VILLAGE OF HOFFMAN ESTATES
PLANNING AND ZONING COMMISSION
FINDING OF FACT

PROJECT NO.: 2014032P

VILLAGE BOARD MEETING DATE: APRIL 6, 2015

PETITIONER(S): Adesa Inc.

PROJECT ADDRESS: 2785 Beverly Road

ZONING DISTRICT: AG AGRICULTURAL

☒ YES ☐ NO

Does the Planning and Zoning Commission find that this request meets the Standards for Rezoning (Section 9-1-15), Special Use (Section 9-1-18), Variation (Section 9-1-17), and Master Sign Plan (Section 9-3-8-M-12) ?

Recommendation: **APPROVAL**

Vote: **10 Ayes, 1 Absent (All Motions)**

PZC MEETING DATE: MARCH 18, 2015

STAFF ASSIGNED: PETER GUGLIOTTA

The following conditions shall apply to <u>all</u> motions below:

1. Prior to Village Board action on any request by Adesa, Inc., the petitioner shall provide either a copy of a signed contract to demonstrate a legal ownership interest in the property, or a written statement of consent signed by the legal owners of the subject property. Compliance with this condition shall be subject to verification by the Village's Corporation Counsel.

2. Approval of any request by Adesa, Inc. for this property is subject to approval of a Development Agreement Amendment between the Village and the current property owners to eliminate all previous rights and obligations on the property. Compliance with this condition shall be subject to verification by the Village's Corporation Counsel.

3. It has been identified that the final submittal dated March 12, 2015, has not fully addressed all technical comments identified by staff, and additional review comments are still being identified. All submittal documents, plans and plats submitted for the Planning and Zoning Commission review process shall be subject to additional comprehensive staff-level review prior to approval for any site work to start and prior to issuance of any permits on this site.

4. These approvals are granted solely for the plans provided in this application packet for this hearing process. No approvals are granted for any future phase of expansion of this use on other portions of the property. It is acknowledged that the petitioner may seek to obtain approval for expansion of this use on adjacent parcels in the future, and such requests will be subject to the appropriate site plan and zoning review processes.

<u>MOTION #1</u>

Approval of a request by Adesa, Inc. for a preliminary and final plat of subdivision for the 66.5866-acre Adesa Subdivision located at the northwest corner of Beverly Road and Prairie Stone Parkway, subject to the conditions listed above and the following conditions:

1. The plat document is subject to further review by Village staff and Corporation Counsel to address any outstanding items determined necessary by the Village.

2. The plat document shall be revised to include the dedication of right of way for Trillium Boulevard for the entire Lot 2 area.

3. The plat shall be signed by the current legal owners of the property, subject to verification by the Village's Corporation Counsel, prior to recording.

4. Village acceptance of public improvements included on this plat shall only occur through formal Village Board action.

5. No site work or permit issuance shall occur until after this plat has been recorded.

MOTION #2

Approval of a request by Adesa, Inc. for a preliminary and final plat of subdivision for the 1.1626-acre Village Water Tower Subdivision located west of Beverly Road along the north side of the proposed Prairie Stone Parkway extension, subject to the conditions listed above and the following conditions:

1. It is noted that the Village of Hoffman Estates is the sole owner of all property included in this plat and the Village shall complete the necessary ownership signature prior to recording.

2. This Plat shall not be recorded until after the Adesa subdivision plat is recorded which dedicates the adjacent portions of Prairie Stone Parkway.

3. Village acceptance of public improvements included on this plat shall only occur through formal Village Board action.

4. The petitioner shall be responsible for 100% of the cost of all improvements associated with this plat.

MOTION #3

Approval of a request by Adesa, Inc. for rezoning of 67.7492 acres at the northwest corner of Beverly Road and Prairie Stone Parkway from the AG Agricultural District to the M-2 Manufacturing District, subject to the conditions listed above and the following conditions:

1. In the event a building permit is not obtained for construction of the Wholesale Vehicle Auction House on this property within one year of Village Board approval, the zoning of the subject property shall revert back to the present AG Agricultural District.

MOTION #4

Approval of a request by Adesa, Inc. for a special use under Section 9-9-2.C.2.k of the Municipal Code for a Wholesale Vehicle Auction House with outdoor vehicle storage and related service uses on the newly

proposed Lot 1 in the Adesa Subdivision located at the northwest corner of Beverly Road and Prairie Stone Parkway, subject to the conditions listed above and the following conditions:

1. This special use is contingent on the Village's approval of a zoning classification change to the M-2 District for the subject property.

2. This special use approval is subject to conformance with all final site plan conditions of approval for this vehicle auction facility, including associated off-site public improvements.

3. A building permit shall be obtained within one year of the Village Board approval date for this request, in accordance with Village Code.

4. This use shall be limited to the scope of activities covered in the petitioner's submittal documents provided for this public hearing process. Any addition of uses, expansion of the size, or change in the use shall require a special use amendment.

5. This use shall comply with all Village business license requirements, including the fact that the primary use shall not include abandoned, grey market, or junk vehicles at this Wholesale Vehicle Auction House.

MOTION #5

Approval of a request by Adesa, Inc. for a fence variation under Section 9-3-3.B of the Municipal Code to permit an electrically charged fence on the newly proposed Lot 1 in the Adesa Subdivision located at the northwest corner of Beverly Road and Prairie Stone Parkway, subject to the conditions listed above and the following conditions:

1. A building permit shall be obtained within one year of the Village Board approval date for this request, in accordance with Village Code.

2. This variation approval is subject to conformance with all final site plan conditions of approval for this vehicle auction facility, including associated off-site public improvements.

3. The height of the electric fence, and chain link with barbed fence shall not exceed seven (7) feet, as permitted by Code. The supplemental document indicating a 10 foot high electric fence shall be revised to 7 feet prior to issuance of a fence permit.

4. A Subdivision Code waiver is granted to Section 10-5-3.K to permit the installation of chain link fence surrounding the outdoor vehicle storage area.

MOTION #6

Approval of a request by Adesa, Inc. for a preliminary and final site plan for construction of a western extension of Prairie Stone Parkway (approximately 1,300 feet), subject to the conditions listed above and the following conditions:

1. Prior to any site work beginning on this roadway, the petitioner shall provide written documentation to verify consent of all applicable adjacent property owners to the south, and the company holding rights

to the existing pipeline easement, to document consent with the proposed grading work that must occur on those properties, outside of the dedicated right of way. In the event the petitioner cannot obtain consent from all necessary parties and the plans for work within the right of way have to be adjusted to accommodate the road construction, the petitioner shall be subject to obtaining approval of a site plan amendment from the Village.

2. Prior to any site work beginning on this roadway, the plans shall be revised to remove all shrubs and groundcover from landscape median. The plan shall only provide for Village-approved shade trees and turf grass in the median area.

3. The petitioner shall be responsible for all costs associated with the improvements included on these plans, including construction of a new driveway for access into the Village water tower site at a design acceptable to the Village. Any cost sharing agreements with other parties shall be privately managed by the petitioner and the Village shall not be involved in any administrative responsibilities for such agreements.

4. The petitioner shall revise the engineering, landscaping, and lighting plans for this roadway improvement in accordance with any additional technical comments generated through additional staff review, including revising the street light details to include LED fixtures if determined appropriate by the Public Works Department.

5. The roadway and sidewalks shall remain closed to traffic during construction in accordance with proper traffic engineering standards as determined by the Village Director of Transportation. Any traffic needing to access land to the west of the construction area shall be managed in a safe and proper manner. The roadway and walks shall not be opened to public use until such time as the Director of Transportation determines all appropriate improvements are in place for safe use.

6. The private driveway serving the existing outdoor materials recycling business shall be permitted to be reconstructed at the western end of the new Prairie Stone Parkway roadway, provided it is fully paved, and the design is approved by the Village. All areas within the right of way adjacent to the drive shall be restored with vegetation and shall be the responsibility of the adjacent property owner to maintain. No gates, fences or other structures shall be permitted within this right of way.

7. Village acceptance of the public improvements included within the Prairie Stone Parkway right of way shall only occur through formal Village Board action.

MOTION #7

Approval of a request by Adesa, Inc. for a preliminary and final site plan for construction of a Wholesale Vehicle Auction House (including off-site improvements to Beverly Road, Trillium Boulevard, and to the Village water tower site), on approximately 66 acres located at the northwest corner of Beverly Road and Prairie Stone Parkway, subject to the conditions listed above and the following conditions:

1. A building permit shall be obtained within one year of the Village Board approval date for this request (to coincide with the special use permit approval timeframe).

2. Waivers are granted to the Village Subdivision Code Articles 10-4 (Landscaping) and 10-5 (Site Design and Operation Requirements) as they pertain to the areas within the security fencing shown on the

engineering plans. This includes a reduction in the standards only in certain areas for curbing, landscaping, site lighting, and building design and other minor items. This waiver shall only apply to the extent that specific items are identified on the site engineering and landscape plans. All code-complaint items on the plans shall be maintained in accordance with Village Code and are not included in this waiver.

3. A waiver is granted to Subdivision Code Section 10-4-7 to permit all existing trees on the subject property to be removed without replacement or mitigation, based on the determination that a majority of the trees are in poor condition and are in the lowest quality species group. Further, none of the trees are located in a manner that would contribute value to the property or community if preserved.

4. The lighting photometric plans shall be revised to conform to the requirements of Subdivision Code Section 10-5-3.G with regards to the visitor's parking lot area, the vehicle pick up and drop off areas, and Trillium Boulevard. Areas within the fenced storage lots are granted a waiver to not meet these standards.

5. All light fixture to be installed on the site shall be designed with a flat lens that is mounted parallel to the ground to minimize glare in accordance with Village Code. This shall apply to the entire site, including the storage area within the boundaries of the security fencing.

6. With regards to the requirements of the Village Fire Department, the following shall apply:

   a) Revisions shall be required to the engineering plans to meet all requirements of the Fire Department, including striping and signage on the property, clearances for emergency vehicles, and access through all security mechanisms on the site (including any pavement tire-puncture devices that may be proposed). These shall be intended to provide efficient and safe emergency vehicle movements at the facility and to identify all areas deemed as official fire lanes where no obstructions will be permitted.

   b) Prior to issuance of any fence permit for this property, the petitioner shall provide final details of all access openings and gates in a manner acceptable to the Fire Department. These shall include any necessary mechanisms or additional provisions necessary to allow safe and efficient access by the Fire Department.

   c) Prior to issuance of any fence permit for this property, the petitioner shall provide details on a disarming switch or some other mechanism to allow emergency personnel to shut down the electrically charged fencing in the event access to the site must occur.

   d) No gates shall be closed and the electrically charged fence shall not be activated until final approval has been given for these issues by the Village Fire and Code staff.

7. This site plan approval is contingent upon construction of the western extension of Prairie Stone Parkway to provide access to the truck delivery area of the facility, and therefore this approval is subject to all conditions of the roadway approval. No occupancy of any building on the proposed vehicle auction site shall occur until the Village Transportation Director has determined the public improvements are completed to a level acceptable for use by the public, and final occupancy of the vehicle auction buildings shall not occur until the Prairie Stone Parkway improvements are formally accepted by the Village.

8. This site plan approval is dependent on, and includes the construction of improvements within the Beverly Road right of way, and the following shall apply:

   a) The petitioner shall be responsible for all costs associated with the improvements included on these plans (except where certain costs may be eligible for reimbursement under the Village's Fair Share Road Improvement Program).

   b) The plans include construction of a 10 foot wide off-street path along the west side of Beverly Road, as well as the necessary traffic signal improvements to accommodate the path crossing at Prairie Stone Parkway (including pedestrian countdown timers). In order for all pedestrian crossing movements at this intersection to be consistent, the plans shall be revised to add pedestrian countdown timers for the crossing of the south leg of Beverly Road at Prairie Stone Parkway to connect to the existing path network to the east.

   c) Village acceptance of the public improvements included within the Prairie Stone Parkway right of way shall only occur through formal Village Board action, and final occupancy for the vehicle auction buildings shall not occur until the Prairie Stone Parkway improvements are formally accepted by the Village.

9. This site plan approval includes the construction of improvements within the Trillium Boulevard right of way, and the following shall apply:

   a) The plans shall be revised to add lighting to the entire area of the Trillium right of way, in accordance with Village Code.

   b) Village acceptance of the public improvements included within the Trillium right of way shall only occur through formal Village Board action following a determination by the Village that public access to the land north of the right of way will be necessary. Acceptance of the right of way shall only occur after all necessary public improvements have been completed in accordance with Village standards.

   c) Prior to Village determination that the Trillium right of way is needed for public access, the vehicle auction facility shall be permitted to maintain a temporary gate and fencing west of the facility's visitor parking lot driveway, along with pavement that does not comply with full public street standards, as delineated on the site engineering plans. The vehicle auction facility shall be responsible for all maintenance of the Trillium right of way until such time as the Village formally accepts Trillium as a public street.

   d) The Village reserves the right to vacate the Trillium Boulevard right of way if a determination is made that it will not be necessary for public access, such as may be the case if the auction facility receives approval to expand its site to include the land north of Trillium Boulevard.

10. In order to accommodate the petitioner's proposal, including the construction of Prairie Stone Parkway, the petitioner agrees to make the following improvements to the Village's water tower site and such improvements shall be completed prior to issuance of a final occupancy permit for any building on the auction property:

a) Chain link fencing with a gate shall be installed along the perimeter of the water tower site in all areas where the petitioner is not installing fencing as part of the auction property, as shown on the engineering plans. These improvements shall be made at the cost of the petitioner as partial compensation for the use of a portion of the existing Village site for the extension of Prairie Stone Parkway in the petitioner's desired location.

b) The existing weather warning siren on the water tower site shall be relocated from the center to a corner of the property, as determined by the Village Public Works Department in order to make the site more usable for municipal purposes and as partial compensation for the use of a portion of the existing Village site for the extension of Prairie Stone Parkway in the petitioner's desired location. Prior to issuance of a building permit for the auction property, the petitioner shall provide a cash deposit based on an estimated cost (to be provided by the Village) for relocation of the siren. The Village shall hire the contractor to perform the work and it shall be paid from the deposit provided by the petitioner.

c) The petitioner shall complete drainage improvements on the Village water tower site as identified on the final engineering plans to accommodate the existing drying bed facility. These improvements shall be made at the cost of the petitioner as partial compensation for the use of a portion of the existing Village site for the extension of Prairie Stone Parkway in the petitioner's desired location.

d) In conjunction with any of the work to occur on the water tower site, the petitioner shall perform any necessary minor grading adjustments and restoration of the vegetation, as determined necessary by the Village, prior to final approval of the improvements.

11. No occupancy permits shall be issued for any of the buildings on the property until the Village inspection staff has determined that collectively all the buildings and the site work are sufficiently complete enough for this to occur. Because this facility is unique in that its operation relies upon the coordinated use of multiple buildings and the outdoor areas, it is critical that all aspects of the project be usable before any one aspect becomes operational. If deemed appropriate through the formal inspection process, the Village may issue a partial temporary certificate of occupancy for the main Arena building to allow office/employee use in advance of the other buildings, however, auction use may be prohibited until all facilities are sufficiently complete. In the event the petitioner wishes to proceed with such a phased occupancy of the site, a written proposal shall be submitted to the Village inspection staff for consideration sufficiently in advance of the desired occupancy date.

12. The petitioner acknowledges that an impact fee will be due in accordance with the Village's Road Improvement Impact Fee Program. This fee will be due prior to any certificate of occupancy for the buildings. The estimated fee amount will be determined as part of further review of the traffic report. The petitioner will also be eligible to receive a fee credit for certain costs associated with capacity improvements on Beverly Road since this road is on the Program's list of approved projects.

13. The petitioner acknowledges that the following Recaptures apply to this property and that all payments shall be made prior to issuance of any building permit for this property:

    a) Ordinance 4323 – EDA Sanitary Facility
    b) Ordinance 4324 – NW Tollway Interchange
    c) Ordinance 2884 – Hunter's Ridge Off-site Sanitary

d) Ordinance 4359 – Shoe Factory Lift Station and Force Main
e) Resolution 1226 – Water Tower

MOTION #8

Approval of a request by Adesa, Inc. for a Master Sign Plan under Section 9-3-8-M-13 of the Municipal Code for the property (Lot 1 of the Adesa Subdivision) located at the northwest corner of Beverly Road and Prairie Stone Parkway subject to the conditions listed above.

FINDING

The petitioner presented a brief video and Power Point presentation to summarize how the Adesa business will operate on property. The consultants explained the detailed engineering, landscaping, screening, lighting and basic site plan details proposed for this project. The vehicle auction use will occupy roughly 66 acres on the west side of Beverly Road between Prairie Stone Parkway and Trillium Boulevard, and will include adjacent public roadway improvements. Normal business operations will function between 8 a.m. and 5 p.m. weekdays, with possible vehicle deliveries occurring during off-hours. A specific weekday morning will be chosen for the weekly auction, and this will remain consistent throughout the year. Peak activity will occur during the weekly auction event. The facility would only be open to licensed buyers and sellers; the site would not be open to the general public. The facility is designed to handle the auction of whole vehicles, not salvage cars (these are typically sent through a sister company location in East Dundee).

In order to develop the property with the desired use, the petitioner is requesting rezoning from AG to M-2. The Planning and Zoning Commission reviewed the proposed zoning relative to the surrounding area and found that the adoption of the Zoning Map Change is in the public interest and is not solely for the interest of the applicant, as required by Section 9-1-17.E.2 of the Zoning Code (Amendments).

The Vehicle Auction use is listed in the M-2 Zoning District and as such it is being considered as a Special Use under the "other uses not heretofore cited" category. The Commission considered the standards for a Special Use listed in Section 9-1-18 and felt that the special use was appropriate and met the standards.

In order to secure the outdoor vehicle storage lots, the petitioner is requesting approval of an electrically charged fence that will be installed around the site perimeter. The electric fence will be located inside a chain link fence with barbed wire to prevent outside individuals from accidentally coming in contact with it. The inside will be protected with a vehicle guardrail. The petitioner indicated that Adesa has not experienced many issues with security, but they prefer to take a proactive approach to avoid any problems. The electric fence will be monitored with cameras and zoned similar to a home security system and is not designed to harm people, just stop them from continuing to try and enter the site. The electric fence will be no higher than the permitted seven feet. The Commission reviewed the standards listed in Section 9-1-15 of the Zoning Code (Standards for Variation) and found that the standards were met, and also agreed that a waiver from Section 10-5-3.K to allow chain link around this facility would be appropriate.

The petitioner presented a Master Sign Plan for consideration, which included monument signs at the north and south corners of the property along Beverly Road, as well as wall signage on the main Arena building. The Commission considered the standards for a Master Sign Plan listed in Section 9-3-8.M.12 and found the standards were met.

The Commission asked a number of questions about the various details of the development and the business operation. In addition a number of questions were asked relative to the site layout, traffic, stormwater quality, security, signage, vehicle delivery & pick-up, building materials, screening, and various application details. During the discussion, the petitioner indicated that at the check-in building there will be in-pavement tire puncture devices to guard against possible theft since this vehicle entrance is the one location where fencing cannot be installed. The petitioner explained that the reconditioning building will function similar to any typical auto repair facility where mechanical repairs, detailing, and minor body work will occur. Adesa representatives stressed the fact that they have several dozen facilities of varying sizes throughout North America and their operations and site design have evolved based on their extensive experience in the business. They utilize advanced computer software to manage the vehicle inventory, track details on each car, offer live auctions on-line and in person simultaneously, and provide thorough security of the facility.

As part of the discussion, a few discrepancies were noted on the Village Site Plan Addendum and the petitioner agreed to correct these items (the revised document is included in the Village Board packet).

Staff noted one change in the recommended conditions – to require a reversion of the rezoning back to the AG District after one year (as opposed to five) in the event Adesa does not proceed with this project. This was a request of the current property owner. The petitioner agreed with this change and raised no objections to any of the other recommended conditions.

AUDIENCE COMMENTS

None.

PLANNING AND ZONING COMMISSIONERS

Chairperson Eva Combs	Thomas Krettler
Vice-Chairman Steve Caramelli	Greg Ring
Sharron Boxenbaum	Nancy Trieb
Lenard Henderson	Steve Wehofer
Myrene Iozzo	Denise Wilson
Diane Kielb	

ROLL CALL VOTE (All Motions)
10 Ayes
1 Absent (Wehofer)

MOTIONS PASSED

The following attachments are hereby incorporated as part of this Finding of Fact:

Staff Report
Applications, Plans & Accessory Information submitted by Petitioner for March 18, 2015 meeting
Updated/Revised Site Plan Addendum
Legal Notice
Location Map
Aerial Photo

VILLAGE OF HOFFMAN ESTATES
PLANNING AND ZONING COMMISSION
STAFF REPORT

PROJECT NO.: **2014032P** PROJECT NAME: **ADESA VEHICLE AUCTION**

PROJECT ADDRESS/LOCATION: **2675-2785 BEVERLY ROAD (NORTHWEST CORNER PRAIRIE STONE PARKWAY & BEVERLY ROAD)**

PUBLIC HEARING ☒ YES ☐ NO

REZONING ☒ MASTER SIGN PLAN AMEDMENT ☒ SPECIAL USE ☒ VARIATION ☒

PRELIMINARY & FINAL SITE PLAN AMENDMENT ☒ PRELIMINARY & FINAL PLAT ☒

MEETING DATE: **March 18, 2015** STAFF ASSIGNED: **PETER GUGLIOTTA**

REQUESTED MOTIONS

A. Approval of a request by Adesa Inc. for a preliminary and final plat of subdivision for the 66.5866-acre Adesa Subdivision located at the northwest corner of Beverly Road and Prairie Stone Parkway.

B. Approval of a request by Adesa Inc. for a preliminary and final plat of subdivision for the 1.1626-acre Village Water Tower Subdivision located west of Beverly Road along the north side of the proposed Prairie Stone Parkway extension.

C. Approval of a request by Adesa Inc. for rezoning of 67.7492 acres at the northwest corner of Beverly Road and Prairie Stone Parkway from the AG Agricultural District to the M-2 Manufacturing District.

D. Approval of a request by Adesa Inc. for a special use under Section 9-9-2.C.2.k of the Municipal Code for a Wholesale Vehicle Auction House with outdoor vehicle storage on the newly proposed Lot 1 in the Adesa Subdivision located at the northwest corner of Beverly Road and Prairie Stone Parkway.

E. Approval of a request by Adesa Inc. for a fence variation under Section 9-3-3.B of the Municipal Code for a Wholesale Vehicle Auction House on the newly proposed Lot 1 in the Adesa Subdivision located at the northwest corner of Beverly Road and Prairie Stone Parkway.

F. Approval of a request by Adesa Inc. for a preliminary and final site plan for construction of a western extension of Prairie Stone Parkway (approximately 1,300 feet).

G. Approval of a request by Adesa Inc. for a preliminary and final site plan for construction of a Wholesale Vehicle Auction House (including off-site improvements to Beverly Road and to

the Village water tower site), on approximately 65 acres located at the northwest corner of Beverly Road and Prairie Stone Parkway.

H. Approval of a request by Adesa Inc. for a Master Sign Plan under Section 9-3-8-M-13 of the Municipal Code for the property (Lot 1 of the Adesa Subdivision) located at the northwest corner of Beverly Road and Prairie Stone Parkway.

INCLUDES RECOMMENDED CONDITIONS* ☒ YES ☐ NO

***Note:** To accommodate an accelerated approval process for the petitioner, this hearing has been scheduled based on the expectation that the plans submitted in the attached packet would address all staff-level review comments. However, staff has noted that there are technical issues that still need to be addressed on the various plans and plats, therefore conditions are recommended that provide for an additional comprehensive staff-level review prior to any permits being issued. The petitioner will be responsible for full compliance with any comments generated through the additional staff review.

ACRES: 68 (APPROXIMATE)	CURRENT ZONING DISTRICT: AG Agriculture PROPOSED ZONING DISTRICT: M-2 Manufacturing	
ADJACENT PROPERTIES:	NORTH: Beverly Gravel Pit, Zoned AG	SOUTH: Beverly Gravel Pit, Zoned AG Life Changers Church, Zoned O-3
	EAST: Prairie Stone Business Park, Zoned O-5	WEST: Beverly Gravel Pit, Zoned AG

BACKGROUND

The subject property is part of the Beverly Gravel Pit site that was annexed to the Village in the early 1980's. Mining activity ceased several years ago and the owner is currently filling the mined areas. Truck access for the filling operation occurs off Higgins Road through property that is outside Village boundary to the west. There is also a landscape and construction materials recycling facility operating under a Village special use and site plan approval on a portion of the gravel pit property that will remain in place.

The Beverly Gravel Pit property is covered by an Annexation and Development Agreement (and amendments). The most recent amendment (2003) allowed a master-planned residential development that would have included a variety of residential housing types, a large park site, and a school site. The contract purchaser/developer of that project did not end up buying the property and the plans approved under that agreement are no longer viable. In order for the current Adesa proposal to move forward, the Village Board will consider a new proposed amendment from the land owner that will essentially cancel the 2003 approval. Based on soil issues that were evaluated in detail several years ago, an industrial use with few new buildings is a much more viable options for this much of this property than the former residential plans.

The applicant, Adesa Inc., is still in the process of finalizing a contract to purchase the subject property from the owners (legal ownership is under two separate Trusts). A property owner representative has

provided written authorization for this hearing process to proceed, however the formal legal consent is still forthcoming. Prior to Village Board action, Adesa will either have to provide a copy of a signed contract to verify a legal interest in the property, or the ownership will need to provide proper written consent from the ownership Trusts. Corporation Counsel has confirmed that this approach is acceptable for the Planning and Zoning Commission to proceed with a recommendation. Conditions of approval are included regarding the proper ownership verification prior to Village Board action.

PROPOSAL

Adesa Inc. is a wholesale, vehicle auction company that hosts weekly vehicle auctions both on-site and online. Adesa plans to purchase approximately 65 acres of the overall ±450 acre Beverly Gravel Pit property, and is seeking the necessary approvals to develop a regional wholesale vehicle auction facility to better compete with other large auction companies in the Chicagoland market area. Adesa is the second largest wholesale auction company in the country, with their nearest existing facility being in Indianapolis. Anticipating this facility will be very successful, Adesa has also secured options to purchase additional land to the west and north of the subject property, however no plans have been submitted for these areas and they are not specifically included in the zoning or site plan requests.

This facility is designed for operable vehicles to be exchanged between licensed sellers and buyers. It is not open to the general public. The site will consist of a main "Arena" building (with company offices, a cafeteria, and the live auction lanes), plus several other accessory buildings for vehicle check-in, inspections, car wash, repairs, etc. The majority of the site would be paved and striped for vehicle storage spaces and would be enclosed by security fencing. A customer parking lot would be located along Beverly Road in front of the Arena building, which is the only customer-accessible part of the site. There are separate vehicle drop-off and pick-up areas outside of the security fencing to accommodate the delivery trucks that visit the facility throughout the week.

The facility generally functions on a weekly cycle, with vehicles being delivered, inspected, cleaned/repaired, photographed, and stored in an organized manner within the fenced parking area leading up to the auction day when as many as 500-600 wholesale customers will visit the facility and be present on site for 4-5 hours (typically starting around 9 a.m.). Post-auction, buyers will arrange to remove their vehicles from the property within the following few days, and the weekly cycle of deliveries leading up to the next auction will begin. Unsold cars are returned to the storage lot for a future auction date, unless the seller chooses to remove them. Auctions can include a general mix of pre-owned cars, or may be specific to a certain make/model of car, specific age of vehicle, certain body styles, or other specific characteristics. The facility also hosts occasional auctions for trucks, busses, or recreational vehicles, or other vehicles, however the predominant transaction is for typical passenger vehicles. The petitioner will present a more detailed explanation of the facility and its operation at the public meeting.

REZONING

In considering a rezoning request (zoning map amendment), the Planning & Zoning Commission shall not recommend the adoption of a proposed amendment unless it finds that the adoption of such amendment is

in the public interest and is not solely for the interest of the applicant. Specifically, Section 9-1-17.E.2 of the Zoning Code (Amendments) states:

Where the purpose and effect of the proposed amendment is to change the zoning classification of a particular property, the Planning and Zoning Commission, shall make findings based upon the evidence presented to it in each specific case with respect to the following:

a. Existing uses of property within the general area of the property in question;
b. The zoning classification of property within the general area of the property in question;
c. The suitability of the property in question for the uses permitted under the existing zoning classification;
d. The trend of development, if any, in the general area of the property in question, including changes, if any, which may have taken place since the day the property in question was placed in its present zoning classification.

The property is currently designated as AG Agricultural District based on the pre-existing gravel pit use and as agreed to at the time of annexation over 30 years ago. In order to accommodate the proposed vehicle auction facility, the petitioner is requesting to rezone the property to the M-2 Manufacturing District. This specific use is not defined and listed in the Village Zoning Code, however, the M-2 District does allow for a special use to be considered under the "all other uses not heretofore cited" listing in Section 9-9-2.C.

With the exception of the regional Life Changers Church (zoned O-3), all of the property west of Beverly Road and north of the I-90 Tollway contains the Beverly Road gravel pit (zoned AG), which includes an outdoor landscape/construction materials recycling facility and a construction office/storage yard, besides the gravel pit filling operation. There is also an outdoor golf driving range that leases the northeast portion gravel pit property. The gravel pit use is not permanent since the mined areas will eventually be filled and no longer useful for that purpose. No specific future plans exist for the gravel pit. The property to the east of Beverly contains the Prairie Stone Business Park, which has a mixed zoning of B-3 and O-5, with the most proximate parcels still being vacant. All of the surrounding zoning districts are designed to accommodate uses that will likely contain large buildings and parking lots, and could likely generate high volumes of vehicular traffic. There are no existing or planned residential land uses near the subject site.

The proposed M-2 Zoning District is compatible with the adjacent AG, B-3, O-3, and O-5 zoning districts since they all are intended for large-scale commercial uses that benefit from the proximity to Interstate access and the fact that there are no proximate residential developments. The proposed parcel for rezoning is large enough and positioned in a manner that will not impede the development pattern of nearby properties in the future.

PRELIMINARY AND FINAL ADESA PLAT OF SUBDIVISION

The proposed Adesa Plat of Subdivision contains a total of 66.5866 acres and would subdivide a portion of the previously unsubdivided Beverly Gravel Pit property as follows:

Lot	Purpose	Acres
Lot 1	Main Adesa Development Site	49.5001
Outlot A	Retention basin	11.8192
Lot 2 (Trillium Boulevard)	Road Dedication	1.7218
Beverly & Prairie Stone	Road Dedication	3.5455
	Total	**66.5866**

The Beverly Road dedication is needed in order for the western half of Beverly Road to be completed to current Village standards, including an overall 4 through lanes, left turn lanes in the center median, and a right turn at Prairie Stone Parkway. The additional right of way will also accommodate installation of a new off-street bike path on the western side of the road (in lieu of a sidewalk). Village acceptance will formally occur following completion of all roadway improvements.

The Prairie Stone Parkway dedication is necessary to extend the roadway west from the existing Life Changers Church driveway, to a point west of the Village water tower, where the vehicle drop-off access will be located for the new Adesa development. The right of way will match the existing near Life Changers, and taper down to 80 feet in width further west to accommodate a standard cross section of one through lane in each direction and a center median with turn lanes. The dedication will also allow space for the required public sidewalk on each side of the street. Village acceptance will formally occur following completion of all roadway improvements.

The Trillium Boulevard dedication will provide access to both Adesa and the vacant future development parcel north of Adesa. The proposal is to have Trillium dead-end at the Adesa vehicle pick up area on the west since there are no other parcels that will need to use this road for access initially. Depending on future development to the north, the roadway could curve north into the future development site to provide access, however, design for any such improvement cannot occur without a development proposal for that vacant land. Because Trillium will only be needed for Adesa at first, and the vehicle auction house is not open to the general public, there is no reason for Trillium to become a public roadway until the land to the north is proposed for development. The roadway will be dedicated with this plat, but the Village will not formally accept the land or the improvements until such time as it actually needs to become a public street. This will permit Adesa to only construct the improvements they need for their own access at this time. In the future, and prior to formal acceptance of Trillium as a public street, the full public improvement would have to be made. Since Adesa has an option to purchase the vacant land north of Trillium, it is possible the road will never need to be dedicated as a public street. The Village may decide to vacate this right of way in the future, if appropriate.

The plat also contains the necessary easements for the public water main and fire hydrants on the property, the stormwater management easement required over the retention pond parcel, and other public utility easements along the site perimeter to allow adjacent parcels to connect to utilities, as needed in the future. A small area of public pathway easement is granted along Beverly Road near Prairie Stone Parkway where the public path will need to meander onto private property to avoid an existing utility structure in the right of way.

Prior to the Village Board consideration of this plat, the owner will need to provide complete documentation to ensure the proper legal signatures are being included on the plat, and any remaining minor technical items have been addressed on the document.

MUNICIPAL WATER TOWER PLAT OF SUBDIVISION

A necessary and integral part of the western extension of Prairie Stone Parkway in its proposed configuration includes the conversion of a portion of the Village-owned water tower property into road right

of way. Because this acre parcel is owned by the Village and is not part of the Adesa purchase from the current Beverly Property land owner, a separate plat has been prepared to simplify the "owner" signature and recording process.

The plat will create 2 parcels, plus dedicate a 70' wide right of way for public road use. The Village will continue to own all the land covered by this plat, however, legally the parcel dedicated for public road use will allow a different level of public access and rights versus the other two non-dedicated parcels.

Lot	Purpose	Acres
Lot 1	Existing water tower site	0.6297
Lot 2	Vacant parcel	0.1938
Prairie Stone Parkway	Road Dedication	0.3391
	Total	**1.1626**

A key reason for the Prairie Stone right of way to cross the Village water tower site is the presence of a 50' wide pipeline easement that exists immediately south of Prairie Stone Parkway. The pipeline company will not permit the public road to run above the pipe for a long distance and therefore if the roadway were to shift south of the water tower site, it would need to shift at least 50 feet to the south. This would significantly reduce the acreage of another vacant development parcel west of Life Changers Church, which is not desirable for the land owner or another development that is in the conceptual design stage. The pipeline easement covers the southern Lot 2 of this plat, limiting the Village's options for uses on this parcel.

The Public Works Department has determined that the proximity of the new right of way and road to the water tower is acceptable. It is noted that the Village currently has several water towers that are located in close proximity to both houses and commercial buildings elsewhere in the Village and this poses no concerns.

More details are provided later in this memo on the Prairie Stone Parkway road improvements, as well as changes to the Village water tower site being done by the developer to compensate for the reduction in the useable land area adjacent to the tower.

SPECIAL USE – ZONING CODE SECTION 9-8-5-C-1

The special use consideration is based on the assumption that the property will be approved for rezoning to the M-2 Manufacturing District.

Since it is a relatively uncommon use, a Wholesale Vehicle Auction House is not listed as a specific use in the M-2 District (nor in any other district). The M-2 District does include a possible special use listing (9-9-2.C.2.k) for "All other uses not heretofore cited" that can apply to this request and is intended to cover uncommon uses that may not have been contemplated when the code was written. In addition to the actual auction arena area, this particular use includes accessory facilities such as a car wash, repair shop, offices, inspection building, outdoor vehicle storage, a test track, and a cafeteria.

The special use will be limited to the use as defined in the petitioner's submittal materials, and as limited by the Village license(s) for this type of use. The proposed use specifically does not include abandoned, grey market, junk, or other vehicles. This use is not intended to include sales of car parts, salvage operations, or damaged vehicles that are not legally road-worthy. Adesa's parent company does own a nearby facility (East Dundee) where damaged or junked vehicles are auctioned.

For the special use permit review, the Planning & Zoning Commission shall consider the potential impacts that the granting of the special use may have on surrounding properties. Specifically, "Section 9-1-18-I of the Zoning Code (Standards for a Special Use) states: "No special use shall be recommended by the Planning and Zoning Commission unless said Planning and Zoning Commission shall find:

1. That the establishment, maintenance, or operation of the special use will not be detrimental to or endanger the public health, safety, morals, comfort, or general welfare;
2. That the special use will not be injurious to the use and enjoyment of other property in the immediate vicinity for the purposes already permitted, nor substantially diminish and impair property values within the neighborhood;
3. That the establishment of the special use will not impede the normal and orderly development and improvement of surrounding property for uses permitted in the district;
4. That adequate utilities, access roads, drainage, and/or necessary facilities have been or are being provided;
5. That adequate measures have been or will be taken to provide ingress or egress so designed as to minimize traffic congestion in public streets; and
6. That the special use shall in all other respects conform to the applicable regulations of the district in which it is located, except in each instance as such regulations may be modified by the Village Board pursuant to the recommendation of the Planning and Zoning Commission.

The petitioner has addressed the special use standards in their application. Provided all the conditions of the site plan approval are met, this use can be acceptable on this property.

ELECTRIC FENCE VARIATION & CHAIN LINK FENCE WAIVER

Section 9-1-15 of the Zoning Code – *Standards for a Variation* - states that the Planning and Zoning Commission shall not recommend the adoption of a proposed variation unless it finds that the variation meets the Standards for Variations as set forth in the Zoning Code.

1. The Planning and Zoning Commission shall not recommend the variation of the regulations of the Code unless it shall first make a finding based upon the evidence presented to it in each specific case that:

    a. The property in question cannot yield a reasonable return if permitted to be used only under the conditions allowed by the regulations in the district in which it is located;
    b. The plight of the owner is due to unique circumstances;
    c. The variation, if granted, will not alter the essential character of the locality.

2. For the purpose of implementing the above rules, the Planning and Zoning Commission shall also, in making its determination whether there are practical difficulties or particular hardships, take into consideration the extent to which the following facts favorable to the applicant have been established by the evidence;

    a. The particular physical surroundings, shape of topographical condition of the specific property involved would result in a particular hardship upon the owner, as distinguished from a mere inconvenience, if the strict letter of the regulations were carried out;
    b. The conditions upon which the petition for a variation is based would not be applicable, generally, to other property within the same zoning classification;
    c. The purpose of the variation is not based exclusively upon a desire to increase the value of the property;

d. The alleged difficulty or hardship has not been based exclusively upon a desire to increase the value of property;
e. The granting of the variation will not be detrimental to the public welfare or injurious to other property or improvements in the neighborhood in which the property is located; and
f. The proposed variation will not impair an adequate supply of light and air to adjacent property, or substantially increase the congestion in the public streets, or increase the danger of fires, or endanger the public safety, or substantially diminish or impair property values in the neighborhood.

3. The Planning and Zoning Commission may recommend to the Village Board that such conditions and restrictions be imposed upon the premises benefited by a variation as may be necessary to comply with the standards set forth in this section to reduce or minimize the injurious effect of such variation upon other property in the neighborhood, and better to carry out the general intent of this Code.

Because this facility will contain a majority of its inventory outside on the site, and it is not staffed on a 24-hour basis, Adesa is proposing significant security measures that include use of an electrically charged fence. This type of fence is specifically prohibited by Section 9-3-3.B.1 of the Village Zoning Code.

A detailed fence plan is provided on sheet C 2.0 of the Final Engineering Plan set, and supplemental fence information is also included in the packet. The plans show that surrounding all paved areas where an electric fence is used, the pavement is separated from the electric fence by a vehicle guardrail and a 2.5 foot setback. This occurs in areas where only Adesa employees will be present and the owner will have their own safety procedures in place regarding working near the fencing. The exterior of the property will be surrounded with a 6 foot high chain link fence that includes an angled 1 foot of barbed wire on top, and this fence is also 2.5 feet away from the electric fence. It will not be possible for anyone outside the facility to reach the electric fence without first getting past a 7 foot high barbed wire obstacle – therefore accidental contact is virtually impossible.

The use of electrically charged fencing is common in many agricultural situations and in other highly sensitive outdoor situations, although typically these occur in rural areas or more heavily industrial locations. The proposed fence is designed for this type of situation and the shock is not intended to be fatal, but instead act as a strong deterrent for anyone trying to illegally enter the site.

The petitioner will present more detailed information about the fencing and be able to answer technical questions at the public meeting.

In conjunction with the electrically charged fence variation, the petitioner is requesting a waiver to Subdivision Code Section 10-5-3.K to allow the chain link fencing. The use of chain link is typically prohibited in the Village except for single family residential properties and around recreation uses such as a baseball field or tennis court. While chain link is not necessarily appropriate on most business properties in the Village, in this unique location (gravel pit property), surrounding this type of use, chain link fencing can be appropriate as long as it is not in a highly visible location for the general public. It should be noted that the Village Zoning Code does permit barbed wire to be installed on top of permitted fencing in the Manufacturing and Agricultural Zoning Districts.

PRAIRIE STONE PARKWAY - PRELIMINARY AND FINAL SITE PLAN

The extension of Prairie Stone Parkway to the west of the subject property is necessary for this project to proceed. The petitioner has submitted a separate plan set with full engineering, lighting, and landscaping

information for this public road improvement. The improvements will include a portion of previously dedicated right of way west of the Life Changers driveway, a portion of new right of way to be dedicated across the Village's municipal water tower site, and a majority of the new right of way to be dedicated with the Adesa Subdivision Plat. The roadway improvements will end immediately west of the Adesa drop-off lot driveway since it is undetermined if or when the road may ever need to be extended further west. This is similar to the plan that was approved for the Life Changers Church. The right of way will be dedicated to the western edge of the petitioner's property, however the road will only be constructed as far as it is needed at this time.

The public street extension will match the existing 5 lane cross section (including the median) just west of the Life Changers driveway. The road will transition to a narrower 3 lane cross section to the west where a much lower volume of traffic is expected. This will provide a through lane in each direction, plus a center shared left turn lane. The road will be designed to accommodate trucks and passenger cars, similar to other comparable streets in the Village.

The road extension plans include public sidewalk on both sides of the street, street lights, and parkway trees in accordance with the Subdivision Code requirements. Village staff is still performing a final review of these plans to determine any additional technical items that may be needed.

One issue that has been identified, is that the improvement plans for this road extension indicate grading beyond the south side of the newly dedicated right of way, onto the adjacent private properties. No formal approvals have been provided from the adjacent owners. This grading will affect both the Life Changers Church property and land owned by the existing Beverly Gravel Pit property owner. Further, this area is located within a pipeline easement, which typically requires careful analysis from the pipeline company. Approval from all of these parties will be needed before any construction can begin on the roadway – the appropriate conditions are included in the motion for this site plan.

ADESA VEHICLE AUCTION - PRELIMINARY AND FINAL SITE PLAN

General Site Layout

This project includes a main "Arena" building that will contein the company offices and host the weekly auction events. In addition, a large amount of paved outdoor vehicle storage, several service buildings, and extensive security fencing are proposed as part of this facility. This facility is unlike any other project that has been developed in the Village, and aesthetically it would not be appropriate on most other parcels. In order to avoid negatively affecting the development of surrounding properties, it is critical that the appearance of this development from Beverly Road be generally consistent with the development standards used in the Prairie Stone Business Park to the east, and the Life Changers Church to the south. Compliance with Village Subdivision Code standards on the portions of this project visible from Beverly Road will ensure that this project is compatible in this location. The proposed site contains two distinctly separate areas, one containing a typical office building accessible to auction visitors (and visible to the general public along Beverly Road), and the other containing large paved storage lots and vehicle service buildings that is only accessible to employees. Through the use of proper screening, the large paved storage areas can be buffered from views from the public. At this time, the vacant land to the west of this facility is still part of the active gravel pit operations and no screening is necessary. Further, soil conditions make typical building construction on much of the gravel pit property infeasible, therefore it is anticipated that uses similar to the gravel pit or the existing outdoor materials recycling business will continue on the

remainder of the site for the foreseeable future (or Adesa may exercise its option to purchase more land and expand west). If other types of development are proposed adjacent to this facility, those developments can be evaluated for additional screening, as appropriate.

The plans for the large outdoor storage lot reflect operational needs and a design approach that is not contemplated in the Village Subdivision Code site design standards, thus resulting in the need for Adesa to request a large number of code waivers. Because the number of specific code waivers is significant, the conditions are drafted with a "master waiver" to Articles 10-4 and 10-5 of the Subdivision Code, which covers a broad range of topics. Waivers are only granted to the extent that items on the attached plans do not meet the code, however the plans do still represent the minimum requirement of what must be constructed in and around the fenced area. The necessary proposed waivers are recommended in the conditions of approval.

Primary items (but not all) that are not compliant with the Subdivision Code include:

- Lack of curb and gutter around the edge of most storage lot pavement, storage spaces, drive aisles, and separating the pavement from buildings and other structures. (Article 10-5)
- Lack of landscaping within and around the storage lot area, around buildings, etc. (Article 10-4)
- Use of stone in island areas instead of landscape material. (Article 10-4)
- Building materials and design are not consistent with the design of other buildings that have been approved in the Village. (Section 10-5-3.H)
- Site lighting that does not meet uniformity levels. (Section 10-5-3-G)

The front facade of the main Arena building and the visitor parking lot have been designed to meet the various landscaping, lighting, building appearance and other standards in the Subdivision Code, similar to any other building in Hoffman Estates. In order to effectively buffer views of the vehicle storage lots from Beverly Road, the plan relies upon three factors:

1. *Distance* – the vehicle storage lot is setback from the Beverly Road right of way by approximately 220 feet.
2. *Grade Change* – the storage lot is roughly 10 feet lower than Beverly Road and the grade continues to drop lower further west into the site.
3. *Layered Landscaping* – trees will be planted along Beverly Road, in the Adesa site perimeter, within the visitor parking lot islands, and a mix of shade and evergreen trees & shrubs will be located in a landscape buffer strip between the visitor parking lot and the storage lots.

Collectively these factors will provide buffering of the views into the storage area. It may be possible to see filtered glimpses of the vehicles being stored, but the waivers being requested will not be apparent through the distance, grade change, and landscape buffer.

Access

Access is provided to the Adesa site in four separate locations. There are visitor and employee access connections located on Prairie Stone Parkway (across from Life Changers Church) and on the new extension of Trillium Boulevard. Both access locations require drivers to essentially make a large U-turn to get into the site, but these driveways have been designed to be wide enough to accommodate this

movement. During the typical weekday operations (non-auction days), the number of cars accessing the site will be generally limited to employees and relatively few visitors. Access will easily accommodate these periods. On auction days, as many as 80 employees and over 500 customers visit the site. Immediately before and after the auction events, it is expected these driveways will be heavily used. However, since there is little to no traffic using either street during these same periods, the access as designed should be acceptable. Staff had requested that the site design be modified to allow a more direct flow of traffic in and out of the parking lots, however the petitioner was not able to provide changes in the circulation pattern due to their internal operational layout needs.

Access for a vehicle delivery lot is provided off Prairie Stone Parkway west of the Village water tower, and a pick up lot is located at the western terminus of Trillium Boulevard. Both of these areas are designed for delivery truck circulation and parking. Access into the site beyond either of these areas will be limited to authorized personnel only. The petitioner anticipates installing tire-puncture devices in the pavement in addition to the security fencing to deter unauthorized access, however, details have not yet been reviewed for these devices.

The plans include improvements to Beverly Road along the front of the property, including an additional southbound through lane, turn lanes at Trillium, relocated lighting, the addition of curbing on the western pavement edge, the construction of a new 10 foot wide path on the west side of Beverly (consistent with the Village's Bicycle and Pedestrian Plan), and other minor improvements. The Beverly improvements also include the addition of pedestrian countdown timers at the signalized intersection of Beverly and Prairie Stone to accommodate the new path where it will cross Prairie Stone and connect to an existing walk to the south. In order to keep this intersection consistent, the petitioner will need to also add countdown timers for the crossing of Beverly Road where the path will continue to the east. The upgrade of the path system and signal improvements are consistent with the recently updated Subdivision Code provisions and the Village's adoption of a Complete Streets Policy, which recognizes all users of the public rights of way, as opposed to a single-purposed design just for motorized vehicles.

Engineering – Subdivision Code Section 10-3

The subject property includes mostly unmined land, but also a portion of the property that has been excavated and not refilled. Adesa will need to complete significant grading work to create a usable parcel with moderate pavement slopes that work for their operations and allow proper drainage flow. Existing grades on the site range from the high 850's along Beverly Road, to approximately 810 on the development parcel adjacent to the proposed retention pond, with wide variation in grades in the middle of the site. Adesa will need to level the property and provide a gradual slope from east to west to make the property useable. The buildings on the western portion of the site will be significantly lower than the main building and Beverly Road.

Water service for this property will be accommodated by a looped main system that connects to the existing main at Beverly and Trillium, and to the relocated water main that will be installed along the Prairie Stone Parkway extension. Hydrants are located throughout the site as required by the Subdivision Code and as determined necessary by the Fire Department. There are no issues with the proposed water main.

In past years based on projected sewage volumes for developments being considered at the time, it was anticipated that sanitary sewer service for the overall Beverly Gravel Pit property would require a new connection be made underneath the Tollway to the south. However, because the new proposal contains a very low anticipated sewage flow relative to the size of the development parcel, it does not appear that a new sewer will need to be extended under the Tollway. The Village Engineer has evaluated current sewer flow estimates and determined that there is sufficient capacity in the downstream system for this development to connect to the gravity system that flows east through Prairie Stone. Similar low-volume uses on the remainder of the gravel pit site should also be able to be accommodated in this manner. In the event any high volume water/sewer uses are proposed for other parts of the Beverly Property, they may need to re-evaluate the need for a connection beneath the Tollway. The petitioner has proposed a water reclamation system as part of the car wash facilities to minimize water use and sewer flow from this part of the facility.

For this site, sanitary service will be provided via a connection to the existing Village system at the intersection of Prairie Stone Parkway and Beverly. Because the western portion of the site is significantly lower than the existing sanitary sewer elevation, the western buildings will have a private sewer ejector pump to force the flow east into the main Adesa gravity-flow system. The ejector pump and force main system will all be private and internal to the Adesa development site.

Stormwater flow from the site will be collected in a typical storm sewer system and directed into a new retention basin at the northwest corner of the development. In order to construct this retention basin, Adesa will need to construct an earthen berm to separate the previously mined areas of the site that naturally contain water from the new controlled basin. The Adesa basin will have a restrictor and be managed similar to other facilities in the Village. Adesa is subject to the same requirements of the Metropolitan Water Reclamation District (MWRD) as all other properties in the Village. Part of the MWRD current ordinance requires that stormwater be filtered through open swales to improve water quality before the water enters the basin. This is provided on the plans and is part of an important element to address the following item.

The Illinois Department of Natural Resources (IDNR) has reviewed the proposal and their consultation includes recommendations based on the fact that this property lies within a Class III Special Resource Groundwater Area. The guidance is non-binding, but intended to ensure stormwater runoff does not result in contaminants being discharged into surface or ground water areas, which may ultimately violate State laws. The guidance basically seeks to have stormwater flow for the longest distance possible through rain gardens and bio-swales that will allow organic matter to filter contaminants naturally. The Village Engineer has worked with the applicant to maximize the use of these design features and the latest plans reflect these changes. This approach is common in all current stormwater drainage plans and the Village often suggests the addition of these types of features or best management practices, even for properties that are not located in a particularly sensitive location.

Adesa has learned that the Beverly Gravel Pit property is part of the MWRD service area, however, because it was annexed into the district after 1998, a per-acre impact fee is due at the time of each development. This has not typically been applicable to most other developments in the Village, but will apply to this, and all future developments on this property. The Village Board may consider an incentive

agreement to assist with this fee through a rebate of new taxes that will be collected by the Village for this use. This is not a component of the site plan review, but provided for informational purposes only.

Landscaping – Subdivision Code Section 10-4

The plans indicate compliance with the Subdivision Code landscape requirements for the visitor parking lot and the area in front of the Arena building, as well as within the Beverly and Prairie Stone Parkway rights of way. Additionally, site perimeter trees will be planted around the outer edge of the property, where practical, to provide some level of tree cover. As noted earlier, the areas within the security fencing will not have any landscaping. Detailed plans are provided for the key screening views from Beverly Road, as detailed earlier in this memo. Generally the landscape plans are acceptable (with the requested waivers), however staff is still performing a final technical review to ensure all property details are correct.

Building Design – Subdivision Code Section 10-5-3-H

The proposed buildings consist of basic metal panels, a standing-seam metal roof, and concrete block athe base of the walls. The Arena building will include stone veneer in lieu of concrete block, and will have windows typical of a one-story office building, along with areas of EIFS where signs will be installed. This treatment wraps around the northeast and southeast corners of the building where it may be visible from Beverly Road. The rear buildings include all the same basic materials, except that in lieu of block, sealed concrete is used on some wall bases. With the exception of the front portion of the Arena building where stone and EIFS are used, none of the other building elevations conform to the standards included in the Subdivision Code. All other building facades are designed in a more utilitarian manner based on the fact that they will generally not be visible from any proximate location to the general public. The substandard areas are addressed in the waiver section of the conditions of approval.

All mechanical units are proposed to be ground mounted and screened through the use of solid fence panels consistent with the building materials. These are generally located on the north and south sides of the main Arena building and include a generator. The dumpster for the property will be contained within the secure fence area and not visible to the public.

Exterior Lighting – Subdivision Code Section 10-5-3-G

Generally the visitor parking lot and all accessible driveway areas are intended to meet Village lighting standards. However, there is a deficiency in the uniformity ratio for these areas and staff is still reviewing other details of the lighting plan that may need revisions. It has been noted that the lighting plans omitted the Trillium right of way and the vehicle pick up lot, both of which will need to contain lighting consistent with the rest of the site. Fixture heads shown for the parking lot areas are acceptable, and no tilted or outward-facing light sources will be permitted.

The vehicle storage area within the security fence is not necessarily designed to meet typical lighting standards since this area will not be accessible to the general public or visitors and is designed for a specific purpose. However, no fixtures that generate glare on adjacent roadways or properties will be permitted. The conditions address a waiver for this.

Building mounted light fixtures will be designed with a flat lens mounted parallel to the ground to minimize glare concerns, in accordance with the Village Subdivision Code.

Parking

The visitor parking lot for this facility is designed to accommodate the peak parking demand that occurs on auction days, when Adesa expects to have roughly 80 employees and 500 visitors present. The total parking available is 613 spaces, which provides a cushion above the expected demand on large auction days. Other days of the week will see far fewer employees and virtually no visitors and the parking lot will be mostly empty.

For purposes of determining the required number of handicapped parking spaces, only the number of actual parking lot spaces is being used, as opposed to counting all the area available for vehicle storage. The site will contain approximately 613 employee and visitor parking spaces, which dictates the need for at least 12 handicapped parking spaces and the plan shows this number proximate to the front building entrance.

Municipal Water Tower Site Improvements

In order to maintain the western extension of Prairie Stone Parkway in the configuration desired by the petitioner, the right of way will need to traverse the existing municipal water tower site owned by the Village. The Public Works Department has reviewed the plans and determined that the plans can function in an acceptable manner, however there will be a loss of site area that would otherwise be usable by the Village. As compensation for the impact on the Village site, the petitioner has agreed to three primary improvements at their expense as part of this project.

1. The petitioner will be installing their own security fence around the north and parts of the east and west portions of the water tower site. The petitioner will extend a six foot high fence, with a gate, around the remainder of the site.

2. The petitioner's site accepts groundwater runoff from the water tower site. The Village currently has a concrete drying bed facility on the property where wet debris is dumped until the moisture drains out, and it is then removed and disposed of. The petitioner has agreed to install an improved drainage system to collect this water runoff and allow it to flow into their new storm sewer system.

3. The Public Works Department has identified the fact that the existing weather warning siren located in the center of the water tower property could be relocated to one of the corners to free up more usable space. This would compensate for some of the land area that will be lost to the new roadway construction and the petitioner has agreed to pay for this relocation.

As part of the road construction, a new driveway will be installed into the water tower site for Village access. Any additional minor site grading and restoration that is needed due to the above work will need to be completed by the petitioner.

MASTER SIGN PLAN

As noted, the Adesa facility is an uncommon mix of a few buildings on a very large property with many acres of paved vehicle storage. The signage for this facility is primary focused on Beverly Road where all access will come from. Staff has used the proposed signage plans to draft the text of a Master Sign Plan for Adesa (in packets).

The sign plan would permit two ground/monument signs at the northeast and southeast corners of the property, spaced roughly 1,000 feet apart. Wall signs are primarily on the Beverly Road-facing elevation of the main Arena building, with a main sign, another above the building entrance, and a separate logo. An additional single wall sign would be permitted on each of the other three buildings at the west end of the site, however it is unlikely Adesa will install that much signage initially. These buildings are grouped together with limited visibility from any public street. Other signage, such as directional/instructional signs and temporary signs, would be permitted in accordance with standard code requirements.

Master Sign Plan Standards

Section 9-3-8-M-12 of the Zoning Code lists the goals that a Master Sign Plan should achieve as follows:

- Result in architecture and graphics of a scale appropriate for the subject development and the surrounding area;
- Provide signage consistent with the site plan and architecture of the project:
- Avoid visual clutter;
- Allow visitors, employees, and consumers to readily identify the business entrances, while addressing the community's need for attractive, unobtrusive architecture and commercial graphics;
- Result in a unified theme of signage for the project.

Overall, the proposed amount of signage in the Master Sign Plan is reasonable based on the scale of this development. This particular business does not depend on significant signage in order to operate successfully. The monument and wall signs proposed in this plan meet the intent of the Master Sign Plan requirements.

RECOMMENDATIONS

Please note that due to the complexity of this project and time constraints, it is possible that amended or additional conditions may be provided at the March 18th meeting.

***Note:** To accommodate an accelerated approval process for the petitioner, this hearing has been scheduled based on the expectation that the plans submitted in the attached packet would address all staff-level review comments. However, staff has noted that there are technical issues that still need to be addressed on the various plans and plats, therefore conditions are recommended that provide for an additional comprehensive staff-level review prior to any permits being issued. The petitioner will be responsible for full compliance with any comments generated through the additional staff review.

The following conditions shall apply to <u>all</u> motions:

1. Prior to Village Board action on any request by Adesa, Inc., the petitioner shall provide either a copy of a signed contract to demonstrate a legal ownership interest in the property, or a written

statement of consent signed by the legal owners of the subject property. Compliance with this condition shall be subject to verification by the Village's Corporation Counsel.

2. Approval of any request by Adesa, Inc. for this property is subject to approval of a Development Agreement Amendment between the Village and the current property owners to eliminate all previous rights and obligations on the property. Compliance with this condition shall be subject to verification by the Village's Corporation Counsel.

3. It has been identified that the final submittal dated March 12, 2015, has not fully addressed all technical comments identified by staff, and additional review comments are still being identified. All submittal documents, plans and plats submitted for the Planning and Zoning Commission review process shall be subject to additional comprehensive staff-level review prior to approval for any site work to start and prior to issuance of any permits on this site.

4. These approvals are granted solely for the plans provided in this application packet for this hearing process. No approvals are granted for any future phase of expansion of this use on other portions of the property. It is acknowledged that the petitioner may seek to obtain approval for expansion of this use on adjacent parcels in the future, and such requests will be subject to the appropriate site plan and zoning review processes.

A. Approval of a request by Adesa, Inc. for a preliminary and final plat of subdivision for the 66.5866-acre Adesa Subdivision located at the northwest corner of Beverly Road and Prairie Stone Parkway, subject to the conditions listed above and the following conditions:

1. The plat document is subject to further review by Village staff and Corporation Counsel to address any outstanding items determined necessary by the Village.

2. The plat document shall be revised to include the dedication of right of way for Trillium Boulevard for the entire Lot 2 area.

3. The plat shall be signed by the current legal owners of the property, subject to verification by the Village's Corporation Counsel, prior to recording.

4. Village acceptance of public improvements included on this plat shall only occur through formal Village Board action.

5. No site work or permit issuance shall occur until after this plat has been recorded.

B. Approval of a request by Adesa, Inc. for a preliminary and final plat of subdivision for the 1.1626-acre Village Water Tower Subdivision located west of Beverly Road along the north side of the proposed Prairie Stone Parkway extension, subject to the conditions listed above and the following conditions:

1. It is noted that the Village of Hoffman Estates is the sole owner of all property included in this plat and the Village shall complete the necessary ownership signature prior to recording.

2. This Plat shall not be recorded until after the Adesa subdivision plat is recorded which dedicates the adjacent portions of Prairie Stone Parkway.

3. Village acceptance of public improvements included on this plat shall only occur through formal Village Board action.

4. The petitioner shall be responsible for 100% of the cost of all improvements associated with this plat.

C. Approval of a request by Adesa, Inc. for rezoning of 67.7492 acres at the northwest corner of Beverly Road and Prairie Stone Parkway from the AG Agricultural District to the M-2 Manufacturing District, subject to the conditions listed above and the following conditions:

1. In the event a building permit is not obtained for construction of the Wholesale Vehicle Auction House on this property within five years of Village Board approval, the zoning of the subject property shall revert back to the present AG Agricultural District.

D. Approval of a request by Adesa, Inc. for a special use under Section 9-9-2.C.2.k of the Municipal Code for a Wholesale Vehicle Auction House with outdoor vehicle storage and related service uses on the newly proposed Lot 1 in the Adesa Subdivision located at the northwest corner of Beverly Road and Prairie Stone Parkway, subject to the conditions listed above and the following conditions:

1. This special use is contingent on the Village's approval of a zoning classification change to the M-2 District for the subject property.

2. This special use approval is subject to conformance with all final site plan conditions of approval for this vehicle auction facility, including associated off-site public improvements.

3. A building permit shall be obtained within one year of the Village Board approval date for this request, in accordance with Village Code.

4. This use shall be limited to the scope of activities covered in the petitioner's submittal documents provided for this public hearing process. Any addition of uses, expansion of the size, or change in the use shall require a special use amendment.

5. This use shall comply with all Village business license requirements, including the fact that the primary use shall not include abandoned, grey market, or junk vehicles at this Wholesale Vehicle Auction House.

E. Approval of a request by Adesa, Inc. for a fence variation under Section 9-3-3.B of the Municipal Code for a Wholesale Vehicle Auction House on the newly proposed Lot 1 in the Adesa Subdivision located at the northwest corner of Beverly Road and Prairie Stone Parkway, subject to the conditions listed above and the following conditions:

1. A building permit shall be obtained within one year of the Village Board approval date for this request, in accordance with Village Code.

2. This variation approval is subject to conformance with all final site plan conditions of approval for this vehicle auction facility, including associated off-site public improvements.

3. The height of the electric fence, and chain link with barbed fence shall not exceed seven (7) feet, as permitted by Code. The supplemental document indicating a 10 foot high electric fence shall be revised to 7 feet prior to issuance of a fence permit.

4. A Subdivision Code waiver is granted to Section 10-5-3.K to permit the installation of chain link fence surrounding the outdoor vehicle storage area.

F. Approval of a request by Adesa, Inc. for a preliminary and final site plan for construction of a western extension of Prairie Stone Parkway (approximately 1,300 feet), subject to the conditions listed above and the following conditions:

1. Prior to any site work beginning on this roadway, the petitioner shall provide written documentation to verify consent of all applicable adjacent property owners to the south, and the company holding rights to the existing pipeline easement, to document consent with the proposed grading work that must occur on those properties, outside of the dedicated right of way. In the event the petitioner cannot obtain consent from all necessary parties and the plans for work within the right of way have to be adjusted to accommodate the road construction, the petitioner shall be subject to obtaining approval of a site plan amendment from the Village.

2. Prior to any site work beginning on this roadway, the plans shall be revised to remove all shrubs and groundcover from landscape median. The plan shall only provide for Village-approved shade trees and turf grass in the median area.

3. The petitioner shall be responsible for all costs associated with the improvements included on these plans, including construction of a new driveway for access into the Village water tower site at a design acceptable to the Village. Any cost sharing agreements with other parties shall be privately managed by the petitioner and the Village shall not be involved in any administrative responsibilities for such agreements.

4. The petitioner shall revise the engineering, landscaping, and lighting plans for this roadway improvement in accordance with any additional technical comments generated through additional staff review, including revising the street light details to include LED fixtures if determined appropriate by the Public Works Department.

5. The roadway and sidewalks shall remain closed to traffic during construction in accordance with proper traffic engineering standards as determined by the Village Director of Transportation. Any traffic needing to access land to the west of the construction area shall be managed in a safe and proper manner. The roadway and walks shall not be opened to public use until such time as the Director of Transportation determines all appropriate improvements are in place for safe use.

6. The private driveway serving the existing outdoor materials recycling business shall be permitted to be reconstructed at the western end of the new Prairie Stone Parkway roadway, provided it is fully paved, and the design is approved by the Village. All areas within the right of way adjacent to the drive shall be restored with vegetation and shall be the responsibility of the adjacent property owner to maintain. No gates, fences or other structures shall be permitted within this right of way.

7. Village acceptance of the public improvements included within the Prairie Stone Parkway right of way shall only occur through formal Village Board action.

G. Approval of a request by Adesa, Inc. for a preliminary and final site plan for construction of a Wholesale Vehicle Auction House (including off-site improvements to Beverly Road, Trillium Boulevard, and to the Village water tower site), on approximately 65 acres located at the northwest corner of Beverly Road and Prairie Stone Parkway, subject to the conditions listed above and the following conditions:

1. A building permit shall be obtained within one year of the Village Board approval date for this request (to coincide with the special use permit approval timeframe).

2. Waivers are granted to the Village Subdivision Code Articles 10-4 (Landscaping) and 10-5 (Site Design and Operation Requirements) as they pertain to the areas within the security fencing shown on the engineering plans. This includes a reduction in the standards only in certain areas for curbing, landscaping, site lighting, and building design and other minor items. This waiver shall only apply to the extent that specific items are identified on the site engineering and landscape plans. All code-complaint items on the plans shall be maintained in accordance with Village Code and are not included in this waiver.

3. A waiver is granted to Subdivision Code Section 10-4-7 to permit all existing trees on the subject property to be removed without replacement or mitigation, based on the determination that a majority of the trees are in poor condition and are in the lowest quality species group. Further, none of the trees are located in a manner that would contribute value to the property or community if preserved.

4. The lighting photometric plans shall be revised to conform to the requirements of Subdivision Code Section 10-5-3.G with regards to the visitor's parking lot area, the vehicle pick up and drop off areas, and Trillium Boulevard. Areas within the fenced storage lots are granted a waiver to not meet these standards.

5. All light fixture to be installed on the site shall be designed with a flat lens that is mounted parallel to the ground to minimize glare in accordance with Village Code. This shall apply to the entire site, including the storage area within the boundaries of the security fencing.

6. With regards to the requirements of the Village Fire Department, the following shall apply:

   a) Revisions shall be required to the engineering plans to meet all requirements of the Fire Department, including striping and signage on the property, clearances for emergency

vehicles, and access through all security mechanisms on the site (including any pavement tire-puncture devices that may be proposed). These shall be intended to provide efficient and safe emergency vehicle movements at the facility and to identify all areas deemed as official fire lanes where no obstructions will be permitted.

b) Prior to issuance of any fence permit for this property, the petitioner shall provide final details of all access openings and gates in a manner acceptable to the Fire Department. These shall include any necessary mechanisms or additional provisions necessary to allow safe and efficient access by the Fire Department.

c) Prior to issuance of any fence permit for this property, the petitioner shall provide details on a disarming switch or some other mechanism to allow emergency personnel to shut down the electrically charged fencing in the event access to the site must occur.

d) No gates shall be closed and the electrically charged fence shall not be activated until final approval has been given for these issues by the Village Fire and Code staff.

7. This site plan approval is contingent upon construction of the western extension of Prairie Stone Parkway to provide access to the truck delivery area of the facility, and therefore this approval is subject to all conditions of the roadway approval. No occupancy of any building on the proposed vehicle auction site shall occur until the Village Transportation Director has determined the public improvements are completed to a level acceptable for use by the public, and final occupancy of the vehicle auction buildings shall not occur until the Prairie Stone Parkway improvements are formally accepted by the Village.

8. This site plan approval is dependent on, and includes the construction of improvements within the Beverly Road right of way, and the following shall apply:

   a) The petitioner shall be responsible for all costs associated with the improvements included on these plans (except where certain costs may be eligible for reimbursement under the Village's Fair Share Road Improvement Program).

   b) The plans include construction of a 10 foot wide off-street path along the west side of Beverly Road, as well as the necessary traffic signal improvements to accommodate the path crossing at Prairie Stone Parkway (including pedestrian countdown timers). In order for all pedestrian crossing movements at this intersection to be consistent, the plans shall be revised to add pedestrian countdown timers for the crossing of the south leg of Beverly Road at Prairie Stone Parkway to connect to the existing path network to the east.

   c) Village acceptance of the public improvements included within the Prairie Stone Parkway right of way shall only occur through formal Village Board action, and final occupancy for the vehicle auction buildings shall not occur until the Prairie Stone Parkway improvements are formally accepted by the Village.

9. This site plan approval includes the construction of improvements within the Trillium Boulevard right of way, and the following shall apply:

a) The plans shall be revised to add lighting to the entire area of the Trillium right of way, in accordance with Village Code.

b) Village acceptance of the public improvements included within the Trillium right of way shall only occur through formal Village Board action following a determination by the Village that public access to the land north of the right of way will be necessary. Acceptance of the right of way shall only occur after all necessary public improvements have been completed in accordance with Village standards.

c) Prior to Village determination that the Trillium right of way is needed for public access, the vehicle auction facility shall be permitted to maintain a temporary gate and fencing west of the facility's visitor parking lot driveway, along with pavement that does not comply with full public street standards, as delineated on the site engineering plans. The vehicle auction facility shall be responsible for all maintenance of the Trillium right of way until such time as the Village formally accepts Trillium as a public street.

d) The Village reserves the right to vacate the Trillium Boulevard right of way if a determination is made that it will not be necessary for public access, such as may be the case if the auction facility receives approval to expand its site to include the land north of Trillium Boulevard.

10. In order to accommodate the petitioner's proposal, including the construction of Prairie Stone Parkway, the petitioner agrees to make the following improvements to the Village's water tower site and such improvements shall be completed prior to issuance of a final occupancy permit for any building on the auction property:

a) Chain link fencing with a gate shall be installed along the perimeter of the water tower site in all areas where the petitioner is not installing fencing as part of the auction property, as shown on the engineering plans. These improvements shall be made at the cost of the petitioner as partial compensation for the use of a portion of the existing Village site for the extension of Prairie Stone Parkway in the petitioner's desired location.

b) The existing weather warning siren on the water tower site shall be relocated from the center to a corner of the property, as determined by the Village Public Works Department in order to make the site more usable for municipal purposes and as partial compensation for the use of a portion of the existing Village site for the extension of Prairie Stone Parkway in the petitioner's desired location. Prior to issuance of a building permit for the auction property, the petitioner shall provide a cash deposit based on an estimated cost (to be provided by the Village) for relocation of the siren. The Village shall hire the contractor to perform the work and it shall be paid from the deposit provided by the petitioner.

c) The petitioner shall complete drainage improvements on the Village water tower site as identified on the final engineering plans to accommodate the existing drying bed facility. These improvements shall be made at the cost of the petitioner as partial compensation for

the use of a portion of the existing Village site for the extension of Prairie Stone Parkway in the petitioner's desired location.

d) In conjunction with any of the work to occur on the water tower site, the petitioner shall perform any necessary minor grading adjustments and restoration of the vegetation, as determined necessary by the Village, prior to final approval of the improvements.

11. No occupancy permits shall be issued for any of the buildings on the property until the Village inspection staff has determined that collectively all the buildings and the site work are sufficiently complete enough for this to occur. Because this facility is unique in that its operation relies upon the coordinated use of multiple buildings and the outdoor areas, it is critical that all aspects of the project be usable before any one aspect becomes operational. If deemed appropriate through the formal inspection process, the Village may issue a partial temporary certificate of occupancy for the main Arena building to allow office/employee use in advance of the other buildings, however, auction use may be prohibited until all facilities are sufficiently complete. In the event the petitioner wishes to proceed with such a phased occupancy of the site, a written proposal shall be submitted to the Village inspection staff for consideration sufficiently in advance of the desired occupancy date.

12. The petitioner acknowledges that an impact fee will be due in accordance with the Village's Road Improvement Impact Fee Program. This fee will be due prior to any certificate of occupancy for the buildings. The estimated fee amount will be determined as part of further review of the traffic report. The petitioner will also be eligible to receive a fee credit for certain costs associated with capacity improvements on Beverly Road since this road is on the Program's list of approved projects.

13. The petitioner acknowledges that the following Recaptures apply to this property and that all payments shall be made prior to issuance of any building permit for this property:

    a) Ordinance 4323 – EDA Sanitary Facility
    b) Ordinance 4324 – NW Tollway Interchange
    c) Ordinance 2884 – Hunter's Ridge Off-site Sanitary
    d) Ordinance 4359 – Shoe Factory Lift Station and Force Main
    e) Resolution 1226 – Water Tower

H. Approval of a request by Adesa, Inc. for a Master Sign Plan under Section 9-3-8-M-13 of the Municipal Code for the property (Lot 1 of the Adesa Subdivision) located at the northwest corner of Beverly Road and Prairie Stone Parkway subject to the conditions listed above.

Attachments: Application materials and plans submitted March 12, 2015

Adesa Wholesale Vehicle Auction House

2675 – 2785 Beverly Road
Northwest corner of Beverly Road and Prairie Stone Parkway

Master Sign Plan

March 18, 2015

Adesa Wholesale Vehicle Auction House
Master Sign Plan
March 18, 2015

Introduction

This Master Sign Plan applies to the lot(s) with common addresses 2675-2785 Beverly Road on the Northwest corner of Beverly Road and Prairie Stone Parkway. The property includes approximately 60 acres and has 4 buildings.

The Master Sign Plan requirements have been developed based on the signage that is unique to the Adesa Auto Auction property. The lot contains approximately 60 acres. This plan has been designed for this development that maintains consistency with other developments, yet takes into account certain unique characteristics of this development, specifically the size and location of the property. Sign requirements for all buildings are included in this Plan to promote cohesion among all signs.

A. Area Included in Master Sign Plan

This Master Sign Plan applies to 2675 - 2785 Beverly Road, and all future addresses assigned to the four buildings and property identified as Lot 1 and Outlot A on the Adesa Subdivision Plat, and approved as the Adesa Wholesale Vehicle Auction House by the Village Board.

B. General Provisions

1. Definition. For the purposes of this master sign plan, the following definition is hereby incorporated.

    a. *Property* – "Property" shall mean the lot currently addressed 2675 – 2785 Beverly Road on the Northwest corner of Beverly Road and Prairie Stone Parkway. In the event the lot is subdivided in the future, the definition of property shall also apply to the resulting lots.

2. Driver Sight Visibility. No sign shall be placed in a manner that will obstruct driver or pedestrian sight lines and create an unsafe condition based on analysis by the Village Transportation Division.

3. Landscaping. Landscaping shall be provided at the base of all ground signs, in accordance with the approved site plan, unless determined to be unsafe or not feasible by the Village Department of Development Services.

4. Illumination. All signs permitted by this Master Sign Plan may be illuminated in accordance with Section 9-3-8-F of the Zoning Code unless otherwise indicated in the approved Master Sign Plan documents.

5. Sign Design. Colors and letter graphic styles on the signs shall be determined by the owners of the property; however, signs that are of a similar type shall be of a consistent color and graphic style.

6. Calculation of Sign Area. Such signs shall meet the requirements of Section 9-3-8-D, except that the architectural base and support structure of a ground sign shall not be included in the total sign area if these areas do not contain text, logos or any other graphics.

7. Permits. Sign permits shall be required in accordance with Section 9-3-8-A of the Zoning Code.

8. Coordination with Village Sign Code. All regulations of the Zoning Code shall apply unless specifically stated otherwise in this master sign plan. In the event of a conflict between this Master Sign Plan and the Zoning Code, the Master Sign Plan regulations shall apply.

9. Master Sign Plan. This document and the signage exhibits included in the Village Board site plan approval comprise the entire Master Sign Plan.

C. Ground Signs

The locations of all ground signs governed by this Master Sign Plan are depicted on the Master Signage Plan included in the Village Board site plan approval and made part hereof.

1. Primary Ground Signs.

   a. Type. Monument signs that will identify the Wholesale Vehicle Auction House.

   b. Number and size. Two Ground Signs shall be permitted on the property. The sign shall be a maximum of 10 feet in height. The maximum square footage of each sign shall not exceed 100 square feet per side with a maximum of 200 square feet in surface area.

   c. Location. One Ground Sign is permitted at each entrance to the site off of Beverley Road. The Ground Signs shall be a minimum of 5 feet from any property line and any paved surface.

   d. Sign Design. The sign shall be designed to complement the building material and/or surrounding landscape, and shall be a monument style design.

D. Wall Signs

1. Illuminated Logo Wall Sign – Arena Building Sign 1.

   a. Type. The Illuminated Logo Wall Sign shall be an internally illuminated logo individually mounted the building façade or set on a raceway. Raceway shall be mounted directly to the building wall surface and shall be painted to match façade color where it is to be mounted. Wall signs and raceway are not to extend more than 12" from wall of which it is mounted.

   b. Number and Size. One Illuminated Logo Wall Sign shall be permitted and shall not exceed 50 square feet in surface area.

   c. Location. The Illuminated Logo Wall Sign shall be placed on the east façade of the Arena Building facing Beverly Road.

2. Primary Identification Wall Sign – Arena Building Sign 2.

   a. Type. The Primary Identification Wall Sign shall be internally illuminated letters or logos individually mounted the building façade or set on a raceway. Raceway shall be mounted directly to the building wall surface and shall be painted to match façade color where it is to be mounted. Wall signs and raceway are not to extend more than 12" from wall of which it is mounted.

   b. Number and Size. A maximum of two Primary Identification Wall Signs shall be permitted. Maximum of one sign per elevation. Each sign shall not exceed 100 square feet in surface area.

   c. Location. Primary Identification Wall Signs are permitted on the North and East elevations of the Arena Building.

3. Front Entrance Wall Sign – Arena Building Sign 3.

   a. Type. Front Entrance Wall Sign shall be letters or logos individually mounted to the building façade, a raceway or to an architectural entry feature. Raceway shall be mounted directly to the building wall surface or architectural entry feature and shall be painted to match façade color where it is to be mounted. Signs and raceways are not to extend more than 12" from wall or architectural feature of which it is mounted.

   b. Number and Size. One Front Entrance Wall Sign shall be permitted. It shall not exceed 50 square feet in surface area.

   c. Location. The Front Entrance Wall Sign shall be mounted over the public entrance on the east elevation of the Arena Building. It shall be centered

vertically and horizontally on the wall or architectural feature in which it is mounted.

4. Other Building Wall Signs (All other buildings other than the Arena Building).

   a. Type. Other Building Wall Signs shall be channel letters or logos individually set on a raceway or façade. Raceway shall be mounted directly to the building wall surface and shall be painted to match façade color where it is to be mounted. Wall signs and raceways are not to extend more than 12" from wall of which it is mounted.

   b. Number and Size. One wall sign shall be permitted on any standalone building (excluding the Arena Building). Each sign shall not exceed 50 square feet.

   c. Location. Each wall sign shall be centered horizontally and spaced evenly along the façade on which it is mounted.

F. Miscellaneous Signs

1. Directional or Instructional Signs. Such signs shall meet the requirements of Section 9-3-8-B-8. Except that corporate names and logos are permitted and the sign shall be set back a minimum of 5 feet from any property line. All signs shall be of a consistent design and shall be separate from traffic control signs.

2. Entrance/Exit Signs. Entrance/Exit signs shall be permitted at each entrance/exit to the property as provided in the Zoning Code (Section 9-3-8-L-2), except that such signs shall be set back a minimum of 5 feet from any property line.

G. Temporary Signs

1. Construction Signs. During construction of any portion of this development, temporary signs may be permitted as determined necessary by the Village Department of Development Services. These signs shall be used to identify altered traffic routes, closed drives or parking lots, relocated building entrances, etc. Such signs shall not be subject to the requirements of the Directional Signage Section of this plan.

2. Special Event Signs. Special event signs shall be permitted as provided in the Zoning Code (Section 9-3-8-K).

H. Amendments

1. Changes. Changes to the text, colors, or graphic style of the signs shall not require a formal amendment to this plan, provided the size and all other requirements of this plan are met and all signs of each type have identical design and colors.

2. Interpretations. Signs that are not explicitly addressed in the provisions of this plan, but that meet the intent of the plan may be permitted through administrative approval.

3. New Signs. The addition of new signs or relocation of existing signs shall not require a formal amendment to this plan, provided the signs meet all requirements of this plan. Any amendment to add additional signs or make substantial changes to the approved signs in this plan shall be subject to review by the Zoning Board of Appeals and approval by the Village Board through the process outlined in the Zoning Code for variations.

Adesa Auto Auction
Beverly Road & Prairie Stone Parkway

N

0 375 750 Feet

Planning Division
Village of Hoffman Estates
March 2015

P.I.N. No. 01-31-301-002

FINAL PLAT OF SUBDIVISION
OF
MUNICIPAL WATER TOWER SUBDIVISION

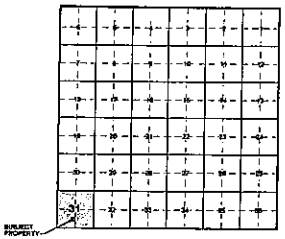
BEING A SUBDIVISION OF PART OF SECTION 31, TOWNSHIP 42 NORTH, RANGE 9 EAST OF THE THIRD PRINCIPAL MERIDIAN, COOK COUNTY, ILLINOIS.

MAIL PLAT TO:
VILLAGE OF HOFFMAN ESTATES
1900 HASSEL ROAD
HOFFMAN ESTATES, ILLINOIS 60169

SEND SUBSEQUENT TAX BILLS TO:
VILLAGE OF HOFFMAN ESTATES
1900 HASSEL ROAD
HOFFMAN ESTATES, IL 60169

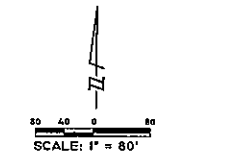
AREA SUMMARY

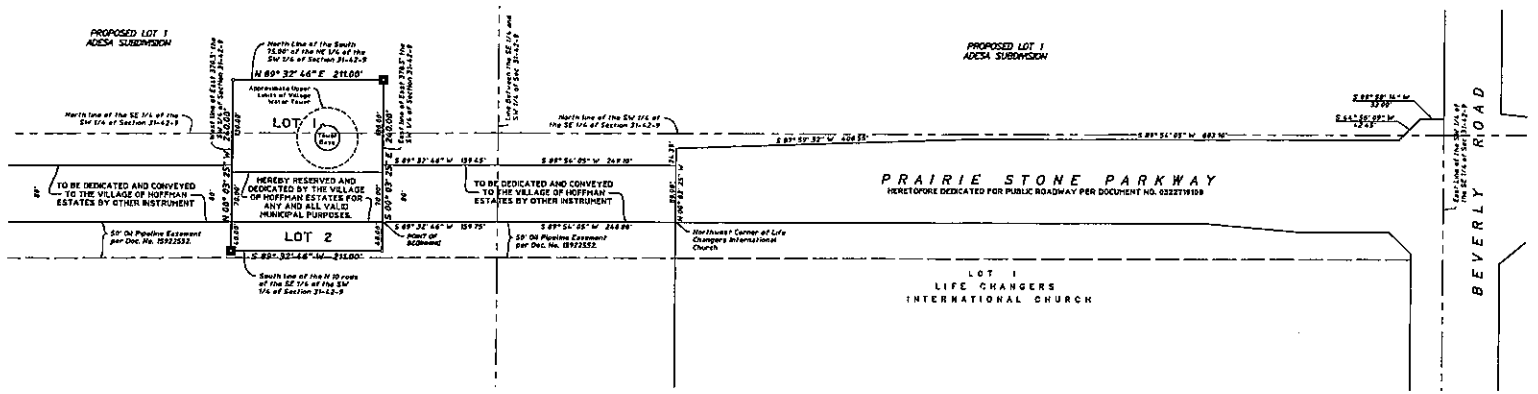
LOT 1	27,430 S.F.	0.6297 Ac.
LOT 2	5440 S.F.	0.1636 Ac.
R.O.W.	14,770 S.F.	0.3391 Ac.
TOTAL	50,640 S.F.	1.1525 Ac.

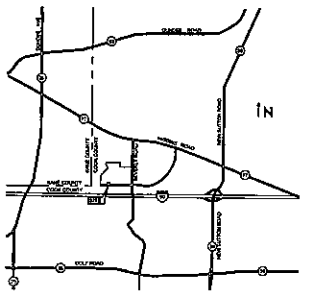


BARRINGTON TOWNSHIP
TOWNSHIP 42 NORTH
RANGE 9 EAST
COOK COUNTY, ILLINOIS

RECEIVED
MAR 12 2015
PLANNING DIVISION







SURVEYOR'S DESIGNATION OF RECORDING

I, JEFFREY W. GLUNT, AN ILLINOIS PROFESSIONAL LAND SURVEYOR, IN THE STATE OF ILLINOIS, HEREBY DESIGNATE THE VILLAGE CLERK OF HOFFMAN ESTATES TO RECORD THIS PLAT WITH THE COOK COUNTY RECORDER OF DEEDS OR REGISTRAR OF TITLES. THIS DESIGNATION IS GRANTED UNDER THE RIGHT TO DESIGNATE SUCH RECORDING UNDER 765 ILCS 205/2.

SCHAUMBURG, ILLINOIS _____

BY: _____
ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 3095

STATE OF ILLINOIS }
COUNTY OF COOK } SS.

THIS IS TO CERTIFY THAT THE VILLAGE OF HOFFMAN ESTATES IS A MUNICIPAL CORPORATION IS THE OWNER OF THE LAND SHOWN AND DESCRIBED HEREON AND HAS CAUSED THE SAME TO BE SURVEYED AND SUBDIVIDED AS INDICATED HEREON, FOR THE USES AND PURPOSES HEREIN SET FORTH, AND DOES HEREBY ACKNOWLEDGE AND ADOPT THE SAME UNDER THE STYLE AND TITLE HEREON INDICATED

FURTHER CERTIFIES TO THE BEST OF ITS KNOWLEDGE, THE PROPERTY DESCRIBED HEREON LIES WITHIN COMMUNITY CONSOLIDATED SCHOOL DISTRICT ___ FOR ELEMENTARY EDUCATION AND SCHOOL DISTRICT ___ FOR HIGH SCHOOL

DATED AT _____ ILLINOIS THIS _____ DAY OF _____ A.D. 20___

BY _____

NOTARY CERTIFICATE

STATE OF ILLINOIS }
COUNTY OF COOK } SS

I _____, A NOTARY PUBLIC IN AND FOR SAID COUNTY IN THE STATE AFORESAID, DO HEREBY CERTIFY THAT _____ WHO IS PERSONALLY KNOWN TO ME TO BE THE SAME PERSON WHOSE NAME IS SUBSCRIBED TO THE FOREGOING INSTRUMENT, APPEARED BEFORE ME THIS DAY IN PERSON AND ACKNOWLEDGED THAT THEY SIGNED AND DELIVERED SAID INSTRUMENT AS HOLDER OF RECORD TITLE AS THEIR OWN FREE AND VOLUNTARY ACT FOR THE USES AND PURPOSES THEREIN SET FORTH

GIVEN UNDER MY HAND AND NOTARIAL SEAL THIS _____ DAY OF _____, A.D., 20___

_____
NOTARY PUBLIC
MY COMMISSION EXPIRES _____

PLANNING AND ZONING COMMISSION

STATE OF ILLINOIS }
COUNTY OF COOK } SS:

APPROVED BY THE PLANNING AND ZONING COMMISSION OF THE VILLAGE OF HOFFMAN ESTATES, COOK AND KANE COUNTIES, ILLINOIS.

THIS _____ DAY OF _____ A.D., 20___

BY: _____
CHAIRMAN

ATTEST: _____
SECRETARY

VILLAGE BOARD OF TRUSTEES CERTIFICATE

STATE OF ILLINOIS }
COUNTY OF COOK } SS:

APPROVED BY THE BOARD OF TRUSTEES OF THE VILLAGE OF HOFFMAN ESTATES, COOK AND KANE COUNTIES, ILLINOIS.

THIS _____ DAY OF _____ A.D., 20___

BY: _____
PRESIDENT

ATTEST: _____
VILLAGE CLERK

VILLAGE TREASURER CERTIFICATE

STATE OF ILLINOIS }
COUNTY OF COOK } SS:

I _____ COLLECTOR FOR THE VILLAGE OF HOFFMAN ESTATES, DO HEREBY CERTIFY THAT TO THE BEST OF MY KNOWLEDGE THERE ARE NO DELINQUENT OR UNPAID CURRENT OR FORFEITED SPECIAL ASSESSMENTS OR ANY DEFERRED INSTALLMENTS THEREOF, THAT HAVE BEEN APPORTIONED AGAINST THE TRACT OF LAND INCLUDED IN THIS PLAT.

DATED AT HOFFMAN ESTATES, COOK AND KANE COUNTIES, ILLINOIS.

THIS ____ DAY OF _____, A.D. 20___

_____
VILLAGE TREASURER

STATE OF ILLINOIS }
COUNTY OF COOK } SS:

I, JEFFREY W. GLUNT, AN ILLINOIS PROFESSIONAL LAND SURVEYOR, DO HEREBY CERTIFY THAT I HAVE SURVEYED AND SUBDIVIDED THE FOLLOWING DESCRIBED PROPERTY:

THE SOUTH 75.00 FEET OF THE WEST 211.00 FEET OF THE EAST 370.75 FEET OF THE NORTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 31, TOWNSHIP 42 NORTH, RANGE 9, EAST OF THE THIRD PRINCIPAL MERIDIAN, ALSO THE NORTH 10 RODS (165.00 FEET) OF THE WEST 211.00 FEET OF THE EAST 370.75 FEET OF THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 31, TOWNSHIP 42 NORTH, RANGE 9, EAST OF THE THIRD PRINCIPAL MERIDIAN, IN COOK COUNTY, ILLINOIS.

DIMENSIONS ARE GIVEN IN FEET AND DECIMAL PARTS THEREOF AND ARE CORRECTED TO A TEMPERATURE OF 68 DEGREES FAHRENHEIT

I DO HEREBY FURTHER CERTIFY THAT ALL EXTERIOR BOUNDARY CONCRETE MONUMENTS AND LOT CORNERS AND POINTS OF CHANGE IN ALIGNMENT ALONG THE EXTERIOR BOUNDARY, AS SHOWN, HAVE BEEN SET AND UPON COMPLETION OF CONSTRUCTION, IRON PIPES AT ALL INTERIOR LOT CORNERS AND POINTS OF CHANGE IN ALIGNMENT WILL BE SET, AS REQUIRED BY THE PLAT ACT (765 ILCS 205/0.01 ET SEQ.). THIS IS TO FURTHER CERTIFY THAT THE LAND INCLUDED IN THE ANNEXED PLAT IS WITHIN THE CORPORATE LIMITS OF THE VILLAGE OF HOFFMAN ESTATES, COOK COUNTY, ILLINOIS, WHICH HAS AN OFFICIAL COMPREHENSIVE PLAN AND IS EXERCISING THE SPECIAL POWERS AUTHORIZED BY THE STATE OF ILLINOIS ACCORDING TO 65 ILCS 5/11-12-6 AS HERETOFORE AND HEREAFTER AMENDED.

THIS IS TO FURTHER CERTIFY THAT BASED ON INFORMATION PROVIDED ON THE FLOOD INSURANCE RATE MAP COMMUNITY – PANEL NO. 17031C0255J, DATED AUGUST 19, 2008 PRODUCED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FOR COOK COUNTY, ILLINOIS, THE PROPERTY SHOWN AND DESCRIBED HEREON IS LOCATED WITHIN ZONE X, WHICH IS DEFINED BY FEMA AS "AREAS DETERMINED TO BE OUTSIDE 0.2% ANNUAL CHANCE FLOODPLAIN"

THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS OF PRACTICE APPLICABLE TO BOUNDARY SURVEYS.

SCHAUMBURG, ILLINOIS _____ MARCH 11, 2014

BY: _____
ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 3095

LEGEND
- ■ Set Concrete Subdivision Monument
- ▪ Set Iron Pipes along the exterior Boundary

STATE OF ILLINOIS
JEFFREY W. GLUNT
035-3095
SCHAUMBURG, ILLINOIS
PROFESSIONAL LAND SURVEYOR

EXPIRES 11-30-16

HAEGER ENGINEERING
consulting engineers • land surveyors
1304 W. Park Grove Road, Schaumburg, IL 60173
Tel: 847.394.4600 Fax: 847.394.4606
Illinois Professional Design Firm License No. 184.002152
www.haegerengineering.com

PLOTE PROPERTY MANAGEMENT, LLC

847-428-1000 • Fax 847-428-1062

Mailing Address:
P.O. Box 957856
Hoffman Estates, IL 60195

Office Location
1141 E. Main St., Suite 100
East Dundee, IL 60118

February 27, 2015

VIA EMAIL
Mr. Peter Gugliotta, AICP
Director of Planning
Village of Hoffman Estates
1900 Hassell Road
Hoffman Estates, IL 60195-2302

RE: Adesa-Planning & Zoning General Application

Dear Peter:

We recently received a request from Adesa to execute their Planning and Zoning General Application for a public Village Meeting scheduled for March 16th for approximately 64+/- acres of property generally located along the west side of Beverly Road and north of Prairie Stone Parkway.

As you know, back in 2003 an Annexation and Development Agreement was approved for 490+/- acres of property controlled by the Origer and Plote families. This Agreement was drafted with the intent that Ryland Homes would acquire a majority of the property for the master planned community listed in the Annexation and Development Agreement. Unfortunately this master planned development did not proceed leaving the property with significant obligations that are unachievable based upon current market conditions, for this reason the ownership group is reluctant to agree to further entitlements for proposed uses on the property that are not immediate.

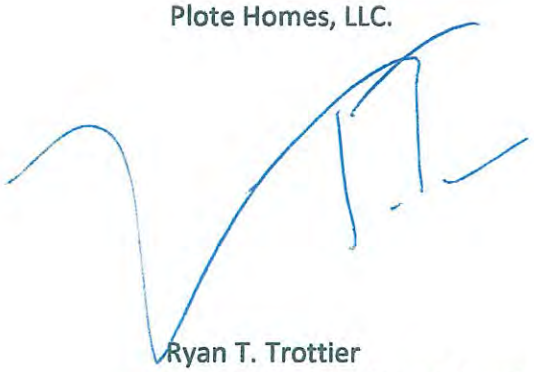
Our consent for Adesa to proceed with the March 16th meeting would be for the Village to include in the conditions of approval for Adesa that the Village approvals are contingent upon Adesa's acquisition of the 64+/- acre property by May 31, 2015.

Enclosed herein you will find our consent on Page #3 of the Planning and Zoning General Application, contingent upon the terms listed herein. We have not signed page #2, Ownership will have a representative available at the meeting on March 16th.

We remain optimistic that Adesa will acquire our 64+/- acres in approximately 60 days.

Very truly yours,

Plote Homes, LLC.



Ryan T. Trottier
Vice President of Land Development

Attachment- Planning and Zoning General Application

cc: Warren Fuller, Fuller and Fuller (via email)
Ankur Gupta, McDermott Will & Emery (via email)
Mark Koplin, Village of H.E. (via email)
Arthur Janura, Arnstein & Lehr, LLP (via email)
James Norris, Village of H.E. (via email)
James Origer, Shorewood Property Investments, LLC (via email)
Mike Origer, Shorewood Property Investments, LLC (via email)
Raymond E. Plote, Plote Homes, LLC (hand delivery)
Brett Roland, Adesa (via email)
Dan Shepard, Plote Homes, LLC (via email)
Scott Wilson, Kimley-Horn (via email)

VILLAGE OF HOFFMAN ESTATES
PLANNING AND ZONING
GENERAL APPLICATION*

☐ Special Use for Auto Auction ☐ Rezoning from AG to M-2

☒ Variation: ☒ *Commercial* ☐ *Residential* ☐ *Sign*

☒ Plat *(Subdivision & Others):* ☐ *Preliminary* ☐ *Final*

☒ Site Plan: ☐ *Amendment* ☐ *Concept* ☐ *Preliminary* ☒ *Final*

☐ Master Sign Plan: ☐ *Amendment*

Other: _____

*** ADDENDUM MATERIALS ARE REQUIRED FOR SPECIFIC REQUESTS**

Posting of Notification Sign(s) may be required.
Specific requirements will be provided when your request is scheduled.

FOR VILLAGE USE ONLY

Hearing Fee _____ Check No. _____ Date Paid _____

Project Number: _____

Staff Assigned: _____

Meeting Date: _____ Public Hearing: Yes ☐ No ☐

Sign Posting Required: Yes ☐ No ☐ Date Sign Posted _____

PLEASE PRINT OR TYPE

Date: _____

Project Name: Adesa Auctions

Project Description: Auto Auction facility

Project Address/Location: 2785 Beverly Road

Property Index No. 01-31-400-018; 01-31-301-003; 01-31-100-007

Acres: 64.65 Zoning District: AG

I. Owner of Record

Ryan Trottier	Plote Construction, Inc. & Shorewood Property Investments
Name	Company
1141 East Main Street, Suite 100	East Dundee
Street Address	City
IL 60118	847-428-1000 ext 230
State Zip Code	Telephone Number
847-428-1062	rtrottier@plotehomes.com
Fax Number	E-Mail Address

II. Applicant (Contact Person/Project Manager)

Brett Roland	Adesa Inc.
Name	Company
13085 Hamilton Crossing Bolvd	Carmel
Street Address	City
IN 46032	317-249-4294
State Zip Code	Telephone Number
	Brett.Roland@adesa.com
Fax Number	E-Mail Address

Applicant's relationship to property: Developer

III. Owner Consent for Authorized Representative

It is required that the property owner or his designated representative be at all requests before the Planning and Zoning Commission (PZC). During the course of the meeting, questions may arise regarding the overall site, site improvements, special conditions to be included in a PZC recommendation, etc. The representative present must have knowledge of the property and have the authority to make commitments to comply with any and all conditions included in the PZC recommendations. Failure to have the owner or designated representative present at the meeting can lead to substantial delays in the hearing process. **If the owner cannot be present at the meeting, the following statement must be signed by the owner:**

I understand the requirement for the owner or an authorized representative to be present at the meeting with full authority to commit to requests, conditions and make decisions on behalf of the owner. ~~I hereby authorize~~ ~~Brett Roland~~ RT _____ to ~~act on my behalf and advise that he/she has full authority to act as my/our representative.~~ RT

_____ _____

Owner Signature **Print Name**

IV. Acknowledgement(s)

- Applicant acknowledges, understands and agrees that under Illinois law, the Village President (Mayor), Village Trustees, Village Manager, Corporation Counsel and/or any employee or agent of the Village or any Planning and Zoning Commission member or Chair, does not have the authority to bind or obligate the Village in any way and therefore cannot bind or obligate the Village. Further, Applicant acknowledges, understands and agrees that only formal action (including, but not limited to, motions, resolutions and ordinances) by the Board of Trustees, properly voting in an open meeting, can obligate the Village or confer any rights or entitlement on the applicant, legal, equitable or otherwise.

- Planning and Zoning Commission members and Village Staff often conduct inspections of subject site(s) as part of the pre-hearing review of requests. These individuals will be carrying official Village identification cards that can be shown upon request.

RT

• ADESA PROCEEDING WITH THE VILLAGE IS CONTINGENT UPON MY ENCLOSED LETTER DATED, 02-27-2015.

The Owner and Applicant, by signing this Application, certify to the correctness of the application and all submittals.

Owner's Signature: _____

Owner's Name (Please Print): Ryan Trottier

Applicant's Signature: _____
(If other than Owner)

Applicant's Name (Please Print): Brett Roland

Date: 02-27-2015

All requests must be accompanied by the items required and all fees must be paid before the Planning and Zoning Commission can hear any case.

Please contact the Planning Division (located in the Municipal Building) with any questions:

Email:	planning@hoffmanestates.org
Address:	1900 Hassell Road
	Hoffman Estates, IL 60169
Phone:	(847) 781-2660
Fax:	(847) 781-2679

Addendums Attached:

- ☒ Special Use
- ☒ Rezoning
- ☒ Variation
- ☐ Plat
- ☒ Site Plan
- ☐ Master Sign Plan
- ☐ Other _____

Kimley»Horn

March 12, 2015

Mr. Peter Gugliotta, AICP.
Director of Planning, Building and Code Enforcement
1900 Hassel Road
Hoffman Estates, IL 60169

Re: Adesa Auctions
Hoffman Estates, IL

Dear Mr. Gugliotta:

Please find enclosed fifteen packets for the Hoffman Estates Committee members, the following items are included in the packets.

1. Planning and Zoning Commission General Application
2. Planning and Zoning Commission Special Use Addendum
3. Planning and Zoning Commission Variation Addendum
4. Planning and Zoning Commission Site Plan Addendum-Non Residential Application
5. Project Narrative prepared by Adesa.
6. Project Narrative prepared by Kimley-Horn.
7. Development Team Members prepared by Kimley-Horn.
8. Wall Mounted Light cut sheets provided by CBMC Inc.
9. Electric Fence Typical Details provided by Electric Guard Dog.
10. Traffic Memorandums, dated March 10, 2015 prepared by Kimley-Horn.
11. Arena Building Color Elevation, dated February 15 prepared by Architura Corporation.
12. Plant Palette dated March 12, 2015 prepared by Kimley-Horn.
13. Site Signage dated February 2015 prepared by Norris Design.
14. Adesa East Property Sections dated February 2015 prepared by Norris Design.
15. Landscape Plan dated March 9, 2015 prepared by Norris Design.
16. Site Plan dated March 12, 2015 prepared by Kimley-Horn.
17. Final Engineering Plans, dated March 9, 2015 prepared by Kimley-Horn.
18. AutoTurn Exhibits, dated March 10, 2015 prepared by Kimley-Horn.
19. Overall Watermain Plan, dated March 9, 2015 prepared by Kimley-Horn.
20. Lighting Layout, dated December 12, 2014 prepared by CBMC Inc.
21. Architectural Floor Plans and Building Elevations, dated January 15, 2015 prepared by Architura Corporation.
22. Prairie Stone Parkway Roadway Improvement Plans, dated March 6, 2015 prepared by Haeger Engineering.
23. Prairie Stone Parkway Landscape Plans, dated February 13, 2015 prepared by Norris Design.
24. Final Plat of Subdivision of Adesa Subdivision, dated March 11, 2014 prepared by Haeger Engineering.
25. Final Plat of Subdivision of Water Tower Subdivision, dated March 12, 2015 prepared by Haeger Engineering.

If you have any questions or require any additional information, please contact me at 630.487.5564.

Sincerely,
Kimley-Horn and Associates, Inc.

Jared J. Kenyon, P.E.
Associate

Attachments:

cc: Mr. Brett Roland, Adesa, via email
Mr. Chuck Kotterman, Architura Corporation, via email
Mr. Len Kleinjan, Haeger Engineering, via email

State Street Maple
(Acer miyabei 'Morton')

American Hornbeam
(Carpinus caroliniana)

Katsura Tree
(Cercidiphylum japonicum)

Princeton Sentry Ginkgo
(Ginkgo biloba 'Princeton Sentry')

Kentucky Coffeetree
(Gymnocladus dioicus

Tuliptree
(Liriodendron tulipifera)

American Hophornbeam
(Ostrya virginiana)

Bur Oak
(Quercus macrocarpa)

Red Oak
(Quercus rubra)

Redmond American Linden
(Tilia americana 'Redmond')

Accolade Elm
(Ulmus japonica x wilsoniana 'Morton')

Fairview Chinese Juniper
(Juniperus chinensis 'Fairview')

Techny American Arborvitae
(Thuja occidentalis 'Techny')

Sea Green Juniper
(Juniperus chinensis 'Sea Green')

Tsuga canadensis
(Canadian Hemlock)

Alleghany Serviceberry
(Amelanchier laevis)

Thornless Cockspur Hawthorn
(Crataegus crusgalli var. inermis)

Winter King Green Hawthorn
(Crataegus viridis 'Winter King')

Brilliant Red Chokeberry
(Aronia arbutifolia 'Brilliantissima')

Redosier Dogwood
(Cornus sericea 'Cardinal')

Invincibelle Spirit Smooth Hydrangea
(Hydrangea arborescens 'NCHA1')

Common Witchhazel
(Hammamelis virginiana)

Northern Bayberry
(Myrica pensylvanica)

Grow Low Sumac
(Rhus aromatica 'Grow Low')

Dwarf Arctic Blue Leaf Willow
(Salix purpurea 'Nana')

Bloomerang Purple Lilac
(Syringa x 'Penda')

Blue Muffin Viburnum
(Viburnum dentatum 'Blue Muffin')

Red Wing Cranberrybush Viburnum
(Viburnum trilobum 'Red Wing')

Dwarf Prairie Dropseed
(Sporobolus heterolepis 'Tara')

Creme Brulee Coreopsis
(Coreopsis 'Creme Brulee')

Kim's Knee High Purple Coneflower
(Echinacea purpurea 'Kim's Knee High')

Carousel Little Bluestem
(Schizachyrium scoparium 'Carousel')

Prairie Dropseed
(Sporobolus heterolepis)

Blue Wonder Catmint
(Nepeta racemosa 'Blue Wonder')

Meadow Anemone
(Anemone canadensis)

Northwind Switchgrass
(Panicum virgatum 'Northwind')

Hoffman Estates, Illinois

Adesa Plant Palette

March 12, 2015

Kimley»Horn

ADESA
HOFFMAN ESTATES, IL

SITE PLAN
MARCH 12, 2015

0 50 100 200 N

Kimley»Horn

VILLAGE OF HOFFMAN ESTATES
PLANNING AND ZONING COMMISSION
SPECIAL USE ADDENDUM

REQUIRED SUBMITTALS:

- ■ General Application
- ■ $400 special use hearing fee
- ■ Legal Description
  Typically found on a tax bill, survey, mortgage documents or deed
- ■ Current Plat of Survey drawn to scale
- ■ A scale drawing of the floor plan and elevations, including windows and door locations.
- ■ A Project Narrative detailing the use, hours of operation, parking demand, etc. Provide relevant plans, studies, and any other documents to support the request.
- ■ A written response to each of the Standards for a Special Use (see below).

You are responsible for posting a notification sign(s) on your property 10 days before the Planning & Zoning Commission hearing and removing the sign(s) 10 days after final Village Board action. Specific requirements will be provided by Planning Staff.

No special use shall be recommended by the Planning and Zoning Commission unless said Commission finds that adequate evidence is provided to meet the Special Use Standards. **(Respond to each standard as it applies to your request either below or address on a separate sheet)**

1. That the establishment, maintenance, or operation of the special use will not be detrimental to or endanger the public health, safety, morals, comfort, or general welfare;

Establishment, maintenance and operation of the special use will not be detrimental to or endanger the public health, safety, morals, comfort, or general welfare. ADESA Illinois, LLC requires outside storage to conduct its business operations or providing automotive and specialty salvage services, including processing and selling automobiles, trucks, recreational vehicles and boats, warehousing, storing, inspecting, auctioning, and selling such motor vehicles and providing services to such motor vehicles. The vehicles are stored in surface lots (i.e., not in enclosed buildings) and require substantial acreage for outside storage of the vehicles.

2. That the special use will not be injurious to the use and enjoyment of other property in the immediate vicinity for the purposes already permitted, nor substantially diminish and impair property values within the neighborhood;

The grant of the requested special use for ADESA Illinois, LLC's facility will not be injurious to the use and enjoyment of other property in the immediate vicinity for the purposes already permitted, nor substantially diminish and impair property values within the area. The ADESA family of companies ensures that their operations at each of their premises nationwide are conducted in a safe and secure manner, consistent with their nationwide operational protocols, and their outside storage is done so in a neat and orderly fashion.

3. That the establishment of the special use will not impede the normal and orderly development and improvement of surrounding property for uses permitted in the district;

Establishment of the special use for ADESA Illinois, LLC's facility will not impede the normal and orderly development and improvement of surrounding property for uses permitted in the district. The ADESA family of companies ensures that their operations at each of their premises nationwide are conducted in such a manner as to be non-intrusive to the orderly development and improvement surrounding property.

4. That adequate utilities, access roads, drainage, and/or necessary facilities have been or are being provided;

The plans and specifications for ADESA Illinois, LLC's facility ensure that adequate utilities, access roads, drainage and/or other necessary facilities are being provided for proper operation at the subject premises.

5. That adequate measures have been or will be taken to provide ingress or egress so designed as to minimize traffic congestion in public streets; and

The plans and specifications for ADESA Illinois, LLC's facility ensure that adequate measures have been taken to provide ingress and egress so as to minimize traffic congestion on public streets, including dedication of land adjacent to public roadways, extension and improvement of existing public roadways, and installation of traffic control measures, all in cooperation with the Village.

6. That the special use shall in all other respects conform to the applicable regulations of the district in which it is located, except in each instance as such regulations may be modified by the Village Board pursuant to the recommendation of the Planning and Zoning Commission.

The special use requested by ADESA Illinois, LLC shall in all other respects confirm to the applicable regulations of the M2 zoning district in which it is located, with the exception of the electrically-charged fence which will have been separately approved, and ADESA Illinois, LLC will work in close cooperation with the Village to ensuring all other matters are compliant with applicable regulations or that such regulations are otherwise appropriately modified by the Village Board pursuant to the recommendation of the Planning and Zoning Commission.

VILLAGE OF HOFFMAN ESTATES
PLANNING AND ZONING COMMISSION
VARIATION ADDENDUM

☒ *Commercial* ☐ *Residential* ☐ *Sign*

REQUIRED SUBMITTALS

☒ General Application

☒ Variation Hearing Fee: (Checks payable to the Village of Hoffman Estates)
Commercial: $400.00 per Variation*
Residential: $150.00
Sign: $400.00 per Sign

☒ Legal Description
(Typically found on a tax bill, survey, mortgage documents or deed)

☒ Current Plat of Survey drawn to scale showing the proposed improvement(s) and distance(s) from existing structures and property lines. For sign variations, ALL signs should be shown and labeled on the plat including the sign(s) for which the variation is being requested.

☒ A scale drawing of the floor plan and elevations, including windows and door locations.

☒ A Project Narrative detailing the variation request including whether there are other options that would not require a variation, proposed construction materials, whether removal/relocation of trees, utilities will be required and the estimated total project cost. Include any relevant plans, documents, photos to support the request.

☐ If any part of your existing and/or proposed use is located in any part of a utility easement, written release(s) from the Village or utility company may be required; contact the Planning Division for information.

* *Some commercial requests require the posting of a notification sign(s) on the property 10 days before the Planning & Zoning Commission hearing and removal of the sign(s) 10 days after final Village Board action. Should your request require a notification sign, the specific requirements will be provided by Planning Staff.*

Zoning Code Section 9-1-15-C-2 of the Municipal Code requires that the Planning and Zoning Commission shall, in making its determination whether there are practical difficulties or particular hardships, take into consideration the extent to which the following facts favorable to the applicant have been established by the evidence. **(Respond to each standard as it applies to your request either below or address on a separate sheet)**

1. The particular physical surroundings, shape of topographical condition of the specific property involved would result in a particular hardship upon the owner, as distinguished from a mere inconvenience, if the strict letter of the regulations were carried out.

ADESA Illinois, LLC will initially own and operate approximately 60 acres, having the capacity to store approximately 3,600 cars on the premises. An electrically-charged fence is critical to maintaining security for the site as (a) the site is located in a relatively low traffic area, (b) the site is prohibitively costly to secure using manned personnel or through another alternative method, and (c) the vehicles at the site would be more susceptible to theft if not protected by an electrically-charged fence, as the vehicles are (i) stored on surface lot areas at the premises (i.e., not in enclosed buildings), and (ii) visible from outside of the site.

2. The conditions upon which the petition for a variation is based would not be applicable, generally, to other property within the same zoning classification.

The conditions upon which the petition is based would not be applicable, generally, to other property within the same zoning classification as ADESA Illinois, LLC is has a specialized business and use of its real estate. Specifically, ADESA Illinois, LLC provides automotive and specialty salvage services, including processing and selling automobiles, trucks, recreational vehicles and boats, warehousing, storing, inspecting, auctioning, and selling such motor vehicles and providing services to such motor vehicles. ADESA Illinois, LLC is simultaneously applying for the right of special use for outdoor storage in the M2 zoning district.

3. The purpose of the variation is not based exclusively upon a desire to increase the value of the property.

The request for the variation is not based upon a desire to increase the value of the property. Instead, the purpose of the variation is to allow ADESA Illinois, LLC the ability to conduct its business operations on the site in a safe and secure manner consistent with its nationwide operational protocols.

4. The alleged difficulty or hardship has not been based exclusively upon a desire to increase the value of property.

The alleged hardship is not based upon a desire to increase the value of the property. Instead, the proposed variation is to allow ADESA Illinois, LLC the ability to conduct its business operations on the site in a safe and secure manner consistent with its nationwide operational protocols.

5. The granting of the variation will not be detrimental to the public welfare or injurious to other property or improvements in the neighborhood in which the property is located.

The granting of the variation will not be detrimental to the public welfare or injurious to other property or improvements in the neighborhood. To the contrary, the proposed variation would provide ADESA Illinois, LLC the ability to conduct its business operations on the site in a safe and secure manner consistent with its nationwide operational protocols.

6. The proposed variation will not impair an adequate supply of light and air to adjacent property, or substantially increase the congestion in the public streets, or increase the danger of fires, or endanger the public safety, or substantially diminish or impair property values in the neighborhood.

The proposed variation will not impair the adequate supply of light and air to adjacent property, or substantially increase the congestion in the public streets, or increase the danger of fires, or endanger the public safety, or substantially diminish or impair property values in the neighborhood. To the contrary, the proposed variation would provide ADESA Illinois, LLC the ability to conduct its business operations on the site in a safe and secure manner consistent with its nationwide operational protocols.

Revised
3-24-2015

VILLAGE OF HOFFMAN ESTATES
PLANNING AND ZONING COMMISSION
SITE PLAN ADDENDUM – NON-RESIDENTIAL

☐ *Amendment* ☐ *Concept* ☐ *Preliminary* ■ *Final*

I. DESCRIPTION OF PROJECT:

A. **ATTACH A NARRATIVE FOR THE PROPOSED PROJECT ON A SEPARATE SHEET**

✓ Article 10-6 of the Subdivision Code details the application process and required submittal documents. For relevant items, provide detailed information as part of the project narrative.

B. Total Number of Buildings: 4

C. Total Gross Floor Area: 151,569 square feet

D. Height of tallest building (including antennas, hvac, etc.): 27 feet

E. With respect to this project's compatibility with adjacent land uses, address the following in the Project Narrative: Building Scale, architectural Materials, Coordinated Color Scheme, Existing and Planned Areas of Visual Interest, Design Concept and Relationship of Building Materials to one another.

F. Estimated start of construction: 5/1/15

G. Estimated time to complete development: 1 year
Attach a phasing schedule, if applicable.

H. Does the property contain flood plain lands or wetlands? Yes ■ No ☐
If yes, please address as part of the narrative.
There are non-jurisdictional wetlands as a result of the mining activity.

I. Is there any historical or archeological significance to the existing structures or features of this site or the surrounding sites? Yes ☐ No ■
If yes, please address as part of the narrative.

J. Are there any endangered, threatened, or unique plants or animals located in or near the area?
Yes ☐ No ■
If yes, please address as part of the narrative.

II. OPERATIONAL CONSIDERATIONS

A. Anticipated hours of operation: _____ am/pm to _____ am/pm
Office 9:00 AM to 5:00 PM
Deliveries 24 hours a day 7 days a week

Full Time Employees = 150

Part Time Employees = 100

B. Anticipated number of employees: _____ total _____ per shift _____ number of shifts

C. Estimated number of customers: 500 daily 125 peak hour

D. If there is any additional information about the proposed development or its operation that may affect the site development, address as part of the narrative.

III. FINANCIAL CONSIDERATIONS

A. Estimated annual gross sales of general merchandise subject to sales tax for this project (includes 1% local share of state tax and 1% home rule tax):

Gross Sales (General)		Tax Rate		General Sales Tax
	X	2%	=	$

Approximately $5,000 from the cafeteria sales

B. Estimated annual gross sales subject to food and beverage (F & B) tax for this project (food prepared on premises and alcoholic beverages consumed on premises). See article 13-7 of the Hoffman Estates Municipal Code for detailed definition:

Gross Sales (F & B)		Tax Rate		F & B Tax
	X	2%	=	$

Approximately $5,000 from the cafeteria sales

C. Estimated Annual Hotel Tax: 365 Days X

Estimated Average Room Rate		Number of rooms		Occupancy Percentage		365 Days		Tax Rate		Hotel Tax
NA	X	NA	X	NA	X	NA	X	6%	=	$NA

D. Other tax/revenue: (Entertainment tax, etc.) Pending Village finalization there will be a $5-$7 per vehicle transfer tax. +- 75, 000 vehicles per year = $375,000.00

		Rate		Tax
NA	X	6%	=	$NA

E. Estimated Annual Telecommunications (TC) Tax:

Estimated Yearly Phone Bill		Tax Rate		TC tax
$7,200	X	6%	=	$432.00

F. Current assessment of the property: $987,123

G. Estimated value of Construction: $30 Million

H. Will this project result in any unusual expenditure of public funds or requirements for public services in anyway? ☐ Yes ■ No

If yes, please address as part of the narrative.

IV. TRAFFIC CONSIDERATIONS

A. Parking

1. Total number of parking spaces to be provided:

Employees: 80 Customers/ Visitors: 518 Handicapped: 12 Total: 610

2. When is the peak parking period for this project?
Sale day 1 per week from 9:30 AM TO 1:30 PM

3. Will this project share parking spaces with other businesses? ☐ Yes ■ No

If yes, please address as part of the narrative.

B. Traffic

1. Estimated number of vehicles entering and exiting this site during the peak one hour period between 4:00 p.m. and 6:00 p.m. 84 on non-auction days
184 on auction days

2. Will there be any other peak traffic times for this project? ☐ Yes ■ No

If yes, give the time(s) of day and traffic volume: _____

3. Will this project contain a drive through? ☐ Yes ■ No

If yes, the project narrative should address order processing time, projected stacking demand, and other details to explain the operation.

C. Deliveries

1. The project plan submittal should include turning templates to show all routes to be used for making deliveries to and from site. Is this plan included? ■ Yes ☐ No

2. How often will deliveries be made on site? 7 days a week

2. What is the frequency and time period expected for deliveries? 24 hours a day 7 days a week

3. What is the largest delivery vehicle to be used and its size?

Vehicle Type	Size	check
Single Unit truck	30 ft.	
Intermediate Semitrailer	50 ft.	
Large Semitrailer	55 ft.	✓
Other		

If the delivery truck used fits into the "Other" category, please specify type, size and turning radius: _____

_____

D. Any additional site related traffic information not covered above? ☐ Yes ■ No
If yes, please address as part of the narrative.

V. RECYCLING AND GREEN INITIATIVES

A. Article 9 of The Municipal Code of the Village of Hoffman Estates requires that businesses maintain an effective recycling program. Address any unique recycling plans as part of the project narrative.

B. The Village supports and promotes sustainability. Please address any planned green or sustainability initiatives as part of the narrative. The Recon Building will reclaim over 80 % of the water it uses.

C. Do you anticipate submitting this project for LEED certification (or any other similar certifications)? ☐ Yes ■ No
If yes, please address as part of the narrative.

VI. GENERAL CONSIDERATIONS

A. Please list examples of similar uses (including name and location) in the area that can be used for comparison by the Village:

1. _____
2. _____
3. _____

B. Will this project contain any noise generators that will adversely affect surrounding areas?

Yes ☐ No ■
If yes, please address as part of the narrative.

C. Is there anything included in this project that may be sensitive to surrounding noise generators?

Yes ☐ No ■

If yes, please address as part of the narrative.

D. Do you intend to apply for a liquor license? ☐ Yes ■ No

If yes, please contact the Village Clerk's Office at 847.781.2625

E. Will this project contain a cafeteria or food service area (in order to determine applicability of a sewer and water surcharge)? Yes ■ No ☐

If yes, please address as part of the narrative.

F. In the project narrative, please list and explain anything involved in this project that is not covered in this application that should be brought to the Village's attention. Also address any rare or unusual circumstances or needs related to this project.

Please contact the Planning Division with any questions:

Email:	planning@hoffmanestates.org
Address:	1900 Hassell Road Hoffman Estates, IL 60169
Phone:	847.781.2660
Fax:	847.781.2679

ADESA

Overview

We are the second largest provider of whole car auctions and related services to the vehicle remarketing industry in North America. We serve our international customer base through online auctions and auction facilities that are developed and strategically located to draw professional sellers and buyers together and allow the buyers to inspect and compare vehicles remotely or in person. Our online service offerings include ADESA.com, LiveBlock and DealerBlock and allow us to offer vehicles for sale from any location.

Vehicles available at our auctions include vehicles from institutional customers such as off-lease vehicles, repossessed vehicles, rental vehicles and other program fleet vehicles that have reached a predetermined age or mileage and have been repurchased by the manufacturers, as well as vehicles from used vehicle dealers turning their inventory. The number of vehicles offered for sale at auction is the key driver of our costs incurred in the whole car auction process, and the number of vehicles sold is the key driver of the related fees generated by the remarketing process.

We offer both online and physical auctions as well as value-enhancing ancillary services in an effective and efficient manner to maximize returns for the sellers of used vehicles. We quickly transfer the vehicles and ownership to the buyer and the net funds to the seller. Vehicles are typically offered for sale at the physical auctions on at least a weekly basis at most locations and the auctions are simulcast over the Internet with streaming audio and video (LiveBlock) so that remote bidders can participate via our online capabilities. Our online auctions (DealerBlock) function 24 hours a day, 7 days a week, providing our customers with maximum exposure for their vehicles and the flexibility to offer vehicles at buy now prices or in auctions that last for a few hours, days or even weeks. We also provide customized "private label" selling systems (including buy now functionality as well as online auctions) for our customers, primarily utilizing technology acquired with the purchase of OPEN LANE.

We generate revenue primarily from auction fees paid by vehicle buyers and sellers. Generally, we do not take title to or bear the risk of loss for vehicles sold at whole car auctions. Our buyer fees and dealer seller fees are typically based on a tiered structure with fees increasing with the sale price of the vehicle, while institutional seller fees are typically fixed. We add buyer fees to the gross sales price paid by buyers for each vehicle, and generally customers do not receive title or possession of vehicles after purchase until payment is received, proof of floorplan financing is provided or credit is approved. We generally deduct seller fees and other ancillary service fees to sellers from the gross sales price of each vehicle before remitting the net amount to the seller.

Customers

Suppliers of vehicles to our whole car auctions primarily include (i) large institutions, such as vehicle manufacturers and their captive finance arms, vehicle rental companies, financial institutions, and commercial fleets and fleet management companies (collectively "institutional customers"); and (ii) franchised and independent used vehicle dealers (collectively "dealer customers"). For the year ended December 31, 2013, no single supplier accounted for more than 5% of ADESA's revenues.

Buyers of vehicles at our whole car auctions primarily include franchised and independent used vehicle dealers. For the year ended December 31, 2013, no single buyer accounted for more than 2% of ADESA's revenues.

Services

Our whole car auctions also provide a full range of innovative and value-added services to sellers and buyers that enable us to serve as a "one-stop shop." Many of these services may be provided or purchased independently from the auction process, including:

Services	Description
Auction Related Services	ADESA provides marketing and advertising for the vehicles to be auctioned, dealer registration, storage of consigned and purchased inventory, clearing of funds, arbitration of disputes, auction vehicle registration, condition report processing, post-sale inspections, security for consigned inventory, title processing, sales results reports, pre-sale lineups and auctioning of vehicles by licensed auctioneers.
Transportation Services	We provide both inbound (pickup) and outbound (delivery) transportation services utilizing our own equipment and personnel as well as licensed and insured third party carriers. Through our subsidiary, CarsArrive and its Internet-based system which provides automated vehicle shipping services, customers can instantly review price quotes and delivery times, and vehicle transporters can check available loads and also receive instant notification of available shipments. The same system is utilized at our whole car auction locations.
Reconditioning Services	Our auctions provide detailing, body work, paintless dent repair ("PDR"), light mechanical work, glass repair, tire and key replacement and upholstery repair.
Inspection Services Provided by AutoVIN	AutoVIN provides vehicle condition reporting, inventory verification auditing, program compliance auditing and facility inspections. Field managers are equipped with handheld computers and digital cameras to record all inspection and audit data on-site. The same technology is utilized at our whole car auction locations and we believe that the expanded utilization of comprehensive vehicle condition reports with pictures facilitates dealers sourcing vehicles via the Internet.
Title and Repossession Administration and Remarketing Services Provided by PAR	PAR provides end-to-end management of remarketing process including titling, repossession administration, inventory management, auction selection, pricing and representation of the vehicles at auction for those customers seeking to outsource all or just a portion of their remarketing needs.
ADESA Analytical Services	ADESA Analytical Services provides value-added market analysis to our customers and the media. These services include access to publications and custom analysis of wholesale market trends for ADESA's customers, including peer group and market benchmarking studies, analysis of the benefits of reconditioning, site selection for optimized remarketing of vehicles, portfolio analysis of auction sales and computer- generated mapping and buyer analysis.

Sales and Marketing

Our sales and marketing approach at ADESA is to develop strong relationships and interactive dialogue with our customers. We have relationship managers for the various categories of institutional customers, including vehicle manufacturers, rental car companies, finance companies and others. These relationship managers focus on current trends and customer needs for their respective seller group in order to better coordinate our sales effort and service offerings.

Managers of individual auction locations are ultimately responsible for providing services to the institutional customers whose vehicles are directed to the auction by the corporate sales team. Developing and

servicing the largest possible population of buying dealers for the vehicles consigned for sale at each auction is integral to maximizing value for our vehicle suppliers.

We have local auction sales representatives who have experience in the used vehicle business and an intimate knowledge of local markets. These local representatives focus on the dealer segment and are complemented by local telesales representatives and are managed by a corporate-level team focused on developing and implementing standard best practices. We believe this combination of a centralized structure with decentralized resources enhances relationships with the dealer community and may further increase dealer consignment business at our auctions.

Through our ADESA Analytical Services department, we also provide market analysis to our customers, as they use analytical techniques in making their remarketing decisions.

Online Solutions

Our current ADESA online solutions include:

Proprietary ADESA Technology	Description
ADESA.com and ADESADealerBlock®	This platform provides for either real-time or "bulletin-board" online auctions of consigned inventory at physical auction locations and is powered by the technology we acquired from OPENLANE in 2011. We also utilize this platform to provide upstream and midstream selling capabilities for our consignors, which facilitate the sale of vehicles prior to their arrival at a physical auction site. Auctions can be either closed (restricted to certain eligible dealers) or open (available to all eligible dealers) and inventory feeds of vehicles are automated with many customers' systems as well as third party providers that are integrated with various dealer management systems.
ADESA LiveBlock®	Our live auction Internet bidding solution, ADESA LiveBlock®, operates in concert with our physical auctions and provides registered buyers with the opportunity to participate in live auctions. Potential buyers bid online in real time along with the live auctions. Potential buyers bid online in real time along with the live local bidders and other Internet bidders via a simple, web-based interface. ADESA LiveBlock™ provides real-time streaming audio and video from the live auction and still images of vehicles and other data. Buyers inspect and evaluate the vehicle and listen to the live call of the auctioneer while viewing the physical auction that is underway.
ADESA Run List®	Provides a summary of consigned vehicles offered for auction sale, allowing dealers to preview inventory and vehicle condition reports prior to an auction event.
ADESA Market Guide®	Provides wholesale auction prices, auction sales results, market data and vehicle condition information.
ADESA Virtual Inventory	Subscription-based service to allow dealers to embed ADESA's search technology into a dealer's Web site to increase the number of vehicles advertised by the dealer.

Competition

In the North American whole car auction industry, we compete with Manheim, a subsidiary of Cox Enterprises, Inc., OVE.com (Manheim's "Online Vehicles Exchange"), SmartAuction, as well as several smaller chains of auctions and independent auctions, some of which are affiliated through their membership in industry associations. In the United States, competition is strongest with Manheim for the supply of used vehicles from national institutional customers. In Canada, we are the largest provider of whole car vehicle auction services. The supply of vehicles from dealers is dispersed among all of the auctions in the used vehicle market.

Due to the increased viability of the Internet as a marketing and distribution channel, new competition has arisen from Internet-based companies and our own customers who have historically remarketed vehicles through various channels, including auctions. Direct sales of vehicles by institutional customers and large dealer groups through internally developed or third-party online platforms have largely replaced telephonic and other non-auction methods, becoming a significant portion of overall used vehicle remarketing. The extent of use of direct, online systems varies by customer. In addition, we and some of our competitors offer online auctions in connection with physi8cal auctions, and other online companies now include used vehicles among the products offered at their auctions.

Kimley»Horn

MEMORANDUM

To: Peter Gugliotta, Village of Hoffman Estates

From: Brett Roland, ADESA
Scott Willson, Kimley-Horn and Associates, Inc.
Jared Kenyon, Kimley-Horn and Associates, Inc.

Date: February 23, 2015

Subject: ADESA Auto Auctions Project Narrative

Project Narrative

1. The anticipated construction phasing of the project is shown in the attached drawing. Based upon the current negotiations with the Owners, ADESA must purchase option 2, prior to obtaining any rights to option 3. The contract stipulates that we have a 3 year right of first opportunity on both of these phases, and we will obtain an additional 2 years on option 3 if we purchase option 2 within the allotted time frame. The thought is that ADESA will exercise both options within the 5 year time period with development of the entire site hinging on business growth.
2. ADESA's auctions are held once a week at a day to be determined for this site. The sale typically starts at 9:00AM and are completed by 2:00PM or earlier. Typically, the vehicles on the sites are consigned to ADESA and are not owned by ADESA. The typical model of vehicle is not older than 3 to 5 years. The makeup of the sale could be off-lease, fleet such as rental cars and trade-ins from dealerships. Some of our sites specialize in certain types/models of vehicles but most sell a mixture of types of vehicles. Currently, the vehicles are proposed to be sold directly to dealers and no public sales will be offered unless required by law. ADESA would, however, like to reserve the right to sell to consumers if market conditions dictate. ADESA also has a specialty sale that sells, boats, and RV's to dealers and the public. This makes up a very small portion of sales and currently, it has not been determined if it would be part of the sale in Hoffman Estates.
3. Secondary benefits from the auction typically are represented through increased hotel stays, food and gas purchases, and an increase in tertiary spending due to an increase in visitors to the area. ADESA expects to attract 300-500 dealers on a weekly basis to Hoffman Estates, this number represents local and out of town dealers.

4. Provided below are the proposed buildings and the associated size:

Building Type	Building Size (sf)
Arena Building	72,350
Recon Building	55,150
Inspection Building	8,260
Check In Building	2,146

5. There is no mapped FEMA floodplain located on the subject property; however there is approximately 1.18 acres of isolated wetlands that will be mitigated offsite as part of the wetland permitting process through MWRD. In addition to the wetlands, the IDNR has identified that the site is located within a Class III Special Resource Groundwater Area that contributes to the Trout Park Nature Preserve. The IDNR has recommended treating the site runoff to prevent heavy metals and Polycyclic Aromatic Hydrocarbons (PAHs) from draining off the development and into the existing quarry (Lake Beverly). Their concern is the potential for the runoff to contribute to ground water contamination. However, to minimize or remove this potential, the runoff will be treated by vegetative swales, a wet bottom detention basin with natural grasses planted along the side slopes and a snout device installed in the outlet structure to remove solids or oil/grease prior to entering the existing quarry. In addition, the Owner will monitor the water quality over a 3-year post construction period and provide the results to the Village for their information and files.
6. Security is a priority for ADESA. The auctions assume responsibility of all vehicles on the site except for acts of God. Our typical security provisions include state of the art security camera systems, and on site Security Personnel based upon need of each particular site. ADESA employs a deterrent electrical fence, guard rail and standard fencing around the perimeter of the site. All dealers who enter the site are required to be registered and have an identification badge.
7. Guardrail openings have been provided at the south end of the test track and between the Check-In Building and the Recon Buildings for the snow to be pushed into the detention pond. The facility manager will determine where excess snow should be stored.
8. A tree survey of the project site prepared by Haeger Engineering has been included with the resubmittal. The survey identifies 969 total trees with a DBH of 5" or greater. 99% of the trees surveyed would be considered undesirable, weedy, or invasive species. These species include Cottonwood, Silver Maple, Mulberry, Boxelder, Black Cherry, Siberian Elm, and Black Willow. 1% of the trees surveyed are desirable and consist of six Honeylocusts and six Hackberries (12 total desirable trees). Approximately 729 trees will be removed based on the proposed improvements to the subject property. Of those removals, only 12 trees are considered desirable, consisting of six Honeylocusts and six Hackberries.

Tree removals per each sub-area noted on the tree survey are as follows:
Area S – Trees 1787-1856 to be removed.
Area T – All trees to be removed.
Area V – All trees to be removed.
Area X – All trees to be removed.
Area Y – All trees to be removed.
Area Z – All trees to be removed.
Area CC – All trees to be removed.
Area DD – All trees located outside of project boundary.
Area II – All trees located outside of the project boundary.
Area JJ – All trees to be removed except 9a, 11a, and 12a.
Area KK – All trees to be removed except 1916, 1917, and 1918.
Area MM – All trees located outside of project boundary.

Kimley»Horn

MEMORANDUM

To: Peter Gugliotta, Village of Hoffman Estates

From: Jared Kenyon, Kimley-Horn

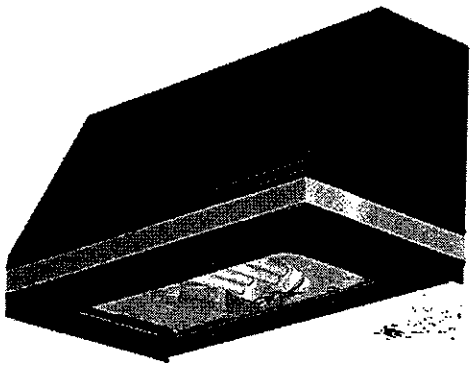
Date: February 24, 2015

Subject: ADESA Auto Auction Development Team

Development Team
Adesa Auto Auction

Project Role	Company	Contact
Developer/Owner	Adesa Illinois, LLC	Brett Roland
Owner's Attorney	McDermott Will & Emery	Ankur Gupta
Seller	Plote Homes	Ryan Trottier
Project Managers Site & Beverly Road Civil Engineer	Kimley-Horn	Scott Willson Jared Kenyon
Landscape Architect	Kimley-Horn	Keith Demchinski
Surveyor Prairie Stone Parkway Civil Engineer	Haeger Engineering Ltd	Len Kleinjan
Architect	Architura Corporation	Chuck Kotterman
General Contractor	Advanced Interiors	Danny Buckley
Wetland Consultant	Midwest Ecological	Robert Vanni
Geotechnical Engineer	Testing Service Corporation	Mike Machalinski

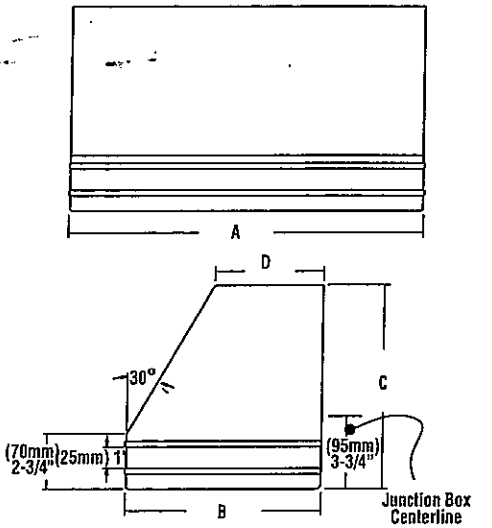
GREENBRIAR® WALL SCONCE (Various reflectors are protected by U.S. Patent No. 6,464,378)



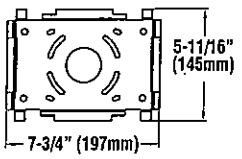
Shown with optional decal striping

Flat-lensed fixtures meet IESNA full cutoff classification

DIMENSIONS



	A	B	C	D
Small	(448mm) 17-5/8"	(244mm) 9-5/8"	(257mm) 10-1/8"	(137mm) 5-3/8"
Medium	(508mm) 20"	(341mm) 13-7/16"	(283mm) 11-5/32"	(218mm) 8-5/8"



Universal Mounting Plate

SHIPPING WEIGHTS - Greenbriar Wall Sconce

Catalog Number	Est. Weight (kg/lbs.)	Length (mm/in.)	Width (mm/in.)	Height (mm/in.)
GBWS-HID	10 / 22	616 / 24.25	394 / 15.5	343 / 13.5
GBWM-HID	15 / 32	616 / 24.25	394 / 15.5	419 / 16.5
GBWS-CFL	8 / 17	616 / 24.25	394 / 15.5	343 / 13.5
GBWM-CFL	11 / 24	616 / 24.25	394 / 15.5	419 / 16.5

c UL us LISTED
wet location (Downlight only)
damp location (Uplight - covered locations only)

ARRA Funding Compliant
American Innovation
American Made

HOUSING - The aluminum housing is available in two sizes and is a rectangular shape. All mounting hardware is stainless steel or electro-zinc plated steel.

WALL MOUNT - A galvanized-steel universal wall mounting plate easily mounts directly to a 4" octagonal or square junction box. An EPDM gasket is supplied to be installed between the mounting plate and junction box, sealing the junction box from entrance of water. The galvanized-steel universal plate allows the fixture to securely attach to the mounting plate using a unique clamping design which is locked into place with two hex-head screws. The universal plate permits the fixture to be mounted in the uplighting position (listed for damp locations) or downlighting position (listed for wet locations).

DOOR FRAME - The aluminum door frame with two stainless steel captive fasteners allows easy access into the fixture. A one piece extruded silicone gasket seals the door frame against the housing. The door swings open and is held in place by a retainer.

LENS/GASKET - A flat clear tempered glass lens, which is sealed to the door frame with EPDM gasketing, is standard. An optional polycarbonate lens is available on most Compact Fluorescent fixtures.

BALLASTS/ELECTRICAL COMPONENTS - Electrical components are factory-mounted in housing and prewired with voltage specific leads which extend out the back of the unit through a rubber grommet. This grommet prevents the entry of insects, dust, and moisture into the fixture. The need to open the fixture to make wiring connections is eliminated, thus making installation quick and easy. UL listed HID components with high-power factor ballasts rated for -20°F starting. Compact Fluorescent ballasts are Electronic Universal Voltage (120-277V 50/60 Hz) or 347V (60 HZ), 0°F starting. Compact Fluorescent fixtures with UE (Universal Electronic) voltage are available with an optional dimming ballast for multiple types of controls such as building lighting controls and occupancy sensors. Available battery back-up of BB (32° starting temperature) and CWBB (0° starting temperature) are 120 or 277 voltage for U.S. applications for 26 watt through 70 watt lamps. Consult factory for available wattages and voltages for use in Canada.

SOCKETS - HID lampholders are glazed porcelain, medium base for the small fixture and mogul base for the medium fixture, 4KV pulse rated. The Compact Fluorescent fixtures feature a one-piece thermoplastic socket.

LIGHT SOURCES - The fixture is designed to operate with horizontal Pulse-Start Metal Halide, Pulse-Start Metal Halide Reduced, Ceramic Metal Halide, Metal Halide, High Pressure Sodium, and single, double or triple Compact Fluorescent lamps. Lamps supplied as standard – HID (clear, shipped installed), and Compact Fluorescent (coated, 4100K).

EMERGENCY OPERATION - A variety of integral emergency options are available to comply with Life Safety Codes which require emergency lighting along the path of egress on the building's exterior, so building occupants can exit safely. Integral Emergency Battery Back-up options are available on Compact Fluorescent units.

REFLECTORS/DISTRIBUTION PATTERNS - Forward Throw (FTM, FT) and Type III (3) reflectors are available on small and medium. Wall Wash (WW) reflectors are also available on small. All are high performance, full cut-off distribution as defined by the IESNA (downlight position only). Photometric data is tested in accordance with IESNA guidelines.

FINISHES - Each fixture is finished with LSI's DuraGrip® polyester powder coat finishing process. The DuraGrip finish withstands extreme weather changes without cracking or peeling, and is guaranteed for five full years. Standard colors include bronze, black, platinum plus, white, satin verde green, metallic silver, and graphite.

DECAL STRIPING - LSI offers optional color-coordinated decals in 9 standard colors to accent the fixture. Decals are guaranteed for five years against peeling, cracking, or fading.

PHOTOMETRICS - Please visit our web site at www.lsi-industries.com for detailed photometric data.

LSI Industries™

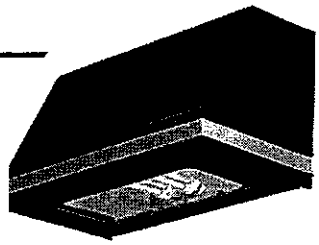
Project Name _____ Fixture Type _____

Catalog # _____

02/03/15

GREENBRIAR® WALL SCONCE

LUMINAIRE ORDERING INFORMATION



TYPICAL ORDER EXAMPLE: **GBWM 3 400 PSMHR F 120 BRZ SQT**

Luminaire Prefix	Distribution	Lamp Wattage	Light Source	Lens	Line Voltage	Luminaire Finish	Options
GBWS (Small)	3 - Type III FT - Forward Throw WW - Wall Wash	50 70 100 150	CMH - Ceramic Metal Halide 150 Watt[1] MH - Metal Halide 50, 70, 100[2], 150[1] Watt HPS - High Pressure Sodium 50[3], 70, 100, 150 Watt	F- Flat Clear Tempered Glass	120 208 240 277 347	BRZ - Bronze BLK - Black PLP - Platinum Plus WHT - White SVG - Satin Verde Green GPT - Graphite MSV - Metallic Silver	PCI120 - Button-Type Photocell PCI208 - Button-Type Photocell PCI240 - Button-Type Photocell PCI277 - Button Type-Photocell PCI347 - Button Type-Photocell TP - Tamper Proof[7] PMA - Pole Mount Adaptor for use with square poles (for S or D180 mounting configurations only)[8] Not compatible with EMR1, EMR2, EO or EO2 options PMAR - Pole Mount Adaptor for use with round poles (for S or D180 mounting configurations only)[8] Not compatible with EMR1, EMR2, EO or EO2 options DIM - CFL Control Voltage Dimming Ballast[9] C - Coated MH or PSMH Lamp except 250 PSMH SQT - Standby Quartz (Time Delay)[10] SQN - Standby Quartz (Non-Time Delay)[10] BB - CFL Battery Back-up[11] CWBB - Cold Weather Battery Back-up[11] LL - Less Lamp **Color Decals** 45 - Light Gold Metallic 20 - Charcoal Metallic 94 - Blue Metallic 59 - Dark Green 21 - Tomato Red 55 - Black 50 - White 51 - Dark Red 700 - Aztec Silver Metallic
	FTM - Forward Throw Medium	26 32 42	CFL - Compact Fluorescent Single 26, 32, 42 Watt CFL2 - Compact Fluorescent Double 26, 32, 42 Watt	F- Flat Clear Tempered Glass FPC - Flat Clear Polycarbonate[4]	UE - Universal Electronic (120-277V 50/60Hz) 347[6]		
	WW - Wall Wash		CFL - Compact Fluorescent Single 26, 32, 42 Watt				
GBWM (Medium)	3 - Type III FT - Forward Throw	250 320 400	PSMH - Pulse Start Metal Halide 250, 320 Watt PSMHR - Pulse Start Metal Halide Reduced 400 Watt HPS - High Pressure Sodium 250, 400 Watt	F- Flat Clear Tempered Glass	120 208 240 277 347 480		
		26 32 42 57 70	CFL - Compact Fluorescent Single 57, 70 Watt CFL2 - Compact Fluorescent Double 57, 70 Watt CFL3 - Compact Fluorescent Triple 26, 32, 42 Watt	F- Flat Clear Tempered Glass FPC - Flat Clear Polycarbonate[4,5]	UE - Universal Electronic (120-277V 50/60Hz) 347[6]		

Consult Factory for International Voltages and Light Sources

FOOTNOTES:

1- 150 MH must be used for downlight only.

2- Supplied with a HX-HPF transformer as standard. Also available with a 120/277 volt CWA transformer. Consult factory.

3- 50 Watt HPS is not available in TT or 347V.

4- FPC lens is not available with EMR options.

5- If a polycarbonate lens is required on an Uplight Medium fixture in 70 CFL2 or 42 CFL3, the glass lens with Polycarbonate Shield (GBWM PLS) accessory must be ordered.

6- 347V CFL is not available with dimming ballast (DIM) option. Consult factory for battery back-up (BB) options.

7- Tamper-proof Screwdriver must be ordered separately. (See Accessory Ordering Information)

8- Use with 5" traditional drilling pattern.

9- CFL Dimming Control by others.

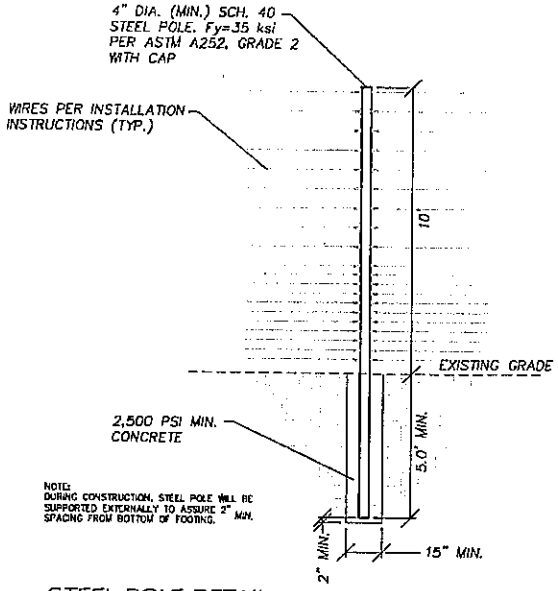
10- HID lamp wattages 50 and 70 are supplied with a 50 watt, 120V quartz lamp. HID lamp wattages 100 through 250 are supplied with a 100 watt, 120V quartz lamp. HID lamp wattages of 320 & 400 are supplied with a 250 watt, 120V quartz lamp.

11- Battery Back-up available on single, double and triple 120 or 277 voltage specific units for U.S. applications. Please change Line Voltage of UE to 120 or 277 when ordering this option. On double and triple units, one lamp will be energized by Battery Back-up (BB) option. Consult factory for specific Means of Egress job application compliance.

ACCESSORY ORDERING INFORMATION (Accessories are field installed)

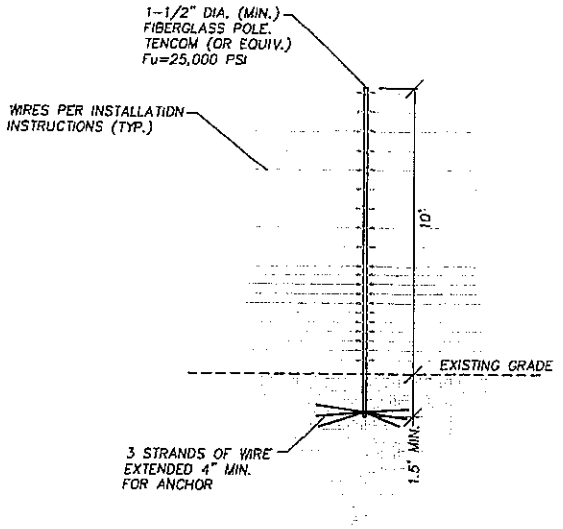
Description	Order Number	Description	Order Number
FK120 - Single Fusing	FK120+	GBWS PLS - Polycarbonate Shield for Small	172786
FK277 - Single Fusing	FK277+	GBWM PLS - Polycarbonate Shield for Medium	172787
DFK208, 240 - Double Fusing	DFK208, 240+	SW BLK - Surface Wiring Box	173156BLK+++
DFK480 - Double Fusing	DFK480++	SCD - Tamper-proof Screwdriver	477974
FK347 - Single Fusing	FK347+		

+ Available on HID fixtures only. Fusing to be installed in a compatible junction box supplied by contractor.
++ Available on HID Medium fixture only. Fusing to be installed in a compatible junction box supplied by contractor.
+++SW BLK not compatible with PMA or PMAR option.



STEEL POLE DETAIL

NTS



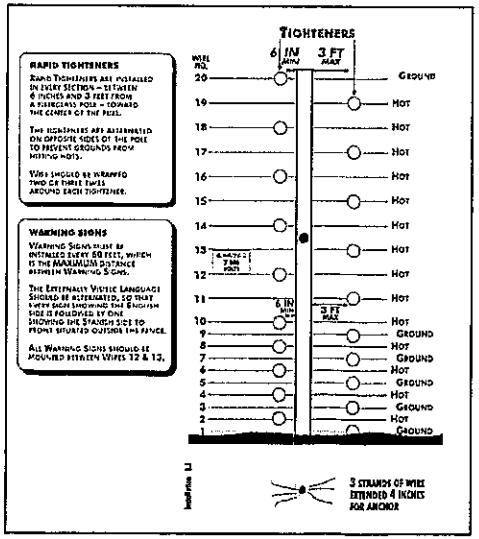
FIBERGLASS POLE DETAIL

NTS

NOTE:
BOTH ENGLISH AND SPANISH VERSION OF THE "WARNING
SIGN" WILL BE PLACED EVERY 60 FEET MAXIMUM.

EXAMPLE WARNING SIGNS

NTS



WIRE CONNECTIONS

NTS

#	DATE/DESCRIPTION

Electric Guard Dog
7608 Fairfield Road
Columbia, SC 29203
PHONE: 803-786-6333
FAX: 803-404-5378

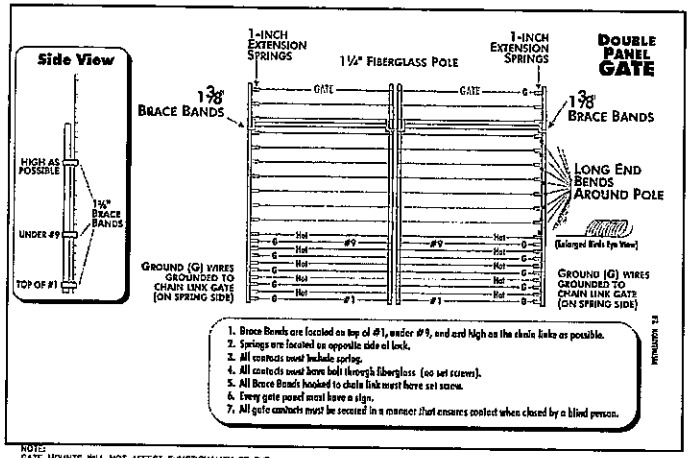
PROJECT: REQUEST TO AUTHORIZE A SECURITY SYSTEM

SHEET TITLE: TYPICAL DETAILS

DATE: FEB. 13, 2015

SCALE: N/A

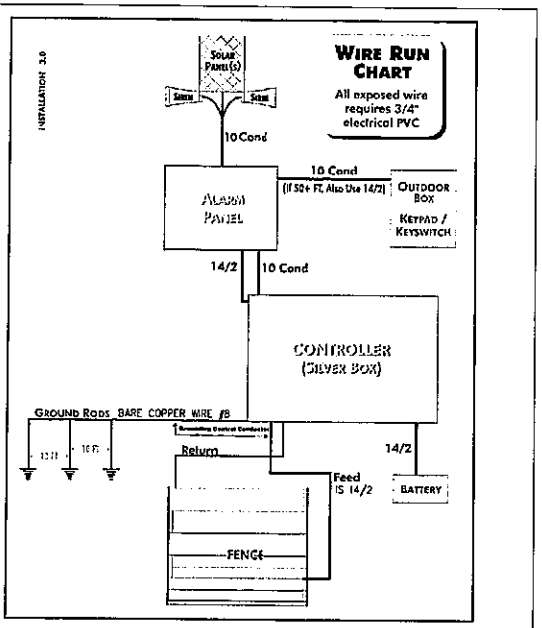
SHEET
2 OF 3



NOTE:
GATE MOUNTS WILL NOT AFFECT FUNCTIONALITY OF THE GATE(S).

GATE DETAIL

NTS



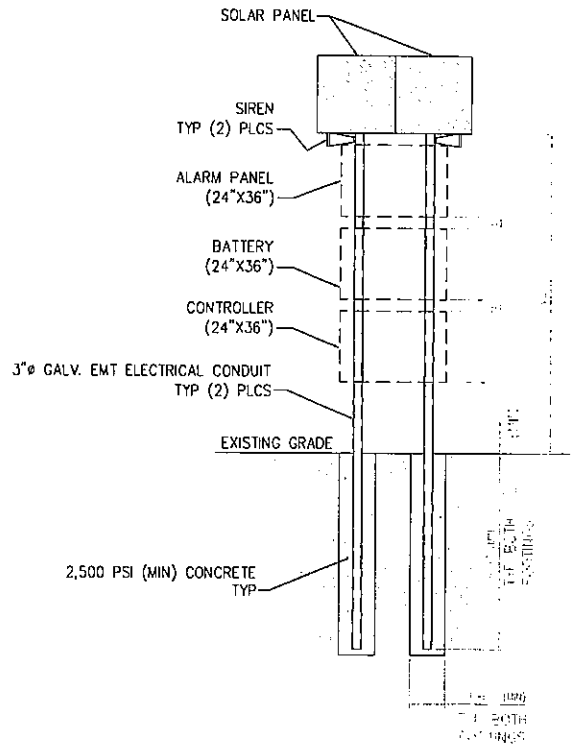
WIRE RUN DETAILS

NTS

OUTSIDE MOUNTED ELECTRONICS

MOUNT THREE EMPTY GALVANIZED SILVER BOXES TO A PAIR OF 3"ø GALVANIZED EMT ELECTRICAL CONDUIT STEEL POLES.

THE BOTTOM OF THE LOWEST BOX MUST BE AT LEAST 2 FEET ABOVE GROUND LEVEL, AND THE POLES MUST BE ANCHORED AT LEAST 5'-6" BELOW GROUND LEVEL.



STEEL POLE DETAIL

#	DATE / DESCRIPTION

Electric Guard Dog
7608 Fairfield Road
Columbia, SC 29203
PHONE: 803-786-6333
FAX: 803-404-5378

PROJECT: REQUEST TO AUTHORIZE A SECURITY SYSTEM

SHEET TITLE: TYPICAL DETAILS

DATE: FEB. 13, 2015

SCALE: N/A

SHEET
3 OF 3

Kimley»Horn

MEMORANDUM

To: Mr. Brett Roland
ADESA
Senior Vice President

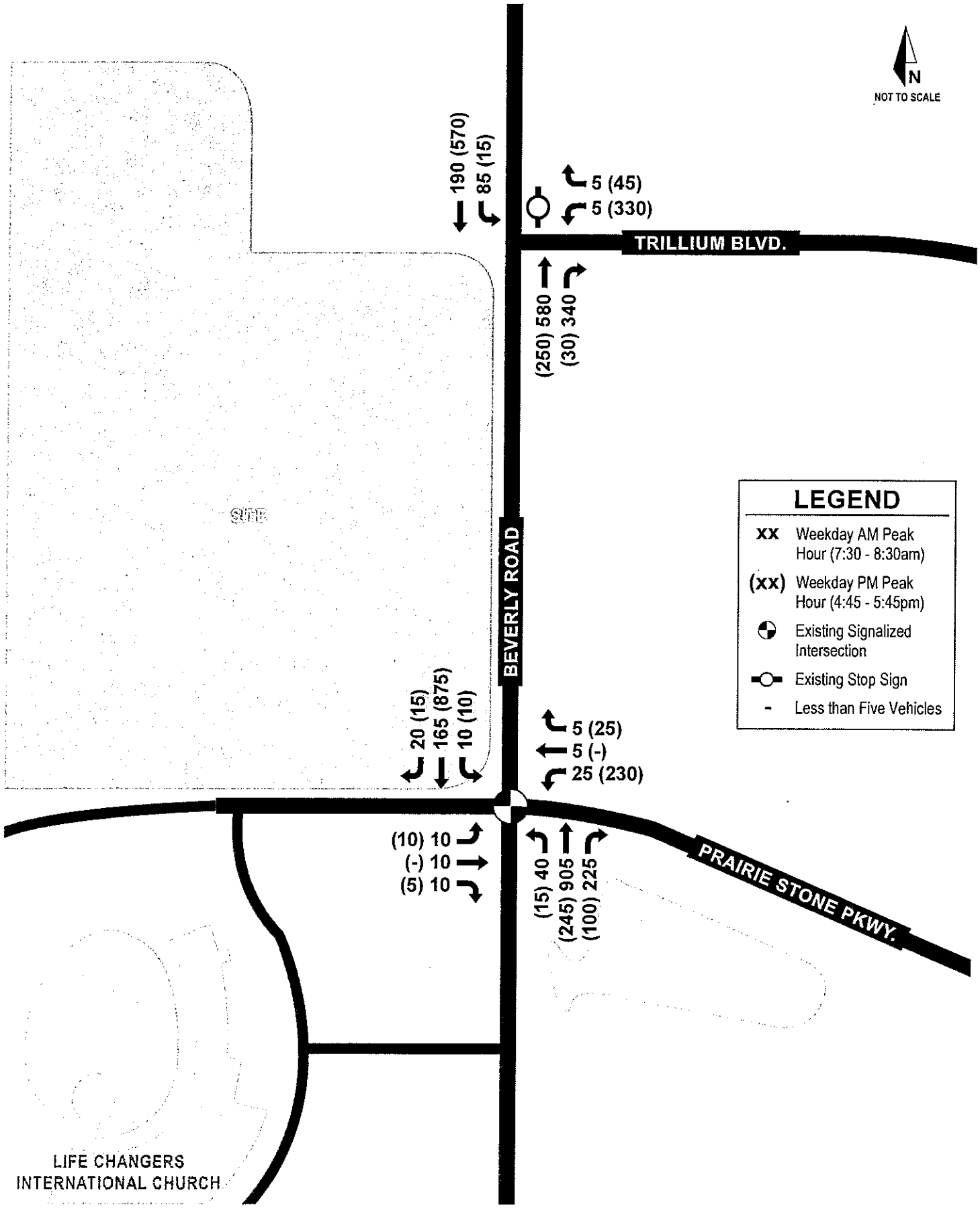
From: Ms. Sara Disney Haufe, P.E., PTOE
Kimley-Horn and Associates, Inc.

Date: March 11, 2015

RE: ADESA Auto Auction Development
Traffic Impact Analysis

Kimley-Horn and Associates, Inc., (Kimley-Horn) was retained by ADESA to perform a traffic impact analysis for a proposed auto auction facility in Hoffman Estates, Illinois. Located on the west side of Beverly Road between Prairie Stone Parkway and Trillium Boulevard, the subject parcel will be approximately 85 acres in size at full build-out. Two full-access driveways to Prairie Stone Parkway are anticipated: one for the facility's customer parking lot and one for back-of-house operations. These driveways would meet Prairie Stone Parkway approximately 575 feet and 1,275 feet west of Beverly Road, respectively. A fourth leg of the existing Beverly Road/Trillium Boulevard intersection is also proposed as a part of this project, providing full access to both the customer parking lot and an area for transport trucks to pick up vehicles that have been sold and distribute them to their next destination.

Per study parameters discussed with the Village of Hoffman Estates, this memorandum details a traffic impact analysis for the subject development, including data collection, study methodology, and findings of the evaluation. Traffic count data was collected at the Beverly Road study intersections with Prairie Stone Parkway and Trillium Boulevard, as summarized in **Exhibit 1**. Existing traffic operation was evaluated to provide a baseline for an assessment of the two study intersections, and a "Future No-Build" scenario was prepared to evaluate the impact of a potential warehouse development (by others) planned on the south side of Prairie Stone Parkway west of Beverly Road. Site-generated trip projections for the ADESA facility were then added to yield "Future Build" traffic volumes, and capacity analyses were performed to identify what improvements may be necessary to accommodate site traffic within the study area. As requested by Village staff, particular attention was paid to the capacity of the northbound left-turning movement at Beverly Road and Prairie Stone Parkway. Finally, a summary of evening peak hour trip generation is presented for use in calculating an appropriate impact fee for the subject site.



Kimley»Horn

EXHIBIT 1
EXISTING TRAFFIC VOLUMES

SITE TRAFFIC CHARACTERISTICS

Trip generation projections for a new development are typically calculated according to data provided in the Institute of Transportation Engineers (ITE) manual Trip Generation, Ninth Edition, which has compiled national surveys on the traffic characteristics of hundreds of land uses. Due to the unique nature of this site, however, Trip Generation does not contain any information about auto auction facilities. Instead, Kimley-Horn referenced the trip generation methodology applied in a traffic study for a similar ADESA facility in Phoenix, Arizona, and used information about the proposed facility's planned operations to develop traffic projections for this site. An excerpt of the traffic study for ADESA Phoenix is attached to this memorandum.

Based on the information available, it is understood that trip generation for the subject facility is made up of three components: employees, customers, and transport trucks. Additionally, site traffic characteristics differ on sale days and non-sale days. Pursuant to this understanding, the following assumptions about site trip generation were developed.

Employee Traffic

The subject facility would operate with up to 80 full-time employees, who would be present every weekday from 9:00AM until 5:00PM. On non-sale days, it is anticipated that employees would park in the customer parking lot near the arena building, which would be located close to the Trillium Boulevard access. Following the methodology employed in the ADESA Phoenix traffic study, it is assumed that employees would all drive independently. In other words, the 80 full-time employees would result in 80 inbound vehicles in the morning and 80 outbound vehicles in the evening. It is worth noting that the observed morning peak hour at the Beverly Road study intersections took place from 7:30-8:30AM. It is therefore unlikely that a significant number of employees would arrive during the morning peak hour in order to start work at 9:00AM. For a conservative analysis, however, it was assumed that all employees would arrive during the morning peak hour on non-sale days.

On sale days, an additional 100 part-time employees would be on site. It is Kimley-Horn's understanding that employees would arrive between 5:00AM and 9:00AM on sale days. While it is possible that a significant portion of employees would arrive on site before the customers do, it was conservatively assumed that 75 percent of the 180-person workforce would arrive during the 7:30-8:30AM peak hour and that all employees would depart during the 4:45-5:45PM peak hour. All employees would park at the rear of the facility (accessible via Prairie Stone Parkway) during sale events. Similar to non-sale days, it is assumed that all employees drive independently to the subject site.

Customer Traffic

Between 300 and 500 car dealers would be expected to visit the ADESA facility on sale days. Sales would take place once a week from 9:30AM to 1:30PM, and ADESA would offer breakfast to attending customers before each sale, beginning at 7:00AM. Based on discussions with the ADESA

team, it is anticipated that up to 75 percent of customers would be expected to arrive between 7:00 and 9:00AM to participate in the breakfast social.

For the purpose of this study, it is conservatively assumed that 500 customers would drive alone to the facility and that 50 percent of these customers would enter the site during the 7:30-8:30AM peak hour. It is anticipated that the majority of customers would enter at the Trillium Boulevard access to be close to the arena, though a small portion of customer traffic approaching from the south and east was assumed to use Prairie Stone Parkway.

Because sales end at 1:30PM, it is assumed that customer traffic would no longer be present during the evening peak hour. ADESA indicates that the average length of a customer's stay is approximately one to two hours during the sale period. As such, the facility is expected to empty gradually, reducing the potential for departing customers to experience long outbound delays. It is therefore assumed that the morning peak hour on sale days provides a conservative evaluation of area traffic operation, because it includes the arrival of both customers and employees, as well as the presence of heavy area traffic generated by nearby office and commercial uses. If customers were to depart the ADESA facility in a concentrated group, these delays would be largely contained within the facility itself and would be expected to have less of an affect on area intersection operation than peak hour traffic volumes.

Transport Trucks

According to the ADESA Phoenix traffic study, this similar facility generates 75 transport trucks per day for a 170-acre site. These trucks arrive and depart 24 hours per day and 365 days per year, with a fairly balanced distribution throughout the day.

Based on proportional acreage, the Hoffman Estates facility could be expected to generate 38 transport trucks per day. Over a 24-hour period, this equates to 1-2 trucks per hour. To provide a conservative analysis, however, it was assumed that all truck traffic would arrive and depart within the typical 9:00AM-5:00PM operating hours, equating to nearly five trucks per hour on average. Each truck would generate one inbound and one outbound trip.

Based on these assumptions, trip generation projections for the facility are summarized in T**able 1**.

Table 1. Site Trip Generation Projections – ADESA Facility

Trip Generation Scenario	Weekday Morning Peak Hour			Weekday Evening Peak Hour		
	Inbound	Outbound	Total	Inbound	Outbound	Total
Sale Day						
Employee Trips	135	–	135	–	180	180
Customer Trips	250	–	250	–	–	–
Transport Truck Trips	5	5	10	5	5	10
Total Projected Trip Generation	**390**	**5**	**395**	**5**	**185**	**190**
Non-Sale Day						
Employee Trips	80	–	80	–	80	80
Customer Trips	–	–	–	–	–	–
Transport Truck Trips	5	5	10	5	5	10
Total Projected Trip Generation	**85**	**5**	**90**	**5**	**85**	**90**

The subject parcel is located in close proximity to the Beverly Road half-diamond interchange at Interstate 90, which allows access to and from the east. It is anticipated that a significant portion of site traffic would take advantage of this connection, since the majority of the region's population would likely use interstates east of Beverly Road to travel to the site. Vehicles approaching from the west on I-90 could use the full interchanges at Illinois Route 25 or Illinois Route 59 and would presumably travel to/from the site via Beverly Road to the north or Hoffman Avenue to the east; this would be expected to account for a moderate number of site trips. Lesser portions of site traffic would be expected to travel via local roadways. A projected trip distribution was developed for site traffic based on these expected routing behaviors, as summarized in **Table 2**.

Table 2. Projected Trip Distribution and Site Traffic Routing – ADESA Facility

Traveling to/from:	Percentage of Site Traffic	Sale Day				Non-Sale Day			
		AM Peak		PM Peak		AM Peak		PM Peak	
		In	Out	In	Out	In	Out	In	Out
Employees									
North via Beverly Road	15%	20	–	–	25	10	–	–	10
South via Beverly Road[1]	75%	100	–	–	135	60	–	–	60
East via Prairie Stone Parkway/Trillium Boulevard	10%	15	–	–	20	10	–	–	10
Customers									
North via Beverly Road	15%	40	–	–	–	–	–	–	–
South via Beverly Road[1]	75%	185	–	–	–	–	–	–	–
East via Prairie Stone Parkway/Trillium Boulevard	10%	25	–	–	–	–	–	–	–
Trucks									
North via Beverly Road	15%	1	1	1	1	1	1	1	1
South via Beverly Road[1]	75%	4	4	4	4	4	4	4	4
East via Prairie Stone Parkway/Trillium Boulevard	10%	–	–	–	–	–	–	–	–
Total		**390**	**5**	**5**	**185**	**85**	**5**	**5**	**85**

[1]Includes site trips that are expected to route to/from the east via I-90, making use of the half-diamond interchange at I-90 and Beverly Road.

On sale days, it is anticipated that all employee traffic would enter the facility on Prairie Stone Parkway west of Beverly Road in order to access back-of-house parking. On non-sale days when employees are expected to park near the arena building, all employee traffic is expected to enter via the Trillium Boulevard access. Under both scenarios, it was assumed that three of the hourly trucks would enter and exit via Prairie Stone Parkway and that the other two would use Trillium Boulevard.

OTHER AREA DEVELOPMENTS

At the Village's request, trip generation projections were developed for a warehouse development proposed by others for a vacant parcel located across Prairie Stone Parkway from the proposed ADESA facility. These volumes were incorporated into background traffic projections for the study area.

Based on discussions with the project team for this warehouse development, it is understood that a warehouse containing roughly 350,000 square feet is planned. Based on data provided in Trip Generation, Ninth Edition for Warehousing (Land Use Code 150), site-generated traffic projections were developed for this warehouse and are presented in **Table 3**. ITE trip generation data for this land use is provided in the appendix.

Table 3. Site Trip Generation Projections – Warehouse Development

Trip Generation Scenario	Weekday Morning Peak Hour			Weekday Evening Peak Hour		
	Inbound	Outbound	Total	Inbound	Outbound	Total
Warehousing (LUC 150)	130	35	165	35	100	135
Passenger Vehicles	100	30	130	30	80	110
Trucks[1]	30	5	35	5	20	25

[1]Calculated based on information in Trip Generation, Ninth Edition, which indicates an observed 20 percent truck traffic at one of the surveyed sites.

It is assumed that the proposed warehouse would benefit from proximity to I-90, resulting in similar routing patterns to that anticipated for ADESA-related traffic. Projected trip distribution and routing behaviors for the warehouse site are shown in **Table 4**.

Table 4. Projected Trip Distribution and Site Traffic Routing – Warehouse Development

Traveling to/from:	Percentage of Site Traffic	AM Peak		PM Peak	
		In	Out	In	Out
Passenger Vehicles					
North via Beverly Road	15%	15	5	5	10
South via Beverly Road[1]	75%	75	20	20	60
East via Prairie Stone Parkway/Trillium Boulevard	10%	10	5	5	10
Trucks					
North via Beverly Road	15%	5	–	–	5
South via Beverly Road[1]	75%	20	5	5	15
East via Prairie Stone Parkway/Trillium Boulevard	10%	5	–	–	–
Total		**130**	**35**	**35**	**100**

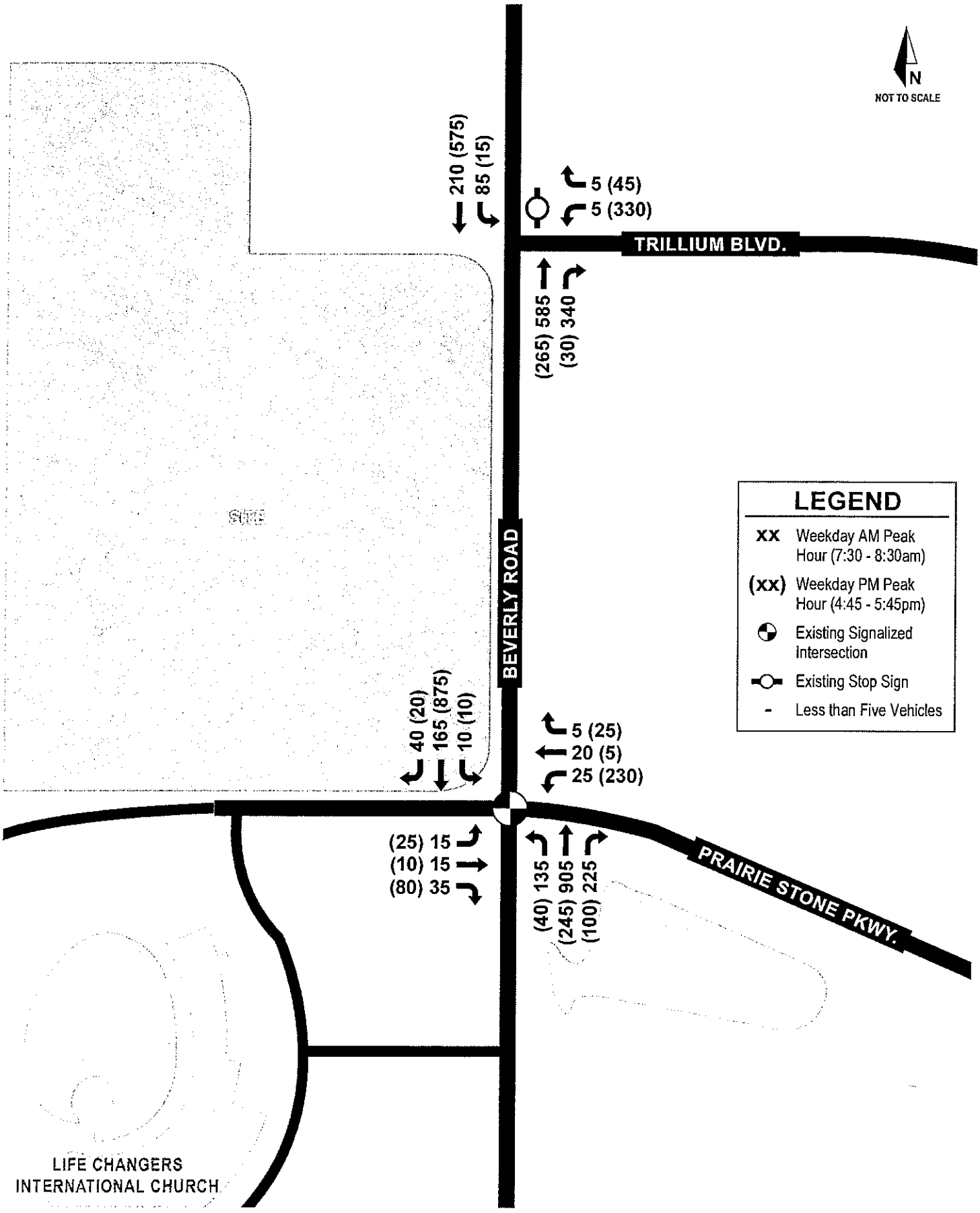
Because the warehouse development would have direct access to Prairie Stone Parkway, all related traffic is expected to travel to and from the site via Prairie Stone Parkway west of Beverly Road.

CAPACITY ANALYSIS

In order to evaluate the impact of the proposed ADESA facility and the planned warehouse development (by others), future traffic projections were developed for three scenarios. Trips generated by the proposed warehouse development were added to existing traffic volumes to produce a Future No-Build scenario, as shown in **Exhibit 2**. Site volumes were then added to Future No-Build traffic volumes to yield Future Build traffic projections for sale days and non-sale days, presented in **Exhibits 3 and 4**. Note that all volumes are rounded to the nearest multiple of five.

Using Synchro capacity analysis software, Kimley-Horn evaluated traffic operation at the study intersections under Existing, Future No-Build, and Future Build (both sale days and non-sale days) conditions. Based on field observations, the traffic signal at Beverly Road/Prairie Stone Parkway was analyzed as an actuated uncoordinated signal. Field timings were used to estimate maximum possible green time for the various movements at this location.

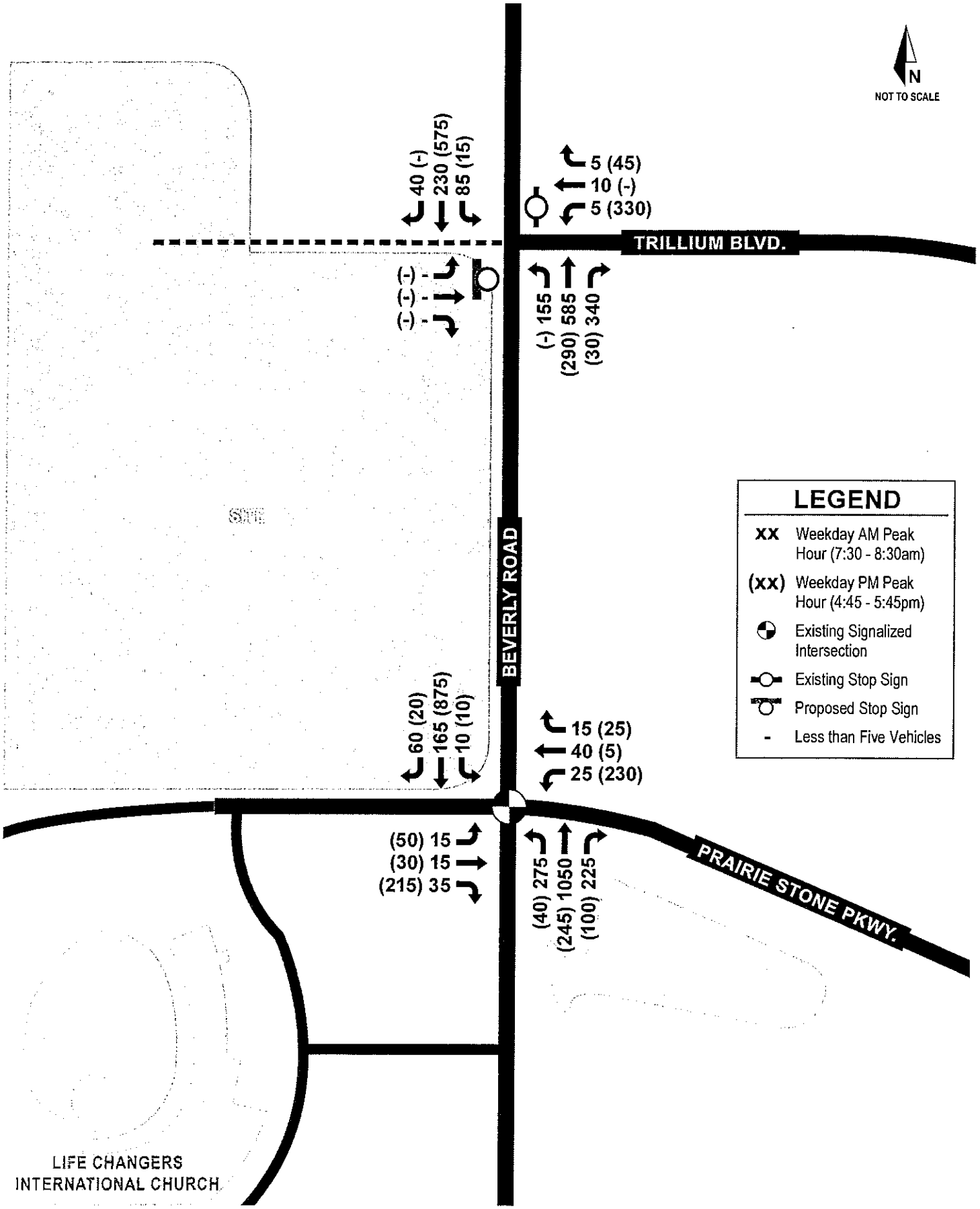
The capacity of an intersection quantifies its ability to accommodate traffic volumes and is expressed in terms of level of service (LOS), measured in average delay per vehicle. LOS grades range from A to F, with LOS A as the highest (best traffic flow and least delay), LOS E as saturated or at-capacity conditions, and LOS F as the lowest (oversaturated conditions). Because drivers typically tolerate more delay at signalized intersections, the range of average delay for each LOS rating at a signal is generally higher than at an unsignalized intersection. Existing and Future No-Build traffic operation is summarized in **Table 5**.



Kimley»Horn

EXHIBIT 2

FUTURE NO-BUILD TRAFFIC PROJECTIONS



Kimley»Horn

EXHIBIT 3

FUTURE BUILD TRAFFIC PROJECTIONS - SALE DAY

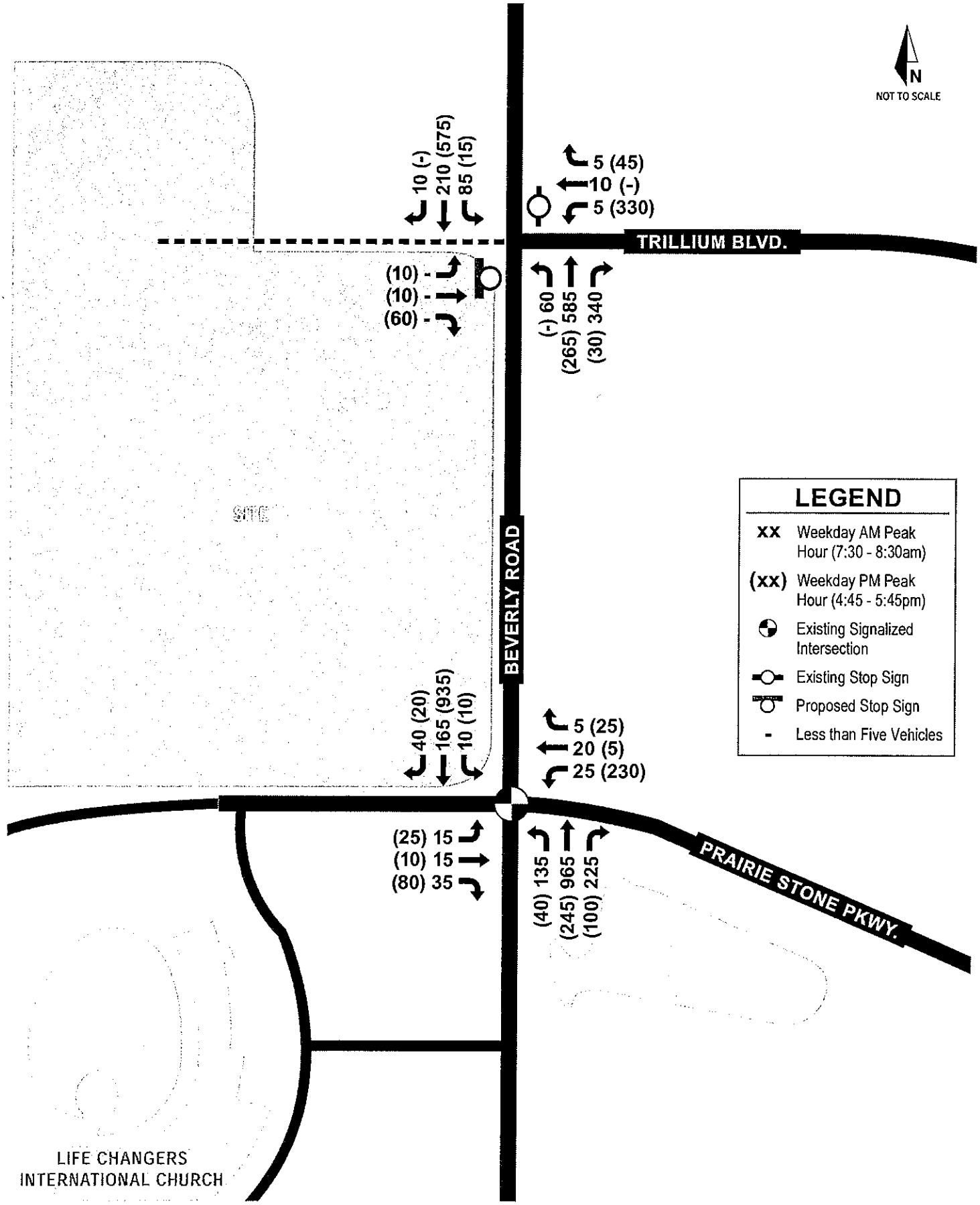


EXHIBIT 4

Kimley»Horn **FUTURE BUILD TRAFFIC PROJECTIONS - NON-SALE DAY**

Table 5. Existing and Future No-Build Levels of Service

Intersection	Lane Group	Existing Conditions				Future No-Build Conditions			
		AM Peak		PM Peak		AM Peak		PM Peak	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
Beverly Rd at Prairie Stone Pkwy									
Northbound	Left	3	A	5	A	3	A	6	A
	Through	5	A	7	A	5	A	7	A
	Right	3	A	2	A	3	A	2	A
Southbound	Left	3	A	5	A	4	A	6	A
	Through/Right	5	A	10	A	7	A	15	B
Eastbound	Left	12	B	16	B	14	B	22	C
	Through	17	B	22	C	18	B	26	C
	Right	< 1	A	< 1	A	3	A	13	B
Westbound	Left	12	B	30	C	14	B	35	C
	Through/Right	14	B	< 1	A	16	B	13	B
Intersection		5	A	12	B	5	A	16	B
Beverly Rd at Trillium Blvd[1]									
Southbound	Left	11	B	8	A	11	B	8	A
Westbound	Left	31	D	> 120	F	32	D	> 120	F
	Right	13	B	10	A	13	B	10	A

[1]Because major-street through movements are generally able to move through a two-way stop-controlled intersection with little to no delay, Synchro capacity analysis does not provide a delay value for these vehicles.

At Beverly Road/Trillium Boulevard, the westbound approach is shown to operate with very high delay under existing evening peak hour conditions. This intersection carries 330 westbound left turns during the evening peak hour, causing Synchro to project LOS F for this movement. Operation on westbound Trillium Boulevard is expected to worsen under Future No-Build conditions, presumably due to the additional traffic and reduced number of gaps on Beverly Road.

All other movements are shown to operate acceptably and without queue spillback under both Existing and Future No-Build conditions. During the morning peak hour, it can be noted that eastbound Prairie Stone Parkway is expected to operate with less delay under Future No-Build conditions than it does today; it is assumed that increased traffic on this approach results in a higher allocation of green time for this movement after the addition of warehouse-generated trips.

For the Future Build scenarios, analyses included improvements that are planned as a part of the subject development. These improvements would extend the five-lane cross-section on Beverly Road from Prairie Stone Parkway north through the Trillium Boulevard intersection, where the intersection modification would include a new west leg, the addition of a northbound left-turn lane, and a second southbound through lane (which would be shared with southbound right-turning movements). It was assumed that the east leg of Trillium Boulevard would be striped with a dedicated left-turn lane and a shared through/right-turn lane. The average delay per vehicle and corresponding LOS is summarized for each approach of the two study intersections in **Table 6**.

Table 6. Future Build Levels of Service

Intersection	Lane Group	Future Build Conditions – Sale Day				Future Build Conditions – Non-Sale Day			
		AM Peak		PM Peak		AM Peak		PM Peak	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
Beverly Rd at Prairie Stone Pkwy									
Northbound	Left	4	A	6	A	3	A	6	A
	Through	6	A	7	A	5	A	7	A
	Right	4	A	2	A	3	A	2	A
Southbound	Left	5	A	6	A	4	A	6	A
	Through/Right	8	A	18	B	7	A	17	B
Eastbound	Left	15	B	20	B	14	B	22	C
	Through	20	C	27	C	18	B	27	C
	Right	2	A	25	C	3	A	13	B
Westbound	Left	15	B	54	D	13	B	35	C
	Through/Right	16	B	14	B	16	B	13	B
Intersection		6	A	21	C	5	A	17	B
Beverly Rd at Trillium Blvd[1]									
Northbound	Left	8	A	12	B	8	A	13	B
Southbound	Left	11	B	8	A	11	B	8	A
Eastbound	Left	38	E	16	C	24	C	16	C
	Through/Right	30	D	14	B	22	C	12	B
Westbound	Left	72	F	52	F	46	E	69	F
	Through/Right	48	E	10	A	31	D	10	A

[1]Because major-street through movements are generally able to move through a two-way stop-controlled intersection with little to no delay, Synchro capacity analysis does not provide a delay value for these vehicles.

As shown above, traffic operation is satisfactory at Beverly Road/Prairie Stone Parkway under both Future Build scenarios, with all movements operating at LOS D or better. Per the Village's request, particular attention was paid to the northbound left-turning queue at this signalized intersection. On sale days when site traffic on this movement is expected to be heaviest, Synchro projects that 95th percentile queues would be 90 feet long during the morning peak hour and 19 feet long during the evening peak hour, both of which would be easily accommodated within the 290-foot storage bay provided. All other movements at this intersection are expected to be contained within available storage, as well.

Delay on westbound Trillium Boulevard is shown to decrease in the evening peak hour after completion of the proposed site and the associated roadway improvements, presumably because of the increased number of gaps in major street traffic with the new five-lane section on Beverly Road. Though a lower volume of area traffic is anticipated on non-sale days, westbound Trillium Boulevard is expected to operate with less evening peak hour delay on sale days because there would be fewer opposing vehicles on the new west leg at this intersection. Compared to Existing and Future No-Build Conditions, delay on westbound Trillium Boulevard is expected to go up in the morning due to higher traffic volumes at the intersection; the number of vehicles impacted by this increase in delay, however,

is relatively small. It should be noted that vehicles turning left from Trillium Boulevard to southbound Beverly Road have alternate routes to choose from, such as diverting to Prairie Stone Parkway to access the traffic signal at Beverly Road. The westbound left turn at the Beverly Road/Prairie Stone Parkway intersection is expected to operate at LOS D during the evening peak hour for future sale days and at LOS C in the evening on non-sale days.

Traffic volumes at the Beverly Road/Trillium Boulevard intersection are not expected to meet criteria for a new traffic signal in the Manual on Uniform Traffic Control Devices (MUTCD), as revealed in a comparison of existing traffic counts during the morning and evening peak periods (7:00-9:00AM and 4:00-6:00PM, respectively) to criteria for the MUTCD's Warrant 2 – Four-Hour Warrant. As development in this area continues, the Village might consider monitoring this intersection for signal-warranting volumes in order to relieve the existing delays and queuing experienced by westbound left-turning vehicles during the evening peak hour. Monitoring traffic volumes at this intersection may also provide insight into whether the westbound left-turning volume at Beverly Road/Trillium Boulevard decreases as vehicles seek alternate routes that offer less delay.

CONCLUSION

Based on the assumptions identified within this memorandum, future traffic volume projections were developed for the study area under three scenarios: Future No-Build, Future Build – Sale Day, and Future Build – Non-Sale Day. Capacity analyses revealed that the Beverly Road/Prairie Stone Parkway intersection would continue to operate satisfactorily under No-Build and Build Conditions. Additionally, it is anticipated that the northbound left-turn storage bay at Beverly Road/Prairie Stone Parkway would adequately accommodate 95th percentile queues after the addition of site traffic and construction of the proposed warehouse (by others).

At Beverly Road and Trillium Boulevard, capacity analyses reveal that the westbound approach currently operates at LOS F during the evening peak hour due to a heavy westbound left-turning volume. This condition would be expected to worsen under Future No-Build conditions. The addition of traffic associated with the proposed ADESA auto auction facility is not expected to adversely affect this condition; rather, the extension of the five-lane cross-section on Beverly Road as a part of this project is expected to decrease westbound evening delay on Trillium Boulevard under Future Build conditions on both sale days and non-sale days. While traffic volumes along Beverly Road do not appear to satisfy minimum thresholds for a traffic signal at Trillium Boulevard, the Village may consider monitoring this intersection for signal-warranting traffic volumes in the future.

Based on the assumptions identified within this memorandum, the subject development is projected to generate 185 total trips during the evening peak hour under worst-case (sale day) conditions. With a Village impact fee policy that charges $1,400 per evening peak hour trip, a total impact fee of $259,000 is anticipated for this development.

Kimley»Horn

APPENDIX

Kimley»Horn

ADESA PHOENIX TRAFFIC STUDY EXCERPT

ADESA

Traffic Impact Analysis
1st Submittal

LOCATION
NEC Section 12, Township 2 South
Range 7 East
Maricopa County

Prepared for:
ADESA Phoenix, L.L.C.
c/o: Snell & Wilmer, L.L.P.
One Arizona Center
Phoenix, Arizona 85004-2202
FAX: (602) 382-6070

CivTech

CivTech, Inc.
8590 East Shea Boulevard
Suite 130
Scottsdale, Arizona 85260
(480) 659-4250

March 2007

CivTech

Response Letter

April 25, 2007

Michael Pacelli
Traffic Engineer
Town of Queen Creek
Public Works Department
22350 S. Ellsworth Road
Queen Creek, Arizona 85242

RE: ADESA (RZ07-068) (CU07-069)
First Review 'Traffic Impact Analysis' Comments

Dear Mr. Pacelli:

This letter contains both the comments received from the Town of Queen Creek with our responses for both the 'Traffic Impact Analysis' Comments dated April 17, 2007.

We appreciate the effort and thoroughness of the engineering and planning staff's timely review, and we trust these responses address their comments. *The ADESA Traffic Impact Analysis has not been updated to reflect these responses.* Once the responses have been reviewed and are acceptable to the Town, the TIA will be revised and submitted for second review. If there are any concerns regarding the responses, please contact Dawn Cartier at 480-659-4250.

Sincerely,

Dawn D. Cartier, P.E., PTOE
Traffic Engineer

1. Page 1 – Correct reference to "Lucia at Queen Creek".
   Response: This will be revised accordingly in the text.
2. Page 1 – Correct reference to "TWA" drives.
   Response: This will be revised accordingly in the text.

3. Page 2 – Describe truck access and circulation. Also see Site Plan comment #3.
   Response: A broader description of truck access and circulation will be provided in the updated report. Once the status of the 228th Street alignment has been determined, the report will be revised to reflect the latest plan. Should the 228th Street alignment be required, the revised study will analyze the number of trips anticipated and the appropriate queue storage recommendations will be provided. Should an access be provided to 228th Street, every attempt will be made to place it as far south as possible.
4. Page 6 – Germann Road – Existing road terminates at Meridian alignment.
   Response: This will be revised accordingly in the text.
5. Page 6 – Germann Road – Existing road is under control of MCDOT.
   Response: This will be revised accordingly in the text.
6. Page 6 – Meridian Road – Existing road is under control of private owners (no public ROW) exists.
   Response: This will be revised accordingly in the text.
7. Page 11 – Project Specific Improvements – The classifications that are referred to/from the *Queen Creek Small Area Transportation Study* are the existing conditions.
   a. The proposed classification of Germann Road, per the *Town of Queen Creek General Plan* (2002), is Urban Principal Arterial.
      Response: This will be revised accordingly in the text.
   b. The proposed classification of Meridian Road, per Maricopa County's *Meridian Road Access Control and Corridor Improvement Study* (2005), is Urban Principal Arterial.
      Response: This will be revised accordingly in the text.
8. Page 11 – The proposed project specific improvements shall be clearly identified here and throughout the TIA as described in the Site Plan comments above. This must be addressed in a number of places throughout the TIA, and I have not listed them all here.
   Response: The project specific improvements are specifically listed in the executive summary and in the recommendations and conclusions. It is our intent to provide the basic information about the site improvements as typically required by the Town with more specific information after the analysis has been presented. Unless otherwise requested, this heading will be moved prior to the portion of the report describing the typical roadway sections so that it will read more logically with the results of the analysis and will satisfy comment number 8.
9. Page 11 – Regional Improvements – The San Tan Freeway (Loop 202) is already complete in the area described (I-10 to US 60).
   Response: This will be revised accordingly in the text.
10. Page 14 – Trip Generation
    a. Employment – The trip generation calculations are based on an employee total of 556, but the Project Narrative that was submitted concurrently with the TIA indicates a total employment of 700. The discrepancy must be resolved and the full build-out employment of the site must be analyzed. It is unclear as to whether the employment numbers refer to Phase I or the entire project.
       Response: The employment numbers provided within the trip generation consider the number of employees in total and by shift. The number of employees will not increase with the future Phase of the project. Updates to the numbers provided by ADESA have recently been obtained and the trip generation for the site will be revised accordingly.

b. Customers – The trip generation calculations are based on a customer total of 1,500. A number of issues must be clarified with respect to the customer attendance.
   i. What is ADESA's basis for this number?
      Response: A clarification of the information provided has been requested. It is our understanding that this information represents the Performa of the proposed Queen Creek facility.
   ii. Does this represent 1,500 persons, or 1,500 dealerships? Are there multiple persons per dealership attending?
      Response: This represents 1,500 persons per the data provided to us by ADESA.
   iii. Does this account for the bidding representatives of the dealerships only, or include each dealership's transport vehicles as well?
      Response: This accounts for the personnel only and does not account for the transport vehicle which would arrive outside of the peak hour.
   iv. Do dealerships bring their own transport trucks, or is that arranged separately? If both occur, what is the expected split?
      Response: Data provided to us for ADESA did not contain specific information about transport trucks. To resolve these comments, this information has been requested and will be included with the next submittal of the TIA.
   v. Does this represent the full build-out of the entire site, or just the portion currently shown as Phase I?
      Response: It represents the full build-out of the entire site. A statement will be added to the trip generation portion of the report to clarify this comment.
   vi. During the pre-app meeting it was discussed that, since ITE does not have data available for this type of use, an appropriate substitute would be to use actual traffic counts from a comparable ADESA facility elsewhere in the country, and to scale those counts proportionally based on the size of the proposed Queen Creek project (presumably based on number of units of storage space at full build-out, unless an alternate metric can be justified). Actual data supporting the customer attendance is required. If this is based on the Chandler operation, has this been adjusted for the larger size of the Queen Creek operation, and, if so, how?
      Response: Counts at existing ADESA facilities will be conducted and included in the next submittal of the TIA. Information was provided to us from ADESA in regards to the anticipated employee counts and customer attendance at the proposed facility. Additional information regarding the basis for the data provided will be requested and included in the Appendix.

c. Trucks – The project narrative describes a typical day which includes 75 transport trucks entering the site.
   i. There is no discussion of truck traffic, the need for extended turn lanes, special design considerations for the access points, or the impact of large trucks on traffic operations in the TIA. In the interim condition, what happens if a truck misses the truck loading area turn? Can the main entry and parking area accommodate truck turn-arounds? A location for truck turn-arounds

should be planned for the dead-end of Germann Road, and the half-street road should be designed to accommodate this.

Response: More information regarding truck operations will be provided within the report. Internal circulation will be studied and a separate section to discuss the issues mentioned above will be provided. We will work with the site planner to design a turn around for the half-street as suggested.

ii. Also, it is unclear as to whether the 75 truck number represents all trucks (meaning that all other traffic is passenger vehicles), or of this only represents the trucks delivering inventory to the site (meaning that individual customers may also show up in trucks, or be accompanied by trucks, to transport purchases off-site).

Response: It was our understanding that this included all large trucks to and from the site including both trucks delivering inventory and to transport purchases from the site. This will be verified with ADESA and clarification will be added to the trip generation section of the TIA.

11. Page 15 – Trip Distribution – Given the nature of the proposed use, the distribution of traffic for the entire site based upon surrounding population seems inappropriate. Employee trips can reasonably be distributed based upon this method, but customer and truck trips should be distributed based upon the location of freeway access and the major road network (in 2008 and 2026). Even in the horizon year, most trips would be expected to use Germann Road and Meridian Road to the freeways, with mostly only south and eastbound traffic using other arterial streets. The types of traffic should be distributed separately and added for a single analysis.

Response: A separate distribution for trucks will be considered for the second submittal of the TIA. However, it is not expected that this will largely impact the recommendations and conclusions of the report.

12. Page 18 – Background Traffic
    a. The growth rate in background traffic from 2000 to 2004 is likely not representative of the rate from 2004 to 2007, as a substantial portion of the growth in northern Pinal County which impacts the roads in this part of town occurred within the past few years. Updated ATR counts at select locations are required to establish a new growth rate since 2004.

    Response: We would be happy to adjust the growth rate with updated ATR's. It will be necessary to discuss the methodology of applying this information to the surrounding area roadways since many have not yet been developed and do not have a growth history. It should also be noted that the growth trend has slowed significantly since 2006 which would be the last year for which ATR's can be obtained. Updating the growth rate beyond the 7 percent shown in the report for 2008 may be inflated. The 2026 volumes were determined from the Queen Creek Small Area Transportation Study and the 2026 DES using the NCHRP 255 Method. Is the Town's preference that a growth trend be considered instead of using the published future volumes?

    b. What is the basis for the 60% directional split? A quick glance at the current Ocotillo Road/Meridian Road counts provided in the study shows a split exceeding 80/20. The split should be based on current ATRs.

Response: The 60/40 directional split was only considered in the 2026 horizon year. It was based on increased employment within the Town and reduced commuter traffic to current employment areas. We believe this is justified in the future and will better represent implementation of the Town's General Plan. Again, the 2008 volumes are based on existing traffic count information, including existing directional splits, with an applied growth rate.

c. The K-factor should also be based on current ATRs, as many of the major Town roadways serve primarily commuter traffic and have sharp peaking characteristics.
Response: This information will be updated once ATR's within the study area have been obtained.

d. For a project of this magnitude, the intersection analyses at significant intersections must be based on current turning movement counts (no older than one year), rather than on extrapolated counts from 3-4 year old data. The intersections for which current counts are needed include:
   i. Ocotillo Road / Meridian Road (Moeur Road)
   ii. Ocotillo Road / Signal Butte Road
   iii. Queen Creek Road / Signal Butte Road

   The other intersections are insignificant or do not exist in the current and 2008 conditions, so only the 2026 analysis is needed. Of course, analysis of the site access is required in all cases, but adequate count data has already been collected.
Response: Current peak hour turning movement counts were conducted for this study as stated on page 7 of the TIA. These counts were conducted on March 21, 2007 at the intersections of Germann and TRW Driveways 1 and 2 and Meridian and Ocotillo Road. Prior to the next submittal of the TIA counts will be conducted at the intersection of Queen Creek Road and Signal Butte Road. It is our understanding that the intersection of Ocotillo Road and Signal Butte is outside of the 1-mile study area limit.

13. Page 27 – Although I do not disagree, the reasoning for why no mitigation by the project is required at Ocotillo/Moeur should be briefly explained in the report (one sentence).
Response: An explanation for the recommendation will be provided with the next submittal of the TIA.

14. Page 28 – Verify the data presented in the table. "Meridian Road & Germann Road" appears twice with different results.
Response: The data within Table 7 will be verified and updated with the latest analysis prior to resubmittal of the TIA.

15. Page 32 – Storage lengths based on 25 feet per vehicle are not applicable to those movements which will consist, in large part, of trucks and car carriers. This applies to both the left-turn and right-turn analyses.
Response: A separate queue length analysis will be provided for the trucks to ensure that enough queue storage is provided in the turn lanes. Additional truck information has been requested from ADESA per the previous comments.

16. Page 32 – Based on the required storage lengths of 300 feet (2008) and 375 feet (2026), a recommendation on the minimum throat length of the driveway as it exits the parking lot should be provided. Width for future dual left-turn lanes should be provided on the exit.

Response: Information on the minimum egress throat lengths will be provided with the next submittal of the TIA. Additional driveway width will be discussed with the site planner and recommendations appropriate to the site will be provided.

17. Page 34 – Regardless of the number of through lanes, right-turn deceleration lanes shall be provided where appropriate during the initial construction to eliminate the need to disrupt traffic, utilities, etc. after the road is built out and congestion requires they be in place.
    Response: A recommendation stating such will be placed within the revised report.
18. Page 34 – The last sentence on this page does not make sense.
    Response: This sentence will be revised and clarified within the resubmittal of the TIA.
19. Page 35 – Sight Distance Analysis – Given the proposed nature of Germann Road as an Urban Principal Arterial and a limited access Road of Regional Significance, a design speed of 60 MPH seems more appropriate, unless directed otherwise by MCDOT.
    Response: The question of design speed has been passed along to MCDOT. The sight distance calculations will be updated once a response has been received.
20. Pages 36 and 37 – Update conclusions and recommendations per revisions to study.
    Response: All portions of the report will be updated to reflect changes resulting from these comments including the recommendations and conclusions.

ADESA
TRAFFIC IMPACT ANALYSIS

NEC Section 12
Township 2 South, Range 7 East
Maricopa, AZ

Prepared for:
ADESA Phoenix, L.L.C.
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March 2007

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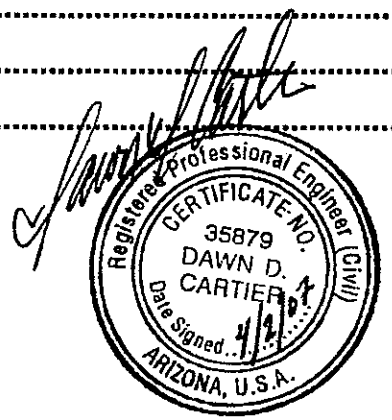

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EXECUTIVE SUMMARY

This report documents a traffic impact analysis performed for a car auction development located on the southwest corner of Meridian Road and Germann Road in Queen Creek, Arizona. The development encompasses approximately 172 acres of undeveloped land.

CivTech Inc. has been retained by Snell & Wilmer L.L.P to perform the traffic impact analysis for the proposed Lucia at Queen Creek development.

The purpose of this study is to address traffic and transportation impacts of the proposed development on the surrounding streets and intersections. This traffic impact study was prepared based on criteria set forth by the Town of Queen Creek and Maricopa County. The specific objectives of the study are:

1. To evaluate lane requirements on all existing roadways and at all existing intersections within the study area.
2. To determine a future level of service for all existing intersections within the study area and recommend any capacity related improvements.
3. To determine necessary lane configurations at all new driveways within the proposed development to provide acceptable future levels of service.
4. To determine appropriate roadway cross-section at buildout of all study area roadways.
5. To evaluate the need for future traffic control changes on the surrounding roadway system around the proposed site.

The development is a proposed car auction facility to be constructed in a single phase. The anticipated opening year for this development is the horizon year of 2008.

The proposed development is expected to generate 2056 daily trips with all of those trips external to the development. It is anticipated that 1050 trips will occur in the AM peak hour and 556 will occur during the PM peak hour. To ensure that the estimate of traffic impacts is conservatively calculated, it is assumed that the development will be 100 percent occupied upon opening year in 2008.

According to the May 2006, *Queen Creek Small Area Transportation Study* (QCSATS) existing street classification exhibit, both Germann Road and Signal Butte Road are classified as urban minor arterial roadways. Queen Creek Road is classified as an urban collector and Ocotillo Road is classified as a rural collector roadway. All existing surrounding roadways are currently operating as two-lane roadways.

Both Germann Road and Meridian Road will be improved along the project frontage to the required half street improvements along the site.

The intersection of Mouer Road and Ocotillo Road is currently a two-way stop controlled intersection. The existing TWA drives located north of the proposed site are all under one-way stop control in the southbound direction. All existing intersections operate at acceptable levels of service under existing intersection control and lane configuration.

The proposed development plans to have one ingress/egress main entry for all employees and customers and a secondary emergency access point located along Germann Road.

The following recommendations have been documented in this study:

- All intersections will operate at acceptable levels of service in the opening year of 2008 under proposed 2008 stop control and lane configurations, except for the intersection of Moeur Road and Ocotillo Road. The intersection of Moeur Road and Ocotillo Road will experience a level of service E due to an increase in background traffic. Although the intersection experiences delay mitigation is not required for the opening year 2008.

- By opening year 2008, half street improvements will be constructed along the frontage of the proposed site along Germann Road and Meridian Road. A two-way left turn lane should be striped with the proposed half-street improvements along Germann Road at Access A. This should provide a minimum of 75-feet of storage. An eastbound right turn deceleration lane is also recommended at Access A and Germann Road, by opening year 2008.

- The Town of Queen Creek has proposed a collector road (228th Street) to run along the western border of the proposed ADESA site. The majority of Auction traffic will utilize Germann Road and Meridian Road, not the local roads. Most of the proposed site traffic is anticipated to be coming from outside the study area along major arterial roadways. Also, there is no access to the development from 228th Street. Therefore, the addition of 228th Street is not anticipated to impact the distribution of traffic within the project area by opening year 2008 or by horizon year 2026. The construction of the proposed 228th Street is not required to achieve acceptable levels of service on the existing roadway network as a result of the proposed ADESA development.

- All intersections will operate at a level of service of a D or better by horizon year 2026 under the proposed 2026 stop control and lane configurations.

- The intersection of Access A and Germann Road will require signalization to mitigate unacceptable levels of service in the 2026 horizon year due to the increase of background traffic in the area. Future mitigation will require dedicated left turn lanes in all directions, and a dedicated eastbound right turn auxiliary lane.

- Germann Road and Meridian Road have both been planned for a six-lane section with a center left turn lane, under the *Queen Creek Small Area Transportation Study*. Under the ultimate buildout conditions for the 2026 horizon year, Germann Road operates at acceptable levels of service as a 5-lane roadway with 2-lanes in the eastbound direction along the site frontage. Paving for 2-lanes should be provided along with the ultimate right-of-way for a six-lane arterial in the future horizon year.

- Currently, German Road operates as a two-lane roadway and will remain at acceptable levels of service through the 2008 horizon year. Meridian Road is currently a one-lane dirt road which will be improved along the frontage of the proposed site by opening year 2008. The half street roadways should be provided along the project frontage. This improvement will increase capacity along roadway segments for future area development.

INTRODUCTION

ADESA, located in the northeast quadrant of Section 12, Township 2 South, Range 7 East, is a proposed car auction development located in the Town of Queen Creek, Arizona. Encompassing approximately 170 acres, this development is located at the southwest corner of Meridian Road and Germann Road. An opening year and final buildout date of 2008 is anticipated for this development.

Both Germann Road and Meridian Road will be improved with half-streets as part of this project. The proposed half-street improvements will be constructed along the frontage of the property by full buildout in 2008. The development provides internal circulation. A location map of the study area is provided in **Figure 1.**

This study analyzes the traffic impact due to the ADESA development on the surrounding street network.

The Town of Queen Creek follows the criteria established by Maricopa County for Traffic Impact Studies. According to the *Traffic Impact Procedures*, February 1994, Traffic Engineering Group, Maricopa County Department of Transportation, the study design year for developments generating more than 1000 trips in the peak hour is defined as a category III analysis. The horizon years established for a category III analysis is the opening year and 20 years after opening. For this impact analysis of the ADESA development, the anticipated opening horizon year is 2008. An additional horizon year of 2026 was also analyzed to meet MCDOT's and the town of Queen Creek TIA requirements. This report coordinates with information provided in the May 2006 version of the *Queen Creek Small Area Transportation Study* and the 2003 version of the *Southeast Maricopa/Northern Pinal County Transportation Plan.*

This traffic impact study analyzes the intersections for levels of service at the site entrances and other key intersections within a 1-mile radius of the site. The intersections are analyzed for AM and PM peak hours to determine the recommended intersection lane configuration, intersection stop control, turn lane storage requirements and roadway typical sections for the development.

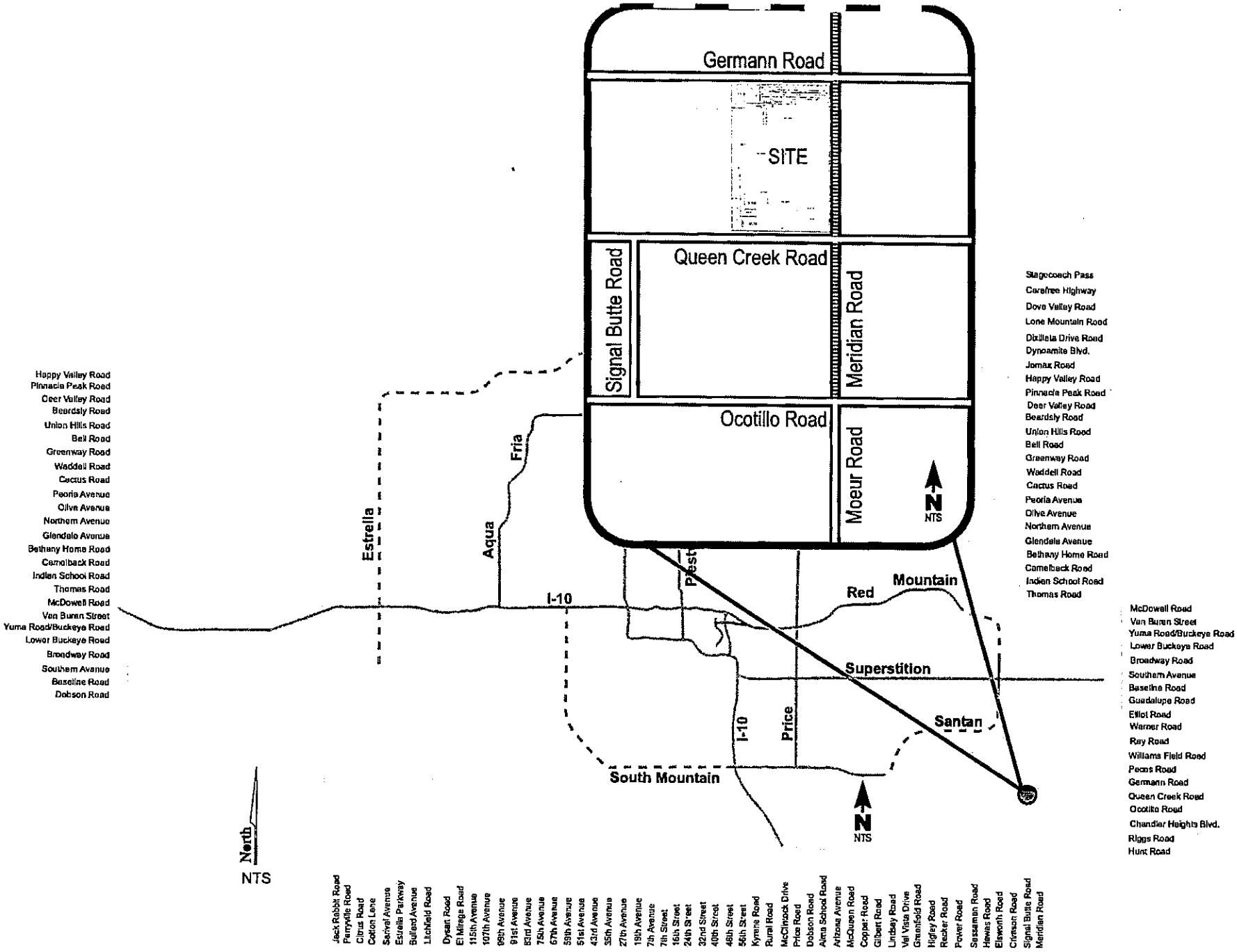


Figure 1:
Vicinity/Location Map

EXISTING CONDITIONS

SURROUNDING LAND USE

The proposed development is a planned car auction, which lies south of Germann Road, west of Meridian Road and north of Queen Creek Road, encompassing 172.90 acres. East of Meridian Road on Germann Road is a privately owned cow farm, located north of the site is a vehicle safety company called (TRW), to the south along Queen Creek Road are privately owned homes and another cow farm, and to the west approximately a half mile from the site is a plant farm.

EXISTING ROADWAY NETWORK

The existing roadway network within the study area includes Germann Road, Meridian Road, Queen Creek and Ocotillo Road. The existing intersection lane configuration and traffic control is illustrated in **Figure 2.**

Germann Road serves as an east-west roadway beginning to the west at Rittenhouse Road and travels eastbound where it then terminates at Ironwood Road. Regionally, Germann Road operates as a two-lane roadway within the vicinity of the project site. The current posted speed limit along Germann Road around the vicinity of the proposed site is 30-40 mph traveling westbound and 50 mph traveling eastbound. Germann Road is under the direction and control of the Town of Queen Creek, providing direct access to major north-south arterials.

Queen Creek Road serves as an east-west roadway beginning to the west at Ellsworth Road and travels eastbound where it then terminates at Ironwood Road. Regionally, Queen Creek Road operates as a two-lane roadway within the vicinity of the project site. The current posted speed limit along Queen Creek Road around the vicinity of the proposed site is 50 mph in both the eastbound and westbound directions. Queen Creek Road is under the direction and control of the Town of Queen Creek, providing direct access to major north-south arterials.

Ocotillo Road serves as an east-west roadway beginning to the west at Power Road and travels eastbound where it terminates approximately one-mile east of the Fannin McFarland Aqueduct. Regionally, Ocotillo Road operates as a two-lane roadway within the vicinity of the project site. The current posted speed limit along Ocotillo Road is 45 mph. Ocotillo Road is under the direction and control of the Town of Queen Creek, providing direct access to major north-south arterials.

Meridian Road serves as a north-south dirt roadway beginning to the north at Germann Road traveling southbound it then terminates to the south at Queen Creek Road. Meridian Road operates as a one-lane unpaved dirt roadway within the vicinity of the project site, there is currently no posted speed limit. Meridian Road is under the direction and control of the Town of Queen Creek, providing direct access to Germann Road and Queen Creek Road.

Signal Butte Road serves as a north-south roadway beginning to the north at Queen Creek Road traveling southbound terminating approximately one-mile south at Ocotillo Road. Signal Butte Road operates as a two-lane roadway within the vicinity of the project site. The current posted speed limit along Signal Butte Road is 45 mph. Signal Butte Road is under the direction and control of the Town of Queen Creek, providing direct access to Queen Creek Road and Ocotillo Road.

EXISTING INTERSECTION CONFIGURATION

Germann Road serves as the main access to the proposed commercial development. Due to current roadway construction around the study area the intersection of Moeur Road and Ocotillo Road was analyzed, along with existing driveways across the proposed site.

Table 1 – Existing Intersection Stop Control

Intersection	Stop Control
Moeur Road & Ocotillo Road	2-way stop
TRW Driveway #1 & Germann Road	1-way stop
TRW Driveway #2 & Germann Road	1-way stop

Figure 2 depicts the existing stop control and lane geometry within the project area.

EXISTING TRAFFIC VOLUMES

Traffic counts were conducted on March 21, 2007. Existing peak hour turning movement volumes were extracted from this data. Results of these traffic counts are shown in **Figure 3.**

ANALYSIS OF EXISTING CONDITIONS

The existing roadway system surrounding the proposed commercial development is currently operating under unsignalized conditions. AM and PM peak hour volumes were taken for this study. The existing conditions analysis was completed using the assumptions for ADT under the existing lane configuration and stop control using TRAFFIX. **Table 2** shows the existing peak hour levels of service at the existing intersections.

Table 2 – Existing Peak Hour Levels of Service

ID	Intersection	Stop Control	Approach	AM Peak Hour				PM Peak Hour			
				Overall	Left	Thru	Right	Overall	Left	Thru	Right
1	Moeur Road & Ocotillo Road	2-way stop	NB	D	D	D	D	C	C	C	C
			SB	D	D	D	D	D	D	D	D
			EB	B	B	B	B	A	A	A	A
			WB	A	A	A	A	A	A	A	A
3	TRW Driveway #1 & Germann Road	1-way stop	SB	A	A	A	A	A	A	A	A
			EB	A	A	A	A	A	A	A	A
			WB	A	A	A	A	A	A	A	A
4	TRW Driveway #2 & Germann Road	1-way stop	SB	A	A	A	A	A	A	A	A
			EB	A	A	A	A	A	A	A	A
			WB	A	A	A	A	A	A	A	A

All existing intersections operate at acceptable levels of service of a D or better under the existing lane configurations and stop control.

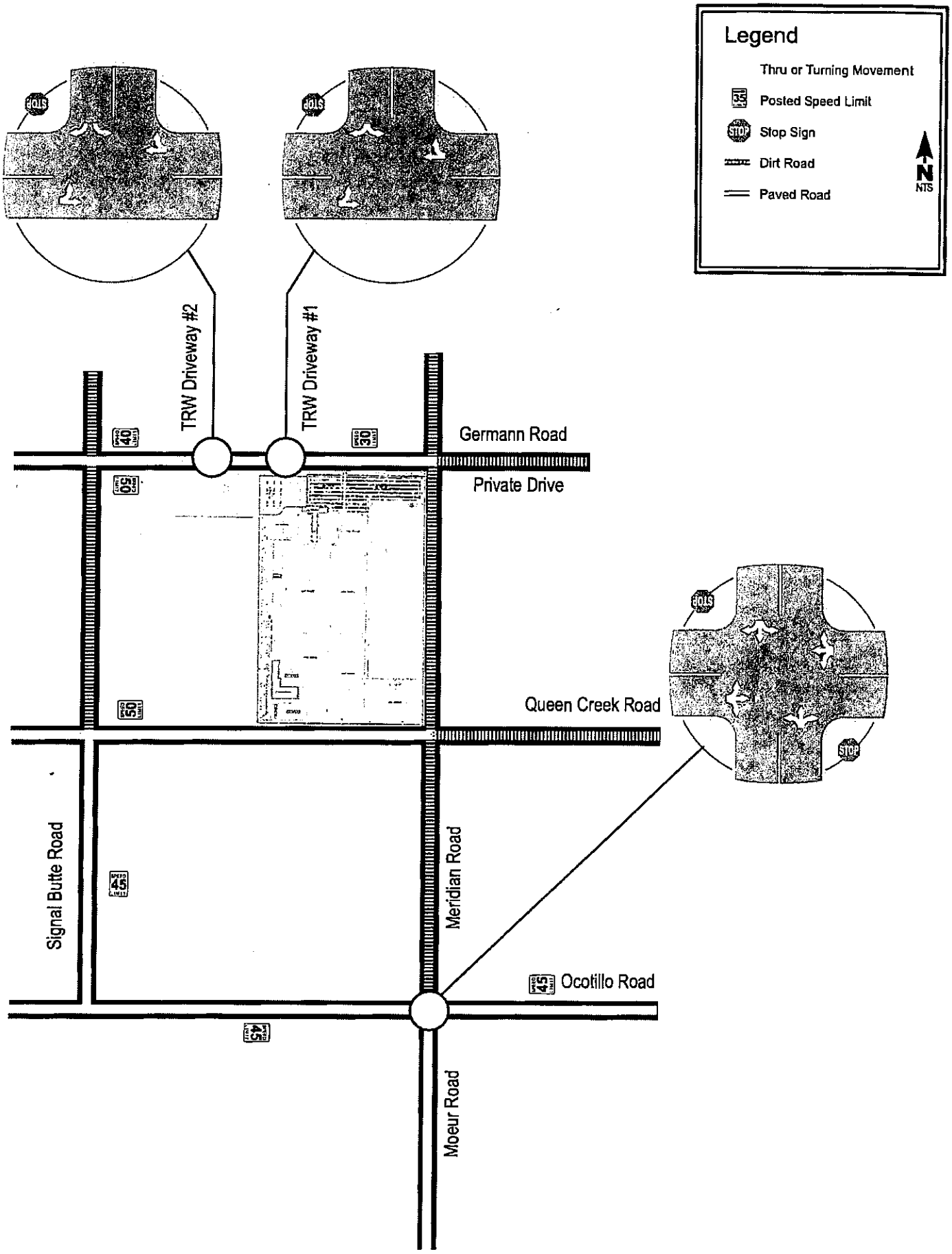


Figure 2:
Existing Lane Configuration and Stop Control

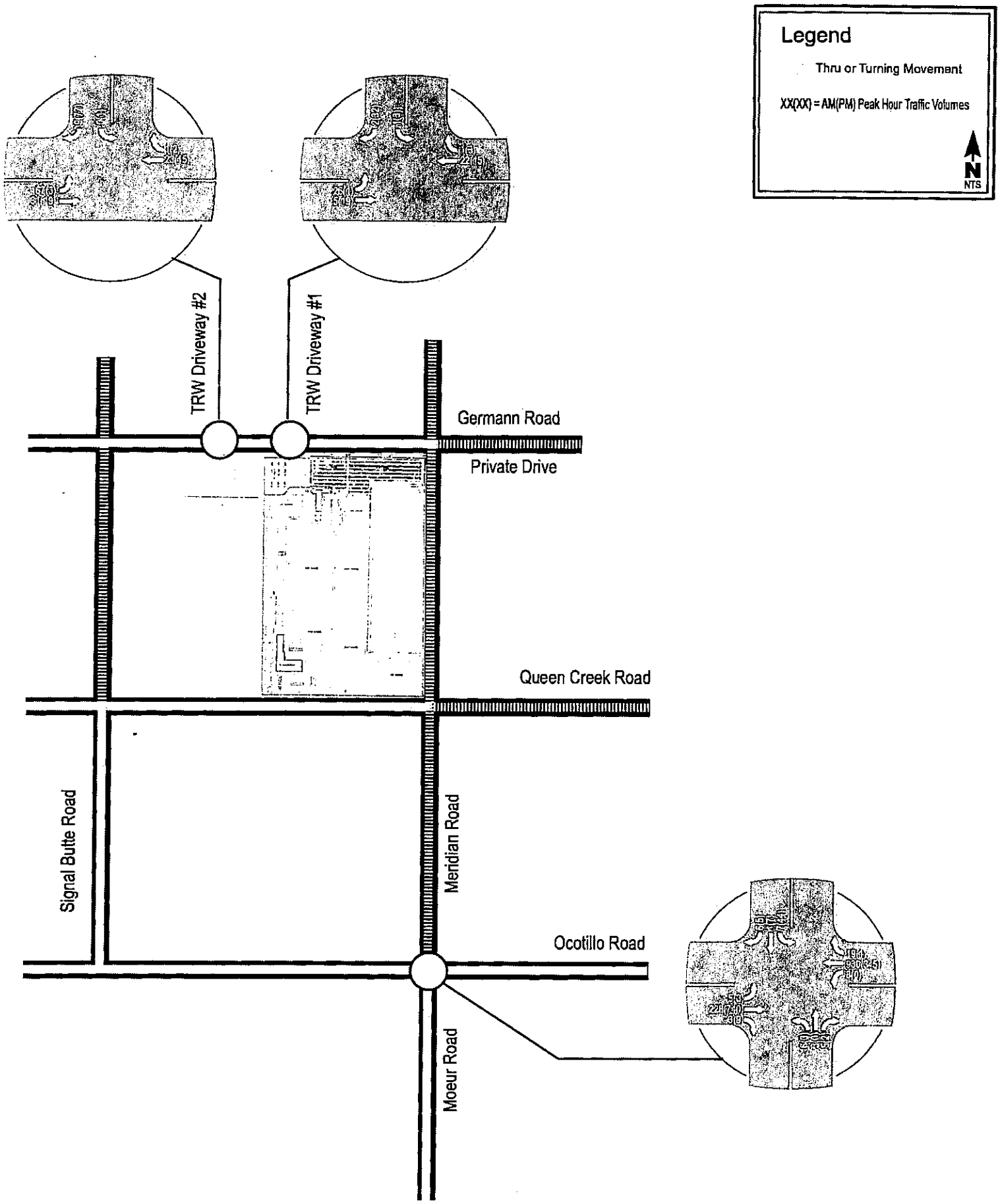


Figure 3:
Existing Site Traffic Volumes

FUTURE ROADWAY IMPROVEMENTS

PROJECT SPECIFIC IMPROVEMENTS

The surrounding roadway network will be improved as part of the ADESA development. Germann Road and Signal Butte Road have been classified as urban minor arterial roadways, Ocotillo Road as a rural collector, and Queen Creek Road as an urban collector roadway in the *Queen Creek Small Area Transportation Study*. Therefore, Meridian Road south of German Road will be improved to provide half street improvements for the interim condition. By horizon year 2026 the ultimate street section along the project frontage will contain three lanes in each direction of travel with curb and sidewalk. This typical section meets the criteria established by the Town of Queen Creek for a minor arterial roadway.

REGIONAL IMPROVEMENTS

The *Queen Creek Small Area Transportation Study* suggests several regional improvements to aid the growth of the southeast valley. By the year 2012, the Santan Freeway (Loop 202) should be completed. This will provide connection to I-10 in the west and US 60 in the east.

The Queen Creek General Plan mentions that the Pinal County Comprehensive Plan includes a long-range goal of providing a future connection to the Santan Freeway along the Germann Road alignment to US 60, near Florence. This improvement, when completed, will modify the distribution of the traffic within the project area.

The Town of Queen Creek has proposed a collector road (228th Street) to run along the western broader of the proposed ADESA site. The addition of this roadway is not anticipated to impact the distribution of traffic within the project area by opening year 2008 or by horizon year 2026.

There are no planned improvements currently listed within the project area.

PROPOSED DEVELOPMENT

ADESA, located in the northeast quadrant of Section 12, Township 2 South, Range 7 East, is a proposed car auction development located in the Town of Queen Creek, Arizona. Encompassing approximately 170 acres, this development is located just east of Meridian Road and south of Germann Road. It is anticipated that full buildout will be completed within the opening year 2008 of the development.

Both Germann Road and Meridian Road will be improved as part of this project. The proposed Town of Queen Creek half-street improvements for a minor arterial roadway will be constructed along the frontage of the property. The development provides internal circulation.

The site will be accessed from one main entry point. Access A is located along Germann Road. There is an additional proposed secondary emergency access point also located along Germann Road west of the main entry. The ADESA site plan has been included as **Figure 4**.

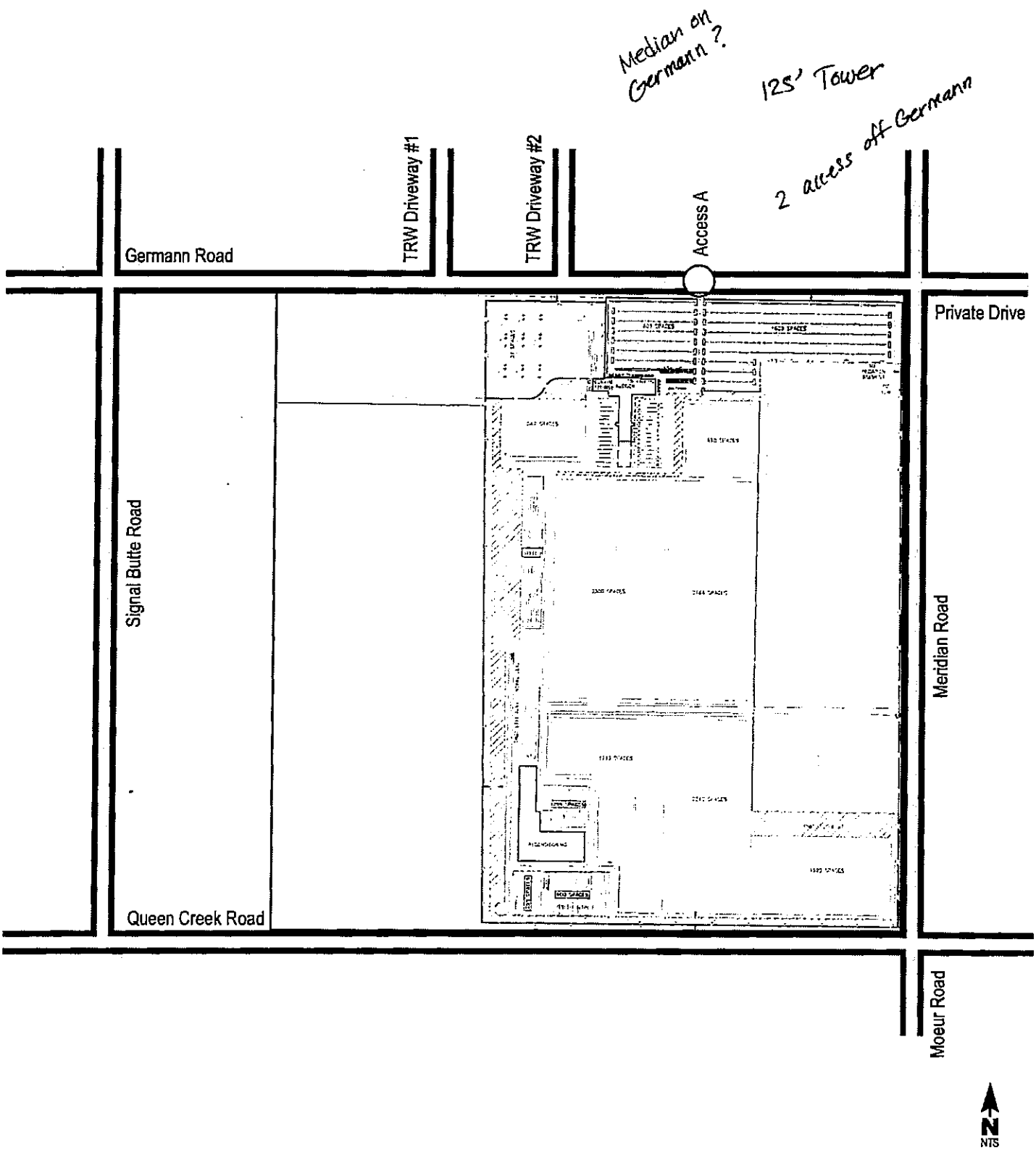


Figure 4:
Site Plan

TRIP GENERATION

The average daily traffic volumes and the AM and PM peak hour volumes have been estimated by data given/provided from *Snell and Wilmer* on March 26, 2007, as documented in the Appendix. **Table 3** shows the trip generation established for this development. Trip generation calculations for the development have been included in the Appendix.

The ADESA development is proposed with a single land use, car auction. Interaction factors (traffic reductions) were not taken for this development.

The average trip rates and the AM and PM peak hour trips were estimated from provided data and research for the site. No trip reductions were taken as part of this analysis.

Table 3 – Trip Generation

		AM Peak Hour		PM Peak Hour	
	Daily	Entering	Exiting	Entering	Exiting
# of Customers	1500	60%	40%	-	-
# of Employees	556	-	-	30%	70%

		Daily	AM Peak Hour			PM Peak Hour		
Dev. Type	Customers/Employees	Trips	Trips	Entering	Exiting	Trips	Entering	Exiting
Car Auction	1500	2056	1050	630	420			
Car Auction	556					556	167	389
Total		**2056**	**1050**	**630**	**420**	**556**	**167**	**389**

TRIP DISTRIBUTION AND ASSIGNMENT

The ADESA development consists of a single land use which brings both employment and commercial use to the area, therefore, a population trip distribution pattern was assumed for both 2008 and 2026 horizon years.

The trip distribution pattern assumed for this study, within the vicinity of the proposed site, is representative of the distribution presented in the *Queen Creek Small Area Transportation Study* and the current MAG socioeconomic projections. Traffic was distributed along each of the cardinal directions using a ratio of the intensity within the TAZ boundaries located within a 10-mile radius of the site for projected population growth. Trip distribution calculations performed for this development may be found in the Appendix. **Table 4** represents the anticipated major travel patterns for the site-generated traffic by opening year 2008 and horizon year 2026.

Table 4 – Trip Distribution

Roadway	Direction	2008 (%)	2026 (%)
Germann Road	West	80	35
	East	-	2
Queen Creek Road	West	12	8
	East	-	4
Ocotillo Road	West	2	2
	East	6	4
Signal Butte Road	North	-	20
	South	-	7
Meridian Road	North	-	10
	South	-	8
Total		100	100

It is assumed that by opening year 2008 a majority of the traffic will be traveling on Germann Road to get to and from the proposed site. A majority of the trips generated by the ADESA development in both the 2008 and 2026 horizon years will be traveling to and from the northwest.

Figures 5 and 6 display the overall trip distribution percentages for 2008 and 2026 used for this study.

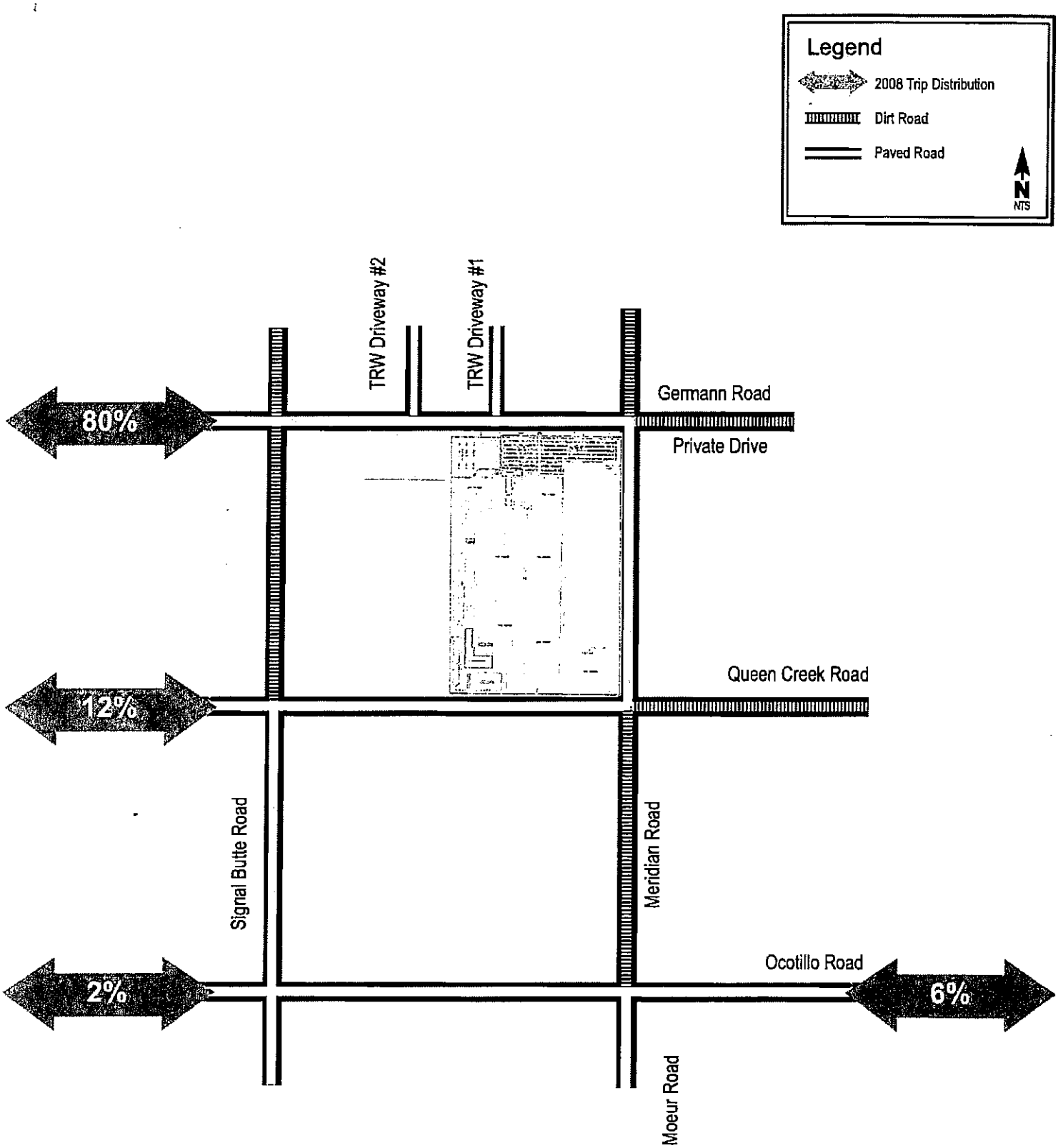


Figure 5:
2008 Trip Distribution

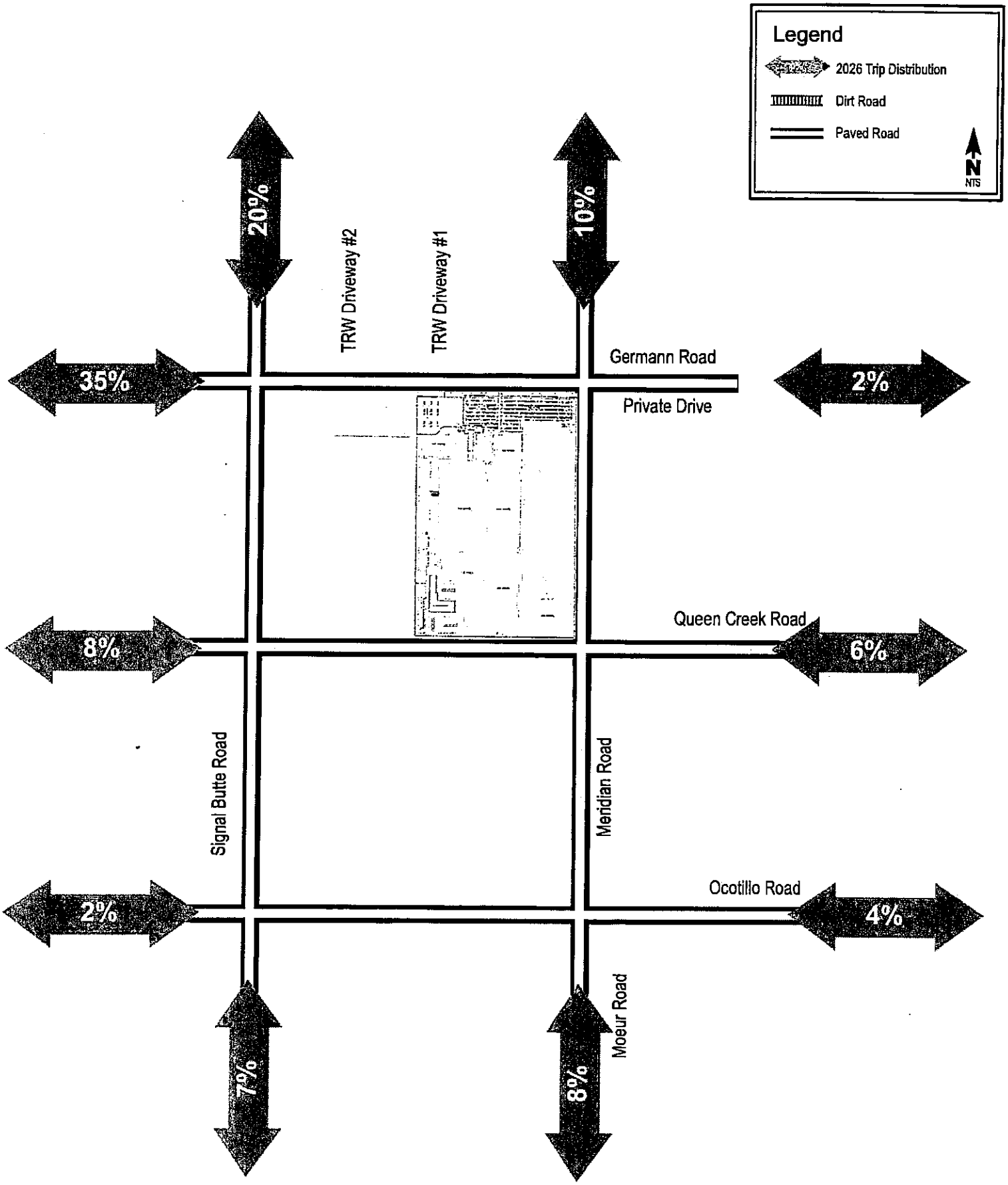


Figure 6:
2026 Trip Distribution

SITE GENERATED TRAFFIC

The percentages presented in **Figures 5 and 6** were applied to the trips generated to determine the AM and PM peak hour site traffic at the intersections within the study area. **Figures 7 and 8** present the resulting buildout site generated traffic.

FUTURE BACKGROUND TRAFFIC

For opening year 2008, future background traffic was projected by applying an expansion factor calculated from data presented in the MCDOT traffic counts between the 2000 and 2004 data within Queen Creek. MCDOT Traffic volumes for three different intersections within Queen Creek were analyzed and averaged to obtain a reasonable growth rate with in the study area. Traffic counts from the year 2000 to 2004 were taken from the MCDOT website, for the intersections listed below.

- Queen Creek Road & Sossaman Road
- Queen Creek Road & Ellsworth Road
- Queen Creek Road & Signal Butte Road

An average growth rate of 6.6% per year was calculated with an expansion factor of 1.07 for opening year 2008 and a 3.38 expansion factor for horizon year 2026 as shown in **Table 5**. Background calculations are documented in the Appendix.

Table 5 – Calculated Expansion Factors

Study Year	Growth Factor
2008	1.07
2026	3.38

The calculated expansion factors were applied to the existing peak hour turning movement counts to project traffic volumes in the 2008 and 2026 horizon years at existing intersections. Projected background traffic for the horizon year of 2008 is shown in **Figure 9.**

Future background calculations for horizon year 2026 were calculated using the average 2026 DES and 2026 SATS from the Queen Creek Small Area Transportation Study, dated May 2006. Base on the average ADT, directional design hour volumes were developed using a K-factor (peak hour volume divided by ADT) of eight percent for the AM peak hour and ten percent for the PM peak hour and a D-factor (directional factor) of 60% in the peak directions. For purposes of this analysis, the predominate travel directions were assumed to be northbound and westbound in the AM peak hour and southbound and eastbound in the PM peak hour.

The peak hour turning movements were then calculated based on the National Cooperative Highway Research Program (NCHRP) Report 255, *Highway Traffic Data for Urbanized Area Project Planning and Design* methodology and the design hour volumes as previously described. To better distribute the turning movements, the

directional data was modified to apply 2/3 of the approach traffic as through volumes. The remainder 1/3 of the approach traffic was distributed by the original ratio of turns in each direction. **Figures 9 and 10** represent the calculated background traffic for 2008 and 2026 horizon years. Calculations for the future traffic projections and expansion factors have been included in the Appendix.

TOTAL TRAFFIC

Total traffic was calculated by adding the build out site-generated traffic to the projected background traffic for the 2008 and 2026 horizon years. Build out site- generated traffic is shown in **Figures 11 and 12** for the 2008 and 2026 horizon years, respectively.

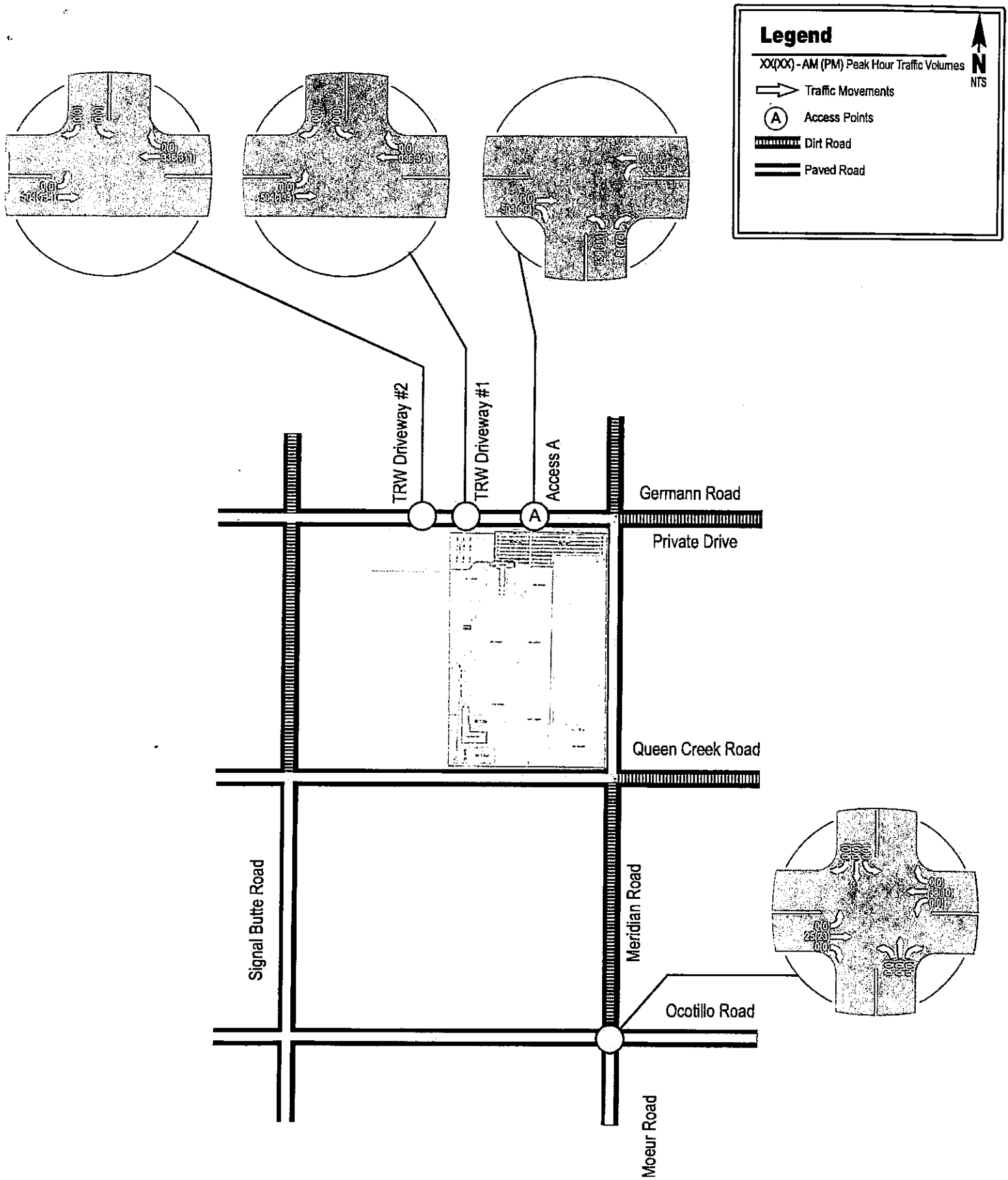


Figure 7:
2008 Site Generated Traffic

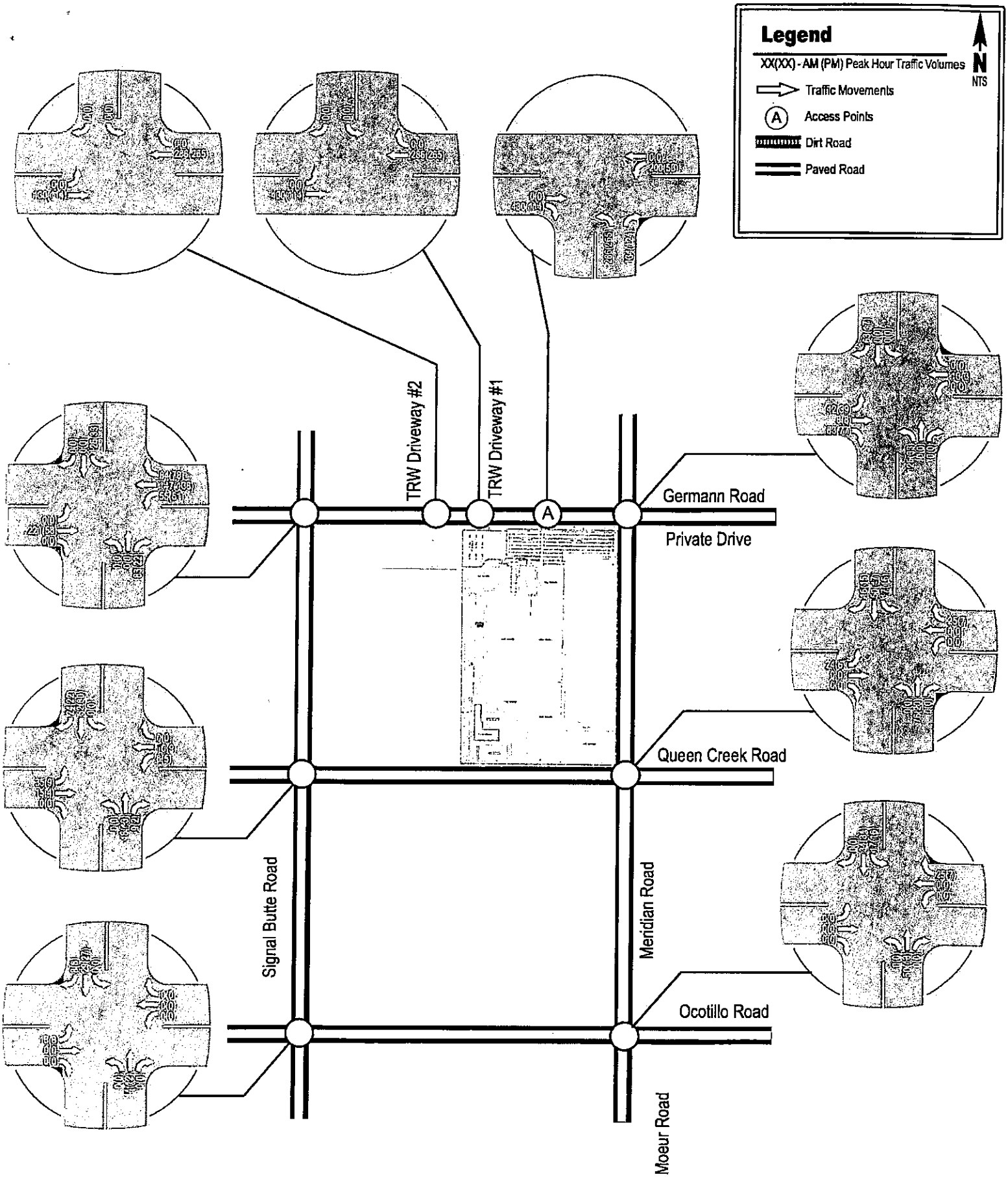


Figure 8:
2026 Site Generated Traffic

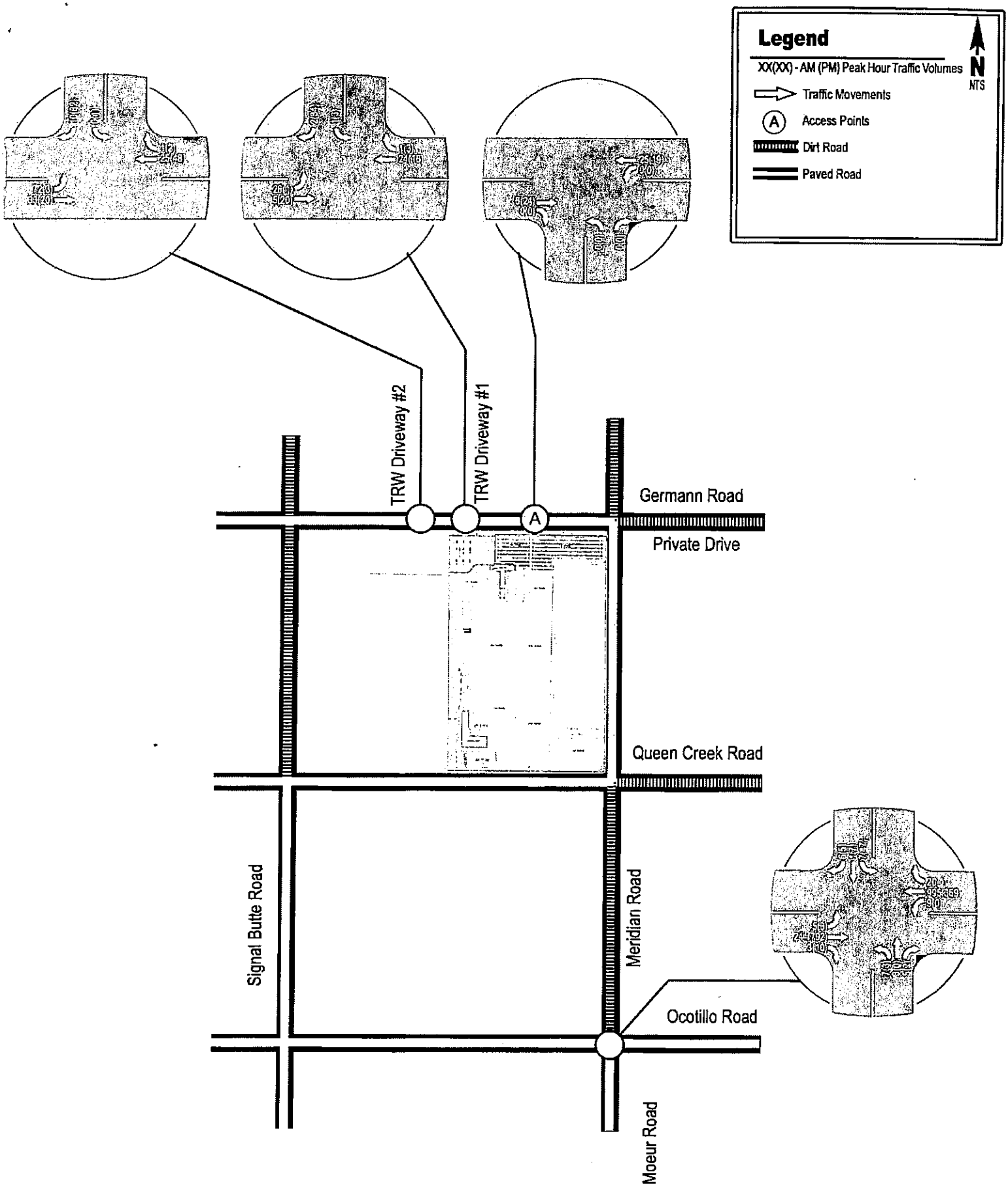


Figure 9:
2008 Background Traffic

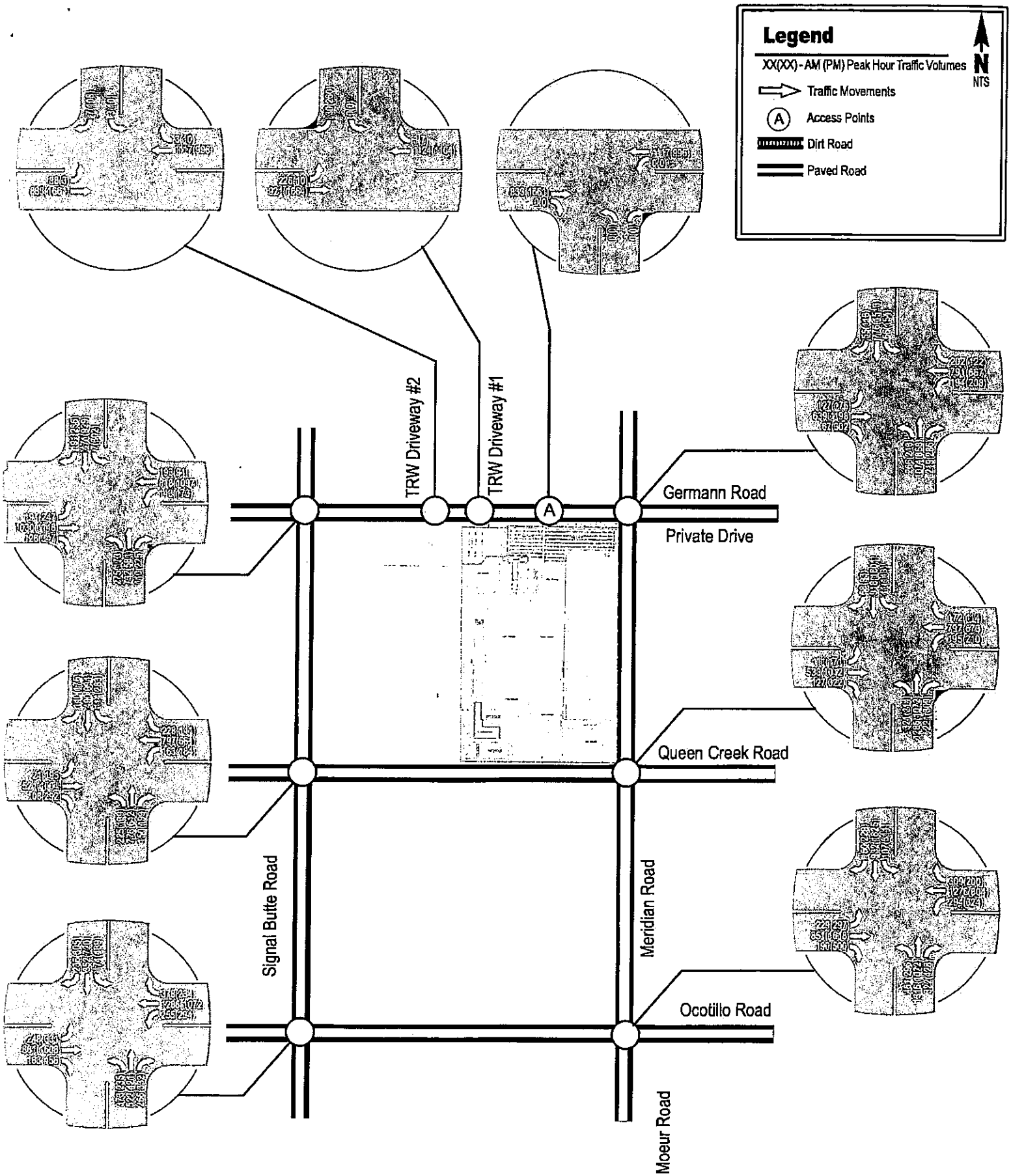


Figure 10:
2026 Backround Traffic

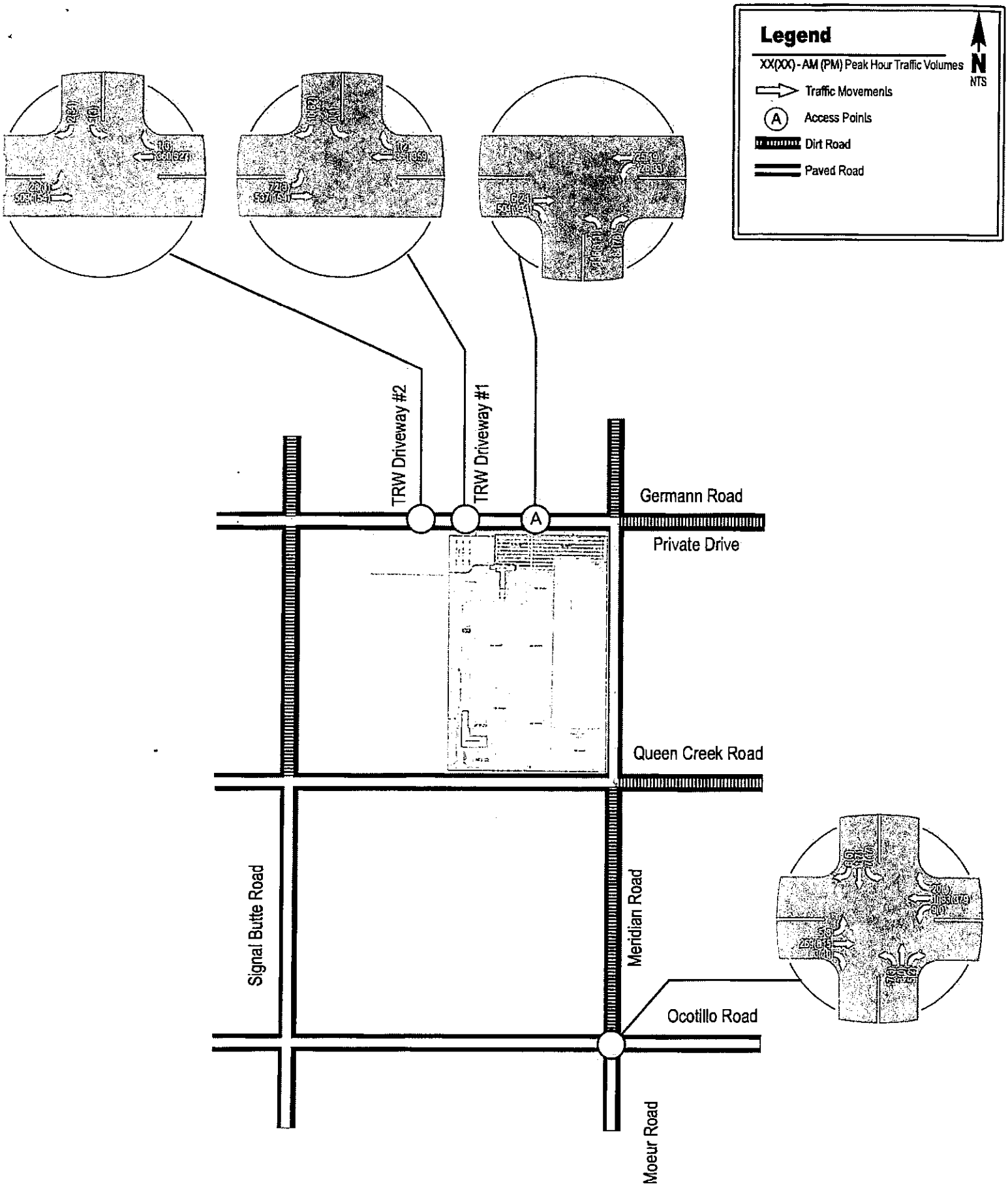


Figure 11:
2008 Total Traffic

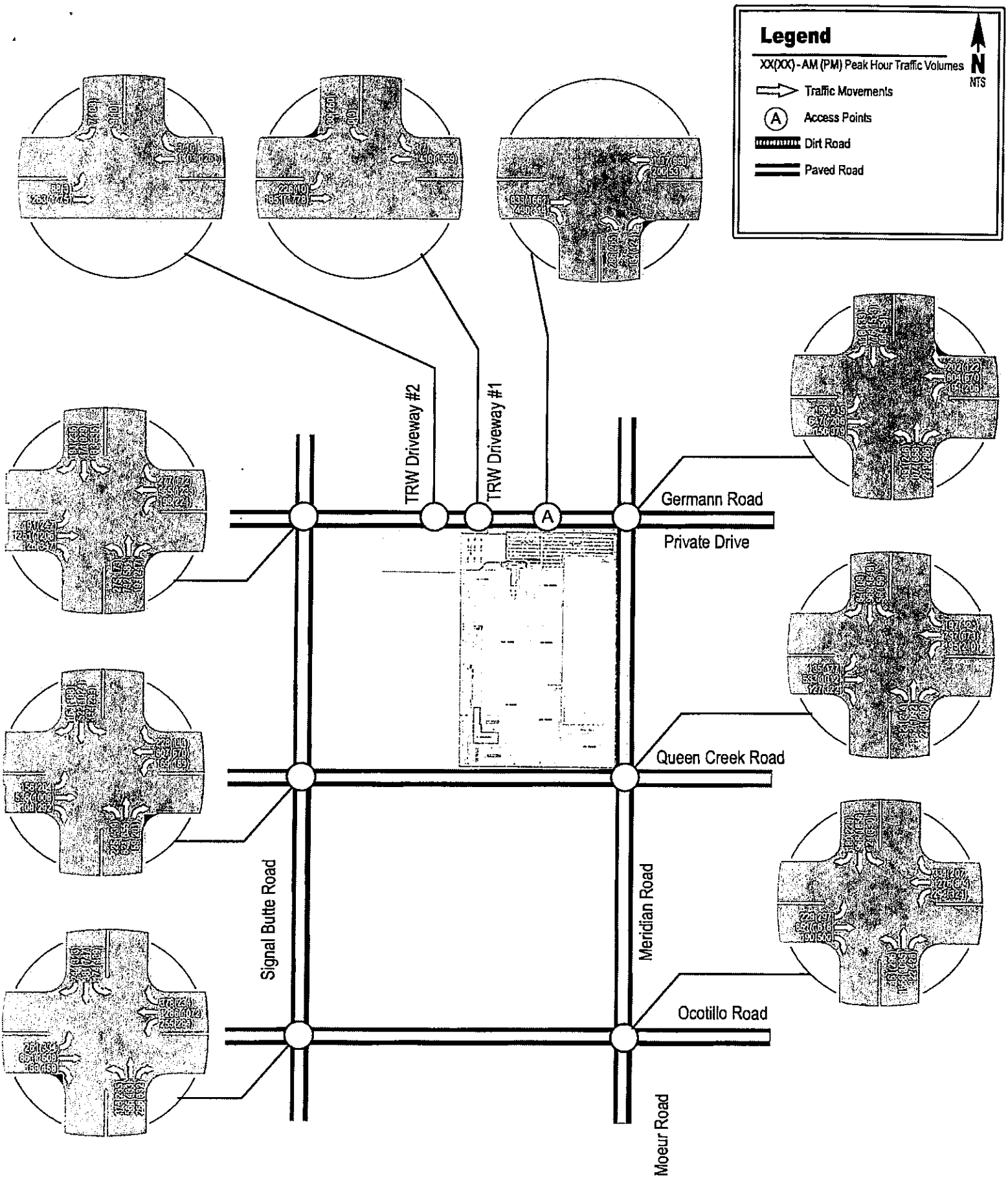


Figure 12:
2026 Total Traffic

INTERSECTION CAPACITY ANALYSIS

Peak hour capacity analyses have been conducted for the major intersections within the study area and all site access points for the 2008 and 2026 horizon years. All signalized and unsignalized intersections have been analyzed as such using the methodologies presented in the *Highway Capacity Manual, Special Report 209,* Updated 2000, and using TRAFFIX Software version 7.7 under the HCM 2000 methodologies.

The concept of level of service (LOS) uses qualitative measures that characterize operational conditions within the traffic stream. The description of individual levels of service characterize these conditions in terms of such factors as speed, travel time, freedom to maneuver, traffic interruptions and comfort and convenience. Six levels of service are defined for each type of facility for which analysis procedures are available. They are given letter designations A through F, with LOS A representing the best operating conditions and LOS F, the worst. Each level of service represents a range of operating conditions.

Analysis was completed for the build out conditions for both the 2008 horizon year and 2026 future year. Analyses performed for the 2008 and 2026 AM and PM peak hour levels of service are shown in **Tables 6 and 7**, respectively. Analysis of each intersection has been included in the Appendix.

Table 6 – 2008 Peak Hour Levels of Service

Intersection	Stop Control	Approach	Background AM(PM) Peak Hour	Future AM(PM) Peak Hour
Moeur Road and Ocotillo Road	2-way stop	NB	D(C)	E(D)
		SB	D(E)	D(E)
		EB	B(A)	B(A)
		WB	A(A)	A(A)
Access A & Germann Road	1-way stop	NB	-(-)	C(B)
		EB	A(A)	A(A)
		WB	A(A)	A(A)
TRW Driveway #1 & Germann Road	1-way stop	SB	A(A)	B(B)
		EB	A(A)	A(A)
		WB	A(A)	A(A)
TRW Driveway #2 & Germann Road	1-way stop	SB	A(A)	B(B)
		EB	A(A)	A(A)
		WB	A(A)	A(A)

All intersections operate at acceptable levels of service in the opening year of 2008 under existing stop control and lane configurations, except for the intersection of Moeur Road and Ocotillo Road.

The intersection of Moeur Road and Ocotillo Road will experience a level of service **E** due to an increase in background traffic. Although the intersection experiences a poor LOS mitigation is not required for the opening year 2008.

Figure 13 illustrates the 2008 proposed lane configurations and stop control.

Table 7 – 2026 Peak Hour Levels of Service

Intersection	Stop Control	Approach	Background AM(PM) Peak Hour	Future AM(PM) Peak Hour
Moeur Road and Ocotillo Road	Signal	NB	D(D)	D(D)
		SB	D(D)	D(D)
		EB	D(D)	D(D)
		WB	D(D)	D(D)
Access A & Germann Road	Signal	NB	-(-)	D(D)
		EB	A(A)	C(B)
		WB	A(A)	B(A)
Meridian Road & Germann Road	Signal	NB	C(D)	C(D)
		SB	D(D)	D(D)
		EB	D(D)	D(D)
		WB	C(D)	C(D)
Meridian Road & Germann Road	Signal	NB	D(D)	D(D)
		SB	D(D)	D(D)
		EB	C(D)	C(D)
		WB	C(D)	C(D)
Signal Butte Road & Queen Creek Road	Signal	NB	D(D)	D(D)
		SB	D(D)	D(D)
		EB	D(D)	D(D)
		WB	D(D)	D(D)
TRW Driveway #1 & Germann Road	1-way stop	SB	C(B)	D(C)
		EB	B(B)	B(B)
		WB	A(A)	A(A)
Signal Butte Road & Germann Road	Signal	NB	C(D)	C(D)
		SB	D(D)	D(D)
		EB	C(D)	C(D)
		WB	C(D)	C(D)
Signal Butte Road & Ocotillo Road	Signal	NB	D(D)	D(D)
		SB	D(D)	D(D)
		EB	D(C)	D(C)
		WB	C(C)	C(C)
TRW Driveway #2 & Germann Road	1-way stop	SB	B(C)	B(C)
		EB	C(B)	C(B)
		WB	A(A)	A(A)

All intersections experience an acceptable level of service of a D or better by horizon year 2026 under the proposed 2026 stop control and lane configurations, mitigation is not required.

Figure 14 illustrates the 2026 proposed lane configurations and stop control.

TYPICAL ROADWAY SECTIONS AND INTERSECTION LANE REQUIREMENTS

As a result of the intersection capacity analyses and the planned improvements, the proposed intersection approach lane configurations for the 2026 study intersections are shown in **Figure 14**. The analysis revealed that all of the arterial roadways would function at acceptable levels of service in the 2008 horizon year with existing conditions. Therefore, no mitigated lane configurations are proposed.

The *Queen Creek Small Area Transportation Study* classifies Germann Road as an urban minor arterial roadway. Currently, Germann Road is a two-lane section and is projected to operate at acceptable levels of service by horizon year 2008 under the proposed 2008 lane configuration and stop control. The half street section for the minor arterial should be provided along the project frontage. Improving the cross section will increase capacity along this segment for future area development.

Germann Road and Meridian Road have both been planned for a six-lane section with center turn lane, under the *Queen Creek Small Area Transportation Study*. Currently, German Road operates as a two-lane roadway and will remain at acceptable levels of service through the 2008 horizon year. Meridian Road is currently a one-lane dirt road which will be improved along the frontage of the proposed site by opening year 2008. The half street section for the minor arterial roadways should be provided along the project frontage. This improvement will increase capacity along roadway segments for future area development.

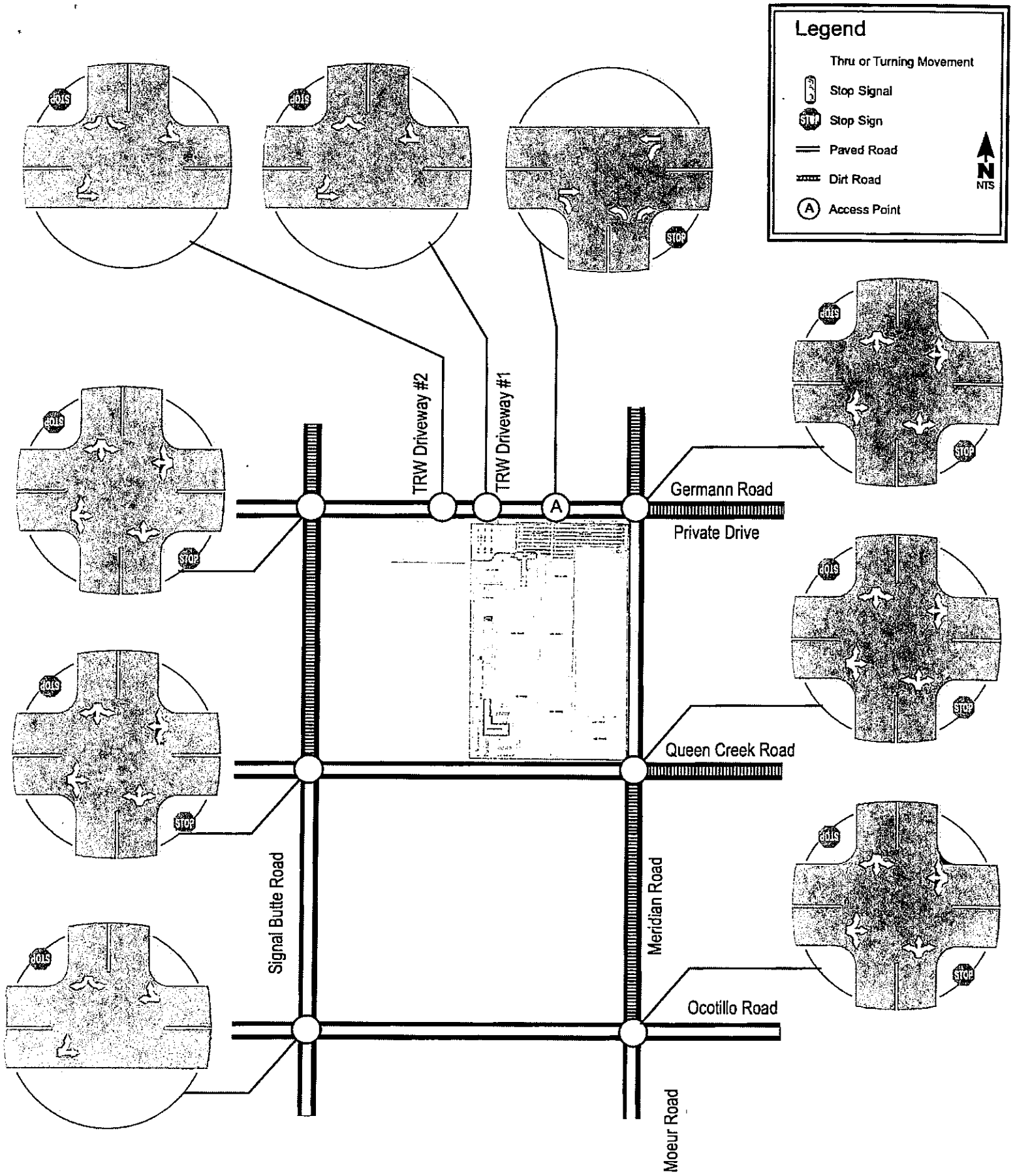


Figure 13:
2008 Lane Configuration and Stop Control

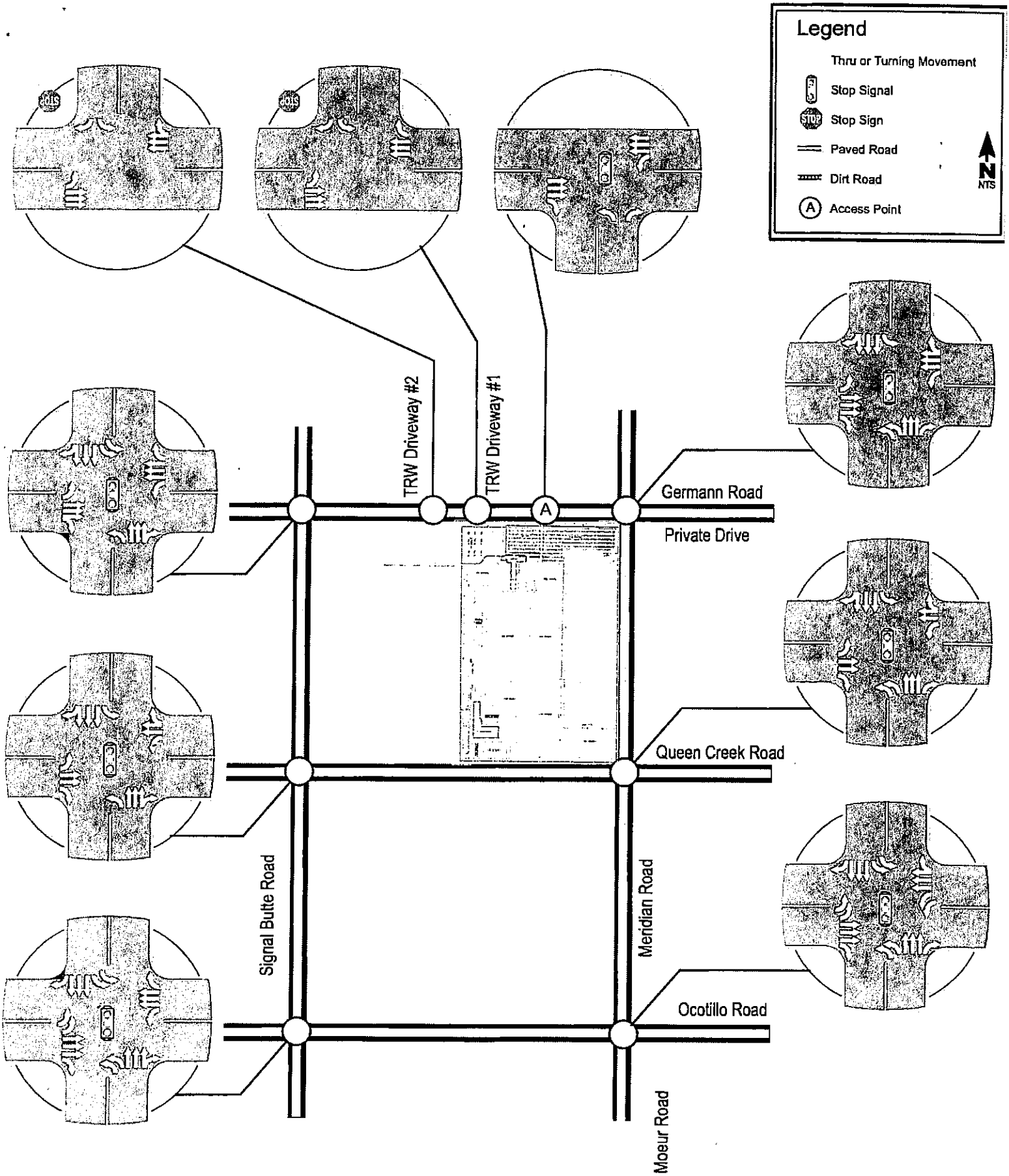


Figure 14:
2026 Lane Configuration and Stop Control

QUEUING ANALYSIS

A queuing analysis was performed for all intersection turn lanes under stop or signal control within the study area, according to the methodology documented in the MCDOT Traffic Impact Procedures. The formulas used for the calculations are stated below and the resulting storage lane requirements for horizon year 2008 and 2026 are summarized in **Tables 8 and 9.**

For signalized intersections, the storage length is determined by the following formula:

Storage Length = [2 x (veh/hr)/(cycles/hr)] x 25 feet

For unsignalized intersections, the storage length is determined by the following formula:

Storage Length = [(veh/hr)/(30 periods/hr)] x 25 feet

Table 8 – 2008 Left Turn Lane Queue Length

Intersection	Stop Control	Movement	Calculated Storage	Required Storage
Access A & Germann Road	1-way stop	NB Left	300'	300'
		WB Left	125'	125'
TRW Driveway #1 & Germann Road	1-way stop	SB Left	25'	(1) 75'
		EB Left	25'	(1) 75'
TRW Driveway #2 & Germann Road	1-way stop	SB Left	25'	(1) 75'
		EB Left	75'	75'

(1) A minimum of 75' of storage is recommended for all movements at unsignalized intersections and 160' of storage at signalized intersections under MCDOT requirements.
(2) Storage provided for each lane of a double turn lane.

Table 9 – 2026 Left Turn Lane Queue Length

Intersection	Stop Control	Movement	Calculated Storage	Required Storage
Moeur Road and Ocotillo Road	Signal	NB Left	600'	[2] 300'
		SB Left	425'	[2] 215'
		EB Left	375'	375'
		WB Left	425'	[2] 215'
Access A & Germann Road	Signal	NB Left	375'	375'
		WB Left	250'	250'
Meridian Road & Germann Road	Signal	NB Left	500'	[2] 250'
		SB Left	200'	200'
		EB Left	275'	275'
		WB Left	275'	275'
Meridian Road & Queen Creek Road	Signal	NB Left	425'	[2] 215'
		SB Left	200'	200'
		EB Left	225'	225'
		WB Left	275'	275'
Signal Butte Road & Queen Creek Road	Signal	NB Left	300'	300'
		SB Left	375'	375'
		EB Left	275'	275'
		WB Left	250'	250'
TRW Driveway #1 & Germann Road	1-way stop	SB Left	25'	[1] 75'
		EB Left	75'	75'
Signal Butte Road & Germann Road	Signal	NB Left	350'	350'
		SB Left	425'	[1] 215'
		EB Left	325'	325'
		WB Left	300'	300'
Signal Butte Road & Ocotillo Road	Signal	NB Left	475'	[2] 240'
		SB Left	550'	[2] 275'
		EB Left	425'	[2] 215'
		WB Left	375'	375'
TRW Driveway #2 & Germann Road	1-way stop	SB Left	25'	[1] 75'
		EB Left	200'	200'

(1) A minimum of 75' of storage is recommended for all movements at unsignalized intersections and 160' of storage at signalized intersections under MCDOT requirements.
(2) Storage provided for each lane of a double turn lane.

MCDOT requires that left turn storage lengths are a minimum of 160 feet with a 100 feet opening. They also require that right turn storage lengths provide adequate deceleration length for a vehicle with minimal deceleration in the through lane, and a 15 mph turning speed. The required storage listed in **Table 8 and 9** meet the criteria established by MCDOT for storage length.

These storage lengths presented in this report are provided for the horizon years of 2008 and 2026. Additional storage length calculations should be completed prior to traffic signal installation or a change in intersection stop control.

RIGHT TURN AUXILLIARY LANES

Maricopa County recommends separate right turn lanes at intersections where the outside lane volumes exceed 250 vph and the right turn volume exceeds 55 vph. Requirements for a separate right turn lane may be waived where there are three or more through lanes in the direction of travel. Based upon this criteria right turn auxiliary lanes are not warranted in the 2008 buildout year.

By 2026 several intersections warrant right turn auxiliary lanes they are listed below:

- Meridian Road and Ocotillo Road – (NB, SB, and EB)
- Meridian Road and Germann Road – (NB, and EB)
- Meridian Road and Queen Creek Road – (NB and EB)
- Signal Butte Road and Germann Road – (WB)
- Signal Butte Road and Queen Creek Road – (EB)
- Signal Butte Road and Ocotillo Road – (NB, SB, EB, and WB)
- Access A and Germann Road – (EB)

RIGHT TURN DECELERATION LANES

Right-turn deceleration lanes are often recommended on roadways where right-turning vehicles create delays or safety problems for other traffic movements. The need for a right turn lane at a site access point depends upon the speed of traffic on the road, the volume of traffic turning right and the through traffic volume in the same lane as the right turning traffic. The following minimum criteria for the provision of right turn deceleration lanes have been provided as a guideline:

- A deceleration lane is required for any access if at least 5,000 vpd are using or are expected in the near future five years after the development is built out to be using the adjacent street.
- The posted speed limit is 35 mph or the 85th percentile speed limit is greater than 35 mph.
- At least 1,000 vph are using or are expected to use the driveway(s) for the development or adjacent development(s) (existing or future).
- At least 40 vehicles are expected to make right turns into the driveway(s) for a one-hour period for the development or adjacent developments (existing or future).

Using the guidelines above, Access A located along Germann Road warrants for an eastbound right turn deceleration lane by opening year 2008. Right turn decelerations lanes are not warranted by horizon year 2026.

SIGHT DISTANCE ANALYSIS

There must be sufficient unobstructed sight distance along both approaches of an intersection and across their included corners to allow operators of vehicles to see each other in time to prevent a collision. The sight triangle is the area encompassed by the line of sight from a stopped vehicle on the minor roadway to the approaching vehicle on the major roadway.

An intersection sight distance analysis was performed for the access points to set guidelines for establishing line of sight for the proposed development at the site access points and major internal intersections. Using the guidelines set forth by *A Policy on Geometric Design of Highways and Streets*, **Table 8** represents the sight distance analysis for Access A along Germann Road.

A major component of calculating sight distance is vehicle travel speed. Sight distance is largely based on the design speed of the roadway. When the posted speed limit is reduced the required sight distance will also be reduced as a result. For this analysis, a design speed of 40 mph was used along Germann Road.

Table 9 – Intersection Sight Distance Analysis

Intersection	Design Speed	Required Sight Dist. Left (ft)	Required Sight Dist. Right (ft)	Existing Sight Dist. Left (ft)	Existing Sight Dist. Right (ft)
Site Access A @ Germann Rd.	40	420	480	1000+	1000+

There are no existing obstructions to sight distance within the project intersections or along the included corners of the existing intersections. Adequate sight distance must be provided at the intersections to allow safe left and right turning movements from the development. Recommended distances for these movements can be found in **Table 8** above.

CONCLUSIONS AND RECOMMENDATIONS

ADESA, located in the northeast quadrant of Section 12, Township 2 South, Range 7 East, is a proposed car auction development located in the Town of Queen Creek, Arizona. Encompassing approximately 170 acres, this development is located at the southwest corner of Meridian Road and Germann Road. An opening year and final buildout date of 2008 is anticipated for this development.

According to the May 2006, *Queen Creek Small Area Transportation Study* (QCSATS) existing street classification exhibit, both Germann Road and Signal Butte Road are classified as urban minor arterial roadways. Queen Creek Road is classified as an urban collector and Ocotillo Road is classified as a rural collector roadway. All existing surrounding roadways are currently operating as two-lane roadways.

The proposed development is expected to generate 2056 daily trips with all of those trips external to the development. It is anticipated that 1050 trips will occur in the AM peak hour and 556 will occur during the PM peak hour. To ensure that the estimate of traffic impacts is conservatively calculated, it is assumed that the development will be 100 percent occupied upon opening year in 2008.

The proposed development plans to have one ingress/egress main entry for all employees and customers and a secondary emergency access point located along Germann Road.

Capacity analyses were conducted on the site access points and study intersections for both the AM and PM peak hours. Three separate horizon years, the existing year (2007), opening year (2008) and future analysis year (2026) were analyzed to determine the impacts, short term and long term, on the adjacent street system.

The following recommendations have been documented in this study:

- All intersections will operate at acceptable levels of service in the opening year of 2008 under proposed 2008 stop control and lane configurations, except for the intersection of Moeur Road and Ocotillo Road. The intersection of Moeur Road and Ocotillo Road will experience a level of service **E** due to an increase in background traffic. Although the intersection experiences delay mitigation is not required for the opening year 2008.

- By opening year 2008, half street improvements will be constructed along the frontage of the proposed site along Germann Road and Meridian Road. A two-way left turn lane should be striped with the proposed half-street improvements along Germann Road at Access A. This should provide a minimum of 75-feet of storage. An eastbound right turn deceleration lane is also recommended at Access A and Germann Road, by opening year 2008.

- The Town of Queen Creek has proposed a collector road (228th Street) to run along the western border of the proposed ADESA site. The majority of Auction traffic will utilize Germann Road and Meridian Road, not the local roads. Most of the proposed site traffic is anticipated to be coming from outside the study area along major arterial roadways. Also, there is no access to the development from 228th Street. Therefore, the addition of 228th Street is not anticipated to impact the distribution of traffic within the project area by opening year 2008 or by horizon year 2026. The construction of the proposed 228th Street is not required to achieve acceptable levels of service on the existing roadway network as a result of the proposed ADESA development.

- All intersections will operate at a level of service of a D or better by horizon year 2026 under the proposed 2026 stop control and lane configurations.

- The intersection of Access A and Germann Road will require signalization to mitigate unacceptable levels of service in the 2026 horizon year due to the increase of background traffic in the area. Future mitigation will require dedicated left turn lanes in all directions, and a dedicated eastbound right turn auxiliary lane.

- Germann Road and Meridian Road have both been planned for a six-lane section with a center left turn lane, under the *Queen Creek Small Area Transportation Study*. Under the ultimate buildout conditions for the 2026 horizon year, Germann Road operates at acceptable levels of service as a 5-lane roadway with 2-lanes in the eastbound direction along the site frontage. Paving for 2-lanes should be provided along with the ultimate right-of-way for a six-lane arterial in the future horizon year.

- Currently, German Road operates as a two-lane roadway and will remain at acceptable levels of service through the 2008 horizon year. Meridian Road is currently a one-lane dirt road which will be improved along the frontage of the proposed site by opening year 2008. The half street roadways should be provided along the project frontage. This improvement will increase capacity along roadway segments for future area development.

LIST OF REFERENCES

A Policy on Geometric Design of Highways and Streets, American Association of State Highway and Transportation Officials, Washington, D.C., 2001.

Design and Safety of Pedestrian Facilities, Institute of Transportation Engineers, Washington, D.C., March 1998.

Highway Capacity Manual. Transportation Research Board, National Research Council, Washington, D.C., 2000.

Manual of Uniform Traffic Control Devices. U.S. Department of Transportation, Federal Highways Administration, Washington, D.C., 1988.

Roadway Design Manual, Maricopa County Department of Transportation, Phoenix, Arizona, November 1993.

Traffic Impact Procedures, Maricopa County Department of Transportation, Phoenix, Arizona, February 1994.

Queen Creek Small Area Transportation Study, Cambridge Systematic, Inc., May 2006.

Southwest Maricopa Northern Pinal Area Transportation Study, Maricopa Association of Governments, Phoenix, Arizona; March 2003.

Crismon Heights Traffic Impact Analysis, Civtech Inc., Scottsdale, Arizona: December 2003.

Lucia at Queen Creek Traffic Impact Analysis, CivTech Inc., Scottsdale, Arizona: March 2005

TECHNICAL APPENDIX

A: REVIEW COMMENTS
B: EXISTING TRAFFIC COUNTS
C: EXISTING AM & PM PEAK HOUR ANALYSIS
D: ADESA TRIP GENERATION (DATA COLLECTIONS AND CALCULATIONS)
E: ADESA 2008 AND 2026 TRIP DISTRIBUTION CALULATIONS
F: 2008 BACKGROUND CALCULATIONS
G. 2026 BACKGROUND CALCULATIONS
H: 2008 AM & PM PEAK HOUR ANALYSIS
I: 2026 AM & PM PEAK HOUR ANALYSIS
J: 2008 QUEUE LENGTH ANALYSIS
K: 2026 QUEUE LENGTH ANALYSIS
L: SIGHT DISTANCE ANALYSIS
M: OTHER (DATA COLLECTION/CORRESPONDENCE)

APPENDIX D

ADESA TRIP GENERATION
(DATA COLLECTION AND CALCULATIONS)

	Daily	AM Peak Hour Entering	AM Peak Hour Exiting	PM Peak Hour Entering	PM Peak Hour Exiting
# of Customers	1500	60%	40%	-	-
# of Employees	556	-	-	30%	70%
	2056				

# of Trucks 75

		ADT	AM PH	PM PH	ADT Dir Dist	AM PH Dir Dist	PM PH Dir Dist
Car Auction	Customers	1	0.7		100	60/40	
Car Auction	Employees			1			30/70

Table 1 - Non Residential Trip Generation

Dev. Type	Customers/ Employees	Daily Trips	AM Peak Hour Trips	AM Peak Hour Entering	AM Peak Hour Exiting	PM Peak Hour Trips	PM Peak Hour Entering	PM Peak Hour Exiting
Car Auction	1500	2056	1050	630	420			
Car Auction	556					556	167	389
	Total	**2056**	**1050**	**630**	**420**	**556**	**167**	**389**

ADESA PHOENIX

Traffic Study Questions

Question #1

	Full Time	Part Time	Temp Labor
Number of Employees	367	246	75

Do Employees Work in shifts: Yes - Please see breakdown below.

Detail Shop: 6 Shop Lanes - 10 employees per lane (60 employees per shift) - 7 Days per week

Shift 1: 4 - 10 hour days
Shift 2: 3 - 12 hour days

Body Shop: 2 Painters, 4 Prepers, 3 Maskers per shift. (9 employees per shift)

Shift 1: 4 - 10 hour days
Shift 2: 3 - 12 hour days

Mechanic & Tire Shop: 5 Mechanics, 2 Mechanic Helpers per shift. (7 employees per shift)

Shift 1: 4 - 10 hour days
Shift 2: 3 - 12 hour days

Lot Operations: Auction Lot is open 24 hours per day, 365 days per year.

Vehicle Check-in: 3 Inside Clerks, 3 Outside (6 employees per shift)

Shift 1: 4 - 10 hour days
Shift 2: 3 - 12 hour days

Drivers	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
	Night Sale	Factory Sale	Regular Sale				
# of Full Time Employees	45	45	45	45	45	5	5
# of Part Time Employees	25	70	100	70	25	20	20
# of Temps	10	15	200	15	10		

CR Writers: 15 Full Time Employees working Monday thru Friday and trading off on weekends

Security: 7 Days per week, 24 hours per day. 3 shifts, 6 people per shift.

Administration Offices

Recon	10 employees - Monday thru Friday
Front Office	45 employees - Monday thru Friday
AFC	7 employees - Monday thru Friday
Arizona DMV	3 employees - Monday thru Friday
Transportation	7 employees - Monday thru Friday
Human Resources	3 employees - Monday thru Friday
Arbitration	3 employees - Monday thru Friday
Factory/Fleet Lease	30 employees - Monday thru Friday

Question # 2

Specific Entrance: One main entrance for:

Employees:	400 to 600 Daily
Customers:	300 Monday Nights

150 Tuesday
1500 Wednesday
50 - 100 Thursday and Friday

One main entrance and exit for vehicles

Question # 3

Hours of Operation	Main Office	Monday thru Friday 8:00am to 5:00pm
	Lot Operations	24 Hours a day
	Recon	Monday thru Thursday 5:00am to 3:00pm
		Friday thru Sunday 5:00am to 5:00pm
	Transporters Lot	24 Hours per day, 365 days per year
		75 Transport Trucks per day.

Question # 4	3 sales per week.	Monday Night Sale	5:30pm
		Tuesday Factory Sale	9:30am
		Wednesday Regular Sale	9:00am

Question # 5

How many dealers attend	Monday Night Sale	300
	Tueday Factory Sale	150
	Wednesday Regular Sale	1,500

Question # 6

Do customers stay throughoutt the day	Yes

Question # 7

Are car auctions seasonal	No

Question # 8

Are customers regional or local	Regional/National

Curt,

Each department's shift may be slightly different. First let me define how the shifts a scheduled here. We are a 7 day a week facility, which means we are operating 7 days per week. Shift # 1 will work 4, 10 hour days. Upon completion of the 4 days, Shift # 2 will come in and work 3, 12 hour days. This completes our 7 day work week and we start all over with Shift # 1. Below is a summary of how the shifts work currently, there may be a slight variation of this with a new larger more efficient facility.

		Shift Start	Shift End
Detail Shop	Shift 1	4:30 am	3:00 pm
	Shift 2	4:30 am	5:00 pm
Body Shop	Same as above		
Mechanic Shop	Shift 1	6:00 am	4:30 pm
	Shift 2	6:00 am	6:30 pm

There will be times when vehicle inventory levels and client demands are at a level where these hours will be extended and overtime hours will result. We have even in the past have used volunteers to work extra hours at the conclusion of shift 1 or 2, in essence creating a temporary third shift. These times are not seasonal or can be predicted more than 30 to 45 days in advance.

Auction Lot – Open 24 hours per day, 365 days a year for receiving or releasing of vehicles. Always some staff on hand to handle this process.

Vehicle Check-in	Shift 1	6:00 am	4:30 pm
	Shift 2	6:00 am	6:30 pm

Also may have times of overtime depending on volumes.

Security 24 hours per day, 365 days per year, no exceptions.

Transporters Lot 24 hours per day, 365 days per year, approximately 75 transport trucks (big rigs) per day. Very active at night.

From: Phillips, Curt (AFC Corporate)
Sent: Tuesday, March 27, 2007 9:54 AM
To: Sutton, John (Phoenix)
Subject: FW: ADESA - existing conditions

Hi John,

Can you please help me one more time. Thanks Curt

From: Frank, Jon [mailto:jfrank@swlaw.com]
Sent: Tuesday, March 27, 2007 12:53 PM

To: Phillips, Curt (AFC Corporate)
Subject: FW: ADESA - existing conditions

Curt -- See below. They have one more question. Jon

From: Ruth Gutierrez [mailto:RGutierrez@civtech.com]
Sent: Tuesday, March 27, 2007 9:04 AM
To: Frank, Jon
Cc: Dawn Cartier
Subject: RE: ADESA - existing conditions

Jon,

Thank you for your email responses they are a great help. I just have one more piece of information to ask, I need to know when Shifts 1 and 2 start and end. We need to know if the shifts overlap or if they start and end at the same time. This will help use determine when the peak hours will occur for the proposed site.

Thanks,
Ruth

From: Frank, Jon [mailto:jfrank@swlaw.com]
Sent: Monday, March 26, 2007 7:03 PM
To: Ruth Gutierrez
Cc: tawillliams@adesa.com; tpeterson@cmxinc.com; Phillips, Curt (AFC Corporate); Wood, Nick; Eason, Moses; Mallon, Michelle (Corporate)
Subject: FW: ADESA - existing conditions

Ruth -- Thank you for this information and for your speedy work. Note, I just sent you the Adesa information you requested under separate email. Let me know if there is anything else you need.

Jon

From: Ruth Gutierrez [mailto:RGutierrez@civtech.com]
Sent: Monday, March 26, 2007 6:02 PM
To: Frank, Jon
Cc: Dawn Cartier
Subject: ADESA - existing conditions

Jonathan,

I have attached the existing conditions portion of the TIA for ADESA. We have completed phase I of the TIA and will be completing the last phase this week in hopes to meet our deadline this Friday. I have yet to receive any word from you on the email I sent out to you this past Friday, I called your office this morning in hops to reach you but had no luck, so I left a message with your secretary. We need that information in order to proceed with TIA and meet the Friday deadline. If you have any questions you can contact me at (480) 659-4250 or via email at ruth@civtech.com.

Kimley»Horn

DATA FROM ITE'S TRIP GENERATION, NINTH EDITION

Land Use: 150
Warehousing

Description

Warehouses are primarily devoted to the storage of materials, but they may also include office and maintenance areas. High-cube warehouse/distribution center (Land Use 152) and business park (Land Use 770) are related uses.

Additional Data

Truck trips accounted for 20 percent of the weekday traffic at one of the sites surveyed.

No vehicle occupancy data were available specifically for warehousing, but the average was approximately 1.3 persons per automobile for all industrial uses.

The peak hour of the generator typically coincided with the peak hour of the adjacent street traffic.

Facilities with employees on shift work may peak at other hours.

Two sources indicated that the warehousing sites comprised multiple buildings.

The sites were surveyed from between the late 1960s and the 2000s throughout the United States and Canada.

Source Numbers

6, 7, 12, 13, 15, 17, 74, 184, 192, 390, 406, 411, 436, 443, 571, 579, 583, 596, 598, 611

Warehousing
(150)

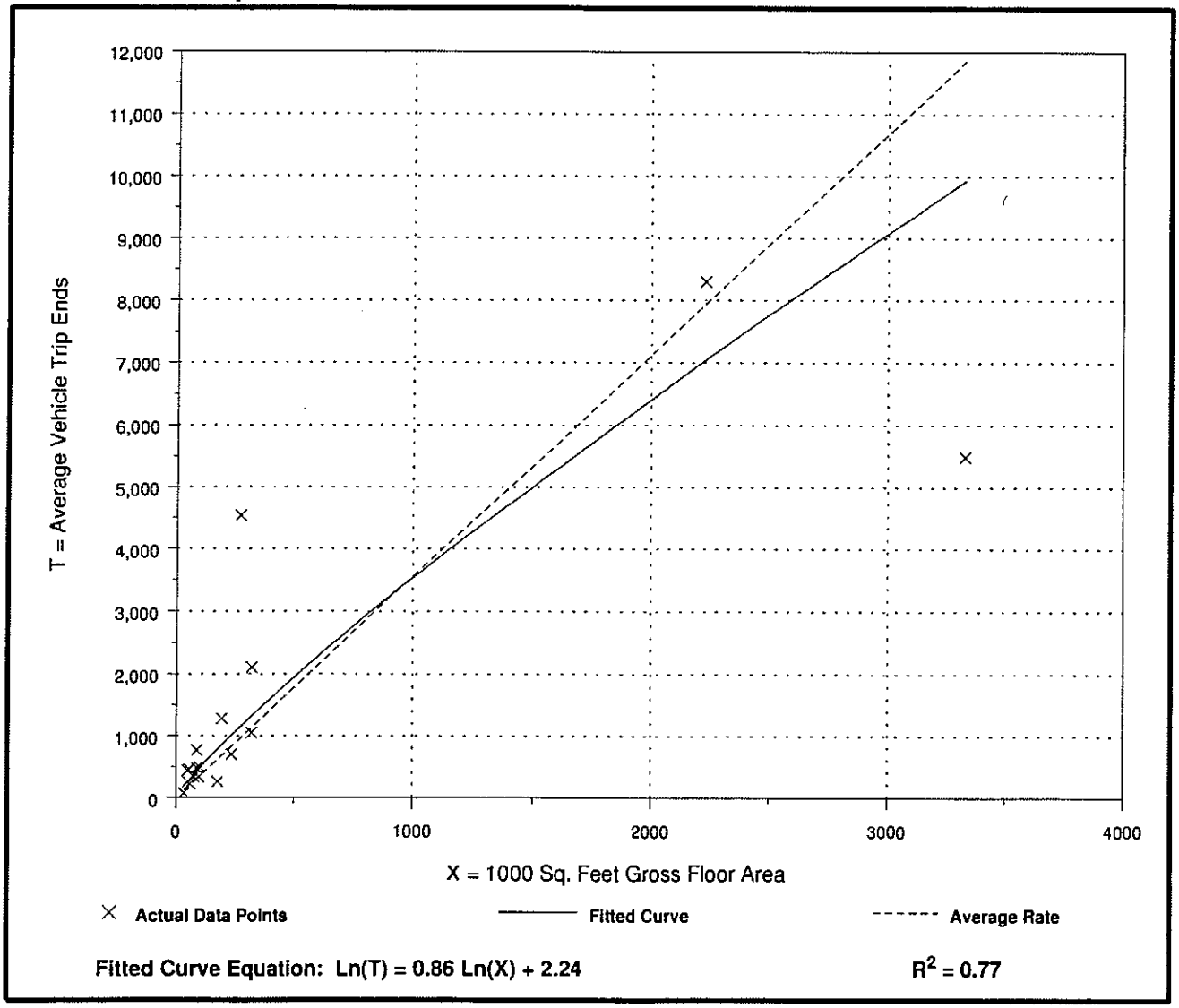
Average Vehicle Trip Ends vs: 1000 Sq. Feet Gross Floor Area
On a: Weekday

Number of Studies: 18
Average 1000 Sq. Feet GFA: 431
Directional Distribution: 50% entering, 50% exiting

Trip Generation per 1000 Sq. Feet Gross Floor Area

Average Rate	Range of Rates	Standard Deviation
3.56	1.51 - 17.00	3.58

Data Plot and Equation



Fitted Curve Equation: Ln(T) = 0.86 Ln(X) + 2.24

R^2 = 0.77

Warehousing
(150)

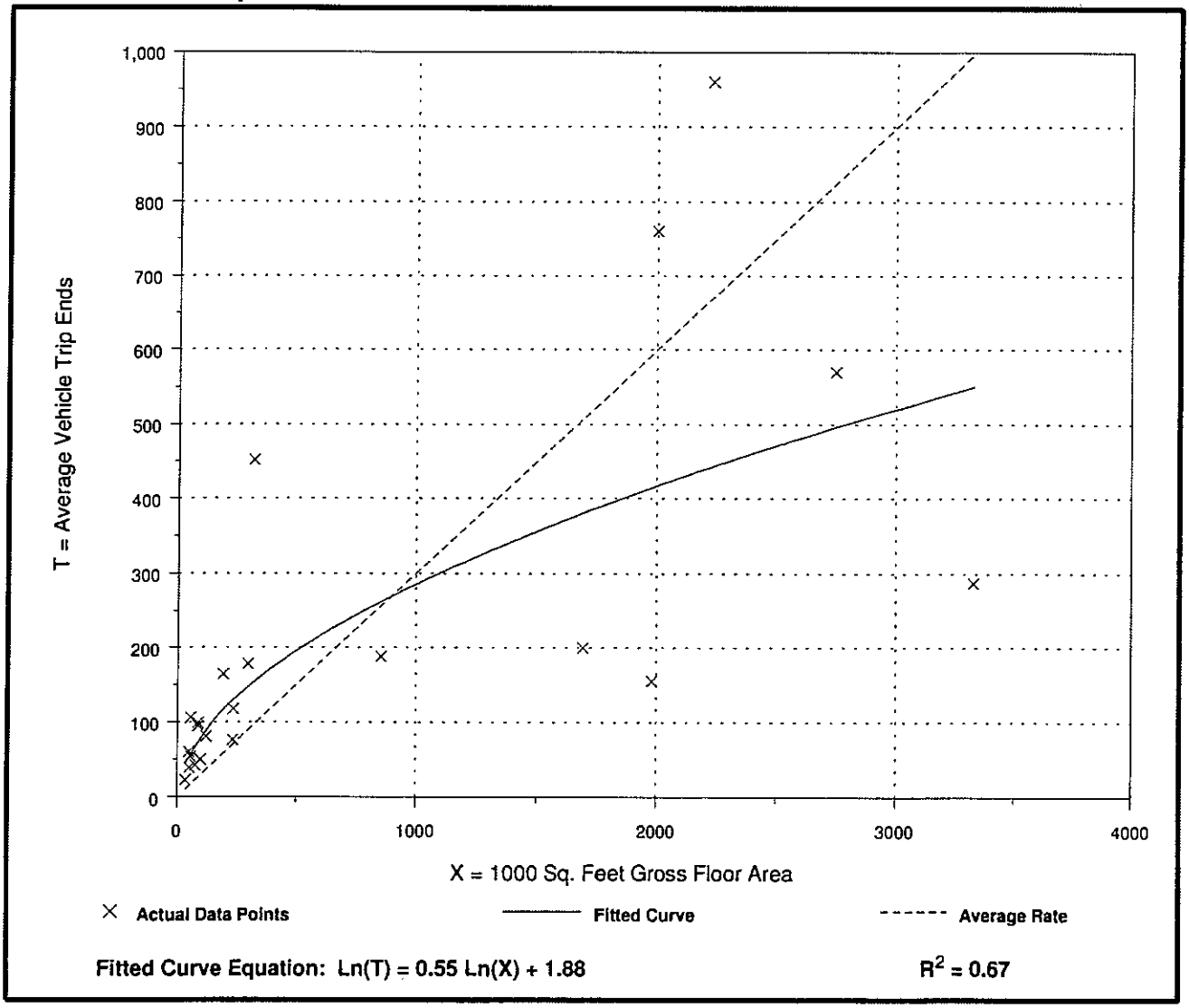
Average Vehicle Trip Ends vs: **1000 Sq. Feet Gross Floor Area**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.

Number of Studies: 23
Average 1000 Sq. Feet GFA: 745
Directional Distribution: 79% entering, 21% exiting

Trip Generation per 1000 Sq. Feet Gross Floor Area

Average Rate	Range of Rates	Standard Deviation
0.30	0.08 - 1.93	0.63

Data Plot and Equation



Fitted Curve Equation: Ln(T) = 0.55 Ln(X) + 1.88 $R^2 = 0.67$

Warehousing
(150)

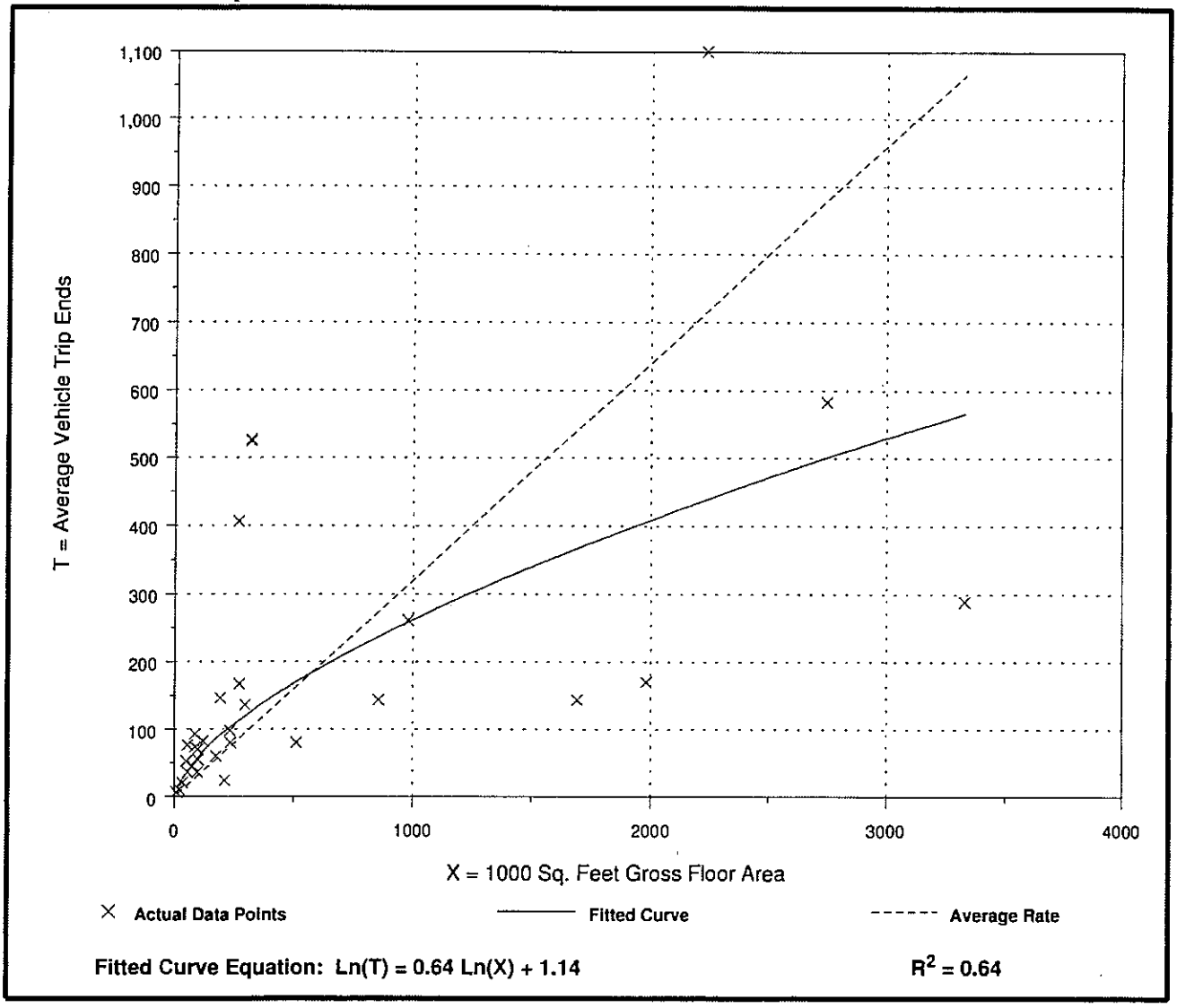
Average Vehicle Trip Ends vs: 1000 Sq. Feet Gross Floor Area
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.

Number of Studies: 31
Average 1000 Sq. Feet GFA: 572
Directional Distribution: 25% entering, 75% exiting

Trip Generation per 1000 Sq. Feet Gross Floor Area

Average Rate	Range of Rates	Standard Deviation
0.32	0.09 - 1.66	0.67

Data Plot and Equation



Fitted Curve Equation: Ln(T) = 0.64 Ln(X) + 1.14

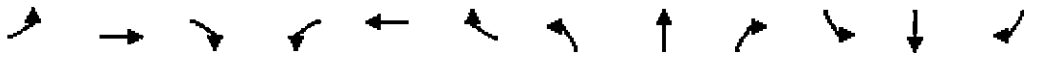
R^2 = 0.64

Kimley»Horn

EXISTING SYNCHRO CAPACITY REPORTS

Weekday Morning Peak Hour

Weekday Evening Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	10	10	25	5	5	40	905	225	10	165	20
Ideal Flow (vphpl)	1900	2000	1900	1900	1900	1900	1900	2000	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	12	12	12	12	15	12	12	12
Storage Length (ft)	155		0	195		0	290		65	140		0
Storage Lanes	1		1	1		0	1		1	1		0
Taper Length (ft)	130			140			155			125		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00	1.00	0.95	0.95
Frt			0.850		0.925				0.850		0.983	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1530	1961	1583	1558	3274	0	1752	3725	1742	1626	3279	0
Flt Permitted							0.586			0.277		
Satd. Flow (perm)	1610	1961	1583	1640	3274	0	1081	3725	1742	474	3279	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			67		5				152		15	
Link Speed (mph)		35			35			40			40	
Link Distance (ft)		626			887			1067			1230	
Travel Time (s)		12.2			17.3			18.2			21.0	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	18%	2%	2%	12%	2%	2%	3%	2%	2%	11%	9%	2%
Adj. Flow (vph)	11	11	11	27	5	5	43	973	242	11	177	22
Shared Lane Traffic (%)												
Lane Group Flow (vph)	11	11	11	27	10	0	43	973	242	11	199	0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	7	4	5	3	8		5	2		1	6	
Permitted Phases	4		4	8			2		2	6		
Detector Phase	7	4	5	3	8		5	2	2	1	6	
Switch Phase												
Minimum Initial (s)	3.0	7.0	3.0	3.0	7.0		3.0	15.0	15.0	3.0	15.0	
Minimum Split (s)	8.0	12.0	8.0	8.0	12.0		8.0	25.0	25.0	8.0	25.0	
Total Split (s)	32.0	35.0	12.0	12.0	15.0		12.0	31.0	31.0	12.0	31.0	
Total Split (%)	35.6%	38.9%	13.3%	13.3%	16.7%		13.3%	34.4%	34.4%	13.3%	34.4%	
Maximum Green (s)	28.5	30.0	8.5	8.5	10.0		8.5	26.0	26.0	8.5	26.0	
Yellow Time (s)	3.5	4.0	3.5	3.5	4.0		3.5	4.0	4.0	3.5	4.0	
All-Red Time (s)	0.0	1.0	0.0	0.0	1.0		0.0	1.0	1.0	0.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	3.5	5.0	3.5	3.5	5.0		3.5	5.0	5.0	3.5	5.0	
Lead/Lag	Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None	None	None	None		None	None	None	None	None	
Act Effct Green (s)	7.8	8.6	8.3	8.2	8.6		23.9	27.1	27.1	22.9	23.9	
Actuated g/C Ratio	0.25	0.28	0.27	0.27	0.28		0.78	0.88	0.88	0.75	0.78	
v/c Ratio	0.03	0.02	0.02	0.06	0.01		0.04	0.30	0.16	0.02	0.08	
Control Delay	12.4	17.1	0.1	12.2	14.2		2.9	4.7	2.9	3.3	5.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	12.4	17.1	0.1	12.2	14.2		2.9	4.7	2.9	3.3	5.4	
LOS	B	B	A	B	B		A	A	A	A	A	
Approach Delay		9.9			12.7			4.3			5.3	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		A			B			A			A	
90th %ile Green (s)	6.6	7.0	7.0	7.5	7.9		7.0	26.0	26.0	6.1	25.1	
90th %ile Term Code	Gap	Min	Gap	Gap	Hold		Gap	Max	Max	Gap	Hold	
70th %ile Green (s)	0.0	0.0	6.2	0.0	0.0		6.2	24.7	24.7	0.0	15.0	
70th %ile Term Code	Skip	Skip	Gap	Skip	Skip		Gap	Hold	Hold	Skip	Min	
50th %ile Green (s)	0.0	0.0	0.0	0.0	0.0		0.0	15.1	15.1	0.0	15.1	
50th %ile Term Code	Skip	Skip	Skip	Skip	Skip		Skip	Gap	Gap	Skip	Hold	
30th %ile Green (s)	0.0	0.0	0.0	0.0	0.0		0.0	15.0	15.0	0.0	15.0	
30th %ile Term Code	Skip	Skip	Skip	Skip	Skip		Skip	Min	Min	Skip	Hold	
10th %ile Green (s)	0.0	0.0	0.0	0.0	0.0		0.0	15.0	15.0	0.0	15.0	
10th %ile Term Code	Skip	Skip	Skip	Skip	Skip		Skip	Min	Min	Skip	Hold	
Queue Length 50th (ft)	1	1	0	2	0		1	0	0	0	0	
Queue Length 95th (ft)	13	17	0	23	7		17	210	61	7	42	
Internal Link Dist (ft)		546			807			987			1150	
Turn Bay Length (ft)	155			195			290		65	140		
Base Capacity (vph)	1351	1754	637	575	1306		1075	3191	1514	756	2812	
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Reduced v/c Ratio	0.01	0.01	0.02	0.05	0.01		0.04	0.30	0.16	0.01	0.07	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 30.7
Natural Cycle: 55
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.30
Intersection Signal Delay: 4.8 Intersection LOS: A
Intersection Capacity Utilization 46.8% ICU Level of Service A
Analysis Period (min) 15
90th %ile Actuated Cycle: 63.6
70th %ile Actuated Cycle: 29.7
50th %ile Actuated Cycle: 20.1
30th %ile Actuated Cycle: 20
10th %ile Actuated Cycle: 20

Splits and Phases: 200: Beverly Road & Prairie Stone Parkway

ø1	ø2	ø3	ø4
12 s	31 s	12 s	35 s
ø5	**ø6**	**ø7**	**ø8**
12 s	31 s	32 s	15 s

Intersection	
Int Delay, s/veh	1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	5	5	580	340	85	190
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	0	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	17	25	2	2	2	7
Mvmt Flow	5	5	637	374	93	209

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1220	505	0	0	1011	0
Stage 1	824	-	-	-	-	-
Stage 2	396	-	-	-	-	-
Critical Hdwy	6.855	7.275	-	-	4.14	-
Critical Hdwy Stg 1	6.055	-	-	-	-	-
Critical Hdwy Stg 2	5.655	-	-	-	-	-
Follow-up Hdwy	3.6615	3.5375	-	-	2.22	-
Pot Cap-1 Maneuver	168	465	-	-	681	-
Stage 1	363	-	-	-	-	-
Stage 2	641	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	145	465	-	-	681	-
Mov Cap-2 Maneuver	145	-	-	-	-	-
Stage 1	363	-	-	-	-	-
Stage 2	553	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	21.8	0	3.4
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	145	465	681	-
HCM Lane V/C Ratio	-	-	0.038	0.012	0.137	-
HCM Control Delay (s)	-	-	30.8	12.8	11.1	-
HCM Lane LOS	-	-	D	B	B	-
HCM 95th %tile Q(veh)	-	-	0.1	0	0.5	-

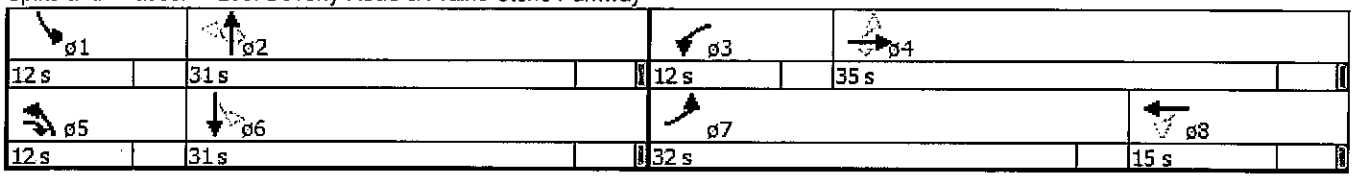
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	2	5	230	2	25	15	245	100	10	875	15
Ideal Flow (vphpl)	1900	2000	1900	1900	1900	1900	1900	2000	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	12	12	12	12	15	12	12	12
Storage Length (ft)	155		0	195		0	290		65	140		0
Storage Lanes	1		1	1		0	1		1	1		0
Taper Length (ft)	130			140			155			125		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00	1.00	0.95	0.95
Frt			0.850		0.859				0.850		0.997	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1961	1583	1711	3040	0	1770	3725	1742	1770	3526	0
Flt Permitted				0.889			0.192			0.573		
Satd. Flow (perm)	1863	1961	1583	1601	3040	0	358	3725	1742	1067	3526	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			67		728				152		2	
Link Speed (mph)		35			35			40			40	
Link Distance (ft)		626			887			1067			1230	
Travel Time (s)		12.2			17.3			18.2			21.0	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	7%
Adj. Flow (vph)	12	2	6	274	2	30	18	292	119	12	1042	18
Shared Lane Traffic (%)												
Lane Group Flow (vph)	12	2	6	274	32	0	18	292	119	12	1060	0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	7	4	5	3	8		5	2		1	6	
Permitted Phases	4		4	8			2		2	6		
Detector Phase	7	4	5	3	8		5	2	2	1	6	
Switch Phase												
Minimum Initial (s)	3.0	7.0	3.0	3.0	7.0		3.0	15.0	15.0	3.0	15.0	
Minimum Split (s)	8.0	12.0	8.0	8.0	12.0		8.0	25.0	25.0	8.0	25.0	
Total Split (s)	32.0	35.0	12.0	12.0	15.0		12.0	31.0	31.0	12.0	31.0	
Total Split (%)	35.6%	38.9%	13.3%	13.3%	16.7%		13.3%	34.4%	34.4%	13.3%	34.4%	
Maximum Green (s)	28.5	30.0	8.5	8.5	10.0		8.5	26.0	26.0	8.5	26.0	
Yellow Time (s)	3.5	4.0	3.5	3.5	4.0		3.5	4.0	4.0	3.5	4.0	
All-Red Time (s)	0.0	1.0	0.0	0.0	1.0		0.0	1.0	1.0	0.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	3.5	5.0	3.5	3.5	5.0		3.5	5.0	5.0	3.5	5.0	
Lead/Lag	Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None	None	None	None		None	None	None	None	None	
Act Effct Green (s)	7.2	7.2	7.7	10.3	7.5		28.4	25.9	25.9	28.2	25.8	
Actuated g/C Ratio	0.15	0.15	0.17	0.22	0.16		0.61	0.56	0.56	0.61	0.55	
v/c Ratio	0.04	0.01	0.02	0.73	0.03		0.04	0.14	0.11	0.02	0.54	
Control Delay	16.1	21.5	0.2	30.0	0.0		4.7	6.9	1.8	4.6	9.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	16.1	21.5	0.2	30.0	0.0		4.7	6.9	1.8	4.6	9.7	
LOS	B	C	A	C	A		A	A	A	A	A	
Approach Delay		11.9			26.9			5.4			9.6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			C			A			A	
90th %ile Green (s)	6.5	7.0	6.6	8.5	9.0		6.6	26.5	26.5	6.1	26.0	
90th %ile Term Code	Gap	Min	Gap	Max	Hold		Gap	Hold	Hold	Gap	Max	
70th %ile Green (s)	0.0	0.0	0.0	8.5	7.0		0.0	26.0	26.0	0.0	26.0	
70th %ile Term Code	Skip	Skip	Skip	Max	Hold		Skip	Hold	Hold	Skip	Max	
50th %ile Green (s)	0.0	0.0	0.0	8.5	7.0		0.0	23.3	23.3	0.0	23.3	
50th %ile Term Code	Skip	Skip	Skip	Max	Hold		Skip	Hold	Hold	Skip	Gap	
30th %ile Green (s)	0.0	0.0	0.0	8.5	7.0		0.0	24.2	24.2	0.0	24.2	
30th %ile Term Code	Skip	Skip	Skip	Max	Hold		Skip	Hold	Hold	Skip	Gap	
10th %ile Green (s)	0.0	0.0	0.0	8.5	7.0		0.0	26.0	26.0	0.0	26.0	
10th %ile Term Code	Skip	Skip	Skip	Max	Hold		Skip	Hold	Hold	Skip	Max	
Queue Length 50th (ft)	2	0	0	59	0		1	12	0	1	61	
Queue Length 95th (ft)	12	6	0	140	0		9	56	14	7	226	
Internal Link Dist (ft)		546			807			987			1150	
Turn Bay Length (ft)	155			195			290		65	140		
Base Capacity (vph)	1122	1305	408	374	1241		487	2155	1071	787	2035	
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Reduced v/c Ratio	0.01	0.00	0.01	0.73	0.03		0.04	0.14	0.11	0.02	0.52	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 46.5
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.73
Intersection Signal Delay: 11.5 Intersection LOS: B
Intersection Capacity Utilization 52.4% ICU Level of Service A
Analysis Period (min) 15
90th %ile Actuated Cycle: 65.1
70th %ile Actuated Cycle: 43
50th %ile Actuated Cycle: 40.3
30th %ile Actuated Cycle: 41.2
10th %ile Actuated Cycle: 43

Splits and Phases: 200: Beverly Road & Prairie Stone Parkway



Intersection	
Int Delay, s/veh	75.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	330	45	250	30	15	570
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	0	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	4	2	2
Mvmt Flow	379	52	287	34	17	655

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	995	161	0	0	322	0
Stage 1	305	-	-	-	-	-
Stage 2	690	-	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.14	-
Critical Hdwy Stg 1	5.83	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.22	-
Pot Cap-1 Maneuver	~ 256	856	-	-	1235	-
Stage 1	722	-	-	-	-	-
Stage 2	497	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 252	856	-	-	1235	-
Mov Cap-2 Maneuver	~ 252	-	-	-	-	-
Stage 1	722	-	-	-	-	-
Stage 2	490	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	250.4	0	0.2
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	252	856	1235	-
HCM Lane V/C Ratio	-	-	1.505	0.06	0.014	-
HCM Control Delay (s)	-	-	283.3	9.5	8	-
HCM Lane LOS	-	-	F	A	A	-
HCM 95th %tile Q(veh)	-	-	22.3	0.2	0	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Kimley»Horn

FUTURE NO-BUILD SYNCHRO CAPACITY REPORTS

Weekday Morning Peak Hour

Weekday Evening Peak Hour

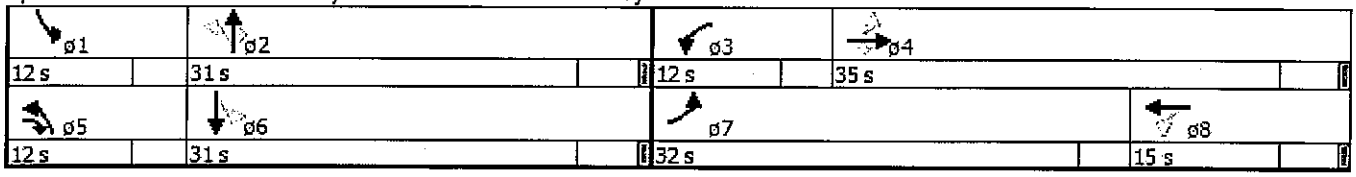
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	15	15	35	25	20	5	135	905	225	10	165	40
Ideal Flow (vphpl)	1900	2000	1900	1900	1900	1900	1900	2000	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	12	12	12	12	15	12	12	12
Storage Length (ft)	155		0	195		0	290		65	140		0
Storage Lanes	1		1	1		0	1		1	1		0
Taper Length (ft)	130			140			155			125		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00	1.00	0.95	0.95
Frt			0.850		0.972				0.850		0.971	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1612	1961	1417	1558	2906	0	1556	3725	1742	1626	3193	0
Flt Permitted							0.525			0.294		
Satd. Flow (perm)	1696	1961	1417	1640	2906	0	860	3725	1742	503	3193	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			67		5				152		33	
Link Speed (mph)		35			35			40			40	
Link Distance (ft)		626			887			1067			1230	
Travel Time (s)		12.2			17.3			18.2			21.0	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	12%	2%	14%	12%	25%	2%	16%	2%	2%	11%	9%	13%
Adj. Flow (vph)	16	16	38	27	22	5	145	973	242	11	177	43
Shared Lane Traffic (%)												
Lane Group Flow (vph)	16	16	38	27	27	0	145	973	242	11	220	0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	7	4	5	3	8		5	2		1	6	
Permitted Phases	4		4	8			2		2	6		
Detector Phase	7	4	5	3	8		5	2	2	1	6	
Switch Phase												
Minimum Initial (s)	3.0	7.0	3.0	3.0	7.0		3.0	15.0	15.0	3.0	15.0	
Minimum Split (s)	8.0	12.0	8.0	8.0	12.0		8.0	25.0	25.0	8.0	25.0	
Total Split (s)	32.0	35.0	12.0	12.0	15.0		12.0	31.0	31.0	12.0	31.0	
Total Split (%)	35.6%	38.9%	13.3%	13.3%	16.7%		13.3%	34.4%	34.4%	13.3%	34.4%	
Maximum Green (s)	28.5	30.0	8.5	8.5	10.0		8.5	26.0	26.0	8.5	26.0	
Yellow Time (s)	3.5	4.0	3.5	3.5	4.0		3.5	4.0	4.0	3.5	4.0	
All-Red Time (s)	0.0	1.0	0.0	0.0	1.0		0.0	1.0	1.0	0.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	3.5	5.0	3.5	3.5	5.0		3.5	5.0	5.0	3.5	5.0	
Lead/Lag	Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None	None	None	None		None	None	None	None	None	
Act Effct Green (s)	7.6	8.0	9.3	7.9	8.1		28.5	31.0	31.0	24.4	19.9	
Actuated g/C Ratio	0.22	0.23	0.26	0.22	0.23		0.81	0.88	0.88	0.69	0.57	
v/c Ratio	0.05	0.04	0.09	0.08	0.04		0.17	0.30	0.16	0.02	0.12	
Control Delay	13.5	18.1	2.6	13.5	15.8		3.1	4.7	2.9	3.6	6.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	13.5	18.1	2.6	13.5	15.8		3.1	4.7	2.9	3.6	6.8	
LOS	B	B	A	B	B		A	A	A	A	A	
Approach Delay		8.6			14.7			4.2			6.7	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		A			B			A			A	
90th %ile Green (s)	6.8	7.0	8.5	7.5	7.7		8.5	26.0	26.0	6.1	23.6	
90th %ile Term Code	Gap	Min	Max	Gap	Hold		Max	Max	Max	Gap	Hold	
70th %ile Green (s)	0.0	0.0	8.3	0.0	0.0		8.3	26.8	26.8	0.0	15.0	
70th %ile Term Code	Skip	Skip	Gap	Skip	Skip		Gap	Hold	Hold	Skip	Min	
50th %ile Green (s)	0.0	0.0	7.0	0.0	0.0		7.0	25.5	25.5	0.0	15.0	
50th %ile Term Code	Skip	Skip	Gap	Skip	Skip		Gap	Hold	Hold	Skip	Min	
30th %ile Green (s)	0.0	0.0	6.6	0.0	0.0		6.6	25.1	25.1	0.0	15.0	
30th %ile Term Code	Skip	Skip	Gap	Skip	Skip		Gap	Hold	Hold	Skip	Min	
10th %ile Green (s)	0.0	0.0	0.0	0.0	0.0		0.0	15.0	15.0	0.0	15.0	
10th %ile Term Code	Skip	Skip	Skip	Skip	Skip		Skip	Min	Min	Skip	Hold	
Queue Length 50th (ft)	2	2	0	4	1		0	0	0	0	6	
Queue Length 95th (ft)	16	21	10	23	14		46	210	61	7	45	
Internal Link Dist (ft)		546			807			987			1150	
Turn Bay Length (ft)	155			195			290		65	140		
Base Capacity (vph)	1364	1724	492	479	951		889	3073	1464	692	2524	
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Reduced v/c Ratio	0.01	0.01	0.08	0.06	0.03		0.16	0.32	0.17	0.02	0.09	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 35.2
Natural Cycle: 55
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.30
Intersection Signal Delay: 5.1 Intersection LOS: A
Intersection Capacity Utilization 46.8% ICU Level of Service A
Analysis Period (min) 15
90th %ile Actuated Cycle: 63.6
70th %ile Actuated Cycle: 31.8
50th %ile Actuated Cycle: 30.5
30th %ile Actuated Cycle: 30.1
10th %ile Actuated Cycle: 20

Splits and Phases: 200: Beverly Road & Prairie Stone Parkway



Intersection	
Int Delay, s/veh	1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	5	5	585	340	85	210
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	0	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	17	25	2	2	2	9
Mvmt Flow	5	5	643	374	93	231

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1248	508	0	0	1016	0
Stage 1	830	-	-	-	-	-
Stage 2	418	-	-	-	-	-
Critical Hdwy	6.855	7.275	-	-	4.14	-
Critical Hdwy Stg 1	6.055	-	-	-	-	-
Critical Hdwy Stg 2	5.655	-	-	-	-	-
Follow-up Hdwy	3.6615	3.5375	-	-	2.22	-
Pot Cap-1 Maneuver	161	463	-	-	678	-
Stage 1	360	-	-	-	-	-
Stage 2	626	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	139	463	-	-	678	-
Mov Cap-2 Maneuver	139	-	-	-	-	-
Stage 1	360	-	-	-	-	-
Stage 2	540	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	22.5	0	3.2
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	139	463	678	-
HCM Lane V/C Ratio	-	-	0.04	0.012	0.138	-
HCM Control Delay (s)	-	-	32	12.9	11.2	-
HCM Lane LOS	-	-	D	B	B	-
HCM 95th %tile Q(veh)	-	-	0.1	0	0.5	-

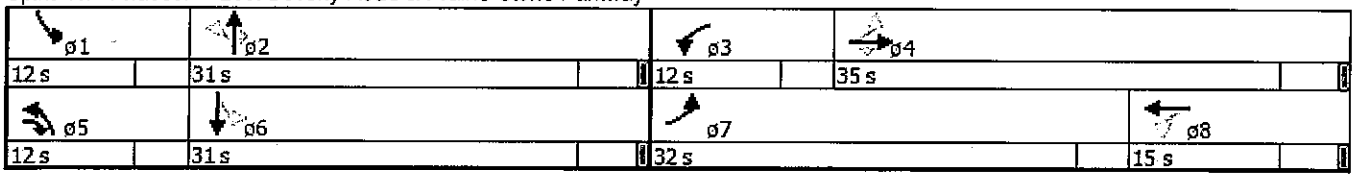
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	25	10	80	230	5	25	40	245	100	10	875	20
Ideal Flow (vphpl)	1900	2000	1900	1900	1900	1900	1900	2000	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	12	12	12	12	15	12	12	12
Storage Length (ft)	155		0	195		0	290		65	140		0
Storage Lanes	1		1	1		0	1		1	1		0
Taper Length (ft)	130			140			155			125		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00	1.00	0.95	0.95
Frt			0.850		0.875				0.850		0.997	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1504	1961	1357	1711	3097	0	1597	3725	1742	1770	3526	0
Flt Permitted				0.851			0.152			0.573		
Satd. Flow (perm)	1583	1961	1357	1532	3097	0	256	3725	1742	1067	3526	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			67		30				152		3	
Link Speed (mph)		35			35			40			40	
Link Distance (ft)		626			887			1067			1230	
Travel Time (s)		12.2			17.3			18.2			21.0	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles (%)	20%	2%	19%	2%	2%	2%	13%	2%	2%	2%	2%	5%
Adj. Flow (vph)	30	12	95	274	6	30	48	292	119	12	1042	24
Shared Lane Traffic (%)												
Lane Group Flow (vph)	30	12	95	274	36	0	48	292	119	12	1066	0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	7	4	5	3	8		5	2		1	6	
Permitted Phases	4		4	8			2		2	6		
Detector Phase	7	4	5	3	8		5	2	2	1	6	
Switch Phase												
Minimum Initial (s)	3.0	7.0	3.0	3.0	7.0		3.0	15.0	15.0	3.0	15.0	
Minimum Split (s)	8.0	12.0	8.0	8.0	12.0		8.0	25.0	25.0	8.0	25.0	
Total Split (s)	32.0	35.0	12.0	12.0	15.0		12.0	31.0	31.0	12.0	31.0	
Total Split (%)	35.6%	38.9%	13.3%	13.3%	16.7%		13.3%	34.4%	34.4%	13.3%	34.4%	
Maximum Green (s)	28.5	30.0	8.5	8.5	10.0		8.5	26.0	26.0	8.5	26.0	
Yellow Time (s)	3.5	4.0	3.5	3.5	4.0		3.5	4.0	4.0	3.5	4.0	
All-Red Time (s)	0.0	1.0	0.0	0.0	1.0		0.0	1.0	1.0	0.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	3.5	5.0	3.5	3.5	5.0		3.5	5.0	5.0	3.5	5.0	
Lead/Lag	Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None	None	None	None		None	None	None	None	None	
Act Effct Green (s)	8.1	7.2	9.0	12.1	7.3		36.2	33.3	33.3	32.6	26.7	
Actuated g/C Ratio	0.14	0.13	0.16	0.22	0.13		0.64	0.59	0.59	0.58	0.48	
v/c Ratio	0.14	0.05	0.35	0.75	0.08		0.15	0.13	0.11	0.02	0.64	
Control Delay	22.1	26.4	13.0	34.9	13.3		5.9	7.1	1.7	5.5	15.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	22.1	26.4	13.0	34.9	13.3		5.9	7.1	1.7	5.5	15.4	
LOS	C	C	B	C	B		A	A	A	A	B	
Approach Delay		16.2			32.4			5.6			15.3	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			C			A			B	
90th %ile Green (s)	7.9	7.0	8.3	8.5	7.6		8.3	28.2	28.2	6.1	26.0	
90th %ile Term Code	Gap	Min	Gap	Max	Hold		Gap	Hold	Hold	Gap	Max	
70th %ile Green (s)	7.4	0.0	8.4	19.4	7.0		8.4	37.9	37.9	0.0	26.0	
70th %ile Term Code	Gap	Skip	Gap	Hold	Min		Gap	Hold	Hold	Skip	Max	
50th %ile Green (s)	0.0	0.0	6.6	8.5	7.0		6.6	36.1	36.1	0.0	26.0	
50th %ile Term Code	Skip	Skip	Gap	Max	Hold		Gap	Hold	Hold	Skip	Max	
30th %ile Green (s)	0.0	0.0	6.0	8.5	7.0		6.0	35.5	35.5	0.0	26.0	
30th %ile Term Code	Skip	Skip	Gap	Max	Hold		Gap	Hold	Hold	Skip	Max	
10th %ile Green (s)	0.0	0.0	0.0	8.5	7.0		0.0	26.0	26.0	0.0	26.0	
10th %ile Term Code	Skip	Skip	Skip	Max	Hold		Skip	Hold	Hold	Skip	Max	
Queue Length 50th (ft)	9	3	8	~88	1		3	12	0	1	117	
Queue Length 95th (ft)	24	17	34	145	12		18	56	14	7	238	
Internal Link Dist (ft)		546			807			987			1150	
Turn Bay Length (ft)	155			195			290		65	140		
Base Capacity (vph)	784	1074	313	364	590		373	2204	1092	768	1675	
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Reduced v/c Ratio	0.04	0.01	0.30	0.75	0.06		0.13	0.13	0.11	0.02	0.64	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 56.2
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.75
Intersection Signal Delay: 15.8 Intersection LOS: B
Intersection Capacity Utilization 59.2% ICU Level of Service B
Analysis Period (min) 15
90th %ile Actuated Cycle: 66.8
70th %ile Actuated Cycle: 65.8
50th %ile Actuated Cycle: 53.1
30th %ile Actuated Cycle: 52.5
10th %ile Actuated Cycle: 43
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

Splits and Phases: 200: Beverly Road & Prairie Stone Parkway



Intersection	
Int Delay, s/veh	79.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	330	45	265	30	15	575
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	0	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	2	2	4	4	2	2
Mvmt Flow	379	52	305	34	17	661

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1017	170	0	0	339	0
Stage 1	322	-	-	-	-	-
Stage 2	695	-	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.14	-
Critical Hdwy Stg 1	5.83	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.22	-
Pot Cap-1 Maneuver	~ 248	845	-	-	1217	-
Stage 1	708	-	-	-	-	-
Stage 2	494	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 245	845	-	-	1217	-
Mov Cap-2 Maneuver	~ 245	-	-	-	-	-
Stage 1	708	-	-	-	-	-
Stage 2	487	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	267.4	0	0.2
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	245	845	1217	-
HCM Lane V/C Ratio	-	-	1.548	0.061	0.014	-
HCM Control Delay (s)	-	-	$ 302.6	9.5	8	-
HCM Lane LOS	-	-	F	A	A	-
HCM 95th %tile Q(veh)	-	-	23	0.2	0	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

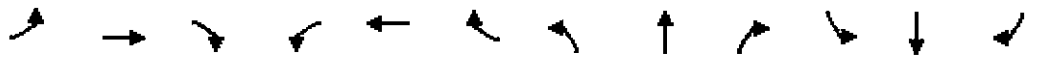
Kimley»Horn

FUTURE BUILD SYNCHRO CAPACITY REPORTS – SALE DAY

Weekday Morning Peak Hour

Weekday Evening Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	15	15	35	25	40	15	275	1050	225	10	165	60
Ideal Flow (vphpl)	1900	2000	1900	1900	1900	1900	1900	2000	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	12	12	12	12	15	12	12	12
Storage Length (ft)	155		0	195		0	290		65	140		0
Storage Lanes	1		1	1		0	1		1	1		0
Taper Length (ft)	130			140			155			125		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00	1.00	0.95	0.95
Frt			0.850		0.959				0.850		0.960	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1530	1961	1357	1558	3147	0	1671	3725	1742	1626	3151	0
Flt Permitted							0.490			0.260		
Satd. Flow (perm)	1610	1961	1357	1640	3147	0	862	3725	1742	445	3151	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			67		16				152		59	
Link Speed (mph)		35			35			40			40	
Link Distance (ft)		626			887			1067			1230	
Travel Time (s)		12.2			17.3			18.2			21.0	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	18%	2%	19%	12%	13%	2%	8%	2%	2%	11%	10%	10%
Adj. Flow (vph)	16	16	38	27	43	16	296	1129	242	11	177	65
Shared Lane Traffic (%)												
Lane Group Flow (vph)	16	16	38	27	59	0	296	1129	242	11	242	0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	7	4	5	3	8		5	2		1	6	
Permitted Phases	4		4	8			2		2	6		
Detector Phase	7	4	5	3	8		5	2	2	1	6	
Switch Phase												
Minimum Initial (s)	3.0	7.0	3.0	3.0	7.0		3.0	15.0	15.0	3.0	15.0	
Minimum Split (s)	8.0	12.0	8.0	8.0	12.0		8.0	25.0	25.0	8.0	25.0	
Total Split (s)	32.0	35.0	12.0	12.0	15.0		12.0	31.0	31.0	12.0	31.0	
Total Split (%)	35.6%	38.9%	13.3%	13.3%	16.7%		13.3%	34.4%	34.4%	13.3%	34.4%	
Maximum Green (s)	28.5	30.0	8.5	8.5	10.0		8.5	26.0	26.0	8.5	26.0	
Yellow Time (s)	3.5	4.0	3.5	3.5	4.0		3.5	4.0	4.0	3.5	4.0	
All-Red Time (s)	0.0	1.0	0.0	0.0	1.0		0.0	1.0	1.0	0.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	3.5	5.0	3.5	3.5	5.0		3.5	5.0	5.0	3.5	5.0	
Lead/Lag	Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None	None	None	None		None	None	None	None	None	
Act Effct Green (s)	7.9	7.6	18.7	8.1	7.6		32.4	32.6	32.6	20.7	17.3	
Actuated g/C Ratio	0.20	0.19	0.46	0.20	0.19		0.80	0.80	0.80	0.51	0.43	
v/c Ratio	0.05	0.04	0.06	0.09	0.10		0.30	0.38	0.17	0.03	0.18	
Control Delay	15.1	20.3	2.3	15.2	15.7		4.3	6.3	3.5	4.5	7.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	15.1	20.3	2.3	15.2	15.7		4.3	6.3	3.5	4.5	7.7	
LOS	B	C	A	B	B		A	A	A	A	A	
Approach Delay		9.3			15.5			5.5			7.6	

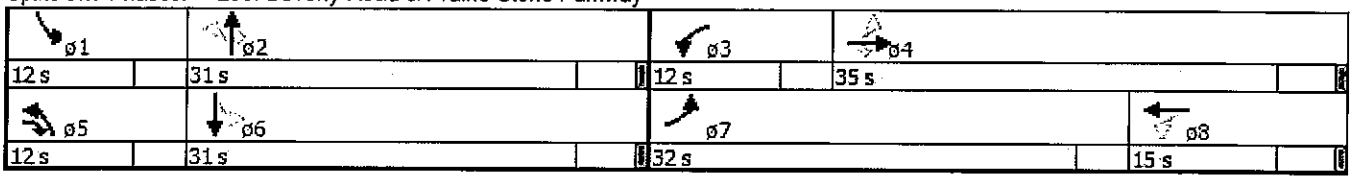


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		A			B			A			A	
90th %ile Green (s)	6.9	7.0	8.5	7.5	7.6		8.5	26.0	26.0	6.1	23.6	
90th %ile Term Code	Gap	Min	Max	Gap	Hold		Max	Max	Max	Gap	Hold	
70th %ile Green (s)	0.0	7.0	8.5	0.0	7.0		8.5	27.0	27.0	0.0	15.0	
70th %ile Term Code	Skip	Hold	Max	Skip	Min		Max	Hold	Hold	Skip	Min	
50th %ile Green (s)	0.0	0.0	8.5	0.0	0.0		8.5	27.0	27.0	0.0	15.0	
50th %ile Term Code	Skip	Skip	Max	Skip	Skip		Max	Hold	Hold	Skip	Min	
30th %ile Green (s)	0.0	0.0	8.2	0.0	0.0		8.2	26.7	26.7	0.0	15.0	
30th %ile Term Code	Skip	Skip	Gap	Skip	Skip		Gap	Hold	Hold	Skip	Min	
10th %ile Green (s)	0.0	0.0	27.5	0.0	0.0		27.5	26.0	26.0	0.0	0.0	
10th %ile Term Code	Skip	Skip	Hold	Skip	Skip		Hold	Max	Max	Skip	Skip	
Queue Length 50th (ft)	2	2	0	4	3		0	0	0	0	7	
Queue Length 95th (ft)	16	21	10	23	23		90	256	61	7	46	
Internal Link Dist (ft)		546			807			987			1150	
Turn Bay Length (ft)	155			195			290		65	140		
Base Capacity (vph)	1203	1570	666	403	852		989	2996	1431	529	2305	
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Reduced v/c Ratio	0.01	0.01	0.06	0.07	0.07		0.30	0.38	0.17	0.02	0.10	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 40.5
Natural Cycle: 55
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.38
Intersection Signal Delay: 6.3 Intersection LOS: A
Intersection Capacity Utilization 50.6% ICU Level of Service A
Analysis Period (min) 15
90th %ile Actuated Cycle: 63.6
70th %ile Actuated Cycle: 44
50th %ile Actuated Cycle: 32
30th %ile Actuated Cycle: 31.7
10th %ile Actuated Cycle: 31

Splits and Phases: 200: Beverly Road & Prairie Stone Parkway



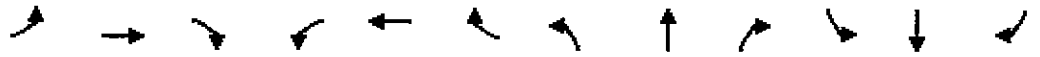
Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	1	1	2	5	10	5	155	585	340	85	230	40
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	290	-	-	0	-	-	185	-	-	178	-	-
Veh in Median Storage, #	-	0	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	100	17	2	25	2	2	2	2	8	2
Mvmt Flow	1	1	2	5	11	5	170	643	374	93	253	44

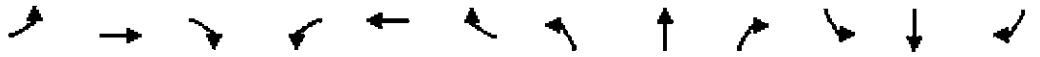
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1130	1819	148	1484	1654	508	297	0	0	1016	0	0
Stage 1	462	462	-	1170	1170	-	-	-	-	-	-	-
Stage 2	668	1357	-	314	484	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	8.9	7.84	6.54	7.4	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.84	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.84	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	4.3	3.67	4.02	3.55	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	158	77	634	75	97	454	1261	-	-	678	-	-
Stage 1	549	563	-	182	265	-	-	-	-	-	-	-
Stage 2	414	215	-	631	550	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	111	57	634	59	72	454	1261	-	-	678	-	-
Mov Cap-2 Maneuver	111	57	-	59	72	-	-	-	-	-	-	-
Stage 1	475	486	-	157	229	-	-	-	-	-	-	-
Stage 2	337	186	-	541	475	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	32.3	54.1	1.2	2.7
HCM LOS	D	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1261	-	-	111	145	59	100	678	-	-
HCM Lane V/C Ratio	0.135	-	-	0.01	0.023	0.093	0.165	0.138	-	-
HCM Control Delay (s)	8.3	-	-	37.8	30.4	72.2	48	11.2	-	-
HCM Lane LOS	A	-	-	E	D	F	E	B	-	-
HCM 95th %tile Q(veh)	0.5	-	-	0	0.1	0.3	0.6	0.5	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	50	30	215	230	5	25	40	245	100	10	875	20
Ideal Flow (vphpl)	1900	2000	1900	1900	1900	1900	1900	2000	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	12	12	12	12	15	12	12	12
Storage Length (ft)	155		0	195		0	290		65	140		0
Storage Lanes	1		1	1		0	1		1	1		0
Taper Length (ft)	130			140			155			125		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00	1.00	0.95	0.95
Frt			0.850		0.875				0.850		0.997	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1612	1961	1495	1711	3097	0	1543	3689	1742	1770	3522	0
Flt Permitted				0.635			0.144			0.573		
Satd. Flow (perm)	1696	1961	1495	1143	3097	0	234	3689	1742	1067	3522	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			67		30				152		3	
Link Speed (mph)		35			35			40			40	
Link Distance (ft)		626			887			1067			1230	
Travel Time (s)		12.2			17.3			18.2			21.0	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles (%)	12%	2%	8%	2%	2%	2%	17%	3%	2%	2%	2%	10%
Adj. Flow (vph)	60	36	256	274	6	30	48	292	119	12	1042	24
Shared Lane Traffic (%)												
Lane Group Flow (vph)	60	36	256	274	36	0	48	292	119	12	1066	0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	7	4	5	3	8		5	2		1	6	
Permitted Phases	4		4	8			2		2	6		
Detector Phase	7	4	5	3	8		5	2	2	1	6	
Switch Phase												
Minimum Initial (s)	3.0	7.0	3.0	3.0	7.0		3.0	15.0	15.0	3.0	15.0	
Minimum Split (s)	8.0	12.0	8.0	8.0	12.0		8.0	25.0	25.0	8.0	25.0	
Total Split (s)	32.0	35.0	12.0	12.0	15.0		12.0	31.0	31.0	12.0	31.0	
Total Split (%)	35.6%	38.9%	13.3%	13.3%	16.7%		13.3%	34.4%	34.4%	13.3%	34.4%	
Maximum Green (s)	28.5	30.0	8.5	8.5	10.0		8.5	26.0	26.0	8.5	26.0	
Yellow Time (s)	3.5	4.0	3.5	3.5	4.0		3.5	4.0	4.0	3.5	4.0	
All-Red Time (s)	0.0	1.0	0.0	0.0	1.0		0.0	1.0	1.0	0.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	3.5	5.0	3.5	3.5	5.0		3.5	5.0	5.0	3.5	5.0	
Lead/Lag	Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None	None	None	None		None	None	None	None	None	
Act Effct Green (s)	10.8	7.4	12.8	11.8	7.3		39.4	36.4	36.4	33.5	26.3	
Actuated g/C Ratio	0.18	0.12	0.21	0.20	0.12		0.66	0.61	0.61	0.56	0.44	
v/c Ratio	0.20	0.15	0.69	0.89	0.09		0.14	0.13	0.11	0.02	0.69	
Control Delay	19.7	27.3	25.3	53.9	13.6		6.2	7.3	1.7	5.8	17.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	19.7	27.3	25.3	53.9	13.6		6.2	7.3	1.7	5.8	17.7	
LOS	B	C	C	D	B		A	A	A	A	B	
Approach Delay		24.5			49.2			5.7			17.6	

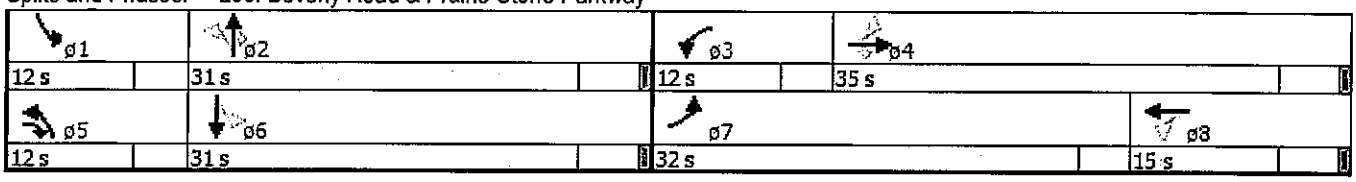


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			D			A			B	
90th %ile Green (s)	9.3	8.3	8.5	8.5	7.5		8.5	28.4	28.4	6.1	26.0	
90th %ile Term Code	Gap	Gap	Max	Max	Hold		Max	Hold	Hold	Gap	Max	
70th %ile Green (s)	8.0	7.3	7.9	8.5	7.8		7.9	37.4	37.4	0.0	26.0	
70th %ile Term Code	Gap	Gap	Gap	Max	Hold		Gap	Hold	Hold	Skip	Max	
50th %ile Green (s)	8.5	0.0	8.5	8.5	0.0		8.5	38.0	38.0	0.0	26.0	
50th %ile Term Code	Hold	Skip	Max	Max	Skip		Max	Hold	Hold	Skip	Max	
30th %ile Green (s)	0.0	0.0	8.5	8.5	7.0		8.5	38.0	38.0	0.0	26.0	
30th %ile Term Code	Skip	Skip	Max	Max	Hold		Max	Hold	Hold	Skip	Max	
10th %ile Green (s)	0.0	0.0	7.6	8.5	7.0		7.6	37.1	37.1	0.0	26.0	
10th %ile Term Code	Skip	Skip	Gap	Max	Hold		Gap	Hold	Hold	Skip	Max	
Queue Length 50th (ft)	18	11	61	~96	1		3	12	0	1	127	
Queue Length 95th (ft)	39	36	112	#163	12		19	58	14	7	248	
Internal Link Dist (ft)		546			807			987			1150	
Turn Bay Length (ft)	155			195			290		65	140		
Base Capacity (vph)	780	994	380	307	548		342	2245	1120	750	1548	
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Reduced v/c Ratio	0.08	0.04	0.67	0.89	0.07		0.14	0.13	0.11	0.02	0.69	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 59.8
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.89
Intersection Signal Delay: 20.7 Intersection LOS: C
Intersection Capacity Utilization 61.7% ICU Level of Service B
Analysis Period (min) 15
90th %ile Actuated Cycle: 68.3
70th %ile Actuated Cycle: 66.7
50th %ile Actuated Cycle: 55
30th %ile Actuated Cycle: 55
10th %ile Actuated Cycle: 54.1
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 200: Beverly Road & Prairie Stone Parkway



Intersection	
Int Delay, s/veh	13.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	1	1	2	330	1	45	1	290	30	15	575	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	290	-	-	0	-	-	185	-	-	178	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	2	2	100	2	2	2	100	4	4	2	2	2
Mvmt Flow	1	1	2	379	1	52	1	333	34	17	661	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	866	1066	331	719	1050	184	662	0	0	368	0	0
Stage 1	696	696	-	353	353	-	-	-	-	-	-	-
Stage 2	170	370	-	366	697	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	8.9	7.54	6.54	6.94	6.1	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	4.3	3.52	4.02	3.32	3.2	-	-	2.22	-	-
Pot Cap-1 Maneuver	247	221	447	~ 316	226	827	485	-	-	1187	-	-
Stage 1	398	441	-	637	629	-	-	-	-	-	-	-
Stage 2	815	619	-	626	441	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	228	217	447	~ 310	222	827	485	-	-	1187	-	-
Mov Cap-2 Maneuver	324	325	-	426	330	-	-	-	-	-	-	-
Stage 1	397	435	-	636	628	-	-	-	-	-	-	-
Stage 2	761	618	-	612	435	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.6	46.8	0	0.2
HCM LOS	B	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	485	-	-	324	397	426	801	1187	-	-
HCM Lane V/C Ratio	0.002	-	-	0.004	0.009	0.89	0.066	0.015	-	-
HCM Control Delay (s)	12.4	-	-	16.2	14.1	52	9.8	8.1	-	-
HCM Lane LOS	B	-	-	C	B	F	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0	9.4	0.2	0	-	-

Notes

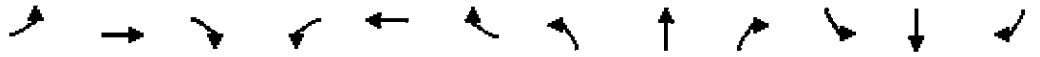
~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Kimley»Horn

FUTURE BUILD SYNCHRO CAPACITY REPORTS – NON-SALE DAY

Weekday Morning Peak Hour

Weekday Evening Peak Hour



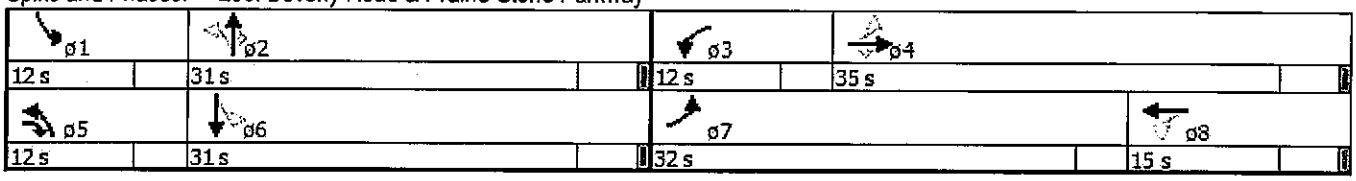
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	15	15	35	25	20	5	135	965	225	10	165	40
Ideal Flow (vphpl)	1900	2000	1900	1900	1900	1900	1900	2000	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	12	12	12	12	15	12	12	12
Storage Length (ft)	155		0	195		0	290		65	140		0
Storage Lanes	1		1	1		0	1		1	1		0
Taper Length (ft)	130			140			155			125		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00	1.00	0.95	0.95
Frt			0.850		0.972				0.850		0.971	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1530	1961	1357	1558	2906	0	1543	3725	1742	1626	3159	0
Flt Permitted							0.525			0.276		
Satd. Flow (perm)	1610	1961	1357	1640	2906	0	853	3725	1742	472	3159	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			67		5				152		33	
Link Speed (mph)		35			35			40			40	
Link Distance (ft)		626			887			1067			1230	
Travel Time (s)		12.2			17.3			18.2			21.0	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	18%	2%	19%	12%	25%	2%	17%	2%	2%	11%	10%	15%
Adj. Flow (vph)	16	16	38	27	22	5	145	1038	242	11	177	43
Shared Lane Traffic (%)												
Lane Group Flow (vph)	16	16	38	27	27	0	145	1038	242	11	220	0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	7	4	5	3	8		5	2		1	6	
Permitted Phases	4		4	8			2		2	6		
Detector Phase	7	4	5	3	8		5	2	2	1	6	
Switch Phase												
Minimum Initial (s)	3.0	7.0	3.0	3.0	7.0		3.0	15.0	15.0	3.0	15.0	
Minimum Split (s)	8.0	12.0	8.0	8.0	12.0		8.0	25.0	25.0	8.0	25.0	
Total Split (s)	32.0	35.0	12.0	12.0	15.0		12.0	31.0	31.0	12.0	31.0	
Total Split (%)	35.6%	38.9%	13.3%	13.3%	16.7%		13.3%	34.4%	34.4%	13.3%	34.4%	
Maximum Green (s)	28.5	30.0	8.5	8.5	10.0		8.5	26.0	26.0	8.5	26.0	
Yellow Time (s)	3.5	4.0	3.5	3.5	4.0		3.5	4.0	4.0	3.5	4.0	
All-Red Time (s)	0.0	1.0	0.0	0.0	1.0		0.0	1.0	1.0	0.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	3.5	5.0	3.5	3.5	5.0		3.5	5.0	5.0	3.5	5.0	
Lead/Lag	Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None	None	None	None		None	None	None	None	None	
Act Effct Green (s)	7.6	8.1	9.2	7.9	8.1		28.4	30.9	30.9	24.4	20.0	
Actuated g/C Ratio	0.22	0.23	0.26	0.23	0.23		0.81	0.88	0.88	0.70	0.57	
v/c Ratio	0.05	0.04	0.09	0.08	0.04		0.17	0.32	0.16	0.02	0.12	
Control Delay	13.5	18.1	2.7	13.4	15.8		3.1	4.8	2.9	3.5	6.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	13.5	18.1	2.7	13.4	15.8		3.1	4.8	2.9	3.5	6.8	
LOS	B	B	A	B	B		A	A	A	A	A	
Approach Delay		8.7			14.6			4.3			6.6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		A			B			A			A	
90th %ile Green (s)	6.9	7.0	8.5	7.5	7.6		8.5	26.0	26.0	6.1	23.6	
90th %ile Term Code	Gap	Min	Max	Gap	Hold		Max	Max	Max	Gap	Hold	
70th %ile Green (s)	0.0	0.0	8.0	0.0	0.0		8.0	26.5	26.5	0.0	15.0	
70th %ile Term Code	Skip	Skip	Gap	Skip	Skip		Gap	Hold	Hold	Skip	Min	
50th %ile Green (s)	0.0	0.0	6.7	0.0	0.0		6.7	25.2	25.2	0.0	15.0	
50th %ile Term Code	Skip	Skip	Gap	Skip	Skip		Gap	Hold	Hold	Skip	Min	
30th %ile Green (s)	0.0	0.0	6.5	0.0	0.0		6.5	25.0	25.0	0.0	15.0	
30th %ile Term Code	Skip	Skip	Gap	Skip	Skip		Gap	Hold	Hold	Skip	Min	
10th %ile Green (s)	0.0	0.0	0.0	0.0	0.0		0.0	15.0	15.0	0.0	15.0	
10th %ile Term Code	Skip	Skip	Skip	Skip	Skip		Skip	Min	Min	Skip	Hold	
Queue Length 50th (ft)	2	2	0	3	1		0	0	0	0	6	
Queue Length 95th (ft)	16	21	10	23	14		46	228	61	7	46	
Internal Link Dist (ft)		546			807			987			1150	
Turn Bay Length (ft)	155			195			290		65	140		
Base Capacity (vph)	1301	1732	475	481	956		882	3081	1467	681	2510	
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Reduced v/c Ratio	0.01	0.01	0.08	0.06	0.03		0.16	0.34	0.16	0.02	0.09	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 35.1
Natural Cycle: 55
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.32
Intersection Signal Delay: 5.1 Intersection LOS: A
Intersection Capacity Utilization 48.4% ICU Level of Service A
Analysis Period (min) 15
90th %ile Actuated Cycle: 63.6
70th %ile Actuated Cycle: 31.5
50th %ile Actuated Cycle: 30.2
30th %ile Actuated Cycle: 30
10th %ile Actuated Cycle: 20

Splits and Phases: 200: Beverly Road & Prairie Stone Parkway



Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	1	1	2	5	10	5	60	585	340	85	210	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	290	-	-	0	-	-	185	-	-	178	-	-
Veh in Median Storage, #	-	0	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	100	17	2	25	3	2	2	2	9	2
Mvmt Flow	1	1	2	5	11	5	66	643	374	93	231	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	882	1571	121	1265	1391	508	242	0	0	1016	0	0
Stage 1	423	423	-	962	962	-	-	-	-	-	-	-
Stage 2	459	1148	-	303	429	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	8.9	7.84	6.54	7.4	4.16	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.84	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.84	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	4.3	3.67	4.02	3.55	2.23	-	-	2.22	-	-
Pot Cap-1 Maneuver	241	109	667	111	141	454	1314	-	-	678	-	-
Stage 1	579	586	-	247	332	-	-	-	-	-	-	-
Stage 2	551	272	-	641	582	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	191	89	667	94	116	454	1314	-	-	678	-	-
Mov Cap-2 Maneuver	191	89	-	94	116	-	-	-	-	-	-	-
Stage 1	550	506	-	235	315	-	-	-	-	-	-	-
Stage 2	499	258	-	550	502	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	22.7	34.8	0.5	3.1
HCM LOS	C	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1314	-	-	191	211	94	154	678	-	-
HCM Lane V/C Ratio	0.05	-	-	0.006	0.016	0.058	0.107	0.138	-	-
HCM Control Delay (s)	7.9	-	-	24	22.3	45.7	31.2	11.2	-	-
HCM Lane LOS	A	-	-	C	C	E	D	B	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0	0	0.2	0.4	0.5	-	-

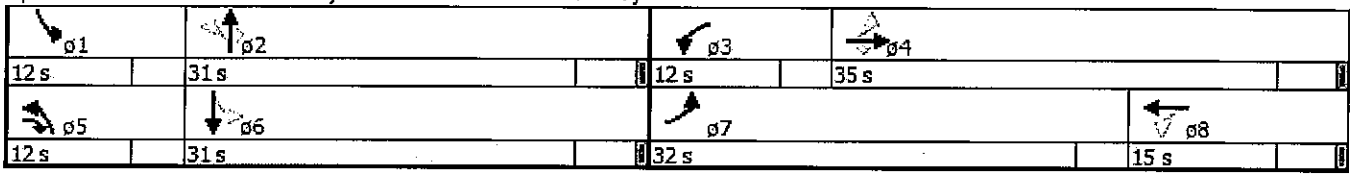
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	25	10	80	230	5	25	40	245	100	10	935	20
Ideal Flow (vphpl)	1900	2000	1900	1900	1900	1900	1900	2000	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	12	12	12	12	15	12	12	12
Storage Length (ft)	155		0	195		0	290		65	140		0
Storage Lanes	1		1	1		0	1		1	1		0
Taper Length (ft)	130			140			155			125		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00	1.00	0.95	0.95
Frt			0.850		0.875				0.850		0.997	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1517	1961	1335	1711	3097	0	1570	3689	1742	1770	3523	0
Flt Permitted				0.851			0.129			0.573		
Satd. Flow (perm)	1597	1961	1335	1532	3097	0	213	3689	1742	1067	3523	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			67		30				152		2	
Link Speed (mph)		35			35			40			40	
Link Distance (ft)		626			887			1067			1230	
Travel Time (s)		12.2			17.3			18.2			21.0	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles (%)	19%	2%	21%	2%	2%	2%	15%	3%	2%	2%	2%	10%
Adj. Flow (vph)	30	12	95	274	6	30	48	292	119	12	1113	24
Shared Lane Traffic (%)												
Lane Group Flow (vph)	30	12	95	274	36	0	48	292	119	12	1137	0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	7	4	5	3	8		5	2		1	6	
Permitted Phases	4		4	8			2		2	6		
Detector Phase	7	4	5	3	8		5	2	2	1	6	
Switch Phase												
Minimum Initial (s)	3.0	7.0	3.0	3.0	7.0		3.0	15.0	15.0	3.0	15.0	
Minimum Split (s)	8.0	12.0	8.0	8.0	12.0		8.0	25.0	25.0	8.0	25.0	
Total Split (s)	32.0	35.0	12.0	12.0	15.0		12.0	31.0	31.0	12.0	31.0	
Total Split (%)	35.6%	38.9%	13.3%	13.3%	16.7%		13.3%	34.4%	34.4%	13.3%	34.4%	
Maximum Green (s)	28.5	30.0	8.5	8.5	10.0		8.5	26.0	26.0	8.5	26.0	
Yellow Time (s)	3.5	4.0	3.5	3.5	4.0		3.5	4.0	4.0	3.5	4.0	
All-Red Time (s)	0.0	1.0	0.0	0.0	1.0		0.0	1.0	1.0	0.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	3.5	5.0	3.5	3.5	5.0		3.5	5.0	5.0	3.5	5.0	
Lead/Lag	Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None	None	None	None		None	None	None	None	None	
Act Effct Green (s)	8.1	7.2	9.0	12.2	7.3		36.3	33.3	33.3	32.7	26.7	
Actuated g/C Ratio	0.14	0.13	0.16	0.22	0.13		0.64	0.59	0.59	0.58	0.47	
v/c Ratio	0.14	0.05	0.35	0.75	0.08		0.16	0.13	0.11	0.02	0.68	
Control Delay	22.2	26.5	13.2	34.8	13.3		6.0	7.1	1.7	5.5	16.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	22.2	26.5	13.2	34.8	13.3		6.0	7.1	1.7	5.5	16.7	
LOS	C	C	B	C	B		A	A	A	A	B	
Approach Delay		16.3			32.3			5.6			16.6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			C			A			B	
90th %ile Green (s)	7.8	7.0	8.4	8.5	7.7		8.4	28.3	28.3	6.1	26.0	
90th %ile Term Code	Gap	Min	Gap	Max	Hold		Gap	Hold	Hold	Gap	Max	
70th %ile Green (s)	7.4	0.0	8.4	19.4	7.0		8.4	37.9	37.9	0.0	26.0	
70th %ile Term Code	Gap	Skip	Gap	Hold	Min		Gap	Hold	Hold	Skip	Max	
50th %ile Green (s)	0.0	0.0	6.6	8.5	7.0		6.6	36.1	36.1	0.0	26.0	
50th %ile Term Code	Skip	Skip	Gap	Max	Hold		Gap	Hold	Hold	Skip	Max	
30th %ile Green (s)	0.0	0.0	6.0	8.5	7.0		6.0	35.5	35.5	0.0	26.0	
30th %ile Term Code	Skip	Skip	Gap	Max	Hold		Gap	Hold	Hold	Skip	Max	
10th %ile Green (s)	0.0	0.0	0.0	8.5	7.0		0.0	26.0	26.0	0.0	26.0	
10th %ile Term Code	Skip	Skip	Skip	Max	Hold		Skip	Hold	Hold	Skip	Max	
Queue Length 50th (ft)	9	3	8	~88	1		3	12	0	1	129	
Queue Length 95th (ft)	24	17	34	146	12		18	56	14	7	261	
Internal Link Dist (ft)		546			807			987			1150	
Turn Bay Length (ft)	155			195			290		65	140		
Base Capacity (vph)	791	1074	309	364	590		347	2183	1093	768	1673	
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Reduced v/c Ratio	0.04	0.01	0.31	0.75	0.06		0.14	0.13	0.11	0.02	0.68	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 56.3
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.75
Intersection Signal Delay: 16.5 Intersection LOS: B
Intersection Capacity Utilization 60.9% ICU Level of Service B
Analysis Period (min) 15
90th %ile Actuated Cycle: 66.9
70th %ile Actuated Cycle: 65.8
50th %ile Actuated Cycle: 53.1
30th %ile Actuated Cycle: 52.5
10th %ile Actuated Cycle: 43
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

Splits and Phases: 200: Beverly Road & Prairie Stone Parkway



Intersection	
Int Delay, s/veh	18

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	10	60	330	1	45	2	265	30	15	575	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	290	-	-	0	-	-	185	-	-	178	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	2	2	3	2	2	2	100	4	4	2	2	2
Mvmt Flow	11	11	69	379	1	52	2	305	34	17	661	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	853	1040	331	697	1023	170	662	0	0	339	0	0
Stage 1	696	696	-	326	326	-	-	-	-	-	-	-
Stage 2	157	344	-	371	697	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.96	7.54	6.54	6.94	6.1	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.33	3.52	4.02	3.32	3.2	-	-	2.22	-	-
Pot Cap-1 Maneuver	253	229	662	~ 328	234	844	485	-	-	1217	-	-
Stage 1	398	441	-	661	647	-	-	-	-	-	-	-
Stage 2	829	635	-	622	441	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	234	225	662	~ 282	230	844	485	-	-	1217	-	-
Mov Cap-2 Maneuver	326	330	-	395	334	-	-	-	-	-	-	-
Stage 1	396	435	-	658	644	-	-	-	-	-	-	-
Stage 2	774	632	-	535	435	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.7	61.4	0.1	0.2
HCM LOS	B	F		

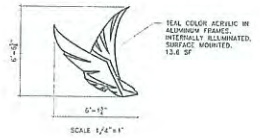
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	485	-	-	326	579	395	817	1217	-	-
HCM Lane V/C Ratio	0.005	-	-	0.035	0.139	0.96	0.065	0.014	-	-
HCM Control Delay (s)	12.5	-	-	16.4	12.2	68.6	9.7	8	-	-
HCM Lane LOS	B	-	-	C	B	F	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.5	11	0.2	0	-	-

Notes

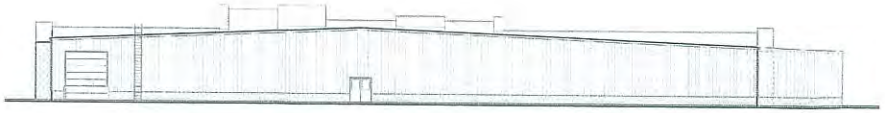
~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

GENERAL NOTES

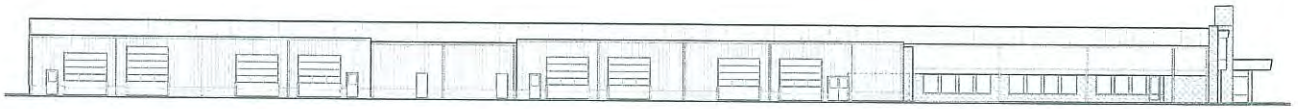
Architura
ARCHITECTURE PLANNING DESIGN INTERIORS
53 MONUMENT CIRCLE
SUITE 1212
INDIANAPOLIS, INDIANA
46204 - 2992
PH : 317-243-1003
FAX : 317-655-1212
WWW.ARCHITURADESIGN.COM



SIGN 1 (7 / A-210)
SCALE: 1/4"=1'-0"



WEST ELEVATION (4 / A-210)
SCALE: 1/16"=1'-0"

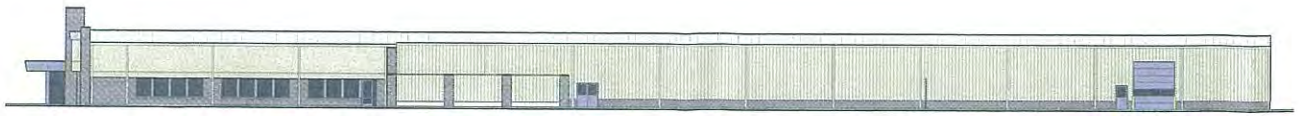


SOUTH ELEVATION (3 / A-210)
SCALE: 1/16"=1'-0"

SIGN 2 (6 / A-210)
SCALE: 1/4"=1'-0"

SIGN 3 (5 / A-210)
SCALE: 1/4"=1'-0"

EAST ELEVATION (2 / A-210)
SCALE: 1/16"=1'-0"



NORTH ELEVATION (1 / A-210)
SCALE: 1/16"=1'-0"

SIGNATURE

LICENSED ARCHITECT
CHARLES A. ROTERING
001-015013
STATE OF ILLINOIS

EXPIRES
11/30/16

DATE:	02/15/2015
COMMISSION:	14137
DRAWING BY:	KAS
CHECKED BY:	CAR

REVISIONS

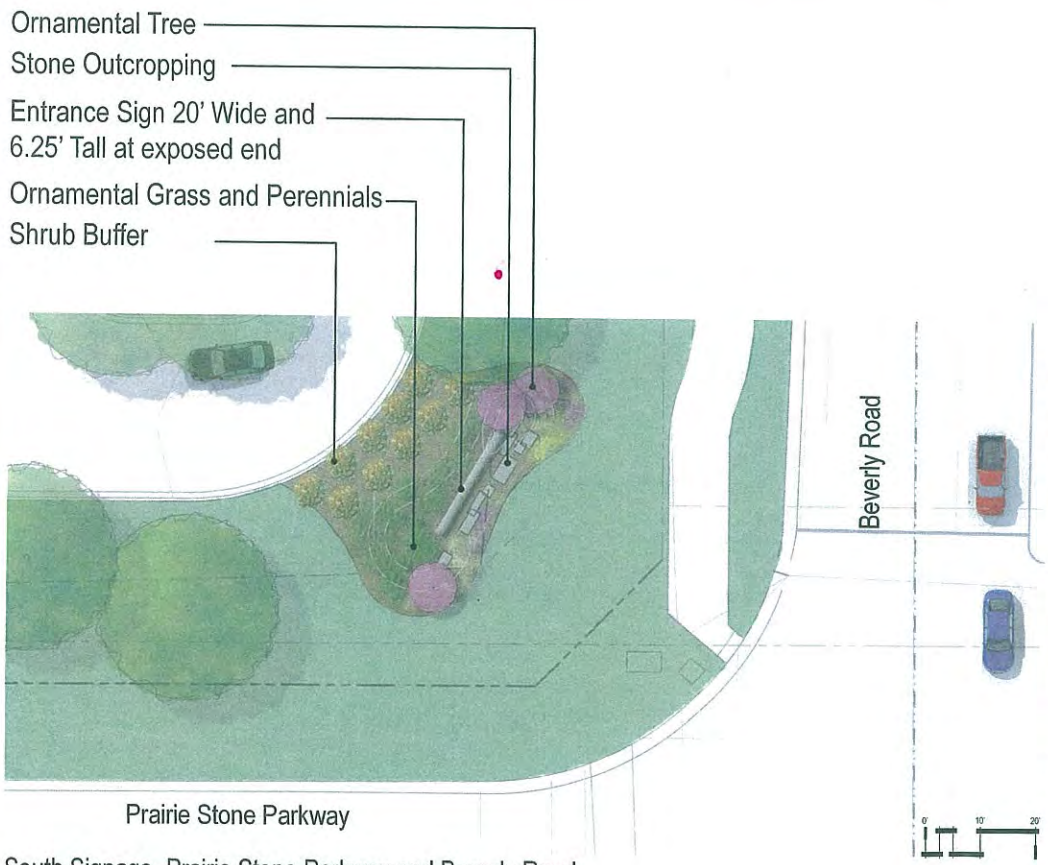
NUM	DATE	DESCRIPTION

PROJECT NAME
ADESA CHICAGO

HOFFMAN ESTATES, ILLINOIS

SHEET TITLE
ARENA BLDG
BUILDING
ELEVATIONS

SHEET NUMBER
A-210



South Signage- Prairie Stone Parkway and Beverly Road

Sign Perspective looking Northwest

Site Signage

Note: Graphic is for Illustrative Purpose Only.

NORTH

ADESA CHICAGO

February, 2015

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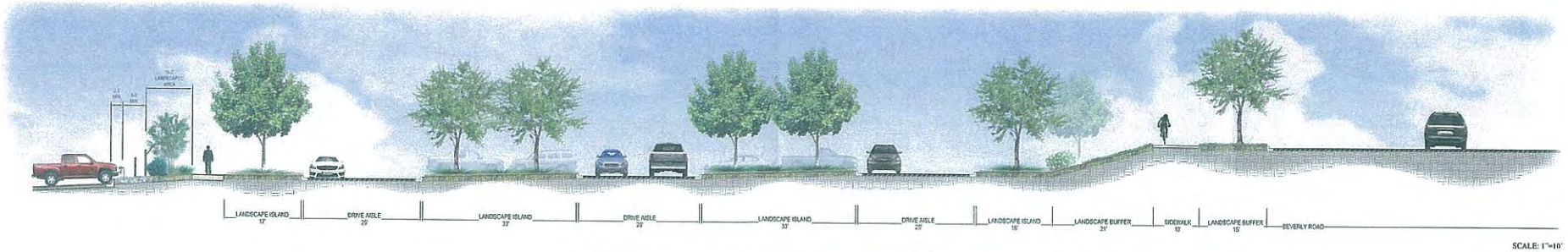
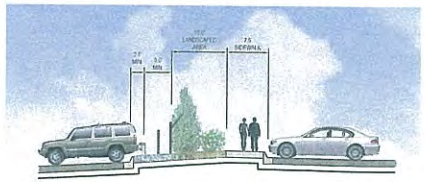
EAST PROPERTY SECTION



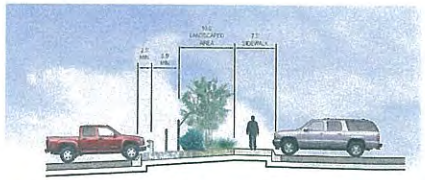
SCALE: 1"=10'

SECURITY FENCE SECTION 1

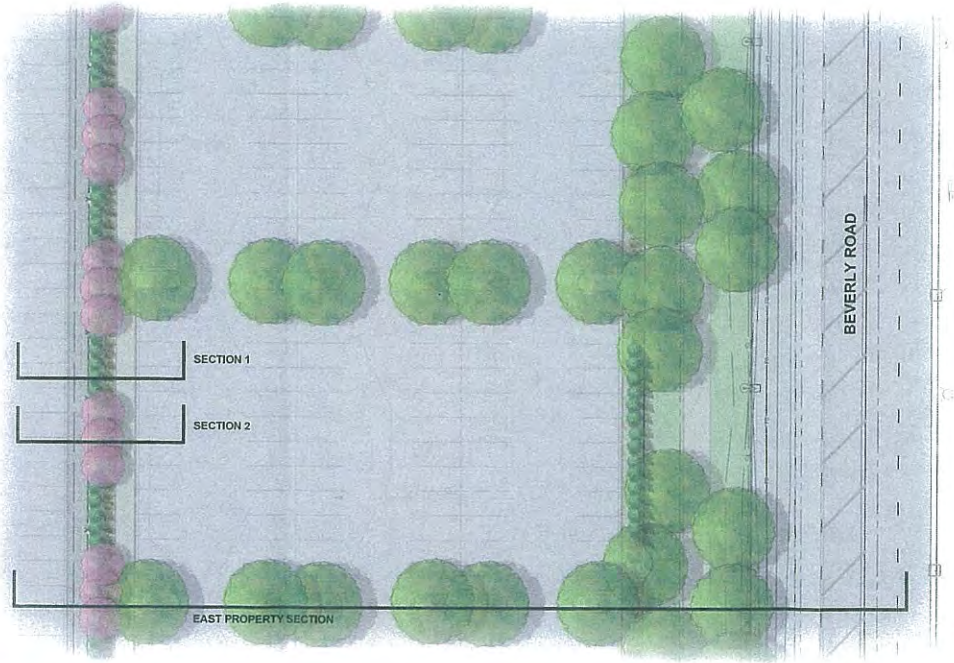


SCALE: 1"=10'

SECURITY FENCE SECTION 2



SCALE: 1"=10'



0' 20' 40'
PLAN SCALE: 1"=20'

SECURITY FENCE LANDSCAPING ELEVATION

0' 10' 20'
SECTION AND ELEVATION
SCALE: 1"=10'

Note: Graphic is for Illustrative Purpose Only.
Illustrative Plant Material Shown at 10 Year Growth.

NORTH

ADESA - Hoffman Estates, IL

February, 2015

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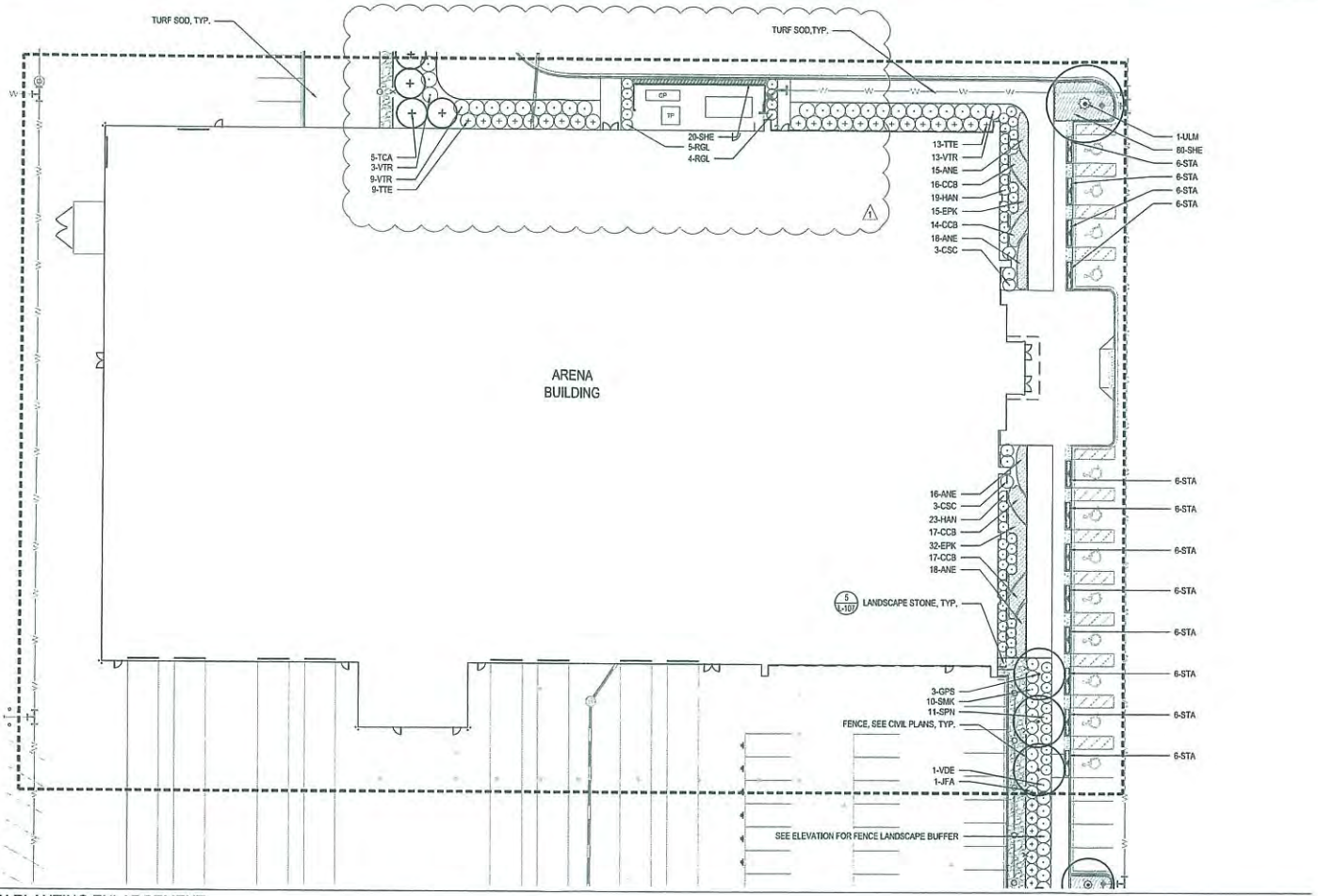
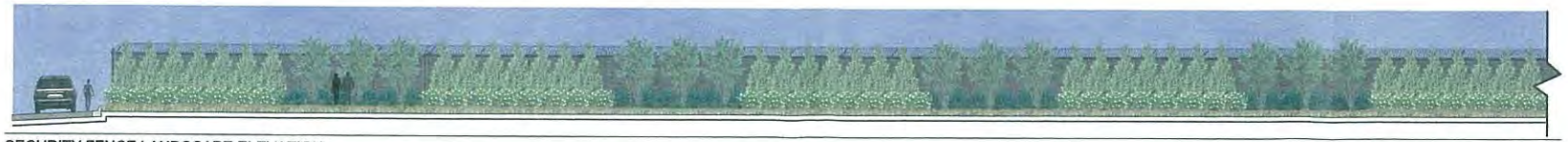


ARENA BUILDING FOUNDATION PLANTING ENLARGEMENT



SECURITY FENCE LANDSCAPE ELEVATION

NORTH

0 10 20
SCALE: 1" = 10'

CHECKED BY:
DRAWN BY:

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Issue Date
12/15/ 2014 - SUBMIT TO VILLAGE
02/13/ 2014 - RESUBMIT TO VILLAGE

Revision Date
1 03/00/ 2015

Sheet Title
LANDSCAPE PLAN

Sheet Number
L-105

Full Sized Plats and Plans are Available at the Village Hall (1900 Hassell Road) for review.