Transportation Analysis

Park Center
DRI #2501

City of Dunwoody, Georgia

Report Prepared:

June 2015

Prepared for:

KDC Real Estate Development & Investments

Prepared by:

Kimley-Horn and Associates, Inc.
2 Sun Court, Suite 450
Peachtree Corners, Georgia 30092
019977001

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EXECUTIVE SUMMARY

This report presents the analysis of the anticipated traffic impacts of the Park Center development located in the City of Dunwoody, Georgia. The proposed mixed-use development is anticipated for a 12.74 acre site located south of Hammond Drive and west of Perimeter Center Parkway. The proposed development will include a mix of office, retail, and restaurant space. The site will be served by seven (7) driveways: 2 along Hammond Drive, 3 along Perimeter Center Parkway (one driveway will be right-in only), and 2 along the proposed East-West Connector – a new road proposed between Peachtree Dunwoody Road and Perimeter Center Parkway south of and parallel to Hammond Drive. The proposed project will have a direct connection to the Dunwoody MARTA rail station via a proposed pedestrian bridge over Perimeter Center Parkway. The proposed bridge will provide a covered walkway from the southern end of the Dunwoody MARTA station platform through the property located on the 236-240 block of Perimeter Center Parkway on the east side of Perimeter Center Parkway across from the project site, which would connect across Perimeter Center Parkway and tie into the proposed project site pedestrian connections. The proposed design intends to additionally incorporate bus staging area for several existing and proposed new GRTA Regional Xpress bus service stops, which are intended to provide additional connectivity to and from the Dunwoody MARTA station and this service.

The project site is within the bounds of a Livable Centers Initiatives (LCI) study completed for the area. The *Perimeter at The Center - Future Focus - 2011 LCI Update, (March 2011)* is the ten-year study update for the original LCI study, *Perimeter Focus: Envisioning A New Atlanta Center (January 2002)*. As envisioned in the LCI plan for transit station areas, the project proposes to redevelop the existing single office building surrounded by surface parking into a high-density development with better roadway connectivity and pedestrian connections to create a pedestrian-scale, street grid and walkable environment appropriate for a Transit Village defined as a half-mile radius around MARTA stations. The project will include a new pedestrian connection to the Dunwoody MARTA Station via the proposed pedestrian bridge over Perimeter Center Parkway. Buildings on the site will be wrapped with street- and plaza-level retail and restaurant space to help serve as a gateway connecting the site and surrounding developments with the Dunwoody MARTA Station. With these modifications to the site, among others, the proposed redevelopment of the site for the Park Center project conforms to the policy and intent of the Dunwoody Comprehensive Plan and the Perimeter LCI.

According to GRTA's *Procedures and Principles for GRTA Development of Regional Impact Review*, the proposed DRI complies with the Expedited Review Criteria in ***Section 3-102, Part F – Livable Centers Initiative (LCI)***, which states:

> *…the proposed DRI is located within an area approved for inclusion within the LCI program by the Atlanta Regional Commission and is consistent with the policies, design elements, and overall standards established by the study and any subsequently funded Supplemental Study(s). The local government(s) in which the LCI is located has completed and adopted the initial LCI Study within their Comprehensive Plan. Additionally, the local government(s) must have shown efforts towards implementation of the adopted study, by such methods as, approval of conforming development/redevelopment plan, adopted ordinances and/or codes, and implementation of the LCI's Five (5) Year Plan.*

This development is located within and is consistent with the *Perimeter at The Center - Future Focus - 2011 LCI Update, (March 2011)*. Therefore, this study is being submitted under expedited review.

The proposed redevelopment project is expected to be completed by 2020, and this analysis will consider the full build-out of the proposed site in 2020. The proposed site consists of the following land uses and densities:

Office*:	1,650,000 square feet
Retail:	55,000 square feet
Restaurant:	27,000 square feet

** The site is currently being occupied by the Hammond Exchange Building, which is an 11-story building with 250,698 SF of office space and associated surface parking. The existing building will be demolished with this development.*

Capacity analyses were performed throughout the study network for the Existing 2015 conditions, the projected 2020 No-Build conditions, and the projected 2020 Build conditions with and without the proposed new roadway connection, the East-West Connector, between Peachtree Dunwoody Road and Perimeter Center Parkway.

- Existing 2015 conditions represent traffic volumes that were collected in March 2015 by performing AM and PM peak hour turning movement counts.

- Projected 2020 No-Build conditions represent the existing traffic volumes grown for five (5) years at 1.0% per year throughout the study network. Additionally, traffic anticipated for the following three (3) developments have been added into the projected 2020 No-Build conditions:
  - State Farm Phase I (under construction; DRI #1582 – 236 Perimeter Mixed-Use)
  - DRI #1432 – High Street (studied May 2007)
  - Palisades Apartments (Former DRI #1152; Traffic Impact Analysis updated in 2015)

- Projected 2020 Build conditions represent the projected 2020 No-Build conditions with all of the above No-Build traffic plus the addition of the project trips that are anticipated to be generated by the Park Center development. The projected 2020 Build conditions were developed with two (2) scenarios:
  - Scenario 1 – projected 2020 Build Scenario 1 *without* the proposed East-West Connector
  - Scenario 2 – projected 2020 Build Scenario 2 *with* the proposed East-West Connector

*Based on the **Existing 2015** conditions (present conditions; i.e. excludes both background traffic growth and the Park Center DRI project traffic), three (3) of nine (9) studied intersections within the study network currently operates at LOS E during an existing peak period (worse than the Level-of-Service standard LOS D), thus making the LOS standard for that peak period LOS E.*

- *Intersection 101 – Perimeter Center Parkway at Marriott driveway/ Future East-West Connector operates at LOS E during the PM peak hour existing conditions, therefore the LOS standard for that peak period becomes LOS E.*
- *Intersection 105 – Peachtree-Dunwoody Road at Hammond Drive operates at LOS E during the PM peak hour existing conditions, therefore the LOS standard for that peak period becomes LOS E.*
- *Intersection 107 – Hammond Drive at Ashford-Dunwoody Road operates at LOS E during the PM peak hour existing conditions, therefore the LOS standard for that peak period becomes LOS E.*

*Based on the **projected 2020 No-Build** conditions (includes background traffic growth plus other approved development traffic but excludes the Park Center DRI project traffic). The following recommended improvements were identified in order to obtain an acceptable level-of-service (LOS D or LOS E as applicable) for the 2020 No-Build conditions.*

- Intersection 101 – Perimeter Center Parkway at Marriott driveway/ Future East-West Connector – operates at LOS F during the PM Peak hour for the side street traffic:
  - No improvements were identified for Intersection 101 as a two-way stop-controlled intersection where it is not uncommon for the side street to experience delay. Additionally, this intersection is proposed to be signalized in future Build scenarios with anticipated benefits to LOS.

- Intersection 102 – Perimeter Center Parkway at Hammond Drive – operates at LOS F during the PM Peak hour:
  - Widen Hammond Drive from four (4) to six (6) through lanes.*
  - Add a second left-turn lane to each the northbound and westbound approaches, providing dual-left-turns for each approach.*

  * *Note: this improvement is consistent with the 2008 Hammond Drive Corridor Study.*

- Intersection 105 – Peachtree-Dunwoody Road at Hammond Drive – operates at LOS F during the AM Peak hour and the PM Peak hour:
  - Widen Hammond Drive from four (4) to six (6) through lanes.
  - Add an additional left-turn lane to each of the intersection approaches, providing dual-left-turns for each approach.

  * *Note: this improvement is consistent with the 2008 Hammond Drive Corridor Study.*

- Intersection 107 – Hammond Drive at Ashford Dunwoody Road – operates at LOS F during the PM Peak hour. The following modifications would result in an acceptable level-of-service (LOS E) for the intersection:
  - Add a northbound left-turn lane, resulting in an increase from dual left-turn lanes to triple left-turn lanes.
  - Change (restripe) the westbound through lane into a shared left-turn and through lane.
  - Change (restripe) the westbound right-turn lane into a shared through and right-turn lane.
  - Corridor retiming is recommended to optimize intersection function.

*Based on the projected **2020 Build Scenario 1** conditions (includes background traffic growth and other approved development traffic and includes project traffic associated with the Park Center DRI, but **excludes the Future East-West Connector**), combined with the above noted No-Build improvement, the following recommended improvements were identified in order to obtain an acceptable level-of-service (LOS D or LOS E as identified as applicable). The following improvements are in addition to the improvements noted for the projected 2020 No-Build Conditions:*

- Intersection 102 – Perimeter Center Parkway at Hammond Drive – operates at LOS F during the PM Peak hour:
  - Provide an exclusive right-turn lane on each the eastbound and westbound approaches, along Hammond Drive.
- Intersection 103 – Perimeter Center Parkway at Perimeter Center West – operates at LOS F during the PM Peak hour:
  - Signal-timing modification to include right-turn overlap phase for eastbound right-turning movement during northbound left-turning phase.
- Intersection 107 – Hammond Drive at Ashford Dunwoody Road – operates at LOS F during the PM Peak hour. The following modifications would result in an acceptable level-of-service (LOS E) for the intersection:
  - Add an eastbound right-turn lane, resulting in an increase from dual right-turn lanes to triple right-turn lanes.
  - Corridor retiming is recommended to optimize intersection function.

*Based on the projected **2020 Build Scenario 2** conditions (includes background traffic growth and other approved development traffic and includes project traffic associated with the Park Center DRI, and **includes the Future East-West Connector**), combined with the above noted No-Build improvement, similar to recommended improvements in 2020 Build Scenario 1, the following recommended improvements were identified in order to obtain an acceptable level-of-service (LOS D or LOS E as identified from Existing 2015 conditions). The following improvements are in addition to the improvements noted for the projected 2020 No-Build Conditions:*

- Intersection 103 – Perimeter Center Parkway at Perimeter Center West – operates at LOS F during the PM Peak hour:
  - Signal-timing modification to include right-turn overlap phase for eastbound right-turning movement during northbound left-turning phase.
- Intersection 107 – Hammond Drive at Ashford Dunwoody Road – operates at LOS F during the PM Peak hour. The following modifications would result in an acceptable level-of-service (LOS E) for the intersection:
  - Add an eastbound right-turn lane, resulting in an increase from dual right-turn lanes to triple right-turn lanes.
  - Corridor retiming is recommended to optimize intersection function.

1.0 PROJECT DESCRIPTION

1.1 Introduction

This report presents the analysis of the anticipated traffic impacts of the Park Center DRI development located near the Dunwoody MARTA rail station in the City of Dunwoody, Georgia. The approximate 12.74-acre site is bounded to the north by Hammond Drive, to the east by Perimeter Center Parkway, and to the west by the City of Dunwoody and City of Sandy Springs city line boundaries. The project is a Development of Regional Impact (DRI) and is subject to Georgia Regional Transportation Authority (GRTA) and Atlanta Regional Commission (ARC) review because the mixed-use project will exceed 600,000 square feet (for projects located in Regional Centers/ Regional Employment Corridors as designated by ARC's Unified Growth Policy Map). The trigger for the DRI is the proposed rezoning from the O-I (Office Institutional) zoning classification, to the PD (Planned Development) zoning classification, which was submitted in May 2015.

The project development lies entirely within the bounds of a Livable Centers Initiative (LCI) study that has been completed for the area. The *Perimeter at The Center - Future Focus - 2011 LCI Update, (March 2011)* is the ten-year study update for the original LCI study, *Perimeter Focus: Envisioning A New Atlanta Center (January 2002)*. As envisioned in the LCI plan for transit station areas, the project proposes to redevelop the existing single office building surrounded by surface parking into a high-density development with better roadway connectivity and pedestrian connections to create a pedestrian-scale, street grid and walkable environment appropriate for a Transit Village defined as a half-mile radius around MARTA stations. The project will include a new pedestrian connection to the Dunwoody MARTA Station via the proposed pedestrian bridge over Perimeter Center Parkway. Buildings on the site will be wrapped with street- and plaza-level retail and restaurant space to help serve as a gateway connecting the site and surrounding developments with the Dunwoody MARTA Station. With these modifications to the site, among others, the proposed redevelopment of the site for the Park Center project conforms to the policy and intent of the Dunwoody Comprehensive Plan and the Perimeter LCI.

According to GRTA's *Procedures and Principles for GRTA Development of Regional Impact Review*, the proposed DRI project complies with the Expedited Review Criteria in ***Section 3-102, Part F – Livable Centers Initiative (LCI)***, which states:

> *…the proposed DRI is located within an area approved for inclusion within the LCI program by the Atlanta Regional Commission and is consistent with the policies, design elements, and overall standards established by the study and any subsequently funded Supplemental Study(s). The local government(s) in which the LCI is located has completed and adopted the initial LCI Study within their Comprehensive Plan. Additionally, the local government(s) must have shown efforts towards implementation of the adopted study, by such methods as, approval of conforming development/redevelopment plan, adopted ordinances and/or codes, and implementation of the LCI's Five (5) Year Plan.*

This development is located within and is consistent with the *Perimeter at The Center - Future Focus - 2011 LCI Update, (March 2011)*. Therefore, this study is being submitted under expedited review.

Figure 1 is a location map of the Park Center DRI project, and Figure 2 provides aerial photographs of the site and surrounding properties. Land use maps from DeKalb County Zoning, DeKalb County Existing

and Future Land Use, and ARC's *PLAN 2040 Unified Growth Policy Map* (UGPM) are included in Appendix A. Some site photos taken in June 2015 are included in Appendix E.

The proposed project is expected to be completed by 2020, and this analysis will consider the full build-out of the proposed site in 2020 both with and without the proposed new roadway, the East-West Connector. A summary of the proposed new land-uses and densities can be found below in Table 1.

Table 1: Proposed Land Uses	
Office*	1,650,000 square feet
Retail	55,000 square feet
Restaurant	27,000 square feet

** The site is currently being occupied by the Hammond Exchange Building, which is an 11-story building with 250,698 SF of office space and associated surface parking. The existing building will be demolished with this development.*

The Hammond Exchange Building, which exists today on the proposed development site, will be demolished and replaced by the proposed development. The existing 250,698 SF of office space contributes to existing vehicle movements and will be counted and reported in the Existing 2015 Conditions and the Projected 2020 No-Build Conditions, but have been deducted from the Projected Build 2020 Conditions due to it being demolished because of the overlap of existing and future proposed uses, and per the GRTA Letter of Understanding (LOU).

1.2 Site Plan Review

The proposed Park Center DRI development is on an approximately 12.74-acre site and is bounded to the north by Hammond Drive, to the east by Perimeter Center Parkway, and to the west by the City of Dunwoody and City of Sandy Springs city line boundaries and is near the Dunwoody MARTA rail station. The proposed project will include high-density mixed-use development containing office and retail space with ample pedestrian and bicycle circulation opportunity as envisioned in the *Perimeter at The Center - Future Focus - 2011 LCI Update* and is consistent with local zoning included in the DeKalb County Existing and Future Land Use and Zoning maps.

The project will be a mixed-use development composed of three multi-story office buildings with approximately 1,650,000 square feet of office space. All three buildings will be wrapped with street-level retail and restaurant, which will total approximately 55,000 square feet of retail and 27,000 square feet of restaurant, which will not be exclusive to the adjoining office space.

A central structured parking facility will connect under all three buildings, plaza space, and the boulevard. A unique access point for the parking deck will be the vehicular right-turn-in only tunnel that is currently under construction as part of the development on the east side of Perimeter Center Parkway. This southbound right-turn-in only tunnel will connect the underground parking deck levels of both the proposed development as well as the State Farm Phase I development currently under construction across Perimeter Center Parkway.

The proposed development will include a proposed central boulevard internal to the site that will provide greenspace with pedestrian paths along each side of the boulevard. Both the internal boulevard and site driveways located along Hammond Drive, Perimeter Center Parkway, and the proposed East-West Connector will provide vehicular access into the central parking facility. Additional on-street parking

spaces are proposed along the internal site boulevard, fronting the proposed buildings. Pedestrian paths throughout the site will provide pedestrian access from the central boulevard and all three buildings to Hammond Drive, Perimeter Center Parkway, and the proposed East-West Connector (new road). Sidewalks will wrap the entire block along Hammond Drive, Perimeter Center Parkway, and the proposed East-West Connector.

A unique feature of the proposed project is the proposed pedestrian bridge, which will provide a direct connection to the Dunwoody MARTA rail station via a pedestrian bridge over Perimeter Center Parkway. The proposed bridge will provide a covered walkway from the southern end of the Dunwoody MARTA station platform, through the property located on the 236-240 block of Perimeter Center Parkway on the east side of Perimeter Center Parkway, and over to the pedestrian path system of the proposed development.

Figure 3 is a small-scale copy of the site plan. A full-size site plan consistent with GRTA's Site Plan Guidelines is also included in this Review Package in Appendix G.

Figure 1: Site Location – City of Dunwoody, GA

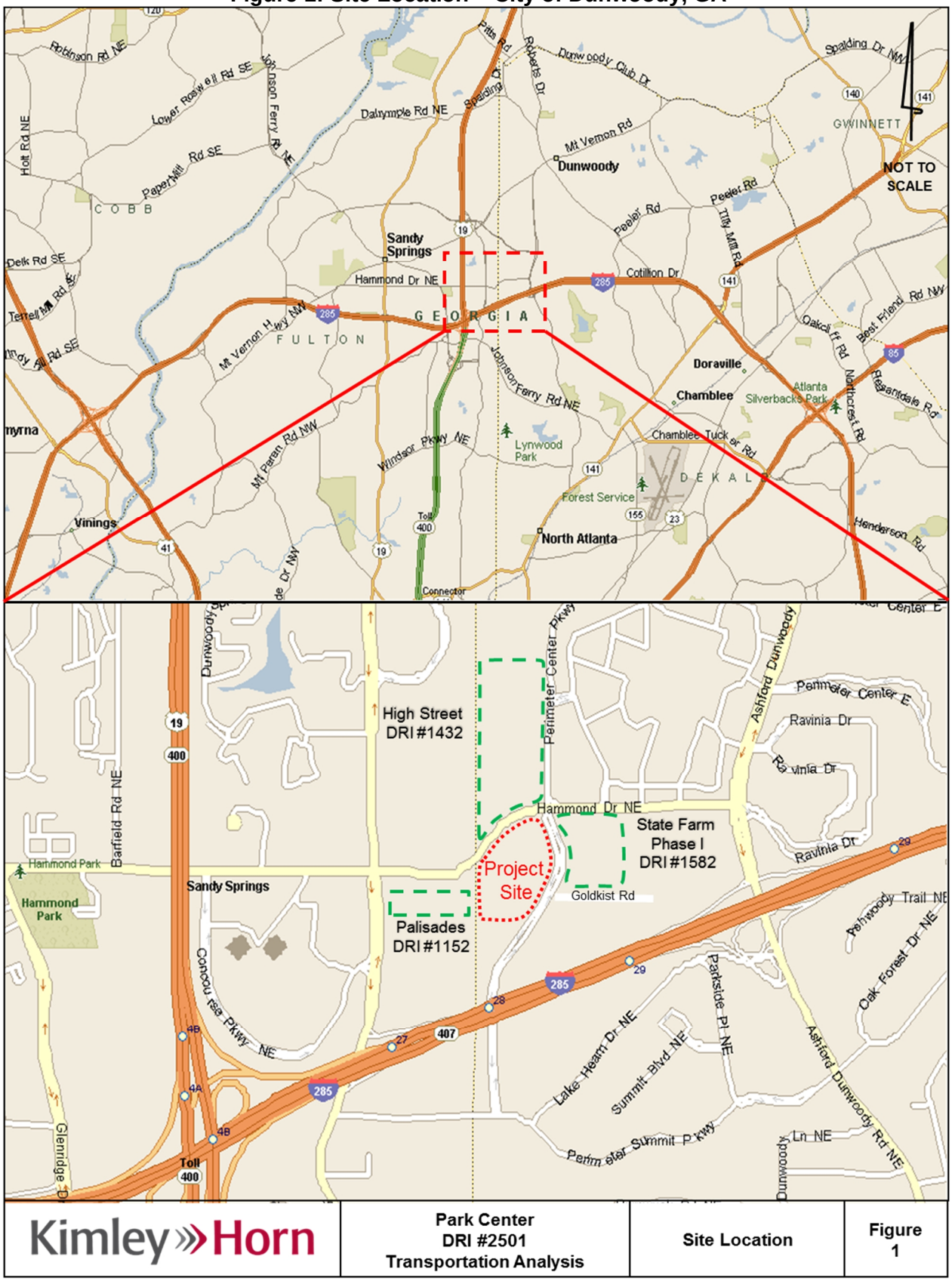
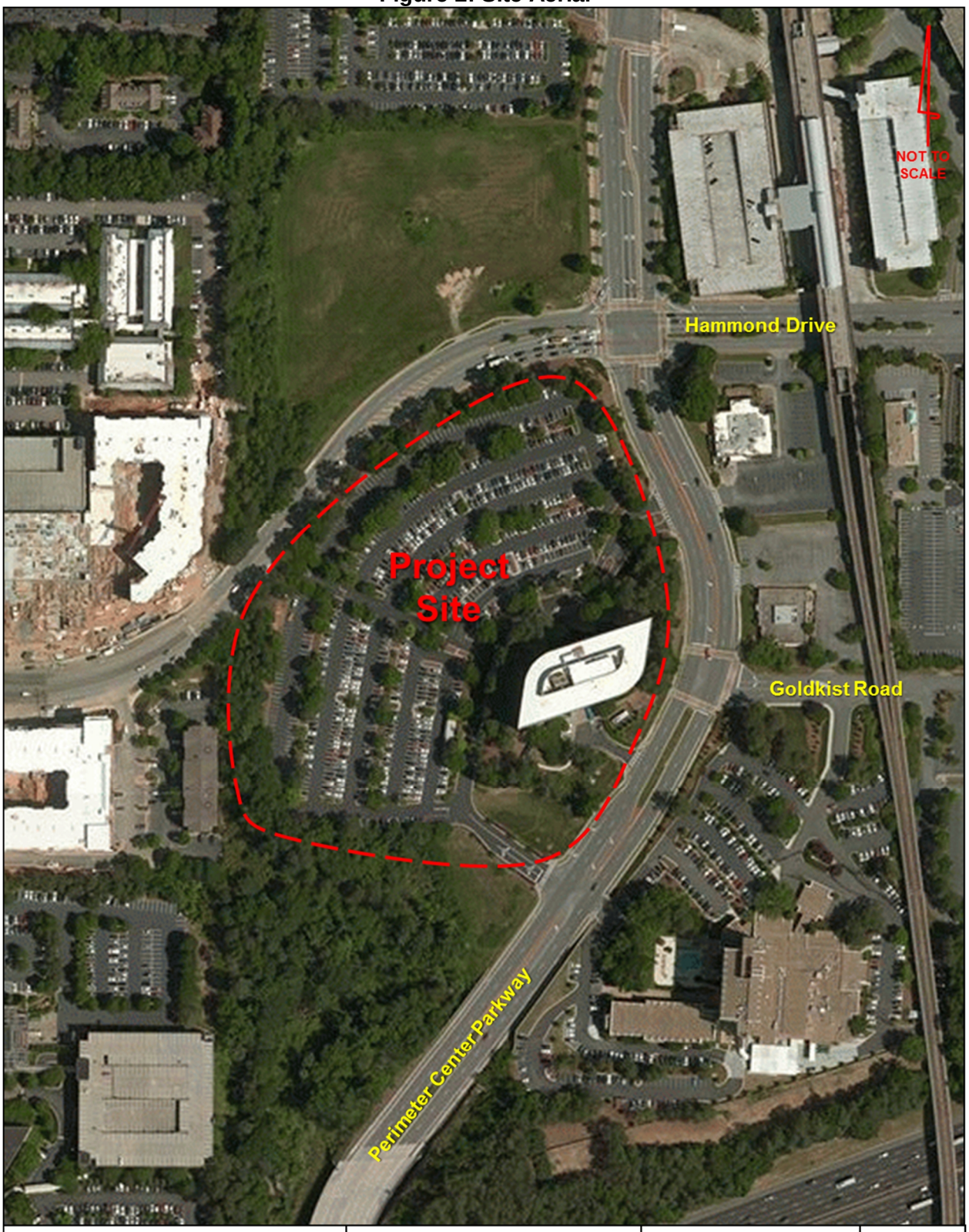
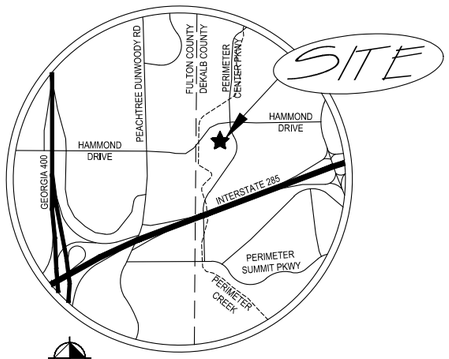


Figure 2: Site Aerial



Kimley»Horn	Park Center DRI #2501 Transportation Analysis	Site Aerial	Figure 2

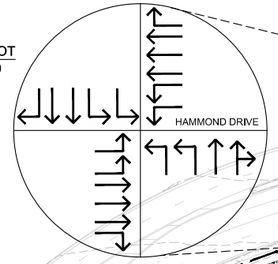
Figure 3: Small-Scale Site Plan



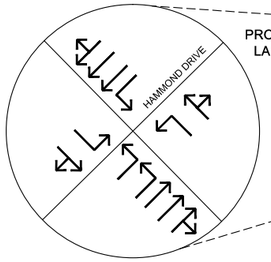
VICINITY MAP

N.T.S.

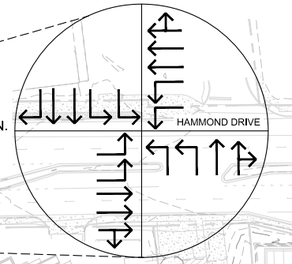
PROJECTED LANEAGE IF EAST-WEST CONN. IS NOT BUILT ("SCENARIO 1")



PROJECTED LANEAGE



PROJECTED LANEAGE IF EAST-WEST CONN. IS BUILT ("SCENARIO 2")



N/F
WINDSOR AT CONVERGENCE
TAX I.D. 18 349 04 022
ZONING: OCR
EXISTING USE: VACANT COMMERCIAL LAND

HAMMOND DRIVE
(APPARENT VARIABLE WIDTH R/W)

P7 SERVICE ONLY DRIVEWAY

EXISTING SIGNALIZED INTERSECTION (102) HAMMOND AT PERIMETER CENTER

PROPOSED MARTA HUB WITH ACCESS TO PEDESTRIAN BRIDGE CONNECTING TO PROPOSED DEVELOPMENT

P2 DRIVEWAY ENTRANCE (RIGHT-IN ONLY)

BUILDING A
550,000 SF OFFICE*
9,000 SF RETAIL*
18,500 SF RESTURANT*
35 STORIES (MAX.) *
*APPROXIMATE

P3 DRIVEWAY ENTRANCE/ INTERNAL BLVD, (RIGHT-IN RIGHT-OUT ONLY)

PROPOSED SIGNAL

P1 DRIVEWAY ENTRANCE

PROPOSED OVERHEAD PEDESTRIAN BRIDGE WITH CONNECTION TO MARTA PLATFORM

INTERNAL SITE BOULEVARD

BUILDING B
550,000 SF OFFICE*
9,000 SF RETAIL*
18,500 SF RESTURANT*
35 STORIES (MAX.) *
*APPROXIMATE

BUILDING C
550,000 SF OFFICE*
9,000 SF RETAIL*
18,000 SF RESTURANT*
35 STORIES (MAX.) *
*APPROXIMATE

LAND LOT 348
LAND LOT 329

GOLD KIST ROAD
(VARIABLE WIDTH R/W)
DB. 16716 PG. 416

EXISTING SIGNAL

P4 DRIVEWAY ENTRANCE

CITY OF SANDY SPRINGS
CITY OF DUNWOODY

N/F
MOODY NATIONAL PT STH LLC.
TAX ID: 17 0017 LL 1202
ZONING: OIC
EXISTING USE: MOTEL LOW RISE

N/F
HOST ATLANTA PERIMETER GROUND
TAX ID: 18 329 04 006
ZONING: OI
EXISTING USE: HOTEL FULL SERVICE

P5 DRIVEWAY/ ENTRANCE/ INTERNAL BLVD.

75' STREAM BUFFER
25' STREAM BUFFER

EXISTING TOP OF BANK OF PERIMETER CREEK

SERVICE DRIVEWAY

PROPOSED BIKE LANE

PROPOSED FUTURE P6 DRIVEWAY ENTRANCE

FULTON COUNTY
DEKALB COUNTY

N/F
CITY OF DUNWOODY
TAX ID: 18 329 04 010
ZONING: X-UNKNOWN
EXISTING USE: VACANT EXEMPT LAND

PROPOSED FUTURE EAST-WEST CONNECTOR

PROPOSED SIGNALIZED INTERSECTION (101) PERIMETER CENTER PKWY AT PROPOSED FUTURE EAST-WEST CONNECTOR

PERIMETER CENTER PARKWAY
(PUBLIC VARIABLE RIGHT OF WAY)
GDOT PROJECT#HPP-0000-00(949)
DB. 16716 PAGE 416

PROPOSED CONDITIONS LEGEND

- PROPERTY LINE
- APPROXIMATE LOCATION OF FUTURE PROPERTY LINE AFTER ROW DEDICATIONS
- STANDARD DUTY CONCRETE
- PROPOSED SIDEWALK
- PROPOSED BUILDING FOOTPRINT
- PROPOSED PARKING STRUCTURE FOOTPRINT
- PROPOSED SITE WALL

LOCATION MAP:

CONTACTS

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2 SUN COURT, SUITE 450
PEACHTREE CORNERS, GEORGIA 30092
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PHONE: (404) 201-6157

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COOPER CARY
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817 WEST PEACHTREE ST. NW, SUITE 601
ATLANTA, GEORGIA 30308
CONTACT: LAWSON FANNEY, P.E.
PHONE: (404) 419-8700

DEVELOPMENT STATISTICS SUMMARY CHART

OVERALL SITE AREA	12.74 ACRES
CURRENT ZONING	OI
PROPOSED ZONING	PD
TAX PARCEL	18 329 04 003
CURRENT ADDRESS	1111 HAMMOND DRIVE
OWNER	ATLANTA OFFICE INVESTMENTS LLC
PROPOSED DEVELOPMENT	
PEDESTRIAN AMENITIES	1.89 ACRES (14.8%)
BUILDING FOOTPRINT	5.18 ACRES (40.7%)
APPROX. TOTAL BUILDING AREA	1.65 MILLION SQFT.
TRANSPORTATION IMPROVEMENTS	1.93 ACRES (15.1%)
GREEN SPACE AREA	3.74 ACRES (29.4%)
PROPOSED ZONING	PD
APPROX. BUILDING HEIGHT	18 STORIES
STRUCTURED PARKING	8 STORIES ABOVE GRADE 4 STORIES BELOW GRADE
TOTAL NUMBER OF STORIES	NOT TO EXCEED 35 STORIES
FLOOR AREA RATIO	3.40
PARKING STATISTICS	
REQUIRED PARKING SPACES (MIN)	5846 SPACES
TOTAL SPACES PROVIDED	NOT MORE THAN 7,000 SPACES
BUILDING SETBACKS	
HAMMOND DRIVE	2 FT
PERIMETER CENTER PKWY	0 FT
GOLDKIST ROAD	0 FT

BUILDING USES
EXISTING 10 STORY GLASS AND CONCRETE BUILDING OFFICE BUILDING. OFFICE BUILDING - HIGH RISE-5 STORY & UP

PROPOSED OFFICE SPACE IN THREE MULTI-STORY BUILDINGS, WHICH ALSO INCLUDE RETAIL AND RESTAURANT SPACE. STRUCTURED PARKING AND SERVICE AREAS,STREETSCAPE, LANDSCAPE, GREENSPACE, AND PEDESTRIAN IMPROVEMENTS ARE ALSO INCLUDED.

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

SCALE IN FEET
60 30 0 60 120
1" = 60'

No.	ISSUANCES	DATE

Kimley»Horn

10 ROSWELL STREET, SUITE 210
ALPHARETTA, GEORGIA 30009
PHONE (770) 619-4280
WWW.KIMLEY-HORN.COM

PRELIMINARY NOT FOR CONSTRUCTION

SCALE: 1" = 60'
DRAWN BY: DMZ
DESIGNED BY: JMH
CHECKED BY: LHF

CLIENT:
KDC
Real Estate Development & Investments
8115 PRESTON ROAD, SUITE 700
DALLAS, TX 75225
PHONE: (214) 696-1700 FAX: (214) 373-3108

PROJECT: PARK CENTER DRI #2501
236 & 240 PERIMETER CENTER PARKWAY

TITLE: DRI SITE PLAN

DATE 06/15/15
PROJECT NO. 019977001
SHEET NUMBER 14

1.3 Site Access

The existing office building that is located on the proposed Park Center development site, has four (4) driveways along Hammond Drive and Perimeter Center Parkway. A single driveway on Hammond Drive currently operates as a stop-controlled driveway. Three (3) driveways exist on Perimeter Center Parkway with two (2) serving general purpose office traffic, and one (1) designated for service vehicles. The southernmost existing site driveway, is proposed to become a new road, which will serve two new site driveways. This road is proposed to become the Future East-West Connector, which will extend to Peachtree Dunwoody Road in the City of Sandy Springs and provide a new roadway connection between Perimeter Center Parkway and Peachtree Dunwoody Road.

At the time that this traffic study commenced, one of the three (1 of 3) driveways along Perimeter Center Parkway was closed due to the construction of the tunnel that is being built under Perimeter Center Parkway as a southbound right-in slip lane. The tunnel is being constructed as part of the State Farm Phase I project on the southeast corner of Hammond Drive and Perimeter Center Parkway. However, this tunnel will also serve the proposed Park Center development and will provide access to the underground levels of its parking facility.

The Access Analysis study network as discussed in the Pre-Review meeting with GRTA, ARC, GDOT, MARTA, and City of Dunwoody staff on May 1, 2015 will include a total of fourteen (14) intersections which includes six (6) general purpose site driveways and one (1) service driveway along Hammond Drive, Perimeter Center Parkway and the proposed East-West Connector. Figure 4 shows the approximate locations and spacing between driveways. The Access Analysis study network includes:

Driveways:

- Hammond Drive at Site Driveway P1/ High Street Driveway 1 (proposed new signal)
  - Exists today as a driveway for the Hammond Exchange Building, This driveway is proposed to be relocated approximately 80 feet west of its current location.
- Perimeter Center Parkway at Site Driveway P2 (proposed right-in-only/ tunnel under construction)
  - Is currently under construction as part of the State Farm Phase I development.
- Perimeter Center Parkway at Site Driveway P3 (proposed right-in-right-out to internal boulevard)
  - Was an existing Hammond Exchange Building driveway, but is under within immediate proximity of the current Driveway P2/ State Farm Phase I tunnel construction.
- Perimeter Center Parkway at Site Driveway P4/ Goldkist Road (existing signal)
  - The existing Service-Only driveway for the Hammond Exchange Building is proposed to be relocated approximately 180 feet north of its current location to intersect with the existing Goldkist Road signal. For the proposed Park Center Development this driveway will function as a full-movement site driveway for all traffic.
- Future East-West Connector at Site Driveway P5 (proposed full-movement two-way stop-control, includes service driveway access)
  - Proposed new three-legged intersection along the East-West Connector.
- Future East-West Connector at Site Driveway P6 (proposed full-movement two-way stop-control)
  - Proposed new three-legged intersection along the East-West Connector.
- Site Service-Only Driveway P7 on Hammond Drive (proposed right-in-right-out, west of Perimeter Center Parkway)
  - Proposed new right-in-right out Service-Only intersection along Hammond Drive.

Intersections:

- Perimeter Center Parkway at Marriott driveway/ Future East-West Connector road (proposed new signal)
    - Exists today as a full-movement stop-controlled driveway for the Hammond Exchange Building. This curb cut will remain in approximately the same location, but will operate as a street that serves two (2) proposed driveways for the Park Center development.
- Perimeter Center Parkway at Hammond Drive (existing signal)
- Perimeter Center Parkway at Perimeter Center West (existing signal)
- Peachtree-Dunwoody at Palisades Driveway B/ Future East-West Connector (right-in-right-out)
- Peachtree-Dunwoody Road at Hammond Drive (existing signal)
- Hammond Drive at Hammond Center/ Palisades Driveway C (existing signal, newly installed)
- Hammond Drive at Ashford Dunwoody Road (existing signal)

The sections below provide some additional details about the proposed operation and configuration of new intersections that will be located at site driveways. Additional information about modifications to existing intersections is also included to account for modifications to enhance site driveway access or access to the Future East-West Connector.

Site Driveways

Site Driveway P1 is proposed to be a full-movement signalized intersection at the location on Hammond Drive where High Street DRI #1432 Driveway 1 (southbound approach) and Driveway P1 for the proposed development (northbound approach) are anticipated to intersect. Driveway P1 is currently located approximately 80 feet west of its proposed future location with the Park Center development.

Site Driveway P2 proposed directly south of Hammond Drive on Perimeter Center Parkway is currently under construction as part of the adjacent State Farm Phase I development on the east side of Perimeter Center Parkway. This right-in only driveway will provide below-grade access to both the parking decks associated with State Farm Phase I, as well as the central parking facility proposed as part of the Park Center development.

Site Driveways P3 and P5 are connected by an internal site boulevard. Driveway P3 existed for the Hammond Exchange Building until recently when construction began for the proposed Driveway P2 tunnel, which has obstructed its use. The future P3 driveway will be located on Perimeter Center Parkway in approximately the same location and is proposed to be right-in-right-out only. Driveway P5 will be located on the Future East-West Connector and is proposed to be a full-movement two-way stop-controlled intersection with the Future East-West Connector proposed to be the free-flow roadway. Driveway P5 includes an above grade entrance and exit for general use, and a below-grade entrance and exit for service vehicles only. Additional on-street parking is proposed along the internal site boulevard, fronting the proposed development.

Site Driveway P4 exists today as a Service-Only driveway. For the proposed Park Center development, Driveway P4 will be relocated approximately 180 feet north of its current location and will align with the existing three-legged signalized intersection of Perimeter Center Parkway at Goldkist Road. This full-movement signalized intersection will connect directly into the central parking facility.

Site Driveway P6 will be a full-movement two-way stop-controlled intersection connecting directly into the central parking facility. It will be located on the Future East-West Connector, with the Future East-West Connector proposed to be the free-flow roadway.

Site Driveway P7 is a proposed Service-Only driveway on Hammond Drive that will be restricted to right-in-right-out only traffic. A second service driveway will be located on the Future East-West Connector and will be part of the Driveway P5 curb cut.

Study Intersections

A full-movement signalized intersection is proposed for the location on Perimeter Center Parkway where the Future East-West Connector (eastbound approach) would tie in with the Marriott surface parking facility driveway (westbound approach) on Perimeter Center Parkway. This intersection will act similar to a site driveway for the proposed development (Build Scenario 1), and is proposed to carry traffic between Peachtree Dunwoody Road and Perimeter Center Parkway with the completion of the new roadway in the City of Sandy Springs (Build Scenario 2). Discussions pertaining to the proposed East-West Connector as a new road are ongoing between the parties involved with the proposed Park Center development, the Palisades development, and the City of Sandy Springs, the City of Dunwoody, and GDOT.

The Future East-West Connector (westbound approach) will connect with Peachtree Dunwoody Road at the existing Palisades Driveway B between Concourse Parkway and Hammond Drive. This intersection is proposed to be a right-in-right-out intersection with stop-control for the Future East-West Connector while Peachtree Dunwoody Road will remain as a free-flow roadway at this intersection.

Internal Circulation

The proposed project will include an internal site boulevard accessible by Driveway P3 on Perimeter Center Parkway and by Driveway P5 on the Future East-West Connector. Driveways along Hammond Drive, Perimeter Center Parkway, the Future East-West Connector, and the internal boulevard will provide convenient points of access to all parking located in the central parking facility and proposed on-street parking spaces located along the internal boulevard.

The right-in-only tunnel Driveway P2 will provide vehicular access between the Park Center development and the State Farm Phase I development, with opportunity to travel between the two developments underground without impacting the flow of traffic along Perimeter Center Parkway.

The internal boulevard is intended to provide greenspace and pedestrian-oriented streetscaping elements along with street and plaza-level retail and restaurant space designed to pedestrian scale.

The pedestrian bridge will connect the Park Center pedestrian network from the north side of the internal boulevard to the Dunwoody MARTA Station. The bridge will provide a covered walkway from this location, over Perimeter Center Parkway, through the State Farm Phase I building, to an extended MARTA platform. Its entry point along the Park Center development will be located near the Driveway P3 entrance.

In addition to vehicular access, pedestrian access points on Hammond Drive, Perimeter Center Parkway and the Future East-West Connector include sidewalks and non-vehicular pedestrian entrances through proposed greenspace and plazas that allow ample opportunity for pedestrian access to the site.

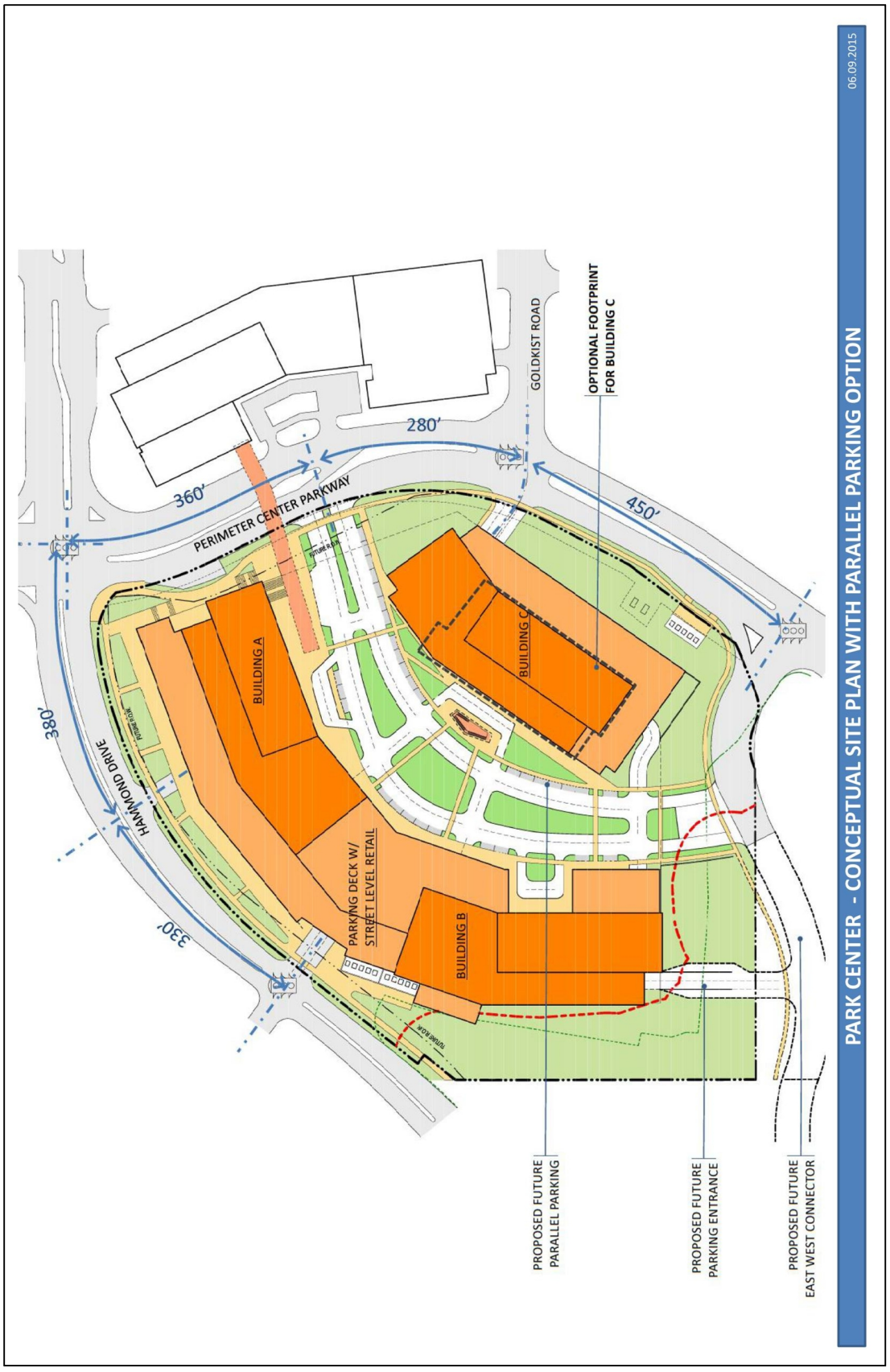
Parking

Adequate parking will be provided for the office, retail, and restaurant uses in the proposed Park Center development. Parking will be provided in a central structured parking facility extending several levels below grade and under the three proposed buildings on the site. On-street parking is proposed along the internal site boulevard adjacent to the proposed buildings. Development-required minimum parking spaces are noted below.

Minimum Parking Required:	*5,846*
Total spaces provided:	*Not more than 7,000*

An important feature of the proposed Park Center development is for all parking spaces to be accessible by all proposed site driveways.

Figure 4: Site Driveway Spacing



1.4 Bicycle and Pedestrian Facilities

The proposed development has placed an emphasis on creating new pedestrian connectivity throughout the site adjacent to the proposed office, retail, and restaurant space in each of the site's proposed three buildings. The internal boulevard will include sidewalks and crosswalks, while existing block faces on Hammond Drive and Perimeter Center Parkway will incorporate sidewalks. The new block face on the Future East-West Connector also include sidewalks.

The pedestrian bridge will connect the Park Center pedestrian network from the north side of the internal boulevard to the Dunwoody MARTA Station. The bridge will provide a covered walkway from this location, over Perimeter Center Parkway, through the State Farm Phase I building, to an extended MARTA platform. Its entry point along the Park Center development will be located near the Driveway P3 entrance.

Bicycle racks will be installed in various locations on the property with a minimum of 60 spaces provided for bicycle parking. Bicycle lanes are proposed along the East-West Connector.

Figure 5 shows the proposed pedestrian circulation plan for the Park Center development.

1.5 Transit Facilities

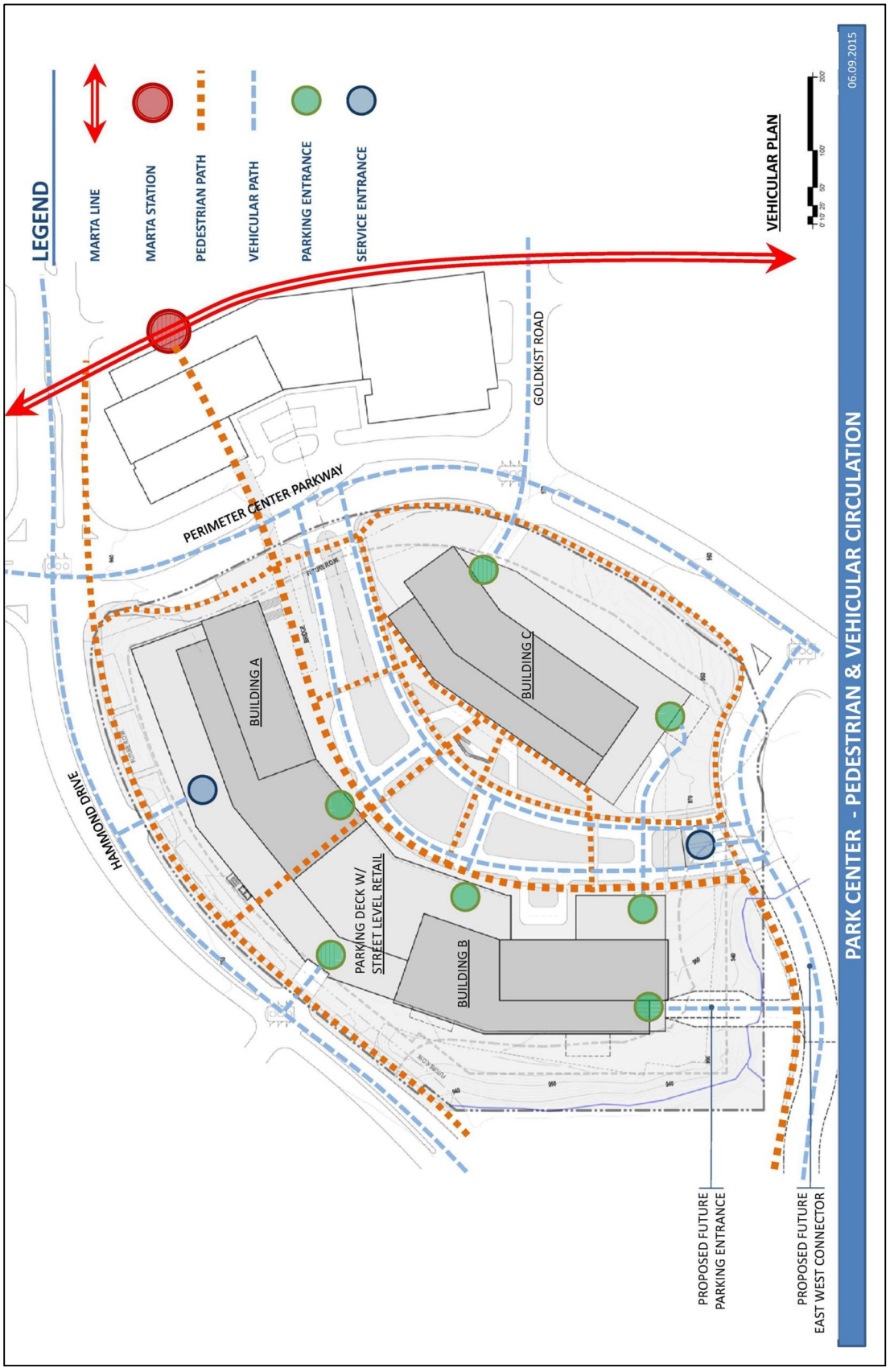
The proposed project intends to connect directly with the existing Dunwoody MARTA Rail Station via a proposed pedestrian bridge over Perimeter Center Parkway. The pedestrian bridge will connect to the site on the main boulevard and will connect with a network of pedestrian paths that will assist pedestrian circulation to and from the site as well as to and from Hammond Drive, Perimeter Center Parkway, and the proposed East-West Connector. Once across Perimeter Center Parkway, the covered pedestrian bridge is designed to connect to the State Farm Phase I development through the building (currently under construction), and to an extended pedestrian platform that will be part of the existing Dunwoody MARTA station.

MARTA Bus service along Hammond Drive includes three MARTA bus routes numbers 5, 87 and 150 with service that extends to the Lindbergh MARTA station as well as destinations in the City of Sandy Springs and the City of Dunwoody.

Coordination with GRTA is ongoing to establish GRTA Regional Xpress bus service loading location(s) at the proposed project site. GRTA Xpress patrons will be able to access the Dunwoody MARTA Station directly via the proposed pedestrian bridge.

MARTA route maps for the noted buses and rail system are included in Appendix B.

Figure 5: Pedestrian and Vehicle Circulation Exhibit



2.0 TRAFFIC ANALYSES, METHODOLOGY AND ASSUMPTIONS

2.1 Growth Rate

Background traffic is defined as expected traffic on the roadway network in future year(s) absent the construction and opening of the proposed project. Historical traffic count data from GDOT historical traffic volumes, population growth rates of DeKalb County from the 2010 U.S. Census, and per GRTA and ARC via the Letter of Understanding (LOU), anticipates a background growth rate of 1% per year for 5 years (2020 build-out year). The growth rate spreadsheet in Appendix C provides the average annual daily traffic (AADT) volumes for the past six years as provided by GDOT.

2.2 Traffic Data Collection

Weekday peak hour turning movement counts for this study included counts from the Perimeter Traffic Operations Program, which were collected in September 2014. Two intersections on Hammond Drive were counted in January 2015 after the opening of the new traffic signal on Hammond Drive between Peachtree Dunwoody Road and Perimeter Center Parkway. Supplemental counts were taken at existing site driveways that were open to traffic in March 2015 (one was closed for construction). Counts were taken during AM and PM peak periods. The morning and afternoon peak hours are shown in Table 2.

Table 2: Peak Hour Summary

Intersection	AM Peak Hour	PM Peak Hour	Data Source
1. Hammond Drive at Site Driveway P1/ High Street Driveway 1	7:00-8:00	4:00-5:00	Counts 3/26/2015
3. Perimeter Center Parkway at Site Driveway P3 (right-in-right-out to internal boulevard)	7:45-8:45	4:30-5:30	Counts 3/26/2015
4. Perimeter Center Parkway at Site Driveway P4/ Goldkist Road (signalized intersection)	8:00-9:00	4:30-5:30	Counts 9/25/2014
101. Perimeter Center Parkway at Marriott driveway/ Future East-West Connector (proposed new signal)	7:30-8:30	4:30-5:30	Counts 3/26/2015
102. Perimeter Center Parkway at Hammond Drive (existing signalized intersection)	7:45-8:45	4:30-5:30	Counts 1/29/2015
103. Perimeter Center Parkway at Perimeter Center West (existing signalized intersection)	8:00-9:00	5:15-6:15	Counts 9/25/2014
104. Peachtree-Dunwoody at Palisades Driveway B/ Future East-West Connector (right-in-right-out)	8:00-9:00	4:45-5:45	Counts 9/25/2014
105. Peachtree-Dunwoody Road at Hammond Drive (existing signalized intersection)	8:00-9:00	4:45-5:45	Counts 9/25/2014
106. Hammond Drive at Hammond Center/ Palisades Driveway C (recently installed signalized intersection)	7:45-8:45	4:00-5:00	Counts 1/29/2015
107. Hammond Drive at Ashford Dunwoody Road (existing signalized intersection)	7:45-8:45	4:30-5:30	Counts 9/25/2014

All raw traffic count data is available upon request.

*** Traffic volumes for the main line at the locations of proposed new driveways (Intersection #1, 5, 6 and 7) have been estimated based on counts at adjacent existing intersections.*

2.3 Detailed Intersection Analysis

Level-of-Service (LOS) is used to describe the operating characteristics of a road segment or intersection in relation to its capacity. LOS is defined as a qualitative measure that describes operational conditions and motorists' perceptions within a traffic stream. The *Highway Capacity Manual* defines six Levels-of-Service, LOS A through LOS F, with A being the best and F being the worst. Level-of-Service analyses were conducted at all intersections within the study network using *Synchro Professional, Version 8.0*.

Levels-of-Service for signalized intersections are reported for the intersection as a whole. One or more movements at an intersection may experience a low Level-of-Service, while the intersection as a whole may operate acceptably.

Levels-of-Service for unsignalized intersections, with stop control on the minor street only, are reported for the side street approaches. Low Levels-of-Service for side street approaches are not uncommon, as vehicles may experience significant delays in turning onto a major roadway.

3.0 STUDY NETWORK

3.1 Gross Trip Generation

Traffic for the proposed land uses and densities were calculated using methodology contained in the *Institute of Transportation Engineers' (ITE) Trip Generation Manual, Ninth Edition*. Trip generation for this proposed development is calculated based upon the following land uses: office (ITE Code 710), retail (ITE Code 820), and restaurant (ITE Code 932). Gross trips generated are displayed below in Table 3.

Table 3: Gross Trip Generation

Land Use (Intensity)	ITE Code	Daily Traffic		AM Peak Hour		PM Peak Hour	
		Enter	Exit	Enter	Exit	Enter	Exit
Office (1,650,000* SF)	*710*	*5,527*	*5,527*	*1,586*	*216*	*327*	*1,599*
Retail (55,000 SF)	*820*	*1,175*	*1,175*	*33*	*20*	*98*	*106*
Restaurant (27,000 SF)	*932*	*1,717*	*1,717*	*161*	*131*	*160*	*106*
Total Gross Trips		**8,418**	**8,418**	**1,780**	**367**	**585**	**1,811**

** The site is currently being occupied by the Hammond Exchange Building, which is an 11-story building with 250,698 SF of office space and associated surface parking. The existing building will be demolished with this development.*

3.2 Trip Distribution

The directional distribution and assignment of new project trips was based on the project land use, a review of the land use densities and road facilities in the area, engineering judgment, and methodology discussions with GRTA, ARC, GDOT, MARTA, and City of Dunwoody staff.

3.3 Level-of-Service Standards

For the purposes of this traffic analysis, a Level-of-Service standard of D was assumed for all intersections and segments within the study network. If, however, an intersection or segment currently operates at LOS E or LOS F during an existing peak period, the LOS standard for that peak period becomes LOS E or LOS F.

LOS analysis cannot effectively be completed for right-in-only driveways. For discussion purposes, Intersection #2/ Driveway P2 has been included in this analysis.

3.4 Study Network Determination

Per Expedited Review criteria, GRTA requires the evaluation of site driveways plus the adjacent intersections. However, during the Pre-Review Meeting held at ARC on March 2nd, 2015, GRTA, ARC, GDOT, MARTA, and City of Dunwoody staff came to a consensus and proposed to study a total of seven (7) adjacent intersections in addition to the site driveways.

Therefore, this Access Analysis study network includes six (6) general purpose site driveways and one (1) service driveway plus seven (7) intersections along Hammond Drive, Perimeter Center Parkway, and Peachtree Dunwoody Road:

Driveways:

- Hammond Drive at proposed new signal/ Site Driveway P1/ High Street Driveway 1
- Perimeter Center Parkway at Site Driveway P2 (right-in-only/ tunnel under construction)
- Perimeter Center Parkway at Site Driveway P3 (right-in-right-out to internal boulevard)
- Perimeter Center Parkway at Site Driveway P4/ Goldkist Road (signalized intersection)
- Future East-West Connector at Site Driveway P5 (full-movement two-way stop-controlled, includes service driveway access)
- Future East-West Connector at Site Driveway P6 (full-movement two-way stop-controlled)
- Site Service-Only Driveway P7 on Hammond Drive (right-in-right-out, west of Perimeter Center Parkway)

Intersections:

- Perimeter Center Parkway at Marriott driveway/ Future East-West Connector road (proposed new signalized intersection)
- Perimeter Center Parkway at Hammond Drive (signalized intersection)
- Perimeter Center Parkway at Perimeter Center West (signalized intersection)
- Peachtree-Dunwoody at Palisades Driveway B/ Future East-West Connector (right-in-right-out intersection at existing Palisades Driveway B)
- Peachtree-Dunwoody Road at Hammond Drive (signalized intersection)
- Hammond Drive at Hammond Center (new signal)/ Palisades Driveway C (signalized intersection)
- Hammond Drive at Ashford Dunwoody Road (signalized intersection)

The study network listed above includes six (6) existing signalized intersections, two (2) proposed new signalized intersections, five (5) two-way stop-controlled intersections, and one (1) right-in-only intersection noted in Table 4.

Analysis Scenarios

Each of the above listed intersections was analyzed for the Existing 2015 conditions, the projected 2020 No-Build conditions, and the projected 2020 Build conditions under two scenarios: without (Scenario 1) and with the Future East-West Connector (Scenario 2).

The projected 2020 No-Build conditions represent the existing traffic volumes with a background growth rate as well as three nearby projects that are anticipated to be complete as soon as or before or near the

completion of the Park Center development. Background existing traffic is grown for five (5) years at 1.0% per year throughout the study network to determine future background traffic. The list of nearby projects considered in this traffic analysis is below:

- State Farm Phase I (under construction; DRI #1582 – 236 Perimeter Mixed-Use)
- High Street (DRI #1432 – studied May 2007)
- Palisades Apartments (Former DRI #1152; Traffic Impact Analysis updated in 2015)

Prior traffic studies for each of the three developments listed include anticipated project-related traffic volumes at intersections adjacent to each site. While the studies may not have included all of the intersections associated with this Access Analysis study network, associated project trips have been projected throughout the study network to provide an estimated impact from the three developments.

The projected 2020 Build conditions include all project trips associated with the projected 2020 No-Build conditions with the addition of Park Center development project trips. The 2020 Build conditions have been analyzed with two different scenarios to account for the ongoing coordination to realize the Future East-West Connector. Therefore, included in this study is a 2020 Build Scenario 1 (without the East-West Connector), and 2020 Build Scenario 2 with the East-West Connector.

Table 4: Intersection Control Summary

Intersection	Control
1. Hammond Drive at Site Driveway P1/ High Street Driveway 1	Proposed New Signal
2. Perimeter Center Parkway at Site Driveway P2 (right-in-only/ tunnel under construction)	Right-in-Only
3. Perimeter Center Parkway at Site Driveway P3 (right-in-right-out to internal boulevard)	TWSC*
4. Perimeter Center Parkway at Site Driveway P4/ Goldkist Road	Signalized
5. Future East-West Connector at Site Driveway P5 (full-movement TWSC)	TWSC*
6. Future East-West Connector at Site Driveway P6 (full-movement TWSC)	TWSC*
7. Site Service-Only Driveway P7 on Hammond Drive (right-in-right-out)	TWSC*
101. Perimeter Center Parkway at Marriott driveway/ Future East-West Connector	Proposed New Signal
102. Perimeter Center Parkway at Hammond Drive	Signalized
103. Perimeter Center Parkway at Perimeter Center West	Signalized
104. Peachtree-Dunwoody at Palisades Driveway B/ Future East-West Connector (right-in-right-out)	TWSC*
105. Peachtree-Dunwoody Road at Hammond Drive	Signalized
106. Hammond Drive at Hammond Center/ Palisades Driveway C (recently installed signalized intersection)	Signalized
107. Hammond Drive at Ashford Dunwoody Road	Signalized

*Note: TWSC = Two-Way Stop Controlled intersection (side-street stop-controlled)

3.5 Existing Facilities

Roadway classification descriptions for the entire study area are provided in Table 5 (bolded roadways run adjacent to the site). Roadway functional classification map including GDOT and DeKalb County functional classification can be found in Appendix A.

Table 5: Roadway Classification

Roadway	No. of Lanes	Posted Speed Limit (MPH)	DeKalb County/ City of Dunwoody Functional Classification	GDOT Functional Classification
Hammond Drive	**4**	**35**	**Minor Arterial**	**Minor Arterial**
Peachtree Dunwoody Road	4	35	Minor Arterial	Minor Arterial
Ashford Dunwoody Road	8	45	Minor Arterial	Minor Arterial
Perimeter Center West	4	35	Minor Arterial	Minor Arterial
Perimeter Center Parkway	**4**	**35**	**Local**	**Local**
East-West Connector* (proposed)	***2***	***25 or 30***	***Local***	***Local***

** The East-West Connector is a proposed new road intended to connect Peachtree Dunwoody Road with Perimeter Center Parkway. Design details, including posted speed limit, are under consideration.*

4.0 TRIP GENERATION

As stated previously, trips associated with the proposed development were estimated using the *Institute of Transportation Engineers' (ITE) Trip Generation Manual, Ninth Edition, 2012*. Trip generation for this proposed development is calculated based upon the following land uses: office (ITE Code 710), retail (ITE Code 820), and restaurant (ITE Code 932).

Mixed-Use Vehicle Trip Reductions

Mixed-use vehicle trip reductions were taken according to the *ITE Trip Generation Handbook, an ITE Proposed Recommended Practice, Third Edition, 2014*. Total internal capture and vehicular trip reduction between the proposed land uses as a result of the anticipated interaction between the residential, retail, and restaurant uses within the proposed development is expected to be 10.51% for weekday and 4.34% for the PM peak hour.

Alternative Mode Reductions

Due to the accessibility of transit with connection to existing MARTA bus service, pedestrian sidewalks, and proposed direct site connection to MARTA rail and GRTA Xpress bus service, an alternative transportation mode reduction was taken for the projected Park Center project trips (walking, bicycling, riding transit, carpooling, etc.).

The project site will have a direct connection to the Dunwoody MARTA rail station via a pedestrian bridge that crosses Perimeter Center Parkway and connects with an extended Dunwoody MARTA station platform. Additionally, MARTA bus routes 5, 87, and 150 currently serve Hammond Drive adjacent to the project site and stop at the Dunwoody MARTA Station. GRTA Xpress bus service is intended to increase

routes to and from the area, with proposed bus stops immediately adjacent to or on the proposed site (coordination is ongoing as of June 2015).

An alternative transportation mode reduction of 25%, consistent with GRTA's Letter of Understanding, was therefore applied to all land uses for this study.

This is supported by American Community Survey (ACS) commute data collected by census block groups in 2012, which show alternative mode use as high as 28.9% for nearby areas. Alternative mode trips include walking, biking, riding transit, carpooling, vanpooling and other non-single-occupant vehicular mode trips. A map summarizing the ACS commute data can be found in Appendix A.

Pass-By Vehicle Trip Reductions

Pass-by trip reductions taken for the proposed retail land use during the PM peak hour, per the ITE *Trip Generation Handbook*. The retail pass-by reduction is expected to be 46% and the restaurant pass-by reduction is expected to be 43%. Per GRTA's DRI Technical Guidelines, the total pass-by trips associated with the development may be limited to 15% of the adjacent roadway's traffic volume.

4.1 Total Net Trip Generation

The total (net) trips generated and analyzed in this report are listed in Table 6.

Table 6: Net Trip Generation

	Daily Traffic			AM Peak Hour		PM Peak Hour	
	TOTAL	**Enter**	**Exit**	**Enter**	**Exit**	**Enter**	**Exit**
Gross Project Trips	**16,835**	**8,418**	**8,418**	**1,780**	**367**	**585**	**1,811**
Mixed-Use Reduction	*-1,770*	*-885*	*-885*	*0*	*0*	*-52*	*-52*
Alternative Mode Reduction (25%)	*-3,767*	*-1884*	*-1884*	*-445*	*-92*	*-133*	*-441*
Pass-By Reduction	*-1,400*	*-700*	*-700*	*0*	*0*	*-64*	*-64*
Reduction for Existing Use (Office)*	*-2,640*	*-1320*	*-1320*	*-351*	*-48*	*-61*	*-298*
Net New Trips	**7,258**	**3,629**	**3,629**	**984**	**227**	**275**	**956**

** The site is currently being occupied by the Hammond Exchange Building, which is an 11-story building with 250,698 SF of office space and associated surface parking. The existing building will be demolished with this development.*

A more detailed trip generation analysis summary table is provided in Appendix C.

5.0 TRIP DISTRIBUTION AND ASSIGNMENT

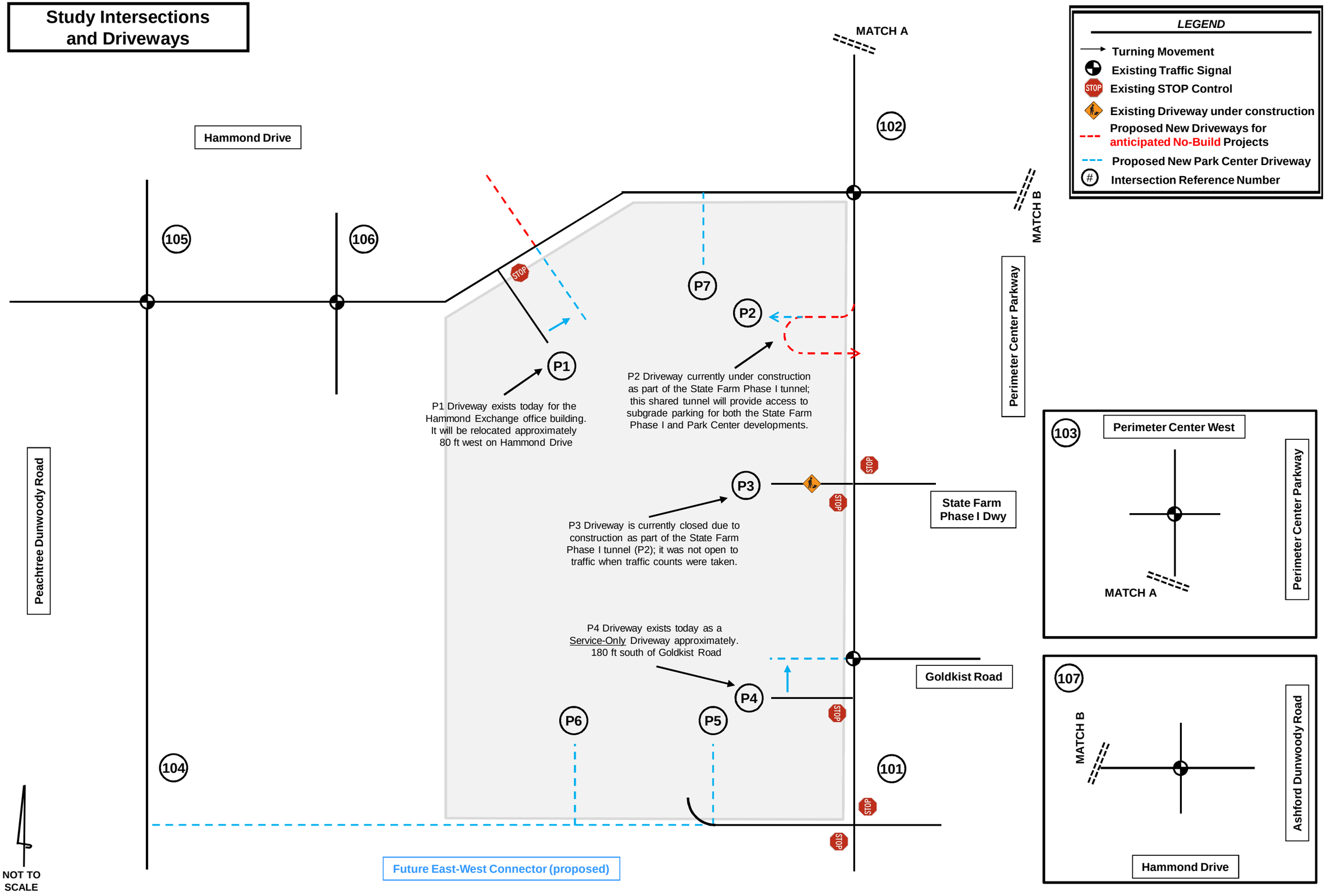
New trips were distributed onto the roadway network using percentages agreed upon during methodology discussions with GRTA, ARC, GDOT, MARTA and City of Dunwoody staff. The study intersections are shown in Figure 6. Trip distributions and assignments were aided with information provided by the Census Longitudinal Employer-Household Dynamics (LEHD) Origin-Destination Employment Statistics (LODES) through the OnTheMap web-based mapping service. Data from OnTheMap showing a heat map of the home locations for workers with jobs in the Perimeter Center area can be found in Appendix B.

Trip assignments for each of the study intersections was considered for two separate proposed 2020 Build conditions: **Scenario 1 without the Future East-West Connector**, and **Scenario 2 with the Future East-West Connector**.

For the **2020 Build Scenario 1 Condition** Figure 7 displays the expected trip assignment for the office trips, while Figure 8 provides the trip assignment for retail and restaurant project trips. These percentages were applied to the new trips generated by the development, and the volumes were assigned to the roadway network. The expected peak hour turning movement volumes for the 2020 Build Scenario 1 Condition are shown for all trips (residential, retail, restaurant, and educational/ institutional) for the proposed Park Center mixed-use development in Figure 9.

For the **2020 Build Scenario 2 Condition with the East-West Connector**, Figure 10 displays the expected trip assignment for the office trips, while Figure 11 provides the trip assignment for retail and restaurant project trips. These percentages were applied to the new trips generated by the development, and the volumes were assigned to the roadway network. The expected peak hour turning movement volumes for the 2020 Build Scenario 2 Condition are shown for all trips (residential, retail, restaurant, and educational/ institutional) for the proposed Park Center mixed-use development in Figure 12.

Study Intersections and Driveways



LEGEND

- Turning Movement
- Existing Traffic Signal
- Existing STOP Control
- Existing Driveway under construction
- Proposed New Driveways for anticipated No-Build Projects
- Proposed New Park Center Driveway
- (#) Intersection Reference Number

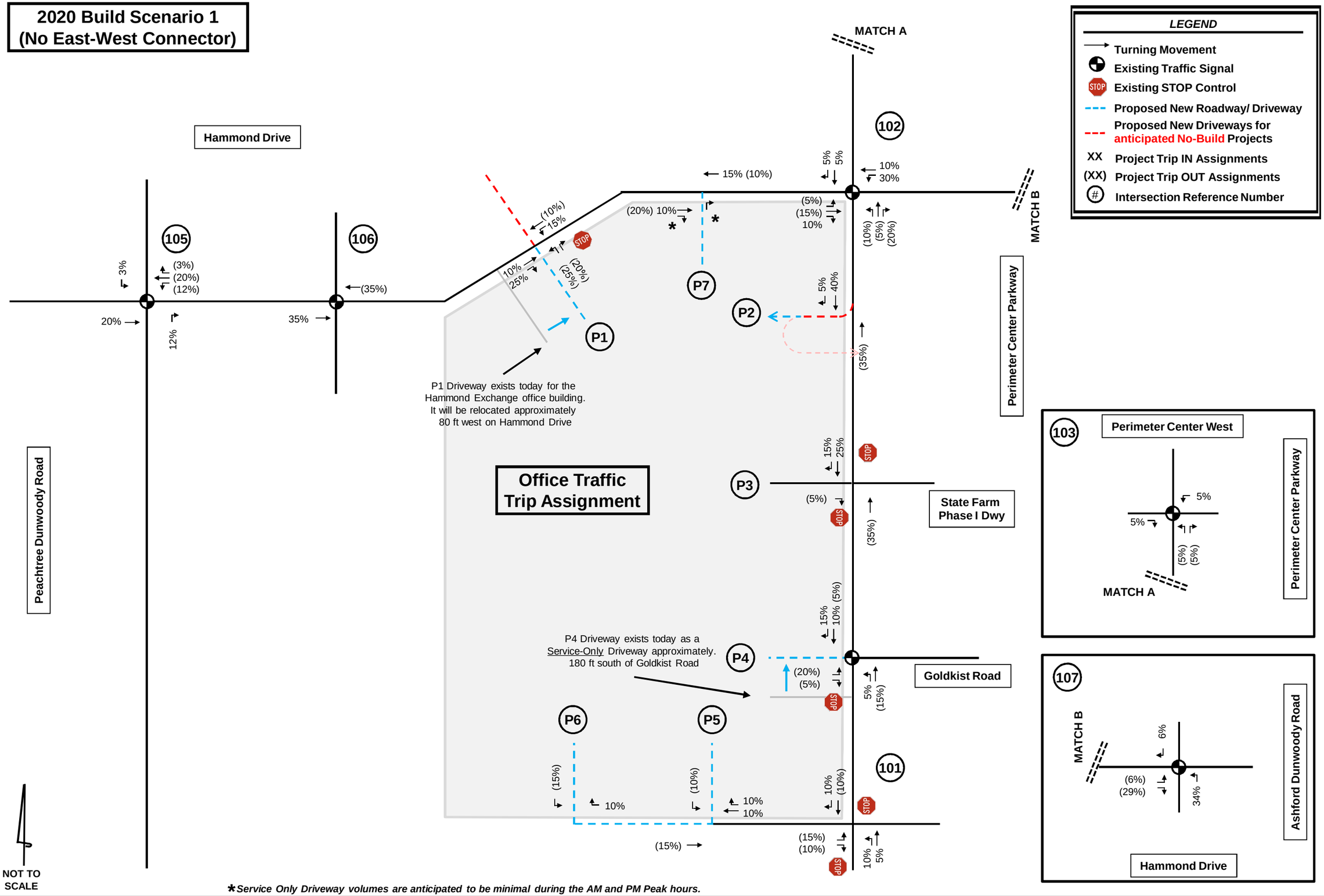
Figure 6

Study Intersections and Driveways

Park Center DRI #2501
Transportation Analysis

Kimley»Horn

2020 Build Scenario 1 (No East-West Connector)



*Service Only Driveway volumes are anticipated to be minimal during the AM and PM Peak hours.

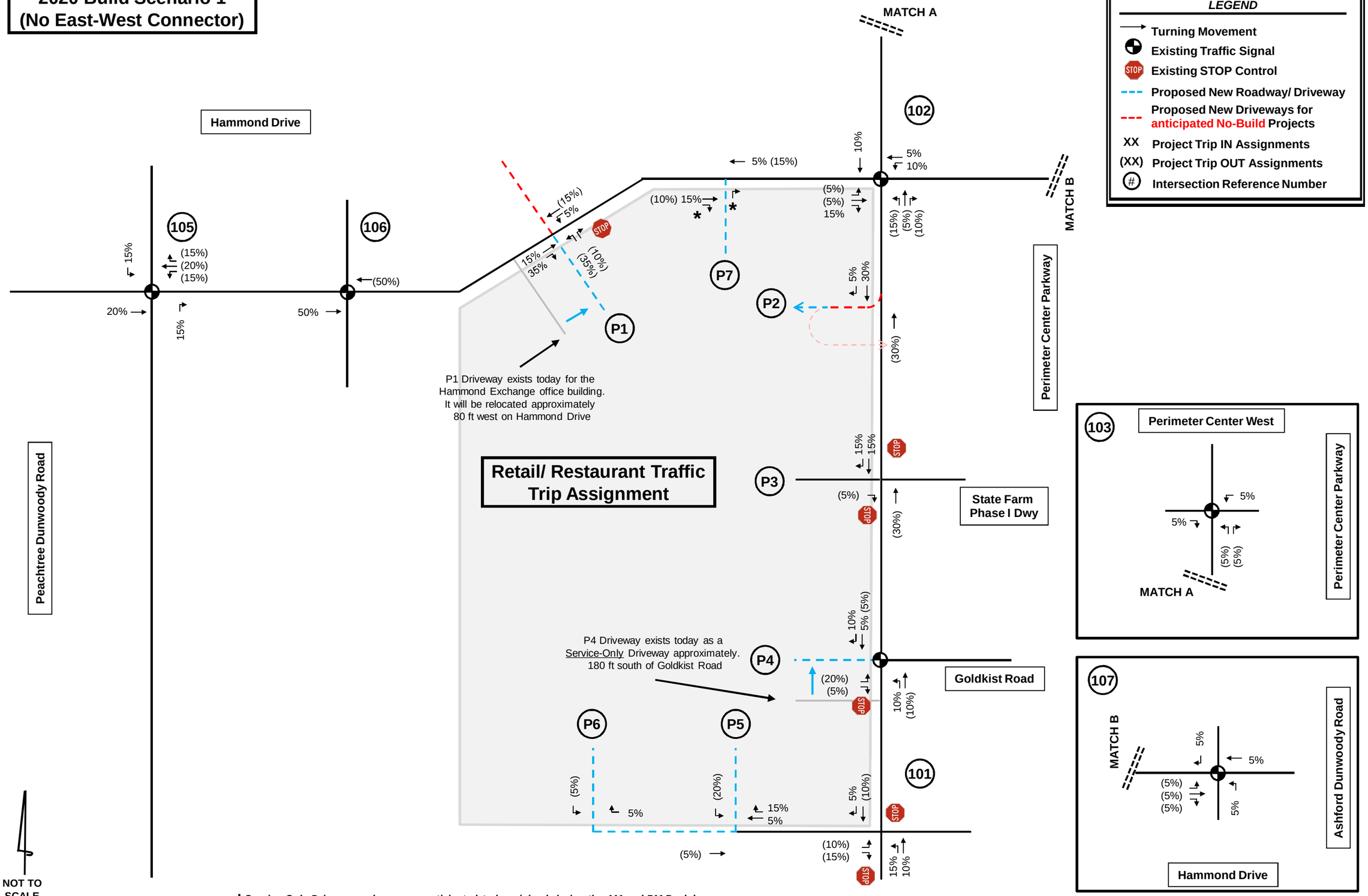
Figure 7

2020 Build Scenario 1
Office Traffic
Trip Assignment

Park Center DRI #2501
Transportation Analysis

Kimley»Horn

2020 Build Scenario 1 (No East-West Connector)



LEGEND

- Turning Movement
- Existing Traffic Signal
- Existing STOP Control
- Proposed New Roadway/ Driveway
- Proposed New Driveways for anticipated No-Build Projects
- XX Project Trip IN Assignments
- (XX) Project Trip OUT Assignments
- (#) Intersection Reference Number

✱*Service Only Driveway volumes are anticipated to be minimal during the AM and PM Peak hours.*

Figure 8

2020 Build Scenario 1
Retail/ Restaurant
Traffic Trip Assignment

Park Center DRI #2501
Transportation Analysis

Kimley»Horn

2020 Build Scenario 1 (No East-West Connector)

LEGEND

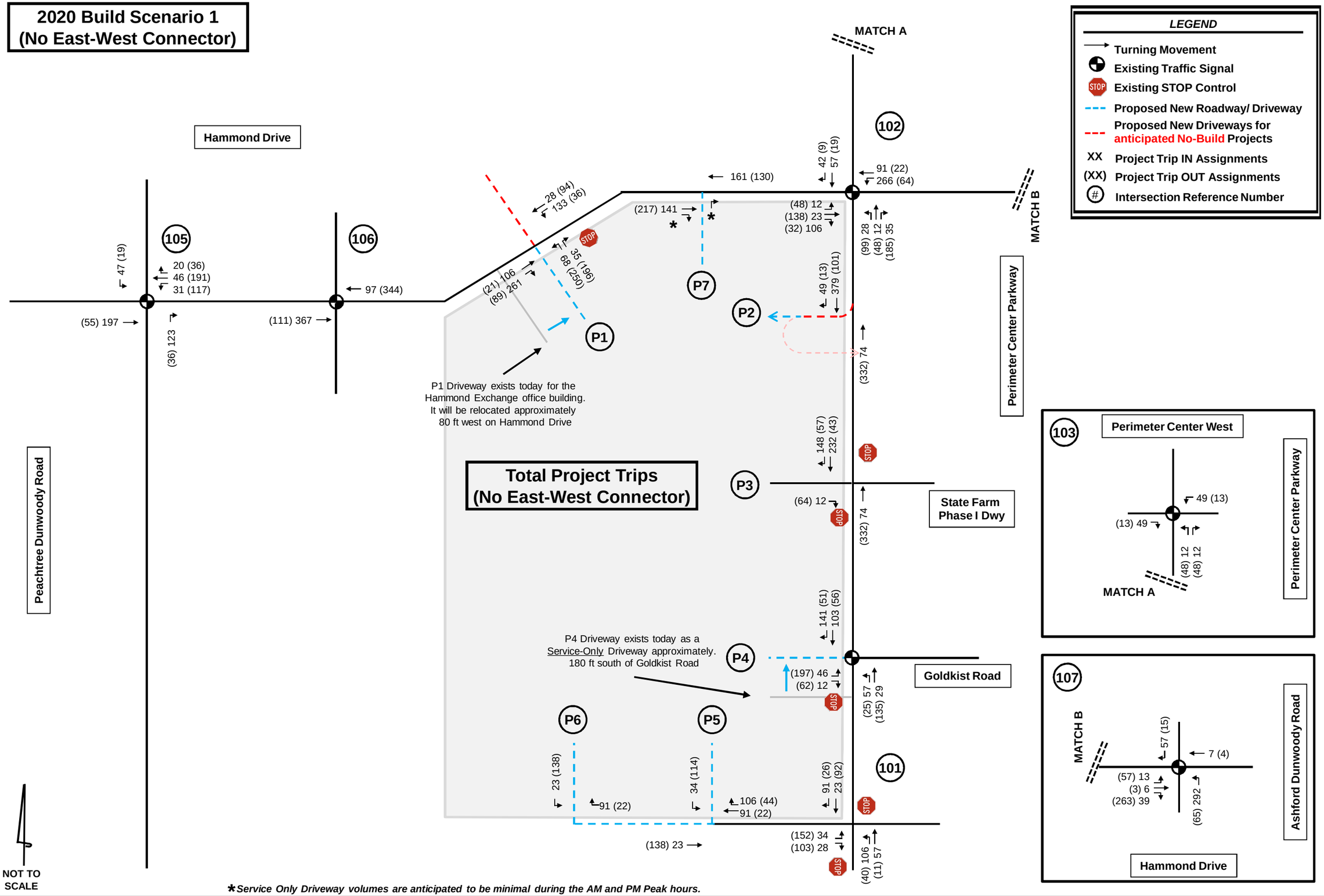
- Turning Movement
- Existing Traffic Signal
- Existing STOP Control
- Proposed New Roadway/ Driveway
- Proposed New Driveways for anticipated No-Build Projects
- XX Project Trip IN Assignments
- (XX) Project Trip OUT Assignments
- (#) Intersection Reference Number

Figure 9

2020 Build Scenario 1 Total Project Trips

Park Center DRI #2501 Transportation Analysis

Kimley»Horn



NOT TO SCALE

*Service Only Driveway volumes are anticipated to be minimal during the AM and PM Peak hours.

2020 Build Scenario 2 with East-West Connector

LEGEND

- Turning Movement
- Existing Traffic Signal
- Existing STOP Control
- Proposed New Roadway/ Driveway
- Proposed New Driveways for anticipated No-Build Projects
- XX Project Trip IN Assignments
- (XX) Project Trip OUT Assignments
- (#) Intersection Reference Number

Hammond Drive

Peachtree Dunwoody Road

Perimeter Center Parkway

MATCH A

MATCH B

State Farm Phase I Dwy

Goldkist Road

Future East-West Connector (proposed)

P1 Driveway exists today for the Hammond Exchange office building. It will be relocated approximately 80 ft west on Hammond Drive

P4 Driveway exists today as a Service-Only Driveway approximately. 180 ft south of Goldkist Road

Office Traffic Trip Assignment

NOT TO SCALE

✱*Service Only Driveway volumes are anticipated to be minimal during the AM and PM Peak hours.*

103 Perimeter Center West

MATCH A

Perimeter Center Parkway

107

MATCH B

Ashford Dunwoody Road

Hammond Drive

Figure 10

2020 Build Scenario 2 Office Traffic Trip Assignment

Park Center DRI #2501 Transportation Analysis

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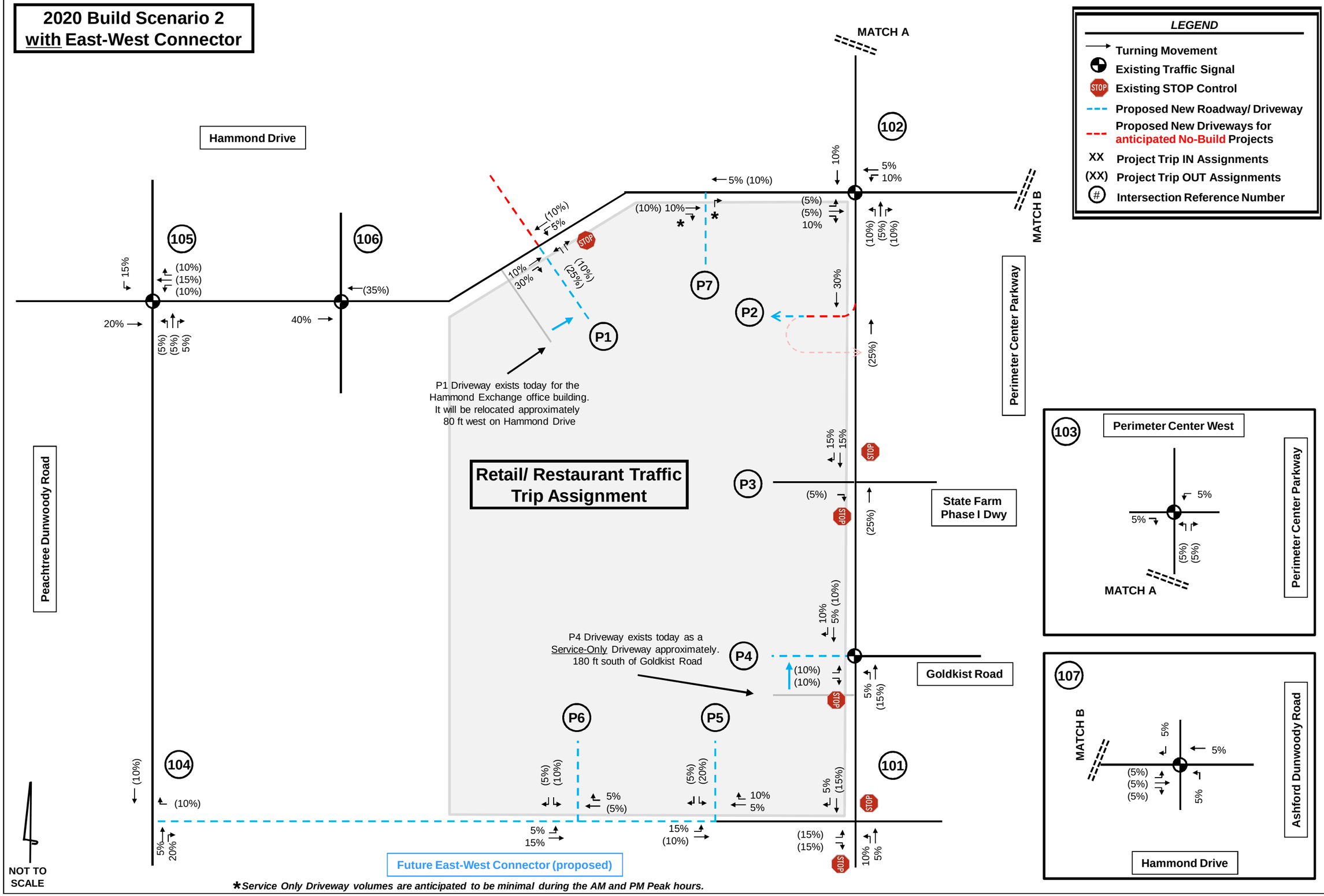
2020 Build Scenario 2 with East-West Connector



LEGEND

- Turning Movement
- Existing Traffic Signal
- Existing STOP Control
- Proposed New Roadway/ Driveway
- Proposed New Driveways for anticipated No-Build Projects
- XX Project Trip IN Assignments
- (XX) Project Trip OUT Assignments
- (#) Intersection Reference Number

✱*Service Only Driveway volumes are anticipated to be minimal during the AM and PM Peak hours.*

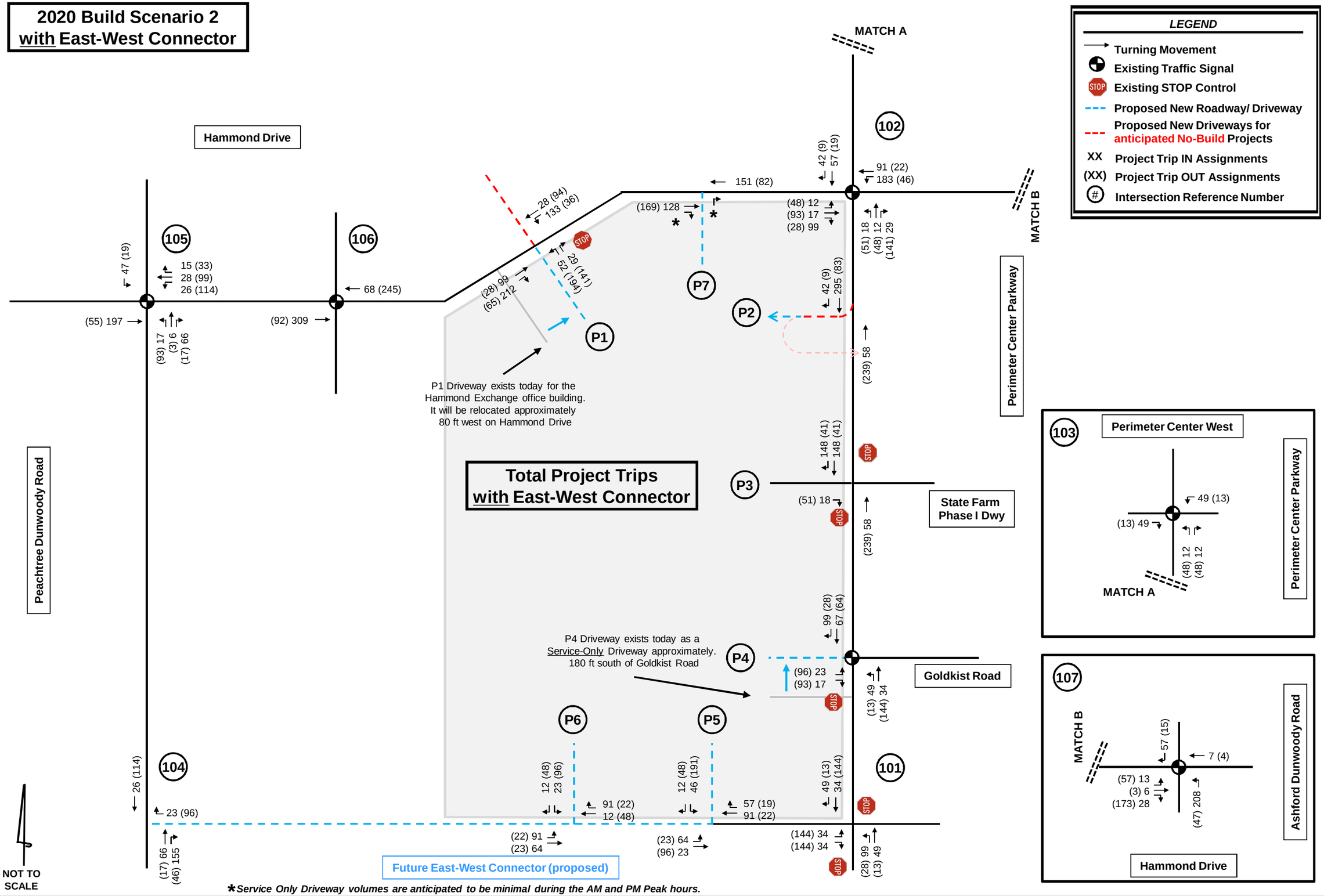
Figure 11

2020 Build Scenario 2
Retail/ Restaurant
Traffic Trip Assignment

Park Center DRI #2501
Transportation Analysis

Kimley»Horn

2020 Build Scenario 2 with East-West Connector



Total Project Trips with East-West Connector

✱*Service Only Driveway volumes are anticipated to be minimal during the AM and PM Peak hours.*

LEGEND

- Turning Movement
- Existing Traffic Signal
- Existing STOP Control
- Proposed New Roadway/ Driveway
- Proposed New Driveways for anticipated No-Build Projects
- XX Project Trip IN Assignments
- (XX) Project Trip OUT Assignments
- (#) Intersection Reference Number

Figure 12

2020 Build Scenario 2 Total Project Trips

Park Center DRI #2501 Transportation Analysis

Kimley»Horn

6.0 TRAFFIC ANALYSIS

6.1 Existing 2015 Traffic

The observed existing peak hour traffic volumes were entered into *Synchro 8.0,* and capacity analyses were performed for the AM and PM peak hours. The existing peak hour traffic volumes are displayed in Figure 13, and the results of the capacity analyses for the Existing 2015 conditions are shown in Table 7.

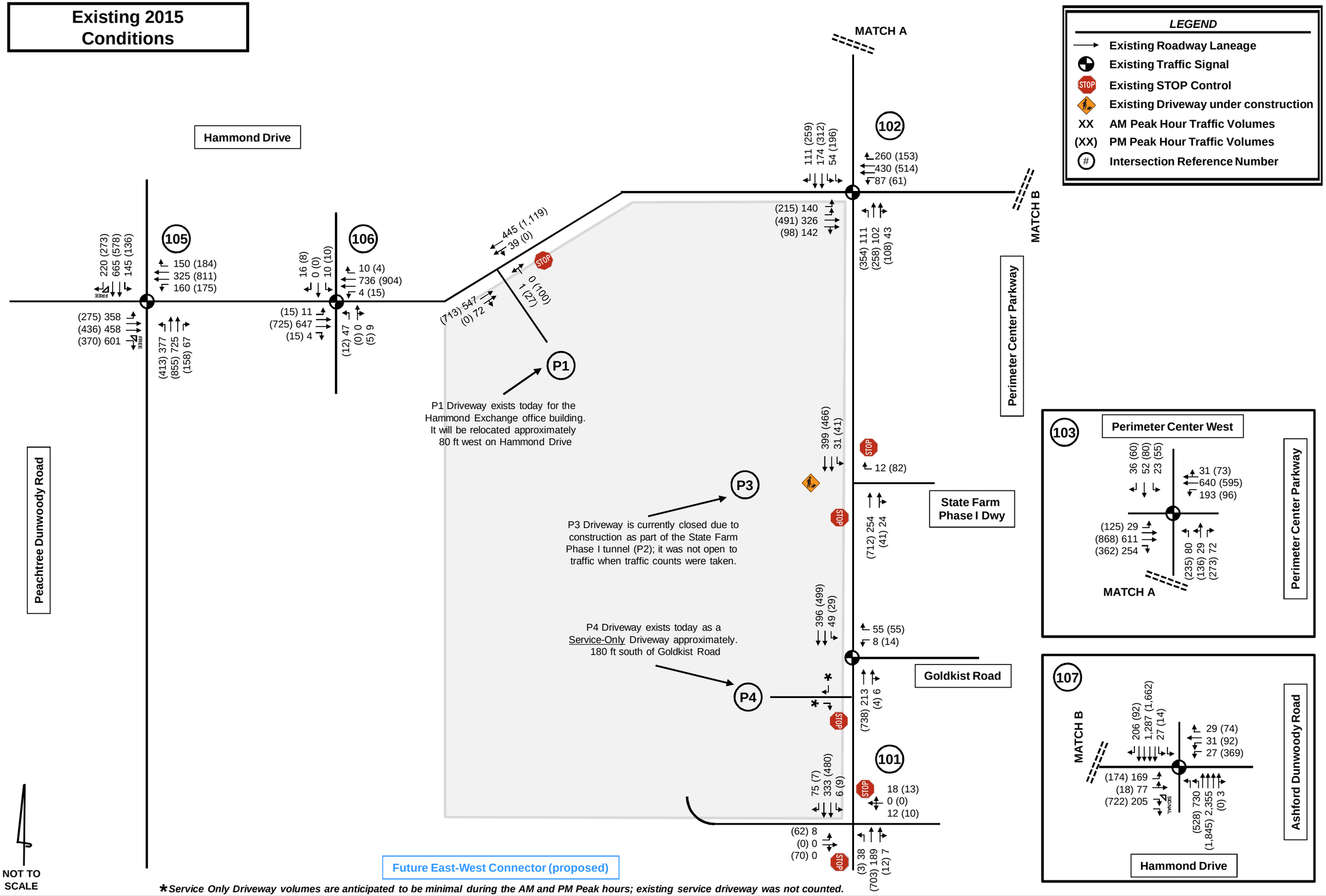
Table 7: Existing 2015 Conditions Intersection Levels-of-Service
LOS (delay in seconds)

Intersection	Control	LOS Std.	AM Peak Hour	PM Peak Hour
1. Hammond Drive at Site Driveway P1/ High Street Driveway 1	TWSC* NB	D	B (14.0)	B (11.2)
2. Perimeter Center Parkway at Site Driveway P2	Right-in-Only	--	N/A	N/A
3. Perimeter Center Parkway at Site Driveway P3/ State Farm Phase I Driveway	TWSC* EB WB	D	N/A A (8.9)	N/A A (9.7)
4. Perimeter Center Parkway at Site Driveway P4/ Goldkist Road	Signalized	D	B (14.7)	B (12.5)
5. Future East-West Connector at Site Driveway P5	TWSC*	--	N/A	N/A
6. Future East-West Connector at Site Driveway P6	TWSC*	--	N/A	N/A
7. Site Service-Only Driveway P7 on Hammond Drive	TWSC*	--	N/A	N/A
101. Perimeter Center Parkway at Marriott driveway/ Future East-West Connector	TWSC* EB WB	D/E AM/PM	C (15.6) B (11.2)	E (41.7) D (27.8)
102. Perimeter Center Parkway at Hammond Drive	Signalized	D	C (28.9)	D (41.1)
103. Perimeter Center Parkway at Perimeter Center West	Signalized	D	C (20.6)	D (39.6)
104. Peachtree-Dunwoody at Palisades Driveway B/ Future East-West Connector	TWSC*	--	N/A	N/A
105. Peachtree-Dunwoody Road at Hammond Drive	Signalized	D/E AM/PM	D (41.7)	E (57.1)
106. Hammond Drive at Hammond Center/ Palisades Driveway C	Signalized	D	B (14.9)	B (19.0)
107. Hammond Drive at Ashford Dunwoody Road	Signalized	D/E AM/PM	D (36.5)	E (73.6)

** Stop-controlled LOS and delay shown by approach.*

As shown in Table 7, intersections 1, 3, 4, 102, 103 and 106 within the existing study network currently operate at or above the acceptable Level-of-Service standard during both the AM and PM peak hours. Therefore, no recommended improvements are required for Existing 2015 Conditions for these intersections. Intersections 101, 105, and 107 experience a Level-of-Service E in the PM peak hour for the existing condition. Because these intersections operate at an intersection LOS E during an existing peak period, the LOS standard becomes LOS E for future scenarios. Figure 13 shows Existing 2015 traffic volumes.

Existing 2015 Conditions



LEGEND

- Existing Roadway Laneage
- Existing Traffic Signal
- Existing STOP Control
- Existing Driveway under construction
- XX — AM Peak Hour Traffic Volumes
- (XX) — PM Peak Hour Traffic Volumes
- (#) — Intersection Reference Number

✱*Service Only Driveway volumes are anticipated to be minimal during the AM and PM Peak hours; existing service driveway was not counted.*

Figure 13

Existing 2015 Conditions

Park Center DRI #2501
Transportation Analysis

Kimley»Horn

6.2 Projected 2020 No-Build Conditions

To account for growth in the vicinity of the proposed development, the existing traffic volumes were increased for five (5) years at 1.0% per year throughout the study network. Project trips from the State Farm Phase I DRI #1582 (currently under construction), High Street DRI #1432 (May 2007), and the Palisades DRI #1152 (as updated in 2015) were added to study network. These volumes were entered into *Synchro 8.0*, and capacity analyses were performed. Lane designations at all intersections are shown in Figure 14, which includes existing lane designations in black, and proposed No-Build-Improved lane designations in red. The results of the capacity analyses are shown in Table 8 (without proposed improvements).

Table 8: Projected 2020 No-Build Conditions Intersection Levels-of-Service
LOS (delay in seconds)

Intersection	Control	LOS Std.	AM Peak Hour	PM Peak Hour
1. Hammond Drive at Site Driveway P1/ High Street Driveway 1	Proposed New Signal	D	C (33.7)	C (32.3)
2. Perimeter Center Parkway at Site Driveway P2	Right-in-Only	--	A (0.0)	A (0.0)
3. Perimeter Center Parkway at (Site Driveway P3)/ State Farm Phase I Driveway	TWSC* WB	D	A (9.1)	B (10.6)
4. Perimeter Center Parkway at Site Driveway P4/ Goldkist Road	Signalized	D	B (15.0)	C (26.9)
5. Future East-West Connector at Site Driveway P5	TWSC*	--	N/A	N/A
6. Future East-West Connector at Site Driveway P6	TWSC*	--	N/A	N/A
7. Site Service-Only Driveway P7 on Hammond Drive	TWSC*	--	N/A	N/A
101. Perimeter Center Parkway at Marriott driveway/ Future East-West Connector	TWSC* EB WB	D/E AM/PM	C (23.6) B (14.8)	F (66.5) E (44.3)
102. Perimeter Center Parkway at Hammond Drive	Signalized	D	E (70.9)	F (122.1)
103. Perimeter Center Parkway at Perimeter Center West	Signalized	D	D (37.6)	D (52.3)
104. Peachtree-Dunwoody at Palisades Driveway B/ Future East-West Connector	TWSC*	D	N/A	N/A
105. Peachtree-Dunwoody Road at Hammond Drive	Signalized	D/E AM/PM	F (108.1)	F (94.5)
106. Hammond Drive at Hammond Center/ Palisades Driveway C	Signalized	D	C (21.5)	C (23.6)
107. Hammond Drive at Ashford Dunwoody Road	Signalized	D/E AM/PM	D (45.0)	F (82.4)

** Stop-controlled LOS and delay shown by approach.*

In the 2020 No-Build scenario, Intersections 101, 102, 105, and 107 operate below the standard LOS for the PM peak hour, and Intersections 102 and 105 additional operate below the LOS standard during the AM peak hour. The rest of the intersections operate at their respective standard LOS.

In the case of Intersection 101, which is a two-way stop-controlled intersection in the Existing and No-Build scenarios, it is not uncommon for the side street stop-controlled approaches to experience delay. Furthermore, Intersection 101 is proposed to be signalized in future Build scenarios, both without and with the proposed completion of the Future East-West Connector. Therefore, additional improvements for this intersection are not recommended.

For Intersections 102, and 105, No-Build-Improved scenario modified laneage can be seen in Figure 14 (red arrows show additional lanes and recommended improvements to bring the LOS to up to the LOS standard). No-Build-Improved laneage for both intersections includes six (6) through-lanes (three (3) lanes in each direction) along Hammond Drive as opposed to the four (4) through lanes along the existing roadway. At Intersection 102, an additional left-turn lane was added to each the northbound and westbound approaches, providing dual left-turns at both locations.

Similarly, at Intersection 105 additional left-turn lanes were added to each approach for the No-Build-Improved condition, providing dual lefts rather than single left turn lanes that exist today on each approach.

For Intersection 107, Hammond Drive at Ashford Dunwoody Road, the following No-Build-Improved lane modifications, along with proposed corridor re-timing would result in an acceptable level-of-service for the intersection:

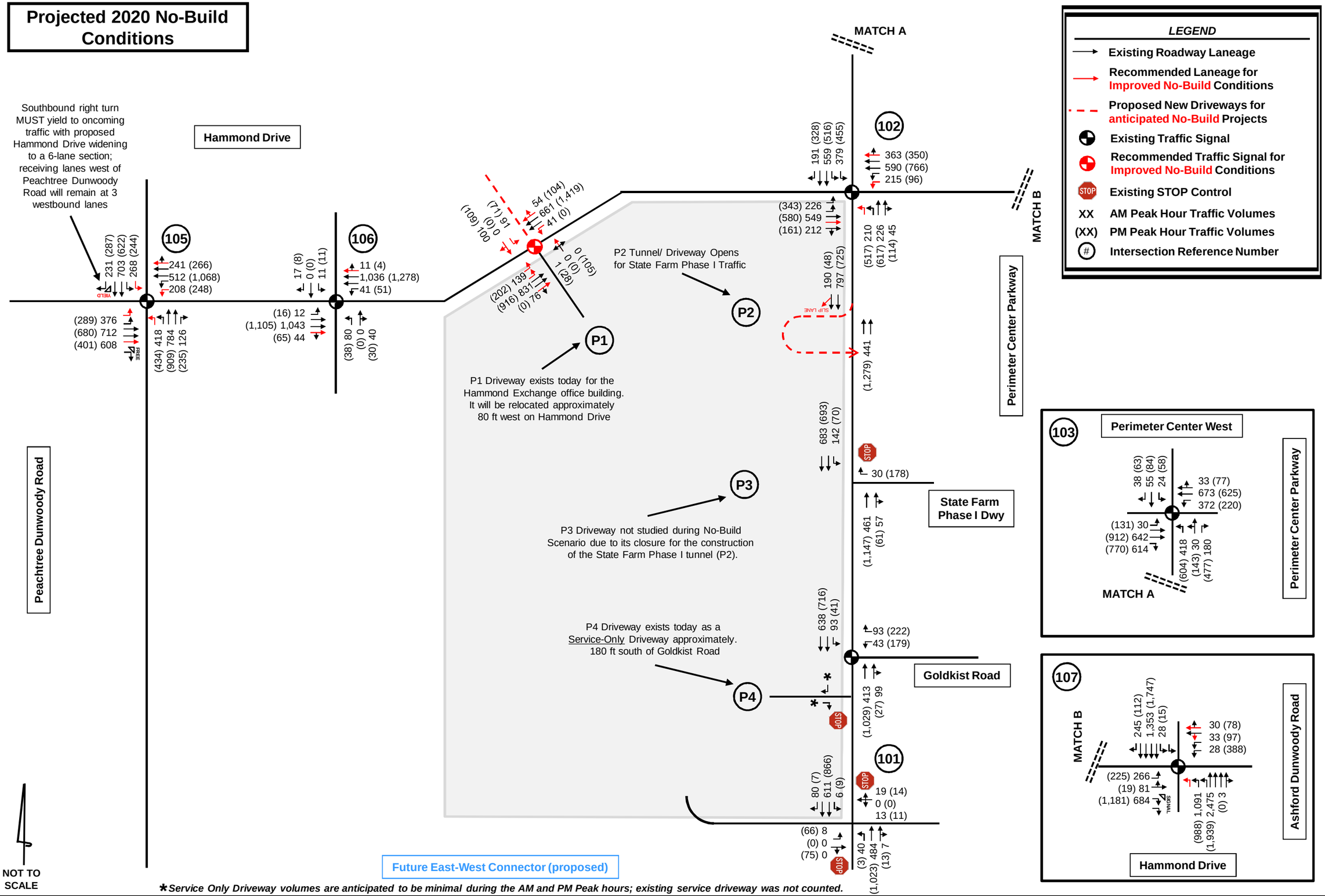
- Add a northbound left-turn lane, resulting in triple northbound left-turn lanes.
- Change (restripe) the westbound through lane into a shared left-turn and through lane.
- Change (restripe) the westbound right-turn lane into a shared through and right-turn lane.

With the proposed modifications described above and shown in Figure 14, the intersections are anticipated to operate at an acceptable LOS as shown in Table 9.

Table 9: Projected 2020 No-Build Intersection Levels-of-Service IMPROVED
LOS (delay in seconds)

Intersection	Control	LOS Std.	AM Peak Hour	PM Peak Hour
102. Perimeter Center Parkway at Hammond Drive	Signalized	D	C (34.7)	D (50.5)
105. Peachtree-Dunwoody Road at Hammond Drive	Signalized	D/E AM/PM	D (48.3)	E (55.8)
107. Hammond Drive at Ashford Dunwoody Road	Signalized	D/E AM/PM	D (36.9)	E (79.4)

Projected 2020 No-Build Conditions



✱*Service Only Driveway volumes are anticipated to be minimal during the AM and PM Peak hours; existing service driveway was not counted.*

Figure 14

Project 2020 No-Build Conditions

Park Center DRI #2501
Transportation Analysis

Kimley»Horn

6.3 Projected 2020 Build Scenario 1 Conditions

Projected 2020 Build Scenario 1 is one of two scenarios for the projected 2020 Build conditions. In this scenario, the Future East-West Connector does not connect to Peachtree Dunwoody Road to the west, but rather serves only as a site-driveway; traffic volumes have been distributed accordingly. The 2020 Build Scenario 1 considers the traffic associated with the proposed Park Center development added to the projected 2020 No-Build volumes. The Scenario 1 conditions exclude the Future East-West Connector from Perimeter Center Parkway to Peachtree Dunwoody Road, but incorporates laneage associated with proposed Park Center driveways and recommended improvements from the No-Build Improved scenario (*Section 6.2*). The total project traffic volumes plus no-build volumes were entered into the projected 2020 Build Scenario 1 roadway network and analyzed with *Synchro 8.0*. The intersection laneage, and any proposed improved laneage, along with traffic volumes for the projected 2020 Build conditions are shown in Figure 15. The results of the capacity analyses are shown in Table 10 (without the proposed improvements).

Table 10: Projected 2020 Build Scenario 1 Intersection Levels-of-Service
LOS (delay in seconds)

Intersection	Control	LOS Std.	AM Peak Hour	PM Peak Hour
1. Hammond Drive at Site Driveway P1/ High Street Driveway 1	Proposed New Signal	D	B (12.1)	C (30.7)
2. Perimeter Center Parkway at Site Driveway P2	Right-in-Only	D	A (0.0)	A (0.0)
3. Perimeter Center Parkway at Site Driveway P3/ State Farm Phase I Driveway	TWSC* EB WB	D	A (9.8) A (9.0)	A (9.3) B (11.4)
4. Perimeter Center Parkway at Site Driveway P4/ Goldkist Road	Signalized	D	B (19.6)	C (30.0)
5. Future East-West Connector at Site Driveway P5	TWSC*	D	A (9.7)	B (12.0)
6. Future East-West Connector at Site Driveway P6	TWSC*	D	A (8.9)	A (9.5)
7. Site Service-Only Driveway P7 on Hammond Drive	TWSC*	--	N/A	N/A
101. Perimeter Center Parkway at Marriott driveway/ Future East-West Connector	Proposed New Signal	D/E AM/PM	A (6.4)	B (17.1)
102. Perimeter Center Parkway at Hammond Drive	Signalized	D	D (39.3)	E (59.8)
103. Perimeter Center Parkway at Perimeter Center West	Signalized	D	D (44.6)	E (59.7)
104. Peachtree-Dunwoody at Palisades Driveway B/ Future East-West Connector	TWSC*	--	N/A	N/A
105. Peachtree-Dunwoody Road at Hammond Drive	Signalized	D/E AM/PM	D (52.9)	E (62.3)
106. Hammond Drive at Hammond Center/ Palisades Driveway C	Signalized	D	A (6.0)	A (3.3)
107. Hammond Drive at Ashford Dunwoody Road	Signalized	D/E AM/PM	D (40.9)	F (103.2)

** Stop-controlled LOS and delay shown by approach.*

In the 2020 Build Scenario 1, Intersections 102, 103, and 107 operate below the standard LOS for the intersection. Driveway P7 was not analyzed for LOS due to the very low anticipated service vehicle volumes at that driveway during AM and PM peak hours. The rest of the intersections operate at their respective standard LOS.

For Intersection 102, in addition to the No-Build-Improved modifications described in Section 6.2, an eastbound exclusive right-turn lane plus a westbound exclusive right turn lane (rather than existing shared through-right lanes) were incorporated to bring the level of service up to the LOS standard for the intersection.

For Intersection 103, a right-turn overlap traffic signal phasing for the eastbound right-turn movement during the northbound approach phase alleviated the sub-standard LOS.

For Intersection 107, Hammond Drive at Ashford Dunwoody Road, proposed No-Build-Improved modifications described in Section 6.2, plus corridor re-timing and the following proposed lane modification would result in an acceptable level-of-service for the intersection:

- Add an eastbound right-turn lane, resulting in an increase from dual right-turn lanes to triple right-turn lanes.

With the proposed modifications described above and shown in Figure 15, the intersections are anticipated to operate at an acceptable LOS as shown in Table 11. In Figure 15, red arrows shown No-Build-Improved modifications to the lane designations, while blue arrows show additional lanes and recommended improvements for the Build scenario to bring the LOS to up to the LOS standard.

Table 11: Projected 2020 Build Scenario 1 Intersection Levels-of-Service IMPROVED
LOS (delay in seconds)

Intersection	Control	LOS Std.	AM Peak Hour	PM Peak Hour
102. Perimeter Center Parkway at Hammond Drive	Signalized	D	D (46.0)	D (53.2)
103. Perimeter Center Parkway at Perimeter Center West	Signalized	D	D (40.0)	D (46.5)
107. Hammond Drive at Ashford Dunwoody Road	Signalized	D/E AM/PM	D (40.2)	E (79.8)

Projected 2020 Build Scenario 1 Conditions

Southbound right turn MUST yield to oncoming traffic with proposed Hammond Drive widening to a 6-lane section; receiving lanes west of Peachtree Dunwoody Road will remain at 3 westbound lanes

Hammond Drive

Peachtree Dunwoody Road

MATCH A

MATCH B

Goldkist Road

Ashford Dunwoody Road

Perimeter Center West

Perimeter Center Parkway

Hammond Drive

105 — 231 (287) 703 (622) 315 (263) | 261 (302) 558 (1,259) 239 (365) | (289) 376 (735) 909 (401) 608 | (434) 418 (909) 784 (271) 249

106 — 17 (8) 0 (0) 11 (11) | 11 (4) 1,133 (1,622) 41 (51) | (16) 12 (1,216) 1,410 (65) 44 | (38) 80 (0) 0 (30) 40

102 — 233 (337) 616 (535) 379 (455) | 363 (350) 681 (788) 481 (160) | 999 (1,581) | (1,300) 1,128 | (391) 238 (718) 572 (193) 318 | (616) 238 (665) 238 (299) 80

P1 Driveway exists today for the Hammond Exchange office building. It will be relocated approximately 80 ft west on Hammond Drive

54 (104) 689 (1,513) 174 (36) | (71) 91 (0) 0 (109) 100 | 35 (301) 0 (0) 69 (278) | (202) 139 (937) 937 (89) 337

P7 — 239 (61) 1,176 (826) | SLIP LANE | (1611) 515

P2

P3 — 164 (79) 915 (736) 142 (70) | STOP | 30 (178) | (64) 12 | STOP | (1,479) 535 (61) 57

P4 Driveway relocated 180 ft north of its existing location; modified from Service-Only Driveway to general purpose Driveway

P4 — 141 (51) 741 (772) 93 (41) | 93 (222) 0 (0) 43 (179) | (197) 46 (0) 0 (62) 12 | (26) 57 (1,164) 442 (27) 99

P6 — STOP | 23 (184) | 91 (22)

P5 — STOP | 0 (0) 42 (206) | 106 (44) 91 (22) | (0) 0 (184) 23

101 — 171 (33) 634 (958) 6 (9) | 19 (14) 0 (0) 13 (11) | (215) 42 (0) 0 (178) 28 | (43) 146 (1,034) 541 (13) 7

103 — 38 (63) 55 (84) 24 (58) | 33 (77) 673 (625) 421 (233) | (131) 30 (912) 642 (783) 663 | (652) 430 (143) 30 (525) 192

107 — 302 (127) 1,353 (1,747) 28 (15) | 30 (78) 40(101) 28 (388) | (282) 279 (22) 87 (1,444) 723 | SIGNAL | (1,053) 1,383 (1,939) 2,475 (0) 3

LEGEND

- Existing Roadway Laneage
- Recommended Laneage for Improved No-Build Conditions
- Recommended Laneage for Improved Build Conditions
- Proposed New Driveways for anticipated No-Build Projects
- Proposed New Park Center Driveway
- Existing Traffic Signal
- Recommended Traffic Signal for Improved No-Build Conditions
- Recommended Traffic Signal for Improved Build Conditions
- Existing STOP Control
- Proposed new STOP Control
- XX AM Peak Hour Traffic Volumes
- (XX) PM Peak Hour Traffic Volumes
- (#) Intersection Reference Number

NOT TO SCALE

✱*Service Only Driveway volumes are anticipated to be minimal during the AM and PM Peak hours.*

Figure 15

Projected 2020 Build Scenario 1 Conditions

Park Center DRI #2501 Transportation Analysis

Kimley»Horn

6.4 Projected 2020 Build Scenario 2 Conditions (with the East-West Connector)

The 2020 Build Scenario 2 considers the traffic associated with the proposed Park Center development added to the projected 2020 No-Build volumes. The Scenario 2 conditions include the proposed Future East-West Connector and incorporates laneage associated with proposed Park Center driveways and recommended improvements from the No-Build Improved scenario (*Section 6.2*). The total project traffic volumes plus no-build volumes were entered into the projected 2020 Build Scenario 2 roadway network and analyzed with *Synchro 8.0*. The intersection laneage, and any proposed improved laneage, along with traffic volumes, for the 2020 Build Scenario 2 conditions are shown in Figure 16, and the results of the capacity analyses are shown in Table 12. Projected 2020 Build Scenario 2 is one of two scenarios for the projected 2020 Build conditions. In this scenario, the Future East-West Connector exists and is fully operational from Peachtree Dunwoody Road to Perimeter Center Parkway; traffic volumes have been distributed accordingly.

Table 12: Projected 2020 Build Scenario 2 Intersection Levels-of-Service
LOS (delay in seconds)

Intersection	Control	LOS Std.	AM Peak Hour	PM Peak Hour
1. Hammond Drive at Site Driveway P1/ High Street Driveway 1	Proposed New Signal	D	B (11.5)	C (27.9)
2. Perimeter Center Parkway at Site Driveway P2	Right-in-Only	D	A (0.0)	A (0.0)
3. Perimeter Center Parkway at Site Driveway P3	TWSC* EB WB	D	A (9.5) A (8.9)	A (9.4) B (10.8)
4. Perimeter Center Parkway at Site Driveway P4/ Goldkist Road	Signalized	D	B (19.2)	D (37.0)
5. Future East-West Connector at Site Driveway P5	TWSC* SB	D	B (10.3)	B (14.7)
6. Future East-West Connector at Site Driveway P6	TWSC* SB	D	B (10.1)	B (10.4)
7. Site Service-Only Driveway P7 on Hammond Drive	TWSC*	--	N/A	N/A
101. Perimeter Center Parkway at Marriott driveway/ Future East-West Connector	Proposed New Signal	D/E AM/PM	A (8.8)	B (19.7)
102. Perimeter Center Parkway at Hammond Drive	Signalized	D	D (37.5)	D (54.9)
103. Perimeter Center Parkway at Perimeter Center West	Signalized	D	D (44.7)	E (60.0)
104. Peachtree-Dunwoody at Palisades Driveway B/ Future East-West Connector	TWSC* WB	D	C (23.0)	D (34.3)
105. Peachtree-Dunwoody Road at Hammond Drive	Signalized	D/E AM/PM	D (53.8)	E (61.5)
106. Hammond Drive at Hammond Center/ Palisades Driveway C	Signalized	D	A (4.9)	A (2.6)
107. Hammond Drive at Ashford Dunwoody Road	Signalized	D/E AM/PM	D (39.8)	F (94.5)

** Stop-controlled LOS and delay shown by approach.*

In the 2020 Build Scenario 2, Intersections 103 and 107 operate below the standard LOS for the intersection. The rest of the intersections operate at their respective standard LOS.

Driveway P7 was not analyzed for LOS due to the very low anticipated service vehicle volumes at that driveway during AM and PM peak hours.

For Intersection 103, a right-turn overlap traffic signal phasing for the eastbound right-turn movement during the northbound approach phase alleviated the sub-standard LOS.

For Intersection 107, Hammond Drive at Ashford Dunwoody Road, proposed No-Build-Improved modifications described in Section 6.2, plus corridor re-timing and the following proposed lane modification would result in an acceptable level-of-service for the intersection:

- Add an eastbound right-turn lane, resulting in an increase from dual right-turn lanes to triple right-turn lanes.

With the proposed modifications described above and shown in Figure 16, the intersections are anticipated to operate at an acceptable LOS as shown in Table 13. In Figure 16, red arrows shown No-Build-Improved modifications to the lane designations, while blue arrows show additional lanes and recommended improvements for the Build scenario to bring the LOS to up to the LOS standard.

Table 13: Projected 2020 Build Scenario 2 Intersection Levels-of-Service IMPROVED
LOS (delay in seconds)

Intersection	Control	LOS Std.	AM Peak Hour	PM Peak Hour
103. Perimeter Center Parkway at Perimeter Center West	Signalized	D	D (40.9)	D (46.4)
107. Hammond Drive at Ashford Dunwoody Road	Signalized	D/E AM/PM	D (39.4)	E (75.3)

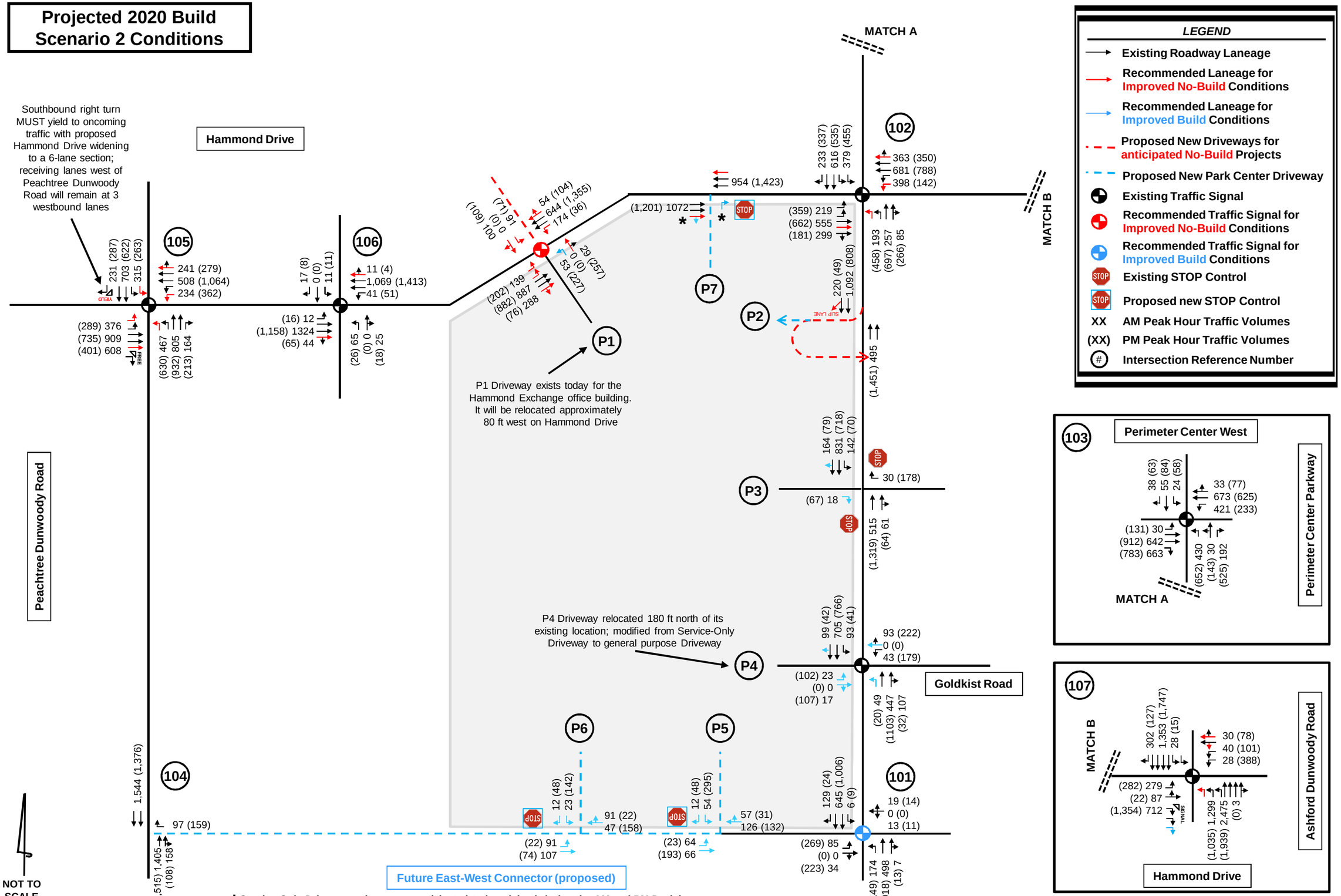
Projected 2020 Build Scenario 2 Conditions

Figure 16

Projected 2020 Build Scenario 2 Conditions

Park Center DRI #2501 Transportation Analysis

Kimley»Horn



7.0 IDENTIFICATION OF PROGRAMMED PROJECTS

The ARC's Transportation Improvement Plan (TIP), GDOT's Statewide TIP (STIP), *Plan 2040* Regional Transportation Plan (RTP), GDOT's Construction Work Program, the City of Dunwoody 2011 Comprehensive Transportation Plan, the Perimeter Community Improvement Districts (PCIDs) projects and the 2014 DeKalb County Transportation Plan, were researched for currently programmed transportation projects within the vicinity of the proposed development. Several projects are programmed for the area surrounding the study network. The identified projects are listed in Table 14 below, and fact sheets identifying characteristics of these projects have been included in Appendix F.

Table 14: Planned and Programmed Improvement Projects

No.	Year	Project Number	Project Description
1	2013 - 2022	TIA-M-005 (TIA 2010)	MARTA Tunnel and Platform Lighting Upgrade includes upgrades and expansion of lighting in underground tunnels including fluorescent and LED fixtures and other energy efficient and environmentally friendly lighting. Upgrades to occur at various locations through the MARTA system, including between the Dunwoody MARTA station and the North Springs MARTA station.
2	2016 - 2020	FN-298 (PLAN 2040) PI 0013141 (GDOT)	Glenridge Drive, Hammond Drive and Peachtree Dunwoody Road ATMS system expansion will include system detection and installation of a traffic adaptive system for approximately 29 interconnected signals along Hammond Drive, Peachtree Dunwoody Road, Johnson Ferry Road, Glenridge Connector, Glenridge Drive, and Meridian Mark Road.
3	*	PCID – Peachtree Dunwoody Streetscapes	Peachtree Dunwoody North Streetscapes and Pedestrian Plazas project will improve pedestrian access and safety while upgrading streetscapes and intersections on Peachtree Dunwoody Road from I-285 to Mount Vernon Highway.
4	*	PCID – Perimeter Center Pkwy Streetscapes	Perimeter Center Parkway Streetscapes and Intersections project will incorporate major infrastructure improvements to move traffic more efficiently and enhance pedestrian safety along Perimeter Center Parkway from Hammond Drive to Perimeter Center West.
5	*		Proposed East-West Connector – new road between Peachtree Dunwoody Road and Perimeter Center Parkway south of and parallel to Hammond Drive.
6	*	City of Dunwoody Study	Proposed Hammond Drive Widening from Ashford Dunwoody Road into the City of Sandy Springs. The City of Dunwoody is conducting a Hammond Drive corridor study, for which they currently (April 2015) are requesting proposals (RFP).
7	*	PI 0009981 (GDOT) ASP-FN-268 (PLAN 2040)	GDOT project along Hammond Drive from Mount Vernon Hwy in Sandy Springs to Sandy Springs city limits. PE completed in 2011. Sandy Springs is re-scoping the original concept. Hammond Drive Widening from SR 400 to Ashford Dunwoody Road. Widen from existing 4 lane section to 6 lane section along approximately 1.1 miles of Hammond Drive.
8	*	0492 (DeKalb 2014)	PATH Foundation Trail system expansion, including approximate alignment near Perimeter Center Parkway and Hammond Drive.
9	*		Proposed Goldkist Road extension from Perimeter Center Parkway to I-285 EB ramps at Ashford Dunwoody Road; proposed tunnel would connect the ramp to Goldkist Road under Ashford Dunwoody Road.

** Completion date has yet to be determined.*

8.0 INGRESS/EGRESS ANALYSIS

The vehicular Access Analysis to the Park Center development during the AM and PM peak periods includes six (6) general purpose site driveways and one (1) service driveway along Hammond Drive, Perimeter Center Parkway and the proposed East-West Connector:

- Hammond Drive at Site Driveway P1/ High Street Driveway 1 (proposed new signal)
- Perimeter Center Parkway at Site Driveway P2 (proposed right-in-only/ tunnel under construction)
- Perimeter Center Parkway at Site Driveway P3 (proposed right-in-right-out to internal boulevard)
- Perimeter Center Parkway at Site Driveway P4/ Goldkist Road (existing signal)
- Future East-West Connector at Site Driveway P5 (proposed full-movement two-way stop-control, includes service driveway access)
- Future East-West Connector at Site Driveway P6 (proposed full-movement two-way stop-control)
- Site Service-Only Driveway P7 on Hammond Drive (proposed right-in-right-out, west of Perimeter Center Parkway – was not analyzed due to very low anticipated traffic volumes in the AM and PM peak hours)

An important feature of the Park Center development is the ability for all parking spaces in the single central parking deck and on-street parking along the internal site boulevard to be accessible by all of the proposed site driveways.

Capacity analyses were performed for the six (6) general purpose site driveways along Hammond Drive, Perimeter Center Parkway and the proposed East-West Connector. The intersection laneage (geometry) and traffic volumes for the site driveways for each of the four (4) traffic scenarios (Existing 2015, Projected 2020 No-Build, Projected 2020 Build Scenario 1, and Projected 2020 Build Scenario 2) are shown in Figure 12 through Figure 15. The Levels-of-Service determined using existing and proposed site driveway geometries can be found in Table 7 for the Existing 2015 conditions, Table 8 for the Projected 2020 No-Build conditions, Table 10 for the Projected 2020 Build Scenario 1 conditions (without the Future East-West Connector), and in Table 12 for the Projected 2020 Build Scenario 2 conditions with Future East-West Connector, respectively.

The proposed Driveway P2, which is a proposed right-in only tunnel associated with the State Farm Phase I project as well as the proposed Park Center development, cannot be analyzed for delay due to the assumed free-flow entry into the driveway tunnel. Adequate distance between the Driveway P2 and any proposed access control should be incorporated to prevent queues onto Perimeter Center Parkway.

The proposed Service-Only Driveway P7 was not analyzed for capacity analysis. The right-in-right-out only service driveway is not anticipated to carry significant traffic during the AM or PM peak periods.

Vehicular Access Analysis for Projected 2020 Build Scenario 1: Based on the Existing 2015 conditions, Projected 2020 No-Build conditions, and Projected 2020 Build Scenarios 1 (without the Future East-West Connector), the studied site driveways along Hammond Drive, Perimeter Center Parkway are anticipated to operate at acceptable levels-of-service as summarized in Table 15.

Vehicular Access Analysis for Projected 2020 Build Scenario 2: Based on the Existing 2015 conditions, Projected 2020 No-Build conditions, and Projected 2020 Build Scenarios 2 with the incorporation of the Future East-West Connector and its associated traffic impacts, the studied site driveways along Hammond Drive, Perimeter Center Parkway are anticipated to operate at acceptable levels-of-service as summarized in Table 16.

Table 15: Projected 2020 Build Scenario 1 Intersection Levels-of-Service for Analyzed Site Driveways *LOS (delay in seconds)*					
Intersection	**Control**		**LOS Std.**	**AM Peak Hour**	**PM Peak Hour**
1. Hammond Drive at Site Driveway P1/ High Street Driveway 1	Proposed New Signal		D	B (12.1)	C (30.7)
2. Perimeter Center Parkway at Site Driveway P2	Right-in-Only		D	A (0.0)	A (0.0)
3. Perimeter Center Parkway at Site Driveway P3/ State Farm Phase I Driveway	TWSC*	EB WB	D	A (9.8) A (9.0)	A (9.3) B (11.4)
4. Perimeter Center Parkway at Site Driveway P4/ Goldkist Road	Signalized		D	B (19.6)	C (30.0)
5. Future East-West Connector at Site Driveway P5	TWSC*	SB	D	A (9.7)	B (11.3)
6. Future East-West Connector at Site Driveway P6	TWSC*	SB	D	A (8.9)	A (9.5)
7. Site Service-Only Driveway P7 on Hammond Drive	TWSC*		--	N/A	N/A

** Stop-controlled northbound exit approach lane LOS and delay shown for the Two-Way Stop Control (TWSC) driveway.*

Table 16: Projected 2020 Build Scenario 2 Intersection Levels-of-Service for Analyzed Site Driveways **LOS (delay in seconds)**					
Intersection	**Control**		**LOS Std.**	**AM Peak Hour**	**PM Peak Hour**
1. Hammond Drive at Site Driveway P1/ High Street Driveway 1	Proposed New Signal		D	B (11.5)	C (27.9)
2. Perimeter Center Parkway at Site Driveway P2	Right-in-Only		D	A (0.0)	A (0.0)
3. Perimeter Center Parkway at Site Driveway P3/ State Farm Phase I Driveway	TWSC*	EB WB	D	A (9.5) A (8.9)	A (9.4) B (10.8)
4. Perimeter Center Parkway at Site Driveway P4/ Goldkist Road	Signalized		D	B (19.2)	D (37.0)
5. Future East-West Connector at Site Driveway P5	TWSC*	SB	D	B (10.3)	B (14.0)
6. Future East-West Connector at Site Driveway P6	TWSC*	SB	D	B (10.1)	B (10.4)
7. Site Service-Only Driveway P7 on Hammond Drive	TWSC*		--	N/A	N/A

** Stop-controlled northbound exit approach lane LOS and delay shown for the Two-Way Stop Control (TWSC) driveway.*

9.0 INTERNAL CIRCULATION ANALYSIS

The six (6) general purpose site driveways and one (1) service driveway along Hammond Drive, Perimeter Center Parkway and the proposed East-West Connector along with the internal roadways throughout the site provide vehicular access to all land uses and parking on the site. In addition to vehicular access, sidewalks along the adjacent and internal roadway network, non-vehicular pedestrian access points along Hammond Drive, Perimeter Center Parkway, the proposed East-West Connector, and internal pedestrian circulation corridors allow ample opportunity for pedestrians to traverse and access the site. The project will include transit-oriented design elements with the proposed pedestrian bridge that connects directly to the Dunwoody MARTA station.

Due to mix of uses including office, retail, and restaurant, mixed-use vehicle trip reductions for site-internal trips were calculated according to the *ITE Trip Generation Handbook, an ITE Proposed Recommended Practice, Third Edition, 2014*. Total internal capture and vehicle trip reduction between the all the land uses is expected to be 16.88% for weekday and 15.16% for the PM peak hour as a result of the anticipated interaction between the varying land uses within the proposed development.

The site's direct connection with MARTA bus and rail systems and proposed new connections with the GRTA Xpress bus system contribute to the anticipated alternative transportation mode reduction which was taken at 25%, consistent with GRTA's Letter of Understanding, and applied to all land uses for this study.

10.0 COMPLIANCE WITH COMPREHENSIVE PLAN ANALYSIS

The proposed development is high-density mixed-use with a variety of office, retail, and restaurant space. This is consistent with the *Perimeter at The Center - Future Focus - 2011 LCI Update, (March 2011)* and the *Dunwoody Village Master Plan (March 2011)*, and is consistent with local zoning included in the DeKalb County Existing and Future land use and Zoning maps.

The proposed development lies entirely within Perimeter Centers LCI boundary, which intends the Dunwoody MARTA station area to be a high-density area with better roadway connectivity and pedestrian connections to create a pedestrian-scale, street grid and walkable environment appropriate for a Transit Village (defined as a half-mile radius around MARTA stations). The project will include a new pedestrian connection to the Dunwoody MARTA Station via the proposed pedestrian bridge over Perimeter Center Parkway. Buildings on the site will be wrapped with street- and plaza-level retail and restaurant space to help serve as a gateway connecting the site and surrounding developments with the Dunwoody MARTA Station. With these modifications to the site, among others, the proposed redevelopment of the site for the Park Center project conforms to the policy and intent of the Dunwoody Comprehensive Plan and the Perimeter LCI.

As such, the proposed Park Center redevelopment project fulfills the need for converting surface parking and previously commercially zoned properties into higher-density, transit-oriented, mixed-use developments as intended by the LCI studies, and is consistent with local planning efforts.