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Lenexa, KS 66215

December 15, 2020

C20D0496

City of Lee's Summit
Development Services
220 SE Green Street
Lee's Summit, Missouri 64063

**RE: COMMERCIAL FINAL DEVELOPMENT PLAN
LEE'S SUMMIT HIGH SCHOOL ADDITION AND RENOVATION
LEE'S SUMMIT, MISSOURI**

To Whom it May Concern:

Kaw Valley Engineering, Inc. (KVE) has received comments from City of Lee's Summit for the above referenced project on December 9, 2020 and issues the following response.

FIRE REVIEW

Comment 2: The site plans have been revised to indicate the location of the fire lanes marked with red curbs and signage across the site and adjacent to the new FDC west of the school. Refer to the C100 series sheets.

Comment 3: The paved road at the north end of the site has been widened to be a minimum of 20'. The IFC fire access turnaround requirements have been overlaid on the drawing for reference. Refer to Sheet C130.

PLANNING REVIEW

Comment 1: List the number of existing and proposed resulting number of classrooms to confirm parking adequacy. Minimum parking requirements are based on the number of classrooms, calculated at 6 parking spaces required for each classroom for a high school. **There are 103 classrooms at the completion of construction which has been noted on C100.** The number of proposed parking spaces listed on sheets C100 and C105 do not match, 1154 vs. 1159, respectively. **1154 parking spaces are proposed and has been noted accordingly on the plans.**

Comment 2: Blue Parkway Realignment. Call out that the Blue Parkway realignment shown on the plans is not part of the plan but a future improvement by others. **A note was added to C105 as requested.**

Comment 3: EXTERIOR MATERIALS. Label the proposed exterior building material colors. **[GE Response] Revised exterior elevations and renderings provided with additional material labels and legend.**

ENGINEERING REVIEW

Comment 1: The public sanitary sewer running from the Highway Patrol property to City Manhole #39-155 should be designated as private to avoid conflicts with construction. This would require a new public sanitary sewer extension to the Highway Patrol property from the public sanitary sewer located in the northeast portion of the high school property. **I have attached the topographic and boundary survey with sanitary sewer overlay as well as the GIS map from the City of Lee's Summit. Per the O&E report referenced on the boundary survey, the sewer line that runs from manhole #39-155 to the Highway Patrol property appears by all accounts to be private. If this line is public, the City of Lee's Summit will need to provide a copy of the recorded easement dedicating the sanitary sewer to the City. Unless provided additional documentation that a title search did not find, I do not believe there is an easement to vacate. As discussed on December 10, 2020, it is our understanding that the Lee's Summit School District and Highway Patrol will enter into an agreement to permit the existing connection to the LSSD private sanitary sewer line that is valid until such time that the Highway Patrol site is redeveloped. Also, it is our understanding that the LSSD will execute an agreement with the City of Lee's Summit to permit the extension of a Public Sanitary Sewer line across the east side of the LSHS campus at such time that the Highway Patrol site is redeveloped. The developer of the Highway Patrol site will be financially responsible to remove the existing service line connection from the LSSD private sanitary line as well as the cost to install the new sanitary sewer main and incidental construction to repair/restore LSSD to install said sewer line. In addition, a portion of the sanitary sewer 39-041 to 39-039 should also be dedicated as private. As discussed on December 10, 2020, the existing sewer line in question is currently private.**

Comment 2: The asphaltic pavement detail should be revised to show aggregate subgrade and chemically stabilized subgrade extending a minimum 1 foot beyond the back of curb. **The paving detail has been revised as requested. Refer to Sheet C190.**

Comment 3: A site specific design is required for the water meter vault since the City does not supply meter vaults for water meters above 2 inches. The meter vault should include bypass piping. The ring and cover should be square aluminum hatch, 336" x 36", centered over the meter and steps. The steps need to be MA Industries copolymer polypropylene plastic-coated steel model PSD-PF. **A water meter vault detail has been added to sheet C540.**

Comment 4: Sheet C350: Where are the retaining walls in relation to the project. This sheet appears to lack context to the overall project. **The retaining walls are located on the C100 series sheets. Refer to plan notes 35 and 54 for wall locations.**

Comment 5: Where and how will the backflow vaults drain? The typical detail for the backflow vault shows a sump, and the notes require that a method be shown how the vault will drain. This can be via daylighting, connection to a private junction box or inlet, or construction of an infiltration gallery. **The east vault and meter pit will be drained by a 1" SCH 40 PVC pipe to inlet F1. The south BFP Vault will drain to an infiltration zone east of the vault. Refer to the C500 and C600 Series Sheets.**

Comment 6: The City will not support waiving the Comprehensive Control Strategy for this project. There did not appear to be any justification for relaxing to ease requirements in the waiver request. **As discussed on December 10, 2020, it is our understanding the Comprehensive Control Strategy for detention only applies to the increase in impervious surfaces associated with this project or 16,000 SF. The report has been updated accordingly and the waiver request has been rescinded.**

Comment 7: On the revised detention basin plans, please provide a prominent note that the basin must be constructed prior to any other improvements on the site, with the exception of erosion and sediment control features. **As discussed on December 10, 2020, a note has been added to the detention basin plans stipulating that “STORM LINE H AND THE DETENTION BASIN IS TO BE INSTALLED AND OPERATIONAL PRIOR TO WORK COMMENCING ON THE NORTH PARKING LOT. PROTECT GRAVEL BLANKET ON TOP OF CHAMBER SYSTEM FOR DURATION OF CONSTRUCTION. LOAMY SAND SHALL BE INSTALLED AFTER CUBING AND PAVING BASE COURSE, TOPSOIL AND EROSION CONTROL BLANKET INSTALLATION.”**

Comment 8: Portions of utility easements should be vacated for those portions of the sanitary sewer line to be dedicated as private. Please see comment number 1 for specific information concerning these vacates. **There is no record that existing sanitary sewer system on the Lee’s Summit High School Campus proper was dedicated to the City of Lee’s Summit and encumbered by easement as discussed on December 10, 2020. No vacations will be submitted.**

Comment 9: Please ensure that all private sanitary sewer lines are connected to public mains via a wye rather than a direct manhole connection. This applies for all sanitary sewer lines less than 8” in diameter. **As discussed, all sanitary sewer lines modified as part of this project are private. The 8” existing connections at the public mains, tie directly to manholes.**

BUILDING CODE REVIEW

Comment 1: Site lighting not found. Action required: Provide complete design or request deferral to building permit submittal. *[GE Response]* **Site lighting was shown on FDP_Drawing_Set_Revision_1_11-20-2020_part2” p. 36-38. For ease of reference, a revised version of this pdf has been uploaded with corrected page labels and bookmarks. Refer to “LSHS_FDP_Drawing_Set_Revision_1_11-20-2020_part2_relabeled,” Sheets E005 (p.36), E006 (p.37), and E700 (p.38).**

Comment 2: Clarify construction/relocation of water meter. Plans show existing meter to remain but also shows an additional new meter. **The existing school has multiple domestic service connections. To construct the new addition and maintain operation of the school, an additional domestic service connection was needed on the east side of the building. All existing water meters are scheduled to remain.**

If you have any questions or need additional information regarding the proposed project, don't hesitate to contact me at (913) 894-5150 or at wood@kveng.com.

Respectfully submitted,
Kaw Valley Engineering, Inc.

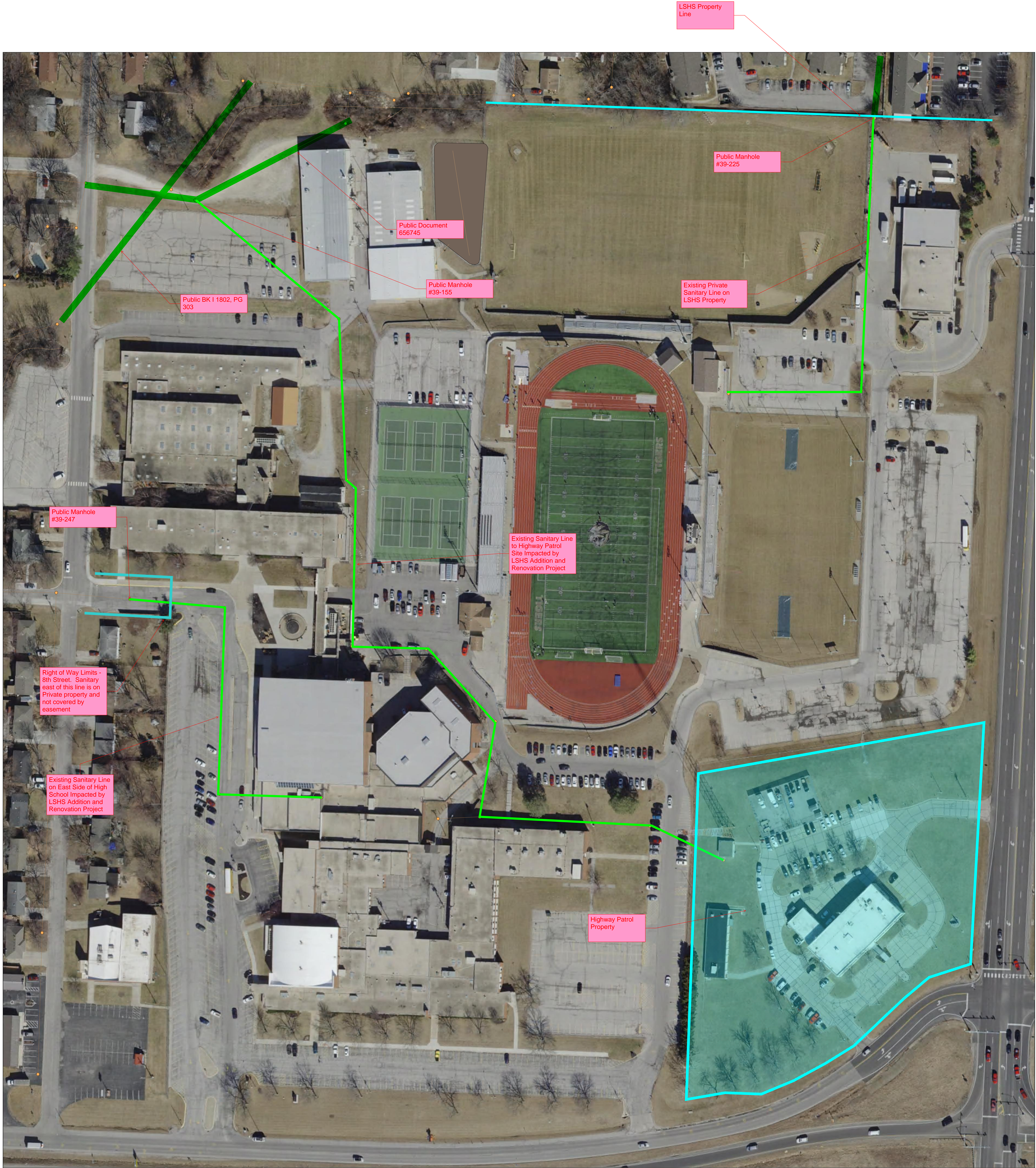
David D. Wood, P.E.
Project Manager



Attachments: Lee's Summit GIS Map and LSHS Boundary & Top with Sewer Overlay
20201214 LSHS Master Drainage Plans (Rev 2)
Revised LSHS FDP Plans

cc: Steve Vukelich, Gould Evans

\\VMLX-FILE\Projects\C20_0496\DSN\Entitlement\20201120 LSHS FDP Submittal\20201215 LSHS FDP Response Letter.docx



LSHS Property Line

Public Manhole #39-225

Public Document 656745

Public Manhole #39-155

Existing Private Sanitary Line on LSHS Property

Public BK 1 1802, PG 303

Public Manhole #39-247

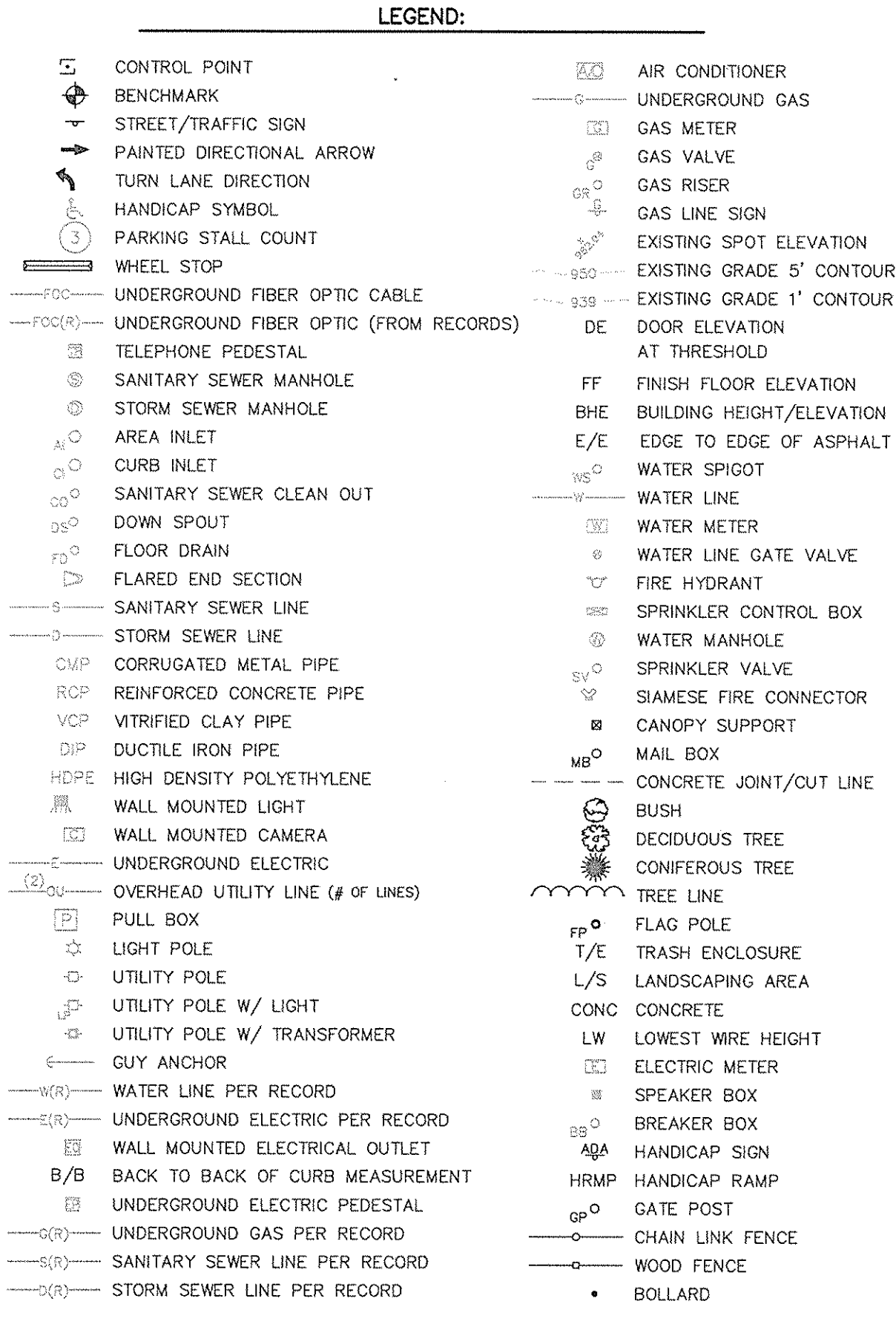
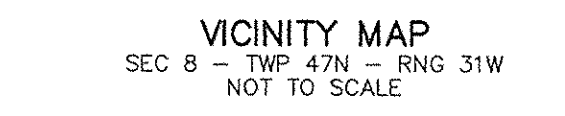
Existing Sanitary Line to Highway Patrol Site Impacted by LSHS Addition and Renovation Project

Right of Way Limits - 9th Street. Sanitary east of this line is on Private property and not covered by easement

Existing Sanitary Line on East Side of High School Impacted by LSHS Addition and Renovation Project

Highway Patrol Property

SECTION 8, TOWNSHIP 47 NORTH, RANGE 31 W
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI



PROJECT CONTROL:

CP #200

1/2" REBAR W/ ORANGE KVE CAP
NORTHING: 996572.06 (GROUND) 996470.24 (GRID)
EASTING: 2827438.76 (GROUND) 2827149.83 (GRID)
ELEV = 1049.49

CP #201

1/2" REBAR W/ ORANGE KVE CAP
NORTHING: 996570.39 (GROUND) 996468.55 (GRID)
EASTING: 2827055.45 (GROUND) 2826766.55 (GRID)
ELEV = 1048.24

END

NORTHING: 9956389.25 (GROUND)	990487.41 (GRID)
EASTING: 2826689.97 (GROUND)	28268401.11 (GRID)
ELEV = 1042.52	
<u>CP #203</u>	
MAG NAIL	
NORTHING: 9989597.62 (GROUND)	998655.74 (GRID)
EASTING: 2829712.48 (GROUND)	2826423.62 (GRID)
ELEV = 1039.43	
<u>CP #204</u>	
1/2" REBAR W/ ORANGE KVE CAP	
NORTHING: 997397.36 (GROUND)	997295.43 (GRID)
EASTING: 2826684.55 (GROUND)	2826395.70 (GRID)
ELEV = 1023.04	
<u>CP #205</u>	
1/2" REBAR W/ ORANGE KVE CAP	
NORTHING: 997403.51 (GROUND)	997301.59 (GRID)
EASTING: 2826409.31 (GROUND)	2826206.47 (GRID)
ELEV = 1018.15	
<u>CP #206</u>	
1/2" REBAR W/ ORANGE KVE CAP	
NORTHING: 997985.93 (GROUND)	997983.94 (GRID)
EASTING: 2826567.03 (GROUND)	2826278.18 (GRID)
ELEV = 1068	



1/2" REBAR W/ ORANGE KVE CAP
NORTHING: 997970.64 (GROUND)
EASTING: 2826860.58 (GROUND)
ELEV = 1014.79
997868.66 (GRID)
2826571.70 (GRID)

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#12616
AREA INLET #14054
4'x4' CONCRETE
TOP = 1008.90
E IN (S) = 1004.45 (30° RCP)
E OUT (W) = 1004.40 (30° RCP)

#13321
AREA INLET #14590
4'x4' CONCRETE
TOP = 1008.24
E IN (E) = 1003.84 (30° RCP)
E OUT (W) = 1003.74 (30° RCP)

#13372
AREA INLET #14608
3'x3' CONCRETE
TOP = 1023.14
E IN (S) = 1017.90 (18° RCP)
E OUT (N) = 1017.87 (18° RCP)

#15244
AREA INLET #15244
3'x3' CONCRETE
TOP = 1017.77 (24° RCP)
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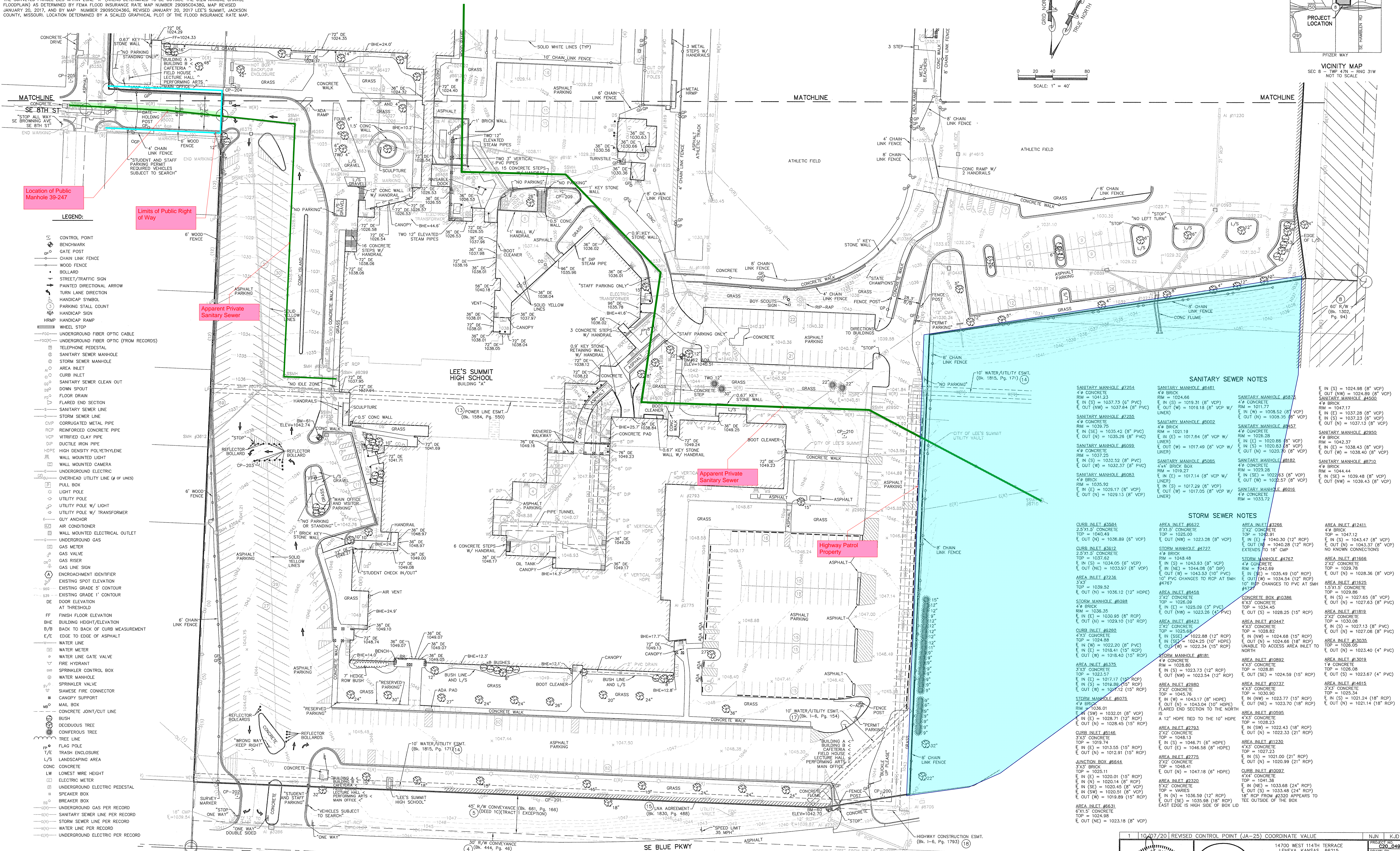
1	10/07/20	REVISED	CONTROL POINT (JA-25)	COORDINATE VALUE	N.J.N.	K.J.D.										
  <div style="float: right; text-align: right;"> <p>14700 WEST 114TH TERRACE LENEXA, KANSAS 66215 PH. (913) 884-5150 / FAX (913) 884-5977 lk@kveg.com www.kveg.com</p> </div>					<table border="1"> <tr> <td>PROJECT NO.</td> <td>CN 049670</td> </tr> <tr> <td>DRAWN BY</td> <td>CM</td> </tr> <tr> <td>CHECKED BY</td> <td></td> </tr> <tr> <td>DATE</td> <td>04/26/2020</td> </tr> <tr> <td>SHEET</td> <td>2 OF 2</td> </tr> </table>		PROJECT NO.	CN 049670	DRAWN BY	CM	CHECKED BY		DATE	04/26/2020	SHEET	2 OF 2
PROJECT NO.	CN 049670															
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CHECKED BY																
DATE	04/26/2020															
SHEET	2 OF 2															
<p>PROJECT: LEE'S SUMMIT HIGH SCHOOL 400 SE BLUE PARKWAY LEE'S SUMMIT, MO 64063</p>					<p>PREPARED FOR: GOULD EVANS ASSOCIATES, LC 706 MASSACHUSETTS ST LAURENS, KS 66044</p>											
<p>KAW VALLEY ENGINEERING, INC. IS AUTHORIZED TO OBTAIN SURVEYING SERVICES BY MISSOURI STATE CERTIFICATE OF AUTHORITY NO. 000214, EXPIRES 12/31/21.</p>																
<p>KENNETH J. DREDRICK LS-25731 dredrick.kj@gmail.com</p>																

THE UNDERGROUND UTILITIES SHOWN HEREON ARE DEPICTED FROM FIELD SURVEY INFORMATION OF ONE-CALL LOCATED UTILITIES AND/OR THE SCALING AND PLOTTING OF EXISTING UTILITY MAPS AND DRAWINGS MADE AVAILABLE TO THE SURVEYOR AT THE TIME OF SURVEY. THE SURVEYOR DOES NOT CERTIFY THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL UNDERGROUND UTILITIES IN THE AREA. THERE MAY BE OTHER UTILITIES NOT SHOWN. THE SURVEYOR DOES NOT CERTIFY THAT THE UTILITIES SHOWN ARE IN THE EXACT LOCATION DEPICTED ALTHOUGH HE DOES CERTIFY THAT THEY ARE DEPICTED AS ACCURATELY AS POSSIBLE. THE SURVEYOR DOES NOT CERTIFY THAT THE UTILITIES SHOWN ARE NOT PHYSICALLY LOCATED BY THE SURVEYOR. THE UNDERGROUND UTILITIES SHOWN HEREON BY EXCAVATION UNLESS OTHERWISE NOTED ON THIS SURVEY.

MISSOURI ONE CALL TICKET NUMBER: #200431409, 200431440, 200431475, 200440745.

THE SURVEYED PARCEL LIES WITHIN ZONE "X" (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) AS DETERMINED BY FEMA FLOOD INSURANCE RATE MAP NUMBER 2909SC0438G, MAP REVISED JANUARY 20, 2017, AND BY MAP NUMBER 2909SC0436G, REVISED JANUARY 20, 2017 LEE'S SUMMIT, JACKSON COUNTY, MISSOURI. LOCATION DETERMINED BY A SCALED GRAPHICAL PLOT OF THE FLOOD INSURANCE RATE MAP.

SECTION 8, TOWNSHIP 47 NORTH, RANGE 31 WEST
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI



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