Final Development Plan Report

For: The NW Quadrant T-Hangar Development – Phase 1 at
LEE'S SUMMIT MUNICIPAL AIRPORT
LEE'S SUMMIT, MO

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February 20, 2018

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CHAPTER ONE - INTRODUCTION

1.1 GENERAL

The City of Lee's Summit has initiated a development program at the Lee's Summit Municipal Airport for the purpose of upgrading the airfield to meet current FAA standards, expanding the airfield facilities to accommodate a wider range of aircraft, and to encourage private development that may increase the operations and revenue basis for the Airport.

The centerpiece of this program was the reconstruction and expansion of Runway 18-36 to upgrade the runway from to a class C-II runway, the construction of which was completed in October 2017. The next phase of this program entails the relocation of the existing western parallel taxiway (Taxiway A) to a 400' offset from Runway 18-36 to meet FAA runway/taxiway spacing requirements.

The construction phase of the relocation of Taxiway A will begin in March 2018. This relocation entails the demolition of 7 t-hangar and open-tee buildings which currently house dozens of based aircraft. In 2017 the City initiated a program to develop new t-hangar buildings along the northwest corner of the airport to replace hangar space at the airport.

This program was initiated with Phase 1 – the installation of two new 14-unit t-hangar buildings with two associated taxilanes. This development will create 28 new t-hangar spaces, 21 of which will be accessible by the end of Phase 1.

Plans for future development in this program will consist of an additional taxilane to provide access to the west side of the west T-Hangar, parking spaces for tenants and additional hangars and taxilane development to the west.

1.2 PURPOSE OF FINAL DEVELOPMENT PLAN

The purpose of the final development plan is to provide a structured document detailing the first phase of development of T-Hangars in the Northwest quadrant of the airport intended for use of hangar replacements to offset the hangars being removed as part of the Taxiway relocation project.

The goal in laying out the development for the Northwest Quadrant T-Hangars was to follow Lee's Summit's final development checklist as close as possible, however due to the unique setting of the airport, many of the standard items listed on the checklist do not apply and the implementation of some standards can be challenging.

1.3 PREVIOUS REPORTS

The airfield improvements shown and referenced in this preliminary development plan is based upon the Airport's Approved Master Plan and Airport Layout Plan completed in 1998 with the addition of recent City CIP updates to include additional t-hangars in the northwest quadrant of the airport.

1.4 OWNERSHIP/MAINTENANCE RESPONSIBLITIES

The entire areas encompassed within the Final Development Plan will be under the ownership and control of the Lee's Summit Municipal Airport. The Airport will be responsible for maintenance of all facilities referred to in this report.

CHAPTER TWO- FDP Development Components

2.1 GENERAL

The following items include written descriptions in response to all checklist items designated in the Final Development Plan.

2.2 General Application Plan Submission Requirements

The engineer plans pertaining to this development are attached to this report in Appendix A8 as a 22x34" plan set for reference. Digital copies of the engineering plan set are also provided as an attachment to this report.

2.3 Final Development Plan Checklist: Table 3.

C.1. Legal Description: The property designated for this FDP is the Lee's Summit Municipal Airport. Plat of survey documents including legal descriptions of the property are attached to this report in Appendix A3.

C.2 Land Area: The area of development for this project encompasses 2.7 Acres (117,433 SF) of land within the boundaries of the Lee's Summit Municipal Airport property.

C.3 Floodplain: Location and limits of the 1% Annual Chance Flood as set forth on current FEMA maps are included as an attachment to this report in Appendix A4. The project location lies outside of and special flood hazard areas subject to inundation by the 1% annual chance flood.

C.4 Lot Area: Layout, number and approximate dimensions of lots and approximate lot areas: the layout of the 2.7 acre development area at the airport is established in the engineering drawings included as an attachment to this report. The entirety of this development is within the property limits of the Lee's Summit Municipal Airport.

C.5 Streets: Names and locations of streets adjacent to the airport are identified on sheet 3 of 28 of the engineering drawings included as an attachment to this report. Physical dimensions or properties of these streets are not identified as this development lies within the bounds of the airport property and therefore requires no direct association with any public roads.

C.6 Sidewalks: Existing sidewalks or public walkways are not identified in the engineering drawings for this project as no existing sidewalks or public walkways are affected by this development.

C.7 Easements: No easements are necessary for this development

C.8 Building setback: The T-Hangars being developed are within airport property and are not within close proximity to any streets. The proposed locations of the T-Hangars have been designed to meet FAA "taxilane to fixed object" separation criteria for Group 1 aircraft and the offset-from-centerline dimensions are depicted on Sheet 20 of 28 of the engineered drawings.

C.9 Culverts: No culverts or bridges are associated with this development.

C.10 Driveways: No existing driveways, curb cuts, median breaks or turn lanes are affected by this development

C.11 Utilities: This development includes the realignment of a 12” watermain and the installation of new storm sewers. The location and sizes of these utilities are depicted on sheet 12 of 28 (storm) and sheet 18 of 28 (water) of the engineered drawings.

C.12 Sanitary sewer: no sanitary sewers are associated with this development

C.13 Water and Sanitary Plans: The realignment of a 12” watermain on airport property associated with this development is depicted on Sheet 18 of 28 of the engineered drawings.

C.14 Water Demand: A water study was not required for this development

C.15 Storm Water: Site grading, storm sewer and erosion control plans are depicted on Sheet 12 of 28 of the engineered drawings

C.16 Storm Water Management: A stormwater study was not required for this development.

C.17 Open Space: There is no open space designated for public use associated with this development.

C.18 Parking: No parking spaces are associated with this development.

C.19 Contours: A final contour plan associated with this development is depicted on Sheet 12 of 28 of the engineered drawings

C.20 Right-of-Way: There is no public street right-of-way within the vicinity of, or associated with this development

C.21 Streets: There are no public streets within the vicinity of, or associated with this development

C.22 Dimensions: Dimensions indicating relationship between buildings and taxilanes are depicted on Sheet 20 of 28 of the engineered drawings.

C.23 Setbacks: The proposed locations of the T-Hangar buildings have been designed to meet FAA “taxilane to fixed object” separation criteria for Group 1 aircraft and the offset-from-centerline dimensions are depicted on Sheet 20 of 28 of the engineered drawings.

C.24 Building Dimensions: The location and dimensions of the proposed buildings are depicted in the engineered drawings. The t-hangar buildings are only one story and each building is 16,243.5 SF.

C.25 Oil & Gas Wells: there are no oil or gas wells located within the vicinity of this development

C.26 Retaining Walls: there are no retaining walls associated with this development

C.27 Driveways: there are no driveways associated with this development

C.28 Lighting: the exterior lighting system will consist of one exterior light for each hangar door as indicated in Sheet 23 of 28 of the engineering drawings. The exterior lights will be

10,701 Lumen LED Flood lights (Exact model number: Lithonia DSXF2 LED P2 40K WFR 120 THK DDBXD)

C.29 Photometric Diagram: A photometric diagram was not developed for this development. The exterior lighting implemented on these T-hangars adhere to standard lighting equipment and spacing (one per each hangar door) utilized for these type of T-hangars.

C.30 Lighting Spec Sheets: Specification sheets for exterior lighting fixtures can be found attached to this report in Appendix A6

C.31 Mechanical Screening: there is no ground mounted mechanical equipment associated with this development.

C.32 Equipment Spec Sheets: Mechanical equipment associated with this development consists of motors for bi-fold doors. The manufacturer spec sheets for these motors are attached to this report in Appendix A7

C.33 Signs: there is no signage associated with this development

C.34 Adjacent Developments: this development is located within the property limits of the Lee's Summit Municipal Airport. The only adjacent developments are those of which that are located within the airport and these are depicted in the engineered drawings.

C.35 Fire Hydrants: locations of existing and the relocation of one (1) existing fire hydrant are depicted on Sheet 18 of 28 in the engineered drawings.

C.36 Sight triangles: there are no roadways associated with this development

D.1 Building Elevations: The engineering drawings established the floor elevation of both T-hangar buildings as 993.58'. The roof is a gable with 1:12 pitch. Elevation of each building at each corner is 1008.08'. Elevation of each hangar roof at their crest is 1010.21'. Building elevations taken at each corner and at the crest were submitted for an FAA airspace study with no objections taken. The NRA Notifications from FAA are included in Appendix A5

D.2 Screening Materials: There is no rooftop mechanical equipment associated with this development

D.3 Roof Line: The roof line of the proposed T-Hangar buildings is depicted on the engineering drawings. There is no rooftop mechanical equipment associated with this development.

E. Floor Plan: the floor plans are identical for both t-hangar structures and are depicted on Sheet 21 of 28 of the engineering plans.

F. Landscape Plan: The landscaping associated with this development only consists of the reestablishment of seed in disturbed areas depicted on Sheet 12 of 28 of the engineered drawings. Standard landscaping practices typically do not apply to development inside airfield property to maintain compliance with FAA standards regarding wildlife attractants

G. Land Use Schedule:

G.1 Total Floor Area: 32487 sf (16243.5 sf each hangar)
G.2 Number of Dwelling Units: 28 total t-hangar spaces, 4 storage units

G.3 Land Area: the area of disturbance is 2.7 AC (117,612 SF)
G.4 Parking Spaces: No vehicular parking spaces are associated with this development
G.5 Impervious Coverage: 68%
G.6 Floor Area Ratio: 28%

H.1 Deeds: there are no rights-of-way or easements required as part of this development

H.2 Covenants: There are no covenants applicable to this development

H.3 POA Bylaws: There is no property owners association associated with this development.

H.4 Conditions: No preliminary development plan was submitted, a Pre-Application Meeting was held on August 23, 2017 at 10:30am, the notes from this meeting are included to this report in Appendix A2. Any conditions set forth in this meeting have been addressed. At the time the meeting was held, parking lots for tenants was a consideration during the design but has been removed from this specific project, but may be implemented into a future phase of this development program. At the time of the meeting it was indicated that a stormwater study should be performed but through correspondence following this meeting it was determined that the stormwater report was no longer a requirement.

H.5 Engineering Plans: the engineer plans pertaining to this development are attached to this report in Appendix A8 for reference. Digital copies of the engineering plan set are also provided as an attachment to this report.

2.4 Final Development Plan Checklist: Table 4. Other Requirements

UDO Art. 14 Landscaping, buffers & tree protection: It is the intention of the airport to meet as many landscaping requirements as possible but due to the nature of the airport plants are largely avoided due to being wildlife attractants. No areas inside the fence were used in the calculations of required plants since trees are unwanted wildlife attractants as well as quickly become airspace hazardous that the airport then has to spend time and effort to remove.

The type seed intended for use for the reestablishment of turf on disturbed areas adheres to the City of Lee's Summit, Missouri Standard Specifications which adopts the Section 2400 Kansas City Metropolitan Chapter of APWA Construction and Material Specifications.

UDO Art. 12 Vehicle Parking: there is no vehicle parking associated with this development

UDO Art. 13 Signs: there is no signage associated with this development

UDO Art. 6. Div. I - Airport Overlay: The proposed T-hangar structures associated with this development have been submitted for a 7460 airspace study with FAA with no objections taken to either t-hangar. The NRA Notifications are included in Appendix A5.

UDO Art. 6. Div. II Flood Hazard and Zoning: The proposed project location lies outside of the 1% Annual Chance Flood as set forth on current FEMA maps are included as an attachment to this report in Appendix A4.

UDO Art. 6. Div. III Historic Preservation: the development is not located within a local historic district and there are no properties or structures listed in the National Register of Historic Places.

UDO Article 16. Platting: the property limits at the Lee's Summit Municipal Airport are platted. The City is currently in the process of combining all applicable plats together as an updated Exhibit A Property Map. Plat of survey documents including legal descriptions of the property are attached to this report in Appendix A3.

APPENDIX A1 – REQUIRED CHECKLISTS

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FINAL DEVELOPMENT PLAN CHECKLIST

Submittal Requirements	Yes	No*
Completed application form with signatures		
Ownership affidavit form		
Legal description		
Technical Studies, if required (2) sets of Structural Analysis Report		
Filing fee – **$600 (0-5 acres) $1000 (over 5 acres)**		
Number of folded sets of final development plans – **Initial submittal (4) full size and 1 CD/digital, resubmittal (6) full size and 1 CD/digital** (including site plan, landscape plan, building elevations, civil engineering), collated, stapled (seals required for engineering plans)		
Checklist for Plan Submission Requirements		
Checklist for Final Development Plan		
Checklist for Zoning District Regulations – **Separate document**		
Checklist for Design Standards (See Article 7) – **Separate document**		
Checklist for Other Ordinance Requirements		

*** Applications missing any required item above will be deemed incomplete.**

Table 1. General Application Requirements Plan Submission Requirements				
UDO Article 4., Sec. 4.040	**Ordinance Requirement**	**Met**	**Not Met**	**N/A**
B.1. Date Prepared	Date prepared			
B.2. Name & address	Name, address and telephone number of the person who prepared, or person responsible for preparing, the plan;			
B.3. Scale	Graphic, engineering scale not to exceed 1:100. All plans shall be drawn to a standard engineer's scale of 1:50 or 1:100', unless a different scale is specifically approved by the Director.			
B.4. Plan Size	Plan size maximum of 11X17 inches			
B.5. North Arrow	North Arrow; plan shall be oriented so north is to the top or to the right side of the sheet.			
B.6. Vicinity Map	Vicinity map with north arrow indicating the location of the property within the City.			

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FINAL DEVELOPMENT PLAN CHECKLIST

Table 3. Final Development Plan				
UDO Article 4, Sec. 4.360.	**Ordinance Requirement**	**Met**	**Not Met**	**N/A**
C.1. Legal Description	A legal description which accurately describes the limits of the property.			
C.2. Land Area	Area of land in square feet and acres.			
C.3. Floodplain	Location and limits of the 1% Annual Chance Flood, as set forth on the current FEMA maps with reference to the panel number. Elevations shall be provided if shown on the FEMA map.			
C.4. Lot Area	Layout, number and approximate dimensions of lots and approximate lot areas.			
C.5. Streets	Name, location, width, radii, centerline, and grade of streets and alleys, both public and private;			
C.6. Sidewalks	Location, width and limits of all existing and proposed sidewalks and public walkways;			
C.7. Easements	Location and width of proposed easements;			
C.8. Building Setback	Building setback lines from streets with dimensions.			
C.9. Culverts	Location and approximate dimensions of culverts and bridges;			
C.10. Driveways	Location of existing and proposed driveways, curb cuts, median breaks and turn lanes;			
C.11. Utilities	The location and size of all utility lines, including water, storm water, and sanitary sewers.			
C.12. Sanitary Sewer	Final analysis of the capacity of the existing sanitary sewer receiving system.			
C.13. Water & Sanitary Plans	Final water and sanitary sewer plans.			
C.14. Water Demand	Appropriate water service demand data (including, but not limited to, planned land usage, densities of proposed development, pipe sizes, contours and fire hydrant layout) to allow for the preliminary analysis of the demand for water service if required by the City Engineer.			
C.15. Storm Water	Final storm water collection, detention and erosion control plans.			
C.16. Storm Water Management	Information (proposed size, nature and general location) on all proposed storm water management facilities and detention facilities. A final storm water report shall be submitted unless the stormwater report requirement was waived by the City Engineer or there are no required revisions to the preliminary storm water report. All storm water reports shall include:			
C.16.a.	Current and proposed land use assumptions,			
C.16.b.	Identification of the watershed in which the project is located,			

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Table 3. Final Development Plan				
UDO Article 4, Sec. 4.360.	**Ordinance Requirement**	**Met**	**Not Met**	**N/A**
C.16.c.	Identification of offsite drainage areas,			
C.16.d.	Surrounding property information,			
C.16.e.	Any other pertinent information about the site which may influence storm water runoff,			
C.16.f.	Proposed storm water facilities,			
C.16.g.	The downstream effects of the development			
C.16.h.	Calculations for the 100%, 10%, and 1% storms. All calculations must be submitted with the report; a summary table is not acceptable.			
C.16.i.	If the storm water report indicates that detention is not required, supporting calculations evaluating the downstream effects must be provided.			
C.16.j.	All reports shall be signed and sealed by a Professional Engineer registered in the State of Missouri.			
C.17. Open Space	Location and size of proposed open space for public use proposed to be dedicated or reserved and any conditions of such dedication or reservation; parks, playgrounds, churches, or school sites or other special uses of land to be considered for public use, or to be reserved by deed or covenant for the use of all property owners in the subdivision.			
C.18. Parking	Location and dimensions of all parking spaces, accessible spaces, drive aisles, driveways, and curbs.			
C.19. Contours	Finished grades showing 1-foot contours for the entire site (2-foot contour intervals may be allowed by the Director, depending on the site).			
C.20. Right-of-Way	All proposed and existing adjacent public street rights-of-way with centerline location.			
C.21. Streets	All proposed and existing adjacent public street and public drive locations, widths, curb cuts and radii.			
C.22. Dimensions	Sufficient dimensions to indicate relationship between buildings, property lines, parking areas and other elements of the plan.			
C.23. Setbacks	Location of all required building and parking setbacks.			
C.24. Building Dimensions	Location, dimensions, number of stories and area in square feet of all proposed buildings.			
C.25. Oil & Gas Wells	The location of all oil and/or gas wells within the subject property.			
C.26. Retaining Walls	Limits, location, size and material to be used in all proposed retaining walls.			

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Table 3. Final Development Plan				
UDO Article 4, Sec. 4.360.	**Ordinance Requirement**	**Met**	**Not Met**	**N/A**
C.27. Driveways	Location and dimensions of all driveways, parking lots, parking stalls, aisles, loading and service areas and docks.			
C.28. Lighting	Location, height, intensity and type of outside lighting fixtures for buildings and parking lots.			
C.29. Photometric Diagram	Photometric diagram indicating the foot candle levels throughout the site and at the property lines.			
C.30. Lighting Spec Sheets	The manufacturer's specification sheets for proposed exterior lighting to include both parking lot pole mounted and wall mounted fixtures. The specification sheets shall indicate the exact fixture to be used.			
C.31. Mechanical Screening	Location, size, and type of material to be used in all screening of ground mounted mechanical equipment.			
C.32. Equipment Spec Sheets	The manufacturer's specification sheets for proposed mechanical equipment to be used.			
C.33. Signs	Location, size, and type of material of all proposed monument or freestanding signs.			
C.34. Adjacent Developments	The location of adjacent developments, alignment and location of existing public and private driveways and streets, medians, and public and semi-public easements.			
C.35. Fire Hydrants	Locations of existing and proposed fire hydrants.			
C.36. Sight Triangles	Sight triangles (See Article 7)			
D.1. Building Elevations	Elevations of all sides of proposed buildings including notation indicating building materials to be used on exteriors and roofs.			
D.2. Screening Materials	Location, size and materials to be used in all screening of rooftop mechanical equipment.			
D.3. Roof Line	A dashed line indicating the roof line and rooftop mechanical equipment.			
E. Floor Plan	Floor plan showing dimensions and areas of all floors within proposed buildings and structures.			
F. Landscape Plan	Landscaping plans shall be submitted in accordance with Article 14.			
G. Land Use Schedule	A land use schedule shall include the following:			
G.1.	Total floor area			
G.2.	Number of dwelling units			
G.3.	Land area			

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Table 3. Final Development Plan				
UDO Article 4, Sec. 4.360.	**Ordinance Requirement**	**Met**	**Not Met**	**N/A**
G.4.	Number of required and proposed parking spaces			
G.5.	Impervious coverage			
G.6.	Floor Area Ratio (FAR)			
H.	The following shall be submitted in support of the application for final development plan approval:			
H.1. Deeds	Deeds of dedication for all rights-of-way or easements required as a result of preliminary development plan approval, if conveyance thereof is not to be made by plat.			
H.2. Covenants	A copy of all proposed covenants and restrictions applicable to the development.			
H.3. POA Bylaws	A copy of the property owners association bylaws as evidence of the establishment of the agency for the ownership and maintenance of any common open space and all assurances of the financial and administrative ability of such agency.			
H.4. Conditions	Evidence of satisfaction of any conditions of the preliminary development plan approval that were conditions precedent to consideration of the final development plan.			
H.5. Engineering Plans	An application for engineering approval pursuant to the Design and Construction Manual. All applications for engineering approval shall be accompanied by the number of copies of the following as required by the City Engineer:			
H.5.a.	Engineering drawings with the information required in the Design and Construction Manual			
H.5.b.	Plans, profiles and details for streets, curb and gutters, sidewalks, storm and sanitary sewers, and water lines			
H.5.c.	A written benchmark description and elevation			
H.5.d.	A storm water Master Drainage Plan that contains detailed plans for storm drainage, storm water detention, and grading plans, as specified in the Design and Construction Manual.			

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Table 4. Other Requirements				
	Ordinance Requirement	**Met**	**Not Met**	**N/A**
UDO Art. 14 Landscaping, Buffers & Tree Protection				
Sec. 14.020. Landscaping & buffer plans	Landscaping and buffer plans shall be submitted, and shall include information as listed in the ordinance.			
Sec. 14.050. Acceptable plant material	Acceptable plant materials and sizes for landscaping, buffers and tree replacement shall meet the ordinance requirements.			
Sec. 14.090.A.1. Street frontage trees	1 tree shall be planted for each 30 feet of street frontage. Such trees may be clustered or arranged within the setback if approved as part of the landscape plan. A minimum 20-foot landscape strip shall be provided along the full length of any street frontage, except where the building setback is less than 20 feet.			
Sec. 14.090.A.2. Front parking setback	In commercial and industrial districts, any parking or loading area visible from a street shall be separated from the street right-of way with a landscape strip at least 20 feet wide.			
Sec. 14.090.A.3. Street frontage shrubs	1 shrub shall be provided for each 20 feet of street frontage, or portion thereof, with in the landscaped setback abutting such frontage. Such shrubs may be clustered or arranged within the setback.			
Sec. 14.090.B.1 Open yard shrub reqt.	The minimum of 2 shrubs per 5,000 square feet of total lot area, excludes single family and duplex developments. For schools, large sports/play fields and other areas specifically open to the public for use, i.e., tennis courts, paved play areas, paved parking lots etc. may be excluded in the calculation of this requirement.			
Sec. 14.090.B.2. Ground cover	Open areas not covered with other materials shall be covered with sod.			
Sec. 14.090.B.3. Open yard tree reqt.	In addition to the trees required based upon street frontage, additional trees shall be required at a ratio of 1 tree for every 5,000 square feet of total landscaped open space. For schools, large open sports/play fields may be excluded in the calculation of total landscaped open space. The remaining open space shall be applied to the ratio for tree planting as stated herein.			
Sec. 14.090.C. Trash enclosures	A detailed drawing of enclosure and screening methods to be used in connection with trash storage containers on the property shall be included with the landscaping plan. ***(See Article 7 for requirements)***			
Sec. 14.110.A. Parking lot landscape islands	Landscape islands, strips or other planting areas shall be located within the parking lot and shall constitute at least 5% of the entire area devoted to parking spaces, aisles and driveways. *Every four rows of parking shall include a landscape island of at least ten feet in width.*			
Sec. 14.110.B. Landscape island placement	A landscaping island shall be located at the end of every parking bay between the last parking space and an adjacent travel aisle or driveway. The island shall be no less than 9 feet wide for at least one-half the length of the adjacent parking space. The island shall be planted in trees, shrubs, grass, or ground cover, except for those areas that are mulched.			

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Table 4. Other Requirements				
	Ordinance Requirement	**Met**	**Not Met**	**N/A**
Sec. 14.110.C. Island width	Tree planting areas shall be no less than 10 feet in width. No tree shall be located less than 4 feet from the back of curb. All parking lot landscape islands, strips or other planting areas shall be curbed with minimum 6 inch high curbs.			
Sec. 14.120 Parking lot screening	Screening to a height of 2.5 feet must be provided along the edge of the parking lot or loading area closest to and parallel to the street. (See Sec. 14.120 for requirements).			
Sec. 14.170. Buffer/screen requirements	Buffer/screen between developments of differing land uses adjoining one another or separated from one another by only a street or alley shall comply with ***Table 14.1*** Typical buffers.			
UDO Art. 12 Vehicle Parking				
Sec. 12.030 Number of Parking spaces	See Table 12-1 for minimum required.			
Sec. 12.120.A. Head-in parking	All areas devoted to vehicle parking shall be so designed and be of such size that no vehicle is required to back into a public street to obtain access.			
Sec. 12.120.B.1. Parking setback	Parking lots shall be set back a minimum 20 feet from any public right-of-way or private street edge of pavement.			
Sec. 12.120.B.2- Parking setback	Parking lots shall be set back a minimum 20 feet from any residential use or district.			
Sec. 12.120.B.3. Parking setback	Parking lots shall be set back a minimum 6 feet from the side or rear property line when not part of shared parking and/or cross access.			
Sec. 12.120.C.1. Parking dimensions	9' wide x 19' deep, placed at the prescribed angle so that it lies between the curb and the aisle. 9' wide x 17' deep parking spaces shall be permitted when the parking space abuts a 6' wide sidewalk or when abutting a curbed open green/landscaped space. Parallel parking spaces shall not be less than 9' wide x 23' long.			
Sec. 12.120.F.1.e Curb blocks	The use of curb blocks in parking areas shall be prohibited, except at the head of accessible parking spaces when they are adjacent to a pedestrian walkway with no raised curb.			
Sec. 12.120.E.1 Aisle width	Adequate aisle width (per Table 12-4) for maneuvering into and out of each space.			
Sec. 12.120.E.4. Drive width	Minimum width (not including curb and gutter) is the same as aisle width (see Table 12-4).			
Sec. 12.120.E.5 Curb cut spacing	Distance of driveways from intersections and from other driveways shall conform to the Access Management Code.			
Sec. 7.280 Parking lot lighting	Any lights used to illuminate the parking area shall be arranged, located or screened so that light is directed away from and no light source is visible from a public street, a residentially-zoned area, or a residential use. (See Article 7).			

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FINAL DEVELOPMENT PLAN CHECKLIST

Table 4. Other Requirements				
	Ordinance Requirement	**Met**	**Not Met**	**N/A**
Sec. 12.120.F.1.a & b Improvement of Parking Area	Permanent surface, consisting of asphalt or concrete, per specifications.			
Sec. 12.120.F.1.d & f. Curbing	CG-1 concrete curbing required around all parking areas and access drives in office, commercial and industrial districts. Temporary asphalt curbs may be used in areas to be expanded only as shown and approved on the development plan.			
Sec. 12.080.B. Accessible Parking Space Size	Accessible parking spaces shall have an adjacent aisle 5 feet wide, and one in every 8 accessible spaces (but no less than one) shall be adjacent to an aisle 8 feet wide and the space shall be clearly marked with a sign indicating that the space is "van accessible." Accessible parking space aisles shall be clearly demarcated by lines painted on or otherwise applied to the parking lot surface. Access aisles shall be on the same level as the vehicle pull-up space they serve.			
Sec. 12.080.E. Accessible Parking Space Slope	Accessible parking spaces shall be located on a surface with a slope not exceeding 1 vertical foot in 50 horizontal feet.			
Sec. 12.080.H. Accessible Parking Space Clearance	Parking spaces for vans shall have a vertical clearance of 98 inches minimum at the space and along the vehicular route thereto. In cases of a loading zone, the vertical clearance of 114 inches minimum shall be provided at passenger loading zones and along vehicle access routes to such areas from site entrances.			
Sec. 12.080.C. No. of Accessible Parking Spaces	See Table 12-3			
Sec. 12.080.F. Accessible Parking Space Location	Accessible spaces shall be located at the nearest point to the front building entry and/or accessible ramp. Such spaces separated by a drive aisle shall have clearly discernable cross walks.			
Sec. 12.080.J. Accessible Parking Standards	All accessible parking shall comply with the requirements of the federal Americans with Disabilities Act.			
Sec. 12.080.I. Accessible Parking Sign	Every parking space required by this section shall be identified by a sign, mounted on a pole or other structure, located between 36 inches (3 feet) and 60 inches (5 feet) above the ground measured from the bottom of the sign, at the head of the parking space. The sign shall be at least 12" by 18" in area and meet the requirements set forth in the Manual on Uniform Traffic Control Devices, as referenced in Section 29-381 of the Lee's Summit General Code of Ordinances.			
UDO Art. 13 Signs				

LEE'S SUMMIT
MISSOURI

FINAL DEVELOPMENT PLAN CHECKLIST

Table 4. Other Requirements				
	Ordinance Requirement	**Met**	**Not Met**	**N/A**
Sec. 13.020.B Signs	All signs must comply with the sign requirements as outlined in the sign section of the ordinance			
UDO Art. 6. Div. I - Airport Overlay				
Sec. 6.030. Airport Zones	No structure shall be erected, altered, or maintained, and no tree shall be allowed to grow in any zone created by this District to a height in excess of the applicable height limit herein established for such zone. See Article 6			
Sec. 6.040 Use Restrictions	No use may be made of land or water within any zone established by this Article in such a manner as to create electrical interference with navigational signals or radio communication between the airport and aircraft, make it difficult for pilots to distinguish between airport lights and others, result in glare in the eyes of pilots using the airport, impair visibility in the vicinity of the airport, create bird strike hazards, or otherwise in any way endanger or interfere with the landing, takeoff, or maneuvering of aircraft intending to use the airport.			
	For any property within two miles of the airport, a Form 7460 shall be completed and submitted to the FAA, and comments received back prior to any construction.			
UDO Art. 6. Div. II - Flood Hazard and Zoning				
Misc.	Floodplain boundaries shall be shown, along with base flood elevations.			
Misc.	Any lots which contain floodplain shall have a note establishing the minimum floor elevation and/or minimum low opening for structures.			
UDO Art. 6. Div. III - Historic Preservation				
Misc.	Is the property in a local historic district?			
Misc.	Is the property or structure listed in the National Register of Historic Places?			
UDO Article 16. Platting				
Sec. 16.010.G	Any division of land or unplatted piece of property requires platting prior to the issuance of building permits			

APPENDIX A2 – PRE-APPLICATION MEETING NOTES

PRE-APPLICATION MEETING NOTES

Date: August 23, 2017 **Time:** 10:30 am **Property Location/ Project Description:** Lee's Summit Municipal Airport 2751 NE Douglas St.

Applicant(s):

John Ohrazda Phone #: 969-1180

Phone #:

Phone #:

Phone #:

Phone #:

Phone #:

Phone #

City Staff Present by Department (primary dept. contact persons shown in bold):

Planning (816) 969-1600
X **Hector Soto**
X Bob McKay
☐ Jennifer Thompson
☐ Christina Stanton
☐ Heping Zhan
X Victoria Nelson
X Shannon McGuire
☐ Intern(s):

Parks Dept. (816) 969-1500
☐ **Steve Casey/Steven Thomas**

Law (816) 969-1400
☐ **Nancy Yendes/**Sheri Wells

ITS Dept. (816) 969-1234
☐ **Bryan Hall/Kristi Gawron**

Public Works (816) 969-1800
X **Kent Monter**: 969-1229
X **David Lohe** (PW/Water): 969-1814
X Gene Williams: 969-1223
☐ Sue Pyles: 969-1245
☐ Judy Niemeyer: 969-1854
X Michael Park (traffic): 969-1820
X Scott Ward (traffic): 969-1849
☐ Karen Quackenbush: 969-1850
X John Ohrazda (airport): 969-1180
☐ Nick Lightner: 969-1224

Project Manager (816) 969-1220
☐ **Dawn Bell**: 969-1242
☐ **Chris Hughey**: 969-1225
☐ **Mike Weisenborn**: 969-1240
☐ **Ryan Elam**: 969-1202
X **Josh Johnson**: 969-1208

Codes Admin. (816) 969-1200
☐ **Tracy Deister**: 969-1203
X Joe Frogge: 969-1241

Fire Dept. (816) 969-1300
X **Asst. Chief Jim Eden**: 969-1303
☐ Batt. Joe Dir: 969-1317
☐ Capt. Mike Weissenbach: 969-1316

Police Dept. (816) 969-1700
☐ **Sgt. Aaron Evans**: 969-1765
☐ Capt. Don Frizzell: 969-1728
☐ _____

Water Utilities (816) 969-1900
☐ **Jeff Thorn**

Non-City Organization Contacts:
Chamber of Commerce (816) 524-2424
☐ **Cathy Young/Matt Baird**
Downtown Lee's Summit Main Street (816) 246-6598
☐ **Donnie Rodgers Jr.**
Economic Development Council (816) 525-6617
☐ **Rick McDowell**
Laclede Gas (816) 756-5252
☐ **Jabbar Wesley**

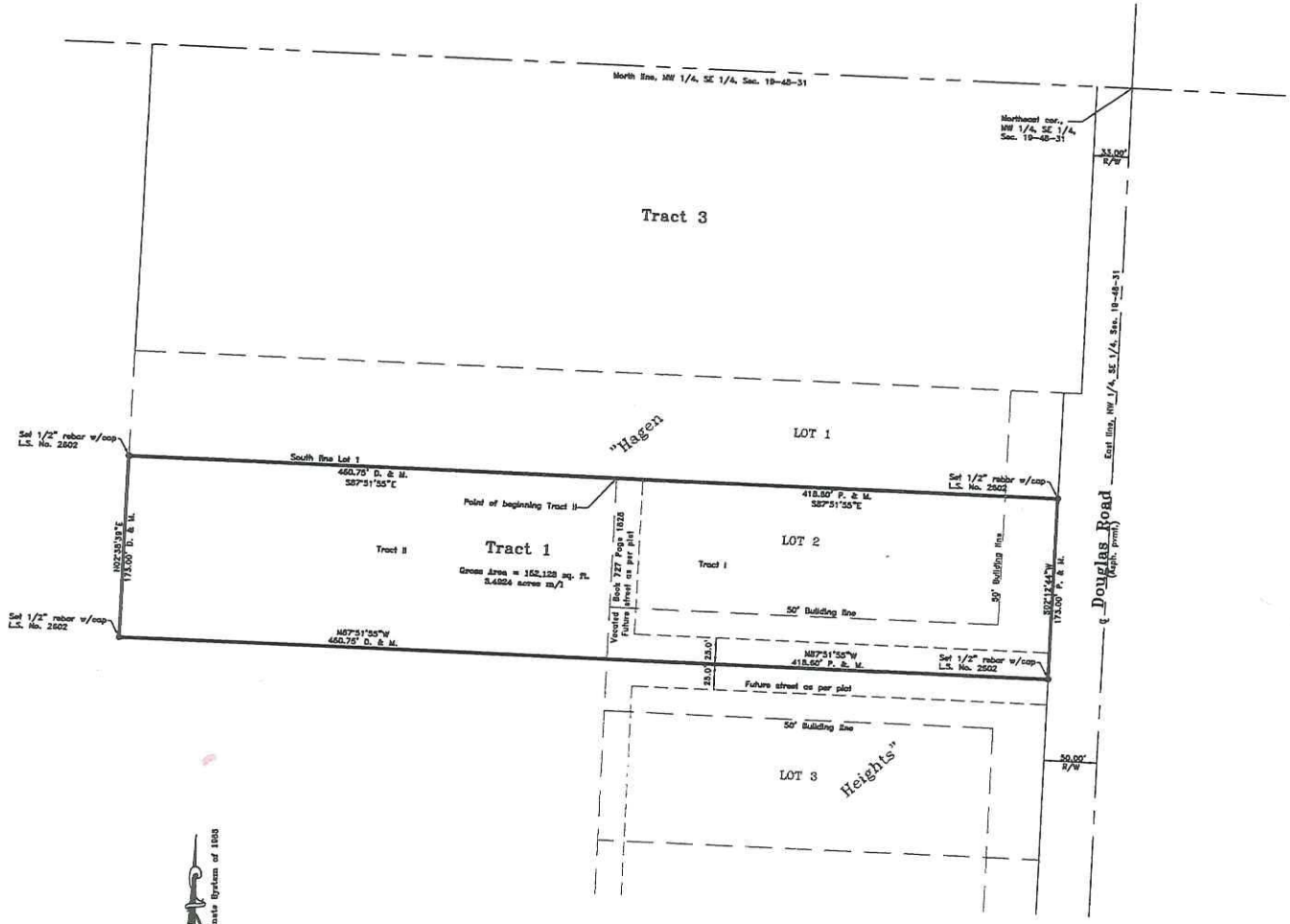
Required Application Type(s):			**Studies Required:**	**Site Visit Requested:**
• Rezoning (REZ) • Special Use Permit (SUP) • Preliminary Development Plan (PDP) • Final Development Plan (FDP) • Engineering Plans (Infrastructure)	• Preliminary Plat (PP) • Final Plat (FP) • Minor Plat (MP) • Sign Application (SIGN) • Building Permit(s)	• Neighborhood Stabilization Overlay Review (NSO) • Vacation of Easement (VOE) • Vacation of Right-of-Way (VROW) • Downtown Façade Maintenance Permit	Traffic ___ Stormwater X Sanitary ___ Water ___	Yes ___ No ___

Staff Notes: Discussion in regards to two new buildings (14 new hangars). Each building is 315 feet long. The airport development is waiting on a grant to relocate the taxi-way. Seven existing buildings will be demolished. Hangars will be built on the north quadrant, north of the existing hangars. The new buildings will be for small, single engine aircraft. There are existing water lines and hydrants that will need to be looked at. The applicant proposes to remove the water line to the south, cap it and reconnect that line to the north. Storm water drains to the north to an existing detention pond. The buildings are proposed steel construction with insulation in the roof. Hangars will have electrical outlets and lights and stub-ins for future sewer for possible bathrooms. Light fixtures will need to be 90 degree cut-off with flat bottom lens and direct downward. There will be no repairs at this facility, storage only. The door height will have a 12 foot clearance. These buildings are not heated. They are for cold storage only. A firewall may be required with two hour separation by area. It may be beneficial to price out a fire suppression system. The buildings will be categorized as a group 3, same as the existing structures there. Structures over 12,000 square feet are required to be sprinkled and/or have a fire wall to be determined by the fire department. If the buildings are sprinkled they will need to be insulated or make it a dry system. The parking for each lot will accommodate up to ten cars. A storm water report will be required for the additional impervious area. This application can be done through a Final Development Plan. Demolition permits will be needed to remove the existing buildings. There is no submittal deadline. Staff will have ten days for review following the first submittal and 5 days for review following any subsequent submittals. Mike Weisenborn will be the Project Manager for this application.

APPENDIX A3 – LEGAL DESCRIPTIONS AND PLATS

Parcel 1

Certificate of Survey



Legal Description

(As recited in First American Title Insurance Company Title Commitment No. 585356, dated June 7, 2005.)

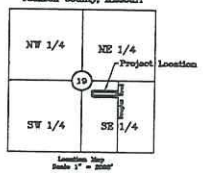
Tract I:

Lot 2,"HAGEN HEIGHTS", a subdivision in Lee's Summit, Jackson County, Missouri.

TRACT II:

That part of the Northwest Quarter of the Southeast Quarter of Section 19, Township 48 North, Range 31 West described as follows: Beginning at the Northwest corner of Lot 2 , "HAGEN HEIGHTS"; Thence West along the South line of Lot 1 of said subdivision, a distance of 460.75 feet; Thence South 173.00 feet; Thence East 460.75 feet to the West line of said Lot 2; Thence North along said West line to the point of beginning, in Lee's Summit, Jackson County, Missouri.

Section 19
TWP 48N — RNG 31W
Jackson County, Missouri



Location Map
Scale 1" = 2000'

Grid North
Missouri Coordinate System of 1983
West Zone

GRAPHIC SCALE

(IN FEET)
1 inch = 50 ft.

Legend

℄	Denotes Centerline
Conc.	Concrete
Asph.	Asphalt
Esmt.	Easement
R/W	Right-of-Way
P.	Denotes Plat Value
M.	Denotes Measured Value
	Fence

Certification:

I hereby certify that I have made or had made, under my direct supervision, this _____ day of _____ 2005, the hereon described survey on the ground and that said survey was executed in accordance with the current Missouri Minimum Standards for Property Boundary Surveys. Urban Classification.

David L. King – Mo. L.S. No. 2502

SCHMITZ, KING & Associates, Inc.
• Professional Land Surveying Services •
19915 W. 161st St., Suite E • Olathe, Kansas • 66062
(913) 397-8080

O.R. Colan Associates of Illinois, L.L.C.
c/o Ms. Leslie Metts, Project Manager
12725 Rivergrest Drive, 2nd Floor
Maryland Heights, Missouri 63043

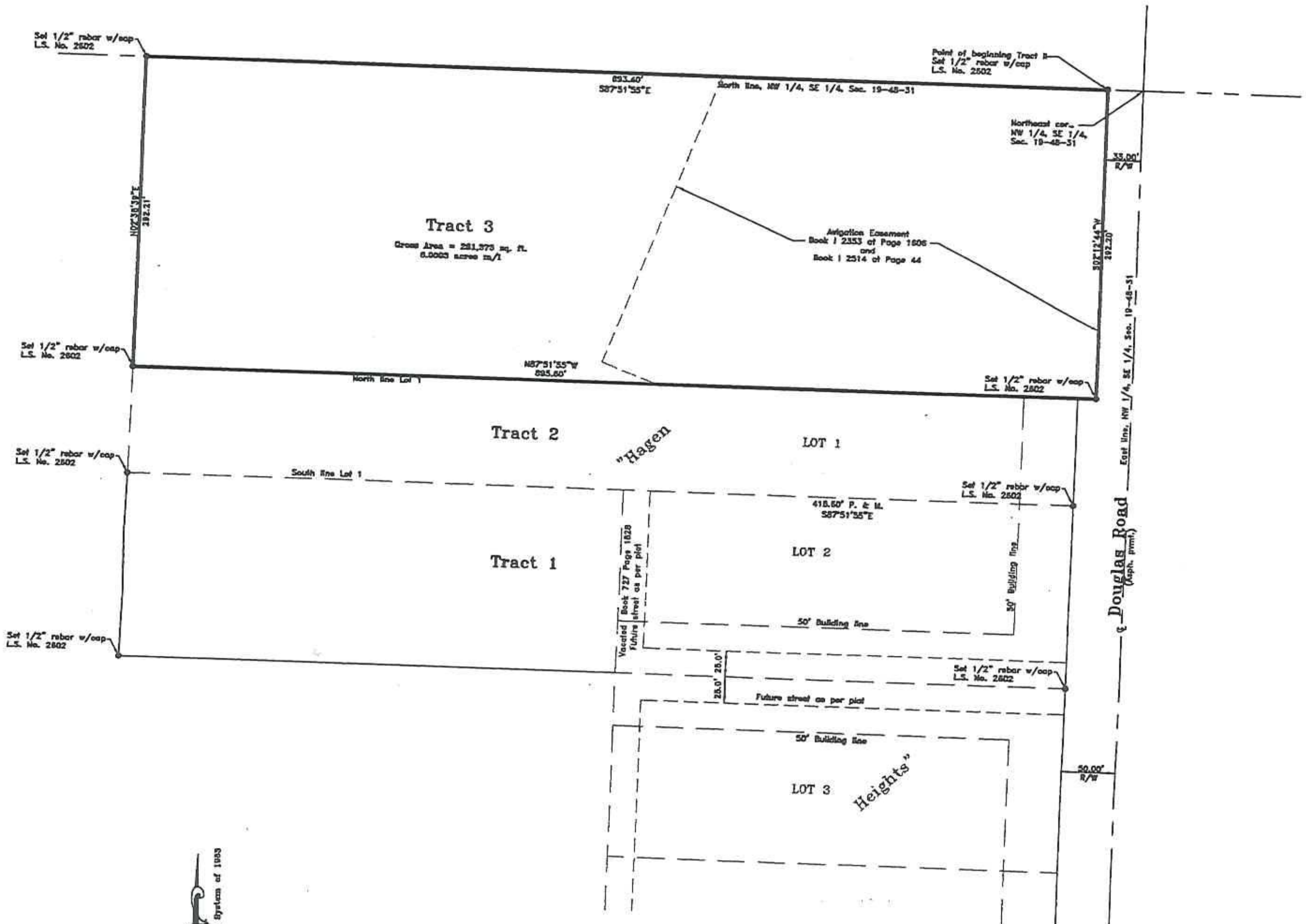
DRAWN BY	SCK	JOB NO.	05038
APPROVED BY	DLK	DATE	8/29/2005

SHEET 1 OF 1

FIELD WORK COMPLETED ON 8/26/2005 DRAWING FILE 05038TY-1

Parcel 3

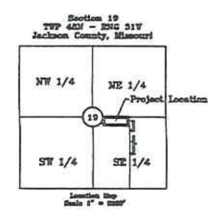
Certificate of Survey

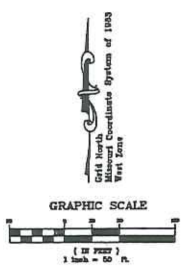


Legal Description

(As recited in First American Title Insurance Company Title Commitment No. 565381, dated June 7, 2005.)

That part of the Northwest 1/4 of the Southeast 1/4 of Section 19, Township 48 North, Range 31 West in Lee's Summit, Jackson County, Missouri, described as follows: Beginning at a point 33 feet West of the Northeast corner of the Northwest 1/4 of the Southeast 1/4 of Section 19, Township 48, Range 31, Thence South parallel to the East line of said 1/4 of 1/4 Section, 292.2 feet; Thence West 895.6 feet; Thence North 292.2 feet; Thence East 893.4 feet to the point of beginning, less and except that part in roads.





Legend

℄	Denotes Centerline
Conc.	Concrete
Asph.	Asphalt
Esmt.	Easement
R/W	Right-of-Way
P.	Denotes Plat Value
M.	Denotes Measured Value
—x—x—	Fence

Certification:

I hereby certify that I have made or had made, under my direct supervision, this ______ day of ______________, 2005, the hereon described survey on the ground and that said survey was executed in accordance with the current Missouri Minimum Standards for Property Boundary Surveys. Urban Classification.

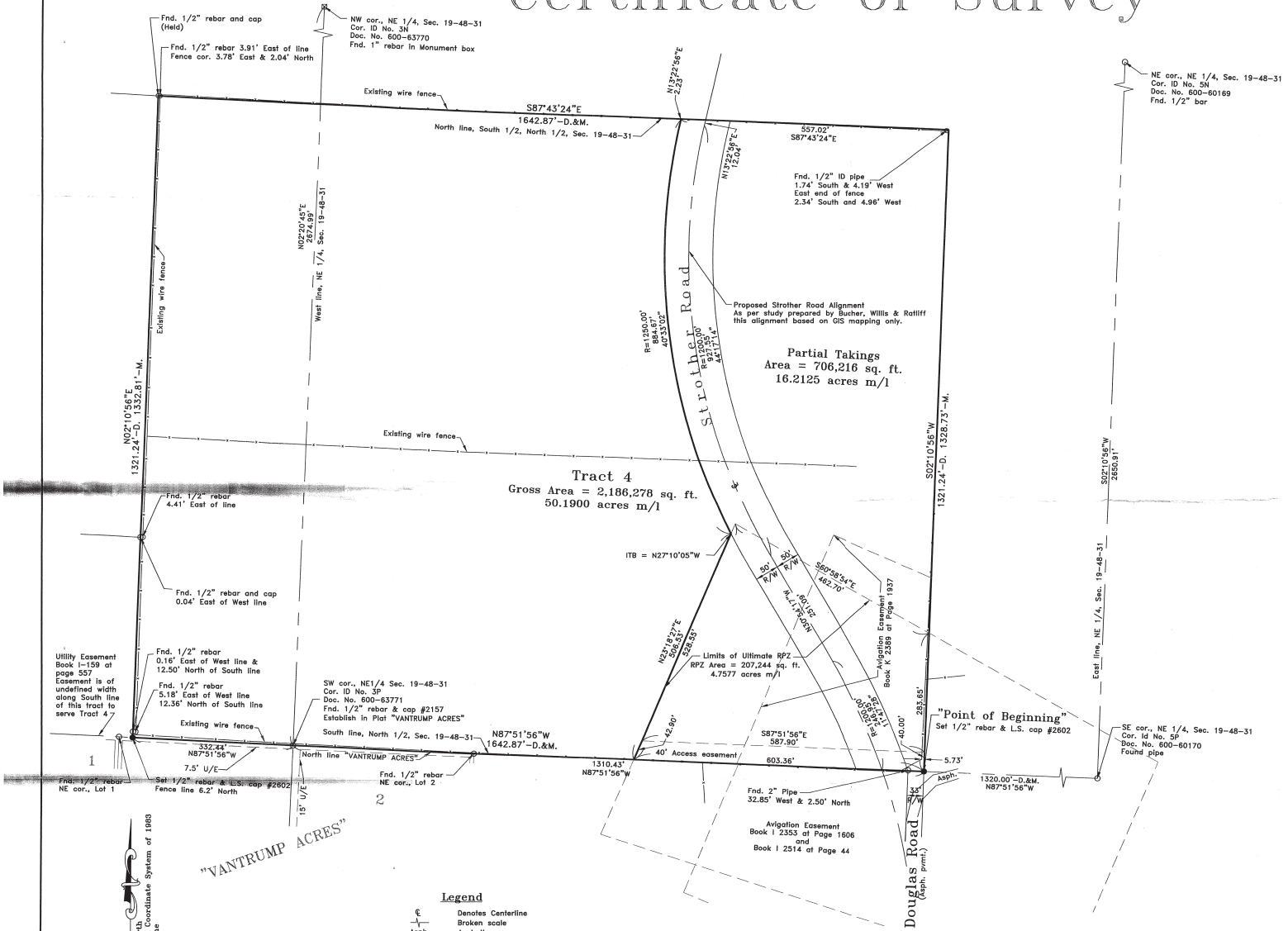
David L. King — Mo. L.S. No. 2602

SCHMITZ, KING & Associates, Inc.
• Professional Land Surveying Services •
19915 W. 161st St., Suite E • Olathe, Kansas • 66062
(913) 397-6080

O.R. Colan Associates of Illinois, L.L.C.
c/o Ms. Leslie Metts, Project Manager
Maryland Heights, Missouri

DRAWN BY SCS	JOB NO. 05038	SHEET 1
APPROVED BY DLK	DATE 8/28/2005	OF 1

Certificate of Survey



Legend

℄	Denotes Centerline
—/—	Broken scale
Asph.	Asphalt
U/E	Utility Easement
R/W	Right-of-Way
D.	Denotes Deed Value
M.	Denotes Measured Value
—x—x—	Fence
RPZ	Runway Protection Zone

Legal Description

(As recited in First American Title Insurance Company
Title Commitment No. 565397, dated June 7, 2005.)

That part of the North 1/2 Section 19, Township 48 North, Range 31 West in Lee's Summit, Jackson County, Missouri, described as follows: Beginning at a point 1320 feet West of the Southeast corner of the said North 1/2 of Section 19, Township 48 North, Range 31 West, Lee's Summit, Jackson County, Missouri; West 1642.87 feet along South line of said North 1/2 Section; Thence North 1321.24 feet on a line parallel to the East line of said Section, to a point on the North line of the South 1/2 of the North 1/2 of said Section 19; Thence East 1642.87 feet along said North line; Thence South 1321.24 feet to the Point of Beginning, except that part in Road Right-of-Way, containing 50 acres more or less.

Legal Description Partial Takings

A tract of land in the Northeast Quarter of Section 19, Township 48 North, Range 31 West of the Fifth Principal Meridian in Lee's Summit, Jackson County, Missouri being more particularly described as follows:

Commencing at the Southeast corner of the Northeast Quarter of said Section 19;

Thence North 87°51'56" West 1,320.00 feet, along the South line of the Northeast Quarter of said Section 19, to the "true point of beginning" of the tract herein described;

Thence North 87°51'56" West 603.36 feet, along said South line, to the Westerly limits of the Ultimate Runway Protection Zone;

Thence North 23°18'27" East 506.53 feet, along said Westerly line, to the Westerly right-of-way line of proposed Strother Road, said point being on a non-tangent curve concave to the East having a radius of 1,250.00 feet and an initial tangent bearing of North 27°10'05" West;

Thence Northerly 884.67 feet along said curve to the right;

Thence North 13°22'56" East 2.23 feet to a point on the North line of the South One-half of the North One-half of said Section 19;

Thence South 87°43'24" East 557.02 feet, along said North line, to a point on a line 1,320.00 feet West of and parallel with the East line of the Northeast Quarter of said Section 19;

Thence South 02°10'56" West 1,328.73 feet, along said line, to the "true point of beginning" containing 706,216 square feet or 16.2125 acres, more or less.

Subject to all easements and restrictions of record.

Legal Description Access Easement

A tract of land in the Northeast Quarter of Section 19, Township 48 North, Range 31 West of the Fifth Principal Meridian in Lee's Summit, Jackson County, Missouri being more particularly described as follows:

Commencing at the Southeast corner of the Northeast Quarter of said Section 19;

Thence North 87°51'56" West 1,320.00 feet, along the South line of the Northeast Quarter of said Section 19, to the "true point of beginning" of the tract herein described;

Thence North 87°51'56" West 603.36 feet along said South line, to the Westerly limits of the Ultimate Runway Protection Zone;

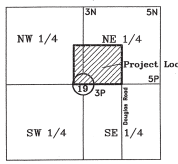
Thence North 23°18'27" East 42.90 feet, along said line, to a point on a line 40.00 feet North of and parallel with said South line;

Thence South 87°51'56" East 587.90 feet, along said line, to a point on a line 1,320.00 feet West of and parallel with the East line of the Northeast Quarter of said Section 19;

Thence South 02°10'56" West 40.00 feet, along said line, to the "true point of beginning" containing 23,825 square feet or 0.5469 acres, more or less.

Subject to all easements and restrictions of record.

Section 19
TWP 48N – RNG 31W
Jackson County, Missouri



Location Map
Scale 1" = 2000'

Certification:

I hereby certify that I have made or had made, under my direct supervision, this 27th day of May, 2006, the hereon described survey on the ground and that said survey was executed in accordance with the current Missouri Minimum Standards for Property Boundary Surveys. Urban Classification.

David L. King – Mo. L.S. No. 2602

DAVID L. KING NUMBER LS-2602 STATE OF MISSOURI

5/30/06

SCHEDULE OF REVISIONS

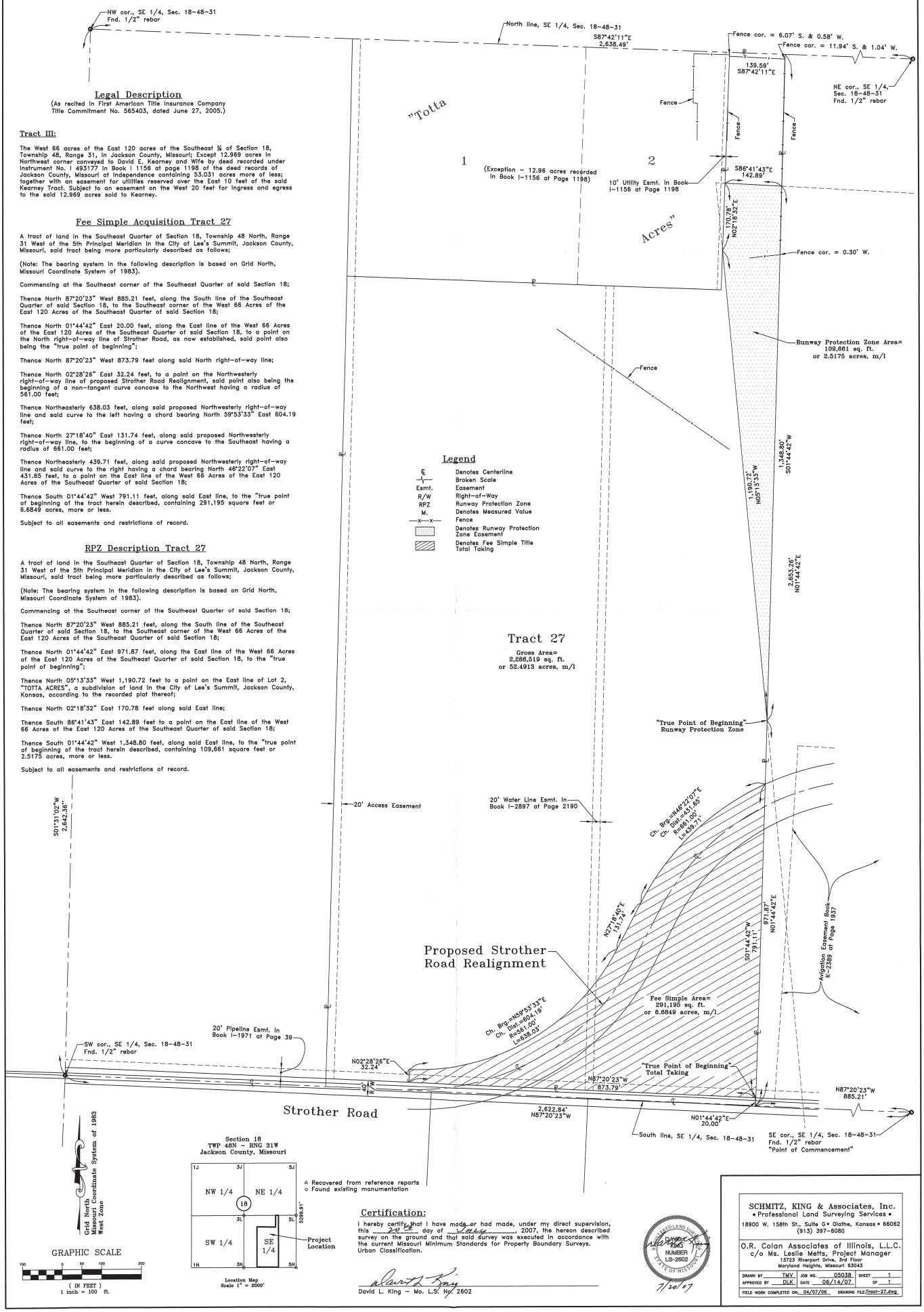
NO.	DATE	DESCRIPTION	BY
1	5/08/06	Partial Takings	SCS
1	4/10/06	Ultimate RPZ and Strother road.	SCS

SCHMITZ, KING & Associates, Inc.
• Professional Land Surveying Services •
18900 W. 158th St., Suite G • Olathe, Kansas • 66062
(913) 397-6080

O.R. Colan Associates of Illinois, L.L.C.
c/o Ms. Leslie Metts, Project Manager
13723 Riverport Drive, 3rd Floor
Maryland Heights, Missouri 63043

DRAWN BY SCS JOB NO. 05038 SHEET 1
APPROVED BY DLK DATE 11/28/2005 OF 1
FIELD WORK COMPLETED ON 10/26/2005 DRAWING FILE: 05038tr-4

Certificate of Survey



Legal Description

(As recited in First American Title Insurance Company
Title Commitment No. 565403, dated June 27, 2005.)

Tract III:

The West 66 acres of the East 120 acres of the Southeast ¼ of Section 18, Township 48, Range 31, in Jackson County, Missouri; Except 12.969 acres in Northwest corner conveyed to David E. Kearney and Wife by deed recorded under Instrument No. I 493177 in Book I 1156 at page 1198 of the deed records of Jackson County, Missouri at Independence containing 53.031 acres more of less; together with an easement for utilities reserved over the East 10 feet of the said Kearney Tract. Subject to an easement on the West 20 feet for ingress and egress to the said 12.969 acres sold to Kearney.

Fee Simple Acquisition Tract 27

A tract of land in the Southeast Quarter of Section 18, Township 48 North, Range 31 West of the 5th Principal Meridian in the City of Lee's Summit, Jackson County, Missouri, said tract being more particularly described as follows;

(Note: The bearing system in the following description is based on Grid North, Missouri Coordinate System of 1983).

Commencing at the Southeast corner of the Southeast Quarter of said Section 18;

Thence North 87°20'23" West 885.21 feet, along the South line of the Southeast Quarter of said Section 18, to the Southeast corner of the West 66 Acres of the East 120 Acres of the Southeast Quarter of said Section 18;

Thence North 01°44'42" East 20.00 feet, along the East line of the West 66 Acres of the East 120 Acres of the Southeast Quarter of said Section 18, to a point on the North right-of-way line of Strother Road, as now established, said point also being the "true point of beginning";

Thence North 87°20'23" West 873.79 feet along said North right-of-way line;

Thence North 02°28'26" East 32.24 feet, to a point on the Northwesterly right-of-way line of proposed Strother Road Realignment, said point also being the beginning of a non-tangent curve concave to the Northwest having a radius of 561.00 feet;

Thence Northeasterly 638.03 feet, along said proposed Northwesterly right-of-way line and said curve to the left having a chord bearing North 59°53'33" East 604.19 feet;

Thence North 27°18'40" East 131.74 feet, along said proposed Northwesterly right-of-way line, to the beginning of a curve concave to the Southeast having a radius of 661.00 feet;

Thence Northeasterly 439.71 feet, along said proposed Northwesterly right-of-way line and said curve to the right having a chord bearing North 46°22'07" East 431.65 feet, to a point on the East line of the West 66 Acres of the East 120 Acres of the Southeast Quarter of said Section 18;

Thence South 01°44'42" West 791.11 feet, along said East line, to the "true point of beginning of the tract herein described, containing 291,195 square feet or 6.6849 acres, more or less.

Subject to all easements and restrictions of record.

RPZ Description Tract 27

A tract of land in the Southeast Quarter of Section 18, Township 48 North, Range 31 West of the 5th Principal Meridian in the City of Lee's Summit, Jackson County, Missouri, said tract being more particularly described as follows;

(Note: The bearing system in the following description is based on Grid North, Missouri Coordinate System of 1983).

Commencing at the Southeast corner of the Southeast Quarter of said Section 18;

Thence North 87°20'23" West 885.21 feet, along the South line of the Southeast Quarter of said Section 18, to the Southeast corner of the West 66 Acres of the East 120 Acres of the Southeast Quarter of said Section 18;

Thence North 01°44'42" East 971.87 feet, along the East line of the West 66 Acres of the East 120 Acres of the Southeast Quarter of said Section 18, to the "true point of beginning";

Thence North 05°13'33" West 1,190.72 feet to a point on the East line of Lot 2, "TOTTA ACRES", a subdivision of land in the City of Lee's Summit, Jackson County, Kansas, according to the recorded plat thereof;

Thence North 02°18'32" East 170.78 feet along said East line;

Thence South 86°41'43" East 142.89 feet to a point on the East line of the West 66 Acres of the East 120 Acres of the Southeast Quarter of said Section 18;

Thence South 01°44'42" West 1,348.80 feet, along said East line, to the "true point of beginning of the tract herein described, containing 109,661 square feet or 2.5175 acres, more or less.

Subject to all easements and restrictions of record.

Legend

℄	Denotes Centerline
—	Broken Scale
Esmt.	Easement
R/W	Right-of-Way
RPZ	Runway Protection Zone
M.	Denotes Measured Value
—x—x—	Fence
	Denotes Runway Protection Zone Easement
	Denotes Fee Simple Title Total Taking

Grid North
Missouri Coordinate System of 1983
West Zone

GRAPHIC SCALE
100 0 50 100 200
(IN FEET)
1 inch = 100 ft.

Section 18
TWP 48N - RNG 31W
Jackson County, Missouri

Location Map
Scale 1" = 2000'

△ Recovered from reference reports
○ Found existing monumentation

Certification:

I hereby certify that I have made or had made, under my direct supervision, this 20th day of June, 2007, the hereon described survey on the ground and that said survey was executed in accordance with the current Missouri Minimum Standards for Property Boundary Surveys. Urban Classification.

David L. King - Mo. L.S. No. 2602

DAVID L. KING
NUMBER
LS-2602
STATE OF MISSOURI

7/20/07

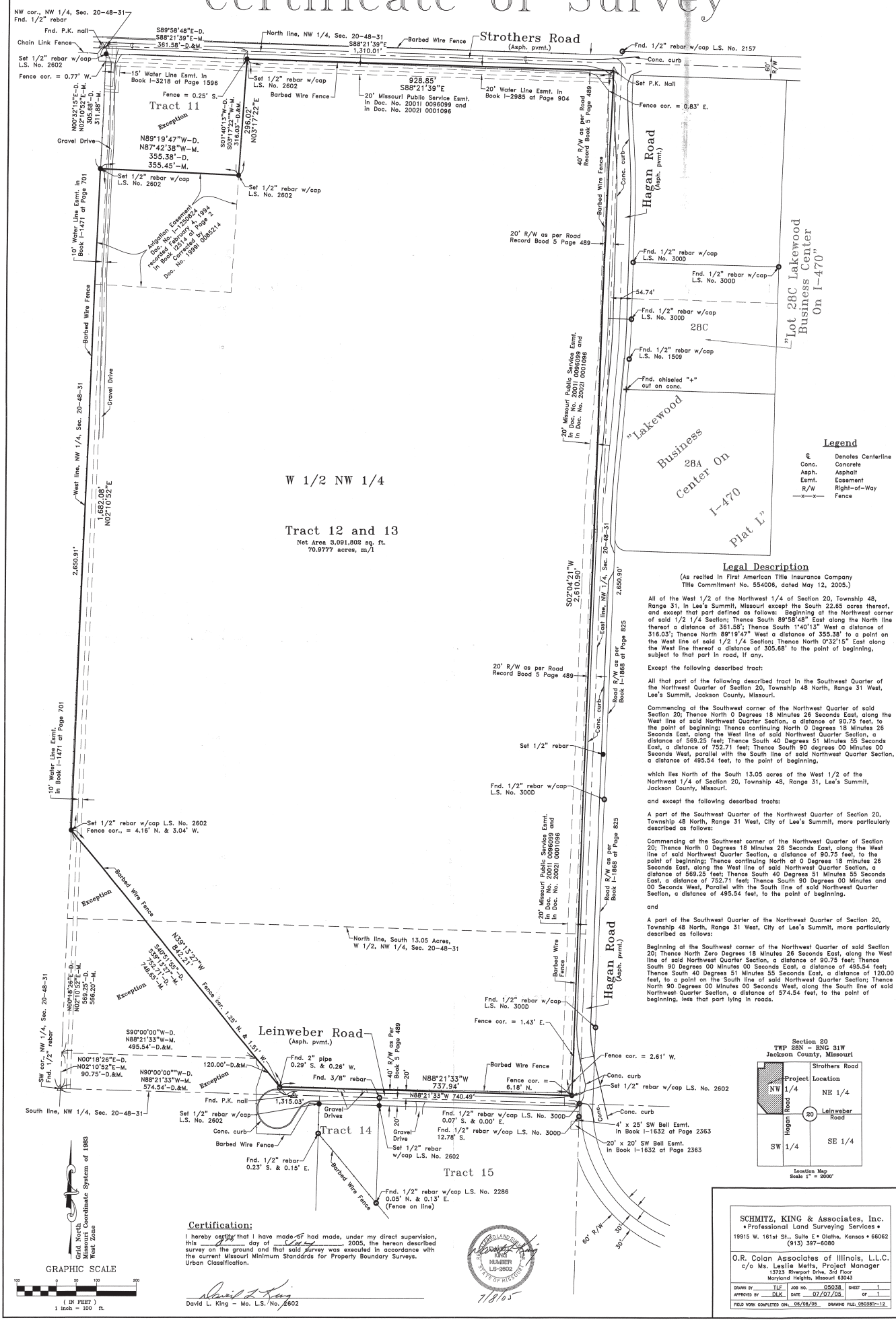
SCHMITZ, KING & Associates, Inc.
• Professional Land Surveying Services •
18900 W. 158th St., Suite G • Olathe, Kansas • 66062
(913) 397-6080

O.R. Colan Associates of Illinois, L.L.C.
c/o Ms. Leslie Metts, Project Manager
13723 Riverport Drive, 3rd Floor
Maryland Heights, Missouri 63043

DRAWN BY	TWV	JOB NO.	05038
APPROVED BY	DLK	DATE	06/14/07
FIELD WORK COMPLETED ON:	04/07/06	DRAWING FILE:	Tract-27.dwg

SHEET 1 OF 1

Certificate of Survey



Legend

℄	Denotes Centerline
Conc.	Concrete
Asph.	Asphalt
Esmt.	Easement
R/W	Right-of-Way
—x—x—	Fence

Legal Description

(As recited in First American Title Insurance Company Title Commitment No. 554006, dated May 12, 2005.)

All of the West 1/2 of the Northwest 1/4 of Section 20, Township 48, Range 31, in Lee's Summit, Missouri except the South 22.65 acres thereof, and except that part defined as follows: Beginning at the Northwest corner of said 1/2 1/4 Section; Thence South 89°58'48" East along the North line thereof a distance of 361.58'; Thence South 1°40'13" West a distance of 316.03'; Thence North 89°19'47" West a distance of 355.38' to a point on the West line of said 1/2 1/4 Section; Thence North 0°32'15" East along the West line thereof a distance of 305.68' to the point of beginning, subject to that part in road, if any.

Except the following described tract:

All that part of the following described tract in the Southwest Quarter of the Northwest Quarter of Section 20, Township 48 North, Range 31 West, Lee's Summit, Jackson County, Missouri.

Commencing at the Southwest corner of the Northwest Quarter of said Section 20; Thence North 0 Degrees 18 Minutes 26 Seconds East, along the West line of said Northwest Quarter Section, a distance of 90.75 feet, to the point of beginning; Thence continuing North 0 Degrees 18 Minutes 26 Seconds East, along the West line of said Northwest Quarter Section, a distance of 569.25 feet; Thence South 40 Degrees 51 Minutes 55 Seconds East, a distance of 752.71 feet; Thence South 90 degrees 00 Minutes 00 Seconds West, parallel with the South line of said Northwest Quarter Section, a distance of 495.54 feet, to the point of beginning,

which lies North of the South 13.05 acres of the West 1/2 of the Northwest 1/4 of Section 20, Township 48, Range 31, Lee's Summit, Jackson County, Missouri.

and except the following described tracts:

A part of the Southwest Quarter of the Northwest Quarter of Section 20, Township 48 North, Range 31 West, City of Lee's Summit, more particularly described as follows:

Commencing at the Southwest corner of the Northwest Quarter of Section 20; Thence North 0 Degrees 18 Minutes 26 Seconds East, along the West line of said Northwest Quarter Section, a distance of 90.75 feet, to the point of beginning; Thence continuing North at 0 Degrees 18 Minutes 26 Seconds East, along the West line of said Northwest Quarter Section, a distance of 569.25 feet; Thence South 40 Degrees 51 Minutes 55 Seconds East, a distance of 752.71 feet; Thence South 90 Degrees 00 Minutes and 00 Seconds West, Parallel with the South line of said Northwest Quarter Section, a distance of 495.54 feet, to the point of beginning.

and

A part of the Southwest Quarter of the Northwest Quarter of Section 20, Township 48 North, Range 31 West, City of Lee's Summit, more particularly described as follows:

Beginning at the Southwest corner of the Northwest Quarter of said Section 20; Thence North Zero Degrees 18 Minutes 26 Seconds East, along the West line of said Northwest Quarter Section, a distance of 90.75 feet; Thence South 90 Degrees 00 Minutes 00 Seconds East, a distance of 495.54 feet; Thence South 40 Degrees 51 Minutes 55 Seconds East, a distance of 120.00 feet, to a point on the South line of said Northwest Quarter Section; Thence North 90 Degrees 00 Minutes 00 Seconds West, along the South line of said Northwest Quarter Section, a distance of 574.54 feet, to the point of beginning, less that part lying in roads.

Section 20
TWP 28N - RNG 31W
Jackson County, Missouri

Location Map
Scale 1" = 2000'

Certification:

I hereby certify that I have made or had made, under my direct supervision, this 6th day of July, 2005, the hereon described survey on the ground and that said survey was executed in accordance with the current Missouri Minimum Standards for Property Boundary Surveys. Urban Classification.

David L. King - Mo. L.S. No. 2602

DAVID L. KING NUMBER LS-2602 STATE OF MISSOURI

7/8/05

SCHMITZ, KING & Associates, Inc.
• Professional Land Surveying Services •
19915 W. 161st St., Suite E • Olathe, Kansas • 66062
(913) 397-6080

O.R. Colan Associates of Illinois, L.L.C.
c/o Ms. Leslie Metts, Project Manager
13723 Riverport Drive, 3rd Floor
Maryland Heights, Missouri 63043

DRAWN BY	TLF	JOB NO.	05038
APPROVED BY	DLK	DATE	07/07/05
SHEET	1	OF	1

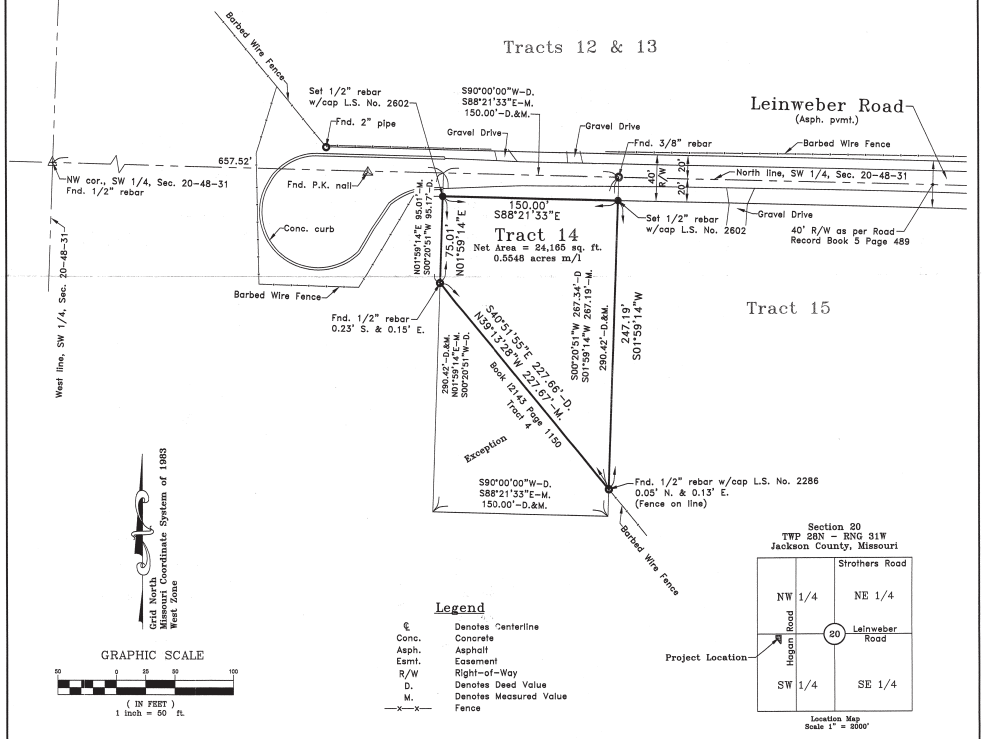
FIELD WORK COMPLETED ON: 06/06/05 DRAWING FILE: 05038T-12

Certificate of Survey

Legal Description

(As recited in First American Title Insurance Company
Title Commitment No. 554023, dated May 12, 2005.)

One twentieth of a twenty acre tract of land situated in the East half of the Northwest Quarter of the Southwest Quarter of Section 20, Township 48, Range 31, in Lee's Summit, Jackson County, Missouri, consisting of one acre of land more specific described as follows: Beginning at a point in the Northwest corner of said twenty acre tract extending from the center of Hagen Road on the North in the Southerly Direction along the West line of said twenty acre tract 290 feet 5 inches to a point; Thence East parallel to the North line 150 feet to a point; Thence North 290 feet 5 inches, parallel with the West line to a point in the center of said Hagen Road; Thence West 150 feet to the point of beginning, except part taken by Condemnation Suit CV89-11610, to set forth in Document No. I-926295 in Book I-1938 at Page 1853. And as set forth in Document No. I-1051214 in Book I2143 at Page 1150.



Grid North
Missouri Coordinate System of 1983
West Zone

GRAPHIC SCALE

50 0 25 50 100

(IN FEET)
1 inch = 50 ft.

Legend

℄	Denotes Centerline
Conc.	Concrete
Asph.	Asphalt
Esmt.	Easement
R/W	Right-of-Way
D.	Denotes Deed Value
M.	Denotes Measured Value
—x—x—	Fence

Section 20
TWP 48N - RNG 31W
Jackson County, Missouri

Location Map
Scale 1" = 2000'

Certification:

I hereby certify that I have made or had made, under my direct supervision, this 12 day of July, 2005, the hereon described survey on the ground and that said survey was executed in accordance with the current Missouri Minimum Standards for Property Boundary Surveys.
Urban Classification.

David L. King

David L. King - Mo. L.S. No. 2602

7/18/05

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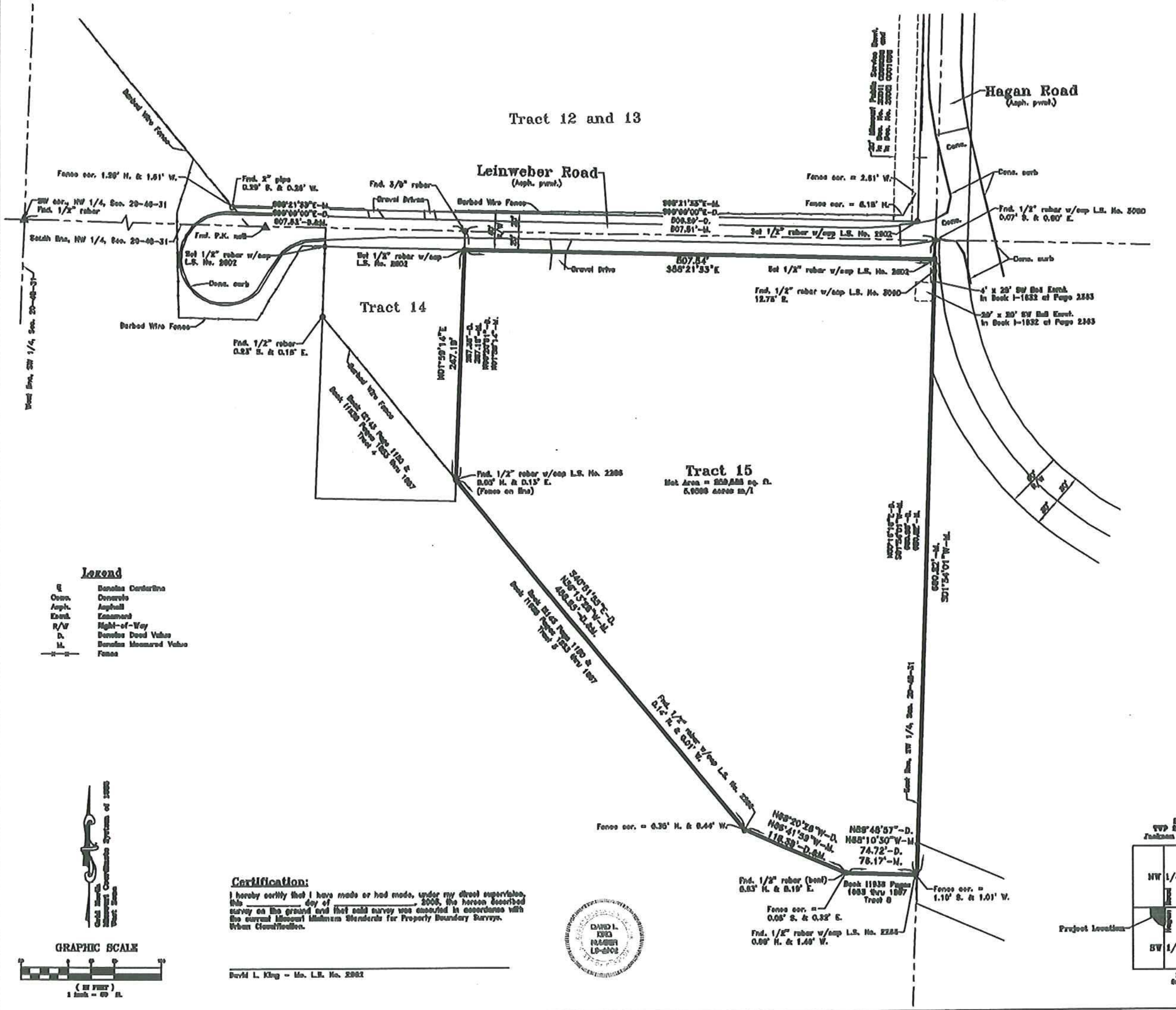
c/o Ms. Lesile Metts, Project Manager
13723 Riverport Drive, 3rd Floor
Maryland Heights, Missouri 63043

DRAWN BY	TLF	JOB NO.	05038
APPROVED BY	DLK	DATE	07/07/05
SHEET	1	OF	1

FIELD WORK COMPLETED ON: 06/08/05 DRAWING FILE: 05038T-14

Certificate of Survey



Legal Description

(As recited in First American Title Insurance Company Title Commitment No. 554008, dated May 12, 2008.)

All that part of the East half of the Northwest Quarter of the Southwest Quarter of Section 20, Township 48 North, Range 31 West, in Lee's Summit, Jackson County, Missouri, now more fully and correctly described as follows:

Beginning at a point on the North line of the Southwest Quarter of Section 20, Township 48 North, Range 31 West, said point being South 90 Degrees 00 Minutes 00 Seconds East (this bearing being the reference bearing for all of the following bearings), along said North line, 607.53 feet from the Northwest corner of the Northwest Quarter of the Southwest Quarter of said Section 20; Thence continuing South 90 Degrees 00 Minutes 00 Seconds East, along said North line, a distance of 508.20 feet to a point on the East line of the East half of the Northwest Quarter of the Southwest Quarter of said Section 20; Thence South 00 Degrees 16 Minutes 18 Seconds West, along said East line, a distance of 680.50 feet to a point on the North line of City of Lee's Summit Airport, said point being the Northeast corner of Tract 8 as described in Condemnation Report Case No. CV86-11610 and recorded in Jackson County as Document No. I023590 in Book I1930 at Pages 1063 thru 1097 inclusive; Thence North 89 Degrees 49 Minutes 57 Seconds West, along said North line, a distance of 74.72 feet to a point, being the Southeast corner of Tract 8 of aforementioned condemnation report; Thence North 68 Degrees 20 Minutes 28 Seconds West, along the Northeasterly line of said Tract 8, a distance of 118.58 feet; Thence North 40 Degrees 51 Minutes 53 Seconds West, along said Northeasterly line, a distance of 488.68 feet to a point on the East line of Tract 4 of aforementioned condemnation report; Thence North 03 Degrees 20 Minutes 51 Seconds East, a distance of 257.35 feet to the point of beginning; Except that part in Leinweber Road; All as shown on Certificate of Survey recorded July 18, 1997 as Document No. 971-43206.

Certification:

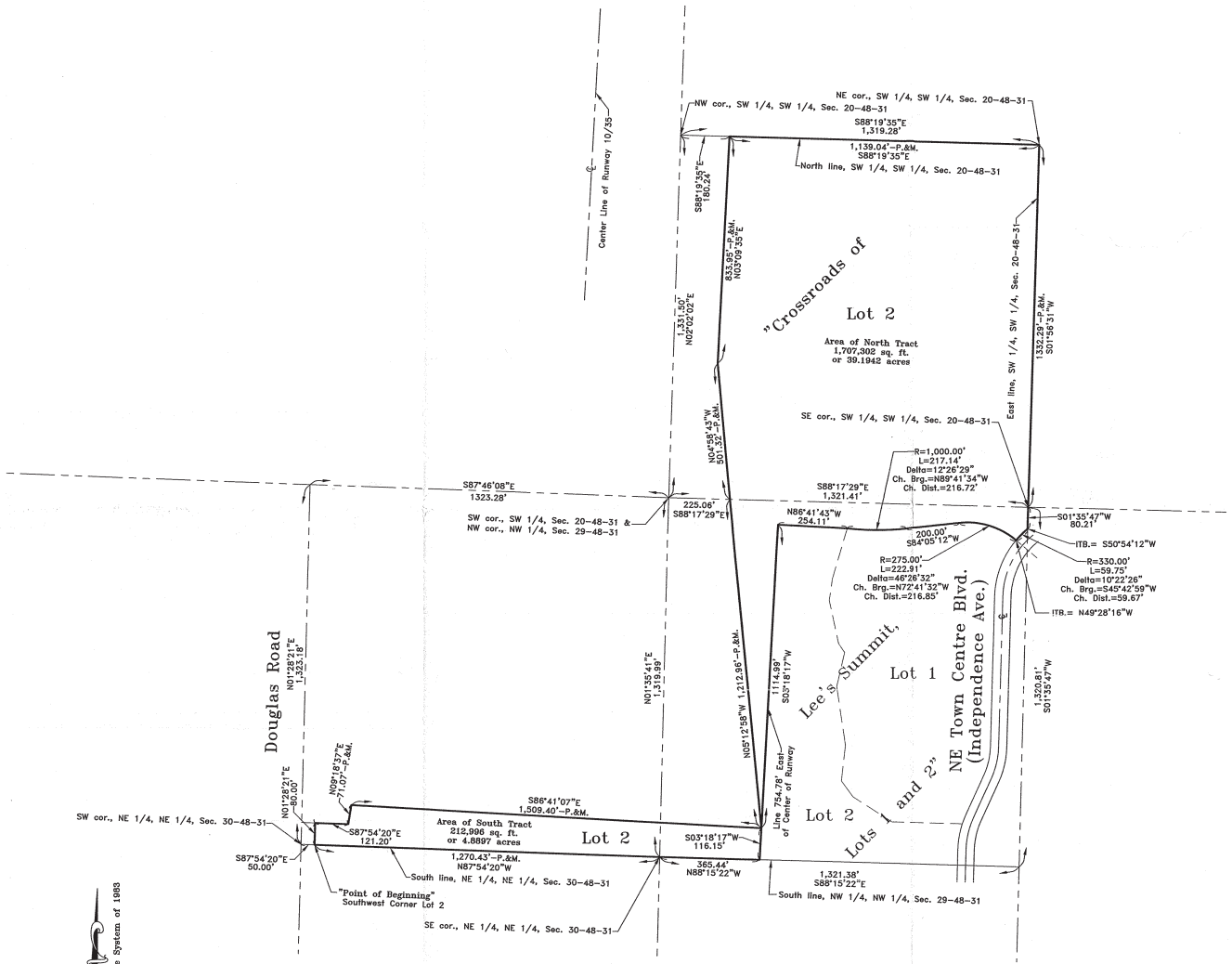
I hereby certify that I have made or had made, under my direct supervision, this ________ day of ____________, 2008, the hereon described survey on the ground and that said survey was executed in accordance with the current Missouri Minimum Standards for Property Boundary Surveys, Urban Classification.

David L. King – Mo. L.S. No. 2362

SCHMITZ, KING & Associates, Inc.
• Professional Land Surveying Services •

O.R. Colan Associates of Illinois, L.L.C.
c/o Ms. Leslie Matte, Project Manager

Plat of Description



Grid North
Missouri Coordinate System of 1983
West Zone

GRAPHIC SCALE

200 0 100 200 400

(IN FEET)
1 inch = 200 ft.

Legend

P	Denotes Plat Value
M	Denotes Measured Value
℄	Denotes Centerline
Ch. Brg.	Denotes Chord Bearing
Ch. Dist.	Denotes Chord Distance
ITB.	Denotes Initial Tangent Bearing

Parcel Description

A parcel of land being a part of Lot 2, "CROSSROADS OF LEE'S SUMMIT, LOTS 1 AND 2", according to the recorded plat thereof, situated in the Southwest Quarter of Section 20, the Northwest Quarter of Section 29 and the Northeast Quarter of Section 30, all in Township 48 North, Range 31 West of the 5th Principle Meridian in the City of Lee's Summit, Jackson County, Missouri, said parcel being more particularly described as follows:

Beginning at the Southwest corner of said Lot 2, said point being South 87°54'20" East 50.00 feet from the Southwest corner of the Northeast Quarter of the Northeast Quarter of said Section 30;

Thence North 01°28'21" East 80.00 feet, along the East right-of-way line of Douglas Road, as now established by plat;

Thence South 87°54'20" East 121.20 feet along the Northerly line of said Lot 2;

Thence North 09°18'37" East 71.07 feet along said Northerly line;

Thence South 86°41'07" East 1,509.42 feet, along said Northerly line, to a point on the Westerly line of said Lot 2;

Thence North 05°12'58" West 1,212.96 feet, along said West line, to a point on the South line of the Southwest Quarter of said Section 20;

Thence North 04°58'43" West 501.32 feet along said West line;

Thence North 03°09'35" East 833.95 feet, along said West line, to the Northwest corner of said Lot 2;

Thence South 88°19'35" East 1,139.04 feet, along the North line of said Lot 2, to the Northeast corner of said Lot 2;

Thence South 01°56'31" West 1,332.29 feet, along the East line of said Lot 2, to the Southeast corner of the Southwest Quarter of the Southwest Quarter of said Section 20;

Thence South 01°35'47" West 80.21 feet, along said East line, to a point on the Northerly right-of-way line of Northeast Town Centre Boulevard (Independence Avenue), as now established, said point being on a non-tangent curve concave to the Southeast having a radius of 330.00 feet and an initial tangent bearing of South 50°54'12" West;

Thence Southwesterly along said curve to the left and said Northerly right-of-way line 59.75 feet thru a delta angle of 10°22'26" and a chord bearing South 45°42'59" West 59.67 feet, to the Northeast corner of Lot 1 of said "CROSSROADS OF LEE'S SUMMIT, LOTS 1 AND 2", and the beginning of a non-tangent curve concave to the South having a radius of 275.00 feet and an initial tangent bearing of North 49°28'16" West;

Thence Westerly along the North line of said Lot 1 and said curve to the left 222.91 feet thru a delta angle of 46°26'32" and a chord bearing North 72°41'32" West 216.85 feet;

Thence South 84°05'12" West 200.00 feet, along the North line of said Lot 1, to the beginning of a curve concave to the North having a radius of 1,000.00 feet;

Thence Westerly along said North line and curve to the right 217.14 feet thru a delta angle of 12°26'29" and a chord bearing North 89°41'34" West 216.72 feet;

Thence North 86°41'43" West 254.11 feet departing from the North line of said Lot 1, to a point 754.78 feet East of the center line of Runway 10/35;

Thence South 03°18'17" West 1,114.99 feet, parallel with and 754.78 feet East of said Runway 10/35, to a point on the West line of said Lot 2;

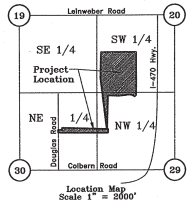
Thence South 03°18'17" West 116.15 feet to a point on the South line of said Lot 2;

Thence North 88°15'22" West 365.44 feet, along the South line of said Lot 2, to the Southeast corner of the Northeast Quarter of the Northeast Quarter of said Section 30;

Thence North 87°54'20" West 1,270.43 feet, along said South line, to the "point of beginning" of the parcel herein described, containing 1,920,298 square feet or 44.0840 acres, more or less.

Subject to all easements and restrictions of record.

Sections 20, 28, & 29
TWP 48N – RNG 31W
Jackson Co., Mo.



Location Map
Scale 1" = 2000'

DAVID L. KING
NUMBER
LS-2602
STATE OF MISSOURI
REGISTERED LAND SURVEYOR

6/24/05

SCHMITZ, KING & Associates, Inc.
• Professional Land Surveying Services •
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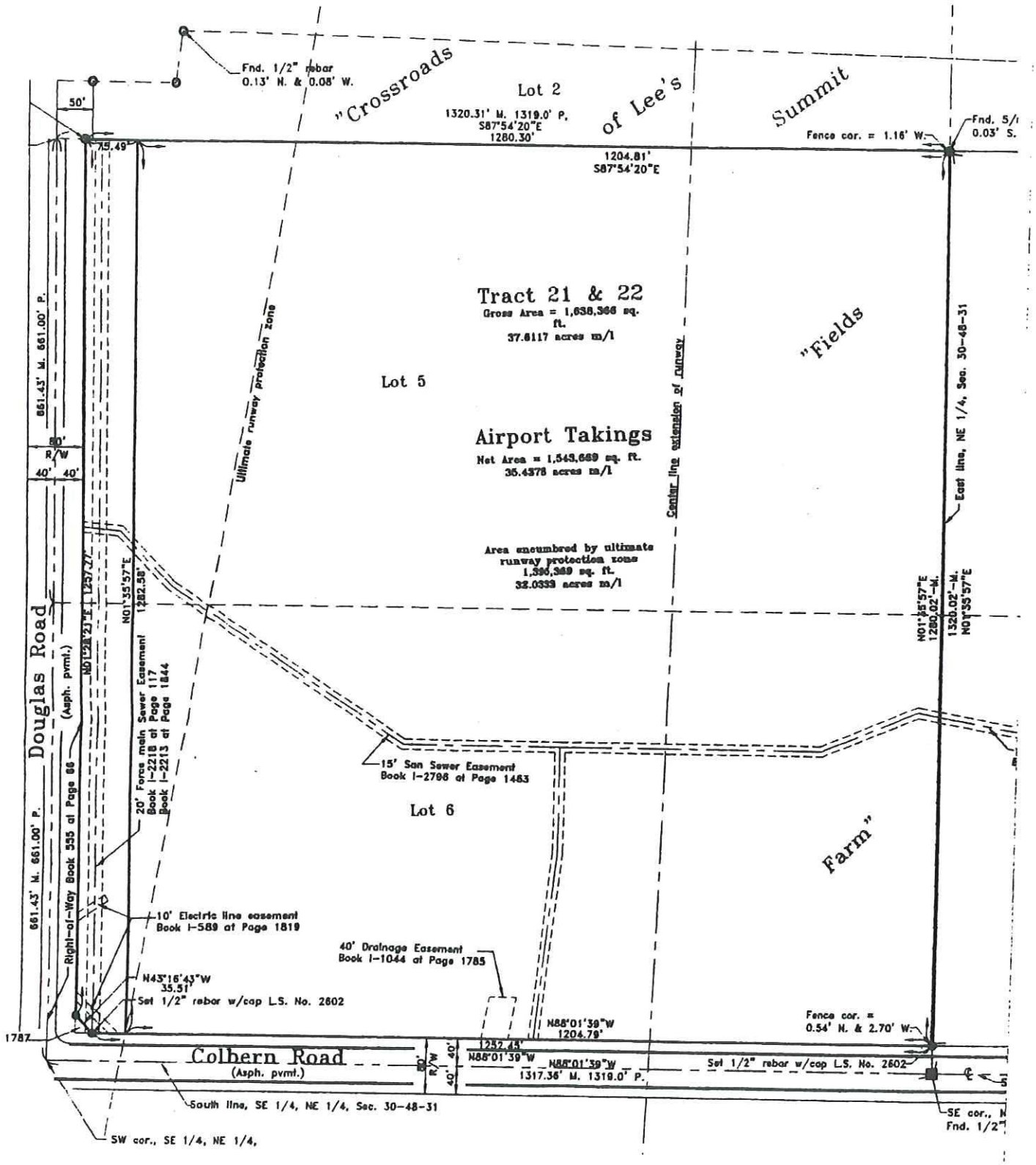
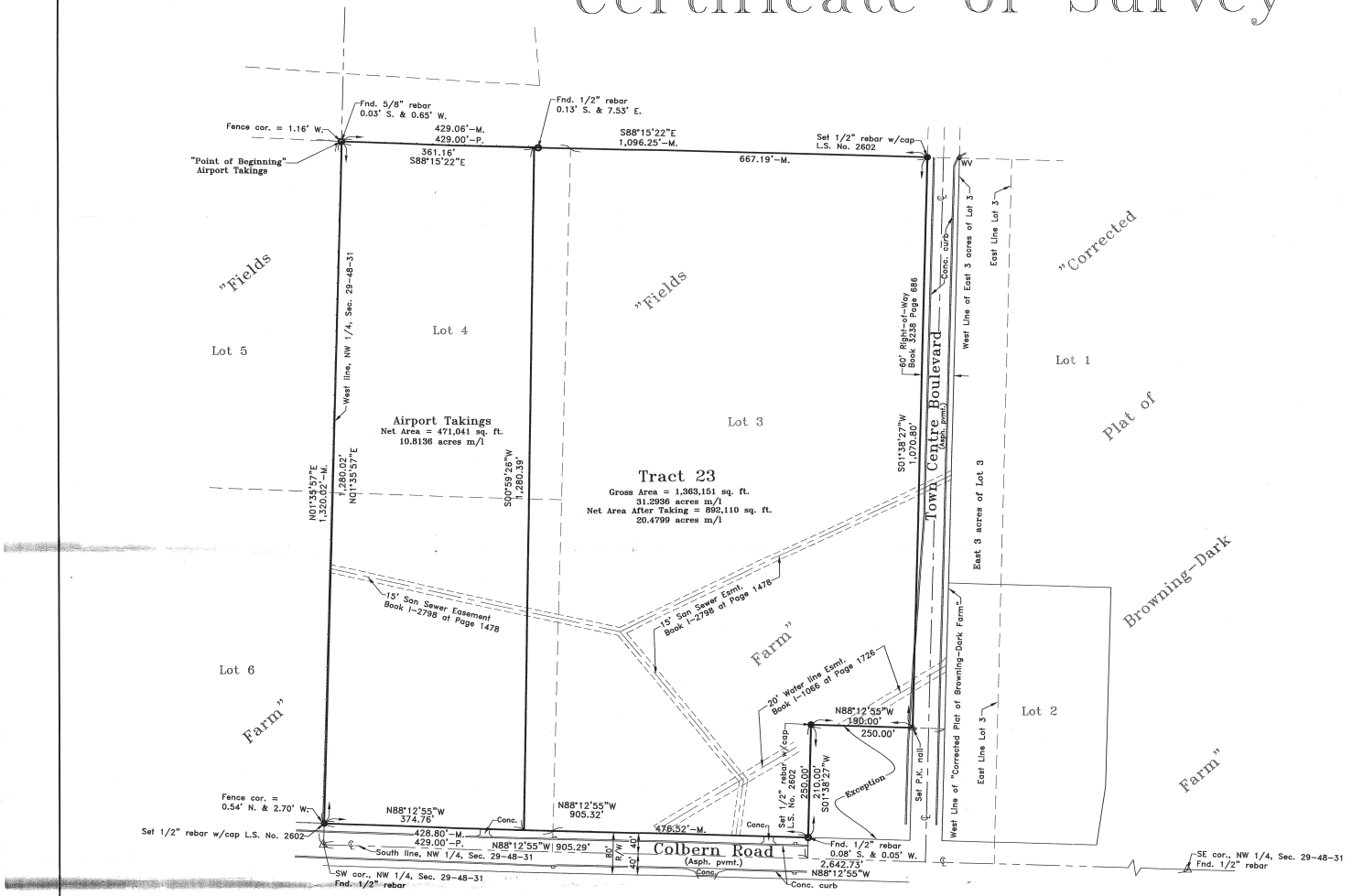
O.R. Colan Associates
c/o Leslie Metts
13723 Riverport Drive
Maryland Heights, Mo. 63043

DRAWN BY TMV	JOB NO. 05038	SHEET 1	
APPROVED BY DLK	DATE 6/22/2005	OF 1	
FIELD WORK COMPLETED ON:		DRAWING FILE: 05038-EX	

CERTIFICATE OF SURVEY MAP



Certificate of Survey



Legal Description

(As recited in First American Title Insurance Company
Title Commitment No. 563522, dated June 2, 2005.)

Lot 3, except the East 3 acres thereof, and except part described as follows: Beginning at the Southwest corner of the East 3 acres of said Lot; thence North 250 feet; thence West 250 feet; thence South 250 feet; thence East 250 feet to the point of beginning; and all of Lot 4, and the East 6.53 acres of Lot 6, in "FIELDS FARM", a subdivision in Lee's Summit, Jackson County, Missouri.

Survey Description of Airport Takings

A parcel of land situated in a portion of Lot 4 and Lot 6, "FIELDS FARM", a subdivision of land in the City of Lee's Summit, Jackson County, Missouri, said parcel being more particularly described as follows:

(Note: The bearing system in the following description is based on Grid North, Missouri Coordinate System of 1983).

Beginning at the Northwest corner of said Lot 4;

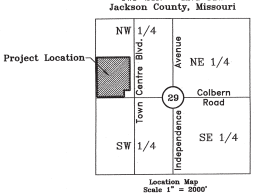
Thence South 88°15'22" East 361.16 feet along the North line of said Lot 4;

Thence South 00°59'26" West 1,280.39 feet to a point on the North right-of-way line of Colbern Road, as now established;

Thence North 88°12'55" West 374.76 feet, along said North right-of-way line, to a point on the Southerly prolongation of the West line of said Lot 4;

Thence North 01°35'57" East 1,280.02 feet, along said Southerly prolongation and said West line, to the "point of beginning" of the parcel herein described, containing 471,041 square feet or 10.8136 acres, more or less.

Subject to all easements and restrictions of record.



Grid North is Missouri Coordinate System of 1983 West Zone

GRAPHIC SCALE

100 0 50 100 200
(IN FEET)
1 inch = 100 ft.

Legend

℄	Denotes Centerline
Conc.	Concrete
Asph.	Asphalt
Esmt.	Easement
R/W	Right-of-Way
P.	Denotes Plat Value
M.	Denotes Measured Value
-x-x-	Fence

Certification:

I hereby certify that I have made or had made, under my direct supervision, this _____ day of _____, 2005, the hereon described survey on the ground and that said survey was executed in accordance with the current Missouri Minimum Standards for Property Boundary Surveys. Urban Classification.

David L. King – Mo. L.S. No. 2602

REGISTERED LAND SURVEYOR
DAVID L. KING
NUMBER LS-2602
STATE OF MISSOURI

	SCHEDULE OF REVISIONS		
1	08/01/05	Airport Takings	TLF
NO.	DATE	DESCRIPTION	BY

SCHMITZ, KING & Associates, Inc.
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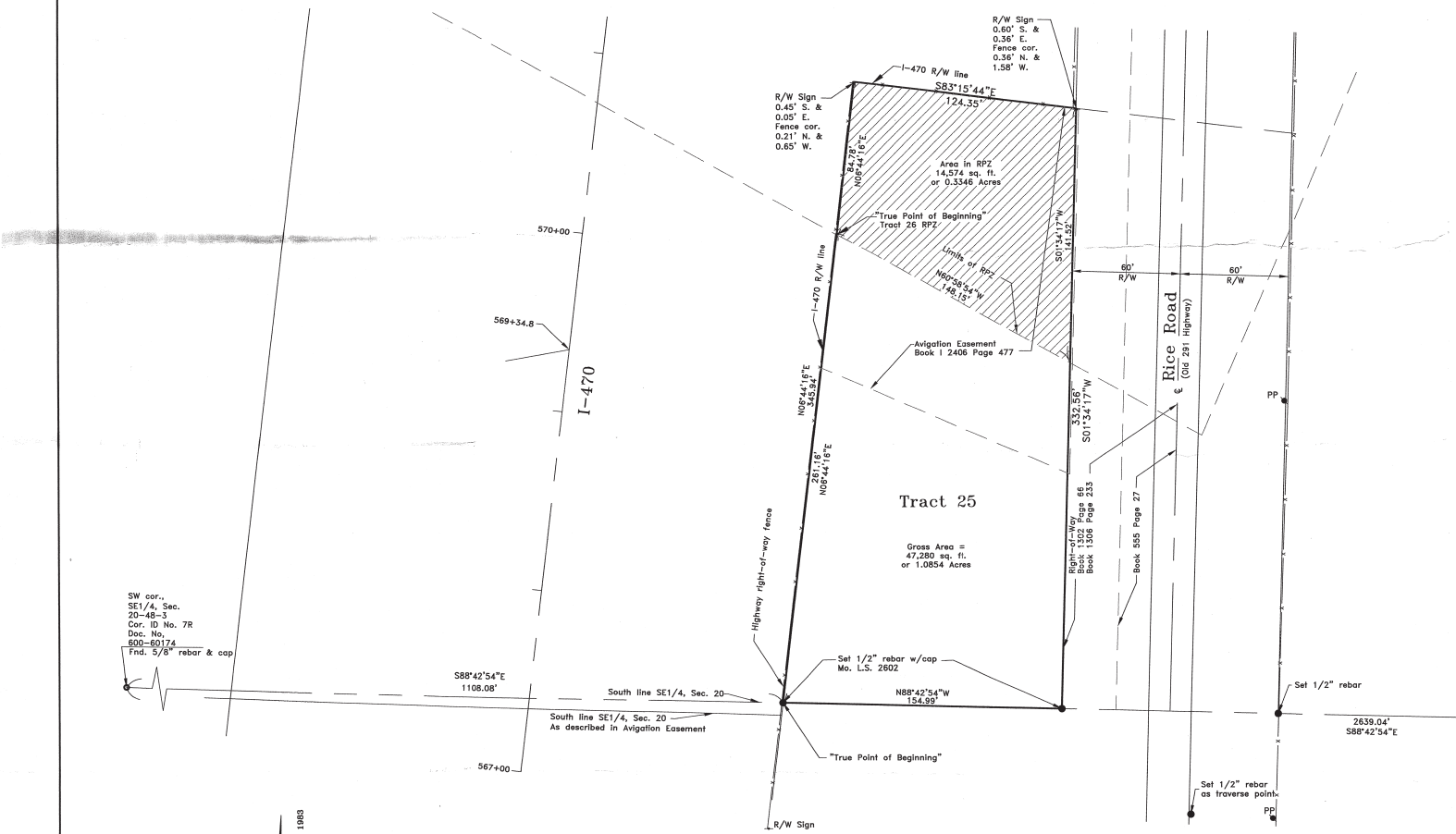
O.R. Colan Associates of Illinois, L.L.C.
c/o Ms. Leslie Metts, Project Manager
13723 Riverport Drive, 3rd Floor
Maryland Heights, Missouri 63043

DRAWN BY	TLF	JOB NO.	05038
APPROVED BY	DLK	DATE	07/08/05
FIELD WORK COMPLETED ON:	06/08/05	DRAWING FILE:	05038Tr-23

SHEET 1 OF 1

Certificate of Survey



Legal Description

(As recited in First American Title Insurance Company
Title Commitment No. 577550, dated July 7, 2005.)

All that part of the Southwest 1/4 of the Southeast 1/4 of Section 20, Township 48, Range 31, lying East and South of the Easterly Right of Way line of I-470 and West to the Westerly line of of Highway 291, all in Lee's Summit, Jackson County, Missouri.

Survey Description of Tract 25

A tract of land in the Southwest Quarter of the Southeast Quarter of Section 20, Township 48 North, Range 31 West of the Fifth Principal Meridian in the City of Lee's Summit, Jackson County, Missouri, said tract being more particularly described as follows:

(Note: The bearing system in the following description is based on Grid North, Missouri Coordinate System of 1983).

Commencing at the Southwest corner of the Southeast Quarter of said Section 20;

Thence South 88°42'54" East 1108.08 feet, along the South line of the Southeast Quarter of said Section 20, to a point on the East right-of-way line of I-470, as now established, and the "true point of beginning" of the tract herein described;

Thence North 06°44'16" East 345.94 feet along said East right-of-way line;

Thence South 83°15'44" East 124.35 feet, along said East right-of-way line, to a point on the West right-of-way line of Rice Road (formerly 291 Highway and Route 00);

Thence South 01°34'17" West 332.56 feet, along said West right-of-way line, to a point on the South line of the Southeast Quarter of said Section 20;

Thence North 88°42'54" West 154.99 feet, along said South line, to the "true point of beginning" of the tract herein described, containing 47,280 square feet or 1.0854 acres more or less.

Subject to all easements and restrictions of record.

Tract 25 RPZ Partial Takings

A tract of land in the Southwest Quarter of the Southeast Quarter of Section 20, Township 48 North, Range 31 West of the Fifth Principal Meridian in the City of Lee's Summit, Jackson County, Missouri, said tract being more particularly described as follows:

(Note: The bearing system in the following description is based on Grid North, Missouri Coordinate System of 1983).

Commencing at the Southwest corner of the Southeast Quarter of said Section 20;

Thence South 88°42'54" East 1108.08 feet, along the South line of the Southeast Quarter of said Section 20, to a point on the East right-of-way line of I-470, as now established;

Thence North 06°44'16" East 261.16 feet, along said East right-of-way line, to the Southerly limits of the Runway Protection Zone, said point being the "true point of beginning" of the tract herein described;

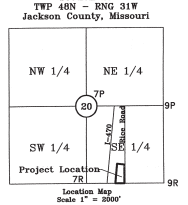
Thence North 06°44'16" East 84.78 feet along said East right-of-way line;

Thence South 83°15'44" East 124.35 feet, along said East right-of-way line, to a point on the West right-of-way line of Rice Road (formerly 291 Highway and Route 00);

Thence South 01°34'17" West 141.52 feet, along said West right-of-way line, to a point on the Southerly limits of the Runway Protection Zone;

Thence North 60°58'54" West 148.15 feet, along said Southerly line, to the "true point of beginning" of the tract herein described, containing 14,574 square feet or 0.3346 acres more or less.

Subject to all easements and restrictions of record.



Grid North
Missouri Coordinate System of 1983
West Zone

GRAPHIC SCALE

30 0 15 30 60
(IN FEET)
1 inch = 30 ft.

Legend

℄	Denotes Centerline
-/-	Broken Scale
Asph.	Asphalt
Esmt.	Easement
R/W	Right-of-Way
RPZ	Runway Protection Zone
M.	Denotes Measured Value
—x—x—	Fence
PP	Power Pole

Certification:

I hereby certify that I have made or had made, under my direct supervision, this 6th day of May, 2006, the hereon described survey on the ground and that said survey was executed in accordance with the current Missouri Minimum Standards for Property Boundary Surveys. Urban Classification.

David L. King — Mo. L.S. No. 2602

DAVID L. KING
NUMBER
LS-2602
STATE OF MISSOURI
PROFESSIONAL LAND SURVEYOR

5/8/06

NO.	DATE	DESCRIPTION	BY
		SCHEDULE OF REVISIONS	
1	5/08/06	Partial Takings for RPZ	SCS

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c/o Ms. Leslie Metts, Project Manager
13723 Riverport Drive, 3rd Floor
Maryland Heights, Missouri 63043

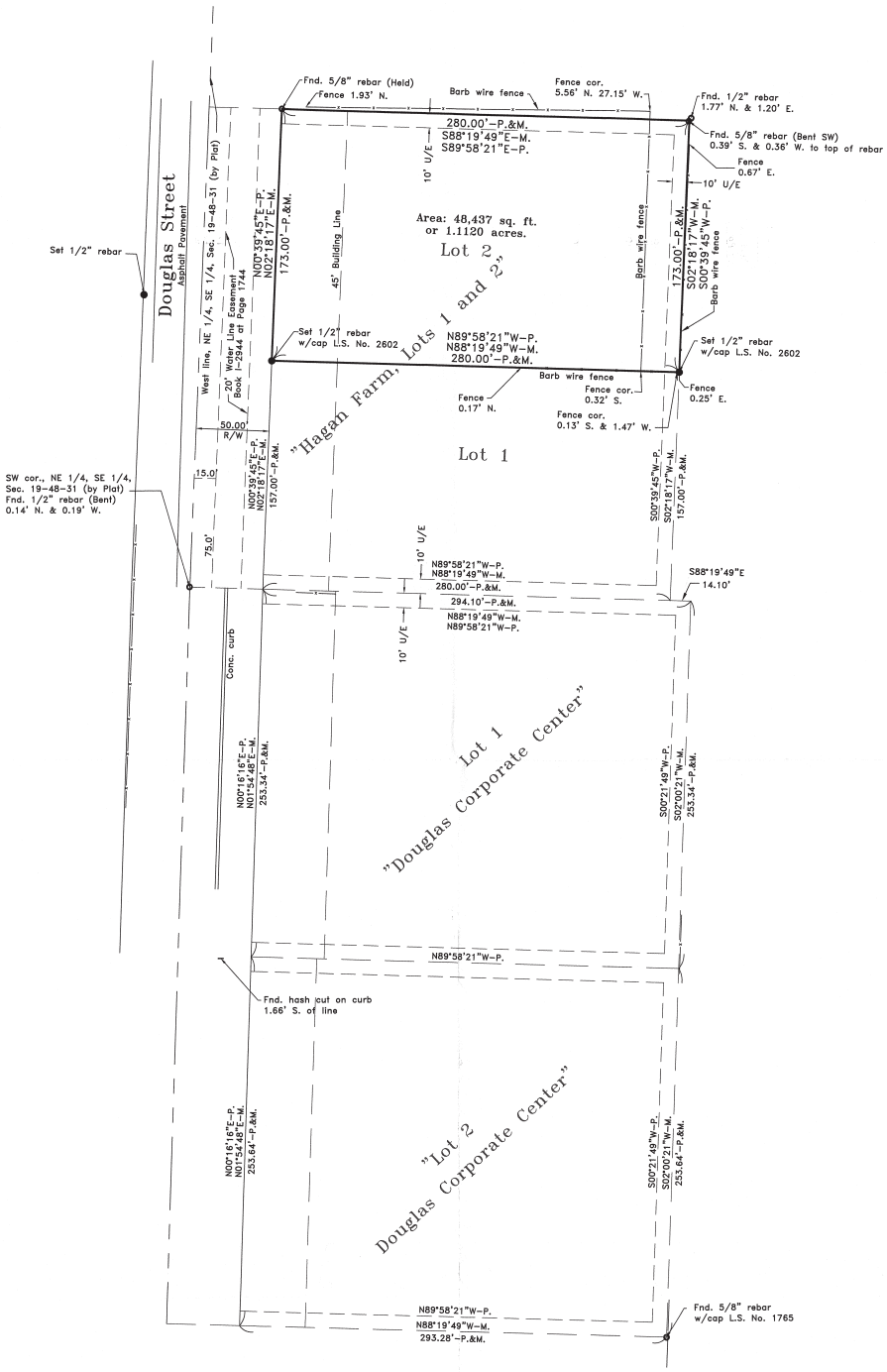
DRAWN BY SCS | JOB NO. 05038 | SHEET 1
APPROVED BY DLK | DATE 04/10/06 | OF 1
FIELD WORK COMPLETED ON: 04/06/06 | DRAWING FILE: 05038T-25

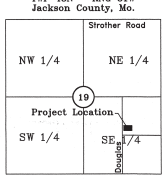
Certificate of Survey

Legal Description

(As recited in First American Title Insurance Company
Title Commitment No. 577559, dated June 12, 2005.)

Lot 2, HAGEN FARM, LOTS 1 and 2, a subdivision in Lee's Summit, Jackson County, Missouri, according to the recorded plat recorded October 31, 1997 as Document No. 97-I-68320.





Location Map
Scale 1" = 2000'

Grid North
Missouri Coordinate System of 1983
West Zone

GRAPHIC SCALE

40 0 20 40 80

(IN FEET)
1 inch = 40 ft.

Legend

- o Denotes Found 1/2" Bar
- • Denotes Set 1/2" Bar w/ cap L.S. No. 2602
- P. Denotes Plat Value
- M. Denotes Measured Value

Certification:

I hereby certify that I have made or had made, under my direct supervision, this 1st day of April, 2008, the hereon described survey on the ground and that said survey was executed in accordance with the current Missouri Minimum Standards for Property Boundary Surveys.

David L. King - Mo. LS. No. 2602

DAVID L. KING NUMBER LS-2602 STATE OF MISSOURI

4/1/08

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c/o Ms. Leslie Metts, Project Manager
3115 South Grand Avenue
St. Louis, Missouri 63118

DRAWN BY SCS	JOB NO. 05038	SHEET 1
APPROVED BY DLK	DATE 4/2/2008	OF 1
FIELD WORK COMPLETED ON: 3/26/2008	DRAWING FILE: Tract 30	

APPENDIX A4 – FEMA 1% ANNUAL CHANCE FLOOD MAP

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) Report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS Report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study Report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study Report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was Missouri State Plane West Zone (FIPS zone 2403). The **horizontal datum** was NAD 83, CRS 1996 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum**. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at http://www.ngs.noaa.gov or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, NINGS12
National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, Maryland 20910-3282
(301) 713-3242

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at **(301) 713- 3242**, or visit its website at http://www.ngs.noaa.gov.

Base map information shown on this FIRM was derived from the U.S.D.A. Farm Service National Agriculture ImageryProgram (NAIP) dated 2014. Produced at scale of 1:24,000.

The **profile baselines** depicted on this map represent the hydraulic modeling baselines that match the flood profiles in the FIS report. As a result of improved topographic data, the **profile baseline**, in some cases, may deviate significantly from the channel centerline or appear outside the SFHA.

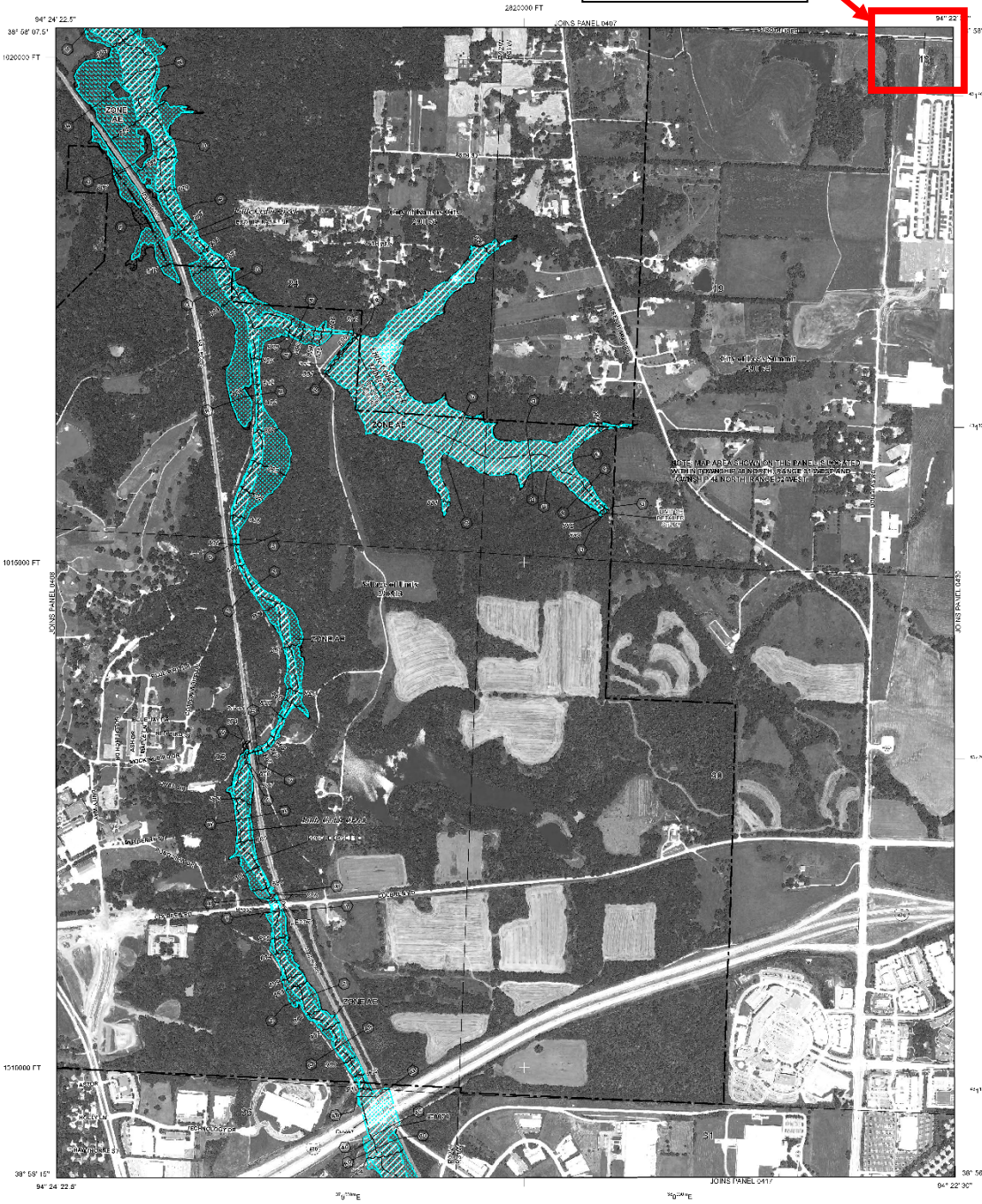
Based on updated topographic information, this map reflects more detailed and up-to-date **stream channel configurations and floodplain delineations** than those shown on the previous FIRM for this jurisdiction. As a result, the Flood Profiles and Floodway Data tables for multiple streams in the Flood Insurance Study Report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on this map. Also, the road-to-floodplain relationships for unrevised streams may differ from what is shown on previous maps.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

For information on available products associated with this FIRM, visit the **Map Service Center (MSC)** website at http://msc.fema.gov. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the MSC website.

Project Location



LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water surface elevation of the 1% annual chance flood.

ZONE A — No Base Flood Elevations determined.

ZONE AE — Base Flood Elevations determined.

ZONE AH — Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.

ZONE AO — Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.

ZONE AR — Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.

ZONE A99 — Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.

ZONE V — Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.

ZONE VE — Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X — Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X — Areas determined to be outside the 0.2% annual chance floodplain.

ZONE D — Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

1% Annual Chance Floodplain Boundary

0.2% Annual Chance Floodplain Boundary

Floodway boundary

Zone D boundary

CBRS and OPA boundary

Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths, or flood velocities.

~~513~~ Base Flood Elevation line and value; elevation in feet*

(EL 987) Base Flood Elevation value where uniform within zone; elevation in feet*

*Referenced to the North American Vertical Datum of 1988

A — A — Cross section line

23 — 23 — Transect line

Culvert

Bridge

97°07'30", 32°22'30" — Geographic coordinates, referenced to the North American Datum of 1983 (NAD 83) Western Hemisphere

1000000 mE — 5000-foot ticks: Missouri State Plane West, zone (FIPS Zone 2403), Transverse Mercator projection

1000000 FT — 5000-foot ticks: Missouri State Plane West, zone (FIPS Zone 2403), Transverse Mercator projection

M1.5 — River Mile

MAP SUBPOSITIONING
Refer to Map Repositories list on Map Index

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP
September 29, 2010

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL
January 20, 2017 - to change Special Flood Hazard Areas

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 500'
250 0 500 1000 FEET
100 0 150 300 METERS

PANEL 0409G

FIRM

FLOOD INSURANCE RATE MAP

JACKSON COUNTY, MISSOURI AND INCORPORATED AREAS

PANEL 409 OF 625
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
KANSAS CITY, CITY OF	290173	0409	G
LEE'S SUMMIT, CITY OF	290174	0409	G
UNITY VILLAGE OF	290183	0409	G

Notice to User: The **Map Number** shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.

MAP NUMBER
29095C0409G

MAP REVISED
JANUARY 20, 2017

Federal Emergency Management Agency

APPENDIX A5 – NRA NOTIFICATION LETTER FAA 7460-1

Federal Aviation Administration
901 Locust, Rm 364
Kansas City, MO 64106-2325

Airports Division, ACE-600

November 08, 2017

TO:
Lee's Summit Municipal Airport
Attn: John Ohrazda
2751 NE Douglas Road
Lee's Summit, MO 64064
john.ohrazda@cityofls.net

CC:
Crawford Murphy and TIlly, Inc.
Attn: Tyler Horn
One Memorial Drive Suite 500
St. Louis, MO 63102
thorn@cmtengr.com

RE: *(See attached Table 1 for referenced case(s))*
FINAL DETERMINATION

Table 1 - Letter Referenced Case(s)

ASN	Prior ASN	Location	Latitude (NAD83)	Longitude (NAD83)	AGL (Feet)	AMSL (Feet)
2017-ACE-5774-NRA		LEE'S SUMMIT, MO	38-58-01.36N	94-22-35.38W	15	1009
2017-ACE-5775-NRA		LEE'S SUMMIT, MO	38-58-04.46N	94-22-35.14W	15	1009
2017-ACE-5776-NRA		LEE'S SUMMIT, MO	38-58-01.34N	94-22-35.06W	17	1011
2017-ACE-5777-NRA		LEE'S SUMMIT, MO	38-58-04.45N	94-22-34.82W	17	1011
2017-ACE-5778-NRA		LEE'S SUMMIT, MO	38-58-01.33N	94-22-34.73W	15	1009
2017-ACE-5779-NRA		LEE'S SUMMIT, MO	38-58-04.43N	94-22-34.50W	15	1009

Description: Data points labelled TH-1 through TH-6 delineate the proposed western T-hangar. The hangars construction is steel frame, metal skin, and the general footprint is 315' x 51'. The roof is a gable with 1:12 pitch. There are no structures on the roof.

We do not object with conditions to the construction described in this proposal provided:

You comply with the requirements set forth in FAA Advisory Circular 150/5370-2, "Operational Safety on Airports During Construction."

** Prior to commencement of any excavation, proponent must coordinate all project work in the vicinity of underground power utility and communication cables in advance, preferably a minimum of two weeks, with the local Tech Ops SSC POC Laurie Ratliff, Kansas City MKC SSC, 816-329-2828, Laurie.Ratliff@faa.gov

This determination does not constitute FAA approval or disapproval of the physical development involved in the proposal. It is a determination with respect to the safe and efficient use of navigable airspace by aircraft and with respect to the safety of persons and property on the ground.

In making this determination, the FAA has considered matters such as the effects the proposal would have on existing or planned traffic patterns of neighboring airports, the effects it would have on the existing airspace structure and projected programs of the FAA, the effects it would have on the safety of persons and property on the ground, and the effects that existing or proposed manmade objects (on file with the FAA), and known natural objects within the affected area would have on the airport proposal.

This determination expires on May 8, 2019 unless:
(a) extended, revised or terminated by the issuing office.
(b) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for the completion of construction, or the date the FCC denies the application.

NOTE: Request for extension of the effective period of this determination must be obtained at least 30 days prior to expiration date specified in this letter.

If you have any questions concerning this determination contact John Karrasch (816) 329-2617 john.karrasch@faa.gov.

John Karrasch
Specialist

Federal Aviation Administration
901 Locust, Rm 364
Kansas City, MO 64106-2325

Airports Division, ACE-600

November 08, 2017

TO:
Lee's Summit Municipal Airport
Attn: John Ohrazda
2751 NE Douglas Road
Lee's Summit, MO 64064
john.ohrazda@cityofls.net

CC:
Crawford Murphy and TIlly, Inc.
Attn: Tyler Horn
One Memorial Drive Suite 500
St. Louis, MO 63102
thorn@cmtengr.com

RE: *(See attached Table 1 for referenced case(s))*
FINAL DETERMINATION

Table 1 - Letter Referenced Case(s)

ASN	Prior ASN	Location	Latitude (NAD83)	Longitude (NAD83)	AGL (Feet)	AMSL (Feet)
2017-ACE-5780-NRA		LEE'S SUMMIT, MO	38-58-01.28N	94-22-33.71W	15	1009
2017-ACE-5781-NRA		LEE'S SUMMIT, MO	38-58-04.39N	94-22-33.47W	15	1009
2017-ACE-5782-NRA		LEE'S SUMMIT, MO	38-58-01.26N	94-22-33.39W	17	1011
2017-ACE-5783-NRA		LEE'S SUMMIT, MO	38-58-04.37N	94-22-33.15W	17	1011
2017-ACE-5784-NRA		LEE'S SUMMIT, MO	38-58-01.25N	94-22-33.06W	15	1009
2017-ACE-5785-NRA		LEE'S SUMMIT, MO	38-58-04.36N	94-22-32.83W	15	1009

Description: Data points labelled TH-7 through TH-12 delineate the proposed eastern T-hangar. The hangars construction is steel frame, metal skin, and the general footprint is 315' x 51'. The roof is a gable with 1:12 pitch. There are no structures on the roof.

We do not object with conditions to the construction described in this proposal provided:

You comply with the requirements set forth in FAA Advisory Circular 150/5370-2, "Operational Safety on Airports During Construction."

** Prior to commencement of any excavation, proponent must coordinate all project work in the vicinity of underground power utility and communication cables in advance, preferably a minimum of two weeks, with the local Tech Ops SSC POC Laurie Ratliff, Kansas City MKC SSC, 816-329-2828, Laurie.Ratliff@faa.gov

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In making this determination, the FAA has considered matters such as the effects the proposal would have on existing or planned traffic patterns of neighboring airports, the effects it would have on the existing airspace structure and projected programs of the FAA, the effects it would have on the safety of persons and property on the ground, and the effects that existing or proposed manmade objects (on file with the FAA), and known natural objects within the affected area would have on the airport proposal.

This determination expires on May 8, 2019 unless:
(a) extended, revised or terminated by the issuing office.
(b) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for the completion of construction, or the date the FCC denies the application.

NOTE: Request for extension of the effective period of this determination must be obtained at least 30 days prior to expiration date specified in this letter.

If you have any questions concerning this determination contact John Karrasch (816) 329-2617 john.karrasch@faa.gov.

John Karrasch
Specialist

APPENDIX A6 – LIGHTING EQUIPMENT SPECIFICATION SHEETS

d-series

D-Series Size 2
LED Flood Luminaire

Catalog Number: DSXF2 LED P2 40K WFR MVOLT THK

Notes: DDBXD

Type: F2

Hit the Tab key or mouse over the page to see all interactive elements.

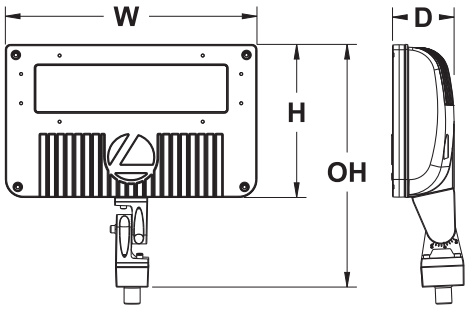
Introduction

The D-Series Size 2 Flood features precision optics to beautifully illuminate a variety of applications as its sleek, compact styling blends seamlessly with its environment.

The D-Series Flood reflector systems and cutting-edge chip-on-board LED technology produce excellent uniformity combined with precision beam patterns for minimal spill light and incredible photometric performance. It's the ideal long-life replacement for 150 - 250W metal halide floods, with typical energy savings of 70% and expected service life of over 100,000 hours.

Specifications

EPA:	0.8 ft² (0.05 m²)
Depth:	3-1/8" (8.0 cm)
Width:	12-7/8" (32.6 cm)
Height:	7-3/4" (19.8 cm)
Overall Height	12" (30.5 cm)
Weight:	10.5 lbs (4.8 kg)



Ordering Information

EXAMPLE: DSXF2 LED P1 40K MSP MVOLT THK DDBXD

DSXF2 LED

Series	Performance Package	Color Temperature	Distribution	Voltage	Mounting	Options	Finish *(required)*
DSXF2 LED	P1	30K 3000K	NSP Narrow spot	MVOLT[4]	**Shipped included**	**Shipped installed**	DDBXD Dark bronze
	P2	40K 4000K	MSP Medium spot	120[4]	THK Knuckle with 1/2" NPS threaded pipe	PE Photocontrol, button style [7,8]	DBLXD Black
	P3[1,2,3]	50K 5000K	MFL Medium flood	208[4]	YKC62 Yoke with 16-3 SO cord	PEX Photocontrol external threaded adjustable[8]	DNAXD Natural aluminum
			FL Flood	240[4]	IS Integral slipfitter (fits 2-3/8" O.D. tenon)	DMG 0-10V dimming driver (no controls)	DWHXD White
			WFL Wide flood	277[4]	**Shipped separately**[6]	SF Single fuse (120, 277, 347V) [9]	
			WFR Wide flood, rectangular	347	DSXF1/2TS Tenon slipfitter (2-3/8" O.D. THK required)	DF Double fuse (208, 240, 480V) [10]	
			HMF Horizontal flood	480[5]	FTS CG6 Tenon slipfitter (2-7/8" O.D. YKC62 required)	SPD10KV Separate surge protection[11]	
				HVOLT		**Shipped separately**[6]	
						UBV Upper/bottom visor (universal)	
						FV Full visor	
						VG Vandal guard	

Accessories

Ordered and shipped separately.

DSXF1/2TS DDBXD U	Slipfitter for 1-1/4" to 2-3/8" OD tenons; mates with 1/2" threaded knuckle (specify finish)
FTS CG6 DDBXD U	Slipfitter for 2-3/8" to 2-7/8" OD tenons; mates with yoke mount (specify finish)
FRWB DDBXD U	Radius wall bracket, 2-3/8" OD tenon (specify finish)
FSPB DDBXD U	Steel square pole bracket, 2-3/8" OD tenon (specify finish)
DSXF2UBV DDBXD U	Upper/bottom visor accessory (specify finish)
DSXF2FV DDBXD U	Full visor accessory (specify finish)
DSXF2VG U	Vandal guard accessory

For more mounting options, visit our Floodlighting Accessories pages.

Stock configurations are offered for shorter lead times:

Standard Part Number	Stock Part Number
DSXF2 LED P1 50K WFL MVOLT THK DDBXD	DSXF2 LED P1 50K
DSXF2 LED P2 50K WFL MVOLT THK DDBXD	DSXF2 LED P2 50K

NOTES

1. Performance package P3 rated 35C maximum ambient.
2. Not available with PE (use PEX).
3. Rated 25C maximum ambient with SPD10KV.
4. MVOLT driver operates on line voltage from 120-277V. Specify specific voltage when ordering with fusing (SF, DF) or photocontrol (PE, PEX).
5. Not available with PE and PEX.
6. Also available as accessories; see accessories information at left.
7. Rated 25C maximum ambient for performance package P2. Not available in performance package P3. Specify PEX for higher ambient temperatures.
8. Photocontrol (PE, PEX) requires 120, 208, 240, 277 or 347 voltage option.
9. Must specify 120, 277 or 347 voltage option.
10. Must specify 208, 240 or 480 voltage option.
11. Cannot exceed 25°C maximum ambient when used with P3 performance package.

LITHONIA LIGHTING
One Lithonia Way • Conyers, Georgia 30012 • Phone: 800.279.8041 • www.lithonia.com

Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Actual performance may differ as a result of end-user environment and application. Actual wattage may differ by +/- 8% when operating between 120-480V +/- 10%. Contact factory for performance data on any configurations not shown here.

Performance Package	System Watts	Dist. Type	Field Angle		Beam Angle		30K (3000K, 70 CRI)			40K (4000K, 70 CRI)			50K (5000K, 70 CRI)		
			°H	°V	°H	°V	Max Cd	Lumens	LPW	Max Cd	Lumens	LPW	Max Cd	Lumens	LPW
P1	54W	NSP	39	39	19	18	43,427	7,338	136	45,662	7,715	143	45,662	7,715	143
		MSP	52	51	28	28	26,563	7,010	130	27,930	7,371	137	27,930	7,371	137
		MFL	59	59	45	46	11,831	7,058	131	12,440	7,421	137	12,440	7,421	137
		FL	87	87	62	68	6,258	7,309	135	6,581	7,686	142	6,581	7,686	142
		WFL	114	101	87	83	3,991	7,413	137	4,197	7,794	144	4,197	7,794	144
		WFR	107	92	81	71	4,827	7,429	138	5,076	7,811	145	5,076	7,811	145
		HMF	123	64	89	50	6,580	6,765	125	6,919	7,113	132	6,919	7,113	132
P2	78W	NSP	39	39	19	18	59,506	10,054	129	62,568	10,572	136	62,568	10,572	136
		MSP	52	51	28	28	36,397	9,606	123	38,271	10,100	129	38,271	10,100	129
		MFL	59	59	45	46	16,211	9,671	124	17,046	10,169	130	17,046	10,169	130
		FL	87	87	62	68	8,575	10,017	128	9,017	10,532	135	9,017	10,532	135
		WFL	114	101	87	83	5,469	10,157	130	5,751	10,680	137	5,751	10,680	137
		WFR	107	92	81	71	6,615	10,179	131	6,955	10,703	137	6,955	10,701	137
		HMF	123	64	89	50	9,017	9,269	119	9,481	9,746	125	9,481	9,746	125
P3	102W	NSP	39	39	19	18	70,481	11,909	117	74,109	12,522	123	74,109	12,522	123
		MSP	52	51	28	28	43,111	11,377	112	45,330	11,963	117	45,330	11,963	117
		MFL	59	59	45	46	19,011	11,342	111	20,190	12,045	118	20,190	12,049	118
		FL	87	87	62	68	10,157	11,864	116	10,680	12,474	122	10,680	12,475	122
		WFL	114	101	87	83	6,198	11,510	113	6,811	12,650	124	6,811	12,650	124
		WFR	107	92	81	71	7,835	12,056	118	8,238	12,677	124	8,238	12,677	124
		HMF	123	64	89	50	10,680	10,979	108	11,230	11,544	113	11,230	11,544	113

Lumen Ambient Temperature (LAT) Multipliers

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

Ambient	
0°C	32°F
10°C	50°F
20°C	68°F
25°C	**77°F**
30°C	86°F
40°C	104°F

Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the DSXF LED P3 platform noted in a 25C ambient, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

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

Electrical Load

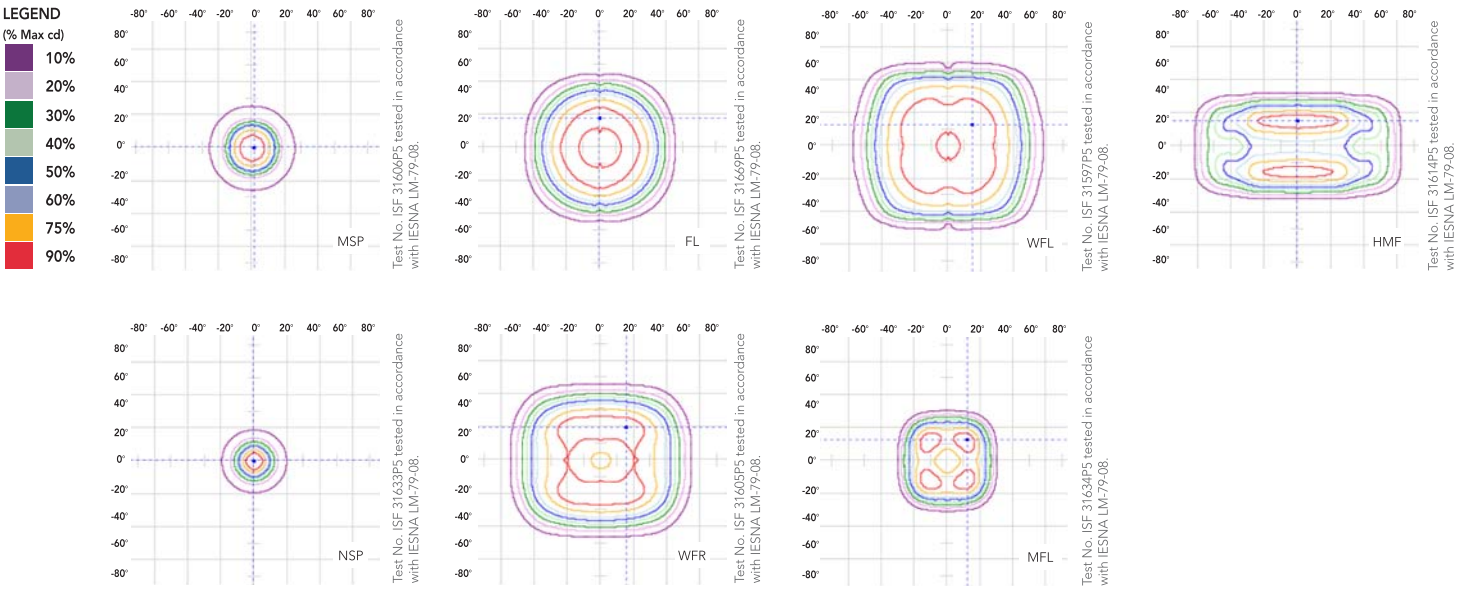
		Current (A)					
Light Engines	System Watts*	120	208	240	277	347	480
P1	54W	0.45	0.26	0.23	0.2	0.16	0.13
P2	78W	0.65	0.37	0.33	0.29	0.23	0.18
P3	102W	0.88	0.49	0.43	0.39	0.31	0.23

* Systems Watts for 347-480V; P1: 56W, P2: 80W, P3:103W.

Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's D-Series Flood Size 2 homepage.

Isocandela plots for the DSXF2 LED P2 40K.



Mounting, Options and Accessories

THK - Knuckle with 1/2" NPS threaded pipe

YKC62 - Yoke with SO cord
W= 4-3/4" (12.0 cm)
H= 4-1/4" (10.7 cm)
D= 2-1/4" (5.7 cm)

IS – Integral slipfitter
H= 2-1/2" (6.3 cm)
ID= 2-3/8" (6.0 cm)
OD= 3-1/2" (8.8 cm)

UBV – Upper/bottom visor
W= 10" (25.4 cm)
H= 2-1/2" (6.3 cm)
D= 3" (7.6 cm)

FV – Full visor
W= 10" (25.4 cm)
H= 2-1/2" (6.3 cm)
D= 3" (7.6 cm)

VG – Vandal guard
W= 10-1/2" (26.6cm)
H= 4" (10.1cm

FEATURES & SPECIFICATIONS

INTENDED USE
The sleek design of the D-Series Size 2 Flood reflects the embedded high performance LED technology. It is ideal for larger signage, facade and flagpole lighting in many commercial and residential applications.

CONSTRUCTION
Die-cast aluminum housing has integral heat sink fins to optimize thermal management through conductive and convective cooling. The LED driver is mounted in direct contact with the casting to promote low operating temperature and long life. Housing is completely sealed against moisture and environmental contaminants using a tempered glass lens (IP66). Low EPA (0.8 ft^2) for optimized wind loading.

FINISH
Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a minimum 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling.

OPTICS
A variety of precision-molded vacuum-metallized specular reflectors are engineered for superior target illumination, uniformity and spacing. Light engines are available in 3000K (70 CRI min.), 4000K (70 CRI min.) or 5000K (70 CRI min.) configurations. Optional visors offer additional versatility.

ELECTRICAL
Light engine(s) consist of chip-on-board (COB) LEDs directly coupled to the housing to maximize heat dissipation and promote long life (100,000 hrs, L80). Class 1 electronic driver has a power factor >90%, THD <20%, and has an expected life of 100,000 hours with <1% failure rate. Standard 6KV surge protection meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).

INSTALLATION
Integral adjustable knuckle with 1/2-14 NPS threaded pipe, tenon slipfitter, or yoke mounting, facilitates quick and easy installation to a variety of mounting accessories. This secure connection enables the D-Series Size 2 to withstand up to a 1.5 G vibration load rating per ANSI C136.31.

LISTINGS
CSA certified to U.S. and Canadian standards. Luminaire is IP66 rated. Rated for -40°C minimum ambient.

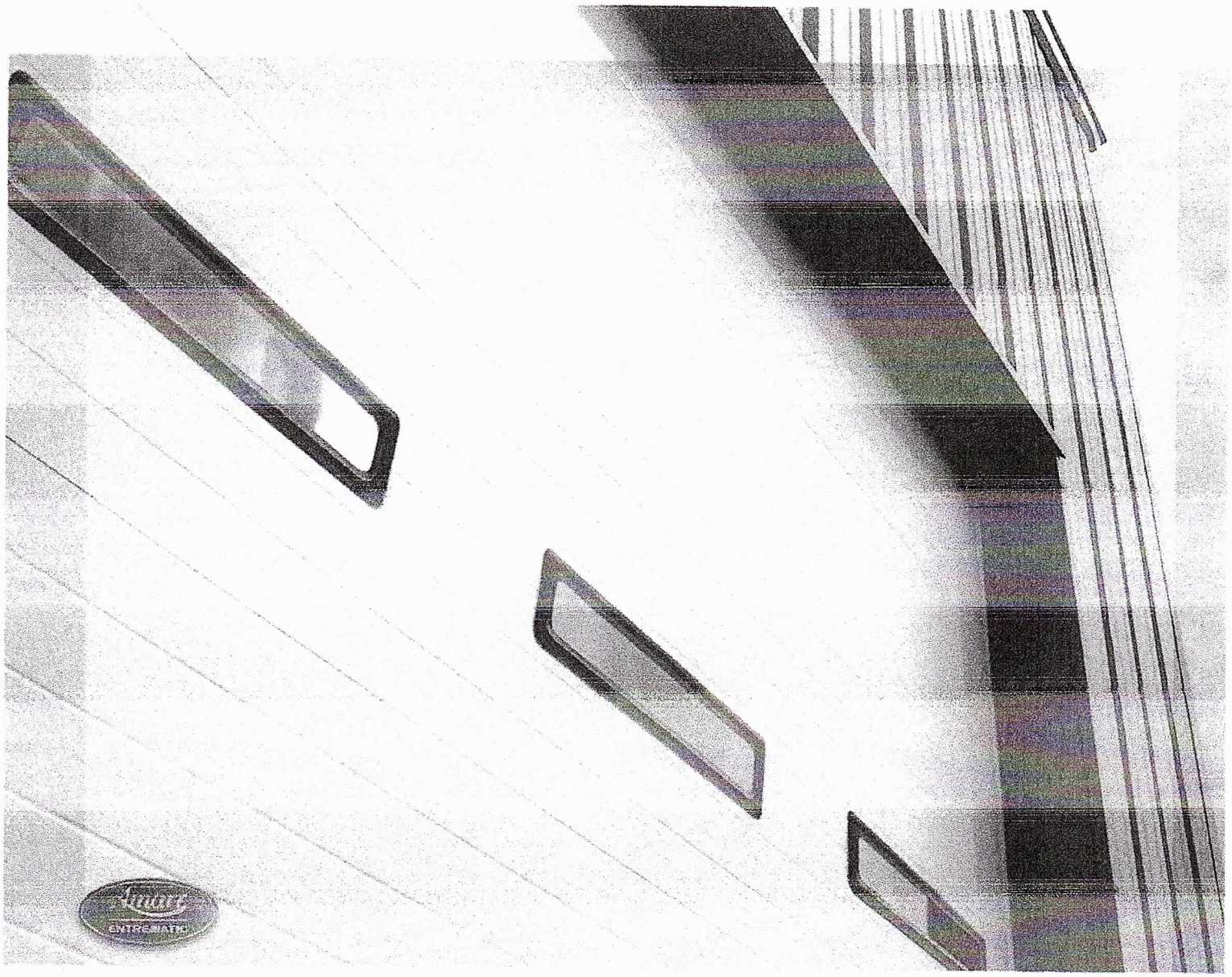
DesignLights Consortium® (DLC) Premium qualified product and DLC qualified product. Not all versions of this product may be DLC Premium qualified or DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

WARRANTY
5-year limited warranty. Complete warranty terms located at: www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx.

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

APPENDIX A7 – MECHANICAL EQUIPMENT SPECIFICATION SHEETS

ENTRE/MATIC



2" Polystyrene Insulated Sectional Doors

Amarr 2432/2732

www.amarr.com

Amarr 2" polystyrene insulated doors feature solid steel construction. Two tough steel skins and an advanced 4-step insulation system make these doors strong and durable.

The Amarr 2432 has an outer skin made from heavy-duty 24-gauge steel and features a stucco embossment with shallow pencil grooves. The Amarr 2732 has an outer skin made from 27-gauge steel with the same panel design and embossment. Both doors utilize 27-gauge steel with stucco embossment for the interior skin.

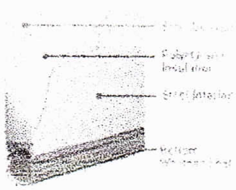
The 4-step insulation system includes tongue and groove construction, CFC-free polystyrene insulation, weather-stripping, and a thermal break that provides a strong barrier from extreme heat and cold.

CONSTRUCTION

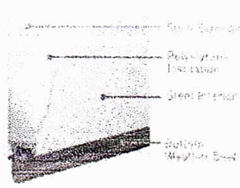
Amarr 2432
Heavy-Duty, 2"
24-gauge steel

Amarr 2732
Medium-Duty, 2"
27-gauge steel

Steel + Insulation + Steel
Amarr 2432



Steel + Insulation + Steel
Amarr 2732



Rapid Install Vertical Lift: [illegible] www.amarr.com.

Track: All Amarr doors are available with both 2" or 3" track in Standard Lift, High Lift, Vertical Lift, Low Headroom, and Follow the Roof Pitch. Custom track configurations are also available. For drawings and more information, please visit **www.amarr.com.**

Springs: Torsion springs are oil tempered, helical wound and custom computed for each door for a minimum 10,000 cycle life. Optional springs are available up to 100,000 cycle life.

Standard Hardware: [illegible]

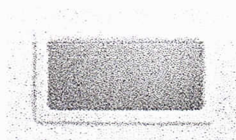
SPECIFICATIONS

	Heavy-Duty Amarr 2432	Medium-Duty Amarr 2732
STEEL THICKNESS (Exterior/Interior)	24 ga / 27 ga	27 ga / 27 ga
PANEL DESIGN	Pencil Groove	Pencil Groove
STEEL EMBOSSMENT	Stucco	Stucco
DOOR THICKNESS	[illegible]	[illegible]
CONSTRUCTION LAYERS	Triple	Triple
INSULATION	[illegible]	[illegible]
R-VALUE	[illegible]	[illegible]
U-VALUE	[illegible]	[illegible]
AIR INFILTRATION	[illegible]	[illegible]
MINIMUM WIDTH	[illegible]	[illegible]
MAXIMUM WIDTH	24' 2"	24' 2"
MINIMUM HEIGHT	7'	7'
MAXIMUM HEIGHT	[illegible]	[illegible]
WIND LOAD AVAILABLE	•	•
PAINT FINISH WARRANTY	10 Years	10 Years
WORKMANSHIP/HARDWARE WARRANTY	[illegible]	[illegible]

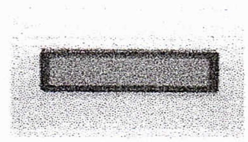
PANEL OPTIONS

PENCIL GROOVE PANEL WITH STUCCO EMBOSSMENT

WINDOW OPTIONS



24" x 12" INSULATED GLASS



DOUBLE INSULATED ACRYLIC WINDOWS WITH BLACK FRAME

STEEL COLORS

TRUE WHITE (TW) | SANDTONE (ST) | COMMERCIAL GRAY (CY) | COMMERCIAL BROWN (CB)

Amarr Color Zone
Over 500 factory-applied colors.
Visit a Sherwin-Williams store to select the SnapDry paint color of your choice.

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Winston-Salem, NC 27105
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www.amarr.com

FOR TECHNICAL QUESTIONS:
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MEDIUM-DUTY LOGIC TROLLEY OPERATOR

Safest Installations. Smartest Innovations

REVIEWED
By KC Brown at 1:11 pm, Feb 13, 2018

COMMERCIAL DOOR OPERATOR

MODEL MT

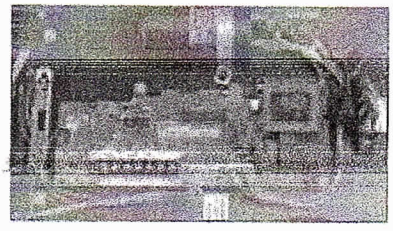
UL325-2010 COMPLIANT

UL325-2010 Compliant Medium-Duty Logic technology provides primary monitored entrapment protection; a required safety regulation. This insures that the appropriate safety devices, a monitored photo sensor or monitored sensing edge, are functional in all operator formats.

The innovative design of Medium-Duty Logic also provides reliable service and exceptional value to economically meet the needs of a variety of commercial door applications.

Standard Features

- For standard-lift sectional doors
- Medium-Duty Logic programmable integrated circuit board
- High-starting torque motor with overload protection
- Quiet-gliding rail spacers
- Quick-mount swivel header bracket
- Built-in 315 MHz receiver



Includes the Medium-Duty Logic Board with Built-In Receiver

Added Value, Convenience and Compliance

- UL325-2010 Monitored Entrapment Capability
  - Provides primary monitored entrapment protection through monitored photo sensors, either CPS-U or CPS-UN4, or a 4-wire monitored edge using the CPS-EI interface
- UL-Listed and UL-Labeled to insure compliance to local codes and approval at final inspection
- Integrated timer-to-close (TTC)
  - Programmable from 5 to 60 seconds in 5 second increments
  - Allows for timed automatic door closure after the door reaches the full open position
  - Requires monitored safety devices, either CPS-U, CPS-UN4 or CPS-EI
- Integrated 3-channel radio
  - Learn/program up to 20 Chamberlain® 315 MHz remote controls
  - Recognizes Security+® and DIP switch remote controls
  - Compatible with 3-button remote controls for open/close/stop operation
- Integrated 90-second maximum run timer

LiftMaster®
MEDIUM-DUTY LOGIC

For more information
visit www.devancocanada.com

MT

COMMERCIAL DOOR OPERATOR

	MAXIMUM DOOR AREA (SQ. FT.)				
STANDARD SECTIONAL	—	24 ga./22 ga. Steel	20 ga. Steel	16 ga. Steel	—
	Fiberglass	Aluminum Doors	Wood Doors	—	—
	—	—	24 ga. Steel Insul.	20 ga. Steel Insul.	16 ga. Steel Insul.
SQ. FT.	310	260	225	150	100

NOTE: 1. On steel insulated doors, a 24-gauge back panel is assumed.
2. Maximum recommended duty cycles: 12 cycles per hour

Standard Features

- **Motor**
  Powerful 1/2 HP, 115V single-phase motor with instant reverse, capacitor start and overload protection. Removable without affecting limit switch settings.
- **Emergency Disconnect**
  Spring-loaded disconnect for emergency manual operation.
- **Operator/Motor Control**
  Solid-state Medium-Duty Logic circuit board.
- **Control Circuit**
  24V NEC Class 2.
- **Wiring Type**
  All operators are factory preset to C2 mode, providing momentary contact to open and stop, with constant contact to close. Monitored entrapment protection, using approved photo sensors or sensing edges, is optional, although recommended, when using this wiring type. Momentary contact to close (B2 mode) is an available optional wiring type, but can only be selected when the appropriate monitored entrapment protection device, either LiftMaster® CPS-U / CPS-UN4 photo sensors or a monitored 4-wire sensing edge (via the CPS-EI interface), is present. The Medium-Duty Logic operator is pre-wired to accept CPS-U/ CPS-UN4 / CPS-EI monitored entrapment protection devices.
- **Drive Reduction**
  First-stage heavy-duty 4L V-belt; second and third stages #48 chain.
- **Bushings**
  Heavy-duty oil-filled bushings.
- **Friction Clutch**
  Adjustable friction clutch helps protect against damage to the door and operator should the door meet an obstruction.
- **Push Button Station**
  3-button station, for open/close/stop functions, is standard for all operators. Controls with 1, 2 and 3 buttons are available.
- **Radio Receiver**
  315 MHz radio receiver is integral to the Medium-Duty Logic board. Accepts up to 20 Security+® remote controls and unlimited DIP switch remote controls.
- **Construction**
  NEMA 1 type electrical box, heavy-duty 11-gauge steel frame with baked-on powdercoat finish, all reduction sprockets drilled and pinned to shafts.
- **Rail Assembly**
  High-strength dual L-rail track with exclusive nylon quiet-gliding chain guides on rail spacers for quiet, smooth operation. Includes quick-mount header bracket, which provides fast, swing-up installation.

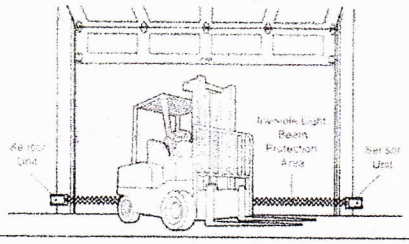
Control Accessories and Options

- **Brake**
  Heavy-duty solenoid-actuated brake. Order operator BMT.
- **Auto-reconnect Trolley Assembly**
  Spring-loaded trolley features nylon inserts for quiet operation and auto-reconnect feature, eliminating the need to manually reattach the door arm to the trolley after emergency disconnect.
- **Sensing Edge**
  If CPS-U / CPS-UN4 photo sensors are present, a non-monitored 2-wire electric edge or pneumatic (air hose) edge may be used as an ancillary protection device if using B2 mode. For C2 mode only, installation of either a 2-wire electric or pneumatic edge is optional.
- **Radio Control**
  Universal remote controls and receivers are available to signal the operator to open, close and stop.
- **Key Switch**
  Designed to restrict operation of door to authorized personnel only. Various types available.
- **Interlock Switch**
  Prevents accidental operation of the door by disabling the control circuit when a manual door lock is engaged.
- **Wireless Access Control Devices**
  Weather-proof single or 3-button wireless control stations are available and are compatible with the Medium-Duty Logic on-board receiver. In addition, a choice of either a 5 or 250-code wireless keypad is available. Wireless controls should be used to supplement hard-wired controls and should not be used in place of such controls unless a safety device, such as photo-eyes or a sensing edge, is present.

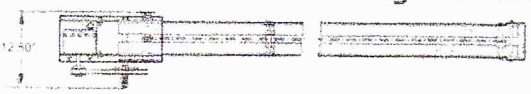
CPS-U / CPS-UN4 Commercial Protector System®

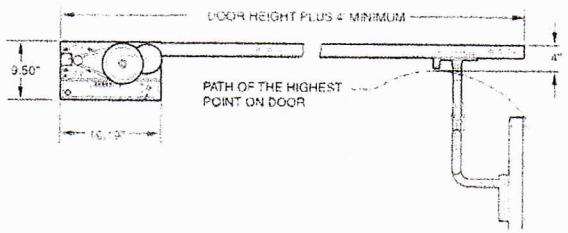
These photo sensors are designed to sense an obstruction and instruct the operator to reverse the closing door to the full open position.

- Signals operator continuously to provide regulatory mandated requirements regarding monitored entrapment protection
- LED indicators for quick alignment
- Safety of a non-contact infrared reversing sensor
- Heavy gauge mounting brackets
- Quick installation and pre-molded for 1/2" trade size conduit fitting (CPS-UN4)
- Bright yellow safety color
- For CPS-UN4, watertight NEMA 4 design



Clearance and Mounting Details





LiftMaster®
Commercial Door Operators

THE CHAMBERLAIN GROUP, INC.
845 Larch Avenue • Elmhurst, IL 60126
For more information visit www.devancocanada.com

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