

**SPECIAL MEETING  
PLANNING COMMISSION AGENDA  
CITY OF PRAIRIE VILLAGE  
THURSDAY, NOVEMBER 12, 2015  
9101 NALL AVENUE ROAD  
6:00 P.M.**

**I. ROLL CALL**

**II. PUBLIC HEARINGS**

**PC2015-09 Request for Rezoning from R-1a (Single Family Residential) to MXD (Mixed Use District) and CP-2 (Planned General Business District) and**

**PC2015-118 Approval of Preliminary Development Plan  
9101 Nall Avenue  
Current Zoning: R-1a  
Proposed Zoning: MXD & CP-2  
Applicant: Justin Duff, Van Trust Real Estate**

**III. NON-PUBLIC HEARINGS**

**PC2015-119 Request for Preliminary Plat Approval  
9101 Nall Avenue  
Applicant: Justin Duff, VanTrust Real Estate**

**IV. ADJOURNMENT**

Plans available at City Hall if applicable  
If you cannot be present, comments can be made by e-mail to  
[Cityclerk@Pvkansas.com](mailto:Cityclerk@Pvkansas.com)

**\*Any Commission members having a conflict of interest, shall acknowledge that conflict prior to the hearing of an application, shall not participate in the hearing or discussion, shall not vote on the issue and shall vacate their position at the table until the conclusion of the hearing.**



**CITY OF PRAIRIE VILLAGE, KANSAS  
REZONING APPLICATION FORM**

**For Office Use Only**

Case No.: PC 2015-09  
Filing Fees: \$100  
Deposit: \$500



Date Advertised: Oct. 13, 2015  
Date Notices Sent: Oct. 13, 2015  
Public Hearing Date: Nov. 3, 2015

APPLICANT: VanTrust Real Estate, LLC PHONE: 816-569-1441  
ADDRESS: 4900 Main Street Apt. 400, Kansas City, MO ZIP: 64112  
OWNER: MB-18, LLC PHONE: 816-569-1441  
ADDRESS: 4900 Main Street Apt. 400, Kansas City, MO ZIP: 64112  
LOCATION OF PROPERTY: Northeast Corner of 95th & Nall  
LEGAL DESCRIPTION: See Attached

Present Zoning R-1A Requested Zoning: MXD & CP-2  
Present Use of Property: Golf Course

**SURROUNDING LAND USE AND ZONING:**

	<u>Land Use</u>	<u>Zoning</u>
North	<u>Park</u>	<u>R-1A</u>
South	<u>Office</u>	<u>CP-1</u>
East	<u>Park</u>	<u>R-1A</u>
West	<u>Residential</u>	<u>R-1</u>

CHARACTER OF THE NEIGHBORHOOD: Established Residential Neighborhood

**RELATIONSHIP TO EXISTING ZONING PATTERN:**

1. Would proposed change create a small, isolated district unrelated to surrounding districts?  
Yes
2. Are there substantial reasons why the property cannot be used in accord with existing zoning?  
Yes  
If yes, explain: Mixed use is not allowed in the existing zoning.

**CONFORMANCE WITH COMPREHENSIVE PLAN:**

1. Consistent with Development Policies? Yes, the planned development promotes open space, parks, and mixed use.
2. Consistent with Future Land Use Map? Yes, this site is shown for potential redevelopment on the future land use map.

## Rezoning Description

All that part of the Southwest Quarter of Section 33, Township 12 South, Range 25 East, in the City of Prairie Village, Johnson County, Kansas, being more particularly described as follows:

Commencing at the Southwest Corner of the Southwest Quarter of said Section 33; thence N 02°06'14" W, along the West line of the Southwest Quarter of said Section 33, a distance of 700.00 feet; thence S 85°56'14" E, a distance of 1030.00 feet to the point of Beginning; thence continuing S 85°56'14" E, a distance of 46.91 feet; thence N 49°03'38" E, a distance of 8.98 feet; thence N 04°03'38" E, a distance of 15.42 feet; thence S 85°55'39" E, a distance of 21.21 feet; thence Easterly on a curve to the left, said curve being tangent to the last described course and having a radius of 202.85 feet, an arc distance of 83.89 feet; thence Southerly on a curve to the right, said curve having an initial tangent bearing of S 18°27'51" E and a radius of 275.00 feet, an arc distance of 99.93 feet; thence N 67°41'14" W, a distance of 186.22 feet to the point of Beginning, containing 7966 square feet, more or less, of unplatted land.

## Rezoning Description

All that part of the Southwest Quarter of Section 33, Township 12 South, Range 25 East, in the City of Prairie Village, Johnson County, Kansas, being more particularly described as follows:

Commencing at the Southeast Corner of the Southwest Quarter of said Section 33; thence S 87°40'29" W, along the South line of the Southwest Quarter of said Section 33, a distance of 233.22 feet; thence N 02°19'31" W, a distance of 414.68 feet to the point of Beginning; thence N 75°24'44" W, a distance of 137.46 feet; thence N 42°37'29" W, a distance of 76.34 feet; thence N 64°07'33" W, a distance of 260.00 feet; thence N 73°30'05" W, a distance of 89.85 feet; thence N 46°44'57" W, a distance of 260.00 feet; thence N 43°15'03" E, a distance of 187.59 feet; thence Westerly on a curve to the left, said curve having an initial tangent bearing of N 69°47'15" W and a radius of 160.00 feet, an arc distance of 56.44 feet; thence N 90°00'00" W, a distance of 58.60 feet; thence Northwesterly on a curve to the right, said curve being tangent to the last described course and having a radius of 210.00 feet, an arc distance of 175.61 feet; thence N 42°05'17" W, a distance of 187.42 feet; thence N 31°02'03" W, a distance of 525.22 feet; thence Easterly on a curve to the right, said curve having an initial tangent bearing of S 82°10'36" E and a radius of 479.59 feet, an arc distance of 62.10 feet; thence Easterly on a curve to the left, said curve being tangent to the last described course and having a radius of 564.50 feet, an arc distance of 253.29 feet; thence Easterly on a curve to the right, said curve being tangent to the last described course and having a radius of 442.89 feet, an arc distance of 80.44 feet; thence N 88°15'35" E, a distance of 81.40 feet; thence N 01°50'49" W, a distance of 208.81 feet; thence N 22°14'33" E, a distance of 72.97 feet; thence N 88°09'11" E, a distance of 660.57 feet; thence S 01°50'49" E, a distance of 330.98 feet; thence S 65°02'30" E, a distance of 110.25 feet; thence S 23°07'38" E, a distance of 132.03 feet; thence S 01°53'22" E, a distance of 60.00 feet; thence S 00°36'35" E, a distance of 59.97 feet; thence S 13°19'57" W, a distance of 119.77 feet; thence S 00°48'21" W, a distance of 35.02 feet; thence S 01°44'24" E, a distance of 446.87 feet; thence S 14°35'42" W, a distance of 289.73 feet; to the point of Beginning, containing 26.8814 acres, more or less, of unplatted land.

## Rezoning Description

All that part of the Southwest Quarter of Section 33, Township 12 South, Range 25 East, in the City of Prairie Village, Johnson County, Kansas, being more particularly described as follows:

Commencing at the Southwest Corner of the Southwest Quarter of said Section 33; thence N 02°06'14" W, along the West line of the Southwest Quarter of said Section 33, a distance of 700.00 feet; thence S 85°56'14" E, a distance of 30.17 feet to a point 30.00 feet East of the West line of the Southwest Quarter of said Section 33, said point being the point of Beginning; thence N 02°06'14" W, along a line 30.00 feet East of and parallel with the West line of the Southwest Quarter of said Section 33, a distance of 728.89 feet; thence N 88°57'26" E, a distance of 235.04 feet; thence Easterly on a curve to the left, said curve being tangent to the last described course and having a radius of 567.83 feet, an arc distance of 146.91 feet; thence N 74°05'30" E, a distance of 185.25 feet; thence Northeasterly on a curve to the left, said curve being tangent to the last described course and having a radius of 300.27 feet, an arc distance of 146.65 feet; thence Northeasterly on a curve to the right, said curve being tangent to the last described course and having a radius of 267.47 feet, an arc distance of 70.48 feet; thence Southeasterly on a curve to the left, said curve having an initial tangent bearing of S 31°39'17" E and a radius of 160.00 feet, an arc distance of 56.83 feet; thence S 52°00'20" E, a distance of 15.96 feet; thence Southeasterly on a curve to the right, said curve being tangent to the last described course and having a radius of 200.00 feet, an arc distance of 47.31 feet; thence S 38°27'04" E, a distance of 263.82 feet; thence Southeasterly on a curve to the right, said curve being tangent to the last described course and having a radius of 210.00 feet, an arc distance of 82.46 feet; thence S 15°57'08" E, a distance of 99.30 feet; thence Southerly on a curve to the right, said curve being tangent to the last described course and having a radius of 520.00 feet, an arc distance of 32.48 feet; thence S 12°22'24" E, a distance of 161.04 feet; thence Southerly on a curve to the right, said curve being tangent to the last described course and having a radius of 520.00 feet, an arc distance of 38.35 feet; thence Southeasterly on a curve to the left, said curve being tangent to the last described course and having a radius of 291.00 feet, an arc distance of 137.75 feet; thence S 35°16'13" E, a distance of 58.93 feet; thence Southerly on a curve to the right, said curve being tangent to the last described course and having a radius of 325.00 feet, an arc distance of 231.41 feet; thence N 67°41'14" W, a distance of 52.66 feet; thence Northerly on a curve to the left, said curve having an initial tangent bearing of N 2°21'24" W and a radius of 275.00 feet, an arc distance of 99.93 feet; thence Westerly on a curve to the right, said curve having an initial tangent bearing of S 70°22'40" W and a radius of 202.85 feet, an arc distance of 83.89 feet; thence N 85°55'39" W, a distance of 21.21 feet; thence S 04°03'38" W, a distance of 15.42 feet; thence S 49°03'38" W, a distance of 8.98 feet; thence N 85°56'14" W, a distance of 1046.73 feet to the point of beginning, containing 20.0709 acres, more or less, of unplatted land.

DEVELOPMENT PLAN SUBMITTAL:

- Development Plan
- Preliminary Sketches of Exterior Construction

LIST OF NEIGHBORING PROPERTIES:

- Certified list of property owners within 200 feet

TRAFFIC CONDITIONS:


1. Street(s) with Access to Property: Nall
2. Classification of Street(s):  
 Arterial \_\_\_\_\_ Collector X Local X
3. Right-of-Way Width: 50 ft and 120 ft
4. Will turning movements caused by the proposed use create an undue traffic hazard?  
No

IS PLATTING OR REPLATTING REQUIRED TO PROVIDE FOR:

1. Appropriately Sized Lots? Yes
2. Properly Size Street Right-of-Way? Yes
3. Drainage Easements? Yes
4. Utility Easements:  
 Electricity? Yes  
 Gas? Yes  
 Sewers? Yes  
 Water? Yes
5. Additional Comments: \_\_\_\_\_

UNIQUE CHARACTRISTICS OF PRPOERTY AND ADDITIONAL COMMENTS:

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

SIGNATURE:   
 BY: JUSTIN T DUFF  
 TITLE: DIRECTOR, DEVELOPMENT  
VAN TRUST REAL ESTATE, LLC

DATE: 9/29/15

Application No. PC 2015-09  
Meadowbrook

AFFIDAVIT

STATE OF KANSAS )  
 ) ss.  
COUNTY OF JOHNSON )

Judd D. Clusser, being duly sworn upon his oath, disposes and states:

That he is the (owner) (attorney for) (agent of) the tract of land for which the application was filed. That in accordance with Municipal Code 2003, Section 19.42.010 (G, H, I), applicant placed and maintained a sign, furnished by the City, on that tract of land. Said sign was a minimum of two feet above the ground line and within five feet of the street right-of-way line in a central position of the tract of land and had no visual obstruction thereto.

Judd D. Clusser  
(Owner/Attorney for/Agent of)

Subscribed and sworn to before me this 28<sup>th</sup> day of October, 2015

Shelia Ewing  
Notary Public or Planning Commission

Secretary



Application No. PC 2015-09  
Meadowbrook

Juan D. Claussen, being duly sworn upon his oath, deposes and states:

1. I am the (owner of) (attorney for) (agent of) the property described in the attached notice upon which an application has been filed before the Planning Commission of the City of Prairie Village, Kansas.
2. On the 13<sup>th</sup> day of October, 2015, I did comply with notification requirements to landowners as stated in Municipal Code 1973, Section 19.42.010 (E), and notified in letter by certified mail all owners of land located within 200 feet of the described real property. Notice was mailed to the following:

Name

Address

(see attached list)

I certify that the foregoing is true and correct.

Juan D. Claussen  
Name  
Phelps Engineering, Inc  
1270 N. Winchester  
Address  
Olivia, KS 66061  
(913) 393-1155  
Phone

<b>Owner Name 1</b>	<b>Owner Name 2</b>	<b>Owner Line1</b>	<b>Owner Line2</b>
2014, LLC	LEDOM, MARK S	5200 W 94TH TER APT 206	PRAIRIE VILLAGE, KS 66207
AARON, JASON	AARON, KELLY	5430 SOMERSET DR	PRAIRIE VILLAGE, KS 66207
ADAMS, ALLISON K.		9302 ROE AVE	PRAIRIE VILLAGE, KS 66207
ASHFORD, BART D.	ASHFORD, JENIFER J.	9216 ROE AVE	PRAIRIE VILLAGE, KS 66207
BENSON, SUSIE		9100 NALL AVE	OVERLAND PARK, KS 66207
BISHOP LIVING TRUST		4849 W 90TH ST	PRAIRIE VILLAGE, KS 66207
BITTERMAN, LESLIE S.		9500 LINDEN DR	OVERLAND PARK, KS 66207
BOTSFORD, MARK R	BOTSFORD, MICAH A	9400 ROE AVE	PRAIRIE VILLAGE, KS 66207
BROWN, BEVERLY B INTERVIVOS	TRUST	4917 W 90TH ST	PRAIRIE VILLAGE, KS 66207
BRS INVESTMENTS LLC		12621 NE 115TH TER	KEARNEY, MO 64060
BYRAM ENTERPRISES, LLC		5350 W 94TH TER APT 201	PRAIRIE VILLAGE, KS 66207
CANNON, MARK A.	CANNON, HOPE S.	4805 W 95TH ST	OVERLAND PARK, KS 66207
CENTRAL KOREAN UNITED	METHODIST CHURCH, INC.	9400 NALL AVE	OVERLAND PARK, KS 66207
CHRIST CHURCH ANGLICAN		5500 W 91ST ST	OVERLAND PARK, KS 66207
CHRISTIAN, JAMES	CHRISTIAN, ELIZABETH	9084 ROSEWOOD DR	PRAIRIE VILLAGE, KS 66207
CHU, STEPHEN	DANG, DIANA	9408 ROE AVE	PRAIRIE VILLAGE, KS 66207
COLBURN, LARRY E.	COLBURN, VIRGINIA C.	9120 ROE AVE	PRAIRIE VILLAGE, KS 66207
CONSOLIDATED FIRE DIST NO 2		3921 W 63RD ST	PRAIRIE VILLAGE, KS 66208
CORPIN, JONATHAN A.		5500 W 92ND ST	OVERLAND PARK, KS 66207
CRAIG-LOCOCO, SYLVIA M. TRUST		5500 W 92ND TER	OVERLAND PARK, KS 66207
CRONK, RONALD E.		5521 W 92ND ST	OVERLAND PARK, KS 66207
CROWNOVER, DINNIS	CROWNOVER, PATRICIA	21225 TWIN CREEK RD	GARDNER, KS 66030
DAVIS, TODD A.		9108 ROE AVE	PRAIRIE VILLAGE, KS 66207
DAWKINS, JAMES E. JR		9508 ROE AVE	OVERLAND PARK, KS 66207
DESHAZO, MERLE D.		9212 ROE AVE	PRAIRIE VILLAGE, KS 66207
DONNELLY, CHARLES H.	DONNELLY, LINDA L.	4853 W 90TH ST	PRAIRIE VILLAGE, KS 66207
DONOVAN, DANIEL J.	DONOVAN, GAIL S.	4809 W 95TH ST	OVERLAND PARK, KS 66207
DUNN, EDWARD F.	DUNN, RUTHANNE	9100 ROE AVE	PRAIRIE VILLAGE, KS 66207
EIDE, LUKE	EIDE, MARIANNE	9404 ROE AVE	PRAIRIE VILLAGE, KS 66207
FLORES, KIM PRICHARD	FLORES, JOSE LUIS	9314 ROE AVE	PRAIRIE VILLAGE, KS 66207
FOX, MARTIN TRUSTEE	FOX, JEANNINE C. TRUSTEE	11204 CEDAR ST	LEAWOOD, KS 66211
GARDNER, IRVILENE J. TRUSTEE	GARDNER, IRVILENE J. TRUST	4845 W 90TH ST	PRAIRIE VILLAGE, KS 66207
GDG, LLC		17422 THOMAS LANE RD	SMITHVILLE, MO 64089
GERSHON, ROBERT M.	GERSHON, JACQUELINE A.	9083 BIRCH ST	PRAIRIE VILLAGE, KS 66207
GIFFORD, DEBORAH S.		9322 ROE AVE	PRAIRIE VILLAGE, KS 66207
GIRSON, JONATHAN	GIRSON, JANE M.	4829 W 90TH ST	PRAIRIE VILLAGE, KS 66207
GREENBAUM, FREDERICK J.	GREENBAUM, CHRISTINA M.	4861 W 90TH ST	PRAIRIE VILLAGE, KS 66207
GREENVIEW 95, LLC		12721 METCALF AVE APT 200	OVERLAND PARK, KS 66213
GUNTER, JEREMIAH D.		4509 W 91ST ST	PRAIRIE VILLAGE, KS 66207
HAMMER, MICHAEL SCOTT	HAMMER, CATHERINE MAI LUONG	9115 SOMERSET DR	OVERLAND PARK, KS 66207
HANG, DANG NGOC	CHIN, LE THI	9216 NALL AVE	OVERLAND PARK, KS 66207
HANSEN, BRADLEY C.	HANSEN, CHRISTINE L.	5508 W 92ND ST	OVERLAND PARK, KS 66207

HENEGER, S. DANE	HENEGER, LINDA	9204 ROE AVE	PRAIRIE VILLAGE, KS 66207
JARCHOW FAMILY TRUST		9300 ROE AVE	PRAIRIE VILLAGE, KS 66207
JOHNSON COUNTY BANK, N.A.	US BANK CORP REAL ESTATE TAX DEPT	8600 SHAWNEE MISSION PKWY APT 100	MERRIAM, KS 66202
US BANK CORP REAL ESTATE	TAX DEPARTMENT	2800 E LAKE ST	MINNEAPOLIS, MN 55406
K C POWER & LIGHT CO.	SHANNON L. GREEN JR., TAX DEPT	PO BOX 418679	KANSAS CITY, MO 64141-9679
KENILWORTH HOMES ASSOC.		222 W GREGORY BLVD APT 201	KANSAS CITY, MO 64114
KING, DAVID SCOT		5508 W 92ND TER	OVERLAND PARK, KS 66207
KNABE INVESTMENTS, L.L.C.		5100 W 95TH ST APT 200	PRAIRIE VILLAGE, KS 66207
KOBE, KIMBERLY A.		9306 ROE AVE	PRAIRIE VILLAGE, KS 66207
LEONARD, LISA A. TRUSTEE	LEONARD, LISA A. LIVING TRUST	9208 NALL AVE	OVERLAND PARK, KS 66207
LILLIS, CHARLES J.	LILLIS, ELIZABETH	4929 W 90TH ST	PRAIRIE VILLAGE, KS 66207
LINWOOD SCHOOL DISTRICT AKA	UNIFIED SCHOOL DISTRICT 512	7235 ANTIOCH RD	OVERLAND PARK, KS 66204
LORETTO PROPERTIES, LLC		1601 ELM ST APT 4000	DALLAS, TX 75201
MACFARLANE, RYAN D.		9220 ROE AVE	PRAIRIE VILLAGE, KS 66207
MAILAND, STEVEN	MAILAND, RUTH S.	9124 NALL AVE	OVERLAND PARK, KS 66207
MARASCO, MATTHEW	MARASCO, JENNIFER	9109 SOMERSET DR	OVERLAND PARK, KS 66207
MATTHYS, GERARD A. TRUSTEE	MATTHYS, ELLEN TRUSTEE	5353 SOMERSET DR	PRAIRIE VILLAGE, KS 66207
MB - 18, LLC	VANTRUST REAL ESTATE, RICH MULLER	4900 MAIN ST APT 400	KANSAS CITY, MO 64112
MCFADDEN REVOCABLE TRUST		4923 W 90TH ST	PRAIRIE VILLAGE, KS 66207
MCFARLAND, GISELA O. TRUSTEE		4869 W 90TH ST	PRAIRIE VILLAGE, KS 66207
MCGINLEY, JAMES R.	VANROEKEL, MARY G.	4512 W 91ST ST	PRAIRIE VILLAGE, KS 66207
MCINTYRE, ANDREW		5508 W 92ND PL	OVERLAND PARK, KS 66207
MILLARD, LOU ANN CO-TRUSTEE	MILLARD, JOHN L. CO-TRUSTEE	4865 W 90TH ST	PRAIRIE VILLAGE, KS 66207
NEILL, SUSAN M.	NEILL, ROBERT L.	5501 W 92ND PL	OVERLAND PARK, KS 66207
NORDQUIST, DAVID A. TRUSTEE	NORDQUIST, JOAN C. TRUSTEE	5501 W 92ND TER	OVERLAND PARK, KS 66207
OPPENHEIMER, PATRICIA ANN TTEE	OPPENHEIMER, PATRICIA ANN TRST	9200 ROE AVE	PRAIRIE VILLAGE, KS 66207
PATTON, L. JOSEPH	PATTON, CONSTANCE J.	4857 W 90TH ST	PRAIRIE VILLAGE, KS 66207
PEPPES, STEPHEN J.	PEPPES, CHARLENA A.	9058 BIRCH ST	PRAIRIE VILLAGE, KS 66207
PIPPIN, SHARON CRAIG		5507 W 92ND TER	OVERLAND PARK, KS 66207
POLLARD, ANDREW	POLLARD, CHRISTINA	9500 ROE AVE	OVERLAND PARK, KS 66207
POTTER, FREDRIC J.		9112 NALL AVE	OVERLAND PARK, KS 66207
PROPERTY MASTERS, LLC		9918 W 56TH TER	MERRIAM, KS 66203
RAMSEY, SEAN		5507 W 92ND ST	OVERLAND PARK, KS 66207
RAWSON, SCOTT T.	RAWSON, ERIN	4941 W 90TH ST	PRAIRIE VILLAGE, KS 66207
REINHART, RAYMOND J.	REINHART, CAROLYN C.	9065 ROSEWOOD DR	PRAIRIE VILLAGE, KS 66207
ROLLING HILLS UNITED	PRESBYTERIAN CHURCH	9300 NALL AVE	OVERLAND PARK, KS 66207
RUNDLE, DANIEL A.	RUNDLE, JONI M.	9116 ROE AVE	PRAIRIE VILLAGE, KS 66207
SAXON, DONALD W JR	SAXON, ROBIN	15213 S SEMINOLE DR	OLATHE, KS 66062
SCHRADER, JOHN C.	SCHRADER, RONDA R.	9112 ROE AVE	PRAIRIE VILLAGE, KS 66207
SHAFT, JOHN S.	LYNN, GEORGE W. II	9310 ROE AVE	PRAIRIE VILLAGE, KS 66207
SHELTON, GREGORY J.	SHELTON, KIMBERLY	9057 ROSEWOOD DR	PRAIRIE VILLAGE, KS 66207
SKOOG, CURT A.	SKOOG, AMY S.	9505 LINDEN ST	OVERLAND PARK, KS 66207
SPURNEY, S. COZETTE		4935 W 90TH ST	PRAIRIE VILLAGE, KS 66207

TALIAFERRO, WILL C.	TALIAFERRO, BETTY W.	9104 ROE AVE	PRAIRIE VILLAGE, KS 66207
TEE BOX, LLC		5300 W 94TH TER APT 100	PRAIRIE VILLAGE, KS 66207
UNITED PRESBYTERIAN CHURCH		9300 NALL AVE	OVERLAND PARK, KS 66207
VAN HENGEL, JOHN A.		5525 W 92ND ST	OVERLAND PARK, KS 66207
WANG, RUI GENG	XU, HOLLY	4508 W 91ST ST	PRAIRIE VILLAGE, KS 66207
WAXMAN, IRWIN	WAXMAN, IRMA H.	4905 W 90TH ST	PRAIRIE VILLAGE, KS 66207
WEBSTER, SUSAN T.		4841 W 90TH ST	PRAIRIE VILLAGE, KS 66207
WELLS, FRED W.	WELLS, JANET O.	4911 W 90TH ST	PRAIRIE VILLAGE, KS 66207
WESTPHAL, KENNETH C.	WESTPHAL, ELINOR R.	9208 ROE AVE	PRAIRIE VILLAGE, KS 66207
WESTRA, GEOFFREY W.	WESTRA, JO ANN	9070 BIRCH ST	PRAIRIE VILLAGE, KS 66207
WOLFROM, ED		4705 W 95TH ST	OVERLAND PARK, KS 66207
WOLLER, LESLIE A. JR TRUSTEE	WOLLER, MARY LEE TRUSTEE	9318 ROE AVE	PRAIRIE VILLAGE, KS 66207
ZIMMERMAN, GERALD	ZIMMERMAN, PATRICIA	9103 ROE AVE	PRAIRIE VILLAGE, KS 66207
Kenilworth Homes Assoc.	Bruce Ridge	3908 W. 93rd Street	Prairie Village, KS 66207
Somerset Acres West	Jeff Wright	3916 W. 90th Street	Prairie Village, KS 66207
Somerset Courts West	Harlan Stamper	4602 W. 90th Street	Prairie Village, KS 66207

Send certified to this HOA

Send certified to this HOA

Send certified to this HOA



**NOTICE OF HEARING**

First published In The Legal Record, Tuesday, October 13, 2015.  
**CITY OF PRAIRIE VILLAGE, KANSAS**  
**NOTICE OF HEARING**

The Planning Commission of the City of Prairie Village, Kansas will hold a Public Hearing at its regular meeting on Tuesday, November 3, 2015, at 7:00 p.m. in the Council Chamber of the Municipal Building, 7700 Mission Road, Prairie Village, Kansas. The subject of the Public Hearing is:

**APPLICATION PC 2015--09** Proposed Rezoning of the property from R-1a (Single Family Residential) to MXD (Mixed Use District) and CP-2 (Planned General Office District) at  
9101 Nall Avenue  
Applicant: Justin Duff for Van Trust Real Estate, LLC

**The property to be rezoned CP-2 is legally described as:**

All that part of the Southwest Quarter of Section 33, Township 12 South, Range 25 East, in the City of Prairie Village, Johnson County, Kansas, being more particularly described as follows:

Commencing at the Southwest Corner of the Southwest Quarter of said Section 33; thence N 02°06'14" W, along the West line of the Southwest Quarter of said Section 33, a distance of 700.00 feet; thence S 85°56'14" E, a distance of 1030.00 feet to the point of Beginning; thence continuing S 85°56'14" E, a distance of 46.91 feet; thence N 49°03'38" E, a distance of 8.98 feet; thence N 04°03'38" E, a distance of 15.42 feet; thence S 85°55'39" E, a distance of 21.21 feet; thence Easterly on a curve to the left, said curve being tangent to the last described course and having a radius of 202.85 feet, an arc distance of 83.89 feet; thence Southerly on a curve to the right, said curve having an initial tangent bearing of S 18°27'51" E and a radius of 275.00 feet, an arc distance of 99.93 feet; thence N 67°41'14" W, a distance of 186.22 feet to the point of Beginning, containing 7966 square feet, more or less, of unplatted land.

**The property to be rezoned MXD is legally described as:**

All that part of the Southwest Quarter of Section 33, Township 12 South, Range 25 East, in the City of Prairie Village, Johnson County, Kansas, being more particularly described as follows:

Commencing at the Southeast Corner of the Southwest Quarter of said Section 33; thence S 87°40'29" W, along the South line of the Southwest Quarter of said Section 33, a distance of 233.22 feet; thence N 02°19'31" W, a distance of 414.68 feet to the point of Beginning; thence N 75°24'44" W, a distance of 137.46 feet; thence N 42°37'29" W, a distance of 76.34 feet; thence N 64°07'33" W, a distance of 260.00 feet; thence N 73°30'05" W, a distance of 89.85 feet; thence N 46°44'57" W, a distance of 260.00 feet; thence N 43°15'03" E, a distance of 187.59 feet; thence Westerly on a curve to the left, said curve having an initial tangent bearing of N 69°47'15" W and a radius of 160.00 feet, an arc distance of 56.44 feet; thence N 90°00'00" W, a distance of 58.60 feet; thence Northwesterly on a curve to the right, said curve being tangent to the last described course and having a radius of 210.00 feet, an arc distance of 175.61 feet; thence N 42°05'17" W, a distance of 187.42 feet; thence N 31°02'03" W, a distance of 525.22 feet; thence Easterly on a curve to the right, said curve having an initial tangent bearing of S 82°10'38" E and a radius of 479.59 feet, an arc distance of 62.10 feet; thence Easterly on a curve to the left, said curve being tangent to the last described course and having a radius of 564.50 feet, an arc distance of 253.29 feet; thence Easterly on a curve to the right, said curve being tangent to the last described course and having a radius of 442.89 feet, an arc distance of 80.44 feet; thence N 88°15'35" E, a distance of 81.40 feet; thence N 01°50'49" W, a distance of 208.81 feet; thence N 22°14'33" E, a distance of 72.97 feet; thence N 88°09'11" E, a distance of 660.57 feet; thence S 01°50'49" E, a distance of 330.98 feet; thence S 65°02'30" E, a distance of 110.25 feet; thence S 23°07'38" E, a distance of 132.03 feet; thence S 01°53'22" E, a distance of 80.00 feet; thence S 00°36'35" E, a distance of 59.97 feet; thence S 13°19'57" W, a distance of 119.77 feet; thence S 00°48'21" W, a distance of 35.02 feet; thence S 01°44'24" E, a distance of 446.87 feet; thence S 14°35'42" W, a distance of 289.73 feet; to the point of Beginning, containing 26.8814 acres, more or less, of unplatted land.

All that part of the Southwest Quarter of Section 33, Township 12 South, Range 25 East, in the City of Prairie Village, Johnson County, Kansas, being more particularly described as follows:

Commencing at the Southwest Corner of the Southwest Quarter of said Section 33; thence N 02°06'14" W, along the West line of the Southwest Quarter of said Section 33, a distance of 700.00 feet; thence S 85°56'14" E, a distance of 30.17 feet to a point 30.00 feet East of the West line of the Southwest Quarter of said Section 33, said point being the point of Beginning; thence N 02°06'14" W, along a line 30.00 feet East of and parallel with the West line of the Southwest Quarter of said Section 33, a distance of 728.89 feet; thence N 88°57'26" E, a distance of 235.04 feet; thence Easterly on a curve to the left, said curve being tangent to the last described course and having a radius of 567.83 feet, an arc distance of 146.91 feet; thence N 74°05'30" E, a distance of 185.25 feet; thence Northeasterly on a curve to the left, said curve being tangent to the last described course and having a radius of 300.27 feet, an arc distance of 146.65 feet; thence Northeasterly on a curve to the right, said curve being tangent to the last described course and having a radius of 267.47 feet, an arc distance of 70.48 feet; thence Southeasterly on a curve to the left, said curve having an initial tangent bearing of S 31°39'17" E and a radius of 160.00 feet, an arc distance of 56.83 feet; thence S 52°00'20" E, a distance of 15.96 feet; thence Southeasterly on a curve to the right, said curve being tangent to the last described course and having a radius of 200.00 feet, an arc distance of 47.31 feet; thence S 38°27'04" E, a distance of 263.82 feet; thence Southeasterly on a curve to the right, said curve being tangent to the last described course and having a radius of 210.00 feet, an arc distance of 82.46 feet; thence S 15°57'08" E, a distance of 99.30 feet; thence Southerly on a curve to the right, said curve being tangent to the last described course and having a radius of 520.00 feet, an arc distance of 32.48 feet; thence S 12°22'24" E, a distance of 161.04 feet; thence Southerly on a curve to the right, said curve being tangent to the last described course and having a radius of 520.00 feet, an arc distance of 38.35 feet; thence Southeasterly on a curve to the left, said curve being tangent to the last described course and having a radius of 291.00 feet, an arc distance of 137.75 feet; thence S 35°16'13" E, a distance of 58.93 feet; thence Southerly on a curve to the right, said curve being tangent to the last described course and having a radius of 325.00 feet, an arc distance of 231.41 feet; thence N 67°41'14" W, a distance of 52.66 feet; thence Northerly on a curve to the left, said curve having an initial tangent bearing of N 2°21'24" W and a radius of 275.00 feet, an arc distance of 99.93 feet; thence Westerly on a curve to the right, said curve having an initial tangent bearing of S 70°22'40" W and a radius of 202.85 feet, an arc distance of 83.89 feet; thence N 85°55'39" W, a distance of 21.21 feet; thence S 04°03'38" W, a distance of 15.42 feet; thence S 49°03'38" W, a distance of 8.98 feet; thence N 85°56'14" W, a distance of 1046.73 feet to the point of beginning, containing 20.0709 acres, more or less, of unplatted land.

At the time of the scheduled public hearing, all interested persons may present their comments. Prior to the date of the scheduled hearing, additional information regarding the proposed rezoning may be reviewed in the Office of the Secretary of the Planning Commission at the Municipal Building. Comments may be submitted in writing to the Planning Commission addressed to the City of Prairie Village, 7700 Mission Road, Prairie Village, Kansas 66208. If you have a disability and need assistance to participate in any city meeting or program, contact the City Clerk at 381-6464 or TDD 1-800-766-3777.

Joyce Hagen Mundy  
Planning Commission Secretary  
10/13

## STAFF REPORT

**TO:** Prairie Village Planning Commission  
**FROM:** Confluence, Kansas City, Kansas  
- Christopher Shires, AICP, Principal  
- PJ Novick, ASLA, LEED GA, Principal  
**DATE:** November 12, 2015, Planning Commission Meeting (Confluence Project # 15018KC)

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**APPLICATION:** PC 2015-09, PC 2015-118, PC 2015-119

**REQUEST:** Rezoning from R-1A (Single Family Residential) to MXD (Mixed Use District) and CP-2 (Planned General Business District) and Approval of a Preliminary Development Plan and Preliminary Plat.

**PROPERTY ADDRESS:** 9101 Nall Avenue

**APPLICANT:** VanTrust Real Estate  
Justin Duff, Development Director,  
4900 Main Street, STE 400  
Kansas City, MO 64112

**CURRENT ZONING AND LAND USE:** R-1A (Single Family Residential) - Meadowbrook Country Club

**SURROUNDING ZONING & LAND USE:** North: R-1A – Single Family Residential Dwellings  
East: R-1A – Single Family Residential Dwellings  
South: CP-1 and CP-O – Office and Retail and Overland Park Zoning:  
R-1 Single Family Residential – Single Family Dwellings  
West: Overland Park Zoning: R-1 Single Family Residential – Single Family Dwellings and Church

**LEGAL DESCRIPTION:** (see attachment)

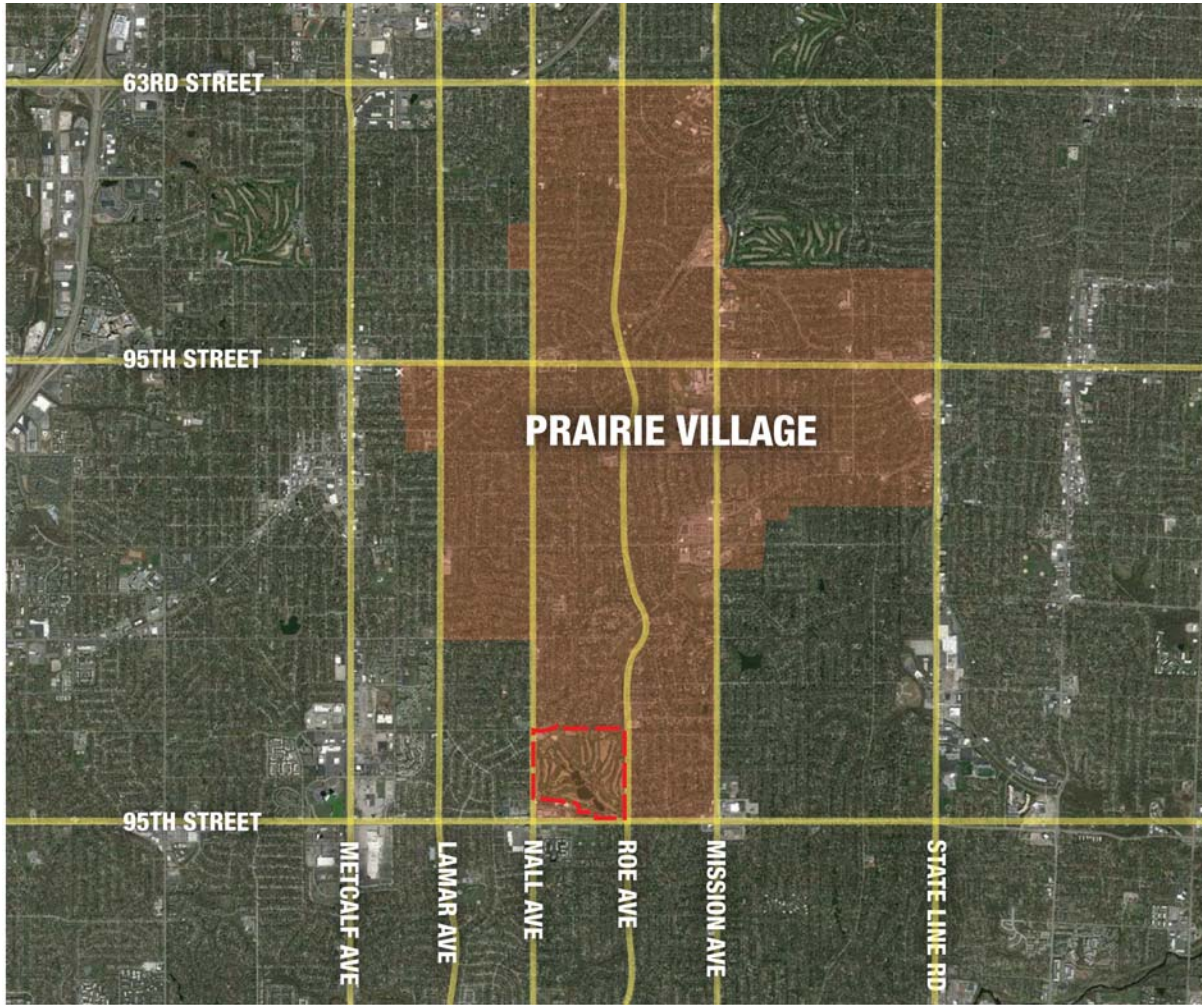
**PROPERTY AREA:** 135.9 acres

**RELATED CASE FILES:** n/a

**ATTACHMENTS:** Applications, Plans, Preliminary Plat, Neighborhood Meeting Notes

**GENERAL LOCATION MAP:**





AERIAL MAP:



**COMMENTS:**

The subject property is the approximate 136 acre Meadowbrook County Club site that is generally bound by Nall Avenue on the west, W. 90<sup>th</sup> Street on the north, Roe Avenue on the east, and W. 95th Street and the Meadowbrook Village Shopping Center on the south.

The applicant, Van Trust Real Estate, represented by Justin Duff, is requesting a rezoning of approximately 45 acres of the subject property from R-1A (Single Family Residential) to MXD (Mixed Use District). The applicant is also requesting an approximate 0.18-acre parcel adjoining the Meadowbrook Village Shopping Center be rezoned from R-1A to CP-2 (Planned General Business) to accommodate a parking lot reconfiguration. The applicant is further requesting approval of a Preliminary Plat for the entire County Club site and a Preliminary Development Plan that details the intended uses and layout of the area proposed to be rezoned to MXD. Approximately 10 acres of the site is shown as public street right-of-way with the remaining approximately 80 acres proposed to be owned and maintained by Johnson County Parks and Recreation as a public park.

Per the City's Zoning Code, the MXD zoning district is intended to encourage a variety of land uses in closer proximity to one another than would be possible with more conventional zoning districts to, among other goals, encourage building configurations that create a distinctive and memorable sense of place. This district allows the flexibility to determine the specific zoning regulations and design standards (such as building setbacks, building design, landscaping requirements, and parking standards) as part of the planning and design of the development. A detailed Preliminary Development Plan (site plan) followed by a Final Development Plan is required as part of the MXD zoning with the intent being the zoning regulations for the property are established and defined as part of the review and approval of the Preliminary and Final Development Plans.

The Preliminary Development Plan for the MXD rezoning and the related Preliminary Plat proposes the creation of a mixed use development that includes:

- 53 – detached single family home lots
- 70 – bi-attached single family home lots
- 280 – apartment units
- 50 room hotel + 5,000 sq. ft. restaurant
- 120 - Assisted Living / Senior Care
- 90 - Skilled Nursing / Rehab
- 120 – Independent Living

In accordance with the Planning Commission's Citizens' Participation policy, the applicant held a neighborhood meeting on October 21, 2015 (see attached copy of the meeting notes) with a follow-up meeting on November 5, 2015. In order to introduce the project and gain input early on in the process, the applicant held an open house on March 10 and 11, 2015. The applicant also met with the Kenilworth Homes Association Board on October 12, 2015 (see attached meeting notes from the board meeting).

In considering a change in zoning classification, the Planning Commission must consider a number of factors, commonly referred to as the "golden" factors, in approving or disapproving the request, and they are as follows:

**1. The character of the neighborhood.**

The existing neighborhood is characterized by single-family development to the east, north, and west and office and retail uses to the south. The golf course is a large open space that contains a significant amount of mature trees and water features. There are high voltage power transition lines that run along both the north and east sides of the property from the electrical substation on Roe Avenue.

**2. The zoning and uses of property nearby.**

The application area is zoned R-1A and is developed as a golf, swimming and tennis country club. The property to the north and east is zoned R-1A and is developed for single-family residences. The area to the south is zoned CP-1 and CP-0 and is developed for office and retail uses. The area on the west side of Nall Avenue is in Overland Park and is zoned R-1 Single-family and developed for single-family residential and a church.

**3. The suitability of the property for the uses to which it has been restricted under its existing zoning.**

The property currently has an approved special use permit for a country club which includes golf, swimming, tennis and support facilities; however, the facility is now closed. The property worked well for a golf course, but maintaining membership had been difficult as the course aged and the population of the community changed. The clubhouse is over 35 years old and needs either major renovation or reconstruction.

**4. The extent that a change will detrimentally affect neighboring property.**

The project will generate additional traffic particularly at the intersection of Nall Avenue and West 92<sup>nd</sup> Terrace and the proposed main entry boulevard and at the access proposed at Rosewood Drive and West 94<sup>th</sup> Terrace. An access to a park site parking lot is also proposed at the intersection of Roe Avenue and 91<sup>st</sup> Street. According to the applicant's traffic impact study, the proposed development is calculated to generate approximately 4,000 average daily vehicle trips. This is generally equivalent to the traffic generated by a 350 to 400 lot single family residential subdivision. The applicant will need to make improvements at the proposed Nall Avenue intersection, including adding a center left-turn lane on Nall Avenue and verifying sight lines and lane travel continuity.

Public parking is proposed to be provided along the public streets within the development and in several parking lots being proposed within the park (see the Parking Plan page of the Preliminary Development Plan).

The 280-unit apartment building is proposed to be from 2 to 4 stories (approximately 70 feet tall maximum). The closest point of the building to an existing single family dwelling is 300 feet and in this location the building is proposed to be 2 stories in height (approximately 50 feet tall).

The 50 room hotel is located centrally within the subject site and is approximately 60 feet in height.

The senior living center is located adjacent to the existing office development to the south and along Nall Avenue to the west. The center includes: 120 Assisted Living / Memory Care Units; 90 Skilled Nursing / Rehab Units and 120 Independent Living Units. Although the proposed structure is generally 4 stories and approximately 90 feet tall, the west elevation is recessed due to the drop in the ground elevation from Nall Avenue.

**5. The length of time of any vacancy of the property.**

The property was formerly a golf course and country club that has been closed since Fall 2014.

**6. The relative gain to the public health, safety and welfare by destruction of value of the applicant's property, as compared to the hardship on other individual landowners.**

The approval of this development plan will provide a variety of housing choices to the residents of Prairie Village. The City is built-out and there is very little opportunity to bring new housing to the market place. This project will not remove any existing homes from the inventory or cause any relocation. The hardship on neighboring landowners should be minimized through good planning, design and construction. The approval of this project will also provide for preservation of park and open space in perpetuity.

## 7. City Staff Recommendations.

Staff has reviewed the requested rezoning, the Preliminary Development Plan, and the Preliminary Plat, and although there are some issues that still need to be addressed, it is Staff's opinion that the rezoning, Preliminary Development Plan and Preliminary Plat meet the intent of the development as recommended in the Village Vision, have addressed the impacts to the surrounding neighborhood, and will be a positive asset to the community. The issues that still need to be addressed are as follows:

- a. Traffic and Circulation: Improvements will need to be made at the existing intersection of Nall Avenue and W. 92<sup>nd</sup> Terrace to accommodate the proposed boulevard entrance drive. These improvements include a center left-turn lane on Nall Avenue, verification of sight lines, and adjusting the intersection design to accommodate adequate travel lane alignments. The intersection should further be evaluated and designed to accommodate a pedestrian crossing at this location.

A park entrance along Roe Avenue at the 91<sup>st</sup> Street intersection has been identified on the plan. The plan originally proposed this entrance would connect through the property to the main entrance parkway to Nall Avenue. After meeting with the adjoining property owners and members of the Kenilworth Homes Association, the applicant is now proposing that this drive will only serve as a park access for the existing neighborhood and terminate into a parking lot for the park. Although the access drive is only proposed to connect to a small parking lot, staff recommends that it be designed to align with the existing 91<sup>st</sup> Street intersection in order to reduce turning vehicle conflicts. This intersection should also be designed to provide a pedestrian crossing point.

An emergency vehicle access road is proposed to connect to this parking lot for the park so that emergency vehicles will have the opportunity to access the proposed development from Roe Avenue. This parking lot and emergency vehicle access will need to be designed and maintained (including snow removal) to permit emergency vehicle circulation at any time should the need arise. The design of the emergency access road, including the proposed driveway barriers, will need to be reviewed and approved by the Fire Department. The Fire Marshal has commented that:

1. The entire emergency access road from the parking lot to the apartment building needs to be 20 ft. wide in its entirety. This includes the connection to the apartment parking area (north side of the structure) as well as the access road along the east side of the building to its connection to the residential street within the single family portion of the project to the south of the apartments.
2. The emergency access road needs to have a pavement section that will support the emergency vehicles (verify IFC Code requirements).
3. A minimum 13 ft. vertical "clear zone" needs to be maintained along the entire access road and parking lot.
4. The applicant needs to address who will be ensuring that the roadway off Roe Avenue to the parking lot and the entire emergency access road is clear of ice/snow in the winter season.
5. There needs to be an island in front of the emergency access points that will keep vehicles from blocking the emergency vehicle access. The parking lot should be designed with a standard curb on the sides and a mountable curb on the nose of the island. A mountable curb should also be acceptable for the other two connections.
6. Bollards will be provided to block un-authorized access to the emergency road (at the proposed parking lot, connection to the apartment parking, and connection to the single family development). The actual bollard proposed will need to be provided at final plan submittal for review, such as a collapsible and lockable types.

7. The proposed parking lot will need to be designed so that emergency vehicles can quickly negotiate the turning movements. The applicant should consider orienting the center oval island 90 degrees to its current layout and designing with a minimum 46 ft. curb to curb width to accommodate turning movements.

A gate is proposed at the entrance to the single family area by the hotel. This gate will need to be designed to accommodate emergency vehicle access and must include a "welp" sensor for emergency vehicles to open the gate. The final design of the gated access must be reviewed and approved by the Fire Department.

Service vehicles for the Senior Living and hotel must use the 94th Terrace entry for all deliveries.

All proposed monument signs, structures and landscaping must be located outside of any sight visibility zones necessary to accommodate safe vehicular and pedestrian movements at all street intersections.

All other comments from the Traffic Impact Study reviews conducted by TranSystems need to be addressed by the applicant's transportation engineer.

- b. Retaining Walls: The site proposes several retaining walls and the applicant has detailed two wall types, Type A – natural stone and Type B – modular block. The natural stone would be for walls in high visibility areas (noted as within the "Public Realm") and the modular block for walls in lower visibility areas (noted as within the "Non-Public Realm"). Due to the visibility of the retaining walls proposed along Nall Avenue, staff recommends these walls be constructed of or faced with natural stone and designated as Type A retaining walls.

The retaining wall proposed along the south property line of the senior living center adjacent to the existing office development does not meet the minimum setback requirements per city code. At its highest point, this wall is over 17 ft. tall and would require a 10 ft. setback from the property line. At its closest point, the wall is shown 2 to 3 ft. from the property line. In order for this wall to be constructed as shown, the applicant will need to receive specific approval from the Planning Commission granting an exception from the setback requirement.

Engineered design calculations and plans are required for any retaining walls exceeding 4 ft. in height and will be included with the Final Plan.

- c. Trash Enclosures and Equipment Screening: The applicant has indicated that all trash enclosures as well as screening for HVAC and building mechanical equipment will be constructed of materials consistent with the building architecture and that details will be provided with the Final Plan.
- d. Apartment Building Parking Standard: City code requires a minimum of 2 parking spaces for each apartment unit. The proposed 280-unit apartment complex would therefore be required 560 parking spaces. The applicant is requesting the parking standard to be modified to require 1 parking space for each bedroom per unit (e.g., a one-bedroom apartment would be required 1 parking space and a three-bedroom unit would be required 3 parking spaces). Currently the applicant is estimating the apartment complex will have 435 bedrooms and is proposing to provide 1 parking space per bedroom plus 28 visitor spaces for a total of 463 parking spaces (435 spaces + 28 spaces = 463 spaces). The applicant has stated they are comfortable that this is adequate parking for the site and this standard does provide for at least one space per bedroom plus spaces for visitors.

Staff has reviewed this request and has no objections to applying an alternate method for calculating the required parking. As noted earlier in this report, the MXD zoning district does allow the flexibility to establish specific zoning regulations including the parking requirements. Although several other neighboring cities also follow this standard of 2 spaces per unit, other cities do apply parking requirement standards based on the number of bedrooms.

For comparison, the City of Overland Park applies the following parking standard for apartments:

<u>Dwelling Unit</u>	<u>Number of Spaces Required per Unit/Bedroom</u>
Studio/efficiency	1.33
1 bedroom	1.5
2 bedrooms	1.8
More than 2 bedrooms	2.0

According to the applicant, they are estimating the following mix of apartment units:

Studio/efficiency	8
1 bedroom	131
2 bedrooms	127
3 bedrooms	14
Total units	280

Following the Overland Park parking requirement standard, the apartment complex would be required to provide 464 parking spaces based upon the current estimated mix of unit types.

At this time, staff recommends this issue be revisited with the Final Plan Approval when the applicant will have the final design for the apartment complex completed and that an alternate parking requirement standard be applied based upon the mix of unit types.

- e. Landscaping: City staff recommends that minimum tree sizes for this project be defined and established as follows: Large Trees – 3 inch minimum caliper, Ornamental Trees – 3 inch minimum caliper, and Evergreen/Coniferous Trees – 8 ft. minimum height.

Street trees should be added along the street to the north and south of the open space island that is east of the senior living center in order to maintain continuity of the street tree layout. The open lawn area of the senior living center building should include additional trees; ideally a minimum of 14 shade trees and 8 ornamental trees.

Landscaping should be added to the open space that is shown west of the hotel: ideally a minimum of 8 shade trees and 6 ornamental trees.

- f. Exterior Building Materials: The Preliminary Development Plan defines the appropriate exterior building materials as: brick, stone, stucco, wood siding, wood shakes, and fiber-cement siding or shakes. A brick or stone base is required for every structure. Synthetic stucco, EIFS, thin brick and cultured stone are prohibited. The general exterior layout and basic combinations of exterior materials is further defined for the senior living center, the apartment building, and the hotel. Staff recommends the exterior material labels for the senior living center building be updated to more specifically define "composite material" and "masonry base" consistent with the labeling shown for the hotel and the apartment building.
- g. Easements and Utility Labels: The Preliminary Plat does not identify the necessary utility and drainage easements and the proposed sanitary and storm sewer mains and related structures and manholes are not identified as being public or private. All of the proposed storm and sanitary sewers and related structures and all water mains should be labeled as public or private. Public or private easements need to be shown for all sewers, related structures, and mains including for those utilities and required minimum easement widths that are not fully located within a right-of-way or common lot. Other utility easements (PUEs) as necessary need to be shown and labeled. If not shown on the Preliminary Plat, these details will at a minimum need to be provided on the Final Plat(s), Final Development Plan, and utility improvement plan(s). All other Public Works comments will need to be addressed.

## 8. Conformance with the Comprehensive Plan.

The Village Vision Strategic Investment Plan, adopted by the City of Prairie Village, Kansas, in 2007 as the City's Comprehensive Plan, specifically identifies the Meadowbrook Country Club as a potential site for redevelopment. The Country Club site is one of the last relatively undeveloped properties in Prairie Village and is strategically located at the southwestern edge of the community at the intersection of two (2) major roadways, Nall Avenue and W. 95th Street.

The Plan recommends development of a planned neighborhood with open space and higher density. The items mentioned are as follows:

- Encourage potential developers to obtain community input. *On March 10 and March 11, 2015, the developer held a 2-day open house to seek public input and comment. The applicant met with the Kenilworth Homes Association Board on October 12, 2015, and held a neighborhood meeting on October 21, 2015 and again on November 5, 2015. This project been well publicized and has garnered significant public attention.*
- Allocate a portion of the site for public recreation/greenspace. *The proposed development will occupy approximately 45 acres and leave approximately 80 acres for park space to be owned by Johnson County Parks and Recreation. The master plan for the Meadowbrook Park is currently being developed, and the planning for the park is being fully coordinated with the design and review of the Preliminary Development Plan for this development.*

### **RECOMMENDATIONS:**

Prior to making its recommendation, the Planning Commission must make findings of fact based on the "golden factors" that have been set out in this staff report. The Planning Commission can recommend approval, approval subject to conditions, or denial of the MXD rezoning and the Preliminary Development Plan (including the Vision Book) as well as the Preliminary Plat. If the Planning Commission finds favorably on the findings of fact, it is recommended that it be subject to the following conditions:

1. The applicant addressing all comments from the traffic impact study review conducted by TranSystems and providing an updated traffic impact study.
2. The applicant providing revised plans that identify the necessary improvements to the proposed intersection of Nall Avenue at W. 92<sup>nd</sup> Terrace to accommodate the proposed boulevard entrance drive including a center left-turn lane on Nall Avenue, verification of sight lines, and adjusting the intersection design to accommodate adequate travel lane alignments.
3. The applicant designing, installing, and agreeing to maintain and keep clear of snow an emergency vehicle road from the Roe Avenue parking lot to accommodate emergency vehicle circulation into the site from Roe Avenue. The design of the emergency access road and driveway barriers must address all Fire Department comments and be reviewed and approved by the Fire Department prior to installation.
4. The applicant finalizing the acquisition of the right-of-way necessary for and constructing the public street connect to 94<sup>th</sup> Terrace as proposed, otherwise the Preliminary Development Plan must be brought back to the Commission and Council for review and reconsideration.
5. The applicant agreeing that all service vehicles for the Senior Living and hotel shall use only the 94th Terrace.
6. The applicant designing the proposed gate at the entrance to the single family area to accommodate emergency vehicle access and include a "welp" sensor for emergency vehicles to open the gate. The final design of the gated access must be reviewed and approved by the Fire Department.
7. The applicant developing pedestrian crossings at the proposed Nall Avenue entrance and the proposed Roe Avenue park entry.

8. The applicant providing detailed elevations and materials for all proposed signage as part of the Final Development Plan and ensuring that all proposed monument signs, structures and landscaping are located outside of any sight visibility zones necessary to accommodate safe vehicular and pedestrian movements at all street intersections.
9. The applicant updating the Preliminary Development Plan to designate that the retaining walls proposed along Nall Avenue to be constructed of or faced with natural stone and labeled as Type A retaining walls.
10. The Planning Commission approving an exception from the retaining wall setback requirement for the retaining wall as proposed along the south property line of the senior living center.
11. Prior to construction, the applicant providing engineered design calculations and plans for all retaining walls exceeding 4 ft. in height.
12. The applicant providing with the Final Development Plan, detailed plans for all trash enclosures and HVAC/building mechanical equipment screening to ensure that all trash dumpsters, recycling bins, HVAC and building mechanical equipment, etc., is fully screened from view. All screening shall be designed and constructed of materials that are durable and consistent and compatible with the building architecture.
13. The applicant providing details for calculating the parking required for the apartment complex with the Final Development Plan and providing an amount of parking that is acceptable to the City.
14. The applicant ensuring that the minimum tree sizes for this project be defined as follows: Large Trees – 3 inch minimum caliper, Ornamental Trees – 3 inch minimum caliper, and Evergreen/Coniferous Trees – 8 ft. minimum height.
15. The applicant updating the Preliminary Development Plan by showing street trees along the streets to the north and south of the open space island that is east of the senior living center; adding trees to the open lawn area of the senior living center building; and additional landscaping in the open space that is west of the hotel.
16. The applicant updating in Preliminary Development Plan the exterior building material labels for the senior living center building to define “composite material” and “masonry base” consistent with the labeling shown for the hotel and the apartment building.
17. The applicant providing elevations and proposed materials for all pool structures including; restroom structure, shade structure, pump house, trellis and ornamental fencing.
18. The applicant addressing all Public Works comments and detailing on the Final Development Plan, the Final Plat(s), and the utility improvement plan(s) all of the existing and proposed storm, sanitary sewer, and water mains, labeling them as public or private, and labeling the required public or private easements including all other necessary utility easements.
19. Prior to obtaining any permit for construction, the applicant shall submit a Final Development Plan for review and approval by the Planning Commission. Public improvement plans and Final Plat(s) as necessary shall also be submitted by the applicant for review and approval prior to issuance of any permits and start of any construction.
20. Approval is contingent upon approval of the Final Development Plan. If the Final Development Plan is not approved by the City, the approval of this Rezoning, Preliminary Development Plan, and Preliminary Plat will be null and void.

## **Meadowbrook Park**

PC2015-09 - Request for Rezoning from R-1a to MXD and CP-2

PC2015-118 - Request for Approval of Development Plan

PC2015-119 - Request for Preliminary Plat Approval

Neighborhood Meeting Location: 9101 Nall Avenue, Prairie Village, Kansas 66207

Neighborhood Meeting Date: 10/21/2015

## Meeting Minutes

Presenters: Rich Muller, VanTrust Real Estate  
Justin Duff, VanTrust Real Estate  
Dave Harrison, VanTrust Real Estate  
Jim Constantine, LRK Architects  
Paul Plotas, Wilson Engineers (traffic)  
Judd Claussen, Phelps Engineering (Civil)

Attendees: Development team members and Neighbors as indicated on attached sign-in sheet

1. 6:00 – 6:30PM: Neighbors arrive, open-house viewing of presentation boards, one-on-one conversations.
2. 6:30 PM: Mr. Muller opened the formal presentation and gave introductory remarks
3. 6:35PM: Mr. Constantine delivered a presentation of the preliminary development plan, with excerpts of the submitted Vision Book as visual aids
4. 7:05PM: Formal Presentation concluded, opened up the floor for questions

Question: What are the density numbers for residences?

Answer (Muller): For the East, 280 apartment units + 53 single family homes + 9 townhomes

For the West, 330 units of Senior Living + 61 townhomes

Question: Explain traffic projections for the tertiary road connecting to Roe Ave.

Answer (Plotas): Existing Traffic patterns were observed and mapped. New traffic was calculated, and then added according to the same pattern, to arrive at a prediction of traffic flow at full occupancy of the developed plan.

Question: Why not make the Roe connection further south, closer to 95<sup>th</sup> St?

Answer (Harrison) The Park connection south to 94<sup>th</sup> Terrace is intended to provide this route. Access from Meadowbrook land abutting 95<sup>th</sup> street would (a) have to cross a drainage way, and (b) create an unsafe intersection due the proximity to, and elevation difference from, the 95<sup>th</sup>&Roe intersection.

Question: Isn't Roe is already unsafe at 91<sup>st</sup> Street?

Answer (Plotas): There have been four crashes reported over a 5 year period, which is considered to be in the low range.

Rebuttal: I live near there and have seen 8 crashes!

Answer (Plotas): I only have access to reported incidents when preparing a traffic study.

Question: Please provide data explaining your traffic assumptions

Answer (Plotas): We have a copy of the complete traffic study and data here, and would be happy to review it with you after the meeting.

Question: The Park Plan now shows lots of on-street parking on the tertiary road. Why?

Answer (Harrison) That is an efficient way to add parking capacity for the park without consuming greenspace with a parking lot.

Comment (Jace): As former City Council member of Westwood, I have come to believe that traffic studies, which rely on snapshot information, cannot be relied on above a resident's protracted observations. Consider terminating 91<sup>st</sup> Streets access to Roe for safety and to eliminate cut-thru traffic to and from Mission Road.

Comment (Harrison) We are here to listen, and we here you loud and clear. We are going to confer with all stakeholders on this, and dive into possible alternatives or adjustments.

Question: Will there be a follow-up meeting with the neighbors after you do that?

Answer (Muller) The process after tonight is a Public Hearing before the Planning Commission on November 3, which happens to be on the same nite as Game 6 of the World Series, so it may get tabled to the following week. That decision will be made by the City of Prairie Village.

Answer (Harrison) If we need to reconvene with you all, then that's what we'll do.

Question: The height of the Apartments is a concern. Can 3-story work instead?

Answer (Harrison) Keep in mind that 4-stories of residential comes at a typical 10' between floors, which is much less than commercial buildings. We will add more trees to buffer the views to the apartments.

Comment: Concern that the restaurant and coffee shop will dilute existing retail

Answer (Harrison) Our intent is to complement existing community, and energize the park.

Question: What is the construction schedule for the private development?

Answer (Ley) Streets and infrastructure will start summer of 2016, with the hope of starting construction on the apartments and senior living 3<sup>rd</sup> or 4<sup>th</sup> quarter 2016, with completion in early 2018. Single family homes would also be delivered in 2017-2018

Answer (Harrison) We are anticipating a great deal of construction in 2017.

Question: Will there be traffic lights added at Roe or Nall?

Answer (Plotas) No.

Comment: As an owner of investment property just west of Nall, I want to thank you for spearheading this development and highly support the project!

Question: Who should I call when unruly people, partying teenagers, or disturbances occur in the park?

Answer (Wes Jordan, Asst City Administrator): Policing of the park will be a joint effort by PV Police Dept. and Johnson County Park rangers.

5. 8:30 PM no further questions, meeting adjourned.
6. 8:30-9:30PM: one-on-one conversations at the display boards

Minutes taken by: Karl Ley, VanTrust Real Estate

# KENILWORTH HOMES ASSOCIATION BOARD MEETING NOTES

Monday, October 12<sup>th</sup>, 2015 7:00 pm  
Trailwood Elementary Library, Prairie Village, KS

**Kenilworth Board:** Roger Bennett, Amanda Featherston, Amber Hipp, Ed McGurren, Bruce Ridge, Floyd Wohlrab

**City of Prairie Village:** Keith Bredehoeft, Chief Tim Schwartzkopt, Captain Byron Roberson, Sergeant Jim Carney

**Van Trust Real Estate:** Justin Duff

## **Focus of This Meeting: Meadowbrook Park Proposed Plan Access Road to Roe Avenue**

The Proposed Park desires an access road on the East side of the Meadowbrook property that can only connect with Roe Avenue near 91<sup>st</sup> Street. The City of Prairie Village has requested that this access road line up with 91<sup>st</sup> Street at Roe Avenue. This would require a disposition of a Kenilworth Homes Association Common Property on the West side of Roe Avenue directly across from 91<sup>st</sup> Street.

## **Position of Prairie Village: The Access Road Should Line Up with 91<sup>st</sup> Street for the Safest Intersection**

Keith Bredehoeft presented the position of Prairie Village which has reviewed the site and is confident that having the park access road connect with Roe Avenue north of 91<sup>st</sup> Street will actually cause a greater traffic hazard than meeting up with 91<sup>st</sup> Street due to cars not being able to travel east or west without turning and traveling a short distance on Roe Avenue. Sergeant Carney presented statistics from a short covert traffic speed recording of current traffic on 91<sup>st</sup> Street. His study indicates the current traffic travels at or under the speed limit on that street. Police Chief Schwartzkopt stated the importance of an access road from the park and housing area in the Meadowbrook development for emergency services.

## **Response of Kenilworth Residents: There Was No Positive Response or Acceptance to the Position Suggested by the City**

There were 32 Kenilworth homeowners in attendance with a wide range of responses to the position of the City. The homeowner responses were not dominated by any one person, with almost everyone in the group asking questions and making comments. Here is a brief summary of the comments.

- Roe Avenue is too narrow to accommodate the new traffic from the development.
- Lining up the access road with 91<sup>st</sup> Street will substantially increase traffic in the Kenilworth neighborhood creating a straight path to Mission Road.
- Lining up the access road with 91<sup>st</sup> Street will require Van Trust to acquire the Kenilworth common property which was not considered an option by the Kenilworth homeowners.
- 91<sup>st</sup> Street cannot accommodate increased traffic.
- 91<sup>st</sup> Street intersects with Del Mar which is in between Roe and Mission Road. Del Mar is a known biking and walking street that goes from Somerset at the north to the trail system at the south.
- Residents suggest that if this road is completed, the speed limit on Roe Avenue would need to be reduced to 25 mph to minimize accidents.
- Residents generally preferred having the access road meet with Roe north of 91<sup>st</sup> as it currently shown on the Van Trust park maps.
- One suggestion was to close off 91<sup>st</sup> Street at Roe to eliminate funneling more traffic through the neighborhood and placing no left turn signs at 92<sup>nd</sup> Terrace and 93<sup>rd</sup> Street.

- Another suggestion is to have the access road an emergency access road only available to Police, Fire and Med-Act as the road was originally presented to the public as a 'service road'.
- It was suggested to place no left turn signs for north bound Roe traffic into the park, and for south bound Roe traffic onto 91<sup>st</sup> Street.
- \*An after the meeting suggestion is to have the entrance to the development as it was originally proposed north of 91<sup>st</sup> Street but only available for south bound Roe traffic via a turn lane that does not create a slowdown of traffic going south on Roe. The park exit road would meet Roe at 91<sup>st</sup> Street, but would be right turn only, forcing traffic on to Roe south bound only.
- Residents suggested a possible four way stop at Roe, 91<sup>st</sup> Street, and park access should the connection be made at that location.
- Increase the access roads going south from the Community Center to main roads to the rest of the development. This will create another entrance / exit point for the whole development.
- There are concerns for pedestrians walking from the Kenilworth neighborhood to the new park area across Roe Avenue. There should be a cross walk. Going all the way down to 95<sup>th</sup> is not realistic.
- When there are large park events, parking will likely overflow into the Kenilworth neighborhood also necessitating pedestrians to cross Roe to enter and exit the park.

**Meeting Summary: There Was No Resolution or Acceptance of the Position Suggested by the City**

The intention of this special meeting was to have the residents of Kenilworth listen to the position suggested by the city planners and traffic enforcement as to why there needs to be an access road on the east side of the Meadowbrook park and why that should line up with 91<sup>st</sup> Street.

It is clear that the Kenilworth neighbors in attendance unanimously agree that the current development plans will create an unforeseen increase in traffic on Roe Avenue and on 91<sup>st</sup> Street. Both of these will down grade the safety and current quality of life in Kenilworth.

It will be important for the city planners to rethink this access road by taking into account the objective and sincere comments made in this meeting by the Kenilworth residents. The residents of Kenilworth recognize that additional ideas beyond those presented above can occur thru further discussion with City Officials that would lead to an acceptable solution. We wish to keep the channel of communication open until that solution is found.

# **WILSON & COMPANY**

800 East 101<sup>st</sup> Terrace, Suite 200  
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Alaska  
Arizona  
California  
Colorado  
Illinois  
Kansas  
Louisiana  
Minnesota  
Missouri  
Nebraska  
New Mexico  
Oklahoma  
Texas  
Utah

November 6, 2015

Ms. Leah Fitzgerald  
VanTrust Real Estate, LLC  
4900 Main Street, Suite 400  
Kansas City, MO 64112

**RE: Traffic Impact Study  
Meadowbrook Redevelopment  
Overland Park, KS**

Dear Ms. Fitzgerald

In response to your request and authorization, Wilson & Company has completed a traffic impact study for the proposed development on the old Meadowbrook Country Club in Prairie Village, Kansas. The proposed development consists of a variety of land uses encompassing roughly 138 acres.

This report summarizes the results of our traffic study. This study is focused on the impact of the proposed development on the surrounding intersections in Overland Park, Kansas, during the A.M. and P.M. peak hours of a typical weekday. Included in this study are trip generation projections, volume/capacity analyses, and improvement to the street system to mitigate the impact of the proposed development.

## **PROPOSED DEVELOPMENT AND STUDY AREA**

The proposed development is located in Prairie Village, Kansas, at the location of the old Meadowbrook Country Club. *Figure A-1 in Appendix A* shows the location of the proposed development and its relationship with the surrounding streets. The proposed development is bounded by Nall Avenue on the west and 95<sup>th</sup> Street and 94<sup>th</sup> Terrace on the south. The remainder of the development is bounded by residences along Somerset Drive, 90<sup>th</sup> Street, and Roe Avenue on the north and east.

The proposed land use condition includes 330 units of senior housing, 280 units of apartments, 68 units of townhomes, 57 single family home units, a 50 room Inn, and 87 acres of public park. For analysis purposes, the proposed development was further broken down into two scenarios; All of the Proposed Development Without the Park (Development), and All Proposed Development Including the Park (Development Plus Park).

Access to the proposed development is to be provided from a main entrance at the intersection of Nall Avenue and 92<sup>nd</sup> Terrace and a secondary driveway onto 94<sup>th</sup> Terrace. A copy of the site plan showing driveway locations is included on *Figure A-2*.

95<sup>th</sup> Street is an east/west road with two-lanes in each direction and left turn lanes at various intersections. The posted speed is 35 mph adjacent to the development. Nall Avenue is a north/south road with two-lanes in each direction, and left turn lanes at its intersections with 95<sup>th</sup> Street and Somerset Drive. The posted speed is 35 mph adjacent to the development. Somerset Drive and 90<sup>th</sup> Street are both east/west streets with posted speed limits of 30 and 25 mph, respectively. Roe Avenue is a north/south roadway with a posted speed limit of 35 mph.

To assess the impacts of the proposed development, several intersections were identified for study during the peak hours. The intersections are located in the immediate area of the site and include:

- Nall Avenue and 92<sup>nd</sup> Terrace
- Nall Avenue and 94<sup>th</sup> Terrace
- Rosewood and 95<sup>th</sup> Street
- Roe Avenue and 91<sup>st</sup> Street
- Nall Avenue and 91<sup>st</sup> Street and Somerset Drive
- Nall Avenue and 95<sup>th</sup> Street
- Roe Avenue and 95<sup>th</sup> Street
- Roe Avenue and 93<sup>rd</sup> Street
- Roe Avenue and 92<sup>nd</sup> Terrace
- Roe Avenue and 90<sup>th</sup> Street

Traffic counts were taken at the intersection on typical weekdays from March 31 to April 1, 2015 from 7:00 A.M. – 9:00 A.M. and 4:00 P.M. – 6:00 P.M. The existing lane configurations and peak hour traffic volumes are shown on *Figures A-3 and A-4*.

## ANALYSIS

The analysis of the proposed development's impact includes calculations of vehicle trip generation, distribution of trips onto the street network, and analyses of peak hour operations. Each of these analysis techniques and their results are described below.

## TRIP GENERATION

The vehicle trips generated by the proposed development were calculated using the Institute of Transportation Engineers' *Trip Generation*, 9<sup>th</sup> Edition. The estimated daily, A.M. and P.M. peak hour traffic volumes associated with this development are shown on the following page in Table 1 and the estimated traffic volumes associated with the Park in Table 2.

**Table 1: Trip Generation Proposed Development**

Land Use	Intensity	Daily	A.M. Peak Hour			P.M. Peak Hour		
			In	Out	Total	In	Out	Total
Luxury Apartments	280	1,820	28	113	141	112	60	172
CCRC	330	792	40	21	61	29	36	65
Single Family Dwelling Unit	57	626	12	37	50	40	23	63
Townhomes (East)	34	252	4	18	22	17	8	25
Townhomes (West)	34	252	4	18	22	17	8	25
Inn	50	302	8	15	23	13	11	24
<b>TOTAL</b>		<b>4,043</b>	<b>96</b>	<b>222</b>	<b>318</b>	<b>228</b>	<b>146</b>	<b>374</b>

Due to limited and relatively volatile data available, a more rigorous procedure was used to project the trip generation of the proposed 87 acres of Park area. As of the date of this document the final plan for the Park has not been established, but the following is the plan at this time:

1. The existing clubhouse will remain and will be used on an interim basis as a local meeting space. Typical meetings may be: quarterly homes association meetings, holiday parties, wedding receptions, art classes, etc. The kitchen appliances in the facility will be removed.
2. The swimming pool will be removed.
3. There are four existing tennis courts. Two of the courts will be removed, two will remain.

ITE's Land Use: 412, County Park was used to calculate the trips generated by the Park area. ITE's description of the land use is as follows:

"County parks are owned and operated by a county. The county parks surveyed vary widely as to location, type and number of facilities, including boating or swimming facilities, ball fields, soccer fields, camp sites, picnic facilities and general open space."

Based on ITE's description, it appears that the ancillary facilities of the County Park land use will generate more traffic than the meeting space and tennis courts of the Meadowbrook site. Therefore, the county park trip generation rate was used for the entire Park area and appears to be a conservative analysis. Further, since there is substantial variability in the data, for both the AM and PM peak hours a trip generation rate for an actual data point was used instead of the average rate. The data points used can be seen on the attached figures. The data points represent a park with an area slightly less than 50 acres. Based on these sources, Table 2 shows the Park area of the Meadowbrook Redevelopment trip generation:

**Table 2: Trip Generation Park Only**

Land Use	Intensity	Daily	A.M. Peak Hour			P.M. Peak Hour		
			In	Out	Total	In	Out	Total
County Park	86.7	198	17	11	28	84	53	137
<b>TOTAL</b>		<b>198</b>	<b>17</b>	<b>11</b>	<b>28</b>	<b>84</b>	<b>53</b>	<b>137</b>

More detailed information on trip generation calculations are included in *Appendix B*.

## TRIP DISTRIBUTION

The estimated peak hour trips generated by the Proposed Development were distributed onto the street system based on existing travel patterns and expected service area of the development. **Table 3** illustrated the general distribution patterns used in this study for Development Only. The Proposed Development distributions were achieved by treating the development as a node and then distributing the entering and exiting traffic based upon existing entering and exiting usage patterns. **Table 4** shows the general distribution patterns for the Park. The detailed distribution patterns through the study intersections are documented in *Appendix B*.

To/From Direction & Route	Entering		Exiting	
	AM	PM	AM	PM
North on Nall Avenue	20%	10%	15%	15%
West on 91 <sup>st</sup> Street	5%	5%	5%	5%
Northeast on Somerset Drive	5%	10%	5%	10%
West on 95 <sup>th</sup> Street	15%	20%	20%	15%
South on Nall Avenue	25%	20%	15%	20%
South on Roe Avenue	5%	10%	15%	10%
East on 95 <sup>th</sup> Street	15%	15%	15%	20%
North on Roe Avenue	10%	10%	10%	5%
<b>TOTAL</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

To/From Direction & Route	Entering	Exiting
	AM & PM	AM & PM
North on Nall Avenue	18%	19%
West on 91 <sup>st</sup> Street	0%	0%
Northeast on Somerset Drive	13%	13%
West on Somerset Drive	19%	18%
West on 95 <sup>th</sup> Street	14%	15%
South on Nall Avenue	16%	15%
South on Roe Avenue	6%	6%
East on 90 <sup>th</sup> Street	4%	4%
East on 95 <sup>th</sup> Street	6%	6%
North on Roe Avenue	4%	4%
<b>TOTAL</b>	<b>100%</b>	<b>100%</b>

## TRAFFIC OPERATION ASSESSMENT

The operating characteristics of study area intersections were analyzed using Synchro 8.0, using methodologies from the 2010 Highway Capacity Manual (HCM) [TRB Special Report 209, 2000]. Intersection turning movement counts, the number of lanes and traffic control were used to determine existing and future levels of service. Level of service (LOS) ranges from A to F and describes traffic conditions at an intersection or on a roadway. LOS A, the highest grade, indicates a condition of little or no congestion and LOS F a condition with severe congestion, unstable traffic flow, and stop-and-go conditions. Table 5 shows the Highway Capacity Manual definitions for LOS and the corresponding delay for unsignalized and signalized intersections.

Level of Service (LOS)	Signalized	Unsignalized
A	< 10 Seconds	< 10 Seconds
B	< 20 Seconds	< 15 Seconds
C	< 35 Seconds	< 25 Seconds
D	< 55 Seconds	< 35 Seconds
E	< 80 Seconds	< 50 Seconds
F	≥ 80 Seconds	≥ 50 Seconds

For intersections, LOS is based on the average delay experienced by all traffic using the intersection during the busiest (peak) 15-minute period. LOS A through D is generally considered acceptable. Each of the aforementioned scenarios was analyzed during the weekday AM and PM peak hours. Under the existing scenario, existing cycle lengths, splits, and offsets were used in each of the time periods analyzed to reflect actual traffic operations, with signals currently being coordinated and some being fully actuated. Under the build scenarios, cycle lengths, splits, and offsets were optimized to reflect a completely coordinated signal system. The results are presented in the following summaries, and supporting calculations are presented in **Appendix C**.

Level of Service (LOS) analyses were performed using the Synchro software, which uses methodologies from the 2010 Highway Capacity Manual (HCM). The LOS values reported in this document are the HCM values.

## EXISTING CONDITIONS

The results of the intersection analysis for the A.M. and P.M. peak hour existing conditions are summarized in **Table 6**. The study intersections were evaluated with the existing traffic volumes, traffic controls and lane configurations shown on *Figures A-3 and A-4*.

Table 6: Existing Conditions

Intersection	Movement	A.M. Peak Hour		P.M. Peak Hour	
		LOS <sup>1</sup>	Delay <sup>2</sup>	LOS <sup>1</sup>	Delay <sup>2</sup>
Nall Avenue/Somerset Drive/91 <sup>st</sup> Street	All Movements (Signalized)	C	20.9	C	27.2
Nall Avenue/Main Access/92 <sup>nd</sup> Terrace	EB Left/Thru/Right	C	24.5	C	16.6
	NB Left/Thru	B	10.9	A	0.3
Nall Avenue/94 <sup>th</sup> Terrace	WB Left/Thru/Right	C	16.5	F	68.8
	SB Left/Thru	A	1.3	B	0.6
Nall Avenue/95 <sup>th</sup> Street	All Movements (Signalized)	D	47.5	E	77.2
Rosewood Drive/95 <sup>th</sup> Street	All Movements (Signalized)	A	5.9	A	5.4
Roe Avenue/95 <sup>th</sup> Street	All Movements (Signalized)	D	37.0	D	45.3
Roe Avenue/93 <sup>rd</sup> Street	WB Left/Thru/Right	B	14.4	B	14.7
	SB Left/Thru	A	7.9	A	0.1
Roe Avenue/92 <sup>nd</sup> Terrace	WB Left/Thru/Right	B	14.8	C	16.6
	SB Left/Thru	A	0.2	A	0
Roe Avenue/91 <sup>st</sup> Street	WB Left/Thru/Right	B	11.4	B	12.5
	SB Left/Thru	A	0	A	0.4
Roe Avenue/90 <sup>th</sup> Street	NB Left/Thru	A	0.5	A	0.5
	EB Left/Thru/Right	C	16.1	C	21.1
	WB Left/Thru/Right	C	15.5	C	17.9
	SB Left/Thru	A	0.3	A	0.3

1 - Level of Service

2 - Delay in Seconds per Vehicle

The results indicate that all study intersections currently operate at an acceptable LOS with the exception of two intersection during the PM peak hour: Nall Avenue/94<sup>th</sup> Terrace and Nall Avenue/95<sup>th</sup> Street.

At the Nall Avenue/94<sup>th</sup> Terrace intersection the WB Left/Thru/Right was analyzed to operate at LOS F. Since the traffic volumes at this intersection do not approach the levels needed to meet traffic signal warrants, our recommendation for the westbound approach is to add a separate left-turn lane. This turn lane will isolate the unacceptable LOS to only the left-turn movement. Note that traffic on 94<sup>th</sup> Terrace, headed to destinations south, does have other, less direct, options that avoid the difficult left turn at Nall Avenue/94<sup>th</sup> Terrace. Also, based on field observations of existing traffic patterns, traffic signals on Nall

Avenue north and south of 94<sup>th</sup> Terrace, at 91<sup>st</sup> Street and 95<sup>th</sup> Street, platoon Nall Avenue traffic such that there are numerous traffic gaps that will accommodate the left-turning traffic. The Nall / 95<sup>th</sup> Street intersection operates at a LOS E with a delay of 77.2. For the purposes of this study, this delay and LOS is considered an acceptable level of service for this intersection. Our recommendation for this intersection is to change the phasing to protected/ permissive, and/or shorten the cycle. It should be noted that this signal is part of a coordinated traffic signal system on 95<sup>th</sup> Street.

Appendix C contains the output files from Synchro.

### EXISTING PLUS DEVELOPMENT PLUS PARK CONDITIONS

The results of the intersection analysis for the A.M. and P.M. peak hour existing plus development plus park conditions are summarized in Table 7. The study intersections were evaluated with the existing plus development plus park traffic volumes, traffic controls and lane configurations shown on Figures A-5 and A-6.

Table 7: Existing Plus Development Plus Park Condition					
Intersection	Movement	A.M. Peak Hour		P.M. Peak Hour	
		LOS <sup>1</sup>	Delay <sup>2</sup>	LOS <sup>1</sup>	Delay <sup>2</sup>
Somerset Drive/Parking Lot Driveway	NB Left/Right	B	113	C	17.2
	WB Left/Thru	A	7.9	A	8.6
	EB Thru/Right	A	0	A	0
Nall Avenue/Somerset Drive/91 <sup>st</sup> Street	All Movements (Signalized)	C	31.1	D	45.4
Nall Avenue/Parking Lot Driveway	WB Right	B	10.8	B	13.6
	NB Thru/Right	A	0	A	0
Nall Avenue/Main Access/92 <sup>nd</sup> Terrace	NB Left	B	11	B	10
	NB Thru	A	0	A	0.2
	EB Left/Thru/Right	D	30.5	C	23.2
	WB Left	F	60.7	F	390.9
	WB Thru/Right	B	11.3	C	15.5
	SB Left	A	9.2	B	13.3
	SB Thru	A	0.5	A	1.7
Nall Avenue/94 <sup>th</sup> Terrace	NB Left/Thru/Right	A	0	A	0
	EB Left/Thru/Right	A	0	A	0
	WB Left	F	64	F	249.2
	WB Thru/Right	B	11.3	C	16.9
	SB Left	A	9.6	B	12
	SB Thru	A	1	A	0.8
Nall Avenue/95 <sup>th</sup> Street	All Movements (Signalized)	D	37.4	E	73.7

Secondary Access/94 <sup>th</sup> Terrace	SB Left/Right	B	10.8	B	11.1
	EB Left/Thru	A	7.5	A	7.7
	WB Thru/Right	A	0	A	0
Rosewood Drive/95 <sup>th</sup> Street					
	<i>All Movements (Signalized)</i>	A	7.7	A	5.9
Roe Avenue/95 <sup>th</sup> Street					
	<i>All Movements (Signalized)</i>	D	38.9	D	38.9
Roe Avenue/93 <sup>rd</sup> Street					
	NB Thru/Right	A	0	A	0
	WB Left/Right	B	14.5	B	14.8
	SB Left/Thru	A	7.9	A	8.4
Roe Avenue/92 <sup>nd</sup> Terrace					
	NB Thru/Right	A	0	A	0
	WB Left/Right	B	14.8	C	16.6
	SB Left/Thru	A	8	A	8.4
Roe Avenue/91 <sup>st</sup> Street					
	NB Left/Thru	A	0	A	0
	WB Left/Thru/Right	B	10.5	B	12.6
	SB Left/Thru	A	7.7	A	8.5
Roe Avenue/90 <sup>th</sup> Street					
	NB Left/Thru	A	8.4	A	8.3
	EB Left/Thru/Right	C	16.2	C	21.4
	WB Left/Thru/Right	C	15.9	C	19.2
	SB Left/Thru	A	8	A	8.4

Results from the analysis indicate the following intersections do not operate at an acceptable level of service:

- Nall Avenue / 95<sup>th</sup> Street
- Nall Avenue / Main Access / 92<sup>nd</sup> Terrace
- Nall Avenue / 94<sup>th</sup> Terrace.

The results indicate that the Nall / 95<sup>th</sup> Street intersection will operate with less delay due to the change in signal phasing from protected only to protected/permissive.

At the Nall Avenue/Main Access/92<sup>nd</sup> Terrace intersection a single lane westbound approach was analyzed to operate at LOS F. Since the Build traffic volumes at this intersection do not approach the levels needed to meet traffic signal warrants, the recommendation for the westbound approach is to add a separate left-turn lane. This turn lane will isolate the unacceptable LOS to only the left-turn movement. Note that westbound traffic on the Main Access, headed to destinations south, does have other, less direct options that avoid the difficult left turn at Nall Avenue/ Main Access/92<sup>nd</sup> Terrace. Also, based on field observations of existing traffic patterns, traffic signals on Nall Avenue north and south of Main Access/92<sup>nd</sup> Terrace, at 91<sup>st</sup> Street and 95<sup>th</sup> Street, platoon Nall Avenue traffic such that there are numerous traffic gaps that will accommodate the relatively low volume of left-turning traffic.

The Nall Avenue / 94<sup>th</sup> Terrace intersection should have a separate left turn lane to isolate the poor level of service. Like the Nall Avenue / Main Access / 92<sup>nd</sup> Terrace access, the traffic signals platoon traffic on Nall Avenue north and south of the intersection such that there are gaps to accommodate the left-turning vehicles.

The Nall Avenue/Parking Lot Driveway operates at an acceptable level of service and will be a right-in right-out only intersection due to the proximity to the Nall Avenue / Somerset Drive intersection. Table 8 shows the available queue length and calculated queues. The northbound Nall Avenue / Somerset Drive / 91<sup>st</sup> Street queue has 187' of available queue length. The PM northbound queue is expected to exceed the left-turn bay by 53' feet or approximately 2 vehicles. This queue may back up beyond the park entrance driveway to the south. The right-in right-out configuration at the driveway will address concerns of the lengthy queues.

Appendix C contains the output files from Synchro.

Table 8: 95 <sup>th</sup> Build Percentile Queue Lengths			
Intersection (Movement)	Bay / Link Length (feet)	AM Peak 95 <sup>th</sup> Queue	PM Peak 95 <sup>th</sup> Queue
<b>Nall Ave / West 95<sup>th</sup> Street Overall Intersection (Signalized)</b>			
<i>Eastbound Left</i>	200	85	252
<i>Eastbound Thru</i>	N/A	175	333
<i>Eastbound Thru / Right</i>	N/A	151	362
<i>Westbound Left</i>	147	155	134
<i>Westbound Thru</i>	N/A	241	153
<i>Westbound Thru / Right</i>	N/A	216	174
<i>Northbound Left</i>	140	63	219
<i>Northbound Thru</i>	N/A	209	598
<i>Northbound Thru / Right</i>	N/A	136	518
<i>Southbound Left</i>	160	85	96
<i>Southbound Thru</i>	N/A	201	160
<i>Southbound Thru / Right</i>	N/A	209	160
<b>Nall Ave / West 91<sup>st</sup> Street / Somerset Drive Overall Intersection (Signalized)</b>			
<i>Eastbound Left</i>	149	152	211
<i>Eastbound Thru / Right</i>	N/A	249	490
<i>Westbound Left</i>	65	159	162
<i>Westbound Thru / Right</i>	N/A	231	210
<i>Northbound Left</i>	187	183	240
<i>Northbound Thru</i>	N/A	288	384
<i>Northbound Right</i>	N/A	22	93
<i>Southbound Left</i>	182	37	41
<i>Southbound Thru</i>	N/A	184	167
<i>Southbound Thru / Right</i>	N/A	118	140

Intersection (Movement)	Bay / Link Length (feet)	AM Peak 95 <sup>th</sup> Queue	PM Peak 95 <sup>th</sup> Queue
Roe Avenue / West 95 <sup>th</sup> Street Overall Intersection (Signalized)			
<i>Eastbound Left</i>	146	54	147
<i>Eastbound Thru</i>	N/A	117	368
<i>Eastbound Thru / Right</i>	N/A	130	368
<i>Westbound Left</i>	116	180	91
<i>Westbound Thru</i>	N/A	309	155
<i>Westbound Thru / Right</i>	N/A	289	154
<i>Northbound Left</i>	38	37	131
<i>Northbound Thru / Right</i>	N/A	209	257
<i>Southbound Left</i>	76	94	89
<i>Southbound Thru / Right</i>	N/A	280	211
Roe Avenue / West 90 <sup>th</sup> Street Overall Intersection (Unsignalized)			
<i>Eastbound Left / Thru / Right</i>	N/A	41	48
<i>Westbound Left / Thru / Right</i>	N/A	30	36
<i>Northbound Left / Thru / Right</i>	N/A	0	35
<i>Southbound Left / Thru / Right</i>	N/A	0	25
Roe Avenue / West 91 <sup>st</sup> Street Overall Intersection (Unsignalized)			
<i>Westbound Left / Right</i>	N/A	26	28
<i>Southbound Left / Thru</i>	N/A	0	147
Nall Avenue / West 92 <sup>nd</sup> Terrace / Main Access Overall Intersection (Unsignalized)			
<i>Eastbound Left / Thru / Right</i>	N/A	53	0
<i>Westbound Left</i>	N/A	0	35
<i>Westbound Thru / Right</i>	N/A	51	30
<i>Northbound Left / Thru</i>	N/A	0	26
<i>Southbound Left / Thru</i>	N/A	71	19
<i>Southbound Thru / Right</i>	N/A	82	85
Nall Avenue / West 94 <sup>th</sup> Terrace Overall Intersection (Unsignalized)			
<i>Westbound Left</i>	N/A	37	48
<i>Westbound Thru / Right</i>	N/A	52	85
<i>Northbound Thru / Right</i>	N/A	19	0
<i>Southbound Left / Thru</i>	N/A	109	110
<i>Southbound Thru / Right</i>	N/A	95	74

Intersection (Movement)	Bay / Link Length (feet)	AM Peak 95 <sup>th</sup> Queue	PM Peak 95 <sup>th</sup> Queue
Roe Avenue / West 93 <sup>rd</sup> Street Overall Intersection (Unsignalized)			
<i>Westbound Left / Right</i>	N/A	43	36
<i>Southbound Left / Thru</i>	N/A	27	0
Rosewood / West 94 <sup>th</sup> Terrace / West 95 <sup>th</sup> Street Overall Intersection (Signalized)			
<i>Eastbound Left</i>	132	37	66
<i>Eastbound Thru</i>	N/A	37	73
<i>Eastbound Thru / Right</i>	N/A	50	62
<i>Westbound Left</i>	147	66	56
<i>Westbound Thru</i>	N/A	0	65
<i>Westbound Thru / Right</i>	N/A	43	83
<i>Northbound Left</i>	108	111	87
<i>Northbound Thru / Right</i>	N/A	78	58
<i>Southbound Left</i>	82	89	105
<i>Southbound Thru / Right</i>	N/A	43	104
West 94 <sup>th</sup> Terrace / Secondary Access Overall Intersection (Unsignalized)			
<i>Eastbound Left / Thru</i>	N/A	0	38
<i>Southbound Left / Right</i>	N/A	54	49
Roe Avenue / West 92 <sup>nd</sup> Terrace Overall Intersection (Unsignalized)			
<i>Westbound Left / Right</i>	N/A	40	40
<i>Southbound Left / Thru</i>	N/A	0	45
Parking Lot / Somerset Drive Overall Intersection (Unsignalized)			
<i>Northwest Left / Right</i>	N/A	0	22
Parking Lot Right-In Right-Out / Nall Avenue Overall Intersection (Unsignalized)			
<i>Westbound Right</i>	N/A	0	27
<i>Northbound Thru</i>	N/A	81	325
<i>Northbound Thru/Right</i>	N/A	0	264

## Geometry

The Rosewood Driveway/94<sup>th</sup> Terrace roadway segment, from 95<sup>th</sup> Street to Nall Avenue, currently has thirteen driveways. Two of these driveways are located within 50 feet of the intersection with 95<sup>th</sup> Street. Modern access design would not allow the driveways to be placed this close to a signalized intersection.

Addition of a raised median on Rosewood to make the driveways right-in right-out would increase safety along the corridor.

The sight distance required for a 35 mph roadway with a decline of 6% is 278 feet and for 25 mph on level roadway it is 155' according to the KDOT Access Management Policy. Table 9 below shows the new intersections with their sight distance.

Table 9: Sight Distance			
Intersection	Speed Limit	Required Sight Distance	Provided Sight Distance
Nall Avenue / Main Access / 92 <sup>nd</sup> Terrace	35	278'	600'
Rosewood / Secondary Access	25	155'	350'

## WALKABILITY ASSESSMENT

The purpose of the Walkability Assessment is to review the pedestrian access to and around the perimeter of the property. *Figure A-9* shows the project location and the perimeter locations within the property where sidewalk currently exists and where sidewalk will be added.

## CRASH HISTORY

As part of the review of the Eastern Access/Roe Avenue connection, the crash history of the immediate area on Roe Avenue was reviewed. Table 10 shows the reported crashes during the most recent 5-years' worth of records.

Table 10: Roe Avenue Crashes								
	PDO		Injury		Fatal		Sequence of Events	
	SB	NB	SB	NB	SB	NB	1st Crash in Row	2nd Crash in Row
2010	1	0	0	0	0	0	Ran off Road Right, Hit Fixed Object	
2011	0	0	0	0	0	0		
2012	0	0	0	0	0	0		
2013	0	1*	0	1	0	0	Hit Fixed Object	Ran off Road Right, Hit Fixed Object, Overturned
2014	0	0	1*	0	0	0	Hit Fixed Object, Ran off Road Left, Hit Fixed Object	

\*Indicates DUI

There were a total of four crashes in a five-year span with two being property damage only and two injury. Of those four crashes, two were marked DUI. The locations of three of the four crashes is

south of the intersection of Roe Avenue and W 91st street. The last crash is located at the intersection.

## SUMMARY

This study documents the traffic impact of the proposed Redevelopment of the Meadowbrook Country Club on the roadway network in the vicinity of 91<sup>st</sup> Street, 95<sup>th</sup> Street, Nall Avenue and Roe Avenue in Prairie Village, Kansas. This report includes the analysis of the intersections adjacent to and surrounding the proposed development for Existing and Existing Plus Development Plus Park scenarios.

The operational analysis of existing traffic volumes shows that the existing roadway network operates within desirable levels of service with the exception of the following intersections:

- Nall Avenue/94<sup>th</sup> Terrace – addition of a westbound left-turn lane will isolate the poor LOS to only the left-turn.
- Nall Avenue/95<sup>th</sup> Street – addition of permissive left-turn to all approaches will maintain or improve the delay at the intersection and maintain the current LOS.

The operational analysis of existing plus proposed development traffic volumes shows that the roadway network needed to accommodate existing traffic volumes operates within desirable levels of service with the exception of the following intersection:

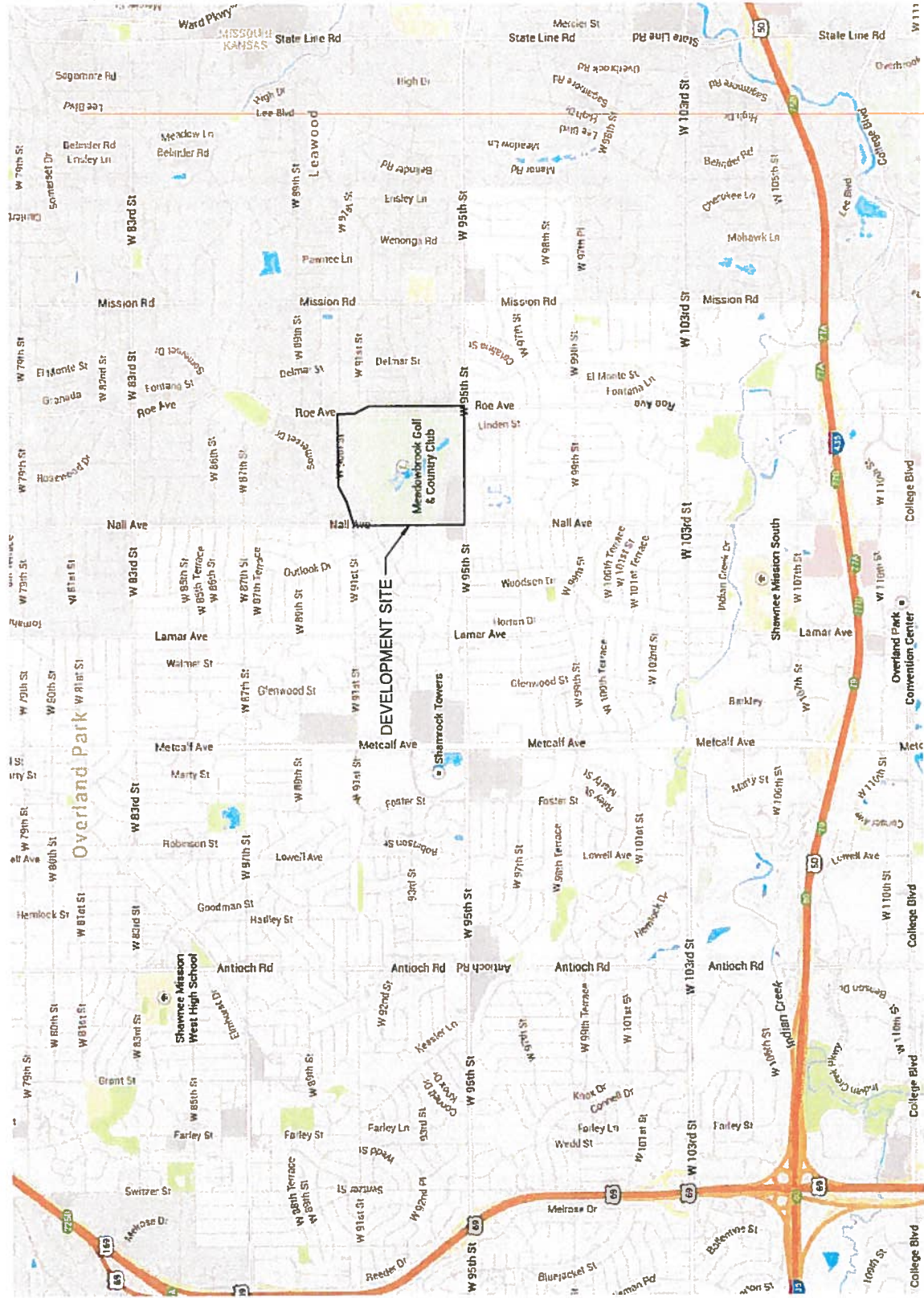
- Nall Avenue/Main Access/92<sup>nd</sup> Terrace – addition of a westbound left-turn lane will isolate the poor LOS to only the left-turn.

At the following two locations, due to access driveways located close to signalized intersections, the elimination of the driveway should be considered or a raised median constructed:

- Nall Avenue/Parking Lot
- North leg of Rosewood Drive/95<sup>th</sup> Street

At the time of the publication of this report there are two outstanding intersection questions:

1. The connection to 94<sup>th</sup>/Rosewood is being negotiated. The configuration shown in this report appears to be the final plan, however, negotiations are ongoing at this time.
2. There has been discussion of left-turn lane(s) on Nall Avenue at the Main entrance. The intersection has an acceptable LOS without the left-turn lane(s), therefore, the LOS will only improve with the addition of southbound and/or northbound left-turn lane(s).



JULY 2015  
NO SCALE  
FIGURE A-1

MEADOWBROOK DEVELOPMENT  
PRAIRIE VILLAGE, KANSAS

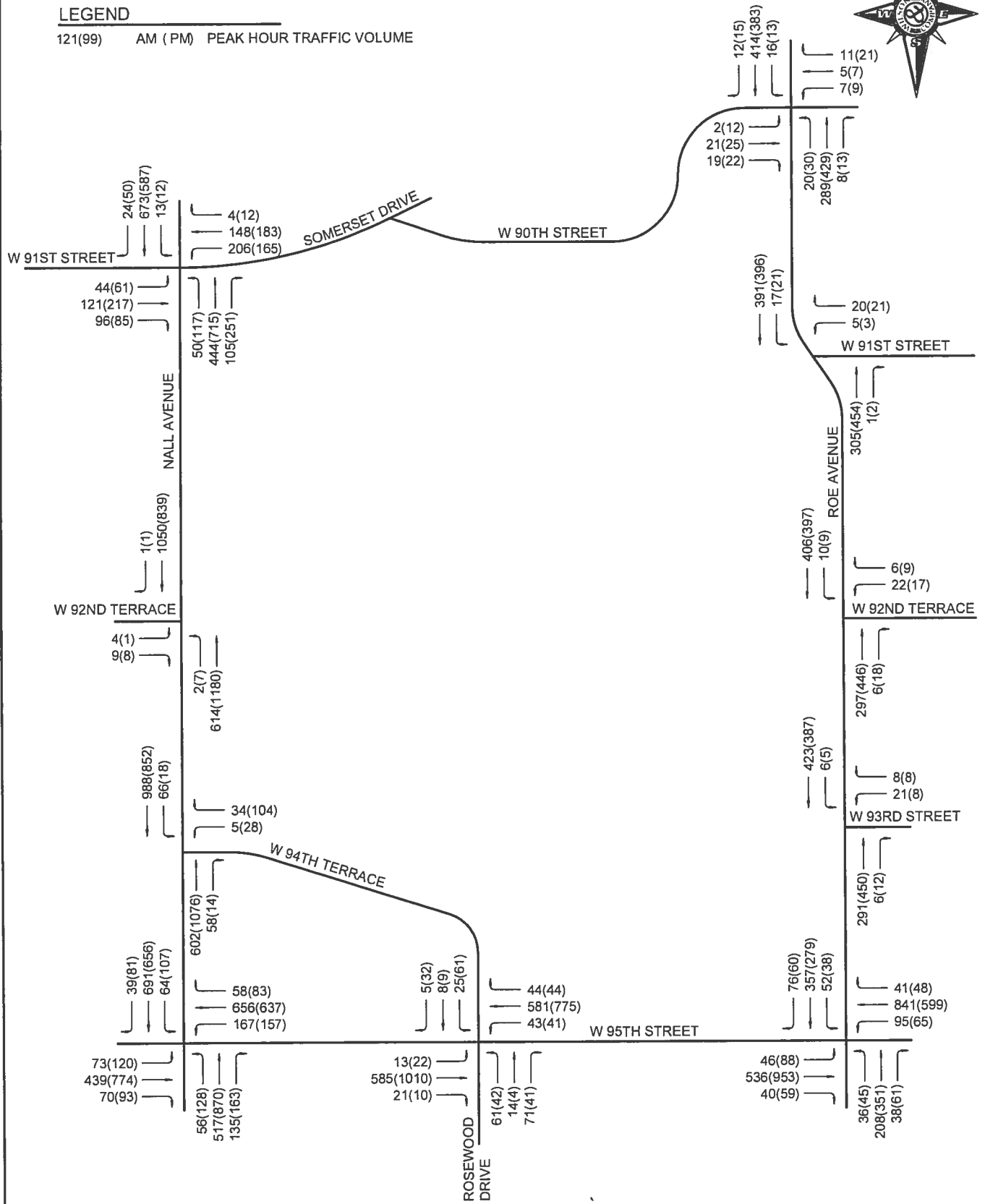
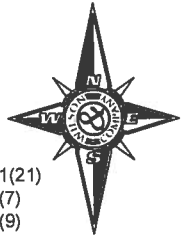
LOCATION MAP





**LEGEND**

121(99) AM (PM) PEAK HOUR TRAFFIC VOLUME



**WILSON & COMPANY**

EXISTING PEAK HOUR TRAFFIC COUNTS

MEADOWBROOK DEVELOPMENT PRAIRIE VILLAGE, KANSAS

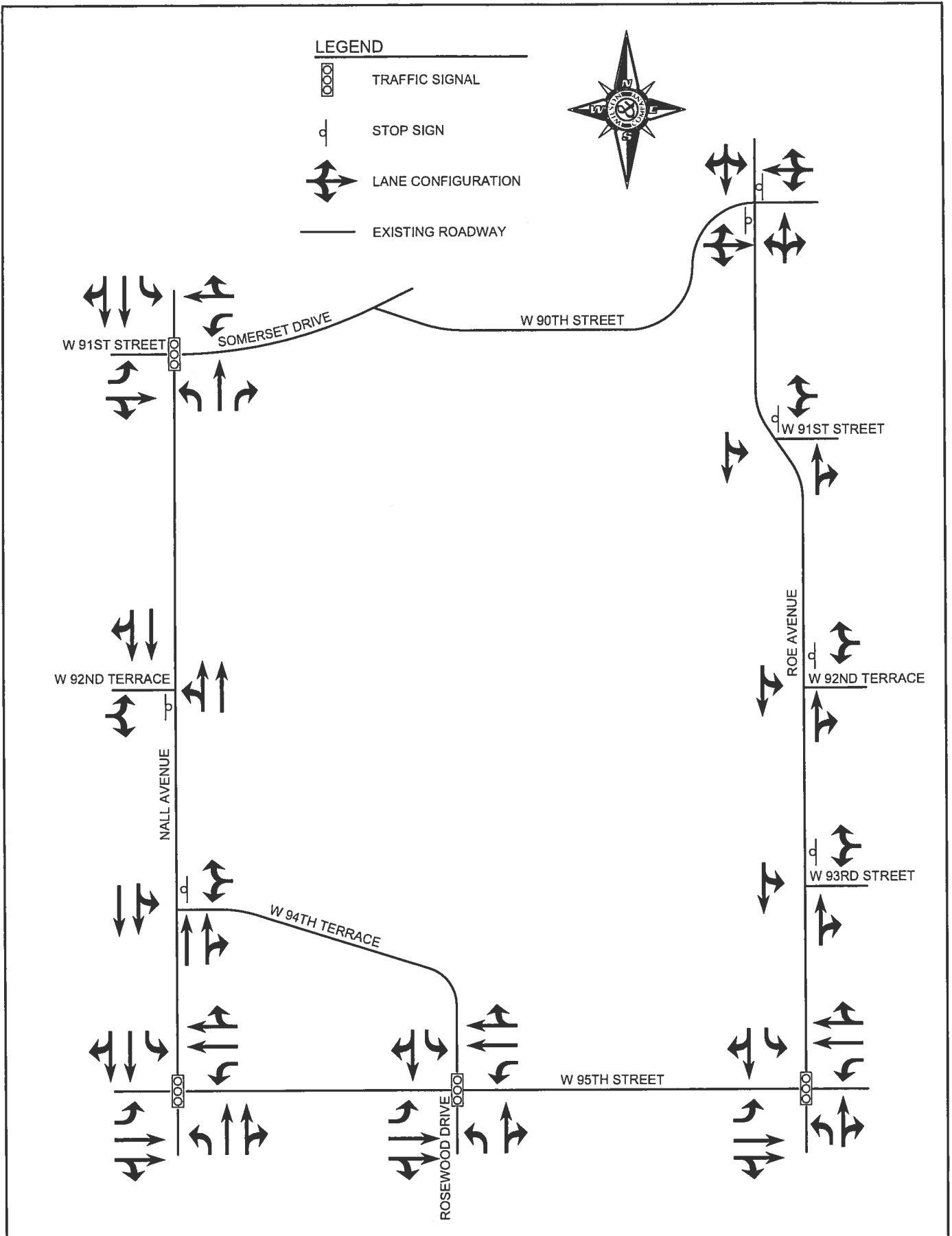
JULY 2015

NO SCALE

FIGURE A-3

File: M:\TRN\15-100-038-0012\_Disciplines\_SHEETS\3\_Sheets - roadway\A-4\_Existing lane configurations.dgn

Date: 11/6/2015  
By: aabrucker



**WILSON & COMPANY**

EXISTING LANE CONFIGURATIONS

MEADOWBROOK DEVELOPMENT  
PRAIRIE VILLAGE, KANSAS

JULY 2015

NO SCALE

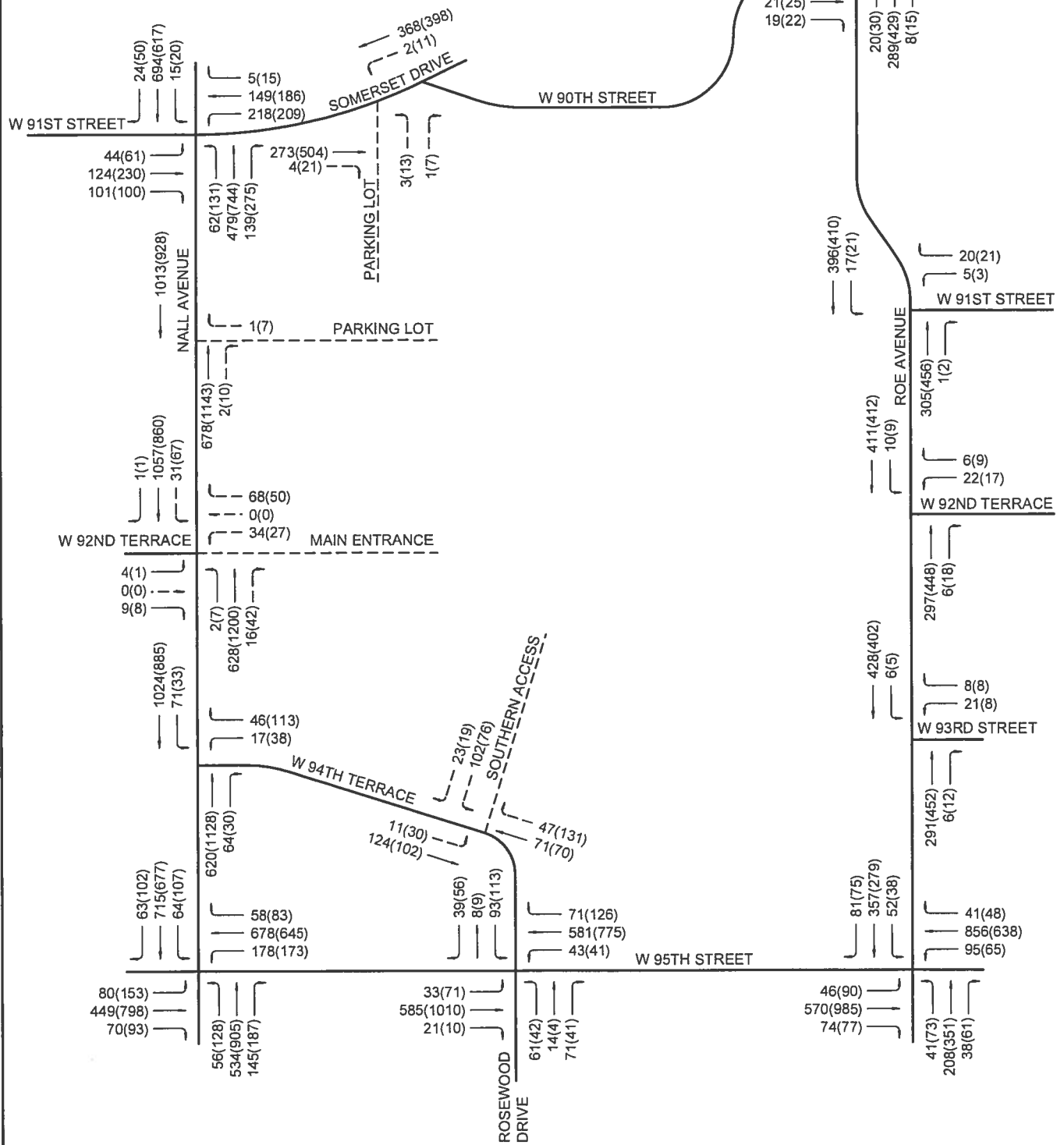
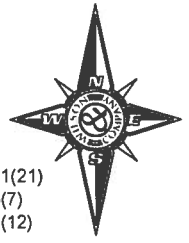
FIGURE A-4

File: M:\TRN\15-100-038-0012\_Disciplines\_SHEETS\3\_Sheets - roadway\2015\_10\_28\_A-7\_Development Plus Park Peak Hour Traffic Volumes.dgn

Date: 11/6/2015  
By: aabrucker

**LEGEND**

- 121(99) AM (PM) PEAK HOUR TRAFFIC VOLUME
- EXISTING TRAFFIC DIRECTION
- - - PROPOSED TRAFFIC DIRECTION
- EXISTING ROADWAY
- - - PROPOSED ROADWAY



EXISTING PLUS DEVELOPMENT PLUS PARK PEAK HOUR TRAFFIC COUNTS

MEADOWBROOK DEVELOPMENT PRAIRIE VILLAGE, KANSAS

JULY 2015

NO SCALE

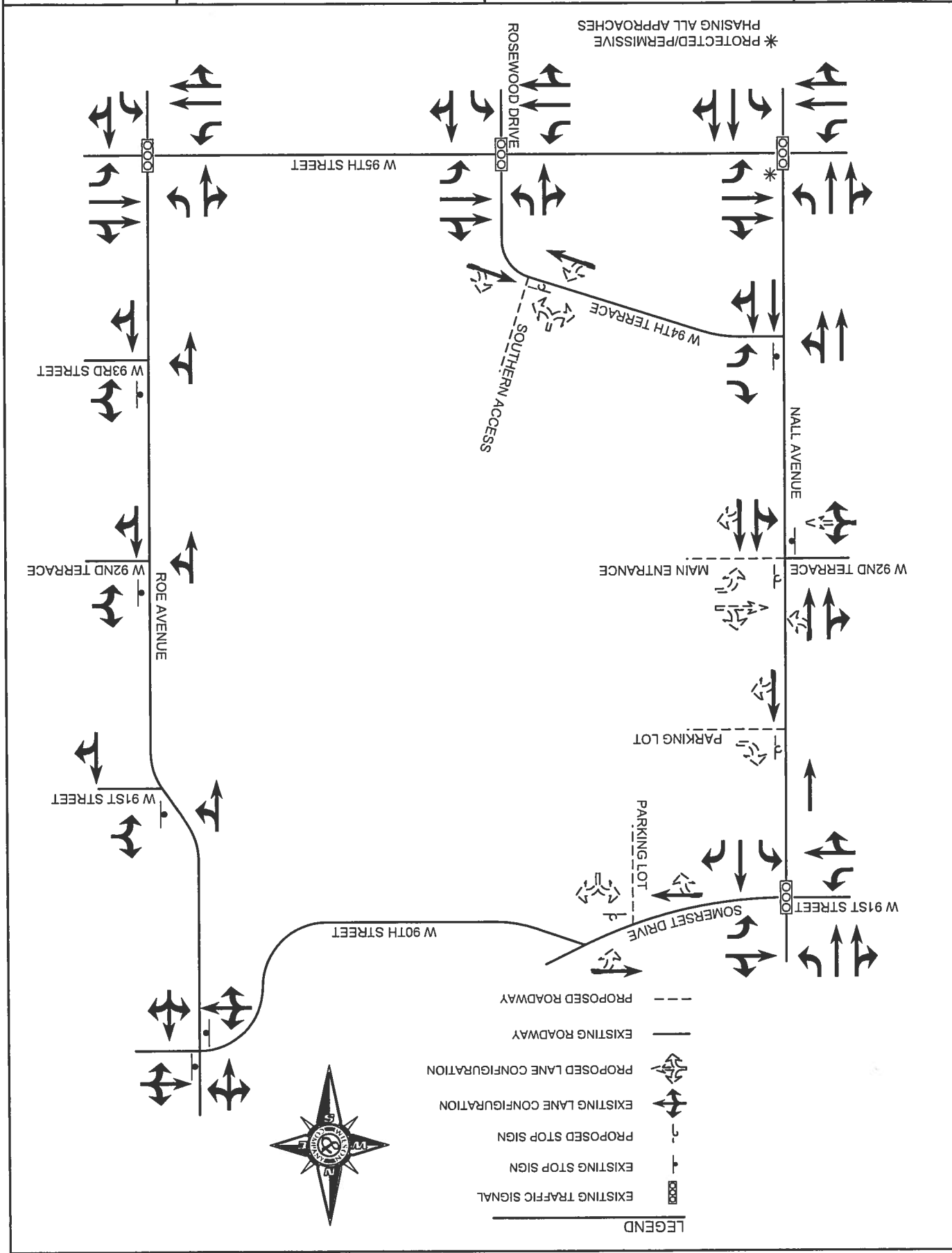
FIGURE A-5

**WILSON & COMPANY**

**EXISTING PLUS PARK DEVELOPMENT PLUS PARK LANE CONFIGURATIONS**

**MEADOWBROOK DEVELOPMENT PRAIRIE VILLAGE, KANSAS**

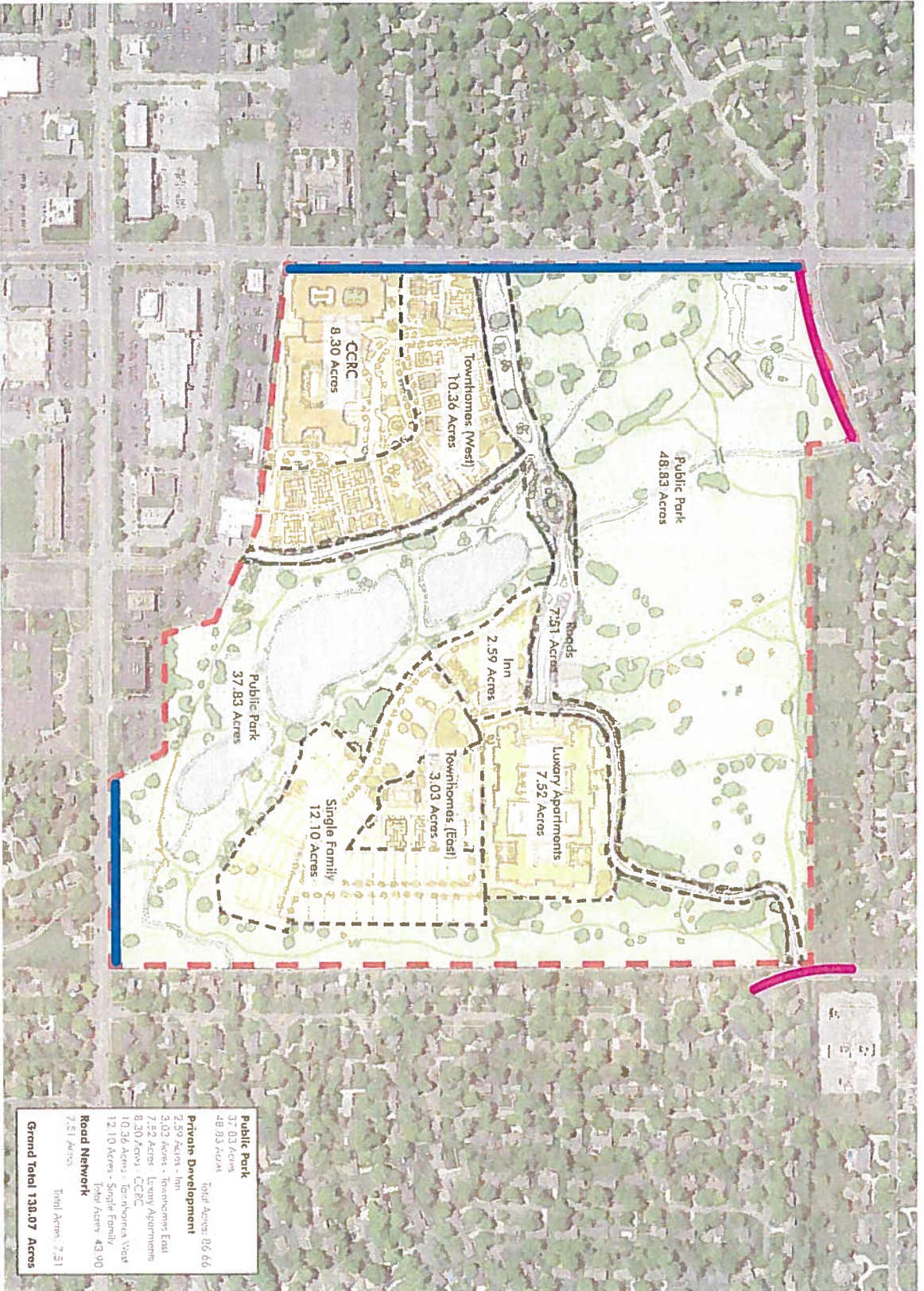
JULY 2015  
 NO SCALE  
 FIGURE A-6



**LEGEND**

- EXISTING TRAFFIC SIGNAL
- EXISTING STOP SIGN
- PROPOSED STOP SIGN
- EXISTING LANE CONFIGURATION
- PROPOSED LANE CONFIGURATION
- EXISTING ROADWAY
- PROPOSED ROADWAY





Area Calculations  
Last Modified: 2/11/16

EXISTING SIDEWALK  
PROPOSED SIDEWALK





## **MEMO**

To: Keith Bredehoeft, P.E.  
Prairie Village, KS

From: Curtis R. Talcott, P.E.

CC: Matt Kapfer, P.E.  
Phelps Engineering

Date: November 5, 2015

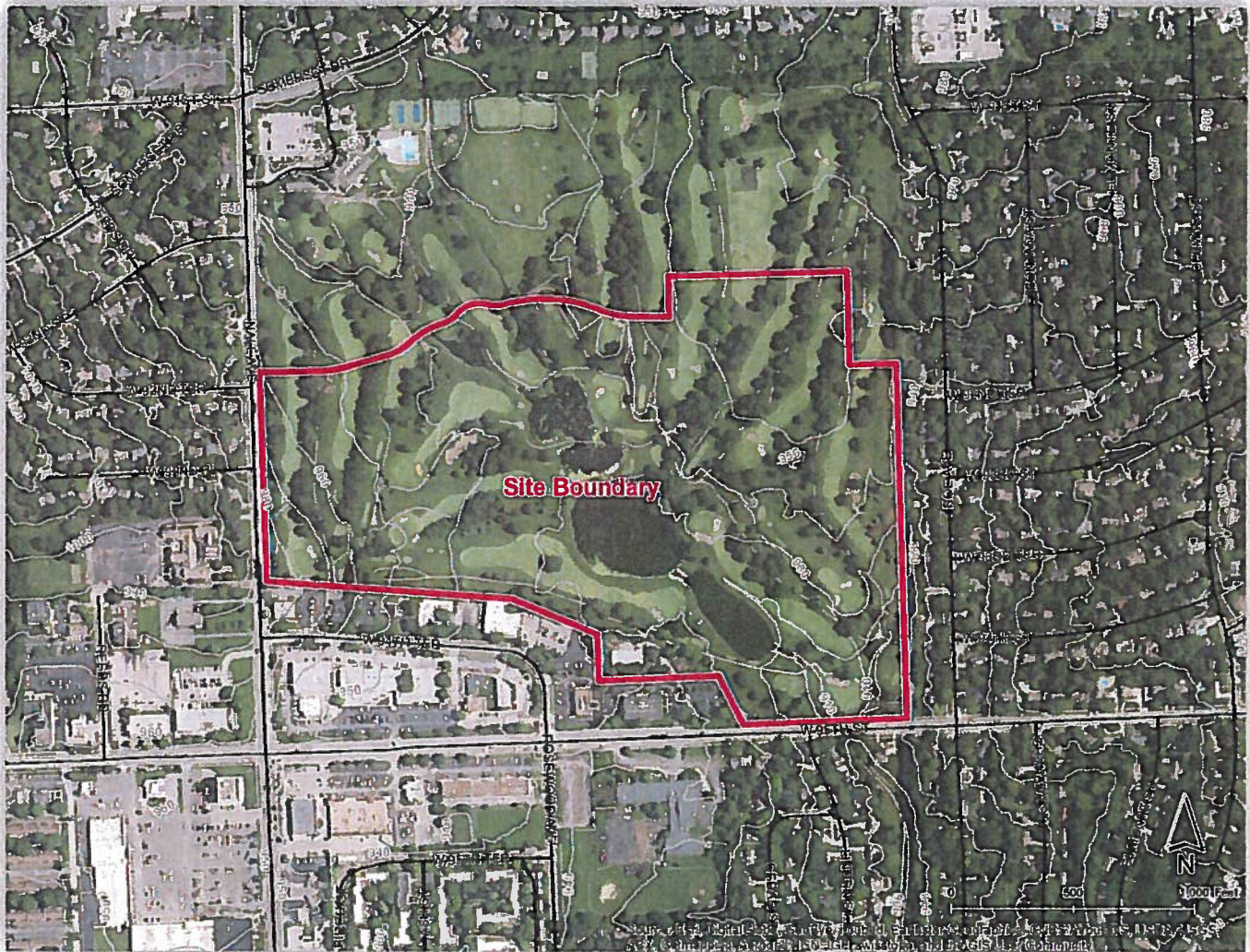
Re: Meadowbrook Park – Preliminary Stormwater Management Plan

Renaissance Infrastructure has completed a cursory review of the Preliminary Stormwater Management Plan for Meadowbrook Park submitted by Phelps Engineering dated October 23, 2015. We have the following comments based on our review:

1. The hydrology calculations meet the APWA and City of Prairie Village requirements for detaining peak flows for the 2, 10 & 100-year storm events.
2. The proposed BMPs would meet the requirements of the MARC BMP Manual for Level of Service requirements for the proposed redevelopment of the site.
3. Based on phone conversations with Phelps Engineering, minor modifications to the BMPS will be made to the Final Stormwater Management Plan to replace the 4.3 acres of native vegetation.



**Figure 2 - Vicinity Map B (GIS)**



## **2. SUMMARY**

Stormwater design criteria are in accordance with City of Prairie Village Design Criteria and *APWA 5600 Storm Drainage Systems & Facilities, February 16, 2011*, with the requested exception of the spillway design criteria as discussed in section 5 of this report. Stormwater best management practices (BMP) requirements and design are in accordance with *MARC Manual of Best Management Practices for Stormwater Quality, March 2012* (MARC BMP Manual). The *Johnson County Indian Creek Watershed Study, April 2006*, HEC-1 hydrologic and reservoir routing models and methodology is the basis of the stormwater detention analysis for this proposed development.

Meadowbrook Park is a proposed 51 acre mixed use development that will consist of medium density single family residences and townhomes, a senior living center, luxury apartments, and an inn; in the center will be a 29 acre City park, including 3 existing ponds that will be modified to provide the required stormwater detention. Stormwater runoff generally drains to the existing 3 ponds which discharge south to 95th Street. The entire site drains to the existing double-8'x7' RCB and single-5.5'x7' RCB at 95th Street approximately 450' West of Roe Avenue. These culverts will not be disturbed or modified as part of this proposed development. The site is not in a FEMA regulated floodplain as shown on the FEMA Firmette in Appendix C. A portion of the site is within a FEMA shaded Zone X (Future Base Flood), which is not regulated by FEMA.

The pre-developed soils are a mixture of soils in hydrologic soil groups (HSG's) C and D. In order to construct the existing golf course it is assumed that the soils were well worked and therefore, all soils in the existing and proposed conditions are considered to be in HSG D.

For the proposed developed conditions, onsite detention is provided to reduce the total 641 acre watershed stormwater runoff to 95th Street and downstream at 97th and 99th Street to less than existing conditions for the 2-, 10-, and 100-yr rainfall events and less than 0.5 cfs/ac, 2.0 cfs/ac, and 3.0 cfs/ac, respectively, from the proposed 80 acre Meadowbrook Park development in accordance with APWA 5608.4.C.1 Comprehensive Control. See Table 1 - Summary of Total Existing and Proposed Peak Stormwater Runoff Rates to 95th Street and From the Site, below.

Per MARC BMP Manual Worksheet 1A the required level of service is 5.8 and the minimum required total value rating is 284. The proposed BMP package provides a total value rating of 284 by treating 43 acres of the site with proprietary hydrodynamic separators, treating 3 acres of the site with proprietary catch basin insert filters, and establishing 4.3 offsite acres of the park ground with native vegetation (Note that the exact location of the native vegetation is not yet decided and will be worked out with the park design team). It is proposed that signage be provided for the hydrodynamic separators and native vegetation areas to increase the value rating 0.25 points per MARC BMP Manual.

The proposed detention basins will have outlet control weirs averaging approximately 150' in length and will provide 1' of freeboard from the 100-yr peak water surface elevation (WSEL) to top of dam. The habitable structures adjacent to the detention basins will have a minimum low opening at least 2' above the respective proposed maximum 100-yr WSELEV, which is 1' above the proposed top of dam.

A USACE Individual Permit is being obtained by Burns & McDonnell for this proposed Meadowbrook Park development. A memo from Burns & McDonnell regarding this permit, including the request for a preliminary jurisdictional

determination is located in Appendix E. The existing 3 ponds will be dredged and the proposed normal pool surface area will be equal to the existing.

**Table 1 - Summary of Total Existing and Proposed Peak Stormwater Runoff Rates to 95th Street and From the Site**

	2-yr	10-yr	100-yr
Existing Conditions at 95th Street (cfs)	588	1420	2882
Proposed Conditions at 95th Street (cfs)	564	1376	2646
Proposed From the Site (cfs per acre)	0.13	0.78	1.88

### 3. HYDROLOGIC ANALYSIS

**Please see Exhibit 1 - Hydrologic analysis in Appendix A to aid in the understanding of the following hydrologic analysis explanation.**

The hydrologic HEC-1 models for Indian Creek Watershed Study were obtained from the county and used as the basis of the hydrologic and pond routing analysis. Dr. Bruce McEnroe, PhD, P.E., completed this analysis as described in the following paragraphs. It should be noted here that both the existing and ultimate (fully developed) conditions county HEC-1 models consider the Meadowbrook Park development site to be a golf course.

This HEC-1 analysis started with the ultimate development conditions HEC-1 models from the Indian Creek Watershed Study (ICWS) for the 2-, 10- and 100-year events. The "current-conditions" models are identical to the ICWS ultimate-conditions models except for three changes:

1. The three existing Meadowbrook Park ponds were added to the HEC-1 model (the ICWS ultimate-conditions model omitted them). The upper/north pond is Pond 3, the middle pond is Pond 2, and the lower/south pond is Pond 1. A 300-ft-long channel reach conveys the Pond 1 outflow to the 95th Street culvert (Node TI-06).
2. Four new subbasins were added which together represent the 80 acre development site. DEV-4S represents the 27.6 acres of the site that drains into Pond 3. DEV-3S represents the 20.6 acres of the site that

drains directly into Pond 2. DEV-2S represents the 7.9 acres of the site that drains directly to Pond 1. DEV-1S represents the lower 23.9 acres of the site that does not drain into any pond. These four new subbasins totaling 80.0 acres were carved out of parts of subbasins T1-06S, T1-07S and T1a01S. The area of subbasin T1-06S was reduced by 65.6 acres, the area of subbasin T1-07S was reduced by 12.0 acres, and the area of subbasin T1a01S was reduced by 2.4 acres. The reduced subbasin T1-06S was split into four new subbasins. Subbasin T1d06S contains the 4.6 acres of the reduced T1-06S that drains to Pond 3. Subbasin T1c06S contains the 0.5 acres of the reduced T1-06S that drains directly into Pond 2. Subbasin T1b06S contains the 3.2 acres of the reduced T1-06S that drains directly into Pond 1. Subbasin T1a06S contains the 130.6 acres of the reduced T1-06S that lies downstream of the 80-acre development site.

3. The computational time step was reduced in the HEC-1 model from 5 minutes to 1 minute to solve a problem of numerical instability in the storage routing for the Ponds.

In the HEC-1 models for current and proposed conditions, element T1-07T is the combined inflow hydrograph to the 80-acre development site by way of Tributary 1. This hydrograph is routed through Pond 3. Element DEV-1L is the total outflow hydrograph from the 80-acre development site. This hydrograph is added to the runoff hydrograph from subbasin T1a06S to get the total streamflow in Tributary 1 at the 95th Street culvert represented by T1-06L.

The proposed-conditions models are the same as the current-conditions models, except that:

1. Subbasins that comprise the 80-acre development site have impervious percentages of 60% rather than 25% and lag times of 6 minutes rather than 12 minutes.
2. The three ponds have lower normal pools (with no change in normal pool area), different spillway configurations and different elevation-area tables based on preliminary grading plans. The proposed normal pool levels are 1.0' to 1.5' below the current levels.
3. The proposed spillways are rectangular broad-crested weirs. See HEC-1 input in Appendix D for information on the preliminary proposed pond configurations.

For the proposed conditions, the peak outflow from the 80-acre site (at DEV-1L) must not exceed the peak inflow (at T1-07T) by more than 40 cfs (0.5 cfs/ac) for the 2-year event, 160 cfs (2.0 cfs/ac) for the 10-year event or 240 cfs (3.0 cfs/ac) for the 100-year events. Also, proposed-conditions peak flows cannot exceed current-conditions peak flows at 95th Street (T1-06L) and 97th Street (T1-05L) for the 2-, 10- and 100-yr events. The proposed-conditions models meet these

requirements and a summary of the total peak flows at 95th Street and the peak runoff directly from the project site are summarized in Table 1. The proposed detention ponds normal pools and peak 100-yr water surface elevations (WSEL's) are reported below in Table 2.

**Table 2 - Summary of Detention Pond Normal Pools and Peak Water Surface Elevations**

	Normal Pool Elev.	Peak 100-yr WSEL
Pond 1 (south)	920.3	922.8
Pond 2 (central)	925.0	928.4
Pond 3 (north)	929.3	931.9

#### 4. WATER QUALITY ANALYSIS (BMP'S)

In accordance with the MARC BMP Manual, a stormwater level of service analysis has been completed for this project. The existing and proposed site conditions were inserted into MARC BMP Manual Worksheet 1A: Required Level of Service - Developed Site. The required level of service is 5.8 and the minimum required total value rating of the proposed BMP's is 284. See Appendix B - BMP Calculations.

Worksheet 2: Develop Mitigation Package that Meets Required LOS, was completed. The proposed BMP's are 5 hydrodynamic separators (HDS) treating 43.4 acres, 5 catch basin insert filters treating 3.1 acres, and establishing 4.3 offsite acres of native vegetation (the exact location of the native vegetation will be coordinated with the parks department and their design team). Note that signage for the hydrodynamic separators and native vegetation is proposed therefore increasing the value ratings for these two BMP's 0.25 points each.

#### 5. POND OUTLETS

The preliminary proposed weir configurations are single stage with crest lengths of 170' at elevation 921.3' for Pond 1, 110' at elevation 926.0' for Pond 2, and 160' at elevation 930.3' for Pond 3. It should be noted that the weir lengths and peak water surface elevations may change upon final design as the hydrologic models are updated with actual measured proposed impervious surface values as opposed to the current use of conservative typical values per APWA 5600, and based on the following approval of a design criteria variance requested in the next paragraph.

Per APWA 5600, February 16, 2011, design criteria of emergency spillways, section 5608.4.F.2, the spillway capacity "shall be designed to pass the 1% storm with 1 foot of freeboard from the design stage to the top of dam, assuming zero available storage in the basin and zero flow through the primary outlet. This design provides an added level of protection in the event of a clogged primary outlet..." Since the proposed primary outlet is an "open" weir with virtually no risk of clogging, it is hereby requested that this criteria be waived and that the top of dam and spillway be designed to provide 1.0' of freeboard from the peak 100-yr design water surface elevation. Without acceptance by the City of the proposed weir design criteria, the top of dams will need to be set approximately 7' to over 9' above the proposed normal pools verses 3' to 5' above the normal pools.

## 6. CONCLUSION

VanTrust Real Estate LLC is proposing to construct Meadowbrook Park, a new 51 acre mixed use development. The proposed storm sewer system will be designed to capture and convey the 100-yr rainfall event where necessary to convey stormwater runoff to the proposed detention ponds and when overflow swales are not feasible; areas where the stormwater runoff is not detained and/or overflow swales are provided the stormsewer system will have a minimum 25-yr capacity. In general, existing drainage patterns are maintained by the proposed development. The existing 3 ponds will have the same proposed normal pool surface area, per USACE permit requirements, with normal pool elevations lowered 1.0' to 1.5' from existing conditions to provide the necessary detention volume. Peak stormwater runoff rates from the site are in accordance with the latest APWA 5600 (February 16, 2011) comprehensive control criteria. Furthermore, peak stormwater release rates to the unmodified 95th Street and downstream at the 97th Street culverts are reduced in the preliminary proposed conditions. Final design of the BMP's will be in accordance with the latest edition of the MARC BMP Manual (October 2012). It is requested that the final design of the outlet weirs and top of dam be based upon providing 1.0' of freeboard above the peak 100-yr design stage assuming no clogging of the primary outlet weirs. Final refined design of the outlet control weirs will be provided with the final stormwater management plan.

Burns & McDonnell is obtaining the USACE Individual Permit for this project and a memo regarding this permit is provided in Appendix E. The drainage area to the most downstream/south pond is approximately 450 acres, and the existing culverts at 95th Street and further downstream will not be modified as part of this project, and the floodplain is Zone X shaded which is not regulated by FEMA; therefore, per current criteria no KDA-DWR permit or LOMA from FEMA is required.