposed to be removed.
2. **Please show all trees to remain on the site on the landscape plan.**

Corner Clearance (Zoning Sec 5.9)

Provided.

If the applicant has any questions concerning the above review or the process in general, do not hesitate to contact me at 248.735.5621 or [rmeader@cityofnovi.org](mailto:rmeader@cityofnovi.org).



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Rick Meader – Landscape Architect

## LANDSCAPE REVIEW SUMMARY CHART – Combined Preliminary/Final Site Plan

**Review Date:** November 19, 2018  
**Project Name:** JSP18 – 0033: Starbucks Expansion & Drive-thru  
**Plan Date:** October 29, 2018  
**Prepared by:** Rick Meader, Landscape Architect E-mail: [rmeader@cityofnovi.org](mailto:rmeader@cityofnovi.org);  
 Phone: (248) 735-5621

Items in **Bold** need to be addressed by the applicant before approval of the Preliminary Site Plan. Underlined items need to be addressed for Final Site Plan.

### LANDSCAPE WAIVERS REQUIRED:

- Shortage in landscape area provided.
- Shortage in frontage of building addition facing Novi road that is landscaped

### POSSIBLE WAIVER REQUIRED IF ADDITIONAL SCREENING IS NOT PROVIDED:

- Insufficient loading zone/drive thru area screening

Please work to remove as many landscape waivers as possible.

Item	Required	Proposed	Meets Code	Comments
<b>Landscape Plan Requirements (LDM (2))</b>				
<b>Landscape Plan</b> (Zoning Sec 5.5.2, LDM 2.e.)	<ul style="list-style-type: none"> <li>▪ New commercial or residential developments</li> <li>▪ Addition to existing building greater than 25% increase in overall footage or 400 SF whichever is less.</li> <li>▪ 1" =20' minimum with proper North. Variations from this scale can be approved by LA</li> <li>▪ Consistent with plans throughout set</li> </ul>	Scale: 1" =20'	Yes	
<b>Project Information</b> (LDM 2.d.)	Name and Address	Sheets C09, C10	Yes	
<b>Owner/Developer Contact Information</b> (LDM 2.a.)	Name, address and telephone number of the owner and developer or association	Yes	Yes	
<b>Landscape Architect contact information</b> (LDM 2.b.)	Name, Address and telephone number of RLA	It is not clear who created the landscape plan or if it was a landscape architect.	No	<b>Landscape plan needs to be created by a licensed/professional landscape architect.</b>
<b>Sealed by LA.</b> (LDM 2.g.)	Requires original signature	Not provided.		<u>Need for Final Site Plans</u>

Item	Required	Proposed	Meets Code	Comments
<b>Miss Dig Note</b> (800) 482-7171 (LDM.3.a.(8))	Show on all plan sheets	Yes	Yes	
<b>Zoning</b> (LDM 2.f.)	Include site zoning and all adjacent zoning	<u>Parcel:</u> R-C Rezone to PD-2 <u>North, South, East, West:</u> R-C	No	<b>Please show zoning of site and adjacent parcels on landscape plan.</b>
<b>Survey information</b> (LDM 2.c.)	<ul style="list-style-type: none"> <li>▪ Legal description or boundary line survey</li> <li>▪ Existing topography</li> </ul>	<ul style="list-style-type: none"> <li>▪ Description: Sheet C02</li> <li>▪ Limited topography provided on Topography Survey Sheet</li> </ul>	Yes	
<b>Existing plant material</b> <b>Existing woodlands or wetlands</b> (LDM 2.e.(2))	<ul style="list-style-type: none"> <li>▪ Show location type and size. Label to be saved or removed.</li> <li>▪ Plan shall state if none exists.</li> </ul>	Existing conditions on Topographic Survey.	No	<b>Please show and label all existing trees (including their species and dbh) in the vicinity of the site, including in the greenbelt between the site and Novi Road. It is important to know what screening already exists between drive-thru and Novi Road.</b>
<b>Soil types</b> (LDM.2.r.)	<ul style="list-style-type: none"> <li>▪ As determined by Soils survey of Oakland county</li> <li>▪ Show types, boundaries</li> </ul>	Sheet C02 – Marlette Sandy Loam	Yes	
<b>Existing and proposed improvements</b> (LDM 2.e.(4))	Existing and proposed buildings, easements, parking spaces, vehicular use areas, and R.O.W	<ul style="list-style-type: none"> <li>▪ Island square footages are provided in SF on Sheet C09.</li> <li>▪ Island widths are not provided.</li> </ul>	Yes/No	<b>Please dimension island widths in linear feet.</b>
<b>Existing and proposed utilities</b> (LDM 2.e.(4))	<ul style="list-style-type: none"> <li>• Show overhead and underground utilities, including hydrants</li> <li>• Show existing and proposed light fixtures.</li> </ul>	On Sheets C07, C08	No	<ol style="list-style-type: none"> <li>1. Please clearly show and label all existing utility lines and structures on landscape plan to avoid conflicts, and resolve any tree/utility conflicts.</li> <li>2. Please show all lighting fixtures on the landscape plan to avoid tree/light conflicts in the field.</li> </ol>
<b>Proposed grading. 2' contour minimum</b>	Provide proposed contours at 2' interval	Proposed spot elevations provided	Yes	

Item	Required	Proposed	Meets Code	Comments
(LDM 2.e.(1))		on Sheet C05		
<b>Snow deposit</b> (LDM.2.g.)	Show snow deposit areas on plan	Yes	Yes	
<b>LANDSCAPING REQUIREMENTS</b>				
<b>Parking Area Landscape Requirements LDM 1.c. &amp; Calculations (LDM 2.o.)</b>				
<b>General requirements</b> (LDM 1.c)	<ul style="list-style-type: none"> <li>▪ Clear sight distance within parking islands</li> <li>▪ No evergreen trees</li> </ul>	Yes	Yes	
<b>Name, type and number of ground cover</b> (LDM 1.c.(5))	As proposed on planting islands	Yes	Yes	<b>Please provide a legend for all hatching or use callouts to make clear what the ground treatments are.</b>
<b>General (Zoning Sec 5.5.3.C.ii)</b>				
<b>Parking lot Islands</b> (a, b. i)	<ul style="list-style-type: none"> <li>▪ A minimum of 200 SF to qualify</li> <li>▪ A minimum of 200sf unpaved area per tree planted in an island</li> <li>▪ 6" curbs</li> <li>▪ Islands minimum width 10' BOC to BOC</li> </ul>	Yes	TBD	<b>Please dimension widths of islands in linear feet.</b>
<b>Curbs and Parking stall reduction</b> (c)	Parking stall can be reduced to 17' and the curb to 4" adjacent to a sidewalk of minimum 7 ft.	Endcap islands are provided north and south of drive-thru.	TBD	<b>It appears that the parking bay east of the new northern island will be needed to be provided with endcap island too.</b>
<b>Contiguous space limit</b> (i)	Maximum of 15 contiguous spaces	Parking bays are not enlarged by the project.	Yes	<b>See above.</b>
<b>Plantings around Fire Hydrant</b> (d)	No plantings with matured height greater than 12' within 10 ft. of fire hydrants	All trees are 10 feet from hydrants.	TBD	<ol style="list-style-type: none"> <li>1. Trees should also be 5 feet from underground lines.</li> <li>2. <b>Please show all utilities on landscape plan and adjust lines/trees to avoid conflicts.</b></li> </ol>
<b>Landscaped area</b> (g)	Areas not dedicated to parking use or driveways exceeding 100 sq. ft. shall be landscaped	Yes	TBD	<ol style="list-style-type: none"> <li>1. Hatching indicates that some sort of groundcover is provided.</li> <li>2. <b>Please provide callouts or legend indicating what groundcovers will be.</b></li> </ol>
<b>Clear Zones</b> (LDM)	25 ft corner clearance	There are no trees	Yes	



Item	Required	Proposed	Meets Code	Comments
2.3.(5))	required. Refer to Zoning Section 5.5.9	blocking views.		
<b>Category 1: For OS-1, OS-2, OSC, OST, B-1, B-2, B-3, NCC, EXPO, FS, TC, TC-1, RC, Special Land Use or non-residential use in any R district (Zoning Sec 5.5.3.C.iii)</b>				
A = Total square footage of vehicular use areas up to 50,000sf x 7.5%	<ul style="list-style-type: none"> <li>A = x sf * 7.5 % = A sf</li> <li>50,000 * 7.5% = 3750 sf</li> </ul>	xxx sf		As it's basically just an access drive, interior planting calculations are not required.
B = Total square footage of additional paved vehicular use areas (not including A or B) over 50,000 SF) x 1 %	<ul style="list-style-type: none"> <li>B = x sf * 1% = B sf</li> <li>(xxx - 50000) * 1% = xxx sf</li> </ul>	xxx sf		See above.
<b>Category 2: For: I-1 and I-2 (Zoning Sec 5.5.3.C.iii)</b>				
A. = Total square footage of vehicular use area up to 50,000 sf x 5%	A = x sf * 5% = A sf	NA		
B = Total square footage of additional paved vehicular use areas over 50,000 SF x 0.5%	B = 0.5% x 0 sf = B SF	NA		
<b>All Categories</b>				
C = A+B Total square footage of landscaped islands	A + B = C SF	xxx sf	TBD	
D = C/200 Number of canopy trees required	<ul style="list-style-type: none"> <li>C/200 = D Trees</li> </ul>			Please add one deciduous canopy tree in any new endcap landscape island required.
<b>Accessway perimeter</b>	<ul style="list-style-type: none"> <li>1 canopy tree per 35 lf on each side of drive, less frontage of building on drive.</li> <li>xxx/35</li> </ul>	<ul style="list-style-type: none"> <li>12 canopy trees are provided in and around the drive-thru lane</li> <li>One tree is planted in each of the new endcap islands.</li> </ul>	No	<ol style="list-style-type: none"> <li>It is not clear what the calculation is based on to get the quantity required figure.</li> <li>Please provide calculation and show basis of calculation (what area or perimeter are being used).</li> <li>Please provide required trees.</li> </ol>
<b>Parking land banked</b>	<ul style="list-style-type: none"> <li>NA</li> </ul>	None		
<b>Berms, Walls and ROW Planting Requirements</b>				
<b>Berms</b>				

Item	Required	Proposed	Meets Code	Comments
<ul style="list-style-type: none"> <li>▪ All berms shall have a maximum slope of 33%. Gradual slopes are encouraged. Show 1ft. contours</li> <li>▪ Berm should be located on lot line except in conflict with utilities.</li> <li>▪ Berms should be constructed with 6" of top soil.</li> </ul>				
<b>Residential Adjacent to Non-residential (Sec 5.5.3.A) &amp; (LDM 1.a)</b>				
<b>Berm requirements (Zoning Sec 5.5.A)</b>	As site is not adjacent to residential, no berm is required.	None		
<b>Planting requirements (LDM 1.a.)</b>	LDM Novi Street Tree List	NA		
<b>Adjacent to Public Rights-of-Way (Sec 5.5.B) and (LDM 1.b)</b>				
<b>Berm requirements (Zoning Sec 5.5.3.A.(5))</b>	As frontage is not changing, no changes are required.	No changes to the existing berm are proposed	TBD	<ol style="list-style-type: none"> <li>1. Please show what the height of the existing berm is in relation to the elevation of the drive-thru.</li> <li>2. It should be at least 3 feet above the height of the drive thru paving at the turnaround to block headlights from Novi Road.</li> </ol>
<b>Cross-Section of Berms (LDM 2.j)</b>				
Slope, height and width	<ul style="list-style-type: none"> <li>▪ Label contour lines</li> <li>▪ Maximum 33%</li> <li>▪ Min. 3 feet flat horizontal area</li> <li>▪ Minimum 3 feet high</li> <li>▪ Constructed of loam with 6' top layer of topsoil.</li> </ul>	<ul style="list-style-type: none"> <li>▪ NA – only the existing berm near Novi Road is provided.</li> <li>▪ No new berms are required.</li> </ul>		
Type of Ground Cover		NA		
Setbacks from Utilities	Overhead utility lines and 15 ft. setback from edge of utility or 20 ft. setback from closest pole	The only overhead lines are close to Novi Road, out of the area of work.		
<b>Walls (LDM 2.k &amp; Zoning Sec 5.5.3.vi)</b>				
<b>Material, height and type of construction footing</b>	Freestanding walls should have brick or stone exterior with masonry or concrete interior	No walls are proposed.		
<b>Walls greater than 3 ½ ft. should be designed and sealed by an Engineer</b>				
<b>ROW Landscape Screening Requirements (Sec 5.5.3.B. ii)</b>				

Item	Required	Proposed	Meets Code	Comments
<b>Greenbelt width</b> (2)(3) (5)	RC: Adj to Parking: 20 ft. RC: Not adj to Pkg: 25 ft	35 ft to existing curb to remain	Yes	
Min. berm crest width	RC: Adj to pkg: 2 ft	Existing berms exist, only shows up as outlines (no contours).	No	<b>Please include berm on topo survey.</b>
Minimum berm height (9)	RC: Adj to pkg: 3 ft	Existing berm exists, but height is not shown.	No	<b>Please include berm heights on existing conditions plan.</b>
3' wall	(4)(7)			
<b>Canopy deciduous or large evergreen trees</b> Notes (1) (10)	<u>RC Zoning:</u> ▪ Adj to Pkg: 1 tree per 35 lf ▪ 117/35 = 3 trees	<ul style="list-style-type: none"> <li>▪ xx existing trees</li> <li>▪ xx proposed trees</li> </ul>	TBD	<ol style="list-style-type: none"> <li>1. Please show species, dbh of existing trees on landscape plan including those in the Novi Road greenbelt.</li> <li>2. If any trees are missing from the original plan, they should be replaced at this time.</li> </ol>
<b>Sub-canopy deciduous trees</b> Notes (2)(10)	<u>RC Zoning:</u> ▪ Adj to Pkg: 1 tree per 20 lf ▪ 117/20 = 6 trees	<ul style="list-style-type: none"> <li>▪ xx existing trees</li> <li>▪ xx proposed trees</li> </ul>	TBD	<b>See above</b>
<b>Canopy deciduous trees in area between sidewalk and curb</b> ( <i>Novi Street Tree List</i> )	<u>RC Zoning:</u> ▪ 1 tree per 35 lf ▪ 117/45 = 3 trees	xx existing trees	TBD	As there are no changes to greenbelt associated with this project, no additional street trees are required.
<b>Non-Residential Zoning Sec 5.5.3.E.iii &amp; LDM 1.d (2)</b>				
Refer to Planting in ROW, building foundation landscape, parking lot landscaping and LDM				
<b>Drive-thru screening</b>		<ul style="list-style-type: none"> <li>▪ Inkberries are provided along most of outer edge of drive-thru turn.</li> <li>▪ Central 15 feet has no screening.</li> </ul>	No	<b>Please provide some sort of screening at least 3 feet high in center 15 feet to block headlights.</b>
<b>Screening of outdoor storage, loading/unloading</b> ( <i>Zoning Sec. 3.14, 3.15, 4.55, 4.56, 5.5</i> )		Loading zone is in new internal island	No	<b>Once the central 15 feet is blocked per the request above, the loading zone will be sufficiently screened from Novi Road.</b>
<b>Transformers/Utility boxes</b> ( <i>LDM 1.e from 1 through 5</i> )	<ul style="list-style-type: none"> <li>▪ A minimum of 2ft. separation between box and the plants</li> <li>▪ Ground cover below 4" is allowed up to</li> </ul>	Transformer screening screened from east, but not north.	No	<b>1. Please add screening across the sidewalk to the north of the transformer to block it from that</b>

Item	Required	Proposed	Meets Code	Comments
	pad. ▪ No plant materials within 8 ft. from the doors			angle. 2. Please add a note that the screening shrubs shall be maintained at a height at least as tall as the transformer.
<b>Building Foundation Landscape Requirements (Sec 5.5.3.D)</b>				
<b>Interior site landscaping SF</b>	▪ Equals to entire perimeter of the building x 8 with a minimum width of 4 ft. ▪ x If x 8ft = x SF	▪ No foundation landscaping is provided on east side of building, facing Novi Road. ▪ It is unclear what areas are foundation landscaping areas.	No	1. Please label all foundation areas in SF to verify that requirement is met. 2. A landscape waiver would be required for shortages in foundation area provided or providing it anywhere but at the base of the building. 3. <u>Foundation plantings are to be included in cost estimate.</u>
<i>Zoning Sec 5.5.3.D.ii. All items from (b) to (e)</i>	If visible from public street a minimum of 60% of the exterior building perimeter should be covered in green space	Please indicate all existing and proposed foundation landscaping on landscape plan.	TBD	1. At least 60% of linear footage of addition facing Novi Road should be landscaped (not area). Please add landscaping as required. 2. A landscape waiver will be required for shortages in foundation area provided.
<b>Detention/Retention Basin Requirements (Sec. 5.5.3.E.iv)</b>				
<b>Planting requirements (Sec. 5.5.3.E.iv)</b>	▪ Clusters of large native shrubs shall cover 70-75% of the basin rim area ▪ 10" to 14" tall grass along sides of basin ▪ Refer to wetland for basin mix	No detention pond exists on the site so no detention landscaping is required or provided.		
<b>Phragmites Control (Sec 5.5.6.C)</b>	▪ Any and all populations of Phragmites australis on site shall be included on tree survey.	There is no Phragmites in the project area.		

Item	Required	Proposed	Meets Code	Comments
	<ul style="list-style-type: none"> <li>Treat populations per MDEQ guidelines and requirements to eradicate the weed from the site.</li> </ul>			
<b>LANDSCAPING NOTES, DETAILS AND GENERAL REQUIREMENTS</b>				
<b>Landscape Notes – Utilize City of Novi Standard Notes</b>				
<b>Installation date</b> (LDM 2.i. & Zoning Sec 5.5.5.B)	Provide intended date	Between Mar 15 and Nov 15.	No	<b>Please add note</b>
<b>Maintenance &amp; Statement of intent</b> (LDM 2.m & Zoning Sec 5.5.6)	<ul style="list-style-type: none"> <li>Include statement of intent to install and guarantee all materials for 2 years.</li> <li>Include a minimum one cultivation in June, July and August for the 2-year warranty period.</li> </ul>	Yes	Yes	<b>Please add “2 year” after the word required in Maintenance/ Warranty Note #2.</b>
<b>Plant source</b> (LDM 2.n & LDM 3.a.(2))	Shall be northern nursery grown, No.1 grade.	No	No	<b>Please add note</b>
<b>Irrigation plan</b> (LDM 2.s.)	A fully automatic irrigation system or a method of providing sufficient water for plant establishment and survival is required on Final Site Plans.	No	No	<ol style="list-style-type: none"> <li><u>Please add irrigation plan or information as to how plants will be watered sufficiently for establishment and long- term survival.</u></li> <li><u>If xeriscaping is used, please provide information about plantings included.</u></li> <li><u>If an irrigation system will be used, please include it in the electronic stamping sets.</u></li> </ol>
<b>Other information</b> (LDM 2.u)	Required by Planning Commission	NA		
<b>Establishment period</b> (Zoning Sec 5.5.6.B)	<b>2 yr. Guarantee</b>	Yes	Yes	<b>See note above.</b>
<b>Approval of substitutions.</b> (Zoning Sec 5.5.5.E)	City must approve any substitutions in writing prior to installation.	Yes	Yes	
<b>Plant List (LDM 2.h.) – Include all cost estimates</b>				
Quantities and sizes	Refer to LDM suggested plant list	Yes	Yes	
Root type		Yes	Yes	



Item	Required	Proposed	Meets Code	Comments
Botanical and common names		Yes	Yes	
Type and amount of lawn		Yes	Yes	
Cost estimate (LDM 2.t)	For all new plantings, mulch and sod as listed on the plan	Yes	Yes	
<b>Planting Details/Info (LDM 2.i) - Utilize City of Novi Standard Details</b>				
Canopy Deciduous Tree	Refer to LDM for detail drawings	Yes	Yes	
Evergreen Tree		Yes	Yes	
Multi-stem Tree		Yes	Yes	
Shrub		Yes	Yes	
Perennial/ Ground Cover		Yes	Yes	
Tree stakes and guys. (Wood stakes, fabric guys)		Yes	Yes	
Tree protection fencing	Located at Critical Root Zone (1' outside of dripline)	NA		
<b>Other Plant Material Requirements (LDM 3)</b>				
<b>General Conditions (LDM 3.a)</b>	Plant materials shall not be planted within 4 ft. of property line	Site is not near property line so this note is not required.		
<b>Plant Materials &amp; Existing Plant Material (LDM 3.b)</b>	Clearly show trees to be removed and trees to be saved.	Locations of trees and shrubs on berm appear to be shown, but no IDs are provided.	No	<ol style="list-style-type: none"> <li>1. Please show all existing landscaping in near vicinity of the project, including in the greenbelt/right-of-way.</li> <li>2. Trees need to be identified.</li> <li>3. Please clearly show all trees and shrubs to be removed.</li> <li>4. Please leave all existing plant material to remain on the landscape plan.</li> </ol>
<b>Landscape tree credit (LDM3.b.(d))</b>	Substitutions to landscape standards for preserved canopy trees outside woodlands/ wetlands should be approved by LA. Refer to Landscape tree Credit Chart in LDM	No		

Item	Required	Proposed	Meets Code	Comments
<b>Plant Sizes for ROW, Woodland replacement and others</b> (LDM 3.c)	2.5" canopy trees 6' evergreen trees		TBD	
<b>Plant size credit</b> (LDM3.c.(2))	NA	No		
<b>Prohibited Plants</b> (LDM 3.d)	No plants on City Invasive Species List		TBD	
<b>Recommended trees for planting under overhead utilities</b> (LDM 3.e)	Label the distance from the overhead utilities		TBD	1. Please clearly indicate any overhead lines in vicinity of project. 2. If none exist, please add a note to landscape plan stating this.
<b>Collected or Transplanted trees</b> (LDM 3.f)		No		
<b>Nonliving Durable Material: Mulch</b> (LDM 4)	<ul style="list-style-type: none"> <li>▪ Trees shall be mulched to 3" depth and shrubs, groundcovers to 2" depth</li> <li>▪ Specify natural color, finely shredded hardwood bark mulch. Include in cost estimate.</li> <li>▪ Refer to section for additional information</li> </ul>	Yes	Yes	<b>Please use compost instead of peat in Installation Note #5.</b>

**NOTES:**

1. This table is a working summary chart and not intended to substitute for any Ordinance or City of Novi requirements or standards.
2. The section of the applicable ordinance or standard is indicated in parenthesis. For the landscape requirements, please see the Zoning Ordinance landscape section 5.5 and the Landscape Design Manual for the appropriate items under the applicable zoning classification.
3. Please include a written response to any points requiring clarification or for any corresponding site plan modifications to the City of Novi Planning Department with future submittals.

TRAFFIC REVIEW



AECOM  
27777 Franklin Road  
Southfield  
MI, 48034  
USA  
aecom.com

**Project name:**  
JSP18-0033 – Starbucks Expansion and Drive  
Thru PSP/FSP Traffic Review

**To:**  
Barbara McBeth, AICP  
City of Novi  
45175 10 Mile Road  
Novi, Michigan 48375

**From:**  
AECOM

**Date:**  
November 28, 2018

**CC:**  
Sri Komaragiri, Lindsay Bell, George Melistas, Darcy  
Rechtien, Hannah Smith

# Memo

**Subject: JSP18-0033 – Starbucks Expansion and Drive Thru Traffic Preliminary/Final Traffic Review**

The preliminary/final site plan was reviewed to the level of detail provided and AECOM **recommends approval of the preliminary plans and denial** for the applicant to move forward on the **final plans** based on undetermined site issues such as an updated traffic study, bicycle parking layout, sign details, proposed island details, truck turning patterns, and/or other missing site details, as discussed below.

## GENERAL COMMENTS

1. The applicant is proposing a 1,396 square foot expansion of the existing Starbucks, plus the addition of a drive-thru facility, at the Starbucks location in the West Oaks shopping center.
2. The total proposed Starbucks will be 2,412 square feet.
3. The development is located west of Novi Road, north of West Oaks Drive. Novi Road is under the jurisdiction of the Road Commission for Oakland County; West Oaks Drive is under the jurisdiction of the City of Novi.
4. Summary of traffic-related waivers/variances:
  - a. The applicant is not requesting any waivers/variances at this time.

## TRAFFIC IMPACTS

1. AECOM performed an initial trip generation estimate based on the ITE Trip Generation Manual, 10<sup>th</sup> Edition, as follows:

ITE Code: 937 (Coffee/Donut Shop with Drive-Through Window)  
Development-specific Quantity: 2,412 SF  
Zoning Change: none

Trip Generation Summary				
	Estimated Trips	Estimated Peak-Direction Trips	City of Novi Threshold	Above Threshold?
AM Peak-Hour Trips	216	110	100	Yes

<b>PM Peak-Hour Trips</b>	105	53	100	No
<b>Daily (One-Directional) Trips</b>	1,994	N/A	750	Yes

- It should be noted that the above trip generation estimates are for the **total** proposed development, and not in addition to the existing Starbucks. The ITE Trip Generation Manual does not have enough data to support trip generation for a Coffee/Donut Shop without Drive-Through Window in a suburban area, so without further study, the net increase cannot be estimated.

Trip Impact Study Recommendation	
Type of Study:	Justification
<b>Queuing Study</b>	A traffic impact and queuing study was completed on June 27, 2018. AECOM reviewed the study under a separate letter and recommended denial. The applicant has not provided an updated study.

## EXTERNAL SITE ACCESS AND OPERATIONS

The following comments relate to the external interface between the proposed development and the surrounding roadway(s).

- The applicant is not proposing any modifications to the external roadway interface.

## INTERNAL SITE OPERATIONS

The following comments relate to the on-site design and traffic flow operations.

- The applicant could expand the plan view area to accommodate the next parking bay to the west to allow the reviewers a more comprehensive opportunity to review the proposed modifications to the existing site.
- The applicant is proposing a 775 SF loading zone within the interior area of the proposed drive-thru lane on the northern side of the building, which exceeds City size requirements.
  - The applicant should expand the site plan view to show the adjacent maneuvering aisle and parking bay to the west of the loading zone to further review the accessibility to the area.
  - The applicant should indicate the largest size vehicle expected to use the loading zone and should provide truck turning patterns to show accessibility to the loading zone, or provide modifications such that a truck can access the site without impeding into designated parking areas, or having a disruptive effect on the safe and efficient flow of pedestrian and vehicular traffic, as required in the Zoning Ordinance, Section 5.4.2.A.
- The applicant is proposing two trash dumpsters on the west side of the building.
  - The applicant should indicate the need for two separate dumpster enclosures.
  - The applicant should provide truck turning patterns to ensure accessibility to/from the dumpsters.
  - It should be noted that the Zoning Ordinance requires that such dumpster locations be laid out in a manner that when in use shall not cut off or diminish access to off-street parking space or to service drives (Section 5.4.4). The applicant should review this section of the ordinance and adjust the design, as applicable, or may be required to seek a variance.
- The applicant is proposing the addition of a drive-thru window for the existing Starbucks.
  - Drive-through lanes shall not utilize any space which is necessary for adequate access to parking spaces from internal maneuvering lanes (Section 5.11.C of the Zoning Ordinance). The applicant has been asked to prepare a queuing study to confirm that the proposed drive-thru layout is designed such that the queuing



vehicles will be accommodated within the provided stacking spaces and they are not expected to queue into adjacent maneuvering lanes.

- b. Drive-through spaces shall provide one by-pass lane. The applicant has indicated a total drive-thru lane, plus bypass lane, width of 18 feet, which is acceptable to the City.
  - i. The applicant has indicated that the drive-thru lane and bypass lane each have an effective width of nine feet.
  - ii. The applicant should indicate the centerline radius of the drive-thru lane. City Zoning Ordinance requires a 25 foot centerline radius (Section 5.11.F).
  - iii. There are operational concerns with the proposed bypass lane near the east end, where vehicles are required to complete a 180 degree turn. The applicant should indicate via turning patterns that the proposed design can accommodate two lanes of travel around the landscaped island, OR, may modify the design such that it can accommodate two lanes of travel. Consideration may be given to reduce the landscaped area near the east end of the island and provide hatched pavement markings to delineate the drive-thru and bypass lanes, yet allow for a larger turning area.
- c. The applicant has replaced the vehicle icons on plans with stacking space indicators that are 19 feet by nine feet in width.
- d. The proposed drive-thru length meets stacking space requirements per the Zoning Ordinance section 5.3.11.I such that it provides space for four vehicles between the order board and the pick-up window and four spaces in advance of the order board.

#### 5. Parking Facilities

- a. The applicant should refer to the Planning Review letter for information related to parking space requirements within and around the site.
- b. The applicant has indicated proposed bicycle parking on the west side of the site.
  - i. The applicant has provided a detail of the bicycle parking rack. The proposed design is only 35 18" high, which does not meet the minimum 36" requirement. The Bike rack design should be revised to meet City standards.
  - ii. The applicant needs to provide a dimensional detail of the layout. Note that a 6 foot accessible route is required from the adjacent street to the bicycle parking facilities.
  - iii. The site is required to provide a minimum of four (4) bicycle parking spaces based on a "fast food" land use, in accordance with Table 5.16.1 of the Zoning Ordinance. The applicant should indicate the number of bicycle parking spaces provided.
  - iv. Any proposed bicycle parking shall be in accordance with Section 5.16 of the Zoning Ordinance.
- c. The applicant is proposing modifications to the existing parking bays throughout the site.
  - i. The three parking bays north of the proposed drive-thru area have been modified to include one raised end island and two painted end islands at the south end of the parking bays.
    - 1. The applicant should include dimensions (length and radii) of the raised end islands, designed in accordance with Section 5.3.12 of the Zoning Ordinance. Note that end islands should be three feet shorter than the adjacent parking space.
    - 2. The 23' aisle width should be increased to the 24' in order to meet City standards
    - 3. The painted end islands on the two outer parking bays block off the aisle, which is not in compliance with City standards. A 24' aisle should be provided along the south end of all three parking bays.
  - ii. The parking bay to the west of the proposed dumpster locations includes an end island on the north end of the parking bay. The applicant should provide the dimensions of the end island which should be designed in accordance with Section 5.3.12 of the Zoning Ordinance. Note that end islands should be three feet shorter than the adjacent parking space.
  - iii. The applicant should provide a 24' access aisle between the end island and the drive-thru area to meet maneuvering lane requirements per Section 5.3.2 of the Zoning Ordinance.
    - 1. It should be noted that, when no parking spaces are present adjacent to a maneuvering lane, the lane width may be reduced to 22 feet, face of curb to face of curb (if curbed)

unless the Planning Commission finds that the 24 foot width is warranted for the proposed use.

6. Sidewalk Requirements

- a. The applicant is proposing new 5' sidewalk along the eastern side of the building and landscape areas.
- b. The applicant has provided an ADA-compliant ramp at the northern end of the easterly sidewalk.
- c. It is recommended that an ADA-compliant ramp be placed at the sidewalk connection on the west side of the building nearest to the loading zone to accommodate loading and unloading activities more effectively.

## SIGNING AND STRIPING

1. All on-site signing and pavement markings shall be in compliance with the Michigan Manual on Uniform Traffic Control Devices (MMUTCD).
  - a. The applicant should provide the following notes.
    - i. All roadside signs should be installed two feet from the face of the curb to the near edge of the sign.
    - ii. Single signs with nominal dimensions of 12" x 18" or smaller in size shall be mounted on a galvanized 2 lb. U-channel post. Multiple signs and/or signs with nominal dimension greater than 12" x 18" shall be mounted on a galvanized 3 lb. or greater U-channel post as dictated by the weight of the proposed signs.
    - iii. Traffic control signs shall use the Federal Highway Administration (FHWA) Standard Alphabet series.
    - iv. Traffic control signs shall have High Intensity Prismatic (HIP) sheeting to meet FHWA retroreflectivity requirements.
  - b. The applicant should provide a signing quantities table and additional details (MMUTCD designation and proposed size) in future submittals.
  - c. The applicant should update the sign details on sheet C11 to reflect the items noted above in 1a.
  - d. The applicant could include "Do Not Enter" (R5-1) signs on either side of the drive-thru exit.
2. The applicant has provided the necessary proposed pavement marking details and notes.
  - a. The applicant has indicated proposed parking spaces to be yellow to match the existing striping.
  - b. The applicant should indicate that the accessible parking symbol on sheet C11 will be white.
  - c. The applicant should indicate which of the traffic flow arrows shown on sheet C04 are proposed pavement markings. Arrows should be hollow for the purposes of showing traffic flow, and solid if proposed to be pavement markings.
    - i. The applicant shall update the note associated with the pavement marking directional arrows detail on sheet C11 to state that all directional arrow pavement markings will be white, regardless of the pavement material.

Should the City or applicant have questions regarding this review, they should contact AECOM for further clarification.

Sincerely,

**AECOM**



Maureen N. Peters, PE  
Senior Traffic/ITS Engineer



Paula K. Johnson, PE  
Senior Transportation Engineer

**QUEUING STUDY REVIEW**  
**Revised: March 11, 2019**



AECOM  
27777 Franklin Road  
Southfield  
MI, 48034  
USA  
aecom.com

**Project name:**  
JSP18-0033 Starbucks Drive-Through Expansion  
Queue Analysis Review

**From:**  
AECOM

**Date:**  
March 11, 2019

**To:**  
Barbara McBeth, AICP  
City of Novi  
45175 10 Mile Road  
Novi, Michigan 48375

**CC:**  
Sri Komaragiri, Lindsay Bell, George Melistas,  
Theresa Bridges, Richelle Leskun, Darcy Rechten

# Memo

**Subject:** Starbucks Drive-Through Expansion Queue Analysis Review

The revised queuing analysis was reviewed to the level of detail provided and AECOM **recommends approval with conditions, as indicated**, for the applicant to move forward. Final approval may be granted when the comments provided below are adequately addressed to the satisfaction of the City.

## GENERAL COMMENTS

1. The TIA includes the results of a trip generation forecast as well as a queuing analysis for the expanded Starbucks restaurant to add a drive through in the West Oaks shopping center. The West Oaks shopping center is located west of Novi Road and south of Twelve Mile Road.
2. The proposed expansion adds 1,396 square feet (sf) and a drive-through facility to the existing Starbucks property.
3. The preparer revised the report to indicate 11 vehicle stacking spaces and 1 vehicle at the service window for a total of 12 vehicles in the drive through.
4. The drive-through lane is proposed to be located in the adjacent parking lot and was requested to be studied to determine the impact of vehicles potentially queueing into and conflicting with parking and/or traffic operations in the adjacent parking lot, for purposes of identifying necessary queue storage areas.

## Site Trip Generation Analysis

1. The ITE *Trip Generation Manual* was used to estimate the net change in the number of trips generated by the development during the AM and PM peak hours of traffic.
2. The preparer states that there is very limited trip data for total daily trips and the results should be viewed with caution. The method for calculating the total weekday trips for the coffee/donut shop without a drive-through window should be discussed, as there is only 1 site for that land use.
3. The preparer should update the trip generation information for the existing facility in Table 1 to be consistent with the 10th edition of the ITE *Trip Generation Manual*. The changes are minimal, but should be made for purposes of consistency amongst documents.
4. It is estimated that the proposed expansion with drive-through window will produce approximately 111 additional trips in the AM peak hour, 68 more trips in the PM peak hour, and 1,210 more trips throughout the day than the existing Starbucks without a drive-through.

5. The preparer estimated the new trips for the existing coffee shop to be 42 during AM peak and 12 during PM peak. This was calculated using Fast-Food Restaurant with Drive-Through Window Pass-By rates, due to coffee/donut shop without a drive-through having no information on pass-by rates in the *Trip Generation Handbook, 3<sup>rd</sup> Edition*.
6. The proposed expansion is forecasted to generate 53 more AM trips and 22 more PM trips.

## Queueing Analysis

1. The preparer states that approximately 65% of the AM peak period traffic utilizes the drive-through window and the remaining 35% enters the store based on conversations with Atwell, LLC and correspondence with Starbucks, but they do not provide data or material to support the statement. The preparer should include such information as an appendix to be able to validate the statement.
2. The proposed drive-through operations were analyzed in order to determine if the number of provided stacking spaces could accommodate the expected queue length.
3. The preparer stated that Starbucks provided an average service rate of 45 seconds from the customer completing their order to them pulling away from the drive-through window. The preparer provided a letter from the Store Development Team that provided the 45 second average service rate.
4. Using the trip generation calculations and the statements regarding drive-through use and service rates, the preparer calculated that the approximate service rate of 80 vehicles per hour exceeds the expected arrival rate of 71 vehicles per hour during the AM peak periods. The narrative states 71 vehicles per hour, which is based on 109 inbound vehicles during the AM peak hour; however, the information on page 18 should be updated from 110 inbound trips to 109 and the resulting calculations on pages 18 and 19 should be updated to coincide.
5. The preparer then developed queue probability projections and calculated that the average queue is expected to be approximately nine vehicles, while the queue length at the 75% confidence level would be 12 vehicles, and 27 vehicles at the 95% confidence level.
6. The preparer also indicated that other studies documented on the ITE website indicated maximum observed queues of 13 vehicles. The preparer provided a list of referenced studies.
7. The preparer indicated that even if queues reached 13 vehicles, customers may begin to “balk” and decide to park and enter the facility or cancel their trip and leave. Furthermore, they indicate that if queues reached 13 vehicles, there is sufficient storage on site to accommodate the extended queue length.

## West Oaks Shopping Center Driveways Operation

The preparer reviewed the impact of the Starbucks expansion to the existing West Oaks driveways onto Novi Road near the facility.

1. The preparer indicated that the increase in trips is not expected to have a significant impact on the operation of the driveways, based on an average of one entering and one exiting trip per minute.
2. AECOM would recommend that the applicant provide a “No Left Turn/Right Turn Only Sign” for traffic exiting the plaza at the driveway north of Starbucks. Traffic needing to travel northbound on Novi Road should be directed towards W. Oaks Drive so the turn can be made at a signalized intersection and reduce the potential for queueing at this driveway.

## West Oaks Shopping Center Parking Lot Operation

The preparer reviewed the impact of the Starbucks expansion to the West Oaks parking lot operations in the vicinity of the Starbucks site.



1. The preparer indicated that the peak period of the Starbucks drive-through would be 7:00 am – 9:00 am, when most of the adjacent businesses are not open or experience minimal traffic, and stated that even if the drive-through window queue length were to exceed to provided vehicle stacking spaces, it is not anticipated to impact parking operations since the parking lot is expected to be mostly empty at that time.
2. The applicant provided a circulation plan indicating how vehicles would enter and exit the drive-thru. The applicant shows an exit sign to be located in the island area that would be visible to vehicles as they complete the drive-thru process. The applicant should consider additional signage that would direct vehicles that wish to travel northbound on Novi Road to turn left towards W. Oaks Drive so they may access Novi Road via a signalized intersection.
3. The applicant shows wayfinding signage that would direct traffic coming from Novi Road towards the drive-thru entrance. The locations that are indicated are currently in painted island areas which are prohibited by the City. The applicant would need to relocate these signs, or add curbed islands in these locations. Adding the islands would be preferred.

## Conclusion

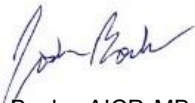
In conclusion, the applicant and the preparer of the TIA/queuing analysis should review all comments contained within this memo and provide an update. Specifically, the following:

- The applicant should review the results of this TIA and may consider altering the site plan to provide enough space for queuing, to be able to accommodate a minimum of 13 vehicles, as recommended by this and other studies, OR should receive confirmation from the City that the potential for queuing beyond the provided stacking spaces may be acceptable based on the overall West Oaks shopping Center parking lot layout.
- AECOM generally agrees with the statement that *current* neighboring land uses with the West Oaks shopping Center likely experience low activity during the AM peak period when the queues may spill into the parking lot aisles. Caution could be given to the potential for other adjacent future land uses to have similar peak periods, and the impacts that may occur as a result.
- Because of the layout of the parking lot and the various maneuver lanes throughout, access to/from adjacent land uses to/from the driveways is not expected to be an issue as a result of drive-through spillback.

Should the City or applicant have questions regarding this review, they should contact AECOM for further clarification.

Sincerely,

**AECOM**



Josh A. Bocks, AICP, MBA  
Senior Transportation Planner/Project Manager



Patricia Thompson, EIT  
Traffic Engineer

## QUEUING STUDY REVIEW



AECOM  
27777 Franklin Road  
Southfield  
MI, 48034  
USA  
aecom.com

**To:**  
Barbara McBeth, AICP  
City of Novi  
45175 10 Mile Road  
Novi, Michigan 48375

**Project name:**  
JSP18-0033 Starbucks Drive-Through Expansion  
Traffic Impact Assessment and Queue Analysis  
Review

**From:**  
AECOM

**Date:**  
August 6, 2018

**CC:**  
Sri Komaragiri, Kirsten Mellem, George Melistas,  
Theresa Bridges, Richelle Leskun, Darcy Rechten

# Memo

**Subject:** Starbucks Drive-Through Expansion Traffic Impact Assessment and Queue Analysis Review

The TIA/queuing analysis was reviewed to the level of detail provided and AECOM **recommends denial** for the applicant to move forward until the comments provided below are adequately addressed to the satisfaction of the City.

## GENERAL COMMENTS

1. The TIA includes the results of a trip generation forecast as well as a queuing analysis for the expanded Starbucks restaurant to add a drive through in the West Oaks shopping center. The West Oaks shopping center is located west of Novi Road and south of Twelve Mile Road.
2. The proposed expansion adds 1,416 square feet (sf) and a drive-through facility to the existing Starbucks property.
  - a. The report preparer should update the size of the proposed expansion to be 2,432 sf instead of 2,412 sf to be consistent with the site plan. If alternate site plans were used, please provide a copy for reference.
3. The preparer has indicated that the expansion will include 12 vehicle stacking spaces; however, the latest plan set received by the City on May 25, 2018 and the site plan included as an appendix to the queuing study only shows 11 vehicle stacking spaces. The preparer should update the report to be consistent with the site plan. Note that this impacts multiple sections of the report.
4. The drive-through lane is proposed to be located in the adjacent parking lot and was requested to be studied to determine the impact of vehicles potentially queuing into and conflicting with parking and/or traffic operations in the adjacent parking lot, for purposes of identifying necessary queue storage areas.

## Site Trip Generation Analysis

1. The ITE *Trip Generation Manual* was used to estimate the net change in the number of trips generated by the development during the AM and PM peak hours of traffic.
2. The preparer should update the trip generation information for the proposed facility to be consistent with the 2,432 sf facility. The changes are minimal, but should be made for purposes of consistency amongst documents.
3. It is estimated that the proposed expansion with drive-through window will produce approximately 113 additional trips in the AM peak hour, 68 more trips in the PM peak hour, and 1,227 more trips throughout the day than the existing Starbucks without a drive-through.
4. It should be noted that these trip generation figures do not account for the expected internal capture or pass-by trip reductions that are expected with this type of development. The preparer should include the internal capture and

pass-by trip reductions to further illustrate the actual impact the development will have on the surrounding roadways.

## Queueing Analysis

1. The preparer states that approximately 65% of the AM peak period traffic utilizes the drive-through window and the remaining 35% enters the store based on conversations with Atwell, LLC and correspondence with Starbucks, but they do not provide data or material to support the statement. The preparer should include such information as an appendix to be able to validate the statement.
2. The proposed drive-through operations were analyzed in order to determine if the number of provided stacking spaces could accommodate the expected queue length.
3. The preparer stated that Starbucks provided an average service rate of 45 seconds from the customer completing their order to them pulling away from the drive-through window, but data to support this rate was not provided. The preparer should provide additional information and/or data to validate the statement.
4. Using the trip generation calculations and the statements regarding drive-through use and service rates, the preparer calculated that the approximate service rate of 80 vehicles per hour exceeds the expected arrival rate of 71 vehicles per hour during the AM peak periods.
5. The preparer then developed queue probability projections and calculated that the average queue is expected to be approximately eight vehicles, while the queue length at the 80% confidence level would be 12 vehicles, and 23 vehicles at the 95% confidence level.
6. The preparer also indicated that other studies documented on the ITE website indicated maximum observed queues of 13 vehicles. The preparer should provide a list of referenced studies.
7. The preparer indicated that even if queues reached 13 vehicles, customers may begin to “balk” and decide to park and enter the facility or cancel their trip and leave. Furthermore, they indicate that if queues reached 13 vehicles, there is sufficient storage on site to accommodate the extended queue length.

## West Oaks Shopping Center Driveways Operation

The preparer reviewed the impact of the Starbucks expansion to the existing West Oaks driveways onto Novi Road near the facility.

1. The preparer indicated that the increase in trips is not expected to have a significant impact on the operation of the driveways, based on an average of one entering and one exiting trip per minute.
2. The preparer should clarify the statement of “and street volumes are typically lower” on page 3 of the memo as the trip generation calculations were performed based on the peak hour of the adjacent street.

## West Oaks Shopping Center Parking Lot Operation

The preparer reviewed the impact of the Starbucks expansion to the West Oaks parking lot operations in the vicinity of the Starbucks site.

1. The preparer indicated that the peak period of the Starbucks drive-through would be 7:00 am – 9:00 am, when most of the adjacent businesses are not open or experience minimal traffic, and stated that even if the drive-through window queue length were to exceed to provided vehicle stacking spaces, it is not anticipated to impact parking operations since the parking lot is expected to be mostly empty at that time.

## Conclusion

In conclusion, the applicant and the preparer of the TIA/queuing analysis should review all comments contained within this memo and provide an update. Specifically, the following:

- The number of stacking spaces and size of the facility indicated in the TIA/queuing analysis is not consistent with the site plans provided. The preparer should update the study to reflect actual site plan conditions.
- Additionally, the applicant should review the results of this TIA and may consider altering the site plan to provide enough space for queueing, to be able to accommodate a minimum of 12 to 13 vehicles, as recommended by this and other studies, OR should receive confirmation from the City that the potential for queueing beyond the provided stacking spaces may be acceptable based on the overall West Oaks shopping Center parking lot layout.
- AECOM generally agrees with the statement that *current* neighboring land uses with the West Oaks shopping Center likely experience low activity during the AM peak period when the queues may spill into the parking lot aisles. Caution could be given to the potential for other adjacent future land uses to have similar peak periods, and the impacts that may occur as a result.
- Because of the layout of the parking lot and the various maneuver lanes throughout, access to/from adjacent land uses to/from the driveways is not expected to be an issue as a result of drive-through spillback.

Should the City or applicant have questions regarding this review, they should contact AECOM for further clarification.

Sincerely,

**AECOM**



Maureen Peters, PE  
Reviewer, Traffic/ITS Engineer



Paula Johnson, PE  
Senior Traffic Engineer

FAÇADE REVIEW





November 27, 2018

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

Attn: Ms. Barb McBeth – Director of Community Development

Re: **FACADE ORDINANCE Preliminary & Final Site Plan**  
**Starbucks Expansion / Drive Thru, JSP18-0056**  
 Façade Region: 1, Zoning District: RC

Dear Ms. McBeth:

The following is the Façade Review for the above referenced project based on the drawings provided by Wah Yee Architects dated 10/30/18. This project is considered an addition as described in Section 5.15.7 of the Façade Ordinance. Materials in non-compliance, if any, are highlighted in bold.

	North	South	East	West	Ordinance Maximum (Minimum)
Brick (Existing)	70%	50%	50%	60%	100% (30% Minimum)
Cast Stone	3%	10%	2%	10%	50%
EIFS	22%	25%	25%	25%	25%
Cement Fiber Wood (Nichiha)	0%	10%	16%	0%	25%
Fabric Awning	0%	0%	2%	2%	10%
Metal Cornice	5%	5%	5%	3%	15%

**Recommendation** – Section 5.15.7 of the Façade Ordinance allows a continuation of existing materials on the addition provided certain conditions are met. In this case the proposed addition is consistent with Section 5.15.7. The detail on sheet P2.1 for the dumpster enclosure indicates “masonry screen wall to match existing building masonry”, in this case brick. This application is in full compliance with the Façade Ordinance, and therefore qualifies for administrative approval in accordance with Section 6.1.1.c.x. of the Zoning Ordinance, provided that all other requirements for administrative approval are met.

## Notes to the Applicant:

1. Roof Screening - Although it is not indicated on the drawings, the applicant has stated that all existing and proposed roof equipment will be screened by raised parapet walls. It is the applicant's responsibility to determine the required location and height of such parapets. It should be noted that roof top equipment visible from any vantage point either on-site or off-site will be required to be screened with additional screens constructed of materials compliant with the Façade Ordinance.

2. Inspections – The Façade Ordinance requires inspection(s) for all projects. Materials displayed on the approved sample board (in this case the adjacent existing material) will be compared to materials to be installed. It is the applicant's responsibility to request the inspection of each façade material at the appropriate time. Inspections may be requested using the Novi Building Department's Online Inspection Portal with the following link. Please click on "Click here to Request an Inspection" under "Contractors", then click "Façade".

<http://www.cityofnovi.org/Services/CommDev/OnlineInspectionPortal.asp>.

If you have any questions regarding this review, please do not hesitate to call.

Sincerely,  
DRN & Architects PC



Douglas R. Necci, AIA

**FIRE REVIEW**



November 7, 2018

TO: Barbara McBeth- City Planner  
Sri Ravali Komaragiri- Plan Review Center  
Lindsay Bell-Plan Review Center  
Hannah Smith-Planning Assistant

RE: Starbucks Expansion and Drive-Thru

**CITY COUNCIL**

**Mayor**  
Bob Gatt

**Mayor Pro Tem**  
Dave Staudt

Andrew Mutch

Wayne Wrobel

Laura Marie Casey

Gwen Markham

Kelly Breen

**City Manager**  
Peter E. Auger

**Director of Public Safety**  
**Chief of Police**  
David E. Molloy

**Director of EMS/Fire Operations**  
Jeffery R. Johnson

**Assistant Chief of Police**  
Erick W. Zinser

**Assistant Chief of Police**  
Scott R. Baetens

**PSP# 18-0176**

PSP# 18-0079

**Project Description:**

**Addition to the North end of the building 1416 S.Q.F.T. including a drive-thru.**

**Comments:**

**Meets Fire Department Standards**

**Recommendation:**

APPROVED

Sincerely,

Kevin S. Pierce-Fire Marshal  
City of Novi – Fire Dept.

cc: file

**Novi Public Safety Administration**  
45125 Ten Mile Road  
Novi, Michigan 48375  
248.348.7100  
248.347.0590 fax

cityofnovi.org

## QUEUING STUDY



June 27, 2018

Mr. Michael McPherson, PE  
 Atwell, LLC  
 2 Towne Square, Suite 700  
 Southfield, Michigan 48076

**Re: Proposed Starbucks Restaurant Drive-Through Window Addition  
 Trip Generation Comparison, Queue Analysis and Operational Considerations  
 City of Novi, Michigan  
 200-12851-18002**

Dear Mr. McPherson:

Tetra Tech (Tt) has completed our traffic assessment related to the proposed drive-through window addition to the existing 1,016 sq. ft. Starbucks restaurant development located within the West Oaks Shopping Center on the west side of Novi Road south of Twelve Mile Road in the City of Novi, Oakland County. The current site plan indicates a 2,412 sq. ft. Starbucks restaurant with a drive-through service window that provided a total of 12 vehicle stacking spaces. This traffic assessment has been completed in accordance with the requirements specified by the City of Novi’s traffic consultant AECOM via email correspondence dated May 21, 2018.

**Trip Generation**

Using the information and methodologies specified in the latest version of *Trip Generation (10<sup>th</sup> Edition)* published by the Institute of Transportation Engineers (ITE), Tt forecast the weekday AM and PM peak hour trips associated with the existing (without drive-through window) and proposed with drive-through window) Starbucks restaurant development. Currently, ITE has very limited data on these land uses for the total daily trips, with a total of 3 studies combined for both categories, and should be viewed with caution. The results of the trip generation forecast for the existing restaurant are provided in Table 1, for the proposed restaurant are provided in Table 2, along with the results of the comparison between the existing and proposed restaurant are provided in Table 3.

**Table 1  
 ITE Total Trip Generation for Existing Starbucks Restaurant Development**

Land Use	Land Use Code	Size	AM Peak Hour			PM Peak Hour			Week Day
			In	Out	Total	In	Out	Total	
Coffee/Donut Shop <u>without</u> Drive-Through Window	936	1,016 sq. ft.	53	50	103	19	18	37	767
<b>TOTAL TRIPS</b>			<b>53</b>	<b>50</b>	<b>103</b>	<b>19</b>	<b>18</b>	<b>37</b>	<b>767</b>



**Table 2**  
**ITE Total Trip Generation for Proposed Starbucks Restaurant Development**

Land Use	Land Use Code	Size	AM Peak Hour			PM Peak Hour			Week Day
			In	Out	Total	In	Out	Total	
Coffee/Donut Shop with Drive-Through Window	937	2,412 sq. ft.	109	105	214	53	52	105	1,979
<b>TOTAL TRIPS</b>			<b>109</b>	<b>105</b>	<b>214</b>	<b>53</b>	<b>52</b>	<b>105</b>	<b>1,979</b>

**Table 3**  
**Total Trip Generation Comparison**  
**Existing versus Proposed Starbucks Restaurant Development**

Land Use	Land Use Code	Size	AM Peak Hour			PM Peak Hour			Week Day
			In	Out	Total	In	Out	Total	
Coffee/Donut Shop without Drive-Through Window	936	1,016 sq. ft.	53	50	103	19	18	37	767
Coffee/Donut Shop with Drive-Through Window	937	2,412 sq. ft.	109	105	214	53	52	105	1,977
<b>DIFFERENCE IN TOTAL TRIPS</b>			<b>+56</b>	<b>+55</b>	<b>+111</b>	<b>+34</b>	<b>+34</b>	<b>+68</b>	<b>+1,212</b>

From the results presented above, the addition of a drive-through window to the existing Starbucks restaurant is forecast to generate 111 additional total trips during the AM peak hour, 68 additional total trips during the PM peak hour, and 1,212 additional trips throughout the day over the existing facility without drive-through window service. It should be noted that the above does not consider internal capture effects from adjacent businesses (e.g. customers visiting Starbucks before going to work within the West Oaks Shopping Center) or pass-by reductions to adjacent street traffic.

**Drive-Through Window Queue Analysis**

Based on discussions with your office and correspondence received from Starbucks, their review of historic transactions for similar facilities indicate that approximately 65% of the AM peak period traffic utilizes the drive-through window, with the remaining 35% entering the store to complete their order. Additionally, Starbucks indicated that their average service rate is 45 seconds from the customer completing their order to them pulling away from the drive-through window.

Based on the trip generation forecast for the site during the AM peak period, of the 109 total inbound trips to the site, 71 vehicles would use the drive-through window. A service rate of 45 seconds per vehicle equates to 80 vehicles per hour (3600 seconds/hour x 1 vehicle/45 seconds = 3600/45 = 80). With the service rate (80 vehicles/hour) greater than the arrival rate (71 vehicles/hour), stable conditions would exist (if the arrival rate was greater than the service rate, the queue would grow infinitely since customers would be arriving faster than their orders could be serviced) and a single server queue analysis can be performed.



Based on the service and arrival rates, the average (50% confidence level) queue length during the AM peak hour would be no more than 8 vehicles, which can be accommodated by the proposed drive-through window storage area. At the 80% confidence level, the queue length would be no more than 12 vehicles, matching the amount of provided storage, while for a 95% confidence level the queue would be no more than 23 vehicles.

However, numerous studies documented on the ITE website indicate that maximum observed queues at similar coffee restaurants were observed to be 13 vehicles. Presumably, once this queue length is reached, customers begin to “balk” and decide to either park and enter the facility, or cancel their trip to that facility. Even if customers did elect to wait in queues greater than the storage provided for the drive-through window operations, there is sufficient room on the site to accommodate these queues without disrupting site operations, as discussed further below.

Output from the queue analysis spreadsheets are attached to the end of this letter.

#### **West Oaks Shopping Center Driveways Operation**

At the request of AECOM, the anticipated effect of the proposed addition of drive-through window operations to the Starbucks on the operation of the existing West Oaks Shopping Center driveways was considered, specifically those onto Novi Road near the facility. From the results presented in Tables 1 through 3 above, the site is forecast to generate a noticeable amount of additional trips during the AM and PM peak periods, as well as throughout the day. However, this increase in trips is not anticipated to have a significant impact on the operation of these driveway intersections, given that the AM peak hour (the busiest period for the site) increase in traffic is, on average, one additional vehicle entering and one additional vehicle exiting the overall site per minute, and street volumes are typically lower. During the PM peak period, the forecast increase would equate to an additional vehicle entering and an additional vehicle exiting the overall site approximately every two minutes.

Additionally, given the location of the Starbucks in relation to the site driveways, combined with the parking aisle layout and presence of physical buffers between the Starbucks and site driveways, vehicle queues from drive-through window operations would not affect driveway operations, as they would not reach and would be physically separated from the driveways.

#### **West Oaks Shopping Center Parking Lot Operation**

Also at the request of AECOM, an evaluation of the impact of the proposed drive-through window on adjacent parking operations was performed. As indicated in Table 2, above, peak operations for this facility would be during the AM peak period (7:00 – 9:00 a.m.), when most of the adjacent businesses in the West Oaks Shopping Center are not open or experience minimal customer traffic. As such, even if the proposed drive-through window operations queue length were to exceed the 12-vehicle stacking area provided, it is not anticipated to impact parking operations since the parking lot is expected to be mostly empty at that time, with customers having sufficient parking operations to avoid overflow vehicles.



**Conclusions and Recommendations**

The existing 1,016 sq. ft. Starbucks restaurant development within the West Oaks Shopping Center is proposing to increase to 2,412 sq. ft. in order to add a drive-through window service. While this will require the elimination of some parking spaces on the site, no other changes to the site or site driveways are being proposed.

The proposed development is forecast to generate 111 additional trips during the AM peak hour (56 inbound and 55 outbound from the site), 68 additional trips during the PM peak hour (34 inbound and 34 outbound from the site), and 1,212 additional trips throughout the day over the existing facility without drive-through window service.

A queue analysis for the proposed facility during peak operations in the AM peak hour indicated that the average queue would be no more than 8 vehicles, which could be accommodated by the proposed storage of 12 vehicles. For 95% confidence levels, the analysis indicated a queue length of no more than 23 vehicles. However, based on previous research documented by ITE, it appears that once queue levels exceed 13 vehicles, customers “balk” and elect to either park and enter the store on foot, or cancel their trip altogether. If customers were to elect to still utilize the drive-through service window with these queues, the location and layout of the overall site would prevent stacked vehicles from interfering with the operation of the site driveways onto Novi Road, and adjacent parking areas, since demand for the adjacent businesses would be low, as discussed further below.

The proposed addition of a drive-through window to the existing Starbucks restaurant is not anticipated to significantly impact the operation of the West Oaks Shopping Center driveways along Novi Road, with the forecast increase in traffic being an additional vehicle inbound and outbound per minute for the overall site during the AM peak period, and an additional vehicle inbound and outbound approximately every two minutes for the overall site during the PM peak period. It is also anticipated not to have an impact on the adjacent parking area within the overall site, since, when drive-through operations are the busiest during the AM peak period, most of the adjacent businesses are either closed or experiencing minimal customer operations.

We trust that this letter fulfills your current transportation needs regarding your site. If you have any questions, please feel free to call our office at (810)-220-2112.

Sincerely,

Kyle W. Ramakers, P.E., PTOE  
Transportation Engineer

**Attachments**

P:\IER\12851\200-12851-18002\SupportDocs\Cals\Traffic\Deliverables\Novi\_Starbucks\_Drive-Thru\_Letter.docx

**TRIP GENERATION  
FORECASTS**

# Coffee/Donut Shop without Drive-Through Window (936)

Person Trip Ends vs: 1000 Sq. Ft. GFA  
On a: Weekday

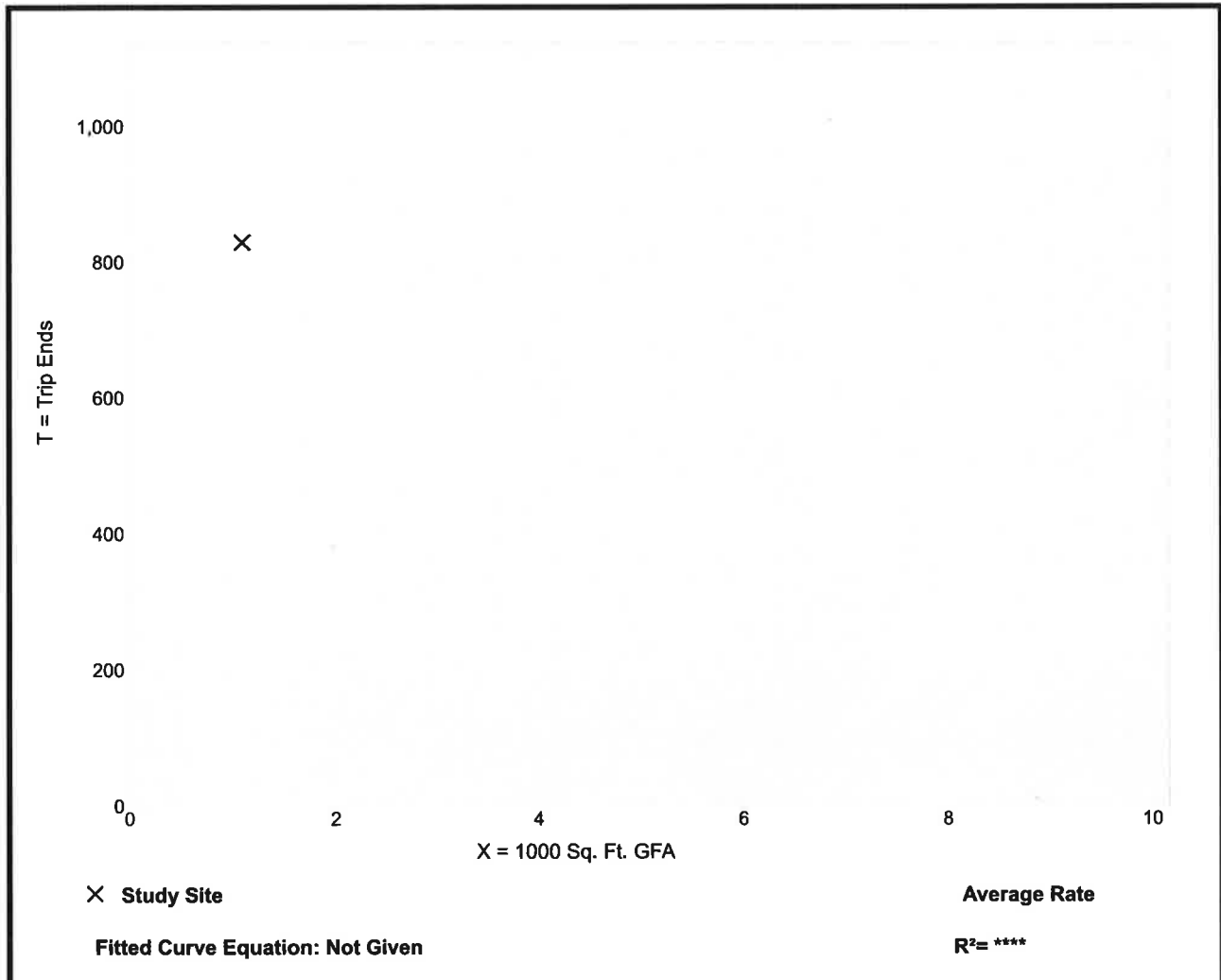
Setting/Location: Dense Multi-Use Urban  
Number of Studies: 1  
Avg. 1000 Sq. Ft. GFA: 1  
Directional Distribution: 50% entering, 50% exiting

## Person Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
754.55	754.55 - 754.55	*

## Data Plot and Equation

Caution – Small Sample Size



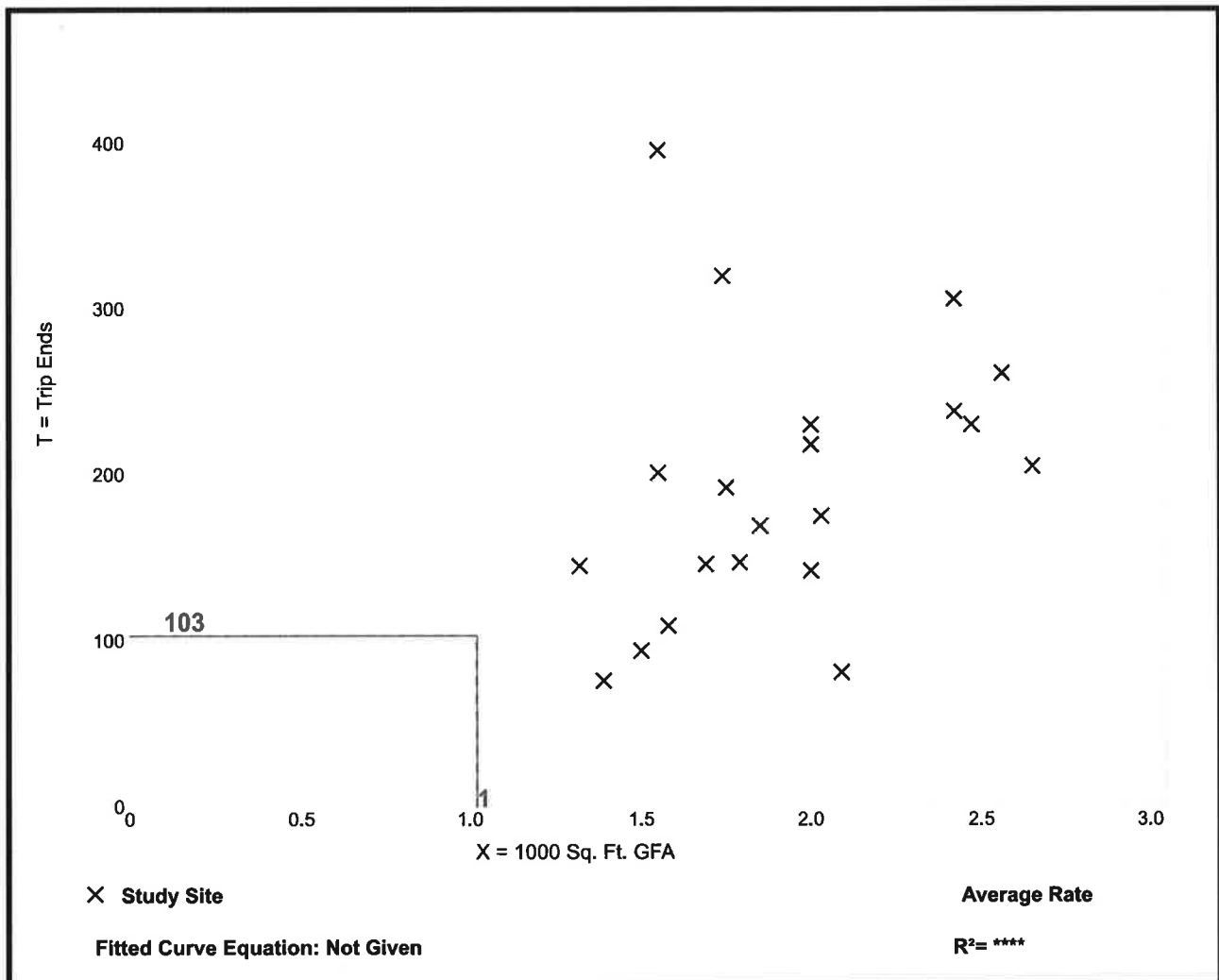
# Coffee/Donut Shop without Drive-Through Window (936)

**Vehicle Trip Ends vs: 1000 Sq. Ft. GFA**  
**On a: Weekday,**  
**Peak Hour of Adjacent Street Traffic,**  
**One Hour Between 7 and 9 a.m.**  
**Setting/Location: General Urban/Suburban**  
 Number of Studies: 21  
 Avg. 1000 Sq. Ft. GFA: 2  
 Directional Distribution: 51% entering, 49% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
101.14	38.76 - 255.48	43.44

## Data Plot and Equation





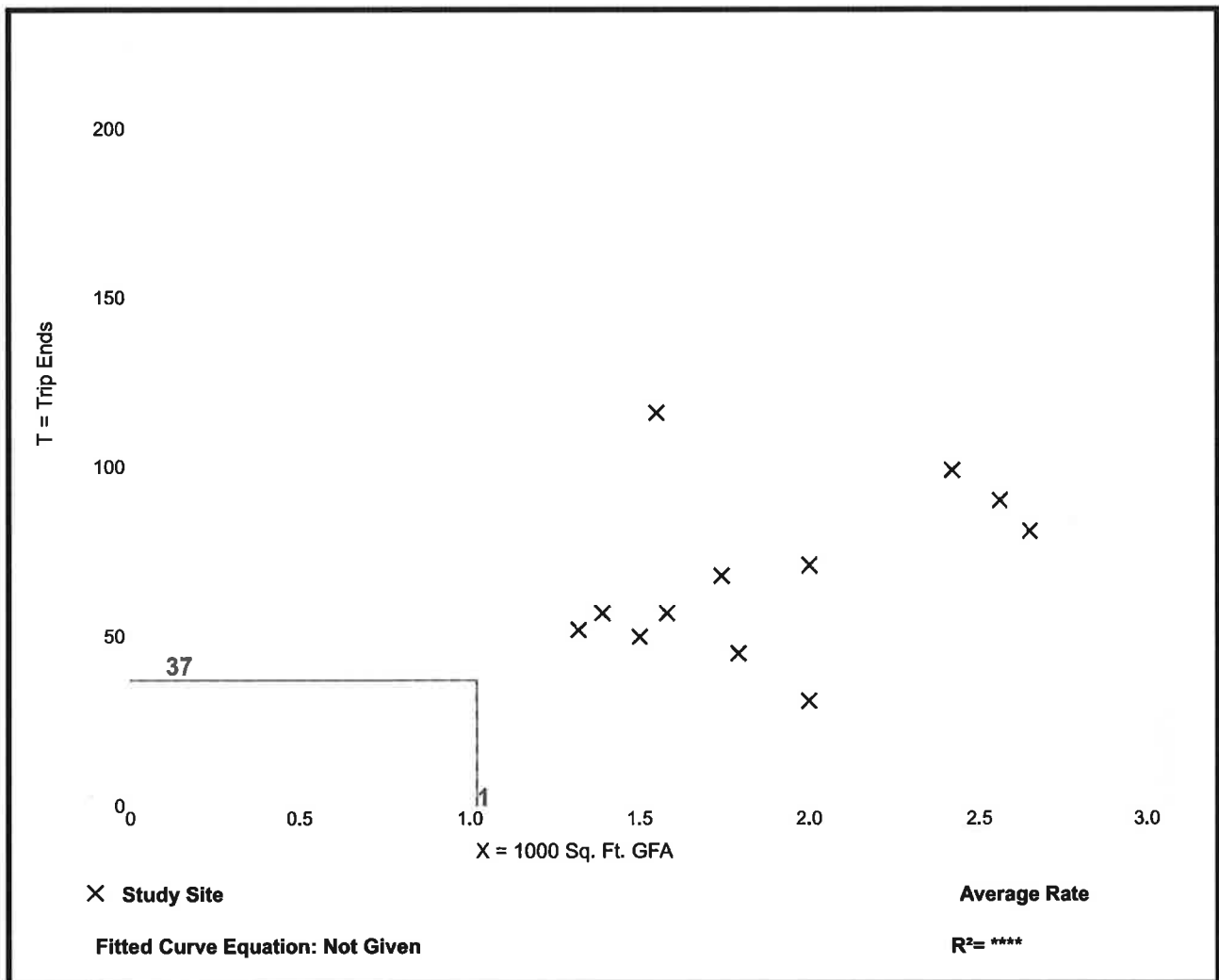
# Coffee/Donut Shop without Drive-Through Window (936)

**Vehicle Trip Ends vs: 1000 Sq. Ft. GFA**  
**On a: Weekday,**  
**Peak Hour of Adjacent Street Traffic,**  
**One Hour Between 4 and 6 p.m.**  
**Setting/Location: General Urban/Suburban**  
 Number of Studies: 12  
 Avg. 1000 Sq. Ft. GFA: 2  
 Directional Distribution: 50% entering, 50% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
36.31	15.50 - 74.84	13.22

## Data Plot and Equation



# Coffee/Donut Shop with Drive-Through Window (937)

**Vehicle Trip Ends vs: 1000 Sq. Ft. GFA**  
**On a: Weekday**

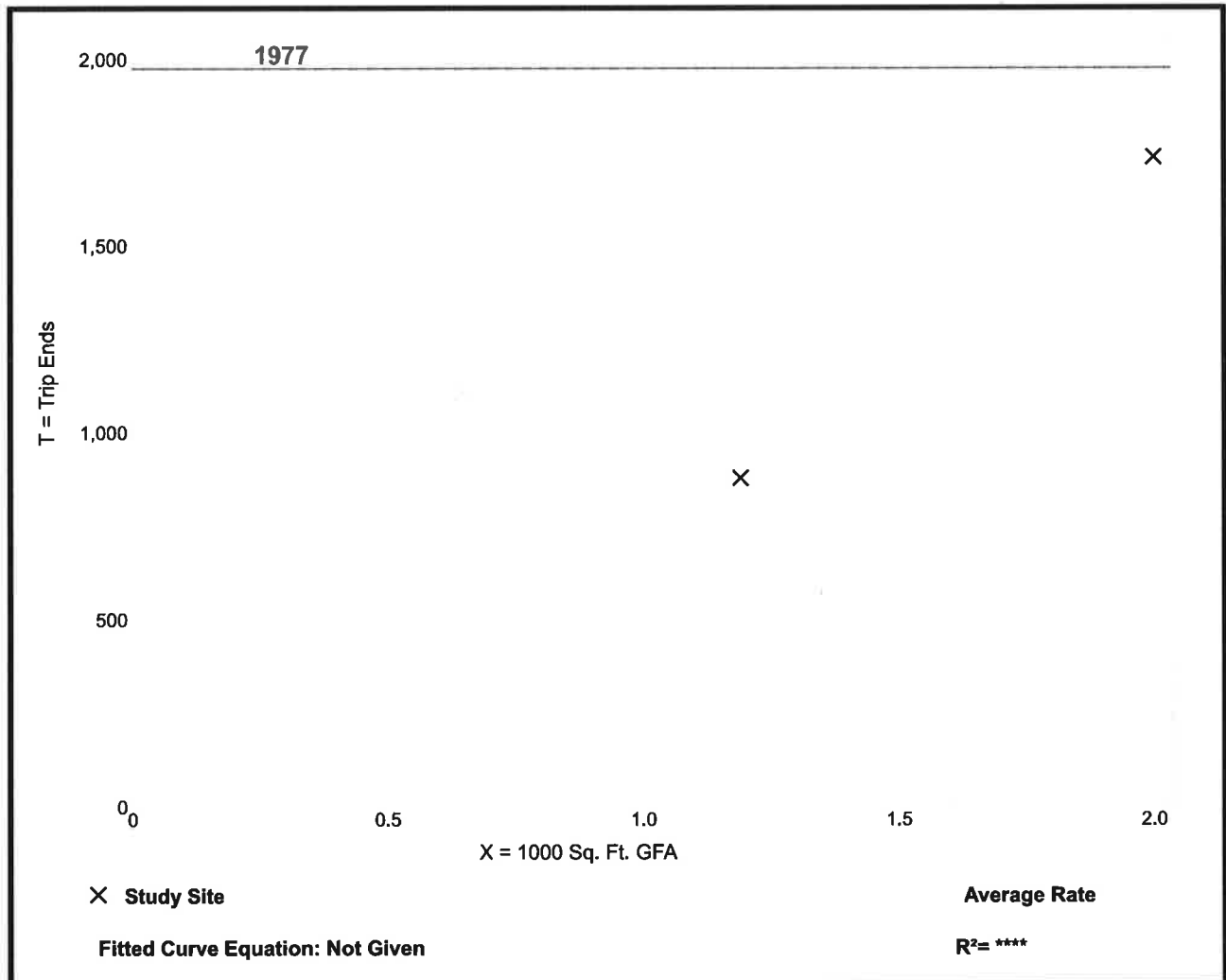
**Setting/Location: General Urban/Suburban**  
Number of Studies: 2  
Avg. 1000 Sq. Ft. GFA: 2  
Directional Distribution: 50% entering, 50% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
820.38	738.66 - 869.00	*

## Data Plot and Equation

*Caution – Small Sample Size*



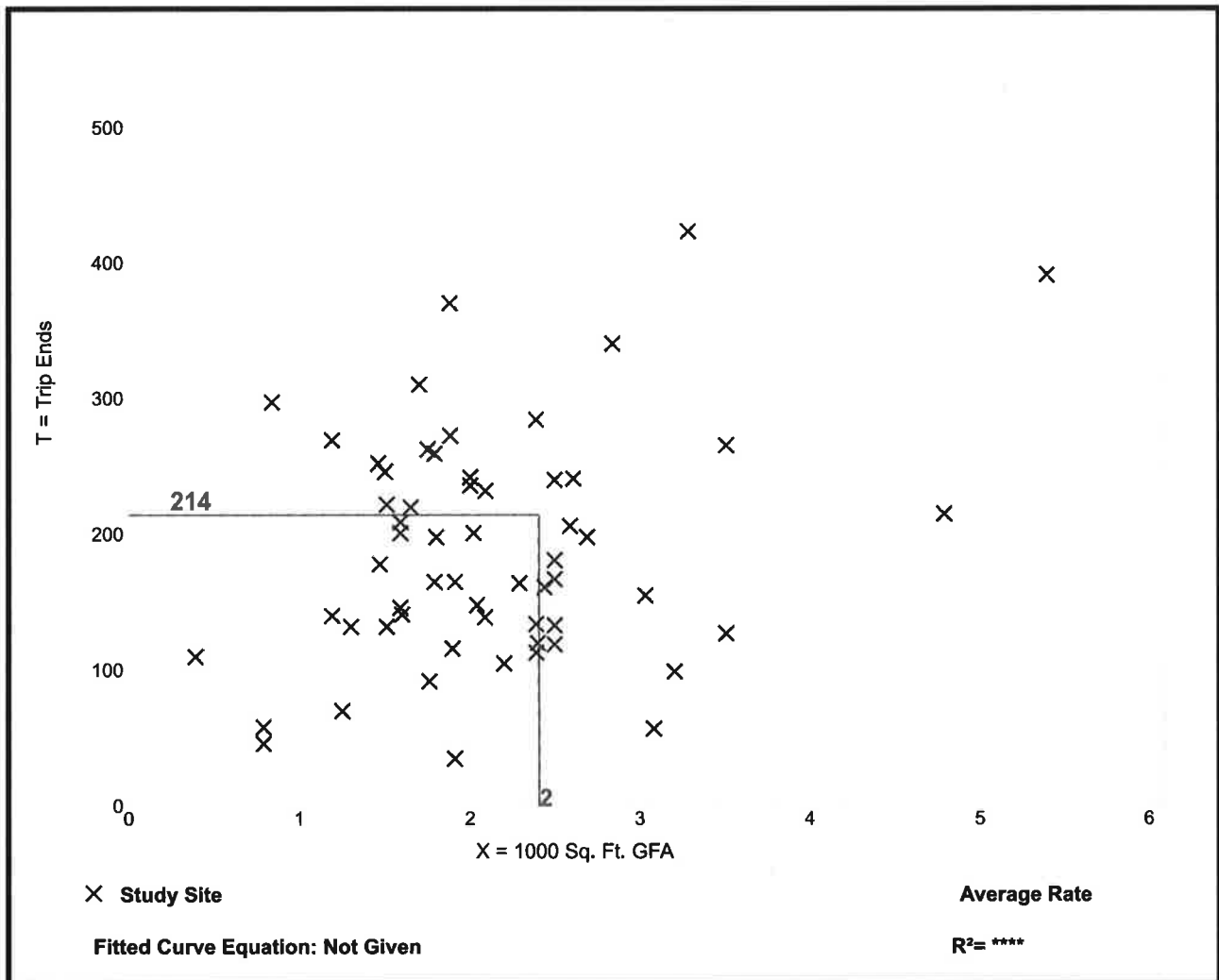
# Coffee/Donut Shop with Drive-Through Window (937)

**Vehicle Trip Ends vs: 1000 Sq. Ft. GFA**  
**On a: Weekday,**  
**Peak Hour of Adjacent Street Traffic,**  
**One Hour Between 7 and 9 a.m.**  
**Setting/Location: General Urban/Suburban**  
 Number of Studies: 61  
 Avg. 1000 Sq. Ft. GFA: 2  
 Directional Distribution: 51% entering, 49% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
88.99	18.32 - 353.57	48.19

## Data Plot and Equation



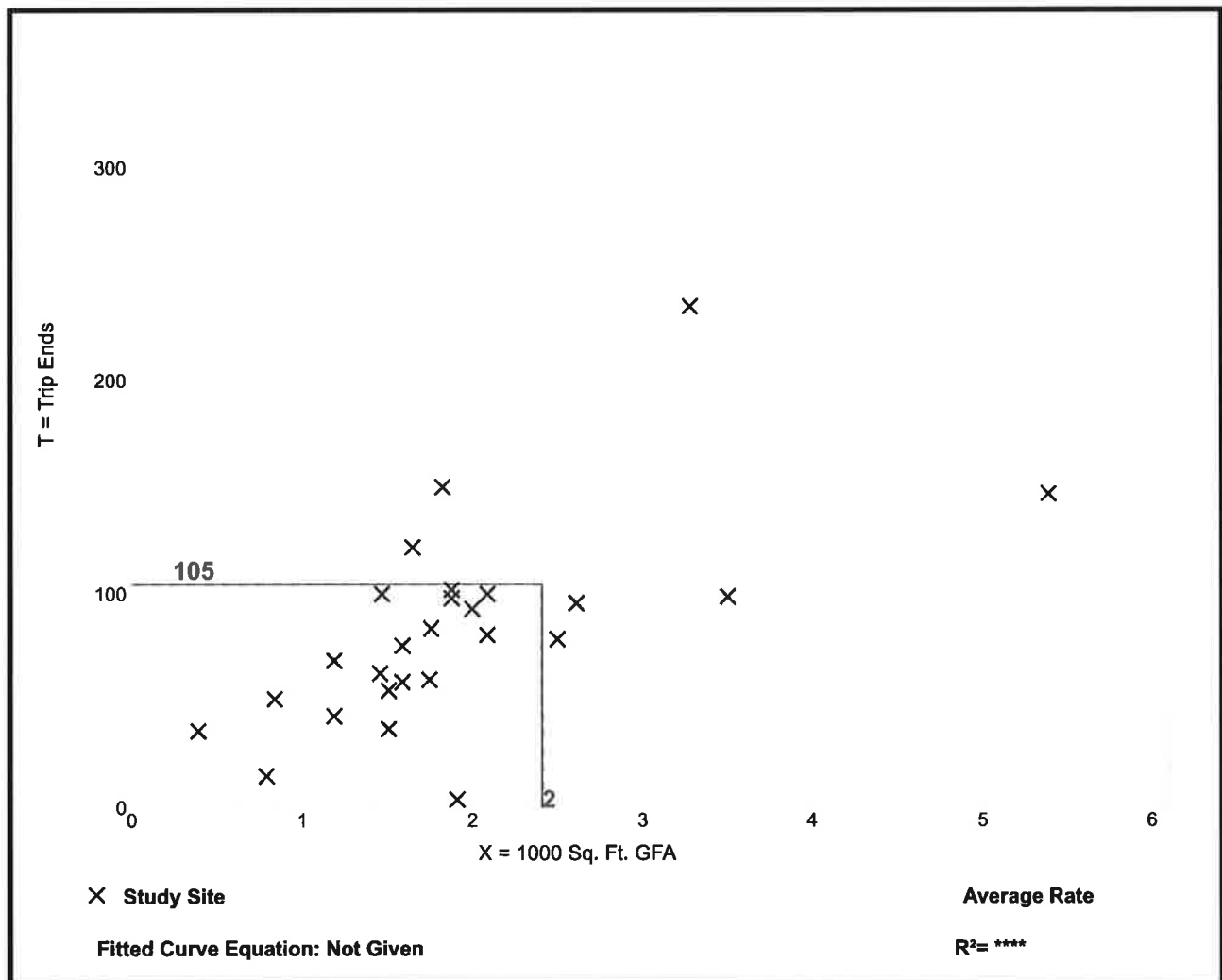
# Coffee/Donut Shop with Drive-Through Window (937)

**Vehicle Trip Ends vs: 1000 Sq. Ft. GFA**  
**On a: Weekday,**  
**Peak Hour of Adjacent Street Traffic,**  
**One Hour Between 4 and 6 p.m.**  
**Setting/Location: General Urban/Suburban**  
 Number of Studies: 26  
 Avg. 1000 Sq. Ft. GFA: 2  
 Directional Distribution: 50% entering, 50% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
43.38	2.09 - 92.31	18.88

## Data Plot and Equation



**QUEUE ANALYSIS**

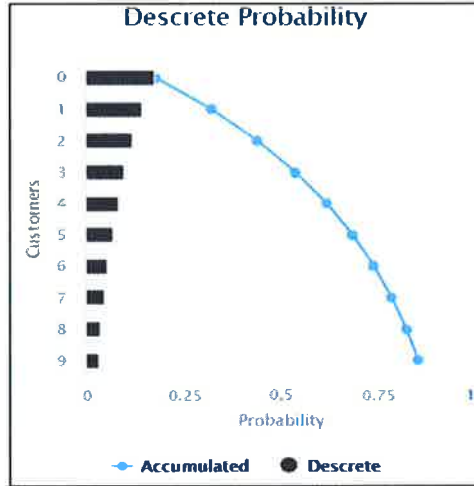
**WORKSHEETS**

**Project: West Oaks Shopping Center Starbucks  
Drive Through Queue Probability**

Demand ( $\lambda$ ) = 71  
 Service Rate ( $\mu$ ) = 80  
 Intensity ( $\rho$ ) = 0.8875

**OK**

$\rho^n$	n	$P(n) = \rho^n(1-\rho)$	$\Sigma P(n)$
1.0000	0	11.25%	11%
0.8875	1	9.98%	21%
0.7877	2	8.86%	30%
0.6990	3	7.86%	38%
0.6204	4	6.98%	45%
0.5506	5	6.19%	51%
0.4887	6	5.50%	57%
0.4337	7	4.88%	62%
0.3849	8	4.33%	66%
0.3416	9	3.84%	70%
0.3032	10	3.41%	73%
0.2691	11	3.03%	76%
0.2388	12	2.69%	79%
0.2119	13	2.38%	81%
0.1881	14	2.12%	83%
0.1669	15	1.88%	85%
0.1481	16	1.67%	87%
0.1315	17	1.48%	88%
0.1167	18	1.31%	90%
0.1036	19	1.17%	91%
0.0919	20	1.03%	92%
0.0816	21	0.92%	93%
0.0724	22	0.81%	94%



Generate graphic at  
<https://www.supositorio.com/rcalc/rcalclite.htm>  
 M/M/C Queue Methodology

109 Total Inbound Trips  
 65% Utilize Drive-Thru  
 71 Drive-Thru Trips

45 Service Rate (sec/veh)  
 3600 sec/hr  
 80 Service Rate (veh/hr)

Average Queue  $E(n)$  = **7.89 vehicles**

Average Wait Time in Drive-Through  $E(v)$  = **6.67 minutes**



**Project: West Oaks Shopping Center Starbucks  
Drive Through Queue Probability**

Demand ( $\lambda$ ) = 71  
 Service Rate ( $\mu$ ) = 80  
 Intensity ( $\rho$ ) = 0.8875 OK

$\rho$	$Q_M (= \rho$ for 95% Confidence $n = 1)$	Level $p =$	M (Queue)
0.8875	0.8875	0.05	23.10
-0.119346758	-0.1193468	-2.995732274	

$\rho$	$Q_M (= \rho$ for 90% Confidence $n = 1)$	Level $p =$	M (Queue)
0.8875	0.8875	0.1	17.29
-0.119346758	-0.1193468	-2.302585093	

# **SITE PLAN**

**LEGEND**

	PROPERTY LINE		PAINTED STOP SIGN (SEE STOP SIGN)
	PROPOSED CURB & GUTTER		BLANK FLOOR ARROWS
	PROPOSED SIDEWALK		PROPOSED SIGN
	PROPOSED CONCRETE		PARKING BAY COAT
	PROPOSED ASPHALT PAVEMENT		ACCESSIBLE PARKING SPACE
	PROPOSED BUILDING EXPANSION		PROPOSED LIGHT POLE
			EXISTING UTILITY POLE

**NOTES**

1. REFER TO THE STANDARD NOTES SHEET FOR ADDITIONAL INFORMATION.
2. FOR ALL APPLICABLE CONSTRUCTION DETAILS REFER TO THE STANDARD DETAILS SHEETS AND ANY MUNICIPAL/APPROPRIATE DETAILS ATTACHED TO THIS PLAN SET.
3. REFER TO THE ALLIANCE LAND USE SURVEY FOR ADDITIONAL EXISTING FEATURES AND PROPERTY BOUNDARY INFORMATION.
4. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE NOTED.
5. REFER TO ARCHITECTURAL / FOUNDATION PLANS FOR BUILDING FOOTINGS.

**SITE DATA**

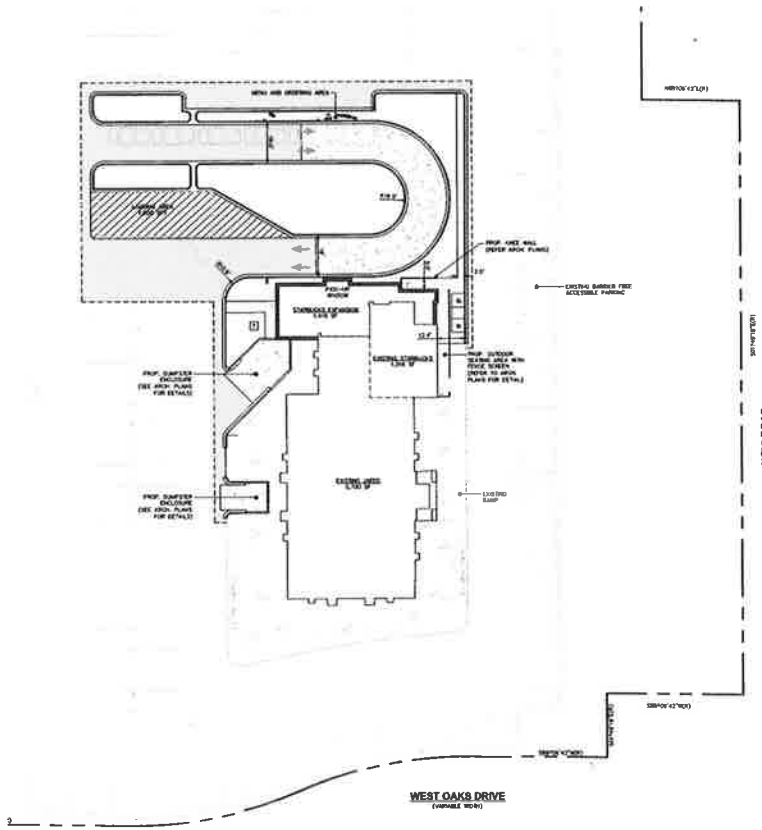
**PARCEL SUMMARY**  
 PARCEL ID: 201-15-00-054  
 ZONING: RC - REGIONAL CENTER  
**BUILDING AREA**  
 EXISTING STAMBOCKS: 2,094 SF  
 EXPANDED STAMBOCKS: 1,194 SF  
 EXISTING JAMES: 5,700 SF  
 TOTAL: 8,988 SF

**LOADING DATA**

TRUCKS:	1,000 SQ FT	600 SQ FT	1/2 SQ FT/FOOT OF BUILDING FRONTAGE
---------	-------------	-----------	-------------------------------------

**DRIVE THRU STACKING**

VEHICLES:	4 SPACES	5 SPACES
BETWEEN ORDER AND PICK-UP:	4 SPACES	5 SPACES
ADVANCE OF ORDER:	4 SPACES	5 SPACES



**ATWELL**  
 ARCHITECTS  
 1000 WEST OAKS DRIVE  
 SUITE 100  
 BIRMINGHAM, AL 35202  
 TEL: 205.975.1234  
 FAX: 205.975.1235  
 WWW.ATWELLARCHITECTS.COM

**RAMCO GERRIENSON**  
 ARCHITECTS  
 1000 WEST OAKS DRIVE  
 SUITE 100  
 BIRMINGHAM, AL 35202  
 TEL: 205.975.1234  
 FAX: 205.975.1235  
 WWW.RAMCOGERRIENSON.COM

**SECTION 15**  
 TOWN: NORTH HAVEN 3 DIST.  
 CITY OF NORTH HAVEN  
 EMILIANO COUNTY, MISSISSIPPI

**DATE:** MAY 25, 2018  
**PROJECT:** STAMBOCKS & JAMES EXPANSION & DRIVE-THRU  
**PHASE:** PRELIMINARY SITE PLANS  
**SCALE:** AS SHOWN  
**PROJECT NO.:** 18-001  
**DATE OF PREP.:** 05/25/18  
**DATE OF PLOT:** 05/25/18

**NOT FOR CONSTRUCTION**

**QUEUING STUDY**  
**Revised: February 08, 2019**

**Post Planning Commission Meeting**



**TETRA TECH**

February 8, 2019

Mr. Michael McPherson, PE  
Atwell, LLC  
2 Towne Square, Suite 700  
Southfield, Michigan 48076

**Re: Proposed Starbucks Restaurant Drive-Through Window Addition  
Updated Trip Generation Comparison, Queue Analysis and Operational Considerations  
City of Novi, Michigan  
200-12851-18002**

Dear Mr. McPherson:

Tetra Tech (Tt) has completed our updated traffic assessment related to the proposed drive-through window addition to the existing 1,016 sq. ft. Starbucks restaurant development located within the West Oaks Shopping Center on the west side of Novi Road south of Twelve Mile Road in the City of Novi, Oakland County. The current site plan indicates a 2,412 sq. ft. Starbucks restaurant with a drive-through service window that provides a total of 11 vehicle stacking spaces plus space for one vehicle at the service window (12 total). This traffic assessment has been completed in accordance with the requirements specified by the City of Novi's traffic consultant AECOM via email correspondence dated May 21, 2018, along with comments provided in their review memo dated August 6, 2018.

### **Trip Generation**

Using the information and methodologies specified in the latest version of *Trip Generation (10<sup>th</sup> Edition)* published by the Institute of Transportation Engineers (ITE), Tt forecast the weekday AM and PM peak hour trips associated with the existing (without drive-through window) and proposed with drive-through window) Starbucks restaurant development.

Currently, ITE has very limited data on these land uses for the total daily trips, with a total of 3 studies combined for both categories, and should be viewed with caution. The results of the trip generation forecast for the existing restaurant are provided in Table 1, for the proposed restaurant are provided in Table 2, along with the results of the comparison between the existing and proposed restaurant are provided in Table 3.

**Table 1**  
**ITE Total Trip Generation for Existing Starbucks Restaurant Development**

Land Use	Land Use Code	Size	AM Peak Hour			PM Peak Hour			Week Day
			In	Out	Total	In	Out	Total	
Coffee/Donut Shop <u>without</u> Drive-Through Window	936	1,016 sq. ft.	53	50	103	19	18	37	767
<b>TOTAL TRIPS</b>			<b>53</b>	<b>50</b>	<b>103</b>	<b>19</b>	<b>18</b>	<b>37</b>	<b>767</b>

**Table 2**  
**ITE Total Trip Generation for Proposed Starbucks Restaurant Development**

Land Use	Land Use Code	Size	AM Peak Hour			PM Peak Hour			Week Day
			In	Out	Total	In	Out	Total	
Coffee/Donut Shop <u>with</u> Drive-Through Window	937	2,412 sq. ft.	109	105	214	52	53	105	1,977
<b>TOTAL TRIPS</b>			<b>109</b>	<b>105</b>	<b>214</b>	<b>52</b>	<b>53</b>	<b>105</b>	<b>1,977</b>

**Table 3**  
**Total Trip Generation Comparison**  
**Existing versus Proposed Starbucks Restaurant Development**

Land Use	Land Use Code	Size	AM Peak Hour			PM Peak Hour			Week Day
			In	Out	Total	In	Out	Total	
Coffee/Donut Shop without Drive-Through Window	936	1,016 sq. ft.	53	50	103	19	18	37	767
Coffee/Donut Shop with Drive-Through Window	937	2,412 sq. ft.	109	105	214	52	53	105	1,977
<b>DIFFERENCE IN TOTAL TRIPS</b>			<b>+56</b>	<b>+55</b>	<b>+111</b>	<b>+33</b>	<b>+35</b>	<b>+68</b>	<b>+1,210</b>

From the results presented above, the addition of a drive-through window to the existing Starbucks restaurant is forecast to generate 111 additional total trips during the AM peak hour, 68 additional total trips during the PM peak hour, and 1,210 additional trips throughout the day over the existing facility without drive-through window service. It should be noted that the above does not consider internal capture effects from adjacent businesses (e.g. customers visiting Starbucks before going to work within the West Oaks Shopping Center) or pass-by reductions to adjacent street traffic.

At the request of the City of Novi's traffic consultant, AECOM, a trip generation comparison between the existing and proposed facilities was also performed considering the effects of internal capture and pass-by trips. This review is discussed further below.





Using information about current tenants and building areas in the immediately surrounding West Oaks Shopping Center (buildings immediately to the north, west and south of the existing Starbucks restaurant), it was determined that there is 499,454 sq. ft. of various retail uses in the vicinity that could experience internal capture effects. There is also 25,443 sq. ft. of restaurant space that would not experience internal capture effects (unlikely a visitor to one restaurant would visit another in the same trip to the shopping center) and was not included in this analysis. The internal capture worksheets are provided in the appendix materials attached to the end of this letter.

ITE’s *Trip Generation Handbook, 3<sup>rd</sup> Edition* does not contain information on pass-by rates for Land Use 936: Coffee/Donut Shop without Drive-Through Window and Land Use 937: Coffee/Donut Shop with Drive-Through Window, and has very limited information for Land Use 938: Coffee/Donut Shop with Drive-Through Window and No Indoor Seating. Information for Land Use 934: Fast-Food Restaurant with Drive-Through Window, a similar use, was substituted.

The results of the trip generation forecasts and comparisons, considering the effects of internal capture and pass-by trips, are presented in Tables 4 through 6, below.

**Table 4**  
**ITE New Trip Generation for Existing Starbucks Restaurant Development**

Land Use	Land Use Code	Size	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Coffee/Donut Shop <u>without</u> Drive-Through Window	936	1,016 sq. ft.	53	50	103	19	18	37
<b>TOTAL TRIPS</b>			<b>53</b>	<b>50</b>	<b>103</b>	<b>19</b>	<b>18</b>	<b>37</b>
<i>Internal Capture with 499,454 sq. ft. Adjacent Retail Developments</i>			<i>11</i>	<i>10</i>	<i>21</i>	<i>7</i>	<i>6</i>	<i>13</i>
<b>TOTAL EXTERNAL TRIPS</b>			<b>42</b>	<b>40</b>	<b>82</b>	<b>12</b>	<b>12</b>	<b>24</b>
<i>Fast-Food Restaurant with Drive-Through Window Pass-By: 49% AM, 50% PM</i>			<i>20</i>	<i>20</i>	<i>40</i>	<i>6</i>	<i>6</i>	<i>12</i>
<b>TOTAL NEW TRIPS</b>			<b>22</b>	<b>20</b>	<b>42</b>	<b>6</b>	<b>6</b>	<b>12</b>

**Table 5**  
**ITE New Trip Generation for Proposed Starbucks Restaurant Development**

Land Use	Land Use Code	Size	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Coffee/Donut Shop <u>with</u> Drive-Through Window	937	2,412 sq. ft.	109	105	214	52	53	105
<b>TOTAL TRIPS</b>			<b>109</b>	<b>105</b>	<b>214</b>	<b>52</b>	<b>53</b>	<b>105</b>
<i>Internal Capture with 499,454 sq. ft. Adjacent Retail Developments</i>			14	14	28	18	18	36
<b>TOTAL EXTERNAL TRIPS</b>			<b>95</b>	<b>91</b>	<b>186</b>	<b>34</b>	<b>35</b>	<b>69</b>
<i>Fast-Food Restaurant with Drive-Through Window Pass-By: 49% AM, 50% PM</i>			46	45	91	17	18	35
<b>TOTAL NEW TRIPS</b>			<b>49</b>	<b>46</b>	<b>95</b>	<b>17</b>	<b>17</b>	<b>34</b>

**Table 6**  
**New Trip Generation Comparison**  
**Existing versus Proposed Starbucks Restaurant Development**

Land Use	Land Use Code	Size	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Coffee/Donut Shop without Drive-Through Window	936	1,016 sq. ft.	22	20	42	6	6	12
Coffee/Donut Shop with Drive-Through Window	937	2,412 sq. ft.	49	46	95	17	17	34
<b>DIFFERENCE IN NEW TRIPS</b>			<b>+27</b>	<b>+26</b>	<b>+53</b>	<b>+11</b>	<b>+11</b>	<b>+22</b>

From the results presented above, the addition of a drive-through window to the existing Starbucks restaurant is forecast to generate 53 additional new trips during the AM peak hour and 22 additional new trips during the PM peak hour over the existing facility without drive-through window service.

**Drive-Through Window Queue Analysis**

Based on discussions with your office and correspondence received from Starbucks (included in the appendix materials attached to this letter), their review of historic transactions for similar facilities indicate that approximately 65% of the AM peak period traffic utilizes the drive-through window, with the remaining 35% entering the store to complete their order. Additionally, Starbucks indicated that their average service rate is 45 seconds from the customer completing their order to them pulling away from the drive-through window.

Based on the trip generation forecast for the site during the AM peak period, of the 109 total inbound trips to the site, 71 vehicles would use the drive-through window. A service rate of 45 seconds per



vehicle equates to 80 vehicles per hour ( $3600 \text{ seconds/hour} \times 1 \text{ vehicle}/45 \text{ seconds} = 3600/45 = 80$ ). With the service rate (80 vehicles/hour) greater than the arrival rate (71 vehicles/hour), stable conditions would exist (if the arrival rate was greater than the service rate, the queue would grow infinitely since customers would be arriving faster than their orders could be serviced) and a single server queue analysis can be performed.

Based on the service and arrival rates, the average (50% confidence level) queue length during the AM peak hour would be no more than 9 vehicles, which can be accommodated by the proposed drive-through window storage area. At the 75% confidence level, the queue length would be no more than 12 vehicles, matching the amount of provided storage, while for a 95% confidence level the queue would be no more than 27 vehicles.

However, numerous studies documented on the ITE website indicate that maximum observed queues at similar coffee restaurants were observed to be 13 vehicles. They include:

1. Spack, M. and Moreland, M. (2012), "Drive-Through Queue Generation".
2. Stuecheli, M. (2009), "New Drive-Through Stacking Information for Banks and Coffee Shops". *ITE 2009 Annual Meeting and Exhibit*. Print.
3. Greene, C. and Kannan, V. (2008), "A Trip Generation Study of Coffee/Donut Shops in Western New York"
4. Gattis, J. L., Chair of ITE Technical Council Committee 5D-10. "Queuing Areas for Drive-Thru Facilities, by ITE Technical Council Committee 5D-10." *ITE Journal* (May, 1995): 38-42.

Presumably, once this queue length is reached, customers begin to "balk" and decide to either park and enter the facility, or cancel their trip entirely to that facility. Even if customers did elect to wait in queues greater than the storage provided for the drive-through window operations, there is sufficient room on the site to accommodate these queues without disrupting site operations, as discussed further below.

Output from the queue analysis spreadsheets are attached to the end of this letter.

### **West Oaks Shopping Center Driveways Operation**

At the request of AECOM, the anticipated effect of the proposed addition of drive-through window operations to the Starbucks on the operation of the existing West Oaks Shopping Center driveways was considered, specifically those onto Novi Road near the facility. From the results presented in Tables 1 through 3 above, the site is forecast to generate a noticeable amount of additional trips during the AM and PM peak periods, as well as throughout the day. However, this increase in trips is not anticipated to have a significant impact on the operation of these driveway intersections, given that the AM peak hour (the busiest period for the site) increase in traffic is, on average, one additional vehicle entering and one additional vehicle exiting the overall site per minute, and adjacent street volumes are typically lower than those experienced during the PM peak period. During the PM peak period, the forecast increase would equate to an additional vehicle entering and an additional vehicle exiting the overall site approximately every two minutes.



Additionally, given the location of the Starbucks in relation to the site driveways, combined with the parking aisle layout and presence of physical buffers between the Starbucks and site driveways, vehicle queues from drive-through window operations would not affect driveway operations, as they would not reach and would be physically separated from the driveways.

### **West Oaks Shopping Center Parking Lot Operation**

Also at the request of AECOM, an evaluation of the impact of the proposed drive-through window on adjacent parking operations was performed. As indicated in Table 2, above, peak operations for this facility would be during the AM peak period (7:00 – 9:00 a.m.), when most of the adjacent businesses in the West Oaks Shopping Center are not open or experience minimal customer traffic. As such, even if the proposed drive-through window operations queue length were to exceed the 12-vehicle stacking area provided, it is not anticipated to impact parking operations since the parking lot is expected to be mostly empty at that time, with customers having sufficient parking operations to avoid overflow vehicles.

### **Conclusions and Recommendations**

The existing 1,016 sq. ft. Starbucks restaurant development within the West Oaks Shopping Center is proposing to increase to 2,412 sq. ft. in order to add a drive-through window service. While this will require the elimination of some parking spaces on the site, no other changes to the site or site driveways are being proposed.

The proposed development is forecast to generate 111 additional trips during the AM peak hour (57 inbound and 55 outbound from the site), 68 additional trips during the PM peak hour (33 inbound and 35 outbound from the site), and 1,210 additional trips throughout the day over the existing facility without drive-through window service. However, when accounting for internal capture and pass-by traffic effects, the proposed development is forecast to only generate 53 additional new trips during the AM peak hour (27 inbound and 26 outbound from the site) and 22 additional new trips during the PM peak hour (11 inbound and 11 outbound from the site) over the existing facility without drive-through window service.

A queue analysis for the proposed facility during peak operations in the AM peak hour indicated that the average queue would be no more than 9 vehicles, which could be accommodated by the proposed storage of 12 vehicles. For 95% confidence levels, the analysis indicated a queue length of no more than 27 vehicles. However, based on previous research documented by ITE, it appears that once queue levels exceed 13 vehicles, customers “balk” and elect to either park and enter the store on foot, or cancel their trip altogether. If customers were to elect to still utilize the drive-through service window with these queues, the location and layout of the overall site would prevent stacked vehicles from interfering with the operation of the site driveways onto Novi Road, and adjacent parking areas, since demand for the adjacent businesses would be low, as discussed further below.



**TETRA TECH**

The proposed addition of a drive-through window to the existing Starbucks restaurant is not anticipated to significantly impact the operation of the West Oaks Shopping Center driveways along Novi Road, with the forecast increase in traffic being an additional vehicle inbound and outbound per minute for the overall site during the AM peak period, and an additional vehicle inbound and outbound approximately every two minutes for the overall site during the PM peak period. It is also anticipated not to have an impact on the adjacent parking area within the overall site, since, when drive-through operations are the busiest during the AM peak period, most of the adjacent businesses are either closed or experiencing minimal customer operations.

We trust that this letter fulfills your current transportation needs regarding your site. If you have any questions, please feel free to call our office at (810)-220-2112.

Sincerely,

Kenneth M. Mazurek, P.E.,  
Transportation Engineer

Attachments

P:\IER\12851\200-12851-18002\SupportDocs\Cales\Traffic\Deliverables\Novi\_Starbucks\_Drive-Thru\_Letter\_Update-1.docx

**TRIP GENERATION**

**FORECASTS**

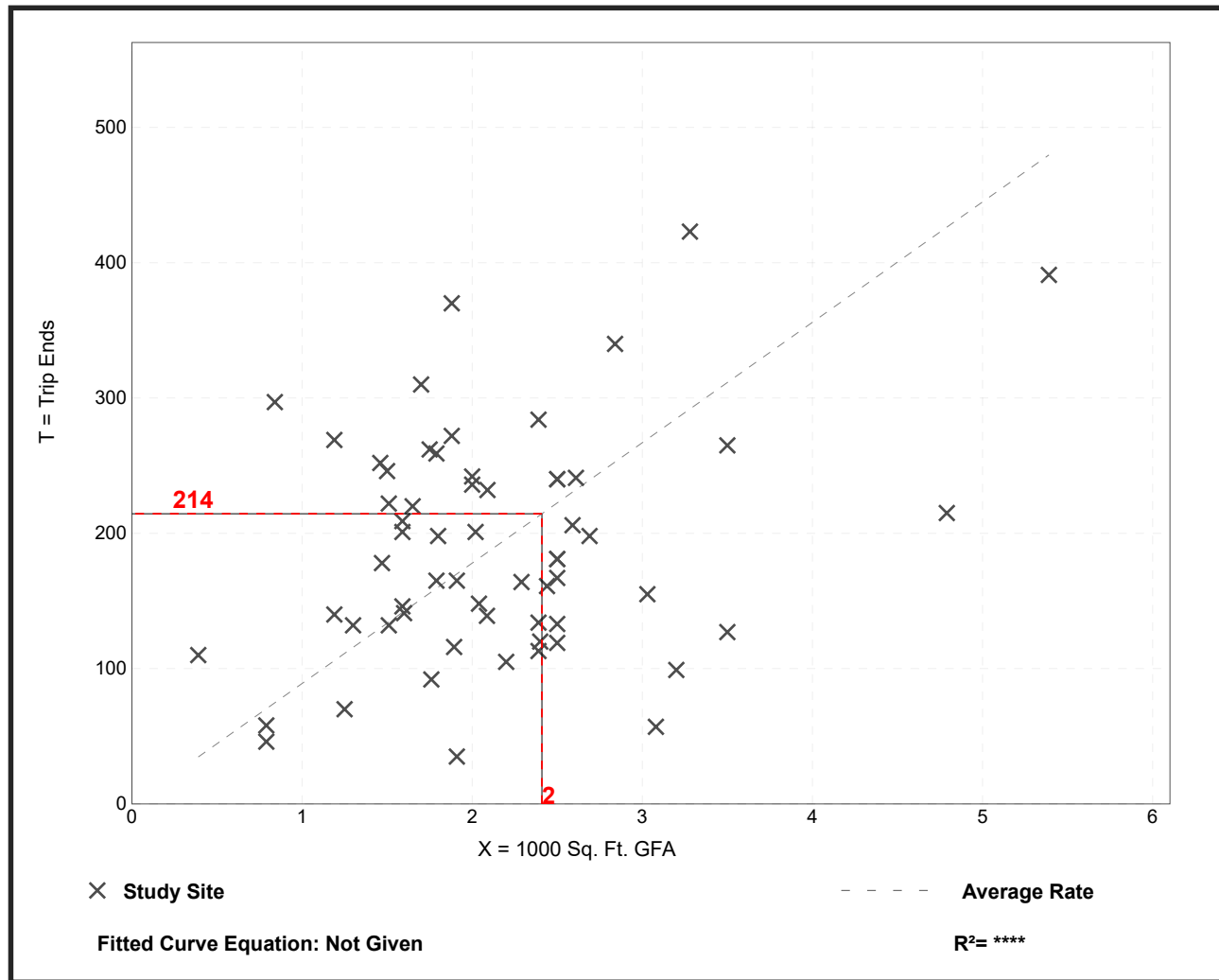
# Coffee/Donut Shop with Drive-Through Window (937)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA  
 On a: Weekday,  
 Peak Hour of Adjacent Street Traffic,  
 One Hour Between 7 and 9 a.m.  
 Setting/Location: General Urban/Suburban  
 Number of Studies: 61  
 Avg. 1000 Sq. Ft. GFA: 2  
 Directional Distribution: 51% entering, 49% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
88.99	18.32 - 353.57	48.19

## Data Plot and Equation





# Coffee/Donut Shop with Drive-Through Window (937)

**Vehicle Trip Ends vs: 1000 Sq. Ft. GFA**  
**On a: Weekday**

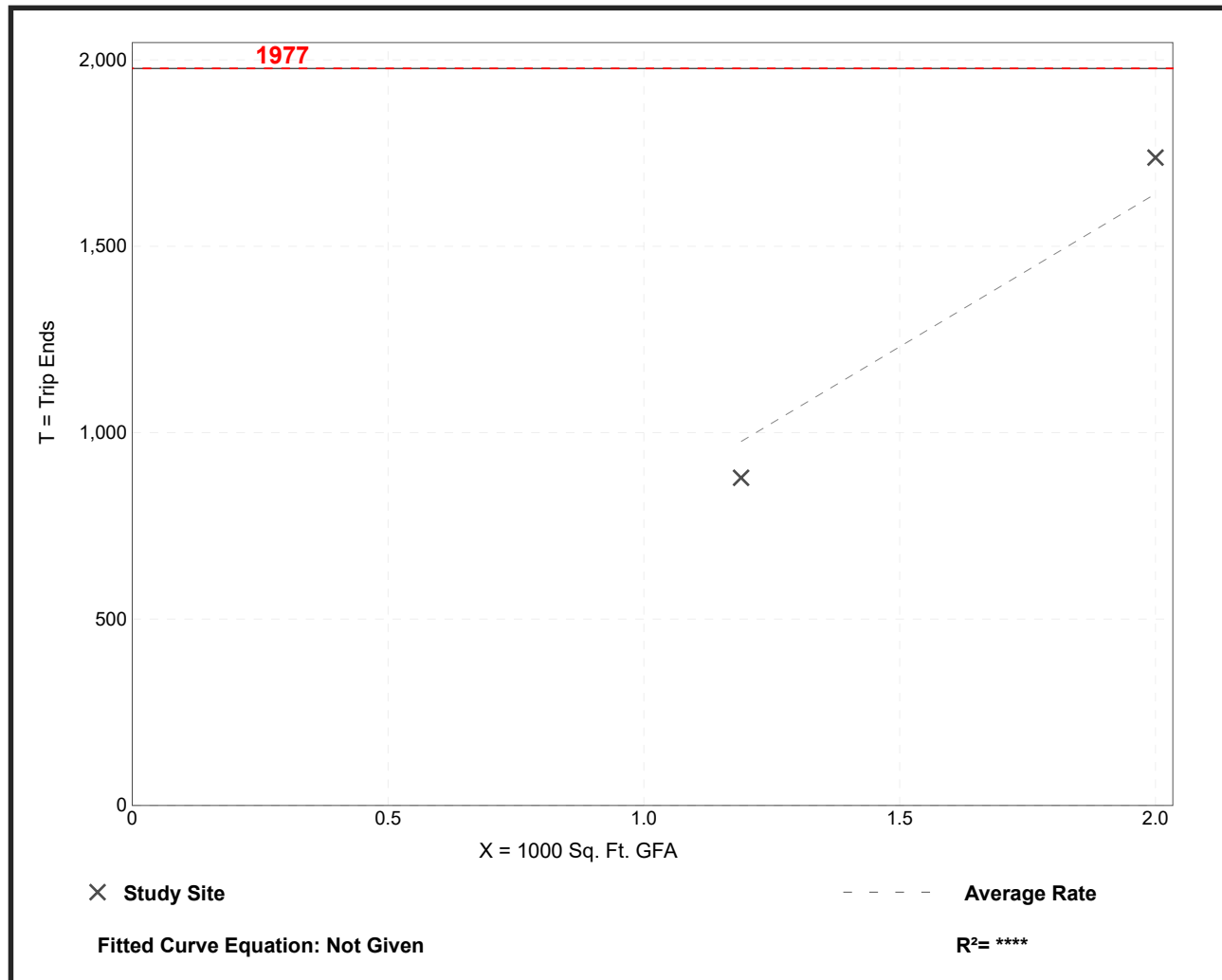
**Setting/Location: General Urban/Suburban**  
Number of Studies: 2  
Avg. 1000 Sq. Ft. GFA: 2  
Directional Distribution: 50% entering, 50% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
820.38	738.66 - 869.00	*

## Data Plot and Equation

*Caution – Small Sample Size*



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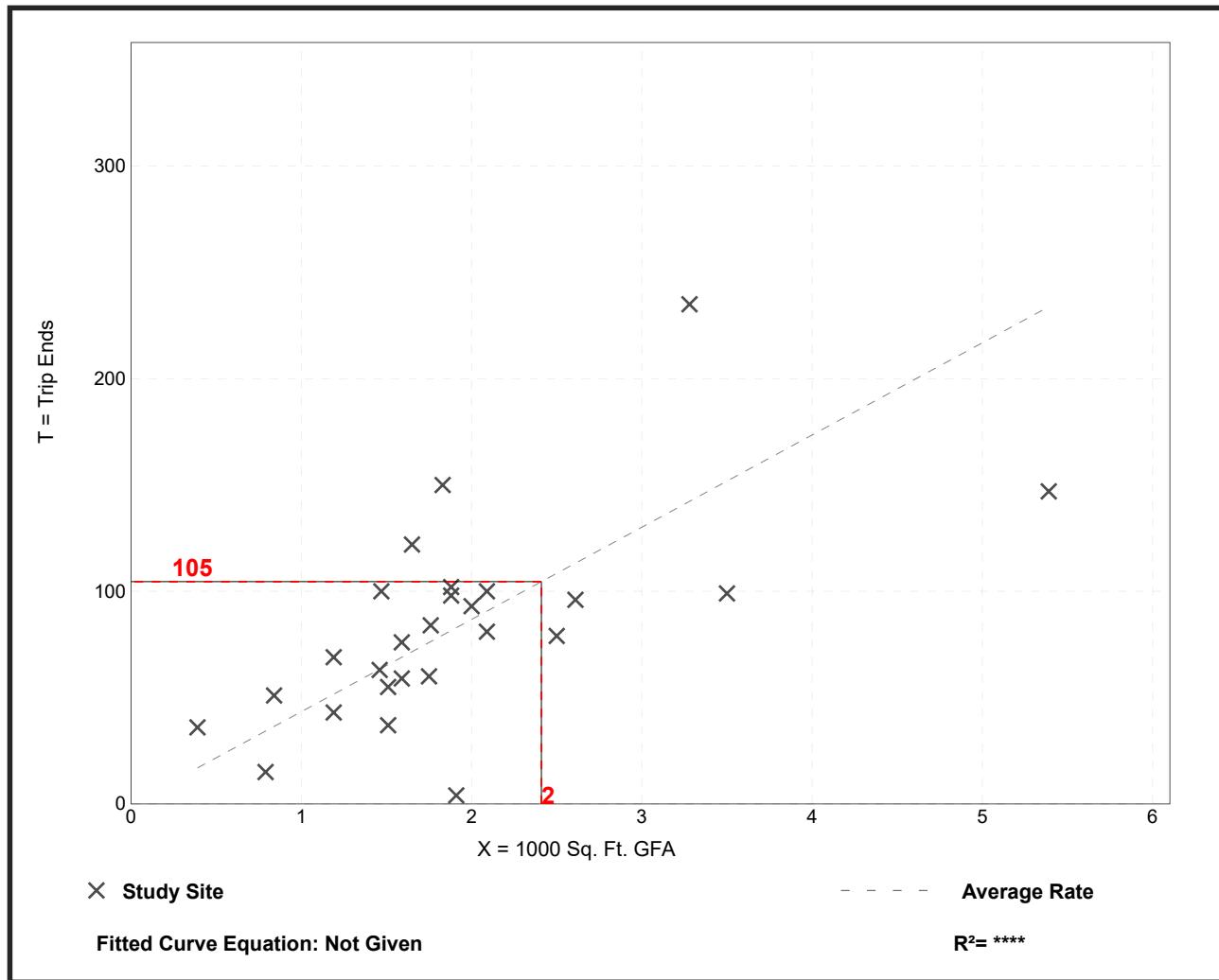
# Coffee/Donut Shop with Drive-Through Window (937)

**Vehicle Trip Ends vs: 1000 Sq. Ft. GFA**  
**On a: Weekday,**  
**Peak Hour of Adjacent Street Traffic,**  
**One Hour Between 4 and 6 p.m.**  
**Setting/Location: General Urban/Suburban**  
 Number of Studies: 26  
 Avg. 1000 Sq. Ft. GFA: 2  
 Directional Distribution: 50% entering, 50% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
43.38	2.09 - 92.31	18.88

## Data Plot and Equation



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**INTERNAL CAPTURE**

**WORKSHEETS**

NCHRP 684 Internal Trip Capture Estimation Tool			
<b>Project Name:</b>	Atwell West Oaks Novi Starbucks Drive-In	<b>Organization:</b>	Tetra Tech of Michigan, P.C.
<b>Project Location:</b>	City of Novi, Oakland County	<b>Performed By:</b>	K. Ramakers
<b>Scenario Description:</b>	Internal Capture, Existing Operations	<b>Date:</b>	August 21, 2018
<b>Analysis Year:</b>	2018	<b>Checked By:</b>	
<b>Analysis Period:</b>	AM Street Peak Hour	<b>Date:</b>	

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)						
Land Use	Development Data (For Information Only)			Estimated Vehicle-Trips <sup>3</sup>		
	ITE LUCs <sup>1</sup>	Quantity	Units	Total	Entering	Exiting
Office				0		
Retail	63,872,875.87	474,464	sq. ft.	289	181	108
Restaurant	937	2,432	sq. ft.	103	53	50
Cinema/Entertainment				0		
Residential				0		
Hotel				0		
All Other Land Uses <sup>2</sup>				0		
				392	234	158

Table 2-A: Mode Split and Vehicle Occupancy Estimates						
Land Use	Entering Trips			Exiting Trips		
	Veh. Occ. <sup>4</sup>	% Transit	% Non-Motorized	Veh. Occ. <sup>4</sup>	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses <sup>2</sup>						

Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: Internal Person-Trip Origin-Destination Matrix*						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		14	0	0	0
Restaurant	0	7		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	0	0	0		0
Hotel	0	0	0	0	0	

Table 5-A: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	392	234	158
Internal Capture Percentage	11%	9%	13%
External Vehicle-Trips <sup>5</sup>	350	213	137
External Transit-Trips <sup>6</sup>	0	0	0
External Non-Motorized Trips <sup>6</sup>	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use		
Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	4%	13%
Restaurant	26%	14%
Cinema/Entertainment	N/A	N/A
Residential	N/A	N/A
Hotel	N/A	N/A

<sup>1</sup>Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

<sup>2</sup>Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

<sup>3</sup>Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

<sup>4</sup>Enter vehicle occupancy assumed in Table 1-A vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made to Tables 5-A, 9-A (O and D). Enter transit, non-motorized percentages that will result with proposed mixed-use project complete.

<sup>5</sup>Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A.

<sup>6</sup>Person-Trips

\*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

NCHRP 684 Internal Trip Capture Estimation Tool			
<b>Project Name:</b>	Atwell West Oaks Novi Starbucks Drive-In	<b>Organization:</b>	Tetra Tech of Michigan, P.C.
<b>Project Location:</b>	City of Novi, Oakland County	<b>Performed By:</b>	K. Ramakers
<b>Scenario Description:</b>	Internal Capture with Drive-Through Operations	<b>Date:</b>	August 21, 2018
<b>Analysis Year:</b>	2018	<b>Checked By:</b>	
<b>Analysis Period:</b>	AM Street Peak Hour	<b>Date:</b>	

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)						
Land Use	Development Data (For Information Only)			Estimated Vehicle-Trips <sup>3</sup>		
	ITE LUCs <sup>1</sup>	Quantity	Units	Total	Entering	Exiting
Office				0		
Retail	63,872,875,87	474,464	sq. ft.	289	181	108
Restaurant	937	2,412	sq. ft.	214	109	105
Cinema/Entertainment				0		
Residential				0		
Hotel				0		
All Other Land Uses <sup>2</sup>				0		
				503	290	213

Table 2-A: Mode Split and Vehicle Occupancy Estimates						
Land Use	Entering Trips			Exiting Trips		
	Veh. Occ. <sup>4</sup>	% Transit	% Non-Motorized	Veh. Occ. <sup>4</sup>	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses <sup>2</sup>						

Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: Internal Person-Trip Origin-Destination Matrix*						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		14	0	0	0
Restaurant	0	14		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	0	0	0		0
Hotel	0	0	0	0	0	

Table 5-A: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	503	290	213
Internal Capture Percentage	11%	10%	13%
External Vehicle-Trips <sup>5</sup>	447	262	185
External Transit-Trips <sup>6</sup>	0	0	0
External Non-Motorized Trips <sup>6</sup>	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use		
Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	8%	13%
Restaurant	13%	13%
Cinema/Entertainment	N/A	N/A
Residential	N/A	N/A
Hotel	N/A	N/A

<sup>1</sup>Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

<sup>2</sup>Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

<sup>3</sup>Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

<sup>4</sup>Enter vehicle occupancy assumed in Table 1-A vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made to Tables 5-A, 9-A (O and D). Enter transit, non-motorized percentages that will result with proposed mixed-use project complete.

<sup>5</sup>Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A.

<sup>6</sup>Person-Trips

\*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

NCHRP 684 Internal Trip Capture Estimation Tool			
<b>Project Name:</b>	Atwell West Oaks Novi Starbucks Drive-In	<b>Organization:</b>	Tetra Tech of Michigan, P.C.
<b>Project Location:</b>	City of Novi, Oakland County	<b>Performed By:</b>	K. Ramakers
<b>Scenario Description:</b>	Internal Capture, Existing Operations	<b>Date:</b>	August 21, 2018
<b>Analysis Year:</b>	2018	<b>Checked By:</b>	
<b>Analysis Period:</b>	PM Street Peak Hour	<b>Date:</b>	

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)						
Land Use	Development Data (For Information Only)			Estimated Vehicle-Trips <sup>3</sup>		
	ITE LUCs <sup>1</sup>	Quantity	Units	Total	Entering	Exiting
Office				0		
Retail	63,872,875,87	474,464	sq. ft.	1,543	742	801
Restaurant	937	2,432	sq. ft.	37	19	18
Cinema/Entertainment				0		
Residential				0		
Hotel				0		
All Other Land Uses <sup>2</sup>				0		
				1,580	761	819

Table 2-P: Mode Split and Vehicle Occupancy Estimates						
Land Use	Entering Trips			Exiting Trips		
	Veh. Occ. <sup>4</sup>	% Transit	% Non-Motorized	Veh. Occ. <sup>4</sup>	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses <sup>2</sup>						

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-P: Internal Person-Trip Origin-Destination Matrix*						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		6	0	0	0
Restaurant	0	7		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	0	0	0		0
Hotel	0	0	0	0	0	

Table 5-P: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	1,580	761	819
Internal Capture Percentage	2%	2%	2%
External Vehicle-Trips <sup>5</sup>	1,554	748	806
External Transit-Trips <sup>6</sup>	0	0	0
External Non-Motorized Trips <sup>6</sup>	0	0	0

Table 6-P: Internal Trip Capture Percentages by Land Use		
Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	1%	1%
Restaurant	32%	39%
Cinema/Entertainment	N/A	N/A
Residential	N/A	N/A
Hotel	N/A	N/A

<sup>1</sup>Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

<sup>2</sup>Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

<sup>3</sup>Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

<sup>4</sup>Enter vehicle occupancy assumed in Table 1-P vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made.

<sup>5</sup>Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P.

<sup>6</sup>Person-Trips

\*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

**NCHRP 684 Internal Trip Capture Estimation Tool**

<b>Project Name:</b>	Atwell West Oaks Novi Starbucks Drive-In	<b>Organization:</b>	Tetra Tech of Michigan, P.C.
<b>Project Location:</b>	City of Novi, Oakland County	<b>Performed By:</b>	K. Ramakers
<b>Scenario Description:</b>	Internal Capture with Drive-Through Operations	<b>Date:</b>	August 21, 2018
<b>Analysis Year:</b>	2018	<b>Checked By:</b>	
<b>Analysis Period:</b>	PM Street Peak Hour	<b>Date:</b>	

**Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)**

Land Use	Development Data (For Information Only)			Estimated Vehicle-Trips <sup>3</sup>		
	ITE LUCs <sup>1</sup>	Quantity	Units	Total	Entering	Exiting
Office				0		
Retail	63,872,875,87	474,464	sq. ft.	1,543	742	801
Restaurant	937	2,412	sq. ft.	105	52	53
Cinema/Entertainment				0		
Residential				0		
Hotel				0		
All Other Land Uses <sup>2</sup>				0		
				1,648	794	854

**Table 2-P: Mode Split and Vehicle Occupancy Estimates**

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ. <sup>4</sup>	% Transit	% Non-Motorized	Veh. Occ. <sup>4</sup>	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses <sup>2</sup>						

**Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)**

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

**Table 4-P: Internal Person-Trip Origin-Destination Matrix\***

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		15	0	0	0
Restaurant	0	22		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	0	0	0		0
Hotel	0	0	0	0	0	

**Table 5-P: Computations Summary**

	Total	Entering	Exiting
All Person-Trips	1,648	794	854
Internal Capture Percentage	4%	5%	4%
External Vehicle-Trips <sup>5</sup>	1,574	757	817
External Transit-Trips <sup>6</sup>	0	0	0
External Non-Motorized Trips <sup>6</sup>	0	0	0

**Table 6-P: Internal Trip Capture Percentages by Land Use**

Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	3%	2%
Restaurant	29%	42%
Cinema/Entertainment	N/A	N/A
Residential	N/A	N/A
Hotel	N/A	N/A

<sup>1</sup>Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

<sup>2</sup>Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

<sup>3</sup>Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

<sup>4</sup>Enter vehicle occupancy assumed in Table 1-P vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be

<sup>5</sup>Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P.

<sup>6</sup>Person-Trips

\*Indicates computation that has been rounded to the nearest whole number.



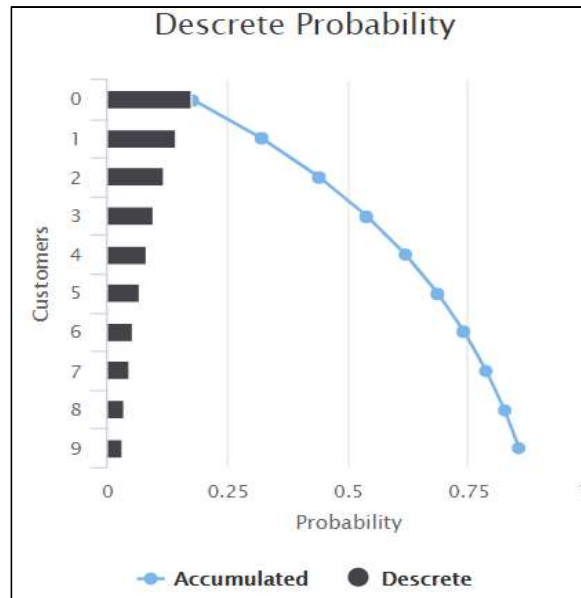
**QUEUE ANALYSIS**

**WORKSHEETS**

**Project: West Oaks Shopping Center Starbucks**  
**Drive Through Queue Probability**

Demand ( $\lambda$ ) = 72  
 Service Rate ( $\mu$ ) = 80  
 Intensity ( $\rho$ ) = 0.9 **OK**

$\rho^n$	n	$P(n) = \rho^n(1-\rho)$	$\Sigma P(n)$
1.0000	0	10.00%	10%
0.9000	1	9.00%	19%
0.8100	2	8.10%	27%
0.7290	3	7.29%	34%
0.6561	4	6.56%	41%
0.5905	5	5.90%	47%
0.5314	6	5.31%	52%
0.4783	7	4.78%	57%
0.4305	8	4.30%	61%
0.3874	9	3.87%	65%
0.3487	10	3.49%	69%
0.3138	11	3.14%	72%
0.2824	12	2.82%	75%
0.2542	13	2.54%	77%
0.2288	14	2.29%	79%
0.2059	15	2.06%	81%
0.1853	16	1.85%	83%
0.1668	17	1.67%	85%
0.1501	18	1.50%	86%
0.1351	19	1.35%	88%
0.1216	20	1.22%	89%
0.1094	21	1.09%	90%
0.0985	22	0.98%	91%
0.0886	23	0.89%	92%
0.0798	24	0.80%	93%
0.0718	25	0.72%	94%
0.0646	26	0.65%	94%
0.0581	27	0.58%	95%



Generate graphic at  
<https://www.supositorio.com/rcalc/rcalclite.htm>  
 M/M/C Queue Methodology

110 Total Inbound Trips  
 65% Utilize Drive-Thru  
 72 Drive-Thru Trips

---

45 Service Rate (sec/veh)  
 3600 sec/hr  
 80 Service Rate (veh/hr)

Average Queue  $E(n)$  = **9.00 vehicles**  
 Average Wait Time in Drive-Through  $E(v)$  = **7.50 minutes**

**Project: West Oaks Shopping Center Starbucks**  
**Drive Through Queue Probability**

Demand ( $\lambda$ ) = 72  
 Service Rate ( $\mu$ ) = 80  
 Intensity ( $\rho$ ) = 0.9 OK

$\rho$	$Q_M (= \rho \text{ for } n = 1)$	95% Confidence Level $p =$	M (Queue)
0.9000	0.9000	0.05	26.43
-0.105360516	-0.1053605	-2.995732274	

$\rho$	$Q_M (= \rho \text{ for } n = 1)$	90% Confidence Level $p =$	M (Queue)
0.9000	0.9000	0.1	19.85
-0.105360516	-0.1053605	-2.302585093	

**STARBUCKS**

**CUSTOMER DRIVE-THRU\**PARK SPLIT

**SERVICE RATE**

**CORRESPONDENCE**



Ross S. Gallentine  
Senior Project Manager  
RPT Realty  
31500 Northwestern Highway, Suite 300  
Farmington Hills, MI 48334

January 28, 2019

Re: Store #2278 – Novi Rd & W Oaks Novi, MI – Drive thru traffic study

Ross:

Drive thru times for each Starbucks store are subject to vary, dependent on multiple factors including; peak traffic hours, optimal menu board placement, Operations team experience, etc... Accordingly, Starbucks does not provide specific data on individual drive thru stores, but can provide a regional average, which was the 45 second drive thru time cited during the meeting. For this site plan specifically, we have optimal menu board placement, an 11-car stack with room for overflow, and an existing experienced Operations team.

Store Development Team  
Starbucks Coffee Company

# **SITE PLAN**

# LEGEND

	PROPERTY LINE		TRAFFIC FLOW ARROWS (DETAIL ON C11)
	PROPOSED CURB & GUTTER (REFER TO CITY STANDARD DETAILS)		PROPOSED SIGN (DETAIL ON C11)
	PROPOSED SIDEWALK (REFER TO CITY STANDARD DETAILS)		ACCESSIBLE PARKING SPACE (DETAIL ON C11)
	PROPOSED CONCRETE (DETAIL ON C11)		PROPOSED LIGHT POLE
	PROPOSED ASPHALT PAVEMENT (DETAIL ON C11)		EXISTING UTILITY POLE
	PROPOSED BUILDING EXPANSION		R RAMP W/DETECTABLE WARNING PANEL (DETAILS ON C12)
	LOADING AREA		
	PAVEMENT MATCH LINE		

# NOTES

1. REFERENCE THE STANDARD NOTES SHEET FOR ADDITIONAL INFORMATION.
2. FOR ALL APPLICABLE CONSTRUCTION DETAILS REFERENCE THE STANDARD DETAILS SHEET(S) AND ANY MUNICIPAL/JURISDICTIONAL DETAILS ATTACHED TO THIS PLAN SET.
3. REFERENCE THE ALTA/ACSM LAND TITLE SURVEY FOR ADDITIONAL EXISTING FEATURES AND PROPERTY BOUNDARY INFORMATION.
4. ALL DIMENSIONS ARE TO EDGE OF BUILDING, FACE OF CURB, OR EDGE OF PAVEMENT, UNLESS OTHERWISE NOTED.
5. REFERENCE ARCHITECTURAL / FOUNDATION PLANS FOR BUILDING DIMENSIONS.
6. OUTDOOR SEATING SHALL BE PERMITTED BETWEEN MARCH 1ST AND NOVEMBER 30TH WITH ALL FURNITURE AND FIXTURES INCLUDING, BUT NOT LIMITED TO, TABLES, CHAIRS AND WASTE RECEPTACLES REMOVED FROM THE EXTERIOR PREMISES AFTER NOVEMBER 30TH. OUTDOOR SEATING SHALL NOT BE THE PRIMARY SEATING OF THE RESTAURANT.

# SITE DATA

## PARCEL SUMMARY

PARCEL ID#	ZONING
22-15-200-059	RC - REGIONAL CENTER

## BUILDING HEIGHT

EXISTING STARBUCKS 28'  
 EXPANSION STARBUCKS 27'  
 \*BUILDING HEIGHTS PROVIDED FOR QUICK REFERENCE. REFER TO ARCHITECTURAL PLANS FOR DETAIL.

## BUILDING AREA

EXISTING STARBUCKS	1,016 SF
EXPANSION STARBUCKS	1,396 SF
EXISTING JARED	5,700 SF
TOTAL	8,112 SF
LOT COVERAGE - 12.4%	
(BUILDING FOOTPRINT/TOTAL LOT SIZE x100 = (8,112/65,340)x100 = 12.4%)	

## PARKING DATA

PROPOSED	REQUIRED	SPACES REMOVED	FORMULA
65 SPACES	32 SPACES	6 SPACES	1 SPACE PER 250 SQ. FT GROSS LEASEABLE AREA.

## LOADING DATA

STORE	PROPOSED	REQUIRED	FORMULA
STARBUCKS	775 SQ. FT.	660 SQ. FT.	10 SQ. FT/FOOT OF BUILDING FRONTAGE

## DRIVE-THRU STACKING

LOCATION	REQUIRED	PROPOSED
BETWEEN ORDER AND PICK-UP	4 SPACES	5 SPACES
ADVANCE OF ORDER	4 SPACES	5 SPACES
TOTAL STACKING SPACES	N/A	12 SPACES

HOURS OF OPERATION: 5:30AM - 10:00PM

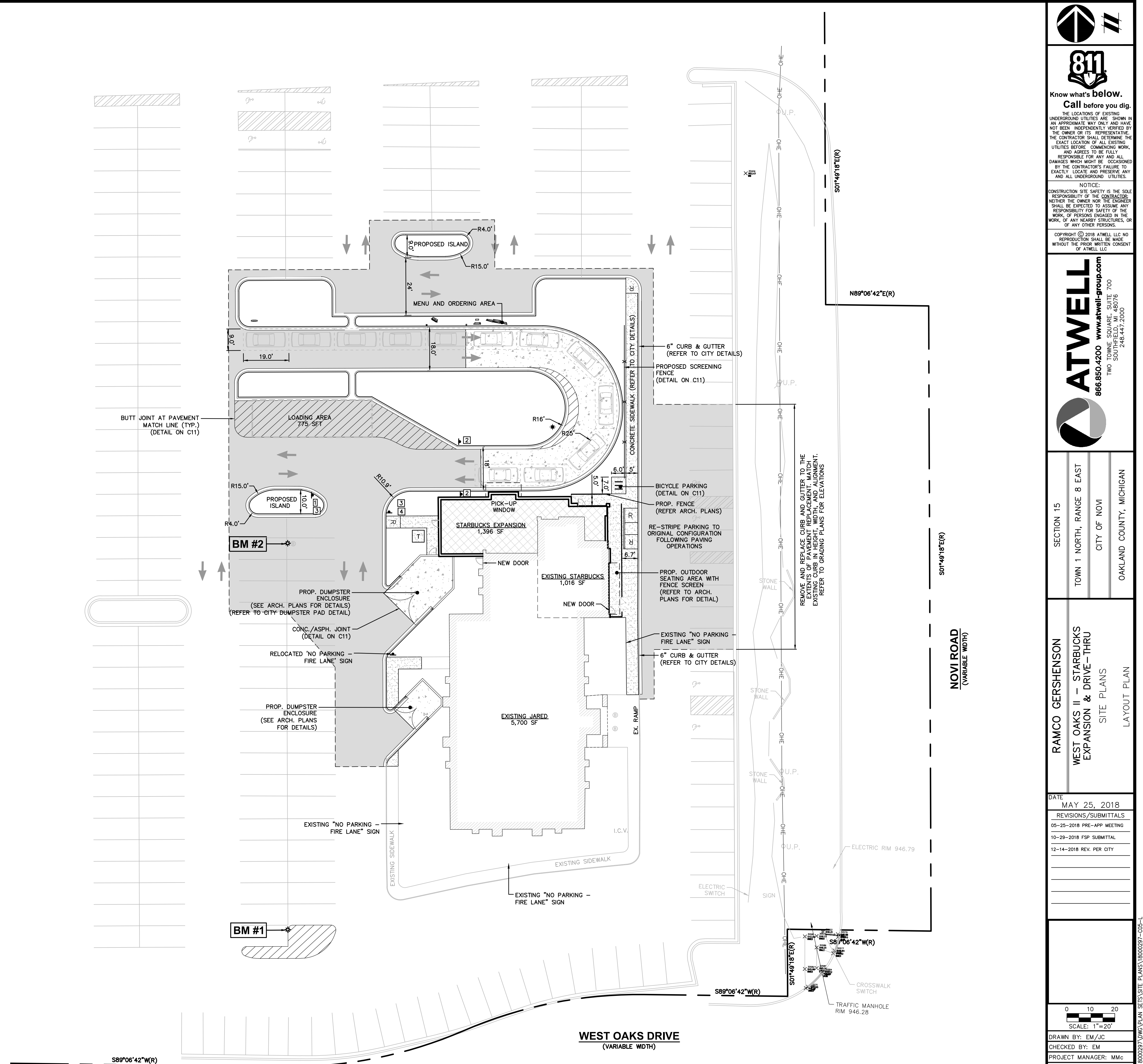
# CONSTRUCTION MATERIALS QUANTITY

MATERIAL	QUANTITY
ASPHALT	2,953 SYD
CONCRETE - DRIVE THRU	2,180 SFT
CONCRETE - DUMPSTER PAD	679 SFT
CONCRETE - WALK	1,490 SFT

# REGULATORY SIGNS SCHEDULE

KEY DESIGNATION	TYPE	TYPE	# OF SIGNS
1	R3-5	RIGHT TURN ONLY 30"x36"	1 EACH
2	R5-1	DO NOT ENTER 30"x30"	5 EACH
3	R1-1	STOP SIGN 24"x24"	4 EACH
4	R3-1	NO RIGHT TURN 24"x24"	1 EACH

\*ALL TRAFFIC SIGNAGE SHALL CONFORM WITH THE CURRENT MMUTCD STANDARDS.



**811**  
 Know what's below.  
 Call before you dig.  
 THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREE TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE: CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK, OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

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 SOUTHFIELD, MI 48076  
 248.447.2668

SECTION 15	TOWN 1 NORTH, RANGE 8 EAST	OAKLAND COUNTY, MICHIGAN
	CITY OF NOVI	

RAMCO GERSHENSON	WEST OAKS II - STARBUCKS EXPANSION & DRIVE-THRU	SITE PLANS	LAYOUT PLAN
------------------	---	------------	-------------

DATE	MAY 25, 2018
REVISIONS/SUBMITTALS	05-25-2018 PRE-APP MEETING
	10-29-2018 FSP SUBMITTAL
	12-14-2018 REV. PER CITY

SCALE:	1"=20'
DRAWN BY:	EM/JC
CHECKED BY:	EM
PROJECT MANAGER:	MMG
JOB #:	17002565
FILE CODE:	CP
SHEET NO.	C04

NOT FOR CONSTRUCTION



**PLANNING COMMISSION ACTION SUMMARY**



# PLANNING COMMISSION ACTION SUMMARY

CITY OF NOVI

Regular Meeting

**January 9, 2019 7:00 PM**

Council Chambers | Novi Civic Center  
45175 W. Ten Mile (248) 347-0475

## CALL TO ORDER

The meeting was called to order at 7:00 PM.

## ROLL CALL

Present: Member Anthony, Member Avdoulos, Chair Greco, Member Hornung, Member Maday,

Absent: Member Lynch, Chair Pehrson

Also Present: Barbara McBeth, City Planner; Sri Komaragiri, Planner; Rick Meader, Landscape Architect; Thomas Schultz, City Attorney

## APPROVAL OF AGENDA

**Motion to approve the January 9, 2019 Planning Commission Agenda, as amended, to add Member Anthony's request as a Matter for Consideration.**  
*Motion carried 5-0.*

## PUBLIC HEARINGS

### 1. STARBUCKS EXPANSION DRIVE-THROUGH JSP18-33

Public hearing at the request of Ramco West Oaks II LLC for JSP 18-33 Starbucks Expansion with a Drive-Through for Planning Commission's recommendation to the City Council for approval of Special Land Use, Preliminary Site Plan with a PD-2 option and Storm Water Management plan. The subject property is located on the west side of Novi Road south of Twelve Mile Road in West Oaks Shopping Center in Section 15. The applicant is proposing an expansion of the existing Starbucks coffee shop with an addition of a drive-thru facility.

**In the matter of the request of Ramco West Oaks II LLC for JSP 18-33 Starbucks Expansion with a Drive-Through, motion to recommend approval to the City Council for Special Land Use based on and subject to the following:**

1. **The proposed use will not cause any detrimental impact on existing thoroughfares (*based on Traffic review*);**
2. **The proposed use will not cause any detrimental impact on the capabilities of public services and facilities (*based on Engineering review*);**
3. **The proposed use is compatible with the natural features and characteristics of the land (*because there are no regulated natural features on site*);**
4. **The proposed use is compatible with adjacent uses of land (*because the proposed use is an expansion to an existing use*);**

5. The proposed use is consistent with the goals, objectives, and recommendations of the City's Master Plan for Land Use *(as it fulfills one of the Master Plan objectives to retain existing businesses within City of Novi)*;
6. The proposed use will promote the use of land in a socially and economically desirable manner *(as it fulfills one of the Master Plan objectives to retain existing businesses within City of Novi)*;
7. 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.

This motion is made because the plan is otherwise in compliance with Article 3, Article 4, Article 5, and Article 6 of the Zoning Ordinance and all other applicable provisions of the Ordinance. *Motion carried 4-1 (Hornung).*

In the matter of the request of Ramco West Oaks II LLC for JSP 18-33 Starbucks Expansion with a Drive-Through, motion to recommend approval to the City Council for Storm water Management Plan based on and subject to the findings of compliance with Ordinance standards in the staff and consultant review letters, and the conditions and items listed in those letters being addressed on the Final Site Plan. This motion is made because it is otherwise in compliance with Chapter 11 of the Code of Ordinances and all other applicable provisions of the Ordinance. *Motion carried 5-0.*

In the matter of the request of Ramco West Oaks II LLC for JSP 18-33 Starbucks Expansion with a Drive-Through, motion to recommend approval to the City Council for Preliminary Site Plan with a PD-2 Option based on and subject to the following:

1. Findings that the standards of Section 3.31.4 of the Zoning Ordinance are adequately addressed, as identified in the Planning Review Letter;
2. City Council approval of an ordinance deviation to waive the requirement for a Community Impact statement as listed in the Section 3.31.4.A.iii. of our Zoning Ordinance, as the proposed development is an extension to an existing business and does not create additional impacts;
3. City Council approval of an ordinance deviation to allow a Queuing study in lieu of Traffic Study as listed in the Section 3.31.4.A.iii. of our Zoning Ordinance, as the proposed development is an extension to an existing business;
4. City Council approval of an ordinance deviation to waive the requirement for a noise impact statement as listed in Section 5.14.10.B. of our Zoning Ordinance, as the proposed development is an extension to an existing business and does not create additional impacts;
5. Landscape waiver for not meeting the minimum requirements for building foundation landscaping as listed in Section 5.5.3.D. for less than 60% of building frontage facing Novi Road not being landscaped, provided the applicant provides most of the required landscaping subject to Landscape Architects approval at the time of Final Site Plan approval, it is hereby granted;
6. Landscape waiver for not meeting the minimum requirements for building foundation landscaping as listed in Section 5.5.3.D. for placing some of the required foundation landscape away from the building, subject to Landscape Architects approval at the time of Final Site Plan approval, is hereby granted;

7. The applicant shall work with the landscape architect to identify alternate options to completely screen the loading areas from Novi Road at the time of Final Site Plan approval;
8. The applicant shall revise the Final Site Plan as shown in the revised Preliminary Site Plan provided via e-mail dated December 17, 2018;
9. The findings of compliance with Ordinance standards in the staff and consultant review letters, and the conditions and items listed in those letters being addressed on the Final Site Plan.

This motion is made because the plan is otherwise in compliance with Article 3, Article 4, and Article 5 of the Zoning Ordinance and all other applicable provisions of the Ordinance. *Motion carried 4-1 (Hornung).*

#### MATTERS FOR CONSIDERATION

1. SCREENING BETWEEN RESIDENTIAL AND NON-RESIDENTIAL USES

The Planning Commission asked the Master Plan and Zoning Committee to review this matter for possible recommendations for improvements.

2. RECONSIDERATION OF APPOINTMENTS TO COMMITTEES

The Planning Commission reassigned members to positions on the Committees.

3. APPROVAL OF THE DECEMBER 12, 2018 PLANNING COMMISSION MINUTES

Motion to approve the December 12, 2018 Planning Commission Meeting Minutes.  
*Motion carried 5-0.*

#### ADJOURNMENT

The meeting was adjourned at 7:52 PM.

*\*Actual language of the motions subject to review.*

**PLANNING COMMISSION MEETING MINUTES**



**PLANNING COMMISSION  
MINUTES**  
CITY OF NOVI  
Regular Meeting  
**January 9, 2019 7:00 PM**  
Council Chambers | Novi Civic Center  
45175 W. Ten Mile (248) 347-0475

**CALL TO ORDER**

The meeting was called to order at 7:00 PM.

**ROLL CALL**

**Present:** Member Anthony, Member Avdoulos, Chair Greco, Member Hornung, Member Maday

**Absent:** Member Lynch, Chair Pehrson

**Also Present:** Barbara McBeth, City Planner; Sri Komaragiri, Planner; Rick Meader, Landscape Architect; Thomas Schultz, City Attorney

**PLEDGE OF ALLEGIANCE**

Member Anthony led the meeting attendees in the recitation of the Pledge of Allegiance.

**APPROVAL OF AGENDA**

Member Anthony said I would like to request that we add a short request for the Master Planning and Zoning Committee to consider options for screening in areas of our City where it abruptly goes from Industrial to Single-Family homes and what options we have there.

City Planner McBeth said we can add that to Matters for Consideration.

Moved by Member Avdoulos with a Friendly Amendment by Member Anthony, seconded by Member Maday.

**VOICE VOTE TO APPROVE THE JANUARY 9, 2019 AGENDA WITH AMENDMENT MOTION MADE BY MEMBER AVOULDOS AND SECONDED BY MEMBER MADAY.**

**Motion to approve the January 9, 2019 Planning Commission Agenda, as amended.  
*Motion carried 5-0.***

**AUDIENCE PARTICIPATION**

Nobody in the audience wished to speak.

**CORRESPONDENCE**

There was no correspondence.

**COMMITTEE REPORTS**

There were no Committee Reports.

## **CITY PLANNER REPORT**

City Planner McBeth said I want to report that on Monday evening, the City Council approved the request of Erhard Motor Sales for a Special Development Option (SDO) Agreement in the GE, Gateway East District. That is for the property located at the southwest corner of Grand River Avenue and Meadowbrook Road. The applicant is proposing a 58,663 square foot car sales facility for Jaguar Land Rover. The next step in the process is for the Preliminary Site Plan will be considered by the City Council.

## **CONSENT AGENDA**

There were no items on the consent agenda.

## **PUBLIC HEARINGS**

### **1. STARBUCKS EXPANSION DRIVE-THROUGH JSP18-33**

Public hearing at the request of Ramco West Oaks II LLC for JSP 18-33 Starbucks Expansion with a Drive-Through for Planning Commission's recommendation to the City Council for approval of Special Land Use, Preliminary Site Plan with a PD-2 option and Storm Water Management plan. The subject property is located on the west side of Novi Road south of Twelve Mile Road in West Oaks Shopping Center in Section 15. The applicant is proposing an expansion of the existing Starbucks coffee shop with an addition of a drive-thru facility.

Planner Komaragiri said as you mentioned, the applicant is proposing an expansion of the existing Starbucks coffee shop at the northeast corner of the West Oaks Shopping Center. It is located on the west side of Novi Road south of Twelve Mile Road. It is currently zoned RC, Regional Center and surrounded by the same zoning on all sides. The Future Land Use map indicates a Planned Development Option for the subject property and surrounding properties. A PD Option allows alternative means of land use development within the designated PD areas. The application will be utilizing the option to propose a drive-thru.

The property is currently developed and there are no regulated wetlands or woodlands on the property. The expansion includes replacing about 130 existing parking spaces with a 1,300 square foot building expansion and a drive-thru. A bypass lane is proposed along with the drive-thru lane.

As part of the PD-2 Option, any deviations from the Ordinance Standards are subject to City Council's approval based on your recommendation. The applicant is requesting to waive the requirement for Community Impact Statement and Noise Impact Statement, as the proposal is for an expansion of an existing facility in a fully developed shopping center. Staff agrees that the impacts would be no more than the existing.

Planning and Traffic have requested a couple of minor changes for the traffic to flow better. The revised plan referred to in the motion sheet addresses those concerns. The changes include adding additional maneuvering space at the U-Turn as indicated in red, adding a pedestrian connection from the northern parking lot to the coffee shop, and some minor changes indicated in red. Landscape has identified a couple of waivers for shortage in building foundation landscape as noted in the motion, which are supported by Staff. Additional screening for the loading area is requested at the time of Final Site Plan, which the applicant agreed to comply with.



Planner Komaragiri said due to the nature of the drive-thru operation, our Traffic consultant recommended the applicant to provide a Queuing Study in lieu of a Traffic Impact Study to identify whether additional stacking spaces than the Ordinance minimum are required. The Ordinance requires a total of 10 stacking spaces. The study recommended 13 spaces during peak hours, and the current plan provides 12 stacking spaces. Staff is in agreement with the proposed number, as the peak hours for the drive-thru is during morning rush hour where the rest of surrounding businesses are operating at off-peak hours. Traffic is in support of the basic findings of the study, but is requesting some additional background data at the time of Final Site Plan.

Except for relocation of existing utility services, there are no changes to the existing Stormwater Management Plan. The proposed Façade extension is in full compliance with the Ordinance standards. A sample façade board is provided, which is placed in front of the podium.

All reviewers are recommending approval with additional comments to be addressed at the time of Final Site Plan. The Planning Commission is asked tonight to hold the public hearing and make a recommendation to City Council to either approve or deny the Special Land Use, Preliminary Site Plan with a PD-2 Option, and the Storm Water Management Plan. The Planning Commission is requested to make their findings based on conditions listed in Section 6.1.2.C and 3.31.4, which are listed in the Planning review letter.

Planner Komaragiri said the applicant, Ross Gallentine, is here tonight with his engineer, Michael McPherson and architect, Matt Niles, if you have any questions for them. Staff is also here to provide any clarification you may need.

Ross Gallentine, with RPT, said as you're aware with the retail environment that exists today, we're thrilled to have been able to maintain Starbucks here. I'm sure you've all been into that Starbucks and it's got to be one of the smallest and tightest Starbucks I've ever been in. We're looking at doubling the size and doing the drive-thru, and are very excited to have the opportunity with your approval to keep this moving and keep Starbucks in our shopping center. And again, like Sri said, we also have Dave Warner here from Starbucks, as well as our architect and civil engineer. If you have any questions, we're here to answer them.

Chair Greco asked if there was anyone in the audience that wished to address the Planning Commission regarding this project.

Dorothy Duchesneau, 125 Henning, said my print-off from the packet online is a little more descriptive of what my issue is. Living on the north and having to go south to get on 96, I've very happy to see Starbucks expand. I'm happy to have someplace to pick up a cup of coffee before getting on the expressway. It is a very, very tight location there so I'm fully in support of that part – you don't have to get out of your car to fight the people inside to go get your coffee.

However, having worked in a retail mall both at Oakland Mall and ever since Twelve Oaks mall opened, and also at West Oaks Mall, I am really concerned about how most of the people going to the expressway are going to be heading south, they're going to make that right turn, they're going to come into here, and they're going to want to go right

back out where they came in. This distance between the two parking spaces is not enough for two-way traffic, stacking traffic, and "hi I want to turn left or I want to turn right" traffic.

There's got to be a better plan of some type, because this is just going to be fender benders and backups. It's not as easy because you've got to wiggle here, to wiggle, to wiggle, to get out to the light. I'm telling you, people are going to come in, and they're going to want to go out where they came in. And in the meantime, you're going to have people lined up here at 7 o'clock in the morning trying to get their coffee ordered. I think the ingress-egress layout of that needs to be looked at a little bit further.

David Hurlbert, 44831 Larkspur, said I'm actually really happy to see that they're going to be doing an expansion because a lot of times on the way to work, that would be the Starbucks that I would go into, but there are times where it's so backed up that I would pass by there and actually go to the one at Orchard Lake and Twelve Mile instead of the one in Novi because it's so busy and backed up. Some of the things I'm going to bring up are almost the same as the last woman that spoke.

The traffic flow going in and out of there, I don't think it's going to be fair to a lot of the other businesses that are there because that traffic flow going in in front of all those other businesses and coming down – even though it's predominantly morning traffic, it is going to be all day. Is there a way they could straighten it out where that loop is, so that when traffic would come in off of Novi Road they would come right straight down? That would address the problem of the two-way traffic backing up. So it would be more of a straight shot in, they'd curve around the building, and then when they go out if they'd open up that other opening, it's only about a car and a half width where you'd be going out at the light. I don't know if anyone has ever gone in and out of that opening, it's horrible. Two people cannot use that opening at the same time, people always have to wait to get in and out – I don't know what the name of the street is that goes to the light. But if they'd open that up, then they'd have a nice flow through the parking lot. You'd get away from the backup with the two-way traffic.

I just think that it's a great spot to be, it's too bad they couldn't do a free standing building. I don't know if anyone has gone to the one on Twelve Mile and Cabot Drive or the one on Twelve Mile and Orchard Lake and watched the traffic flow and how many customers they have. This location really could do so much more business if they had a larger store and a better traffic flow in and out. Because for myself in the morning, if I went to a drive-thru and I know that it's going to be hard to get in and out of there, I'm going to do the same thing I've been doing which is to pass by and go to a different location. Other than that, I really hope that something does happen there because it's a phenomenal location. And it really is too bad there's not enough space that they could do a free-standing building in the area. Thank you.

Chair Greco asked if there was anyone else that wished to address the Planning Commission regarding this project. Seeing no one, he said I believe there is no correspondence.

Chair Greco closed the public hearing and turned it over to the Planning Commission for their consideration.

Member Anthony said kind of echoing the same comments, I like the expansion, I'm glad there's going to be a drive-thru. This isn't the Starbucks that I would use, I'm hoping that the other proposed in the City will come with the drive-thru soon. I'm going to bring this to Staff – the review on Queuing Study. So it's not often that we see that, I guess it's not often that we have drive-thru's that come in so that's probably why we don't see them. The one thing on traffic control that I think benefits this is that it's West Oaks Drive, and that has a light and is able to control traffic. I think people approaching from the north will end up using that light in order to get in. It's not a practical thing to try to turn left further north up near the UPS building itself. But that one light will, I think, be able to help traffic.

But it is unusual – I wondered how the queuing would work within the parking lots and what the thought is on traffic. And I saw that you needed additional information on queuing. So first, to our Staff, what are your impressions and what is the additional information that you'd be looking for on the queuing study?

Planner Komaragiri said a Traffic Impact Study is required for a site plan that does a PD-2 Option, but in this case our Traffic consultant made an exception and asked to do a Queuing Study instead. The reason being, a Queuing Study would allow us to potentially identify how many stacking spaces would be required because the Ordinance only requires for ten, but sometimes based on the demand of the use they may need more stacking spaces. So we didn't want to allow a site plan with the minimum required and then have additional cars stacking up into parking lot driveways. So that's the intent of the Queuing Study.

Member Anthony said so anything that would be approved here today would have a condition of still complying with City Staff's request on a Queuing Study?

Planner Komaragiri said so the conclusions based on the study that was provided, our consultants are confident that the twelve spaces they provided are enough for the site. Worst case scenario, if more cars stack up than twelve, the comfort level is that the congestion would be within the parking lot and they wouldn't be backing out into Novi Road. That's one of the reasons why the drive-thru lane was designed the way it was designed, so that the stacking will be contained within the parking lot but it doesn't overflow into Novi Road.

And the data we are requesting is because there are some conclusions made in the study where it talked about, for example, a confidence level of 80% that this is the peak hours and this is the requirement. In a sense, we agree with that, but we are asking for background data as to how they came up with that percentage number.

Member Anthony said and you're satisfied with how they came up with their data and analyzed it?

Planner Komaragiri said we agree with the findings but we want more information just for the record. But our consultant believes that the background data wouldn't affect the conclusions that have been made, it's just providing extra support.

Member Anthony said so what would happen in the event that we approve today, and you get that additional data and you want a modification?

Planner Komaragiri said based on the conversation I had with our Traffic consultant this afternoon, they feel pretty comfortable that the findings wouldn't change. Worst case, if that happens, I believe we would work with the applicant to address those concerns.

Member Anthony said ok, and I think traffic here is the worst during the national shopping season at the end of the year. I'm not sure the infrastructure can really adapt to that.

The concern about fairness to the other businesses – I just think of my own behavior, and I think I would end up choosing to go to some of those other businesses simply because I could go through the Starbucks Drive-Thru on the way. So I think the fairness might actually work against some of the other businesses that compete with this area. So I think that kind of works itself out.

Novi has an important retail district to our communities and our business center, and retail is always difficult because of its seasonality. But I'm glad that we have that and that you could convert it to a queuing study, you're preventing traffic from building up in Novi Road, we do have a traffic light on West Oaks Drive that can help navigate traffic that is heading north. The façade, the structure, what they're doing is all in compliance. So again, I would support this and it's something I look forward to in our community.

Member Hornung said my first question has to do with the queuing study, and I think I would direct this to Staff. Do you know where the 45 seconds mark came from, as far as speed of service?

Planner Komaragiri said I'll take a shot at the question but I think the engineer, Mike, may want to expand on that. When we prepared the scope of the study for the Queuing Study, we asked the applicant to look at their existing Starbucks Drive-Thru's throughout the nation and try to get data from that. And I believe that number came from that data.

Mike McPherson, with Atwell, said to Sri's point, that is correct. The 45 seconds as a cycle time was information that was provided by Starbucks, and that's kind of a typical cycle time that they see in their operations. So that's where that information came from to use in the Queuing Study.

Member Hornung said I feel like that 45 seconds was fundamental to the results of the Queuing Study, and to tell us how many cars would line up. Is there any other way you can demonstrate that data or prove to us that that is a real number and not just something you made up?

Mr. McPherson said that's something that points back to Sri's request for additional backup when we get to Final Site Plan, hypothetically if we get through tonight and with City Council. We would provide that additional information at that point.

Member Hornung said in some of my own research, I've seen some speed of service numbers that did not align with the 45 seconds, which is why I had some significant concerns about that. Do you have any more data you can tell me about the 45 seconds? Is this when there is nobody else in line? Is this when there are twelve cars are in line? Is there any other information?

Mr. McPherson said not really, that is their typical turnover rate that they strive to operate

at. I can tell you that once you get to twelve cars or thirteen cars stacking, that's when – as was said by a gentleman previously – people start to pass by. You can't ever design to a 100% confidence level, because then you're going to get thirty cars stacked or something very unrealistic. So typically, you're designing to an 80% confidence level, which in this case equates to twelve cars stacking, which is longer than the typical requirement in the City. We feel that it's more than adequate to serve this store, especially given that the peak times in the morning won't likely have a lot of customers using the parking lots to the north or south. So if there happens to be thirteen or fourteen cars, which is probably unlikely because nobody is going to wait that long, but they are going to be backed up in the parking lot and not affecting Novi Road or any public Right-of-Way.

Member Hornung said thank you. I'm glad you mentioned the customers that might opt out of the drive-thru and choose to go into the store. One of the main places that those customers currently park is in the place that this new development is going. Where would you anticipate this overflow of customers to park?

Mr. McPherson well obviously you've got parking on the east, west, south, and north sides and we've provided more pedestrian access headed to the north so there will be a sidewalk with a pedestrian crossing to get to the store if you park north of the drive-thru stack area.

On the plan, there is a parking study totality for the shopping center itself, showing a surplus of parking spaces overall, so there should be plenty of parking in totality and in the vicinity of this facility here. And again, peak parking is going to be in the morning, which the jewelry store is not their peak time and most of the shops directly north, it's not their peak time. So there should be plenty of parking during peak time close to the Starbucks itself.

Member Hornung said my concern there is if somebody saw the drive-thru line, decided to park there, they're going to park right at the entry or exit of that drive-thru line, which is that tight point where we're noticing that there's not a lot of width. That's my concern with this particular plan.

Mr. McPherson said to speak to the width, all of the drive aisles out there are the 24-foot typical City-minimum standard for drive aisle. So they're wide enough for two-way traffic and given that you're in a parking lot like that, you're actually given a lot of alternatives. If you see that there's congestion going one direction, there are multiple different directions that you can go through the parking lot and exit to the north or the south back out to Novi Road. In my opinion, after it's operating for a couple of weeks, people will figure out the best process and it tends to clean up the function.

Member Hornung said I agree, I think repeat customers would kind of get to know the system, for sure. But I still do see some concerns about that particular flow right at the mouth of that opening. Thank you.

Mr. Gallentine said if I could just add, the entrance that is on the side now is now going to be facing Novi Road, so the entrance is actually moving. So people aren't going to be going in where it is facing north, it is going to be facing east. So if people want to park by the front door, they're really going to go down by Jared the jeweler in that area. I just

wanted to bring that fact up, where the front door is moving to.

Member Maday said everything that everybody said I'm in agreement with. I think we're all sensitive to traffic issues in Novi, given how much traffic there is in Novi, which is why I think it's been a topic of discussion here tonight. But given what Sri said and given what I've heard you say, I would support it. I'm in support of this.

Member Avdoulos said I think the reason also to add the concerns about the traffic is because at least in my opinion, the parking here at West Oaks is not the greatest. There's just huge expanses of parking without a lot of breaks, and so there's not an easy flow. And we have entrances that are close to each other. I do agree that one entrance that goes out to West Oaks Drive just to the west of this development is kind of tough to get in and out of. The concern of having a drive-thru system within a parking area is a big concern, too, because I know a lot of people will just travel pretty quickly down the aisle. So that is one of the big concerns.

We're indicating, and I don't know if this is part of this project or this development, but we're indicating this pork chop right there on the north. There is not one there right now. And so I don't know if we're trying eliminate left hand turns out of that development, which I would be in favor of because of the proximity to that intersection and I've been going up and down there at various times of the day and there's a lot of people that speed out of there so that they can make the right onto Twelve Mile Road and then make the Michigan U-Turn to go westbound. So I don't know if that was there by accident, but physically right now there is no island there.

Planner Komaragiri said that is correct.

Member Avdoulos said so I don't know if we have to address that or have anybody adjust it. And I don't have all of the engineering drawings, we just have whatever was in the package.

The other thing that would've actually been helpful, and I know Starbucks has their industry standards and the queuing process and that's all something that is part of their business and that's why they are what they are, but it would have been nice to see how the traffic flow into the site and to this particular location would have been delineated just to get a little better feel of how this all would work. And I guess that's my question – is that pork chop there?

City Planner McBeth said thank you for bringing that up. So we checked the photos and the pork chop is not there now, but it was a few years ago. So I'm not sure of the history of that, if it came out as part of a road project or another project. We could certainly look into that and report back to you on that.

Member Avdoulos said and only because I know that we, as the Planning Department and Commission, are looking to make sure we spread a lot of these out and so if you have a left hand turn at West Oaks Drive and then another left hand turn. And trust me, I've seen a lot of people turn left at pork chops, which they shouldn't be doing. But it's just like Member Maday said, Novi Road is going to get busier and busier as we go along and so anything we can do to avoid some of that happening would be beneficial to the project.

So I do have my concerns, it's just that this particular development and the parking issues and the way people get in and out of here is difficult and then to add this to that will be adding some more difficulty to the process already. But I think if we can do our homework and make sure we stay on top of it, I think I'm in support of it. I think there's a similar situation, not here in Novi, but I think in Livonia at Six and Haggerty there's a Wendy's within a parking lot and so it's very busy and they have the drive-thru that comes off the parking lot so that gets kind of tricky.

And then the applicant noted that the main entry will be facing Novi Road, but if people do park on the other side, on the west side, they do have an entrance that they could access? Or do they have to go around?

Mr. Gallentine said they have to go around.

Member Avdoulos said can you indicate that? Because on the site plan, it was a little bit fuzzy. So if I park there, I have to go all the way around. Ok. That's not convenient, and I don't think I'd want to go through the queuing the other way. So what is that walk there? Is that just for service?

Mr. Gallentine that is just for service, at the back of house.

Member Avdoulos said ok. That's all I have.

Chair Greco said my comment having reviewed this is that it seems to make sense for what people want for the area. I think from the point that was just raised by Member Avdoulos – perhaps only having a door on the other side of the building eliminates the issue of people parking in those spots to the west of the building that Member Hornung potentially brought up with people coming out of the queue after the drive-thru. I think probably with Starbucks in the morning, you're going to have a lot of frequent customers that once they figure out where the door is and how to get in and out, they should be able to deal with it.

As far as the queuing, I appreciate and like that it's within the parking area. I'm not there at 9 o'clock in the morning. I'm there in that area from time to time on the weekends, sometimes during the week, and there's a lot of open area and open space in the parking lot. Generally, I'm in favor of the project. That being said, are there any other comments?

Member Anthony said I would be prepared to make a motion but I would like to ask one question of the applicant. So the one piece of information that Staff has asked for is to support the data that was input into the Queuing Study. So that in the event, as this data is reviewed and brought to them, if there is a change in that data which ultimately brings then a change in the number of cars that would need to be considered in the queue, are you willing to work with staff?

Mr. Gallentine said absolutely.

Member Anthony said and with our approval motion, do I need to add anything conditional within that?



City Planner McBeth said no.

Member Anthony said ok. I'd like to make a motion.

Motion made by Member Anthony and seconded by Member Maday.

**ROLL CALL VOTE TO RECOMMEND APPROVAL OF SPECIAL LAND USE MOTION MADE BY MEMBER ANTHONY AND SECONDED BY MEMBER MADAY.**

In the matter of the request of Ramco West Oaks II LLC for JSP 18-33 Starbucks Expansion with a Drive-Through, motion to recommend approval to the City Council for Special Land Use based on and subject to the following:

1. The proposed use will not cause any detrimental impact on existing thoroughfares *(based on Traffic review)*;
2. The proposed use will not cause any detrimental impact on the capabilities of public services and facilities *(based on Engineering review)*;
3. The proposed use is compatible with the natural features and characteristics of the land *(because there are no regulated natural features on site)*;
4. The proposed use is compatible with adjacent uses of land *(because the proposed use is an expansion to an existing use)*;
5. The proposed use is consistent with the goals, objectives, and recommendations of the City's Master Plan for Land Use *(as it fulfills one of the Master Plan objectives to retain existing businesses within City of Novi)*;
6. The proposed use will promote the use of land in a socially and economically desirable manner *(as it fulfills one of the Master Plan objectives to retain existing businesses within City of Novi)*;
7. 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.

This motion is made because the plan is otherwise in compliance with Article 3, Article 4, Article 5, and Article 6 of the Zoning Ordinance and all other applicable provisions of the Ordinance. *Motion carried 4-1 (Hornung).*

**ROLL CALL VOTE TO RECOMMEND APPROVAL OF STORMWATER MANAGEMENT PLAN MOTION MADE BY MEMBER ANTHONY AND SECONDED BY MEMBER MADAY.**

In the matter of the request of Ramco West Oaks II LLC for JSP 18-33 Starbucks Expansion with a Drive-Through, motion to recommend approval to the City Council for Storm water Management Plan based on and subject to the findings of compliance with Ordinance standards in the staff and consultant review letters, and the conditions and items listed in those letters being addressed on the Final Site Plan. This motion is made because it is otherwise in compliance with Chapter 11 of the Code of Ordinances and all other applicable provisions of the Ordinance. *Motion carried 5-0.*

**ROLL CALL VOTE TO RECOMMEND APPROVAL OF PRELIMINARY SITE PLAN MOTION MADE BY MEMBER ANTHONY AND SECONDED BY MEMBER MADAY.**

In the matter of the request of Ramco West Oaks II LLC for JSP 18-33 Starbucks Expansion

with a Drive-Through, motion to recommend approval to the City Council for Preliminary Site Plan with a PD-2 Option based on and subject to the following:

- a. Findings that the standards of Section 3.31.4 of the Zoning Ordinance are adequately addressed, as identified in the Planning Review Letter;
- b. City Council approval of an ordinance deviation to waive the requirement for a Community Impact statement as listed in the Section 3.31.4.A.iii. of our Zoning Ordinance, as the proposed development is an extension to an existing business and does not create additional impacts;
- c. City Council approval of an ordinance deviation to allow a Queuing study in lieu of Traffic Study as listed in the Section 3.31.4.A.iii. of our Zoning Ordinance, as the proposed development is an extension to an existing business;
- d. City Council approval of an ordinance deviation to waive the requirement for a noise impact statement as listed in Section 5.14.10.B. of our Zoning Ordinance, as the proposed development is an extension to an existing business and does not create additional impacts;
- e. Landscape waiver for not meeting the minimum requirements for building foundation landscaping as listed in Section 5.5.3.D. for less than 60% of building frontage facing Novi Road not being landscaped, provided the applicant provides most of the required landscaping subject to Landscape Architects approval at the time of Final Site Plan approval, it is hereby granted;
- f. Landscape waiver for not meeting the minimum requirements for building foundation landscaping as listed in Section 5.5.3.D. for placing some of the required foundation landscape away from the building, subject to Landscape Architects approval at the time of Final Site Plan approval, is hereby granted;
- g. The applicant shall work with the landscape architect to identify alternate options to completely screen the loading areas from Novi Road at the time of Final Site Plan approval;
- h. The applicant shall revise the Final Site Plan as shown in the revised Preliminary Site Plan provided via e-mail dated December 17, 2018;
- i. The findings of compliance with Ordinance standards in the staff and consultant review letters, and the conditions and items listed in those letters being addressed on the Final Site Plan.

This motion is made because the plan is otherwise in compliance with Article 3, Article 4, and Article 5 of the Zoning Ordinance and all other applicable provisions of the Ordinance. *Motion carried 4-1 (Hornung).*

## MATTERS FOR CONSIDERATION

### 1. RECONSIDERATION OF APPOINTMENTS TO COMMITTEES

City Planner McBeth said Mr. Chair, you may remember that this matter was brought forward at the last meeting for possible reconsideration of the decisions that were made back in last July for appointments to various Planning Commission committees. Member Hornung is a new member, just joining us since the end of last year and requested that if any member wishes to give up their position on a committee for the remainder of the fiscal year, he may be willing to accept that position.

Chair Greco asked if any member would like to give up a committee position.

Member Anthony said I'll throw into the basket either the alternate spot for the Environmental and Walkable Novi, and the Implementation Committee. That would leave me with just one, which is Master Plan and Zoning.

Member Avdoulos said Member Hornung seems to be very detail-oriented, so I would give up the Rules Committee position. And then if Member Anthony gives up one, we will each have two.

Chair Greco said Member Hornung, would you like to take positions on the Rules and Implementation Committees?

Member Hornung said yes.

City Planner McBeth said thank you, I will send out an updated list tomorrow.

## **2. APPROVAL OF THE DECEMBER 12, 2018 PLANNING COMMISSION MINUTES**

Motion made by Member Avdoulos and seconded by Member Hornung.

### **ROLL CALL VOTE TO APPROVE THE DECEMBER 12, 2018 PLANNING COMMISSION MEETING MINUTES MADE BY MEMBER AVDOULOS AND SECONDED BY MEMBER HORNUNG.**

**Motion to approve the December 12, 2018 Planning Commission Meeting Minutes.  
*Motion carried 5-0.***

## **3. SCREENING BETWEEN RESIDENTIAL AND NON-RESIDENTIAL USES**

Chair Greco said this Matter for Consideration was added to the agenda by Member Anthony to potentially assign to the Master Planning and Zoning Committee.

Member Anthony said yes. At one point a few years, this concept had been talked about. It has to do with areas within the City, and these are the most difficult when citizens come in, when you have abrupt zoning changes with Industrial right up against Single Family. That happens most often in the older part of our town, which is the east side. It is one thing that I look at and trying to think twenty years down the line when my grandkids are out of high school in Novi, it's fighting blight. We see blight around – Livonia has been doing considerable work on their east side to address blight issues there, the whole concept that you see from SEMCOG which is the donut growing outward. So the east side being our oldest neighborhoods, the areas where it's more frequent to have industrial right up against Single Family. Generally I believe we'd like to have some kind of buffer zoning in between, whether it's Multi-Family, whether it's Office, or something similar.

And I started thinking about it again last year when we rezoned the area at Cherry Hill and Meadowbrook for one of the dealerships being a parking lot. What we did is we rezoned the property on the southern side of it that was actually Office, and that provided a buffer for the beginning of Single-Family on Cherry Hill and then across the street on Clermont. When we originally met with them to rezone that, we had originally talked about some kind of equivalency in buffering and what we can do. And I would like us to take some time to explore that in those areas where we have the change.

We've had times where old, existing Industrial has come in for a new use and we look at it and say it's old and grandfathered in. But perhaps there's a way that we can look at these specific situations that we can look at what type of buffering that works for four seasons. Often, we look at it and say 'hey, we've got a creek or woodland' – that's great, except for the four months a year where there are no leaves or any sound barrier. I've been driving by Huntley Manor right near that area, and they did an incredible job with buffering and landscaping. I realize that they did that predominantly so that they can maintain the value of their product, but it demonstrated to me that that can be done.

Member Anthony said so we have a bunch of legal steps that we'd have to work around, as we're dealing around citizens' property rights based on the Zoning Ordinance, Master Plan, and the Future Land Use Plan, which is partly why I hesitated on changing that buffering zoning in the first place. Where you have the property owner, who has their own property rights. So what can we do that can take advantage, especially in our older areas, that we can put in a buffering that is also sustainable so that it makes those residential neighborhoods desirable for a long period of time and not susceptible to blight. I look to see if we can have the Master Planning and Zoning Committee look at that.

Member Avdoulos said would it be the task of the Planning Department to identify those areas and the biggest areas of concern?

Member Anthony said I went through our Zoning Map and I highlighted all the areas in the City where it goes from Industrial to Multi-Family where there's no transition.

Member Avdoulos said as you were speaking, I was trying to picture in my head where in the City those areas are where there is no transition.

Member Anthony said it happens mostly east of Novi Road, either along the Railroad track or on Grand River. That's where it most frequently occurs. Now there are a couple of spots on the west side, but based on linear feet not as much as there is on the east side. And again, if you look at how western suburbs fight blight, it's their eastern side that faces blight first. So I see this as a long-term vision of blight fighting.

Member Avdoulos said it's good to be proactive about that.

Chair Greco said thank you, Member Anthony. Would this be something for a committee to consider?

City Planner McBeth said I think it's a good idea to present some ideas to the Master Planning and Zoning Committee. In fact, we have one of those coming up in two weeks. So I think there'd be room on the agenda to discuss that, at least in a preliminary sense.

But if we're talking about locations, I think that would be ideal for the Master Planning and Zoning Committee and Staff to look at that, but if it comes down to Zoning Ordinance text amendments, we might recommend it go to the Implementation Committee, the committee that looks at Zoning Ordinance changes. So maybe it could start at the Master Plan and Zoning Committee, and then either come straight back to the Planning Commission or go to the Implementation Committee.

Member Anthony said great, thank you. I want us to take a look at it because it's

something that we'll really see the benefit twenty years from now.

## **SUPPLEMENTAL ISSUES**

### **1. PLANNING COMMISSION ANNUAL REPORT 2018**

City Planner McBeth said we've prepared this report at the end of the year just to highlight the numerous activities that the Planning Commission as a whole took a look at last year and made recommendations on or approved. As you can see, it goes on for quite a while. After it was sent out, it occurred to me that we didn't really have any discussion of what the Planning Commission committees worked on last year, so I think I might add a few more items that would discuss what the committees had worked on, such as the Master Planning and Zoning Committee.

Chair Greco said thank you.

## **AUDIENCE PARTICIPATION**

Michel Duchesneau, 1191 South Lake Drive, said I know that Chairperson Pehrson and Commissioner Lynch are not here tonight but these comments apply to them significantly, actually. I'd like to thank the Planning Commission for the work that you do. You do a good job of balancing residential input and the rights of neighboring residents with the property owners rights to develop according to our Master Plan, the Ordinances, and the intent of our Ordinances. I want to thank you for what you do. As you can see, not a lot of audience participation. So that is a positive compliment to the group and to our leadership throughout the City.

As I was alluding to earlier, the longevity of the members on the boards including yourselves, Council members – you've served for years and years, and I think that's part of the consistency in our City that makes us what we are, that being a wonderful City. So I appreciate the result of your work, the discussions you've had, the recommendations you've made, and I know that the developers listen to what you suggest and quite often we see changes that are very significant. As a resident here, just want to say thank you.

## **ADJOURNMENT**

Moved by Member Avdoulos and seconded by Member Anthony.

## **VOICE VOTE ON THE MOTION TO ADJOURN MADE BY MEMBER AVDOULOS AND SECONDED BY MEMBER ANTHONY.**

**Motion to adjourn the January 12, 2019 Planning Commission meeting. *Motion carried 5-0.***

The meeting was adjourned at 7:52 PM.

APPLICANT RESPONSE LETTER



December 13, 2018

City of Novi  
45175 10 Mile Road  
Novi, Michigan 48375

**RE: West Oaks Starbuck's Expansion and Drive-Thru  
JSP 18-33**

As requested, please find enclosed the following documents;

- PDF files of the previously submitted site plan and building plan, no changes made.
- PDF files of the revised site plan and building plan.
  - Addressing City comments regarding the radius in the drive-thru, the parking end cap islands and slightly revised Jared dumpster location.
- Responses letters stating how we intend to address all of the staff comments in all of the review letters received in the December 5<sup>th</sup> plan review center report.
  - For ease of review, responses are provided in red on the enclosed plan review center report.
- PDF of a color site plan.

Please accept these documents for placement on the January 9, 2019 Planning Commission meeting for consideration of Preliminary Site Plan approval. I trust the City review comments have been adequately addressed and the revised plans and comment responses will assist to facilitate PSP approval. Please contact us with questions or comments at (248) 447-2000.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael McPherson", enclosed in a rectangular box.

Michael McPherson, P.E.  
Atwell, LLC





# PLAN REVIEW CENTER REPORT

December 05, 2018

## Planning Review

### JSP 18-03 Starbucks Expansion/Drive-Thru

#### PETITIONER

Ramco West Oaks II LLC

#### REVIEW TYPE

Preliminary Site Plan with a Special Land Use and Final Site Plan

#### PROPERTY CHARACTERISTICS

Section	15	
Site Location	West Oaks Shopping Center (west side of Novi Road, north of Grand River)	
Tax Map Parcel	50-22-15-200-059	
Site School District	Novi Community School District	
Site Zoning	RC: Regional Commercial	
Adjoining Zoning	North	RC: Regional Commercial
	East	RC: Regional Commercial
	West	RC: Regional Commercial
	South	RC: Regional Commercial
Current Site Use	Shopping Center	
Adjoining Uses	North	Shopping Center
	East	Shopping Center
	West	Shopping Center
	South	Shopping Center
Site Size	14.92 Acres (Development boundary: 1.52 Acres)	
Plan Date	October 30, 2018	

#### PROJECT SUMMARY

The applicant is proposing an expansion of existing Starbucks coffee shop at the northeast corner of West Oaks Shopping Center. The expansion includes a 1,396 square foot addition to an existing 6,716 square foot building. It includes new kitchen area, dining area and outdoor seating area for 10 customers. It also includes adding a drive-thru facility to the north. The drive-thru expansion results in loss of 130 existing parking spaces. The applicant will be utilizing the Planned Development 2 (PD-2) option to propose a drive-thru.

#### RECOMMENDATION

Approval of the *Preliminary Site Plan, Special Land Use with PD-2 Option and Final Site Plan is recommended*. The plan mostly conforms to the requirements of the Zoning Ordinance, with a few deviations listed in this and other review letters. **City Council's approval for Special Land Use, Preliminary Site Plan, and Storm Water Management Plan is required.**

#### PLANNED DEVELOPMENT OPTION CONDITIONS

Section 3.31.4 of the ordinance outlines the review procedures for Preliminary Site Plans using the PD-2 Option. This requires 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. It also outlines specific factors the Planning Commission and City Council shall consider in the review:

1. The plan meets all the requirements of Section 6.1 of this Ordinance for Preliminary Site Plans and the requirements set forth in the City's Site Plan and Development Manual. **The plan meets all the requirements except a couple minor deviations as noted in Landscape review letter, which staff recommends trying to minimize.**
2. The plan satisfies the intent of the Special Land Use provisions as stated in Section 6.1.2.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 is requesting a waiver of the Community Impact Statement and to allow a Queuing study in lieu of Traffic Study. Staff supports both the requests.**
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 and Traffic 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. **The plan is in general conformance with the code 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. **No changes to existing site grading proposed**
  - 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.
  - d. Landscape plantings, off-street parking areas and service drives on adjacent lands. **Landscape generally conforms to the requirements. 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 3.31.4.B indicates the City Council shall review the proposed plan considering the Planning Commission's recommendation and the requirements of Section 3.31.4.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.

### **SPECIAL LAND USE CONSIDERATIONS**

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When the PD-2 Option is utilized, all uses fall under the Special Land Use requirements. Section 6.1.2.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:

- i. 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.
- ii. 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.
- iii. 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.
- iv. 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.
- v. 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.
- vi. 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.
- vii. Whether, relative to other feasible uses of the site, the proposed use is
  - a. Listed among the provision of uses requiring special land use review as set forth in the various zoning districts of this Ordinance, and
  - b. Is in harmony with the purposes and conforms to the applicable site design regulations of the zoning district in which it is located.

### **ORDINANCE REQUIREMENTS**

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This project was reviewed for conformance with the Zoning Ordinance with respect to Article 3 (Zoning Districts), Article 4 (Use Standards), Article 5 (Site Standards), and any other applicable provisions of the Zoning Ordinance. Comments in **bold** should be addressed with next submittal. Comments in **bold and underline** should be addressed prior to Planning Commission meeting:

1. **Drive-through Lanes Separation (Sec. 5.3.11.A,C)**: Staff requested additional pavement at the U-turn to provide some additional space for maneuverability. The additional pavement is supposed to be striped. **Please provide a revised layout in PDF format prior to Planning Commission meeting.**
2. **Deviations from the Ordinance requirements**: The proposed expansion is mostly in conformance with ordinance requirements except for the few noted below. Landscape review recommends consider revising plans to minimize the deviation sought.
  - a. Deviation to waive the requirement for a Community Impact statement as the proposed development is an extension to an existing business and does not create additional impacts.
  - b. Deviation to allow a Queuing study in lieu of Traffic Impact statement
  - c. Deviation to waive the requirement for a noise impact statement as the proposed development is an extension to an existing business and does not create additional impacts.
  - d. Shortage in landscape area provided. Refer to landscape review for more detail.

- e. Shortage in frontage of building addition facing Novi road that is landscaped. Refer to landscape review for more detail.
3. **Planning Review Chart:** Please refer to Planning review chart for additional minor comments to be addressed.
4. **Other Reviews**
  - a. **Engineering Review:** Additional comments to be addressed with revised Final Site Plan. Engineering recommends approval for Preliminary Site Plan, but not Final Site Plan..
  - b. **Landscape Review:** Landscape review has identified waivers that may be required. Refer to review letter for more comments. Additional comments to be addressed with revised Final Site Plan. Landscape recommends approval for Preliminary Site Plan, but not Final Site Plan.
  - c. **Traffic Review:** Additional comments to be addressed with revised Final Site Plan. Traffic recommends approval for Preliminary Site Plan, but not Final Site Plan..
  - d. **Queuing Study Review:** Traffic recommends approval, subject to a revised study submitted with revised final site plan submittal.
  - e. **Facade Review:** Façade recommends approval.
  - f. **Fire Review:** Fire recommends approval.

#### **NEXT STEP: PLANNING COMMISSION MEETING**

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This Site Plan can be scheduled to go before Planning Commission for **public hearing** on January 09, 2018. Please provide the following **no later than December 17, 2017** if you wish to keep the schedule.

1. Original Site plan submittal in PDF format. **NO CHANGES MADE. Provided with the initial submittal.**
2. A response letter addressing ALL the comments from ALL the review letters.
3. A revised site layout plan in PDF format, addressing Traffic Comments regarding additional pavement near the drive-thru U-turn and end islands.
4. A color rendering of the Site Plan, if any. **OPTIONAL**
5. A sample board of building materials if requested by our Façade Consultant.

#### **CITY COUNCIL MEETING**

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After receiving a favorable recommendation from Planning Commission for Preliminary Site Plan and Special Land Use, staff will place the item on City Council agenda for final approval. Additional information may be required depending on Planning Commission's recommendation.

#### **REVISED FINAL SITE PLAN SUBMITTAL**

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Traffic, Engineering and Landscape recommended approval for Preliminary Site plan and not for final site plan. After receiving the Preliminary Site Plan approval from City Council, please submit the following for Final site plan review and approval.

1. Site Plan Revision Application
2. Four copies of Final Site Plan addressing all comments from Preliminary review
3. Response letter **addressing all comments and refer to sheet numbers where the change is reflected.**
4. Revised Engineering Estimate
5. Revised Landscape Estimate
6. Revised Queuing Study
7. No Revision Façade Affidavit (if no changes are proposed for Façade)
8. Legal Documents (if required per the attached Planning and Engineering Legal Transmittals)

#### **ELECTRONIC STAMPING SET SUBMITTAL AND RESPONSE LETTER**

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After receiving Final Site Plan approval, please submit the following for Electronic stamping set approval:

1. Plans addressing the comments in all of the staff and consultant review letters in PDF format.
2. Response letter addressing all comments in ALL letters and ALL charts and **refer to sheet numbers where the change is reflected.**

### STAMPING SET APPROVAL

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Stamping sets are still required for this project. After having received all of the review letters from City staff the applicant should make the appropriate changes on the plans and submit **10 size 24" x 36" copies with original signature and original seals**, to the Community Development Department for final Stamping Set approval. Plans addressing the comments in all of the staff and consultant review letters should be submitted electronically for informal review and approval prior to printing Stamping Sets.

### PRE-CONSTRUCTION MEETING

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**A Pre-Construction meeting is required for this project.** 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. If you have questions regarding the checklist or the Pre-Con itself, please contact Sarah Marchioni [248.347.0430 or [smarchioni@cityofnovi.org](mailto:smarchioni@cityofnovi.org)] in the Community Development Department.

### CHAPTER 26.5

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Chapter 26.5 of the City of Novi Code of Ordinances generally requires all projects be completed within two years of the issuance of any starting permit. Please contact Sarah Marchioni [248.347.0430 or [smarchioni@cityofnovi.org](mailto:smarchioni@cityofnovi.org)] for additional information on starting permits. The applicant should review and be aware of the requirements of Chapter 26.5 before starting construction.

If the applicant has any questions concerning the above review or the process in general, do not hesitate to contact me at 248.735.5607 or [skomaragiri@cityofnovi.org](mailto:skomaragiri@cityofnovi.org).



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Sri Ravali Komaragiri – Planner



## PLANNING REVIEW CHART: RC with PD-2 Option

**Review Date:** December 3, 2018  
**Review Type:** Preliminary/Final Site Plan  
**Project Name:** JSP 18-33 Starbucks Expansion Drive-Thru  
**Plan Date:** October 29, 2018  
**Prepared by:** Sri Komaragiri, Planner  
**E-mail:** skomaragiri@cityofnovi.org; **Phone:** (248) 735-5607

Items in **Bold** need to be addressed by the applicant with next submittal. Underlined items need to be addressed on the Stamping set submittal.

Item	Required Code	Proposed	Meets Code	Comments
<b>Zoning and Use Requirements</b>				
<b>Master Plan</b> <i>(adopted July 27, 2017)</i>	PD-2: Planned Development Option 2	PD-2	Yes	
<b>Area Study</b>	None		NA	
<b>Zoning</b> <i>(Effective December 25, 2013)</i>	RC: Regional Commercial	RC with PD-2 Option	Yes	<b>PD-2 option is not proposed for the entire shopping center. It is limited to the proposed drive-thru improvements only.</b>
		<b>No response necessary</b>		
<b>Uses Permitted</b> (Sec 3.1.24.B & C)	Sec 3.1.24.B Principal Uses Permitted. Sec 3.1.24.C Special Land Uses	Fast food drive-thru  Permitted per conditions listed in 3.31	Yes?	<b>Subject to City Council approval upon Planning Commission's recommendation</b>  <b>It requires a Special land use with a 15 day public hearing</b>
		<b>No response necessary</b>		
<b>Phasing</b>	Provide phases lines and detail description of activities in each phase	Phasing not proposed	NA	
<b>Planned Development Site Plan Submittal Requirements (Sec. 3.31.4.A)</b>				
<b>Special Land Use</b> <i>(Sec. 3.31.4.A.ii)</i>	Special Land use requirements listed in Sec. 6.1.2.C.	To be determined at the time of site plan review	Yes?	<b>This would require a 15 day public hearing notice</b>
		<b>No response necessary</b>		
<b>Community Impact Statement</b> <i>(Sec. 3.31.4.A.iii)</i>	Required according to site plan manual	The applicant has requested a waiver from this requirement	Yes	<b>The proposed improvements include a drive-thru additional</b>

**No response necessary**

Item	Required Code	Proposed	Meets Code	Comments
				to an existing established business. No additional impacts are proposed. The request is supported
<b>Traffic Study</b> (Sec. 3.31.4.A.iii)	Required according to site plan manual	<b>A queuing study is provided in lieu of a Traffic study</b>	Yes?	Traffic requested revisions to the study to be submitted with next submittal
<b>Planning Commission Findings for Site plan review</b> (Sec. 3.31.4.A)	The proposed site plan meets the intent of other items listed in Section	To be determined	TBD	<b>Revisions to the study will be provided with the FSP</b>
<b>Use Conditions for Allowable uses under PD-2 Option (Sec. 3.31.7.B)</b>				
<b>Fast food drive-thru</b> (Sec. 3.31.7.B.v.a)	When restaurants are independently freestanding uses and not attached to or otherwise clearly accessory to a principle use, they shall be located no closer than one-thousand (1,000) feet from any other such use on the same side of the street	Carabbas is located 1,325 feet away as shown in sheet P1.1	Yes	
<b>Minimum parcel size</b> (Sec. 3.31.7.B.v.b)	1.25 acres.	Parent parcel is approximately 14.92 acres  Limits of current rebuild is approximately 1.5 acres	Yes	
<b>Traffic Circulation</b> (Sec. 3.31.7.B.v.c)	The site plan shall be designed to achieve traffic circulation features both within the site and in relation to access streets that assure safety and convenience of both vehicular and pedestrian traffic.	The site plan addressed Traffic concerns	Yes?	Refer to Traffic review for additional comments <b>No response required</b>
<b>Restaurant in the Character of a Fast Food Carryout, Drive-In, Fast Food Drive-Through, or Fast Food Sit Down</b> (Sec. 4.40.)				
<b>Noise Impact Statement</b> (Sec. 4.40.1)	A noise impact statement is required subject to the standards of Sec. 5.14.10.B.	The applicant has requested a waiver from this requirement	Yes	The proposed improvements include a drive-thru additional to an existing established business.

Item	Required Code	Proposed	Meets Code	Comments
				No additional impacts are proposed. The request is supported  <div style="border: 1px solid red; padding: 2px; display: inline-block;">No response required</div>
<b>Drive-through Lanes</b> (Sec. 5.3.11)				
<b>Drive-through Lanes Separation</b> (Sec. 5.3.11.A,C)	Drive-through lanes shall be separate from the circulation routes & lanes necessary for ingress to & egress from the property	They are separated. <b>Extra maneuvering space is recommended at the U-turn</b>	Yes	Refer to Traffic Review for further comments.  <div style="border: 1px solid red; padding: 2px; display: inline-block;">Extra space has been added to the drive-thru for the U-turn maneuver. Refer to C04.</div>
<b>Drive-through setbacks</b> (Sec. 5.3.11.A,B)	Drive through shall follow parking setback requirements and applicable parking lot landscaping requirements	Drive-through conforms to the parking setbacks	Yes	
<b>Bypass Lane for Drive-through</b> (Sec. 5.3.11.D)	Drive-through facilities shall provide 1 bypass lane, min. of 18 ft. in width, unless otherwise determined by the Fire Marshal	A bypass lane (with a minimum width of 18 ft. including the drive-through and bypass lane)	Yes	
<b>Width &amp; Centerline Radius of Drive-through Lanes</b> (Sec. 5.3.11.E,F,H)	Drive-through lanes shall have a minimum 9 ft. width, centerline radius of 25 ft. and a minimum length of 19 ft.	18 ft. width provided; centerline radius 35 ft.	Yes	
<b>Drive-Thru Stacking Spaces</b> (Sec. 5.3.11.I)	The distance between the order board and the pick-up window shall store four (4) vehicles, and four (4) vehicles shall be stored in advance of the menu board (not including the vehicles at the pick-up window and menu board).	5 vehicles in advance of menu board	Yes	
<b>Drive-through Lane Delineated</b> (Sec. 5.3.11.G)	Drive-through lanes shall be striped, marked, or otherwise delineated	Delineated with landscape island	Yes	
<b>Height, bulk, density and area limitations</b> (Sec 3.1.23.D)				
<b>Frontage on a Public Street</b> (Sec. 5.12) <b>Access To Major Thoroughfare</b> (Sec. 5.12)	Frontage on a Public Street is required.	The site has frontage and access to Novi Road	Yes	



Item	Required Code	Proposed	Meets Code	Comments
<b>Minimum Zoning Lot Size</b> for each Unit in Acres (Sec 3.6.2.D)	Except where otherwise provided in this Ordinance, the minimum lot area and width, and the maximum percent of lot coverage shall be determined on the basis of off-street parking, loading, greenbelt screening, yard setback, or usable open space.		NA	
<b>Minimum Zoning Lot Size</b> for each Unit: Width in Feet (Sec 3.6.2.D)			NA	
<b>Open Space Area</b>	----	---	---	---
<b>Maximum % of Lot Area Covered</b> (By All Buildings)	(Sec 3.6.2.D)	26.5 5 for entire shopping area	Yes	
<b>Building Height</b> (Sec. 3.20)	45 ft. or 3 stories whichever is less	No change to existing building height	Yes	
<b>Outdoor Restaurants (Sec. 4.84)</b>				
<b>Accessory Use</b> (Sec. 4.84)	Outdoor seating as an accessory use is allowed per section 4.84.	Outdoor seating for 10 people is proposed.	Yes	
<b>Site Plan Review</b> (Sec. 4.84.1)	If the seating area is proposed as part of a site plan application it shall require site plan review and approval by the Planning Commission	The seating will be reviewed along with the current site plan	Yes	
<b>Building and fire codes</b> (Sec. 4.84.1)	Outdoor seating areas shall also comply with all applicable building and fire codes	Will be reviewed with Outdoor seating permit	NA	
<b>Timings</b> (Sec. 4.84.2)	Permitted between March 1 <sup>st</sup> and November 30 <sup>th</sup> .	Note added to plan	Yes	
<b>Pathway</b> (Sec. 4.84.4)	Outdoor seating areas shall be located in a manner to maintain a minimum pathway width of six (6) feet (clear of structures such as light poles, trees and hydrants) along the sidewalk	6 feet clear space appears to be indicated	Yes	<b>Provide the distance to verify conformance</b>
				Dimension of clear space provided. Refer to sheet C04.
<b>Enclosure</b> (Sec. 4.84.4)	It shall be enclosed where there is alcohol service.	Note added that no alcohol will be served; Metal railing is proposed	Yes	
<b>Location</b> (Sec. 4.84.5)	If located in public, ROW, then approval from all relate agencies is required.	It is not located in Public-Right of way	NA	

Item	Required Code	Proposed	Meets Code	Comments
	Additional requirements may apply.			
<b>Parking</b> (Sec. 4.84.6)	For more than 20 seating, parking shall be calculated.	Additional parking not required; Outdoor seating for 10 people is proposed	NA	
<b>Hours of Operation</b> (Sec. 4.84.7)	Hours of operation same as inside restaurant.	Shown on sheet P2.1	Yes	
<b>Building Setbacks (Sec 3.31.7.D)</b>				
Front and Exterior side yard	50 ft.	No changes proposed to existing setbacks	Yes	
Rear	35 ft.			
Side	35 feet (total of 70 ft)			
<b>Parking Setback (Sec 3.31.7.D)</b>				
Front and Exterior side yard	20 ft.	No changes proposed to existing setbacks	Yes	
Rear and interior side	10 ft.			
Side	20 ft.			
<b>Note To District Standards for RC district (Sec 3.6.2)</b>				
<b>Exterior Side Yard Abutting a Street</b> (Sec 3.6.2.C)	All exterior side yards abutting a street shall be provided with a setback equal to front yard.	Existing parking lot and development	Yes	
<b>Off-Street Parking in Front Yard</b> (Sec 3.6.2.E)	Off-street parking is allowed in front yard.	All existing parking	Yes	
<b>Distance between buildings</b> (Sec 3.6.2.H)	It is governed by sec. 3.8.2 or by the minimum setback requirements, whichever is greater.	Existing buildings	NA	
<b>Wetland/Watercourse Setback (Sec 3.6.2.M)</b>	A setback of 25ft from wetlands and from high watermark course shall be maintained.	No wetlands on site	NA	
<b>Additional Building height</b> (Sec 3.6.2.O)	Additional height upto 65 ft. may be allowed for properties within 1200 ft from a freeway subject to additional conditions	Not applicable	NA	

Item	Required Code	Proposed	Meets Code	Comments
<b>Parking setback screening</b> (Sec 3.6.2.P)	Required parking setback area shall be landscaped per sec 5.5.3.	A landscape plan is provided.	Yes	Please refer to Landscape Review for additional information
<b>Modification of parking setback requirements</b> (Sec 3.6.2.Q)	The Planning Commission may modify parking setback requirements based on its determination according to Sec 3.6.2.Q.	Parking setbacks conform to the minimum required.	NA	
<b>Parking, Loading and Dumpster Requirements</b>				
<b>Number of Parking Spaces</b>	Sec. 5.2.12.C. Planned commercial or shopping centers will apply	Total required spaces: 1,562 Total provided: 1, 970 spaces Total after drive-thru: 1,840 spaces	Yes	130 spaces being removed for the current improvements  No response required
<b>Parking Space Dimensions and Maneuvering Lanes</b> (Sec. 5.3.2)	90° spaces: 9 ft. x 19 ft. parking spaces with 24 ft. drives	9 ft. x 19 ft. parking spaces with 24 ft. drives	Yes	
	9 ft. x 17 ft. parking spaces along 7 ft. interior sidewalks, provided a 4 in. curb at these locations & along landscaping	9 ft. x 17 ft. parking spaces with 24 ft. drives		
<b>Parking stall located adjacent to a parking lot entrance</b> (public or private) (Sec. 5.3.13)	- shall not be located closer than twenty-five (25) feet from the street right-of-way (ROW) line, street easement or sidewalk, whichever is closer	25 ft. setback.	NA	
<b>End Islands</b> (Sec. 5.3.12)	- End Islands with landscaping and raised curbs are required at the end of all parking bays that abut traffic circulation aisles. - The end islands shall generally be at least 8 feet wide, have an outside radius of 15 feet, and be constructed 3' shorter than the adjacent parking stall as illustrated in the Zoning Ordinance	End islands conform to code.	Yes?	Check Traffic Review to confirm end islands meet code requirements. Traffic has raised some operational concerns near the dead-end north of the proposed drive-thru  Per discussion with City staff, the end islands have been enlarged. Refer to C04.
<b>Barrier Free Spaces</b> <i>Barrier Free Code</i>	Existing	Existing	NA	
<b>Barrier Free Space</b>	- 8' wide with an 8' wide	Existing.	NA	

Item	Required Code	Proposed	Meets Code	Comments
<b>Dimensions</b> <i>Barrier Free Code</i>	access aisle for van accessible spaces - 5' wide with a 5' wide access aisle for regular accessible spaces			
<b>Barrier Free Signs</b> <i>Barrier Free Code</i>	One sign for each accessible parking space.	Existing.	NA	
<b>Minimum number of Bicycle Parking</b> <i>(Sec. 5.16.1)</i>	Five (5) percent of required automobile spaces, minimum two (2) spaces For 84 spaces: 4 spaces	1wave style bike rack proposed that holds 4 bikes	Yes	
<b>Bicycle Parking General requirements</b> <i>(Sec. 5.16)</i>	No farther than 120 ft. from the entrance being served	Appears to be within 120 ft.		
	When 4 or more spaces are required for a building with multiple entrances, the spaces shall be provided in multiple locations	4 spaces proposed		
	Spaces to be paved and the bike rack shall be inverted "U" design Shall be accessible via 6 ft. paved sidewalk	1wave style bike rack proposed that holds 4 bikes		
<b>Bicycle Parking Lot layout</b> <i>(Sec 5.16.6)</i>	Parking space width: 6 ft. One tier width: 10 ft. Two tier width: 16 ft. Maneuvering lane width: 4 ft. Parking space depth: 2 ft. single, 2 ½ ft. double	Not indicated	No	<b>Indicate the layout that fits the bike rack proposed</b>  <div style="border: 1px solid red; padding: 5px; color: red;">The bike rack pad has been modified to fit the rack. Refer to C04.</div>
<b>Loading Spaces</b> <i>Sec. 5.4.1</i>	- Within the OS districts, loading space shall be provided in the rear yard or - in the case of a double frontage lot, in the interior side yard, - In the ratio of five (5) square feet per front foot of building up to a total area of three-hundred sixty (360) square feet per building.	The building is located as part of a shopping center. Loading area is proposed within internal parking lot	Yes	

Item	Required Code	Proposed	Meets Code	Comments
<b>Dumpster</b> <i>Sec 4.19.2.F</i>	<ul style="list-style-type: none"> <li>- Located in rear yard</li> <li>- Attached to the building or</li> <li>- No closer than 10 ft. from building if not attached</li> <li>- Not located in parking setback</li> <li>- If no setback, then it cannot be any closer than 10 ft., from property line.</li> <li>- Away from Barrier free spaces</li> </ul>	<p>Two dumpsters provided</p> <p>1 attached to the building</p> <p>Other detached, appears to be less than 10 feet from the building</p>	No	<p><b><u>Dumpster near Jared Jewelers do not meet the minimum separation requirements</u></b></p> <p style="color: red; border: 1px solid red; padding: 2px;"><b>Dumpster enclosure is proposed to be attached to the existing building. Refer to sheet C04.</b></p>
<b>Dumpster Enclosure</b> <i>Sec. 21-145. (c)</i> <i>Chapter 21 of City Code of Ordinances</i>	<ul style="list-style-type: none"> <li>- Screened from public view</li> <li>- A wall or fence 1 ft. higher than height of refuse bin</li> <li>- And no less than 5 ft. on three sides</li> <li>- Posts or bumpers to protect the screening</li> <li>- Hard surface pad.</li> <li>- Screening Materials: Masonry, wood or evergreen shrubbery</li> </ul>	Elevations provided	Yes	<p><b>Refer to Façade review for more details</b></p> <p style="color: red; border: 1px solid red; padding: 2px;"><b>No response necessary</b></p>
<b>Exterior lighting</b> <i>Sec. 5.7</i>	Photometric plan and exterior lighting details needed at time of Final Site Plan submittal.	A lighting plan is not provided at this time	Yes?	
<b>Roof top equipment and wall mounted utility equipment</b> <i>Sec. 4.19.2.E.ii</i>	- All roof top equipment must be screened and all wall mounted utility equipment must be enclosed and integrated into the design and color of the building.	A note on the plan indicates that the existing and new rooftop equipment will be screened by parapet	Yes?	
<b>Roof top appurtenances screening</b>	Roof top appurtenances shall be screened in accordance with applicable facade regulations, and shall not be visible from any street, road, or adjacent property.			
<b>Non-Motorized Facilities</b>				
<b>Article XI. Off-Road Non-Motorized Facilities</b>	<p>A 6 foot sidewalk is required along collector and arterial roads</p> <p>Building exits must be connected to sidewalk system or parking lot.</p>	Proposed as required	Yes	

Item	Required Code	Proposed	Meets Code	Comments
<b>Pedestrian Connectivity</b>	Assure safety and convenience of both vehicular and pedestrian traffic both within the site and in relation to access streets	Proposed, but do not meet requirements	Yes?	
<b>Other Requirements</b>				
<b>Design and Construction Standards Manual</b>	Land description, Sidwell number (metes and bounds for acreage parcel, lot number(s), Liber, and page for subdivisions).	Provided	Yes	
<b>General layout and dimension of proposed physical improvements</b>	Location of all existing and proposed buildings, proposed building heights, building layouts, (floor area in square feet), location of proposed parking and parking layout, streets and drives, and indicate square footage of pavement area (indicate public or private).	Mostly provided	Yes?	Refer to all review for additional information requested  No response required
<b>Economic Impact</b>	<ul style="list-style-type: none"> <li>- Total cost of the proposed building &amp; site improvements</li> <li>- Number of anticipated jobs created (during construction &amp; after building is occupied, if known)</li> </ul>	Not provided at this time	No	Please provide information prior to Planning Commission meeting  The anticipated total project cost is \$1,536,000. The project is expected to generate 15 construction jobs and 10-12 additional SBX partner jobs after the expansion.
<b>Development/ Business Sign &amp; Street addressing</b>	<ul style="list-style-type: none"> <li>- Signage if proposed requires a permit.</li> <li>- The applicant should contact the Building Division for an address prior to applying for a building permit.</li> </ul>	Not proposed at this time		
<b>Project and Street naming</b>	Some projects may need approval from the Street and Project Naming Committee.	Not applicable	NA	
<b>Property Split</b>	The proposed property split must be submitted to the Assessing Department for approval.	No property splits proposed.	NA	
<b>Lighting and Photometric Plan (Sec. 5.7)</b>				

Item	Required Code	Proposed	Meets Code	Comments
<b>Intent</b> (Sec. 5.7.1)	Establish appropriate minimum levels, prevent unnecessary glare, reduce spillover onto adjacent properties, & reduce unnecessary transmission of light into the night sky.	A lighting plan is provided	Yes?	
	Site plan showing location of all existing & proposed buildings, landscaping, streets, drives, parking areas & exterior lighting fixtures.			
<b>Lighting Plan</b> (Sec.5.7.A.2)	Specifications for all proposed & existing lighting fixtures.	Provided	Yes	<p>Indicate the location of proposed light fixtures on the plan along with labels that correspond with the schedule.</p> <p>Are there any new pole lights proposed?</p> <p>Are there any new building lights proposed?</p> <p style="border: 1px solid red; padding: 5px;">A revised lighting plan will be provided with the FSP.</p>
	Photometric data	Provided	Yes	
	Fixture height			
	Mounting & design			
	Glare control devices			
	Type & color rendition of lamps	LED		
	Hours of operation	Provided	Yes	
	Photometric plan illustrating all light sources that impact the subject site, including spillover information from neighboring properties.	Provided	Yes	
<b>Required Conditions</b> (Sec. 5.7.3.A)	Height not to exceed maximum height of zoning district (or 25 ft. where adjacent to residential districts or uses.			
<b>Required Conditions</b> (Sec. 5.7.3.B)	<ul style="list-style-type: none"> <li>- Electrical service to light fixtures shall be placed underground</li> <li>- Flashing light shall not be permitted</li> <li>- Only necessary lighting for security purposes &amp; limited operations shall be permitted after a site's hours of operation</li> </ul>	Not shown on plans	No	<p>Please add these notes to the plans</p> <p style="border: 1px solid red; padding: 5px;">Notes added to sheet C08, as requested. Sheet C08 will be provided with the FSP.</p>
<b>Required Conditions</b> (Sec.5.7.3.E)	Average light level of the surface being lit to the lowest	The proposed improvements are an	NA	

Item	Required Code	Proposed	Meets Code	Comments
	light of the surface being lit shall not exceed 4:1.	addition to the existing site layout. They do not warrant complying with the average to minimum ratio for the site, as new lot split is not proposed.		
<b>Required Conditions</b> (Sec. 5.7.3.F)	Use of true color rendering lamps such as metal halide is preferred over high & low pressure sodium lamps.	LED	Yes	
<b>Min. Illumination</b> (Sec. 5.7.3.K)	Parking areas: 0.2 min	Proposed pathways include 0.2 min	Yes	
	Loading & unloading areas: 0.4 min			
	Walkways: 0.2 min			
	Building entrances, frequent use: 1.0 min			
	Building entrances, infrequent use: 0.2 min			
<b>Max. Illumination adjacent to Non-Residential</b> (Sec. 5.7.3.K)	When site abuts a non-residential district: - Maximum illumination at the property line shall not exceed 1 foot candle.	Illumination levels at property line are kept under 1	Yes	
<b>Cut off Angles</b> (Sec. 5.7.3.L)	When adjacent to residential districts: - All cut off angles of fixtures must be 90°. - Maximum illumination at the property line shall not exceed 0.5 foot candle.	Not applicable	NA	

**NOTES:**

1. This table is a working summary chart and not intended to substitute for any Ordinance or City of Novi requirements or standards.
2. The section of the applicable ordinance or standard is indicated in parenthesis. Please refer to those sections in Article 3, 4 and 5 of the zoning ordinance for further details
3. Please include a written response to any points requiring clarification or for any corresponding site plan modifications to the City of Novi Planning Department with future submittals.





# PLAN REVIEW CENTER REPORT

November 30, 2018

## Engineering Review

Starbuck's Expansion and Drive-Thru  
JSP18-0033

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### Applicant

Ramco West Oaks II LLC

### Review Type

Combined Preliminary and Final Site Plan

### Property Characteristics

- Site Location: South of 12 Mile Rd, West of Novi Rd
- Site Size: 4 parcels of 33.86 ac shopping center
- Plan Date: 10/29/18
- Design Engineer: Atwell

### Project Summary

- Construction of an additional 1,396 square-foot to existing 6,716 square-foot building with drive-thru window and lane.
- Relocation of existing utility services will serve the building expansion.

### Recommendation

**Approval of the Preliminary Site Plan is recommended, with items to be addressed in a revised Final Site plan submittal.**

### Comments:

The Preliminary Site Plan meets the general requirements of Chapter 11 of the Code of Ordinances, the Storm Water Management Ordinance and the Engineering Design Manual with the following exceptions, which can be addressed in a revised Final Site Plan submittal:

#### General

1. Provide a minimum of two ties to established section or quarter section corners and include the information in the site plans.

**Two ties to established section corners will be provided with the FSP.**

2. Include the City benchmark information on the plan sheets and show and label city benchmark(s).

**City benchmark information has been added to multiple sheets and will be provided with the FSP.**

3. Provide the City's standard detail sheets for water main (5 sheets-rev. 02/16/2018), sanitary sewer (3 sheets-rev. 02/16/2018).

**City standard detail sheets are included with the plan set and will be provided with the FSP**

rev. 02/16/2018), and paving (2 sheets-rev. 03/05/2018 at the time of the printed Stamping Set submittal (these sheets should NOT be printed with a revised final submittal). These details can be found on the City's website at this location: <http://cityofnovi.org/Government/City-Services/Public-Services/Engineering-Division/Engineering-Standards-and-Construction-Details.aspx>

4. Provide a sheet showing the existing conditions. Clearly distinguish between proposed improvements and existing features of the site.

An existing conditions plan has been provided. Refer to the Topographic Survey. This will be provided with the FSP.

5. Show existing utility easements on the utility plan.

Existing utilities and easements are shown on the utility plan (C08). This will be provided with the FSP.

6. Provide a traffic control sign table listing the quantities of each sign type proposed. Provide a note along with the table stating all traffic signage will comply with the current MMUTCD standards.

A traffic control sign table has been provided on sheet C04.

7. Provide a construction materials table on the Paving Plan listing the quantity and material type for each pavement cross-section being proposed.

A construction materials table has been provided on C04.

8. Provide a note that compacted sand backfill shall be provided for all utilities within the influence of paved areas, and illustrate on the profiles.

A note has been provided on sheet C08. This will be provided with the FSP.

9. Provide a construction materials table on the Utility Plan listing the quantity and material type for each utility (water, sanitary and storm) being proposed.

A quantity and material table has been provided on C08. This will be provided with the FSP.

10. 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.

A utility crossing table has been provided on sheet C08. This will be provided with the FSP.

11. Provide a note stating if dewatering is anticipated or encountered during construction a dewatering plan must be submitted to the Engineering Division for review.

A dewatering note has been provided on sheet C08. This will be provided with the FSP.

12. Generally, all proposed trees shall remain outside utility easements. Where proposed trees are required within a utility easement, the trees shall maintain

a minimum 5-foot horizontal separation distance from any existing or proposed utility. All utilities shall be shown on the landscape plan, or other appropriate sheet, to confirm the separation distance.

Utilities are shown on the landscape plan and separation distance has been confirmed. This will be provided with the FSP.

13. 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. Light poles in a utility easement will require a License Agreement.

Light pole locations have been added to the utility plan. This will be provided with the FSP.

#### Utilities

14. The utility plan indicates that an existing 4" water lead and an existing 3" water lead are to be re-routed but does not show existing conditions. Show on the plan where the water leads are being re-routed from.

This detailed utility information will be provided with the FSP.

15. Provide length and size of the lead to the remote FDC location.

This information will be added to the utility plan and provided with the FSP.

16. Coordinate with Building Department for review and approval of internal grease interceptor.

Coordination with the Building Department will be completed with the FSP and building plan development.

#### Storm Sewer

17. Provide storm sewer sizing calculations.

The storm sizing calculations will be provided with the FSP.

18. Provide a schedule listing the casting type and other relevant information for each proposed storm structure on the utility plan. Round castings shall be provided on all catch basins except curb inlet structures.

A structure schedule has been added on sheet C07. This will be provided with the FSP.

#### Paving & Grading

19. Refer to city standard paving detail sheets for minimum pavement cross sections and mix types. Revise details on sheet C11 to be consistent with these standards and remove any redundant or conflicting details.

Paving details on sheet C11 have been revised to meet the City's minimum pavement cross sections and redundant/conflicting details have been removed. The revised C11 will be provided with the FSP.

20. Detectable warning plates are required at all barrier free ramps, hazardous vehicular crossings and other areas where the sidewalk is flush with the adjacent drive or parking pavement. The barrier-free ramps shall comply with current MDOT specifications for ADA Sidewalk Ramps. Provide the latest version of the MDOT standard detail for detectable surfaces.

The latest MDOT Detectable warning panel detail has been provided. The revised detail sheet will be provided with the FSP.

21. Label specific ramp locations on the plans where the detectable warning surface is to be installed.

Detectable warning panel locations have been called out on sheet C04.

22. 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.

Detectable warning panel product provided as requested.  
The revised detail sheet will be provided with the FSP.

23. 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 (i.e. 2' minor radius, 15' major radius, minimum 8' wide, 3' shorter than adjacent 19' stall).

Island dimensions have been provided, confirming conformance with City standards. Refer to C04.

#### Off-Site Easements

24. Any off-site easements anticipated must be executed **prior to final approval of the plans**. Off-site easements are not anticipated at this time.

No off-site easements are anticipated.

#### The following must be submitted with the revised Final Site Plan:

25. Revised itemized cost estimate including relocated remote FDC lead.

A revised cost estimate will be submitted with the FSP.

26. A letter from either the applicant or the applicant's engineer highlighting the changes made to the plans addressing each of the comments listed above and indicating the revised sheets involved. **Additionally, a statement must be provided stating that all changes to the plan have been discussed in the applicant's response letter.**

A comment response letter will be submitted with the FSP.

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

27. A pre-construction meeting shall be required prior to any site work being started. Please contact Sarah Marchioni in the Community Development Department to setup a meeting (248-347-0430).

28. 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 (no application required). No fee is required for this permit.

29. Material certifications must be submitted to Spalding DeDecker for review prior to the construction of any utilities on the site. Contact Ted Meadows at 248-844-5400 for more information.
  
30. Construction inspection fees in the estimated amount of \$9,359.97 must be paid to the Community Development Department. The amount will be finalized with the final cost estimate and provided at the time of pre-construction checklists.
  
31. A street sign financial guarantee (\$400 per traffic control sign proposed) must be posted at the Community Development Department. Signs must be installed in accordance with MMUTCD standards.

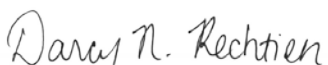
**The following must be addressed prior to issuance of a Temporary Certificate of Occupancy approval for the development:**

32. The amount of the incomplete site work performance guarantee for any outstanding site improvement items, limited to top course of pavement and other minor items, at 1.2 times the amount required to complete the site improvements as specified in the Performance Guarantee Ordinance.
  
33. All easements referenced above must be executed, notarized and approved by the City Attorney and City Engineer.
  
34. Spalding DeDecker will prepare the record drawings for this development. The record drawings will be prepared in accordance with Article XII, Design and Construction Standards, Chapter 11 of the Novi Code of Ordinances.

Prior to preparing stamping sets, the Applicant is advised to provide any revised sheets directly to the Engineering Division for an informal review and approval.

To the extent this review letter addresses items and requirements that require the approval of or a permit from an agency or entity other than the City, this review shall not be considered an indication or statement that such approvals or permits will be issued.

Please contact Darcy Rechten at (248) 735-5695 with any questions.



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Darcy N. Rechten, P.E.

cc: Sri Komaragiri, Community Development  
George Melistas, Engineering



# PLAN REVIEW CENTER REPORT

November 19, 2018

## Preliminary/Final Site Plan - Landscaping

### Starbucks Drive Thru – West Oaks

Review Type

Preliminary Landscape Review

Job #

JSP18-0033

Property Characteristics

- Site Location: West Oaks Shopping Center (west side of Novi Road, north of Grand River)
- Site Acreage: 14.92 Acres (Development boundary: 1.52 Acres)
- Site Zoning: RC: Regional Commercial
- Adjacent Zoning: RC: Regional Commercial
- Plan Date: 10/29/2018

Ordinance Considerations

This project was reviewed for conformance with Chapter 37: Woodland Protection, Zoning Article 5.5 Landscape Standards, the Landscape Design Manual and any other applicable provisions of the Zoning Ordinance. Items in **bold** below must be addressed and incorporated as part of the revised Preliminary/Final Site Plan submittal. Please follow guidelines of the Zoning Ordinance and Landscape Design Guidelines. This review and the accompanying Landscape Chart are summaries and are not intended to substitute for any Ordinance.

Recommendation

The project **is recommended for approval for Preliminary Site Plans, but not Final Site Plans**. The waivers listed below represent the most significant deviations from the ordinance, but additional information about the existing landscaping that will contribute to the drive-thru's screening needs to be provided in order to determine whether what is provided is sufficient.,

**LANDSCAPE WAIVERS REQUIRED:**

- Shortage in landscape area provided.
- Shortage in frontage of building addition facing Novi road that is landscaped

**POSSIBLE WAIVERS REQUIRED IF ADDITIONAL SCREENING IS NOT PROVIDED:**

- Insufficient loading zone/drive thru area screening

Please work to remove as many landscape waivers as possible.

NOTE: The landscape plan must be created, finalized and stamped by a licensed or professional landscape architect.

**A revised landscape plan will be provided with the FSP.**

Ordinance Considerations

Existing Soils (Preliminary Site Plan checklist #10, #17)

Provided.

Existing and proposed overhead and underground utilities, including hydrants. (LDM 2.e.(4))

1. Provided.
2. There are no overhead utility lines in the vicinity of the project.

3. Please clearly show all utility lines and structures on the landscape plan and work to remove all tree/utility conflicts.

All utility lines are shown on the landscape plan showing no utility conflicts.

Existing Trees (Sec 37 Woodland Protection, Preliminary Site Plan checklist #17 and LDM 2.3 (2))

1. No woodland trees. Existing landscape trees are located and identified.
2. Please identify and show the sizes (dbh) of all existing trees near the site and in the greenbelt between the drive-thru and Novi Road.
3. Please include all existing plantings to remain on the landscape plan.

Adjacent Property is not adjacent to residential.  
Existing plantings to remain are shown on the landscape plan. These have been estimated from desktop information.

Adjacent to Public Rights-of-Way – Berm (Wall) & Buffer (Zoning Sec. 5.5.3.B.ii and iii)

The project is not immediately adjacent to rights-of-way or an industrial subdivision road so no new right-of-way berms are required, but the existing berms and landscaping must be shown accurately to assess whether they and the existing greenbelt provide sufficient screening from Novi Road or whether more is required.

Existing berm has been surveyed and contours are shown on the landscape plan.

Street Tree Requirements (Zoning Sec. 5.5.3.E.i.c and LDM 1.d.)

The project is not immediately adjacent to a street so no new street trees are required.

Parking Lot Landscaping (Zoning Sec. 5.5.3.C.)

1. As the drive-thru is basically linear, only perimeter trees along the accessway are required, not interior space.
2. New endcap islands are required for all parking bays adjacent to the drive-thru area. Two are provided with sufficient area and a tree planted in it. An additional island may be required north of the drive thru lane, depending on the traffic consultant's review. If it is required, it should also have a deciduous canopy tree planted in it.

The islands north of the drive-thru have been enlarged and additional plantings added.

Parking Lot Perimeter Canopy Trees (Zoning Sec. 5.5.3.C.(3) Chart footnote)

1. It appears that there are sufficient trees provided, but that must be verified with correct calculations.
2. Please graphically show the line used for calculation of the perimeter.
3. Please add calculations for parking lot perimeter trees required at 1 tree per 35lf on both sides of the drive-thru, except along the building.

The line used for calculating the perimeter tree requirement has been included on the landscape plan.

Drive Thru screening (Zoning Sec. 3.14, 3.15, 4.55, 4.56, 5.5)

1. The drive-thru lane is sufficiently screened from Novi Road by a line of inkberries, except for a fifteen foot gap in the center.
2. Please provide some other form of screening at least 3 feet high in that gap. A low opaque fence is a possible solution.

A 3' foot opaque fence is proposed. Refer to sheet C04.

Loading Zone screening (Zoning Sec. 3.14, 3.15, 4.55, 4.56, 5.5)

1. The loading zone is mostly screened from Novi Road by the proposed canopy trees and drive-thru inkberries.
2. With the additional screening provided for the drive-thru, the screening should be sufficient.

Building Foundation Landscape (Zoning Sec 5.5.3.D.)

1. The required foundation landscaping is the perimeter of the addition (not the entire building), less doorways, times 8. It is unclear whether the calculation provided is for the entire building or the addition. Please clarify that and correct the calculation if necessary or provide the required landscape area. Currently, the calculations indicate

that 3,712sf are required but only 2,058sf are provided. This would require a landscape waiver.

2. 60% of the addition frontage facing Novi Road must have landscaping. The calculation indicates that 67lf are proposed while only 64lf are required, but no landscaping appears to be located along the Novi Road frontage. If the current situation is maintained, a landscape waiver would be required. **Please provide the required landscaping along the Novi Road frontage in a bed at least 4 feet wide.**
3. **Please label in SF all of the foundation landscaping areas to be counted toward the requirement. They should be planted with more than just lawn.**

**A revised landscape plan will be provided with the FSP**

Plant List (LDM 2.h. and i.)  
Provided.

Planting Notations and Details (LDM)

1. Provided.
2. **Please revise the notes as requested on the Landscape Chart.**

**Requested notes will be added to chart.**

Storm Basin Landscape (Zoning Sec 5.5.3.E.iv and LDM 1.d.(3))

1. No above-ground detention is proposed so no detention basin landscaping is required.
2. No Phragmites australis exists on the site.

Irrigation (LDM 1.a.(1)(e) and 2.s)

1. The proposed landscaping must be provided with sufficient water to become established and survive over the long term.
2. Please note how this will be accomplished if an irrigation plan is not provided.
3. If an irrigation plan will be provided, please include it in the electronic stamping sets.

**An underground irrigation system will be provided. The design design will be design-build to modify / tie into the existing irrigation system.**

Proposed

1. Provided.
2. **Please show the contours of the existing berms between the drive-thru and Novi Road.**

**Contours for the existing berm have been added.**

Snow Deposit (LDM.2.q.)  
Provided.

Proposed trees to be saved (Sec 37 Woodland Protection 37-9, LDM 2.e.(1))

1. No woodlands exist on the site and no trees are proposed to be removed.
2. **Please show all trees to remain on the site on the landscape plan.**

**Existing trees to remain are shown on the landscape plan. These have been estimated from desktop information.**

Corner Clearance (Zoning Sec 5.9)  
Provided.

If the applicant has any questions concerning the above review or the process in general, do not hesitate to contact me at 248.735.5621 or [rmeader@cityofnovi.org](mailto:rmeader@cityofnovi.org).



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Rick Meader – Landscape Architect



## LANDSCAPE REVIEW SUMMARY CHART – Combined Preliminary/Final Site Plan

**Review Date:** November 19, 2018  
**Project Name:** JSP18 – 0033: Starbucks Expansion & Drive-thru  
**Plan Date:** October 29, 2018  
**Prepared by:** Rick Meader, Landscape Architect E-mail: [rmeader@cityofnovi.org](mailto:rmeader@cityofnovi.org);  
 Phone: (248) 735-5621

Items in **Bold** need to be addressed by the applicant before approval of the Preliminary Site Plan. Underlined items need to be addressed for Final Site Plan.

### LANDSCAPE WAIVERS REQUIRED:

- Shortage in landscape area provided.
- Shortage in frontage of building addition facing Novi road that is landscaped

### POSSIBLE WAIVER REQUIRED IF ADDITIONAL SCREENING IS NOT PROVIDED:

- Insufficient loading zone/drive thru area screening

Please work to remove as many landscape waivers as possible.

Item	Required	Proposed	Meets Code	Comments
<b>Landscape Plan Requirements (LDM (2))</b>				
<b>Landscape Plan</b> <i>(Zoning Sec 5.5.2, LDM 2.e.)</i>	<ul style="list-style-type: none"> <li>▪ New commercial or residential developments</li> <li>▪ Addition to existing building greater than 25% increase in overall footage or 400 SF whichever is less.</li> <li>▪ 1" =20' minimum with proper North. Variations from this scale can be approved by LA</li> <li>▪ Consistent with plans throughout set</li> </ul>	Scale: 1" =20'	Yes	
<b>Project Information</b> <i>(LDM 2.d.)</i>	Name and Address	Sheets C09, C10	Yes	
<b>Owner/Developer Contact Information</b> <i>(LDM 2.a.)</i>	Name, address and telephone number of the owner and developer or association	Yes	Yes	<b>LS Plan will be stamped by an RLA</b>
<b>Landscape Architect contact information</b> <i>(LDM 2.b.)</i>	Name, Address and telephone number of RLA	It is not clear who created the landscape plan or if it was a landscape architect.	No	<b>Landscape plan needs to be created by a licensed/professional landscape architect.</b>
<b>Sealed by LA.</b> <i>(LDM 2.g.)</i>	Requires original signature	Not provided.		<u>Need for Final Site Plans</u>

Item	Required	Proposed	Meets Code	Comments
<b>Miss Dig Note</b> (800) 482-7171 (LDM.3.a.(8))	Show on all plan sheets	Yes	Yes	
<b>Zoning</b> (LDM 2.f.)	Include site zoning and all adjacent zoning	<u>Parcel:</u> R-C Rezone to PD-2 <u>North, South, East, West:</u> R-C	No	Please show zoning of site and adjacent parcels on landscape plan.
<b>Survey information</b> (LDM 2.c.)	<ul style="list-style-type: none"> <li>Legal description or boundary line survey</li> <li>Existing topography</li> </ul>	<ul style="list-style-type: none"> <li>Description: Sheet C02</li> <li>Limited topography provided on Topography Survey Sheet</li> </ul>	Yes	Adjacent zoning will be shown on LS Plan
<b>Existing plant material</b> <b>Existing woodlands or wetlands</b> (LDM 2.e.(2))	<ul style="list-style-type: none"> <li>Show location type and size. Label to be saved or removed.</li> <li>Plan shall state if none exists.</li> </ul>	Existing conditions on Topographic Survey.	No	Please show and label all existing trees (including their species and dbh) in the vicinity of the site, including in the greenbelt between the site and Novi Road. It is important to know what screening already exists between drive-thru and Novi Road.
<b>Soil types</b> (LDM.2.r.)	<ul style="list-style-type: none"> <li>As determined by Soils survey of Oakland county</li> <li>Show types, boundaries</li> </ul>	Sheet C02 – Marlette Sandy Loam	Yes	Existing trees are shown on LS Plan from available desktop information
<b>Existing and proposed improvements</b> (LDM 2.e.(4))	Existing and proposed buildings, easements, parking spaces, vehicular use areas, and R.O.W	<ul style="list-style-type: none"> <li>Island square footages are provided in SF on Sheet C09.</li> <li>Island widths are not provided.</li> </ul>	Yes/No	Island widths provided. Refer to sheet C09. Please dimension island widths in linear feet.
<b>Existing and proposed utilities</b> (LDM 2.e.(4))	<ul style="list-style-type: none"> <li>Show overhead and underground utilities, including hydrants</li> <li>Show existing and proposed light fixtures.</li> </ul>	On Sheets C07, C08	No	<p>All utility information and lighting fixtures are shown on the landscape plan.</p> <ol style="list-style-type: none"> <li>Please clearly show and label all existing utility lines and structures on landscape plan to avoid conflicts, and resolve any tree/utility conflicts.</li> <li>Please show all lighting fixtures on the landscape plan to avoid tree/light conflicts in the field.</li> </ol>
<b>Proposed grading. 2' contour minimum</b>	Provide proposed contours at 2' interval	Proposed spot elevations provided	Yes	

Item	Required	Proposed	Meets Code	Comments
(LDM 2.e.(1))		on Sheet C05		
<b>Snow deposit</b> (LDM.2.g.)	Show snow deposit areas on plan	Yes	Yes	
<b>LANDSCAPING REQUIREMENTS</b>				
<b>Parking Area Landscape Requirements LDM 1.c. &amp; Calculations (LDM 2.o.)</b>				
<b>General requirements</b> (LDM 1.c)	<ul style="list-style-type: none"> <li>Clear sight distance within parking islands</li> <li>No evergreen trees</li> </ul>	Yes	Yes	
<b>Name, type and number of ground cover</b> (LDM 1.c.(5))	As proposed on planting islands	Yes	Yes	Please provide a legend for all hatching or use callouts to make clear what the ground treatments are.
<b>Callouts and hatching have been provided on the landscape plan indicating all ground treatments.</b>				
<b>General (Zoning Sec 5.5.3.C.ii)</b>				
<b>Parking lot Islands</b> (a, b, i)	<ul style="list-style-type: none"> <li>A minimum of 200 SF to qualify</li> <li>A minimum of 200sf unpaved area per tree planted in an island</li> <li>6" curbs</li> <li>Islands minimum width 10' BOC to BOC</li> </ul>	Yes	TBD	Please dimension widths of islands in linear feet.
<b>Island widths provided. Refer to sheet C09.</b>				
<b>Curbs and Parking stall reduction</b> (c)	Parking stall can be reduced to 17' and the curb to 4" adjacent to a sidewalk of minimum 7 ft.	Endcap islands are provided north and south of drive-thru.	TBD	It appears that the parking bay east of the new northern island will be needed to be provided with endcap island too.
<b>Contiguous space limit</b> (i)	Maximum of 15 contiguous spaces	Parking bays are not enlarged by the project.	Yes	See above.
<b>Plantings around Fire Hydrant</b> (d)	No plantings with matured height greater than 12' within 10 ft. of fire hydrants	All trees are 10 feet from hydrants.	TBD	<ol style="list-style-type: none"> <li>Trees should also be 5 feet from underground lines.</li> <li>Please show all utilities on landscape plan and adjust lines/trees to avoid conflicts.</li> </ol>
<b>Utility information has been provided on sheet C09.</b>				
<b>Landscaped area</b> (g)	Areas not dedicated to parking use or driveways exceeding 100 sq. ft. shall be landscaped	Yes	TBD	<ol style="list-style-type: none"> <li>Hatching indicates that some sort of groundcover is provided.</li> <li>Please provide callouts or legend indicating what groundcovers will be.</li> </ol>
<b>Callouts and legend provided indicating groundcover.</b>				
<b>Clear Zones</b> (LDM)	25 ft corner clearance	There are no trees	Yes	

Item	Required	Proposed	Meets Code	Comments
2.3.(5))	required. Refer to Zoning Section 5.5.9	blocking views.		
<b>Category 1: For OS-1, OS-2, OSC, OST, B-1, B-2, B-3, NCC, EXPO, FS, TC, TC-1, RC, Special Land Use or non-residential use in any R district (Zoning Sec 5.5.3.C.iii)</b>				
A = Total square footage of vehicular use areas up to 50,000sf x 7.5%	<ul style="list-style-type: none"> <li>A = x sf * 7.5 % = A sf</li> <li>50,000 * 7.5% = 3750 sf</li> </ul>	xxx sf		As it's basically just an access drive, interior planting calculations are not required.
B = Total square footage of additional paved vehicular use areas (not including A or B) over 50,000 SF) x 1 %	<ul style="list-style-type: none"> <li>B = x sf * 1% = B sf</li> <li>(xxx - 50000) * 1% = xxx sf</li> </ul>	xxx sf		See above.
<b>Category 2: For: I-1 and I-2 (Zoning Sec 5.5.3.C.iii)</b>				
A. = Total square footage of vehicular use area up to 50,000 sf x 5%	A = x sf * 5% = A sf	NA		
B = Total square footage of additional paved vehicular use areas over 50,000 SF x 0.5%	B = 0.5% x 0 sf = B SF	NA		
<b>All Categories</b>				
C = A+B Total square footage of landscaped islands	A + B = C SF	xxx sf	TBD	
D = C/200 Number of canopy trees required	<ul style="list-style-type: none"> <li>C/200 = D Trees</li> </ul>			Please add one deciduous canopy tree in any new endcap landscape island required.
<b>Accessway perimeter</b>	<ul style="list-style-type: none"> <li>1 canopy tree per 35 lf on each side of drive, less frontage of building on drive.</li> <li>xxx/35</li> </ul>	<ul style="list-style-type: none"> <li>12 canopy trees are provided in and around the drive-thru lane</li> <li>One tree is planted in each of the new endcap islands.</li> </ul>	No	<ol style="list-style-type: none"> <li>It is not clear what the calculation is based on to get the quantity required figure.</li> <li>Please provide calculation and show basis of calculation (what area or perimeter are being used).</li> <li>Please provide required trees.</li> </ol>
<b>Parking land banked</b>	<ul style="list-style-type: none"> <li>NA</li> </ul>	None		
<b>Berms, Walls and ROW Planting Requirements</b>				
<b>Berms</b>				

Deciduous trees provided in new endcaps. Refer to sheet C09.

Perimeter calculation and basis provided on sheet C09.

Item	Required	Proposed	Meets Code	Comments
<ul style="list-style-type: none"> <li>All berms shall have a maximum slope of 33%. Gradual slopes are encouraged. Show 1ft. contours</li> <li>Berm should be located on lot line except in conflict with utilities.</li> <li>Berms should be constructed with 6" of top soil.</li> </ul>				
<b>Residential Adjacent to Non-residential (Sec 5.5.3.A) &amp; (LDM 1.a)</b>				
<b>Berm requirements (Zoning Sec 5.5.A)</b>	As site is not adjacent to residential, no berm is required.	None		
<b>Planting requirements (LDM 1.a.)</b>	LDM Novi Street Tree List	NA		
<b>Adjacent to Public Rights-of-Way (Sec 5.5.B) and (LDM 1.b)</b>				
<b>Berm requirements (Zoning Sec 5.5.3.A.(5))</b>	As frontage is not changing, no changes are required.	<div style="border: 1px solid red; padding: 2px; display: inline-block; color: red;">Contours of existing berm have been added.</div> No changes to the existing berm are proposed	TBD	1. Please show what the height of the existing berm is in relation to the elevation of the drive-thru. 2. It should be at least 3 feet above the height of the drive thru paving at the turnaround to block headlights from Novi Road.
<b>Cross-Section of Berms (LDM 2.j)</b>				
Slope, height and width	<ul style="list-style-type: none"> <li>Label contour lines</li> <li>Maximum 33%</li> <li>Min. 3 feet flat horizontal area</li> <li>Minimum 3 feet high</li> <li>Constructed of loam with 6' top layer of topsoil.</li> </ul>	<ul style="list-style-type: none"> <li>NA – only the existing berm near Novi Road is provided.</li> <li>No new berms are required.</li> </ul>		
Type of Ground Cover		NA		
Setbacks from Utilities	Overhead utility lines and 15 ft. setback from edge of utility or 20 ft. setback from closest pole	The only overhead lines are close to Novi Road, out of the area of work.		
<b>Walls (LDM 2.k &amp; Zoning Sec 5.5.3.vi)</b>				
<b>Material, height and type of construction footing</b>	Freestanding walls should have brick or stone exterior with masonry or concrete interior	No walls are proposed.		
<b>Walls greater than 3 ½ ft. should be designed and sealed by an Engineer</b>				
<b>ROW Landscape Screening Requirements (Sec 5.5.3.B. ii)</b>				

Item	Required	Proposed	Meets Code	Comments
<b>Greenbelt width</b> (2)(3) (5)	RC: Adj to Parking: 20 ft. RC: Not adj to Pkg: 25 ft	35 ft to existing curb to remain	Yes	
Min. berm crest width	RC: Adj to pkg: 2 ft	Existing berms exist, only shows up as outlines (no contours).	No	<b>Please include berm on topo survey.</b>
Minimum berm height (9)	RC: Adj to pkg: 3 ft	Existing berm exists, but height is not shown.	No	<b>Please include berm heights on existing conditions plan.</b>
3' wall	(4)(7)	<div style="border: 2px solid red; padding: 5px; color: red; font-weight: bold;">                     Contours of existing berm have been added. Existing trees are shown per available desktop information.                 </div>		
<b>Canopy deciduous or large evergreen trees</b> Notes (1) (10)	<u>RC Zoning:</u> ▪ Adj to Pkg: 1 tree per 35 lf ▪ 117/35 = 3 trees			▪ xx proposed trees
<b>Sub-canopy deciduous trees</b> Notes (2)(10)	<u>RC Zoning:</u> ▪ Adj to Pkg: 1 tree per 20 lf ▪ 117/20 = 6 trees	▪ xx existing trees ▪ xx proposed trees	TBD	<b>See above</b>
<b>Canopy deciduous trees in area between sidewalk and curb</b> ( <i>Novi Street Tree List</i> )	<u>RC Zoning:</u> ▪ 1 tree per 35 lf ▪ 117/45 = 3 trees	xx existing trees	TBD	As there are no changes to greenbelt associated with this project, no additional street trees are required.
<b>Non-Residential Zoning Sec 5.5.3.E.iii &amp; LDM 1.d (2)</b>				
Refer to Planting in ROW, building foundation landscape, parking lot landscaping and LDM				
<b>Drive-thru screening</b>	<div style="border: 2px solid red; padding: 5px; color: red; font-weight: bold;">                     3' high opaque fence proposed. Refer to sheet C04.                 </div>	▪ Inkberries are provided along most of outer edge of drive-thru turn. ▪ Central 15 feet has no screening.	No	<b>Please provide some sort of screening at least 3 feet high in center 15 feet to block headlights.</b>
<b>Screening of outdoor storage, loading/unloading</b> (Zoning Sec. 3.14, 3.15, 4.55, 4.56, 5.5)		Loading zone is in new internal island	No	Once the central 15 feet is blocked per the request above, the loading zone will be sufficiently screened from Novi Road.
<b>Transformers/Utility boxes</b> (LDM 1.e from 1 through 5)	▪ A minimum of 2ft. separation between box and the plants ▪ Ground cover below 4" is allowed up to	Transformer screening screened from east, but not north.	No	1. Please add screening across the sidewalk to the north of the transformer to block it from that

Screening added as requested. Refer to sheet C09.

Item	Required	Proposed	Meets Code	Comments
	pad. ▪ No plant materials within 8 ft. from the doors			angle. 2. Please add a note that the screening shrubs shall be maintained at a height at least as tall as the transformer.
<div style="border: 1px solid red; padding: 5px; display: inline-block;">Refer to note #7 on sheet C09.</div>				
<b>Building Foundation Landscape Requirements (Sec 5.5.3.D)</b>				
Interior site landscaping SF	▪ Equals to entire perimeter of the building x 8 with a minimum width of 4 ft. ▪ x If x 8ft = x SF	▪ No foundation landscaping is provided on east side of building, facing Novi Road. ▪ It is unclear what areas are foundation landscaping areas.	No	1. Please label all foundation areas in SF to verify that requirement is met. 2. A landscape waiver would be required for shortages in foundation area provided or providing it anywhere but at the base of the building. 3. <u>Foundation plantings are to be included in cost estimate.</u>
Zoning Sec 5.5.3.D.ii. All items from (b) to (e)	If visible from public street a minimum of 60% of the exterior building perimeter should be covered in green space	Please indicate all existing and proposed foundation landscaping on landscape plan.	TBD	1. At least 60% of linear footage of addition facing Novi Road should be landscaped (not area). Please add landscaping as required. 2. A landscape waiver will be required for shortages in foundation area provided.
<div style="border: 1px solid red; padding: 5px; display: inline-block;">Its not possible to add foundation landscaping for the expansion area given the proposed outdoor seating. Note that more than 60% of the entire building has frontage landscaping.</div>				
<b>Detention/Retention Basin Requirements (Sec. 5.5.3.E.iv)</b>				
Planting requirements (Sec. 5.5.3.E.iv)	▪ Clusters of large native shrubs shall cover 70-75% of the basin rim area ▪ 10" to 14" tall grass along sides of basin ▪ Refer to wetland for basin mix	No detention pond exists on the site so no detention landscaping is required or provided.		
Phragmites Control (Sec 5.5.6.C)	▪ Any and all populations of Phragmites australis on site shall be included on tree survey.	There is no Phragmites in the project area.		



Item	Required	Proposed	Meets Code	Comments
	<ul style="list-style-type: none"> <li>Treat populations per MDEQ guidelines and requirements to eradicate the weed from the site.</li> </ul>			
<b>LANDSCAPING NOTES, DETAILS AND GENERAL REQUIREMENTS</b>				
<b>Landscape Notes – Utilize City of Novi Standard Notes</b>				
<b>Installation date</b> (LDM 2.i. & Zoning Sec 5.5.5.B)	Provide intended date	Between Mar 15 and Nov 15.	No	Please add note
<b>Maintenance &amp; Statement of intent</b> (LDM 2.m & Zoning Sec 5.5.6)	<ul style="list-style-type: none"> <li>Include statement of intent to install and guarantee all materials for 2 years.</li> <li>Include a minimum one cultivation in June, July and August for the 2-year warranty period.</li> </ul>	Installation date note and '2 year' added to warranty note #2. Refer to sheets C09 & C10.		
		Yes	Yes	Please add "2 year" after the word required in Maintenance/Warranty Note #2.
<b>Plant source</b> (LDM 2.n & LDM 3.a.(2))	Shall be northern nursery grown, No.1 grade.	No	No	Please add note
<b>Irrigation plan</b> (LDM 2.s.)	<p>A fully automatic irrigation system or a method of providing sufficient water for plant establishment and survival is required on Final Site Plans.</p>	Nursery note added. Refer to C09 & C10.		
		No	No	<ol style="list-style-type: none"> <li>Please add irrigation plan or information as to how plants will be watered sufficiently for establishment and long-term survival.</li> <li>If xeriscaping is used, please provide information about plantings included.</li> <li>If an irrigation system will be used, please include it in the electronic stamping sets.</li> </ol>
An underground irrigation system will be provided. The system will be design-build and connect to the existing on-site system.				
<b>Other information</b> (LDM 2.u)	Required by Planning Commission	NA		
<b>Establishment period</b> (Zoning Sec 5.5.6.B)	<b>2 yr. Guarantee</b>	Yes	Yes	See note above.
<b>Approval of substitutions.</b> (Zoning Sec 5.5.5.E)	City must approve any substitutions in writing prior to installation.	Yes	Yes	
<b>Plant List (LDM 2.h.) – Include all cost estimates</b>				
Quantities and sizes	Refer to LDM suggested plant list	Yes	Yes	
Root type		Yes	Yes	



Item	Required	Proposed	Meets Code	Comments
Botanical and common names		Yes	Yes	
Type and amount of lawn		Yes	Yes	
Cost estimate (LDM 2.t)	For all new plantings, mulch and sod as listed on the plan	Yes	Yes	
<b>Planting Details/Info (LDM 2.i) - Utilize City of Novi Standard Details</b>				
Canopy Deciduous Tree	Refer to LDM for detail drawings	Yes	Yes	
Evergreen Tree		Yes	Yes	
Multi-stem Tree		Yes	Yes	
Shrub		Yes	Yes	
Perennial/ Ground Cover		Yes	Yes	
Tree stakes and guys. (Wood stakes, fabric guys)		Yes	Yes	
Tree protection fencing	Located at Critical Root Zone (1' outside of dripline)	NA		
<b>Other Plant Material Requirements (LDM 3)</b>				
<b>General Conditions (LDM 3.a)</b>	Plant materials shall not be planted within 4 ft. of property line	Site is not near property line so this note is not required.		
<b>Plant Materials &amp; Existing Plant Material (LDM 3.b)</b>	Clearly show trees to be removed and trees to be saved.	Locations of trees and shrubs on berm appear to be shown, but no IDs are provided.	No	<ol style="list-style-type: none"> <li>1. Please show all existing landscaping in near vicinity of the project, including in the greenbelt/right-of-way.</li> <li>2. Trees need to be identified.</li> <li>3. Please clearly show all trees and shrubs to be removed.</li> <li>4. Please leave all existing plant material to remain on the landscape plan.</li> </ol>
<b>Landscape tree credit (LDM3.b.(d))</b>	Substitutions to landscape standards for preserved canopy trees outside woodlands/ wetlands should be approved by LA. Refer to Landscape tree Credit Chart in LDM	No		

Item	Required	Proposed	Meets Code	Comments
<b>Plant Sizes for ROW, Woodland replacement and others</b> (LDM 3.c)	2.5" canopy trees 6' evergreen trees		TBD	
<b>Plant size credit</b> (LDM3.c.(2))	NA	No		
<b>Prohibited Plants</b> (LDM 3.d)	No plants on City Invasive Species List		TBD	
<b>Recommended trees for planting under overhead utilities</b> (LDM 3.e)	Label the distance from the overhead utilities	Note added that no overhead lines exist on sheet C09.	TBD	1. Please clearly indicate any overhead lines in vicinity of project. 2. If none exist, please add a note to landscape plan stating this.
<b>Collected or Transplanted trees</b> (LDM 3.f)		No		
<b>Nonliving Durable Material: Mulch</b> (LDM 4)	<ul style="list-style-type: none"> <li>▪ Trees shall be mulched to 3" depth and shrubs, groundcovers to 2" depth</li> <li>▪ Specify natural color, finely shredded hardwood bark mulch. Include in cost estimate.</li> <li>▪ Refer to section for additional information</li> </ul>	Yes	Yes	<p>Wording changed to 'compost' in Installation Note #5.</p> <p>Please use compost instead of peat in Installation Note #5.</p>

**NOTES:**

1. This table is a working summary chart and not intended to substitute for any Ordinance or City of Novi requirements or standards.
2. The section of the applicable ordinance or standard is indicated in parenthesis. For the landscape requirements, please see the Zoning Ordinance landscape section 5.5 and the Landscape Design Manual for the appropriate items under the applicable zoning classification.
3. Please include a written response to any points requiring clarification or for any corresponding site plan modifications to the City of Novi Planning Department with future submittals.



AECOM  
27777 Franklin Road  
Southfield  
MI, 48034  
USA  
aecom.com

**Project name:**  
JSP18-0033 – Starbucks Expansion and Drive  
Thru PSP/FSP Traffic Review

**To:**  
Barbara McBeth, AICP  
City of Novi  
45175 10 Mile Road  
Novi, Michigan 48375

**From:**  
AECOM

**Date:**  
November 28, 2018

**CC:**  
Sri Komaragiri, Lindsay Bell, George Melistas, Darcy  
Rechtien, Hannah Smith

# Memo

**Subject: JSP18-0033 – Starbucks Expansion and Drive Thru Traffic Preliminary/Final Traffic Review**

The preliminary/final site plan was reviewed to the level of detail provided and AECOM **recommends approval of the preliminary plans and denial** for the applicant to move forward on the **final plans** based on undetermined site issues such as an updated traffic study, bicycle parking layout, sign details, proposed island details, truck turning patterns, and/or other missing site details, as discussed below.

## GENERAL COMMENTS

1. The applicant is proposing a 1,396 square foot expansion of the existing Starbucks, plus the addition of a drive-thru facility, at the Starbucks location in the West Oaks shopping center.
2. The total proposed Starbucks will be 2,412 square feet.
3. The development is located west of Novi Road, north of West Oaks Drive. Novi Road is under the jurisdiction of the Road Commission for Oakland County; West Oaks Drive is under the jurisdiction of the City of Novi.
4. Summary of traffic-related waivers/variances:
  - a. The applicant is not requesting any waivers/variances at this time.

## TRAFFIC IMPACTS

1. AECOM performed an initial trip generation estimate based on the ITE Trip Generation Manual, 10<sup>th</sup> Edition, as follows:

ITE Code: 937 (Coffee/Donut Shop with Drive-Through Window)  
Development-specific Quantity: 2,412 SF  
Zoning Change: none

Trip Generation Summary				
	Estimated Trips	Estimated Peak-Direction Trips	City of Novi Threshold	Above Threshold?
<b>AM Peak-Hour Trips</b>	216	110	100	Yes

<b>PM Peak-Hour Trips</b>	105	53	100	No
<b>Daily (One-Directional) Trips</b>	1,994	N/A	750	Yes

- It should be noted that the above trip generation estimates are for the **total** proposed development, and not in addition to the existing Starbucks. The ITE Trip Generation Manual does not have enough data to support trip generation for a Coffee/Donut Shop without Drive-Through Window in a suburban area, so without further study, the net increase cannot be estimated.

Trip Impact Study Recommendation	
Type of Study:	Justification
Queuing Study	A traffic impact and queuing study was completed on June 27, 2018. AECOM reviewed the study under a separate letter and recommended denial. The applicant has not provided an updated study.

An updated study will be provided with the FSP.

## EXTERNAL SITE ACCESS AND OPERATIONS

The following comments relate to the external interface between the proposed development and the surrounding roadway(s).

- The applicant is not proposing any modifications to the external roadway interface.

## INTERNAL SITE OPERATIONS

The following comments relate to the on-site design and traffic flow operations.

- The applicant could expand the plan view area to accommodate the next parking bay to the west to allow the reviewers a more comprehensive opportunity to review the proposed modifications to the existing site.

The view has been expanded to include the west parking bay. See C04.

- The applicant is proposing a 775 SF loading zone within the interior area of the proposed drive-thru lane on the northern side of the building, which exceeds City size requirements.
  - The applicant should expand the site plan view to show the adjacent maneuvering aisle and parking bay to the west of the loading zone to further review the accessibility to the area.
  - The applicant should indicate the largest size vehicle expected to use the loading zone and should provide truck turning patterns to show accessibility to the loading zone, or provide modifications such that a truck can access the site without impeding into designated parking areas, or having a disruptive effect on the safe and efficient flow of pedestrian and vehicular traffic, as required in the Zoning Ordinance, Section 5.4.2.A.

The view has been expanded. A truck turn plan will be included in the FSP.

- The applicant is proposing two trash dumpsters on the west side of the building.
  - The applicant should indicate the need for two separate dumpster enclosures.
  - The applicant should provide truck turning patterns to ensure accessibility to/from the dumpsters.
  - It should be noted that the Zoning Ordinance requires that such dumpster locations be laid out in a manner that when in use shall not cut off or diminish access to off-street parking space or to service drives (Section 5.4.4). The applicant should review this section of the ordinance and adjust the design, as applicable, or may be required to seek a variance
- The applicant is proposing the addition of a drive-thru window for the existing Starbucks.
  - Drive-through lanes shall not utilize any space which is necessary for adequate access to parking spaces from internal maneuvering lanes (Section 5.11.C of the Zoning Ordinance). The applicant has been asked to prepare a queuing study to confirm that the proposed drive-thru layout is designed such that the queuing

Truck turning patterns will be provided in the FSP.

vehicles will be accommodated within the provided stacking spaces and they are not expected to queue into adjacent maneuvering lanes.

No response required.

- b. Drive-through spaces shall provide one by-pass lane. The applicant has indicated a total drive-thru lane, plus bypass lane, width of 18 feet, which is acceptable to the City.
  - i. The applicant has indicated that the drive-thru lane and bypass lane each have an effective width of nine feet.
  - ii. The applicant should indicate the centerline radius of the drive-thru lane. City Zoning Ordinance requires a 25 foot centerline radius (Section 5.11.F) **25' radius dimension provided on sheet C04.**
  - iii. There are operational concerns with the proposed bypass lane near the east end, where vehicles are required to complete a 180 degree turn. The applicant should indicate via turning patterns that the proposed design can accommodate two lanes of travel around the landscaped island, OR, may modify the design such that it can accommodate two lanes of travel. Consideration may be given to reduce the landscaped area near the east end of the island and provide hatched pavement markings to delineate the drive-thru and bypass lanes, yet allow for a larger turning area.
- c. The applicant has replaced the vehicle icons on plans with stacking space indicators that are 19 feet by nine feet in width.

The drive-thru layout has been modified to allow for a larger turning area as suggested. Refer to sheet C04.

No response required.

- d. The proposed drive-thru length meets stacking space requirements per the Zoning Ordinance section 5.3.11.I such that it provides space for four vehicles between the order board and the pick-up window and four spaces in advance of the order board.

No response required.

5. Parking Facilities

- a. The applicant should refer to the Planning Review letter for information related to parking space requirements within and around the site.

All comments on the planning review will be addressed with the FSP.

- b. The applicant has indicated proposed bicycle parking on the west side of the site.
  - i. The applicant has provided a detail of the bicycle parking rack. The proposed design is only 35 18" high, which does not meet the minimum 36" requirement. The Bike rack design should be revised to meet City standards.

The bike rack detail has been modified to meet the City standards. Refer to sheet C11.

- ii. The applicant needs to provide a dimensional detail of the layout. Note that a 6 foot accessible route is required from the adjacent street to the bicycle parking facilities.

There is no sidewalk on either adjacent frontage, thus a connection is not proposed.

- iii. The site is required to provide a minimum of four (4) bicycle parking spaces based on a "fast food" land use, in accordance with Table 5.16.1 of the Zoning Ordinance. The applicant should indicate the number of bicycle parking spaces provided.

5 bike parking spaces indicated on the detail. Refer to sheet C11.

- iv. Any proposed bicycle parking shall be in accordance with Section 5.16 of the Zoning Ordinance.

Bike parking has been modified as requested.

- c. The applicant is proposing modifications to the existing parking bays throughout the site.

- i. The three parking bays north of the proposed drive-thru area have been modified to include one raised end island and two painted end islands at the south end of the parking bays.

1. The applicant should include dimensions (length and radii) of the raised end islands, designed in accordance with Section 5.3.12 of the Zoning Ordinance. Note that end islands should be three feet shorter than the adjacent parking space.

Raised island dimensions have been provided on sheet C04.

2. The 23' aisle width should be increased to the 24' in order to meet City standards

Aisle has been increased to 24'. Refer to sheet C04.

3. The painted end islands on the two outer parking bays block off the aisle, which is not in compliance with City standards. A 24' aisle should be provided along the south end of all three parking bays.

The landscape curb islands have been enlarged so the painted islands have been removed. The aisle is not proposed to continue through to limit vehicle conflicts at the drive-thru entry. Access to all parking spaces is maintained.

- ii. The parking bay to the west of the proposed dumpster locations includes an end island on the north end of the parking bay. The applicant should provide the dimensions of the end island which should be designed in accordance with Section 5.3.12 of the Zoning Ordinance. Note that end islands should be three feet shorter than the adjacent parking space.

Dimension of the raised islands have been provided on sheet C04. The raised islands are in compliance with the ordinance.

- iii. The applicant should provide a 24' access aisle between the end island and the drive-thru area to meet maneuvering lane requirements per Section 5.3.2 of the Zoning Ordinance.

1. It should be noted that, when no parking spaces are present adjacent to a maneuvering lane, the lane width may be reduced to 22 feet, face of curb to face of curb (if curbed)

#### 6. Sidewalk Requirements

unless the Planning Commission finds that the 24 foot width is warranted for the proposed use.

Aisle has been increased to 24'. Refer to sheet C04.

- a. The applicant is proposing new 5' sidewalk along the eastern side of the building and landscape areas.
- b. The applicant has provided an ADA-compliant ramp at the northern end of the easterly sidewalk.
- c. It is recommended that an ADA-compliant ramp be placed at the sidewalk connection on the west side of the building nearest to the loading zone to accommodate loading and unloading activities more effectively.

## SIGNING AND STRIPING

1. All on-site signing and pavement markings shall be in compliance with the Michigan Manual on Uniform Traffic Control Devices (MMUTCD).

- a. The applicant should provide the following notes.

- i. All roadside signs should be installed two feet from the face of the curb to the near edge of the sign.
- ii. Single signs with nominal dimensions of 12" x 18" or smaller in size shall be mounted on a galvanized 2 lb. U-channel post. Multiple signs and/or signs with nominal dimension greater than 12" x 18" shall be mounted on a galvanized 3 lb. or greater U-channel post as dictated by the weight of the proposed signs.
- iii. Traffic control signs shall use the Federal Highway Administration (FHWA) Standard Alphabet series.
- iv. Traffic control signs shall have High Intensity Prismatic (HIP) sheeting to meet FHWA retroreflectivity requirements.

All signage notes will be added to the FSP.

Memo

- b. The applicant should provide a signing quantities table and additional details (MMUTCD designation and proposed size) in future submittals.

Signing quantities will be provided on the FSP.

- c. The applicant should update the sign details on sheet C11 to reflect the items noted above in 1a.

Sign details will be updated on the FSP.

- d. The applicant could include "Do Not Enter" (R5-1) signs on either side of the drive-thru exit.

A 'Do Not Enter' sign will be provided on the FSP.

- 2. The applicant has provided the necessary proposed pavement marking details and notes.
  - a. The applicant has indicated proposed parking spaces to be yellow to match the existing striping.
  - b. The applicant should indicate that the accessible parking symbol on sheet C11 will be white.

No response required.

- c. The applicant should indicate which of the traffic flow arrows shown on sheet C04 are proposed pavement markings. Arrows should be hollow for the purposes of showing traffic flow, and solid if proposed to be pavement markings.
  - i. The applicant shall update the note associated with the pavement marking directional arrows detail on sheet C11 to state that all directional arrow pavement markings will be white, regardless of the pavement material.

Pavement marking note will be updated on the FSP.

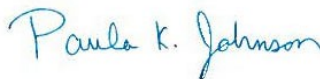
Should the City or applicant have questions regarding this review, they should contact AECOM for further clarification.

Sincerely,

**AECOM**



Maureen N. Peters, PE  
Senior Traffic/ITS Engineer



Paula K. Johnson, PE  
Senior Transportation Engineer



November 27, 2018

No Architectural response required.

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

Attn: Ms. Barb McBeth – Director of Community Development

**Re: FACADE ORDINANCE Preliminary & Final Site Plan**  
**Starbucks Expansion / Drive Thru, JSP18-0056**  
 Façade Region: 1, Zoning District: RC

Dear Ms. McBeth:

The following is the Façade Review for the above referenced project based on the drawings provided by Wah Yee Architects dated 10/30/18. This project is considered an addition as described in Section 5.15.7 of the Façade Ordinance. Materials in non-compliance, if any, are highlighted in bold.

	North	South	East	West	Ordinance Maximum (Minimum)
Brick (Existing)	70%	50%	50%	60%	100% (30% Minimum)
Cast Stone	3%	10%	2%	10%	50%
EIFS	22%	25%	25%	25%	25%
Cement Fiber Wood (Nichiha)	0%	10%	16%	0%	25%
Fabric Awning	0%	0%	2%	2%	10%
Metal Cornice	5%	5%	5%	3%	15%

**Recommendation** – Section 5.15.7 of the Façade Ordinance allows a continuation of existing materials on the addition provided certain conditions are met. In this case the proposed addition is consistent with Section 5.15.7. The detail on sheet P2.1 for the dumpster enclosure indicates “masonry screen wall to match existing building masonry”, in this case brick. This application is in full compliance with the Façade Ordinance, and therefore qualifies for administrative approval in accordance with Section 6.1.1.c.x. of the Zoning Ordinance, provided that all other requirements for administrative approval are met.



## Notes to the Applicant:

1. Roof Screening - Although it is not indicated on the drawings, the applicant has stated that all existing and proposed roof equipment will be screened by raised parapet walls. It is the applicant's responsibility to determine the required location and height of such parapets. It should be noted that roof top equipment visible from any vantage point either on-site or off-site will be required to be screened with additional screens constructed of materials compliant with the Façade Ordinance.

2. Inspections – The Façade Ordinance requires inspection(s) for all projects. Materials displayed on the approved sample board (in this case the adjacent existing material) will be compared to materials to be installed. It is the applicant's responsibility to request the inspection of each façade material at the appropriate time. Inspections may be requested using the Novi Building Department's Online Inspection Portal with the following link. Please click on "Click here to Request an Inspection" under "Contractors", then click "Façade".

<http://www.cityofnovi.org/Services/CommDev/OnlineInspectionPortal.asp>.

If you have any questions regarding this review, please do not hesitate to call.

Sincerely,  
DRN & Architects PC

A handwritten signature in black ink, appearing to read "Douglas R. Necci".

Douglas R. Necci, AIA



No response  
required.

November 7, 2018

TO: Barbara McBeth- City Planner  
Sri Ravali Komaragiri- Plan Review Center  
Lindsay Bell-Plan Review Center  
Hannah Smith-Planning Assistant

RE: Starbucks Expansion and Drive-Thru

**CITY COUNCIL**

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**Mayor Pro Tem**  
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Jeffery R. Johnson

**Assistant Chief of Police**  
Erick W. Zinser

**Assistant Chief of Police**  
Scott R. Baetens

**PSP# 18-0176**  
PSP# 18-0079

**Project Description:**

**Addition to the North end of the building 1416 S.Q.F.T. including a drive-thru.**

**Comments:**

**Meets Fire Department Standards**

**Recommendation:**

APPROVED

Sincerely,

Kevin S. Pierce-Fire Marshal  
City of Novi – Fire Dept.

cc: file

**Novi Public Safety Administration**  
45125 Ten Mile Road  
Novi, Michigan 48375  
248.348.7100  
248.347.0590 fax

cityofnovi.org

# LEGEND

	PROPERTY LINE		TRAFFIC FLOW ARROWS (DETAIL ON C11)
	PROPOSED CURB & GUTTER (REFER TO CITY STANDARD DETAILS)		PROPOSED SIGN (DETAIL ON C11)
	PROPOSED SIDEWALK (REFER TO CITY STANDARD DETAILS)		ACCESSIBLE PARKING SPACE (DETAIL ON C11)
	PROPOSED CONCRETE (DETAIL ON C11)		PROPOSED LIGHT POLE
	PROPOSED ASPHALT PAVEMENT (DETAIL ON C11)		EXISTING UTILITY POLE
	PROPOSED BUILDING EXPANSION		
	LOADING AREA		
	PAVEMENT MATCH LINE		

# NOTES

1. REFERENCE THE STANDARD NOTES SHEET FOR ADDITIONAL INFORMATION.
2. FOR ALL APPLICABLE CONSTRUCTION DETAILS REFERENCE THE STANDARD DETAILS SHEET(S) AND ANY MUNICIPAL/JURISDICTIONAL DETAILS ATTACHED TO THIS PLAN SET.
3. REFERENCE THE ALTA/ACSM LAND TITLE SURVEY FOR ADDITIONAL EXISTING FEATURES AND PROPERTY BOUNDARY INFORMATION.
4. ALL DIMENSIONS ARE TO EDGE OF BUILDING, FACE OF CURB, OR EDGE OF PAVEMENT, UNLESS OTHERWISE NOTED.
5. REFERENCE ARCHITECTURAL / FOUNDATION PLANS FOR BUILDING DIMENSIONS.
6. OUTDOOR SEATING SHALL BE PERMITTED BETWEEN MARCH 1ST AND NOVEMBER 30TH WITH ALL FURNITURE AND FIXTURES INCLUDING, BUT NOT LIMITED TO, TABLES, CHAIRS AND WASTE RECEPTACLES REMOVED FROM THE EXTERIOR PREMISES AFTER NOVEMBER 30TH. OUTDOOR SEATING SHALL NOT BE THE PRIMARY SEATING OF THE RESTAURANT.

# SITE DATA

## PARCEL SUMMARY

PARCEL ID#	ZONING
22-15-200-059	RC - REGIONAL CENTER

## BUILDING HEIGHT

EXISTING STARBUCKS	28'
EXPANSION STARBUCKS	27'

\*BUILDING HEIGHTS PROVIDED FOR QUICK REFERENCE. REFER TO ARCHITECTURAL PLANS FOR DETAIL.

## BUILDING AREA

EXISTING STARBUCKS	1,016 SF
EXPANSION STARBUCKS	1,396 SF
EXISTING JARED	5,700 SF
TOTAL	8,112 SF

LOT COVERAGE - 12.4%  
(BUILDING FOOTPRINT/TOTAL LOT SIZE x100 = (8,112/65,340)\*100 = 12.4%)

## PARKING DATA

PROPOSED	REQUIRED	SPACES REMOVED	FORMULA
65 SPACES	32 SPACES	6 SPACES	1 SPACE PER 250 SQ. FT GROSS LEASEABLE AREA.

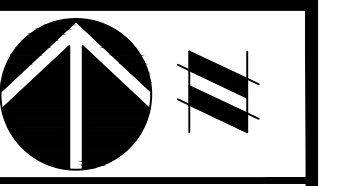
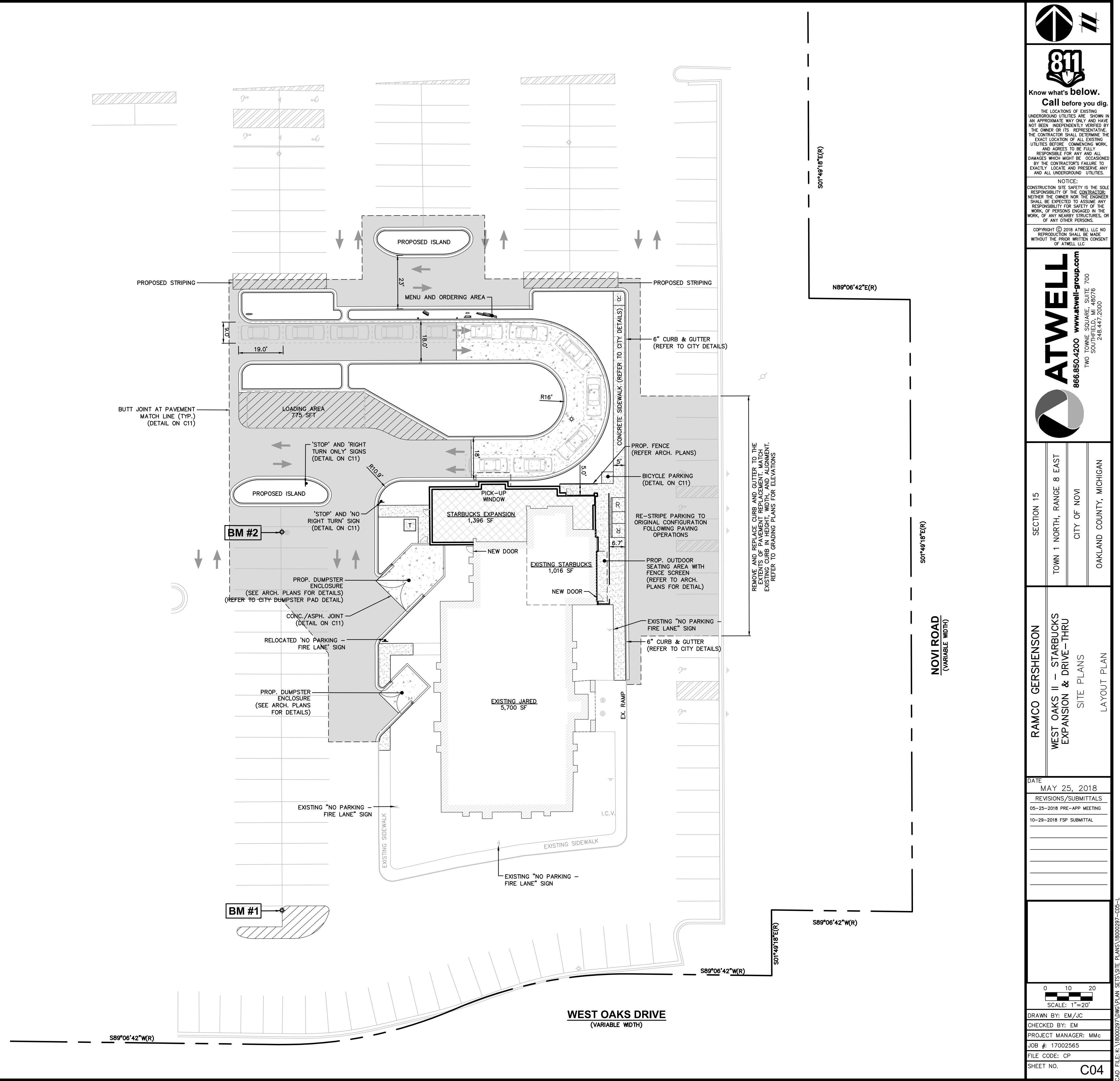
## LOADING DATA

STORE	PROPOSED	REQUIRED	FORMULA
STARBUCKS	775 SQ. FT.	660 SQ. FT.	10 SQ. FT/FOOT OF BUILDING FRONTAGE

## DRIVE-THRU STACKING

LOCATION	REQUIRED	PROPOSED
BETWEEN ORDER AND PICK-UP	4 SPACES	5 SPACES
ADVANCE OF ORDER	4 SPACES	5 SPACES
TOTAL STACKING SPACES	N/A	12 SPACES

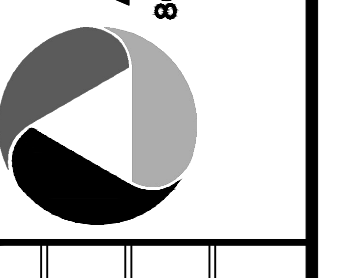
HOURS OF OPERATION: 5:30AM - 10:00PM



**Know what's below.**  
Call before you dig.  
THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK AND AGREE TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE: CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK OF PERSONS ENGAGED IN THE WORK OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

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SOUTHFIELD, MI 48076  
248.441.2608



SECTION 15
TOWN 1 NORTH, RANGE 8 EAST
CITY OF NOVI
OAKLAND COUNTY, MICHIGAN

RAMCO GERSHENSON
WEST OAKS II - STARBUCKS EXPANSION & DRIVE-THRU
SITE PLANS
LAYOUT PLAN

DATE	MAY 25, 2018
REVISIONS/SUBMITTALS	05-25-2018 PRE-APP MEETING
	10-29-2018 FSP SUBMITTAL

SCALE: 1"=20'
DRAWN BY: EM/JC
CHECKED BY: EM
PROJECT MANAGER: MMC
JOB #: 17002565
FILE CODE: CP
SHEET NO. C04

NOT FOR CONSTRUCTION