

CITY OF PARKVILLE

Policy Report

DATE: Wednesday, January 11, 2017

PREPARED BY:
Stephen Lachky
Community Development Director

REVIEWED BY:
Kirk Davis
Interim City Administrator

ISSUE:

Adopt an ordinance to approve a Conditional Use Permit for an emergency and general aviation helicopter landing facility at The Lodges At The National at the southeast corner of Birkdale Dr. and Allen Way. Case No. PZ16-13; The National Golf Club of Kansas City, applicant.

BACKGROUND:

The National Golf Club of Kansas City is proposing to construct an emergency and general aviation helicopter landing facility at The Lodges At The National at the southeast corner of Birkdale Dr. and Allen Way, approximately 590 ft. east of the adjacent National Golf Club's clubhouse, and immediately north of the tennis courts and adjacent parking lot (See Attachments 3 and 4). The subject property contains one parcel (#20-5.0-22-200-005-001.000) containing 2.38 acres, more or less, and is currently within a City "R-4" Multiple-Family Residential District. The proposed air ambulance emergency heliport site involves a ground base heliport, which will function as a "private" heliport with a prior permission request for conducting operations (with the exception for air ambulance emergency helicopters which will not require prior permission).

The proposed site in The National was selected due to its capability to support a safe and regulatory compliant heliport, following an evaluation and analysis determination by HeliExperts International LLC, a consulting firm specializing in aviation, helicopter and heliport expertise. The firm was retained by the National Golf Club of Kansas City to conduct a feasibility study to determine site selection criteria, operation needs, local and federal regulations, impacts and safety concerns. The full feasibility & site selection report is included as Attachment 6C. The approach/departure paths were chosen in order to maximize areas surrounding the heliport that are the least populated and would have the smallest impact on the neighboring public (see Attachment 6C – Exhibits F, G, H, I, and J).

The helipad will be designed, constructed and operated in accordance with all pertinent Federal Aviation Administration (FAA) regulations. If the CUP is approved by the City, the FAA will ascertain whether the proposed heliport would have any detrimental effects upon the safe and efficient use of surrounding airspace via a "Favorable Airspace Determination". Operating procedures will be codified and published prior to helicopter operations being permitted, and The National Golf Club of Kansas City will administer oversight of enforcement of said operating procedures. If weather conditions pose a threat to the public's health, safety and welfare, then flights will either be turned down prior to acceptance or cancelled enroute by the pilot in command. For nighttime operations, the FAA requires the heliport and windsock be lighted. In order to limit any potential intrusion caused by the heliport lighting, pilot controlled lighting will be used in lieu of lighting that remains on during the house of darkness. In order to maintain a secure location for helicopter operations, the area surrounding the heliport structure will incorporate a security fence to prevent any interference with helicopter operations and trespassing on the heliport structure. Staff's analysis presented to the Planning and Zoning Commission (see Attachment 5) found minimal adverse impacts from noise and minimal safety concerns.

On December 13, 2016, the Planning and Zoning Commission held a public hearing to consider the application for CUP (see Attachment 2). Rex Alexander, Senior Consultant with HeliExperts International LLC, gave a presentation of the application proposal (see Attachment 6D). Members of the public attended, provided comments and asked questions (see Attachment 7A). The Commission discussed the merits of the application, character of the neighborhood and the zoning and uses of nearby properties, suitability of the subject property for the uses to which it is restricted and the extent to which allowing the proposed use through a CUP may affect nearby properties, relative gain to the public's health, safety and welfare as compared to the hardship of the individual property owner of the subject property, adequacy of public utilities and other needed public services, and consistency with the City's adopted Master Plan and applicable City codes. Staff's analysis presented to the Planning Commission is included as Attachment 5. Exhibits presented to the Planning Commission are included as Attachments 6A-6D. The Planning and Zoning Commission decided to postpone their recommendation until their next regular meeting on January 10, 2017; and in the meantime requested the applicant:

1. Meet with more property owners around the helipad and gather additional neighborhood feedback.
2. Provide more information about The National's operating procedures for the helipad, specifically regarding hours of operation, estimated number of flights, security provisions and enforcement of said procedures.

On January 10, 2017, the Planning and Zoning Commission reconvened at their regular meeting. Raymond Syms, Managing Member with HeliExperts International LLC, gave a presentation on avian incursions with helicopters at heliports in the State of Missouri (see Attachment 7B) in order to address concerns brought up at the December 13, 2016 public hearing. Staff presented additional exhibits that were requested by the Planning and Zoning Commission (see Attachments 7C-E) and detailed additional conditions of approval — including future approval of the helipad operating procedures by the Board of Aldermen, and the applicant entering into a Cooperative Agreement with the City regarding their administrative oversight and enforcement of said procedures.

PLANNING AND ZONING COMMISSION RECOMMENDATION:

The Commission concluded the proposed use was in the interest of the public health, safety, morals, and general welfare of the community; concurred with staff's conclusions and recommendation; and unanimously voted (7 to 0) to recommend the Board of Aldermen approve the CUP, subject to conditions, including:

- Compliance with all federal and state laws and requirements — including all pertinent Federal Aviation Administration (FAA) regulations and guidance, and International Building Code, International Fire Code, and National Fire Protection Association (NFPA) requirements, standards and criteria — with regards to the use and operations of the emergency and general aviation helicopter landing facility. This includes nighttime operations.
- A "Favorable Airspace Determination" made by the FAA, prior to staff issuance of permits.
- The National Golf Club of Kansas City codifying and publishing operating procedures — including emergency operations procedures — for the use of the emergency and general aviation helicopter landing facility, and administering oversight of enforcement of said procedures, prior to helicopter operations being permitted.
- Staff input and City approval of The National Golf Club of Kansas City's operating procedures — including emergency operations procedures — for the use of the

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emergency and general aviation helicopter landing facility, prior to helicopter operations being permitted.

- The National Golf Club of Kansas City enter into a Cooperative Agreement with the City of Parkville regarding their administrative oversight and enforcement of said procedures.
- Any other conditions the Planning and Zoning Commission determines are necessary.

The applicant has stated this item is time sensitive. The application was submitted on August 9, 2016 with desire to be approved by the end of the year. The application was scheduled for public hearing at the regular meeting of the Planning and Zoning Commission on November 11, 2016. However, the regular meeting was postponed due to the Commission's desire not to convene the night of the U.S. Presidential election. The application was rescheduled for public hearing at a special meeting on November 29, 2016; however, the Planning Commission did not have a quorum of at least five members for convening that evening. As a result, the application was rescheduled for public hearing to December 13, 2016. Finally, the Planning and Zoning Commission requested further information from the applicant, which meant postponing their recommendation until their next regular meeting on January 10, 2017.

STAFF RECOMMENDATION:

Staff recommends the Board of Aldermen approve the first and second readings of the ordinance for a CUP for an emergency and general aviation helicopter landing facility at The Lodges At The National at the southeast corner of Birkdale Dr. and Allen Way in Parkville, Missouri, as recommended by the Planning and Zoning Commission and subject to staff conditions.

BUDGET IMPACT:

With the exception of application and permit fees collected, there is no immediate budget impact. Long-term impacts would be realized from changes in property taxes and sales taxes collected from the site and proposed development, and impacts to the same for area properties and other businesses.

ALTERNATIVES:

1. Adopt an ordinance approving the CUP as submitted, recommended by the Planning and Zoning Commission and subject to staff conditions.
2. Approve an ordinance, subject to changes directed by the Board of Aldermen.
3. Approve the first reading of the ordinance approving the CUP as submitted, recommended by the Planning and Zoning Commission and subject to staff conditions, and postpone the second reading to February 7, 2017.
4. Deny the application for CUP.
5. Postpone the item.

POLICY:

Per Parkville Municipal Code, Section 470.010 and Chapter 483, the Conditional Use Permit is to be approved by the Board of Aldermen by ordinance, after the Planning and Zoning Commission considers the proposal at a public hearing and forwards their recommendation. The Board of Aldermen must approve two readings of the ordinance to become effective. Rule 5, *Agendas*, of the Board's adopted Rules of Order, states "*The first reading of an ordinance will be read on the action agenda and the second and final reading will be read the next subsequent meeting on the consent agenda, unless the item is a time-sensitive matter in which it may be approved during the same meeting.*"

"Airports and landing fields" are permitted in City districts via a CUP, "when found to be in the interest of the public health, safety, morals, and general welfare of the community." Before a

CUP can be approved, preliminary plans in sufficient detail — and a statement as to the proposed use of the buildings, structures, and premises — are required to be submitted and presented to the Planning and Zoning Commission for consideration. The Commission is required to hold a public hearing — as provided in Parkville Municipal Code, Title IV, Chapter 483 — and review such plans and statements, and after a careful study thereof, submit a recommendation to the Board of Aldermen within thirty (30) days following said hearing. Following receipt of the Commission's report, the Board of Aldermen may, within the specifications herein provided, permit such buildings, structures, or uses where requested, provided that the public health, safety, morals, and general welfare will not be adversely affected, that ample off-street parking facilities will be provided, and that necessary safeguards will be provided for the protection of surrounding property, persons, and neighborhood values.

SUGGESTED MOTION:

I move to approve Bill No. 2915, an ordinance approving a conditional use permit for an emergency and general aviation helicopter landing facility at The Lodges at the National at the southeast corner of Birkdale Drive and Allen Way, subject to conditions by staff and the Planning and Zoning Commission, on first reading.

I move to approve Bill No. 2915 on second reading to become Ordinance No. _____.

ATTACHMENTS:

1. Ordinance
2. Application for Conditional Use Permit
3. Subject Area Property Map
4. Photos of subject property
5. Staff Analysis presented to Planning and Zoning Commission at January 10, 2017 regular meeting
6. Exhibits presented to Planning and Zoning Commission at December 13, 2016 public hearing
 - a. The Lodges At The National (Final Plat), Replat of Part of Lot 1, The National – Sixth Plat, a Subdivision in Parkville, Platte County, Missouri and Part of Section 22, Township 51, Range 34; prepared by R.L. Buford & Associates (dated 05/14/2004)
 - b. National Golf Club of Kansas City Air Ambulance Emergency Heliport Feasibility & Site Selection Report – Executive Summary; prepared by HeliExperts International LLC (dated September 9, 2016)
 - c. National Golf Club of Kansas City Heliport Feasibility & Site Selection Report; prepared by HeliExperts International LLC (dated September 9, 2016)
 - Introduction (pg. 1)
 - Evaluation Criteria (pgs. 2-4)
 - Analysis Determinations (pgs. 5-13)
 - Recommendations (pg. 14)
 - Conclusions (pg. 16)
 - Exhibit A – Inventory of Local Airports & Heliports within 10nm (pg. 17)
 - Exhibit B – Overlay of Local Airports & Heliports within 10nm (pg. 18)
 - Exhibit C – Local Wind Pattern & Magnetic Declination (pg. 19)
 - Exhibit D – Local Airspace Overlay (pg. 20)
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 - Exhibit F – Proposed Approach/Departure Paths Overlay (High Alt. View) (pg. 22)
 - Exhibit G – Proposed Approach/Departure Path Topographical Overlay (pg. 23)

- o Exhibit H – 003° / 183° Approach/Departure Path Topographical Profile (pg. 24)
 - o Exhibit I – 003° / 183° Approach/Departure Path Topographical Profile (pg. 25)
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 - o Exhibit K – Proposed Heliport Site Orientation and Dimensional Integration (pg. 27)
 - o Exhibit L – Proposed Heliport Layout (pg. 28)
 - o Exhibit M – Proposed Heliport Conceptual Design (pg. 28)
 - o Exhibit N – Proposed Heliport Design (pg. 30)
 - d. “Emergency and General Aviation Heliport Proposal” presentation to the Planning & Zoning Commission; prepared by HeliExperts International LLC (dated December 13, 2016)
7. Exhibits presented to Planning and Zoning Commission at January 10, 2017 regular meeting
- a. Minutes of the December 13, 2016 regular meeting of the Planning and Zoning Commission
 - b. “Statistical Analysis of Avian Incursions with Helicopters at Heliports in the State of Missouri” presentation to Planning & Zoning Commission; prepared by HeliExperts International LLC (dated January 11, 2017)
 - c. The National Home Owners Association 2016 Annual Newsletter; prepared by The National Golf Club of Kansas City (distributed December 30, 2016 via e-mail)
 - d. Minutes of the September 20, 2016 meeting of the National Property Owners Association Board of Directors
 - e. Heliport Facility and Training Manual – Trump Doral Golf Resort and Spa; prepared by HeliExperts International LLC (dated December 21, 2014)
 - f. Public comments

PUBLIC COMMENTS RECEIVED:

The Community Development Department received questions and inquiries via phone calls; however, no written comments were received prior to the December 13, 2016 public hearing. Public comments provided at the December 13, 2016 public hearing are included in Attachment 7F. Public comments provided via e-mail following the December 13, 2016 public hearing are also included in Attachment 7F.

ADDITIONAL EXHIBITS BY REFERENCE:*

1. Parkville Municipal Code, Title IV, Chapter 470: *Supplementary Use Regulations – Conditional Uses* (<http://www.ecode360.com/27902588>)
2. Parkville Municipal Code, Title VI, Chapter 425: *“R-4” Multiple-Family Residential District Regulations* (<http://www.ecode360.com/27901243>)
3. Parkville Municipal Code, Title IV: *Zoning Code* in its entirety (<http://www.ecode360.com/PA3395-DIV-05>)
4. Parkville Master Plan (<http://parkvillemo.gov/departments/community-development-department/master-plan/>)
5. Hearing notice published in the Platte County Landmark newspaper
6. Summary of Public Hearing posted on Parkville City webpage (<http://parkvillemo.gov/public-hearings/>)
7. Hearing notice published on the Parkville City webpage (http://parkvillemo.gov/download/public-hearing-notices/PZ16-13_CUPLodgesatNational112916.pdf)
8. Federal Emergency Management Agency’s (FEMA) Flood Insurance Rate Map (FIRM) #29165C0377D; titled Platte County, Missouri and Incorporated Areas (effective date April 2, 2015)

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9. U.S. Department of Transportation (USDOT), Federal Aviation Administration (FAA), Advisory Circular No. 150/5390-2C; Subject: Heliport Design (dated April 24, 2012)
10. National Fire Protection Association (NFPA) 418: Standard for Heliports (2016 edition)
11. Analysis of Helicopter Accident Risk Exposure Near Heliports, Airports, and Unimproved Sites, RD-90/9; prepared by FAA, Systems Control Technology, Inc., and Advanced Aviation Concepts (dated February 1992)
12. Ordinance No. 2141 – An ordinance approving final plats for The National 14th Plat, The National 15th Plat, and The Lodges At The National
13. Minutes of the January 10, 2017 regular meeting of the Planning and Zoning Commission
14. North Central Texas General Aviation and Heliport System Plan. (2009, August). *Vertical Flight: Sample Ordinances*. Available online (<http://www.nctcog.org/trans/aviation/plan/VFModelOrdinances8.25.09mbedits.pdf>)
15. CNBC (2015, December 28). *Most helicopters unprotected as bird strikes rise*. Article available online (<http://www.cnbc.com/2015/12/28/most-helicopters-unprotected-as-bird-strikes-rise-faa-warns.html>)
16. Keirn, G. (2013, June 06). Helicopters and Bird Strikes; Results from First Analysis Available Online. *United States Department of Agriculture Blog*. Available online (<http://blogs.usda.gov/2013/06/06/helicopters-and-bird-strikes-results-from-first-analysis-available-online/>)
17. Dolbeer, R. (2014, November). Record Number of Strikes Reported to FAA in 2013: Is This Good or Bad?. *Bird Strike Buzz*, 1(2), p.2-2. Article available online (http://www.birdstrike.org/wp-content/uploads/2014/11/November-Newsletter-BS-Buzz_-20141112.pdf)
18. Wikipedia The Free Encyclopedia. (2016, December 17). *Bird Strike*. Article available online (https://en.wikipedia.org/wiki/Bird_strike)
19. Transport Canada (2012, January 16). *Appendix B - Airport Bird Hazard Risk-Assessment Process*. Available online (<https://www.tc.gc.ca/eng/civilaviation/publications/tp8240-awmb38-appendix-b-5033.htm>)
20. Washburn, B. E., Cisar, P., & DeVault, T. L. (2013). Wildlife strikes to civil helicopters in the US, 1990-2011. *USDA National Wildlife Research Center – Staff Publications*. Paper 1247. Available online (http://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=2245&context=icwdm_usdanwrc)
21. HeliExperts International LLC (2016). *Heliport Risk & Liability Assessment Toolkit*. Available online (<http://heliexpertsinternational.com/toolkit>)

*Printed copies of referenced materials may be provided on request. Original materials are available for viewing at Parkville City Hall.

AN ORDINANCE APPROVING A CONDITIONAL USE PERMIT FOR AN EMERGENCY AND GENERAL AVIATION HELICOPTER LANDING FACILITY AT THE LODGES AT THE NATIONAL AT THE SOUTHEAST CORNER OF BIRKDALE DRIVE AND ALLEN WAY

WHEREAS, The National Golf Club of Kansas City submitted an application for Conditional Use Permit (CUP) for an emergency and general aviation helicopter landing facility at The Lodges at the National at the southeast corner of Birkdale Drive and Allen Way (Case No. PZ16-13); and

WHEREAS, the Parkville Municipal Code permits airports and landing fields in City districts via a CUP when found to be in the interest of the public health, safety, morals, and general welfare of the community; and

WHEREAS, the proposed helicopter landing facility will function as a private heliport with a prior permission request for conducting operations (with the exception for air ambulance emergency helicopters which will not require prior permission); and

WHEREAS, the proposed site was selected due to its capability to support a safe and compliant heliport, following an evaluation and analysis determination by HeliExperts International LLC; and

WHEREAS, the approach/departure paths were chosen in order to maximize areas surrounding the heliport that are the least populated and would have the smallest impact on the neighboring public; and

WHEREAS, the helipad will be designed, constructed and operated in accordance with all pertinent Federal Aviation Administration (FAA) regulations; and

WHEREAS, operating procedures will be codified and published prior to helicopter operations being permitted, and Then National Golf Club of Kansas City will administer oversight of enforcement of said operating procedures; and

WHEREAS, a public hearing was held on December 13, 2016 at Parkville City Hall and the Planning and Zoning Commission decided to postpone their recommendation until their next regular meeting on January 10, 2017; and

WHEREAS, the Planning and Zoning Commission requested the applicant — in the meantime before the January 10, 2017 meeting — meet with more property owners around the helipad and gather additional neighborhood feedback, and provide more information about The National's operating procedures for the helipad, specifically regarding hours of operation, estimated number of flights, security provisions and enforcement of said procedures; and

WHEREAS, the Planning and Zoning Commission reconvened at their regular meeting on January 10, 2017 and recommended unanimous approval of the application for Conditional Use Permit (Case No. PZ16-13), subject to conditions, by a vote of 7-0; and

WHEREAS, the CUP and associated *National Golf Club of Kansas City Heliport Feasibility & Site Selection Report* were reviewed against the Parkville Municipal Code, including the subdivision regulations, "R-4" Multiple-Family District regulations, the Parkville Master Plan and its adopted Future Land Use map, and the proposed CUP meets all applicable requirements; and

WHEREAS, the Board of Aldermen concurs with the conclusions of the Planning and Zoning Commission and accepts their recommendations.

NOW, THEREFORE, BE IT ORDAINED BY THE BOARD OF ALDERMEN OF THE CITY OF PARKVILLE, MISSOURI, AS FOLLOWS:

SECTION 1. The application for a Conditional Use Permit for an emergency and general aviation helicopter landing facility at The Lodges At The National at the southeast corner of Birkdale Dr. and Allen Way in Parkville, Missouri (Case No. PZ16-13), is hereby approved, subject to conditions by the Board of Aldermen, including:

- Compliance with all federal and state laws and requirements — including all pertinent Federal Aviation Administration (FAA) regulations and guidance, and International Building Code, International Fire Code, and National Fire Protection Association (NFPA) requirements, standards and criteria — with regards to the use and operations of the emergency and general aviation helicopter landing facility. This includes nighttime operations.
- A “Favorable Airspace Determination” made by the FAA, prior to staff issuance of permits.
- The National Golf Club of Kansas City codifying and publishing operating procedures — including emergency operations procedures — for the use of the emergency and general aviation helicopter landing facility, and administering oversight of enforcement of said procedures, prior to helicopter operations being permitted.
- Staff input and City approval of The National Golf Club of Kansas City’s operating procedures — including emergency operations procedures — for the use of the emergency and general aviation helicopter landing facility, prior to helicopter operations being permitted.
- The National Golf Club of Kansas City enter into a Cooperative Agreement with the City of Parkville regarding their administrative oversight and enforcement of said procedures.
- Any other conditions the Planning and Zoning Commission determines are necessary.

SECTION 2. The CUP shall be effective permanently from the effective date.

SECTION 3. This ordinance shall be effective immediately upon its passage.

PASSED and APPROVED this 17th day of January 2017.

Mayor Nanette K. Johnston

ATTESTED:

City Clerk Melissa McChesney



Application #: PZ16-13
 Date Submitted: 09-09-16
 Public Hearing: 11-08-16
 Date Approved: _____

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Application for Conditional Use Permit (CUP)

1. Applicant / Contact Information

Applicant(s)

Name: The National Golf Club of Kansas City
 Address: P.O. Box 14146
 City, State: Parkville, MO 64152
 Phone: (816) 505-4297 Fax: _____
 E-mail: daleb@fivestarlifestyles.com

Engineer / surveyor(s) preparing legal desc.

Name: HeliExperts
 Address: 28 Baruch Drive
 City, State: Long Branch, New Jersey 07740
 Phone: (732) 870-8883 Fax: _____
 E-mail: rex@heliexp.com

Owner(s), if different from applicant

Name: (Applicant)
 Address: _____
 City, State: _____
 Phone: _____ Fax: _____
 E-mail: _____

Contact Person

Name: Dale Brouk
 Address: P.O. Box 14146
 City, State: Parkville, MO 64152
 Phone: (816) 505-4297 Fax: _____
 E-mail: daleb@fivestarlifestyles.com

We, the undersigned, do hereby authorize the submittal of this application and associated documents and certify that all information contained therein is true and correct. We acknowledge that rezoning in the City of Parkville is subject to the Municipal Code of the City of Parkville. We do hereby agree to abide by and comply with the above-mentioned codes, and further understand that any violations from the provisions of such or from the conditions as stated herein shall constitute cause for fines, punishments and revocation of approvals as applicable.

Applicant's Signature (Required) [Signature] Date: 9-9-16

Property Owner's Signature (Required) [Signature] Date: 9-9-16

2. Proposed Conditional Use (see also Checklist of required submittals)

Proposed use: Helicopter Landing Facility Requested length of permit Permanent
 Description: Emergency and General Aviation Helicopter Landing Pad
 Proposed days and hours of operation: Available for use 7 days a week.

3. Property Information (see also Checklist of required submittals)

Property address / general location: South East corner Birkdale and Allen Way
 Parcel ID Number: 20-5.0-22-200-005-001.000 Zoning: R4
 Present use of the property: Vacant
 Length of use (or vacancy): Vacant

Describe the existing land use and zoning on the surrounding properties:

<u>Existing Land Use</u>	<u>Existing Zoning</u>
North: <u>Single Family/ Duplex</u>	<u>R4</u>
South: <u>Golf Course</u>	<u>R2</u>
East: <u>Golf Course</u>	<u>R2</u>
West: <u>Golf Course</u>	<u>R2</u>

Attach a narrative addressing: the general character of the surrounding properties; the effects of the proposed use on nearby property; the suitability of the site for the proposed use; adequacy of area roads, public utilities and public services necessary to serve the use; consistency with the City's adopted Master Plan; and any other information relevant to the application.

- Completed application, including all required details and supporting data.
- Nonrefundable application fee of \$300.00. Separately, the applicant will be billed to recover costs for required publication and certified notice to adjacent property owners.
- List of names and addresses of all property owners within 185' of the property. See sheet 5 of 5
- Complete written and graphical legal description of subject property in paper and electronic formats, an area map showing the subject property and surrounding major features including roads.
- A site plan showing property boundaries, existing and proposed topography, structures, parking utilities, landscaping, signage, facades and other site features related to the proposed CUP.
- Authorized signature of the applicant and property owner. See Sheets 1 of 5

Application accepted as complete by: Stephen Lachky, Community Development Director 09/09/2016
Name/Title Date

Application fee payment: Check # 8697 M.O. Cash

Final reimbursable costs paid (if applicable). Date of Action: _____

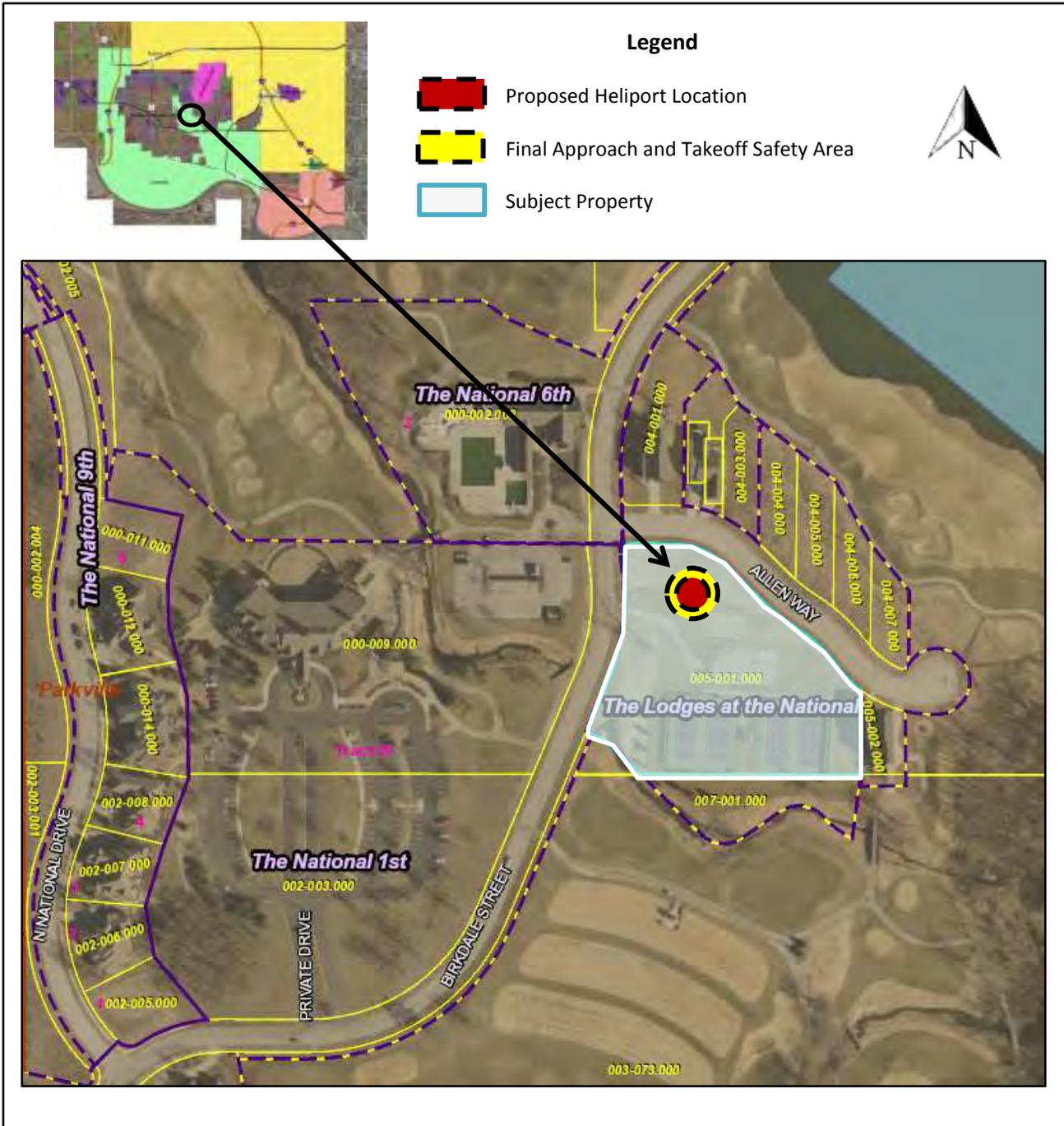
Planning Commission Action: Approved Approved with Conditions Denied Date of Action: _____

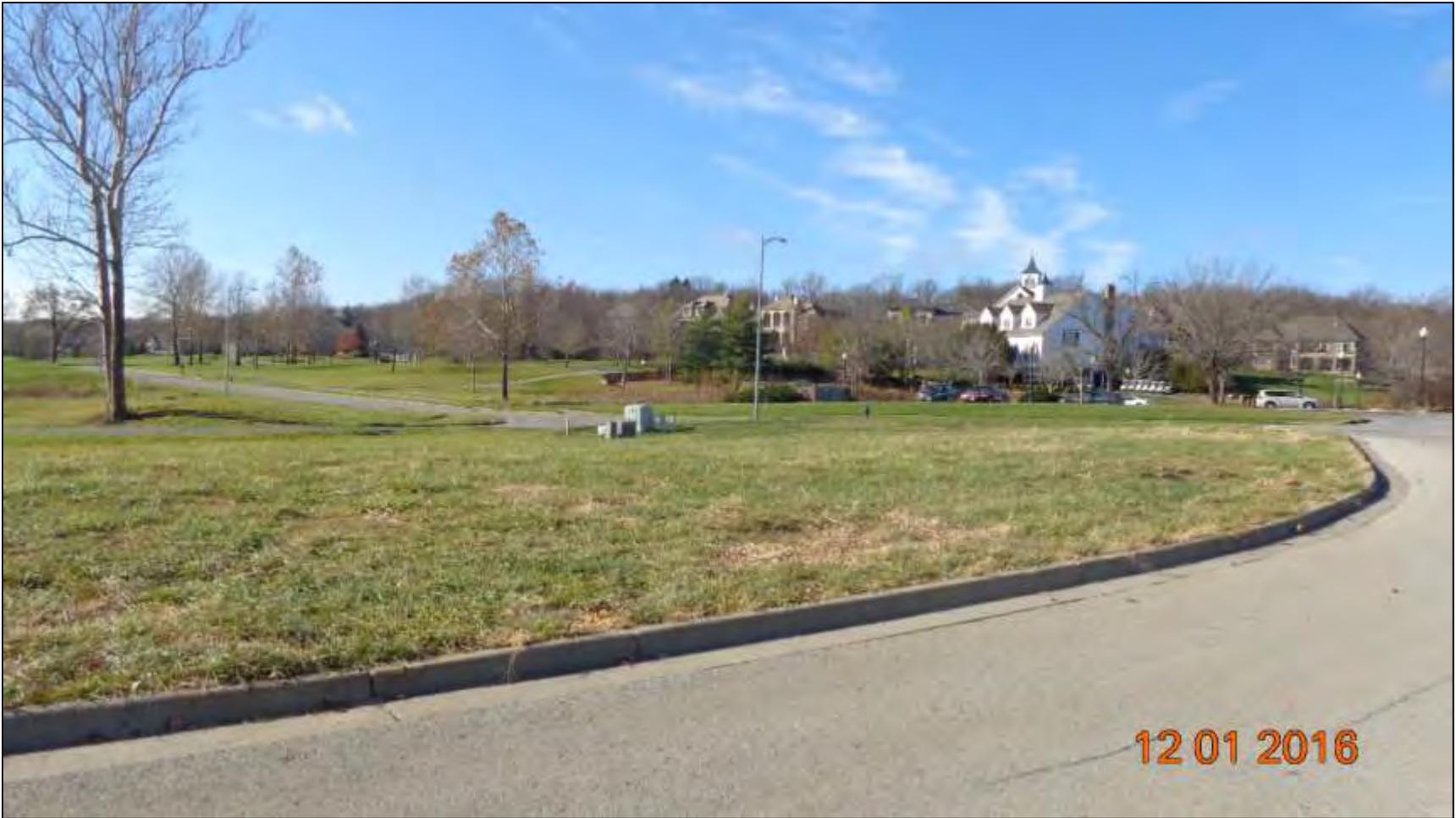
Conditions if any: _____

Board of Aldermen Action: Approved Approved with Conditions Denied Date of Action: _____

Conditions if any: _____

Subject Area Property Map





Allen Way – View facing southwest



Corner of Birkdale Dr. and Allen Way – View northwest



Corner of Birkdale Dr. and Allen Way – View facing east



Corner of Birkdale Dr. and Allen Way – View facing northeast



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Staff Analysis

- Agenda Item:** 6.A
- Proposal:** An application for a Conditional Use Permit (CUP) for an emergency and general aviation helicopter landing facility at The Lodges At The National at the southeast corner of Birkdale Dr. and Allen Way.
- Case No:** PZ16-13
- Applicant:** The National Golf Club of Kansas City
- Owners:** The National Golf Club of Kansas City
- Location:** Southeast corner of Birkdale Dr. and Allen Way
- Zoning:** "R-4" Multiple-Family Residential District
- Parcel #s:** 20-5.0-22-200-005-001.000
- Exhibits:**
- A. This Staff Analysis
 - B. Application for Conditional Use Permit
 - C. Subject Area Property Map
 - D. The Lodges At The National (Final Plat), Replat of Part of Lot 1, The National – Sixth Plat, a Subdivision in Parkville, Platte County, Missouri and Part of Section 22, Township 51, Range 34; prepared by R.L. Buford & Associates (dated 05/14/2004)
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- J. Heliport Facility and Training Manual – Trump Doral Golf Resort and Spa; prepared by HeliExperts International LLC (dated December 21, 2014)
- K. Public comments
- L. Photos of subject property
- M. Additional exhibits as may be presented at the public hearing

By Reference:

- A. Parkville Municipal Code, Title IV, Chapter 470: *Supplementary Use Regulations – Conditional Uses* (<http://www.ecode360.com/27902588>)
- B. Parkville Municipal Code, Title VI, Chapter 425: *“R-4” Multiple-Family Residential District Regulations* (<http://www.ecode360.com/27901243>)
- C. Parkville Municipal Code, Title IV: *Zoning Code* in its entirety (<http://www.ecode360.com/PA3395-DIV-05>)
- D. Parkville Master Plan (<http://parkvillemo.gov/departments/community-development-department/master-plan/>)
- E. Hearing notice published in the Platte County Landmark newspaper
- F. Summary of Public Hearing posted on Parkville City webpage (<http://parkvillemo.gov/public-hearings/>)
- G. Hearing notice published on the Parkville City webpage (http://parkvillemo.gov/download/public-hearing-notices/PZ16-13_CUPLodgesatNational112916.pdf)
- H. Federal Emergency Management Agency’s (FEMA) Flood Insurance Rate Map (FIRM) #29165C0377D; titled Platte County, Missouri and Incorporated Areas (effective date April 2, 2015)
- I. U.S. Department of Transportation (USDOT), Federal Aviation Administration (FAA), Advisory Circular No. 150/5390-2C; Subject: Heliport Design (dated April 24, 2012)

- J. National Fire Protection Association (NFPA) 418: Standard for Heliports (2016 edition)
- K. Analysis of Helicopter Accident Risk Exposure Near Heliports, Airports, and Unimproved Sites, RD-90/9; prepared by FAA, Systems Control Technology, Inc., and Advanced Aviation Concepts (dated February 1992)
- L. Minutes of the December 13, 2016 regular meeting of the Planning and Zoning Commission
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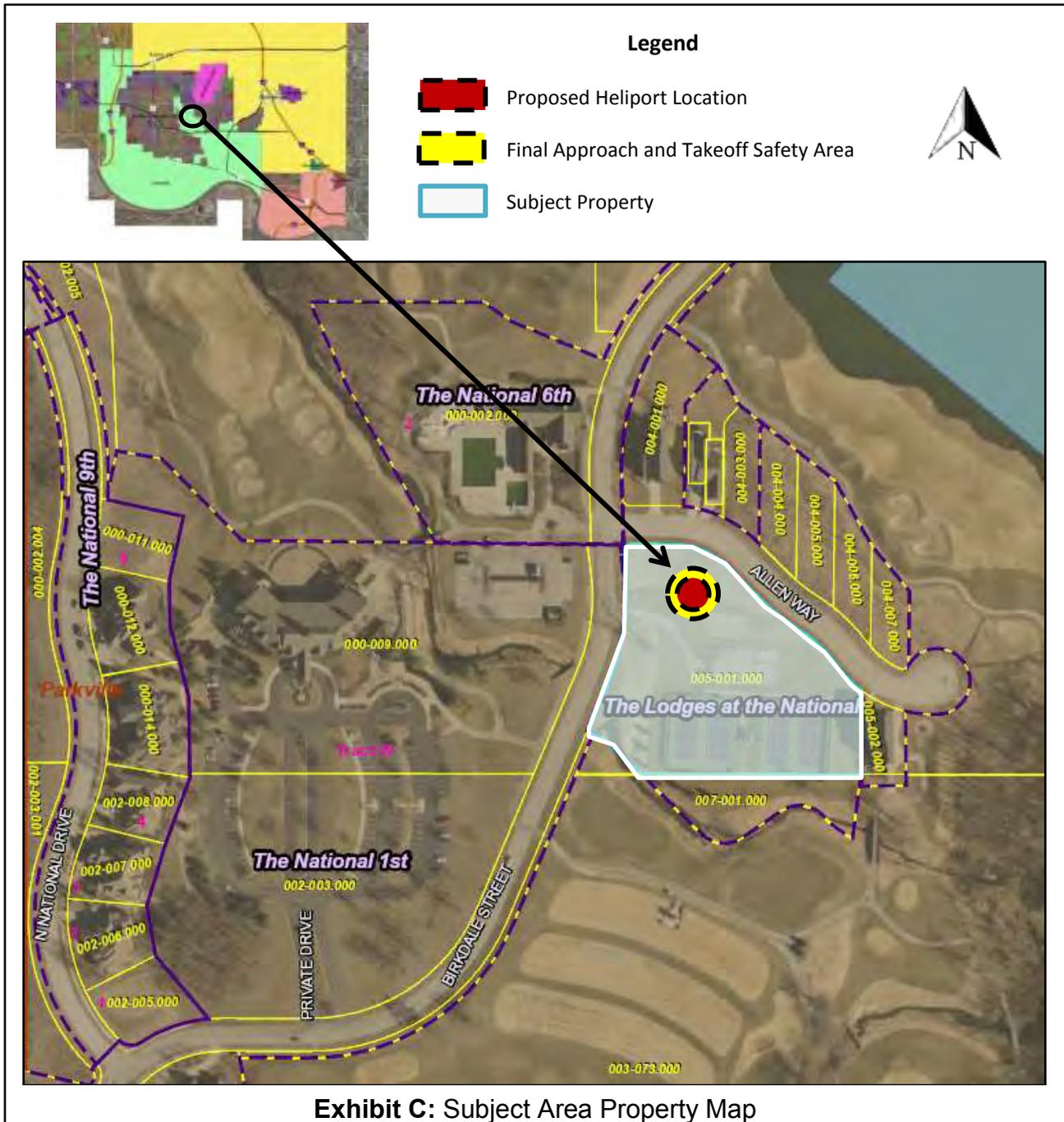
Comments

Received:

While the Community Development Department has received questions and inquiries via phone calls, no written comments were received prior to the December 13, 2016 public hearing. Public comments provided at the December 13, 2016 public hearing are included in Exhibit L, as well as Exhibit K. Public comments provided via e-mail following the December 13, 2016 public hearing are included in Exhibit K. Additional articles were also requested to be available to the Planning and Zoning Commission (see Exhibits O-U by reference).

Overview

The applicant, The National Golf Club of Kansas City, is proposing to construct an emergency and general aviation helicopter landing facility at The Lodges At The National at the southeast corner of Birkdale Dr. and Allen Way, approximately 590 ft. east of the adjacent National Golf Club's clubhouse, and immediately north of the tennis courts and adjacent parking lot. The subject property contains one parcel (#20-5.0-22-200-005-001.000) containing 2.38 acres, more or less, and is currently within a City "R-4" Multiple-Family Residential District. The proposed air ambulance emergency heliport site involves a ground base heliport, which will function as a "private" heliport with a prior permission request for conducting operations (with the exception for air ambulance emergency helicopters which will not require prior permission).



Location

The proposed site was selected due to its capability to support a safe and regulatory compliant heliport, following an evaluation and analysis determination by HeliExperts International LLC, a consulting firm specializing in aviation, helicopter and heliport expertise. The firm was retained by the National Golf Club of Kansas City to conduct a feasibility study to determine site selection criteria, operation needs, local and federal regulations, impacts and safety concerns. The *National Golf Club of Kansas City Air Ambulance Emergency Heliport Feasibility & Site Selection Report* is included as Exhibits E and F.

Additionally, the centralized location within The National Golf Club of Kansas City development provides a preferred location within the confines of The National. The Lodges At The National (Final Plat), Replat of Part of Lot 1, The National – Sixth Plat (Exhibit D) was approved by the Board of Aldermen on August 12, 2004. The Lodges was intended to be an area for corporate lodges, with Tract A (2.89 acres, more or less) adjacent to Allen Way to the south to be owned and maintained by the National Golf Club of Kansas City. The consultant team from HeliExperts International LLC reviewed the FAA 5010 Airport Master Record Database and found the nearest public use aviation facility to be Kansas City International Airport (MCI) located approximately 4.7 miles to the north; and the nearest private aviation facility to be St. Luke's Northland Hospital Heliport (MO63) located approximately 3.6 miles to the northeast. There are an additional seven (7) heliports and three (3) airports within a 10-mile radius of the subject property. The proposed location does not reside directly within an FAA designated "restricted" or "prohibited" area; however, it is located under the supporting airspace for MCI. Based on early findings and assessment of the site location conducted by HeliExperts International LLC, the applicant anticipates a favorable letter of agreement with MCI.

Over the years, The National has constructed tennis courts and a parking lot on the north part of Tract A. The approximate location of the center of the heliport is estimated to be at N - 39° 13' 08.19" latitude and W - 094° 42' 35.65" longitude within Tract A. The size of the helipad structure (i.e., touchdown & liftoff area) is 46 ft. in diameter, the final approach & takeoff area is 85 ft. in diameter, and the total final approach and takeoff safety area is 115 ft. in diameter. The design of the proposed heliport meets the requirements as outlined in the FAA's Advisory Circular No. 150/5390-2C (see Exhibit I by reference), which serves as the primary evaluation guideline on the design, location and construction of new heliports. Portions of the Tract A are within the Special Flood Hazard Area (SFHA) as identified the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Map (FIRM) #29165C0379D (See Exhibit H by reference); however, the proposed helipad structure (i.e., touchdown & liftoff area) will be located outside the SFHA.

FAA and NFPA Requirements

FAA regulations primarily pertain to aviation and heliport facilities designed and operated for public-use, or publicly-funded heliports. Nevertheless, the site will be designed, constructed and operated in accordance with all pertinent Federal Aviation Administration (FAA) regulations and best practice recommendations as well as all National Fire Protection Association (NFPA) pertinent requirements as published in NFPA-418: Standard for Heliports (see Exhibit J by reference). An on-site hanger facility, fueling system or serving area is not proposed for the subject property.

The approach/departure paths identified in the *National Golf Club of Kansas City Heliport Feasibility & Site Selection Report* (Exhibit F, pgs. 20-26) were chosen in order to maximize areas surrounding the proposed heliport that are the least populated and would have the

smallest impact on the neighboring public. The FAA, upon mandatory notification by The National Golf Club of Kansas City of their desire to establish a heliport on the subject property, will initiate an airspace study of the surrounding vicinity of the proposed site. The FAA will ascertain whether the proposed heliport would have any detrimental effects upon the safe and efficient use of surrounding airspace. The federal government is responsible for a determination of the efficient use of airspace and possible air conflicts with other air traffic in the vicinity. Therefore, prior to any permits being issued by staff, a "Favorable Airspace Determination" will need to be provided by the FAA; this will be a required condition for approval. Operating procedures will be codified and published prior to helicopter operations being permitted. The National Golf Club of Kansas City will administer oversight of enforcement of said operating procedures.

MoDOT Requirements

The Missouri Department of Transportation's (MoDOT) does not have a formalized application and permitting process for private heliport facilities; however, MoDOT's Multimodal Aviation Division recommends the use of the FAA's Advisory Circular No. 150/5390-2C (see Exhibit I by reference) as the primary evaluation guideline on the design, location and construction of new heliports. The design, location and proposed construction of the emergency and general aviation helicopter landing facility at The Lodges At The National meets the guidance of the FAA Advisory Circular. Additionally, because there are no direct state regulations governing private heliport oversight in the State of Missouri by MoDOT other than those for hospitals, the applicant will adhere to guidance provided in the FAA Advisory Circular.

Emergency Operations

The National Golf Club of Kansas City will collaborate with local first responders to permit helicopter air ambulance providers access and use of their proposed helicopter landing facility. This will be coordinated through the operating procedures for emergency operations, which will be codified by the National Golf Club of Kansas City and published prior to helicopter operations being permitted. On-site, hands-on safety training is proposed to be conducted between first responders, helicopter operators and National Golf Club of Kansas City staff on an annual basis.

The most common helicopters in the region for air medical transport purposes are smaller than the "Design Helicopter" used in determining the size of the proposed heliport (Exhibit F, pgs. 27-30). Further, the majority of potential helicopter types and models currently in use in the air ambulance, along with civilian and corporate industries within the region, will be capable of safely operating at this facility. The helipad structure is designed for a larger capacity "Design Helicopter" in order to ensure the heliport does not become antiquated or obsolete in the future; for example, if larger emergency helicopters were to operate in the future or become common in the Kansas City region.

Flight Path

The approach/departure path is the flight track helicopters will follow when landing at or departing from the heliport. The applicant proposes an East and South approach/departure path based on predominant wind readings for the area provided by the National Oceanic and Atmospheric Administration (NOAA). A functional secondary approach/departure path has been identified to the east by the consultant team, should varying wind conditions occur (see Exhibit F, pgs. 26-30). An approach/departure path must have the approach/departure surface (i.e., 8:1 plane starting at the edge of the final approach and takeoff [FATO] and extending out to 4,000 ft. horizontally to an altitude 500 ft. above the horizontal FATO plane)

and transitional surface (i.e., surfaces extending outward and upward from the lateral boundaries of the heliport) kept free of obstructions to meet FAA airspace criteria according to the FAA Advisory Circular (See Exhibit F, pgs. 12-13). The proposed location is capable of meeting FAA's flight path standards for private-use heliport facilities. Due to vegetation under the secondary approach/departure path not meeting the 8:1 flight path guideline, the FAA will need to determine a nonstandard approach/departure path. This requires helicopter pilots to verify they have Hover Out of Ground Effect (HOGE) power available before utilizing this approach/departure path.

Lighting

For nighttime operations, the FAA requires that the heliport and the windsock be lighted. In order to limit any potential intrusion caused by the heliport lighting, pilot controlled lighting will be used in lieu of lighting that remains on during the hours of darkness. Pilot controlled lighting is lighting that the pilot can turn on only when he/she requires it, utilizing his or her onboard radio. The lighting is designed to only be on during the time the pilot needs it to be and is programmed to automatically turn off after 15 minutes.

Noise

Helicopters utilizing the proposed heliport facility would produce noise levels less than trains, jet airliners, tractors, lawn equipment, and motorized vehicles. The helicopter types and models currently in use in the air ambulance, and by civilian, corporate and executive helicopter transportation companies, are much more lightweight, efficient, and quieter than older or heavier military helicopters. Additionally, the relative distance and height above the ground and sound attenuation factors of terrain will impact noise levels. For a landing or takeoff on the subject property, the entire sound event lasts approximately 45-60 seconds. And at any one point along the flight path route, providing the observer is close enough to hear or notice it, the helicopter will typically only be heard for about 20 seconds or less.

Safety

In addition to meeting compliance with the City of Parkville's adopted local building codes and standards, components of the heliport will need to meet or exceed recognized safety standards of the FAA. One concern of the use and operation of a general aviation helicopter landing facility is the possibility of a helicopter accident or crash in the flight path. The FAA completed a report titled, "Analysis of Helicopter Accident Risk Exposure Near Heliports, Airports, and Unimproved Sites" (see Exhibit K by reference). The results of the study statistically derived there is a once in every 432-year probability exposure of a helicopter accident in a community where a heliport is located. This was based upon National Transportation Safety Board (NTSB) historical data on over 40 years of safety records for properly-designed and operated private use heliports, similar to the proposed heliport.

Security

In order to maintain a secure location for helicopter operations, the area surrounding the heliport structure will incorporate a security fence. The fence will be installed in such a manner to restrain/prevent any pedestrians, curious bystanders or other hazards in The National Golf Club of Kansas City from interfering with helicopter operations and trespassing on the heliport structure.

Climatology

While prevailing winds, cloud cover and horizontal visibility are the greatest climatological considerations for the use and operation of a general aviation helicopter landing facility, there appear to be no significant issues during normal weather conditions. If weather

conditions pose a threat to the public's health, safety and welfare, then flights will either be turned down prior to acceptance or canceled enroute by the pilot in command.

General Review and Analysis

Parkville Municipal Code, Title IV, Chapter 470: *Supplementary Use Regulations – Conditional Uses* permits the use of “Airports and landing fields” in City districts via a Conditional Use Permit (CUP), “*When found to be in the interest of the public health, safety, morals, and general welfare of the community.*” Preliminary plans in sufficient detail — and a statement as to the proposed use of the buildings, structures, and premises — are required to be submitted and presented to the Planning and Zoning Commission for consideration. The Commission is required to hold a public hearing and review such plans and statements, and after a careful study thereof, submit a recommendation to the Board of Aldermen within thirty (30) days following said hearing. Per Section 470.010, “*Following receipt of the Commission’s report, the Board of Aldermen may, within the specification herein provided, permit such buildings, structures, or uses where requested, provided that the public health, safety, morals, and general welfare will not be adversely affected, that ample off-street parking facilities will be provided, and that necessary safeguards will be provided for the protection of surrounding property, persons, and neighborhood values.*”

This application has been reviewed against Parkville’s Zoning Code regulations, including the applicable CUP regulations, “R-4” district requirements, and *Parkville Master Plan* and its adopted future land use projections. Per Section 483.030, a notice of public hearing was published in a newspaper in general circulation in the City, surrounding property owners within one-hundred and eight-five (185) ft. of the subject property were notified of the time, place and nature of the public hearing via certified mail, and a sign was posted on the subject property (in view from the public right-of-way) announcing the time, place and nature of the public hearing. While the Community Development Department has received questions and inquiries via phone calls, no written comments have been received by the Community Development Department as of the completion of this staff analysis on November 1, 2016.

CUP Matters for Consideration

Although the Parkville Municipal Code does not define how the Planning and Zoning Commission shall determine if a proposed CUP is appropriate, the Commission has previously considered the following matters as a guide, as advised by staff and legal counsel. The following are staff’s findings and conclusions.

- 1. The character of the neighborhood and the zoning and uses of nearby properties.**

The subject property, Tract A of The Lodges At The National, is located at the southeast corner of Birkdale Dr. and Allen Way on land owned and maintained by The National Golf Club of Kansas City, approximately 590 ft. east of their clubhouse. The subject property is immediately north of the tennis courts and adjacent parking lot and is zoned “R-4” Multiple-Family Residential District. The general character of the surrounding area is the master-planned National Golf Club of Kansas City and surrounding residential properties.

To the north are townhomes part of The Lodges At The National (zoned “R-4”); and further north is the National Golf Club recreational use golf course and Adkison Lake (zoned “R-2” Single-Family Residential District). To the east is a parking lot and open space owned and maintained by The National Golf Club of Kansas City (zoned “R-2”); and further east is the Duece at The National Golf Club recreational use golf course (zoned “R-2”), and single-family residential properties in the Meadow Brook Addition of

unincorporated Platte County. To the south are tennis courts; and further south is The National Golf Club recreational use golf course (zoned "R-2"). To the west is The National Golf Club of Kansas City's clubhouse and parking lot (zoned "R-2"); further west are single-family residential properties in The National 9th Plat (zoned "R-2"), and mostly undeveloped land in unincorporated Platte County.

Aside from attaining a CUP permitting the use of airports and landing fields in City districts, the only zoned district in the City that explicitly permits the proposed use is the "B-P" Business Park District. The proposed use of a general aviation helicopter landing facility is not out of character with the existing uses immediately adjacent to the subject property, due to the context of The National Golf Club of Kansas City and the immediately adjacent recreational amenities including, but not limited to, tennis courts, The National Golf Club golf course, and clubhouse. Additionally, the proposed use is not out of character to being used as an amenity by The National Golf Club of Kansas City for its general and emergency operations.

2. The suitability of the subject property for the uses to which it is restricted and the extent to which allowing the proposed use through a CUP may affect nearby properties.

Tract A of The Lodges At The National is land owned and maintained by The National Golf Club of Kansas City; currently there are four (4) tennis courts and a parking lot on the tract. The subject property is within close proximity to The National's clubhouse and main parking lot to the west, and buffered by The National Golf Club golf course to the south and open space to the east. The properties immediately adjacent to the proposed helicopter landing facility are suitable to the proposed use; however, the use will also impact properties beyond that are within the approach/departure flight path. HeliExperts International LLC indicated the approach/departure paths were identified to fully maximize the areas surrounding the heliport that are least populated in order to have the least impact on the public. Additionally, the consultant team evaluated several sites throughout The National Golf Club of Kansas City and determined the proposed location was the most logical and had the least negative impacts on the community.

Potential impacts include sound/noise and lighting effects. The helicopter models that will use the facility are lightweight and quieter air ambulance, civilian and corporate/executive helicopters as opposed to military helicopters. These helicopters would produce noise levels less than trains, jet airliners, tractors, lawn equipment, and motorized vehicles. For a landing or takeoff on the subject property, the impacts of sound to immediately adjacent properties would last approximately 45-60 seconds; and at any one point along the flight path route (providing the observer is close enough to hear or notice), the helicopter will typically only be heard for about 20 seconds or less.

In terms of lighting, during the nighttime the FAA requires the heliport and windsock be lighted; however, in order to limit any potential intrusion caused by the lighting, pilot controlled lighting will be used in lieu of lighting that remains on throughout hours of darkness. Pilot controlled lighting is lighting that the pilot can turn on only when he/she requires it, utilizing his or her onboard radio. The lighting is designed to only be on during the time the pilot needs it to be and is programmed to automatically turn off after 15 minutes.

Staff does not feel vegetative screening of the proposed heliport facility is necessary, as impacts to surrounding properties are minimal; furthermore, adding vegetative screening

may cause safety impacts to the touchdown & liftoff area, final approach & takeoff area, and outer safety areas around the helipad. The applicant proposes to incorporate a security fence around the heliport structure in order to restrain/prevent any pedestrians, curious bystanders or other hazards in The National Golf Club of Kansas City from interfering with helicopter operations and trespassing on the heliport structure.

3. The relative gain to the public's health, safety and welfare as compared to the hardship of the individual property owner of the subject property.

The proposed Conditional Use Permit does not appear to have any impacts on other public health, safety and welfare considerations, including the ability to respond with public and emergency services including police and fire and the ability to maintain the peace. Further, The National Golf Club of Kansas City and public would gain an aviation facility that could be utilized for emergency response operations and training.

As part of its review process, staff contacted the Southern Platte Fire Protection District (SPFPD) staff to receive comments/feedback regarding their awareness of the project, potential service limitations, adequacy of proposed easements and other issues that need to be addressed. SPFPD said they have no issues and would be able to utilize the facility for their emergency operations; however, said usage for emergency operations would only be during extreme circumstances or rare cases (e.g., natural disaster, mass casualty incident). This is due to the response time that ambulances can travel from The National Golf Club of Kansas City to the nearest emergency medical center (i.e., North Kansas City Hospital) compared to helicopters. An ambulance has around a 20-minute travel time, compared to a 30-minute travel time for an emergency medical service (EMS) helicopter — 15-minute travel time from the hospital to The National, and then a 15-minute travel time back.

SPFPD contacted LifeFlight Eagle of Kansas City, Mo. to review HeliExperts International LLC's site selection and feasibility study (see Exhibit F) for review and comments. LifeFlight Eagle responded the proposed site can accommodate a helipad compliant with FAA Advisory Circular 150/5390-2C (see Exhibit I by reference), and there will be no limitations to LifeFlight Eagle's operations provided FAA's guidance is followed. LifeFlight Eagle also said that any deviations from the preliminary plans has the potential to significantly impact safe operations at the location. SPFPD said that during emergencies, LifeFlight Eagle helicopters typically land at the immediate site of the incident, such as in the middle of the roadway for a traffic crash. Thus, they believe LifeFlight Eagle would too utilize the heliport only during extreme circumstances or rare cases. It should be noted that, during instances where SPFPD or LifeFlight Eagle utilize the helicopter landing facility for emergency purposes, only trained fire, EMS and law enforcement personnel will be allowed in the landing zone.

One concern regarding the use and operation of a general aviation helicopter landing facility is the possibility of a helicopter accident or crash in the flight path. The FAA completed a report titled, "Analysis of Helicopter Accident Risk Exposure Near Heliports, Airports, and Unimproved Sites" (see Exhibit K by reference). The results of the study statistically derived there is a once in every 432-year probability exposure of a helicopter accident in a community where a heliport is located. This was based upon National Transportation Safety Board (NTSB) historical data on over 40 years of safety records for properly-designed and operated private use heliports, similar to the proposed heliport. SPFPD commented that, if a helicopter does crash midflight, there's no way to pinpoint the exact location along the flight path where it will land, similar to an airplane.

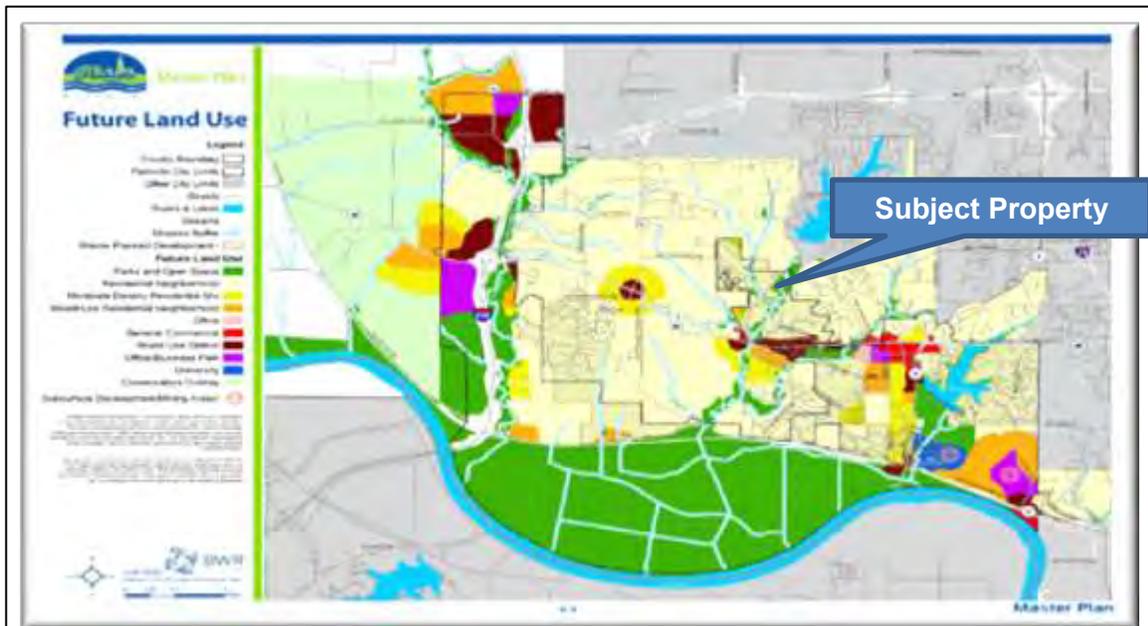
If the proposed use is warranted, there appears to be a hardship to the property owner if required to locate the heliport in a different location within The National Golf Club of Kansas City. This is due to the due diligence by the HeliExperts International LLC consultant team evaluating several sites within The National in their feasibility and site selection report (see Exhibit F) in order to determine the most logical location. The report determined the proposed location based on feasible approach/departure paths and flight paths having the least impact on neighboring properties and the community.

4. The adequacy of public utilities and other needed public services

The proposed emergency and general aviation helicopter landing facility does not require the extension of water or sewer utilities. Electricity will need to be provided in order for the heliport and windsock to be lighted during nighttime operations. Staff contacted Kansas City Power & Light (KCP&L) for their awareness of the project, potential service limitations, adequacy of proposed easements and other issues that need to be addressed; and did not receive any comments/feedback. Police protection and fire protection are already provided for The National Golf Club of Kansas City and the proposed use of the subject property should not have a significant impact on these services.

5. Consistency with the City’s adopted master plan and applicable City Code.

The City’s adopted Master Plan projects Parks and Open space future land use in the location of the subject property. This land use is primarily intended for public or private land reserved for active and passive parklands, trails, recreation uses, environmentally sensitive areas, natural resources, or any other lands reserved for permanent open space purposes.



Excerpt from the adopted *Parkville Master Plan, Land Use Map*. The property’s proposed Conditional Use area is called out. The green color represents Parks and Open Space land use projection.

Although airports and landing fields are not specifically addressed in individual land use projection categories within the *Parkville Master Plan*, including the Parks and Open Space land use projection, they [airports and landing fields] can play a role serving as an amenity for emergency service operations. Additionally, the proposed use and location, in the context of The National Golf Club of Kansas City and its recreational amenities (e.g., tennis courts, The National Golf Club golf course, clubhouse), can serve as an amenity for The National, its members and guests.

Public Hearing – December 13, 2016

On Tuesday, December 13, 2016, the Planning and Zoning Commission held a public hearing to consider Case No. PZ16-13, an application for a Conditional Use Permit (CUP) for an emergency and general aviation helicopter landing facility at The Lodges At The National at the southeast corner of Birkdale Dr. and Allen Way. Rex Alexander, Senior Consultant with HeliExperts International LLC, gave a presentation of the application proposal (see Exhibit G). This included Rex's professional background, HeliExperts International's experience, the National Golf Club of Kansas City Heliport Feasibility & Site Selection Report plans (see Exhibit F), compliance with adopted federal standards, and FAA airspace determination process. Rex also answered technical questions from the Planning and Zoning Commission. Members of the public attended, provided comments and asked questions. The Planning and Zoning Commission recommended postponing the item to the next regular meeting on Tuesday, January 10, 2017, and in the meantime requested the applicant (i.e., The National Golf Club of Kansas City):

1. Meet with more property owners around the helipad and gather additional neighborhood feedback.
2. Provide more information about The National's operating procedures for the helipad, specifically regarding hours of operation, estimated number of flights, security provisions and enforcement of said procedures.

Additional Public Outreach

Prior to the December 13, 2016 public hearing, the applicant conducted face-to-face meetings with property owners within 185 ft. of the subject property. Because it was difficult to have face-to-face meetings with every property owner in the golf club between the December 13th public hearing and the January 10th public hearing, The National Golf Club of Kansas City has included a hyperlink to the emergency and general aviation heliport proposal in their 2016 Annual Newsletter, which was distributed via e-mail in order to reach the most residents (see Exhibit H). This information also included the date, time and location of tonight's public hearing. Additionally, The National Golf Club of Kansas City has provided staff minutes from their September 20, 2016 meeting of the National Property Owners Association Board of Directors, which the heliport proposal was discussed at that meeting (see Exhibit I).

Proposed Operating Procedures

The consultant team from HeliExperts International LLC is currently drafting operating procedures for the emergency and general aviation helicopter landing facility. The procedures will be similar to the Heliport Facility and Training Manual for the Trump Doral Golf Resort and Spa in Miami, Florida (see Exhibit J), which HeliExperts International LLC prepared. The Heliport Facility and Training Manual for the Trump Doral Golf Resort and Spa was designed for heliport owners and designated users. The document also details the minimum standards that need to be addressed with respect to facility administrative management, security and maintenance oversight, flight operations, safety and training.

User Requirements

Users at the Trump Doral Golf Resort and Spa need a letter of agreement in order to utilize the heliport. Additionally, Prior Permission Required (PPR) is necessary with specific notice for each transport or flight operation. The pilot also has to provide acknowledgement of reading and agreeing to the prescribed procedures in the Heliport Facility and Training Manual. The manual provides the specifications of the TLOF, FATO and FATO Safety Area, latitude/longitude and elevation of the heliport, preferred approach/departure paths, radio frequency, hours of operation, designates a coordinator for all helicopter operations, and provides contact information for the on-site manager, security and club house.

Personnel Responsibilities

Responsibilities and guidelines in the Heliport Facility and Training Manual are listed for administration, security and ground maintenance staff. The manager is charged with overall operational responsibilities, including authorizing requests to use the facility. The expected date and time of landings, anticipated ground time (if any), number and names of passengers and individual contact information aviation organization contact information are required to be provided. Security personnel conduct visual inspections of the heliport to ensure there are no unauthorized personnel, vehicles or objects, snow, ice or debris that may affect the safe operation of the heliport. Security personnel are also present for all landings and takeoffs and fully-trained for emergencies. Safety equipment — including hearing protection, safety glasses, portable fire extinguisher, radio or cell phone, and portable heliport perimeter lights — are required to be stored in the heliport designated area at all times. Maintenance personnel ensure the heliport is good condition and perform weekly checks of all lights and lighting systems.

Safety and Training Program

The Heliport Facility and Training Manual for the Trump Doral Golf Resort and Spa contains a Safety and Training Program to supplement the standard operating procedures for the heliport, as well as familiarize all personnel with hazards associated with flight operations. No one is allowed on or around the heliport during flight operations unless they've been trained by a qualified person. Additionally, there are guidelines applicable to all staff members, whether authorized, trained or not. Lastly, the Heliport Facility and Training Manual includes an Emergency Action Plan with a procedures and notifications checklist which is utilized in case of any helicopter incident or accident.

Staff Research

The Heliport Facility and Training Manual for the Trump Doral Golf Resort and Spa does not provide any information, requirements or guidelines regarding hours of operation or estimated number of flights. In researching other municipalities around the country with ordinances for private use heliports, staff found few jurisdictions regulate hours of operation or number of flights. The City of Savannah, Ga. restricts hours of operation between 7:00 a.m. and 10:00 p.m.; and the Town of York, Me. does not permit operations (takeoffs or landing) one-half (½) hour after official sunset or until one-half (½) hour after official sunrise — the exception being utilization for emergency purposes. Most jurisdictions require the number of expected flights (daily, weekly, or annual) be provided by applicants; however, few jurisdictions have guidelines in their municipal codes. Those that do — such as the City of Sahuarita, Az. and City of Vacaville, Ca. — limit the number of flights (both landings and takeoffs) to no more than 10 per day, unless approval is granted by the Community Development Director. Lastly, some jurisdictions require an operations log of all flights (date, time, origin, destination, and purpose) be provided upon request from the Community Development Director.

Staff Conclusion and Recommendation

Staff concludes that: The application for CUP meets or exceeds the minimum applicable standards and regulations; the proposed use of an emergency and general aviation helicopter landing facility is not out of character with the existing uses within The National Golf Club of Kansas City, nor out of character with the existing uses immediately adjacent to the subject property; the properties immediately adjacent to the proposed helicopter landing facility are suitable to the proposed use, however, the use will also impact properties beyond that are within the approach/departure flight path; the proposed use does not appear to have any impacts on other public health, safety and welfare considerations, including the ability to respond with public and emergency services including police and fire and ability to maintain the peace; the proposed helicopter facility does not require the extension of water or sewer utilities and electricity will need to be provided in order for there to be proper lighting during nighttime operations; and although airports and landing fields are not specifically addressed in individual land use projection categories within the *Parkville Master Plan*, the proposed use can serve as an amenity for emergency service operations, The National Golf Club of Kansas City, its members and guests.

Following review, staff recommends approval of the CUP based on the merits of the application and the findings and conclusions in this report. Additionally, staff recommends approval of the CUP, subject to the following conditions:

- Compliance with all federal and state laws and requirements — including all pertinent Federal Aviation Administration (FAA) regulations and guidance, and International Building Code, International Fire Code, and National Fire Protection Association (NFPA) requirements, standards and criteria — with regards to the use and operations of the emergency and general aviation helicopter landing facility. This includes nighttime operations.
- A “Favorable Airspace Determination” made by the FAA, prior to staff issuance of permits.
- The National Golf Club of Kansas City codifying and publishing operating procedures — including emergency operations procedures — for the use of the emergency and general aviation helicopter landing facility, and administering oversight of enforcement of said procedures, prior to helicopter operations being permitted.
- *Staff input and City approval of The National Golf Club of Kansas City’s operating procedures — including emergency operations procedures — for the use of the emergency and general aviation helicopter landing facility, prior to helicopter operations being permitted.*
- *The National Golf Club of Kansas City enter into a Cooperative Agreement with the City of Parkville regarding their administrative oversight and enforcement of said procedures.*
- Any other conditions the Planning and Zoning Commission determines are necessary.

Note: Conditions shown in italics are additional conditions recommended by staff following the December 13, 2016 public hearing.

It should be noted that the recommendation contained in this report is made without knowledge of facts, public comments or any additional information which may be presented during the public hearing. For that reason, the conclusions herein are subject to change as a result of evaluating additional information; additionally, staff reserves the right to modify or confirm the conclusions and recommendations herein based on consideration of any additional information that may be presented.

Necessary Action

Following consideration of the CUP, supporting information, associated exhibits, factors discussed above and any testimony presented during the public hearing, the Planning and Zoning Commission should recommend approval (with or without conditions), denial, or postpone the application for further consideration. If approved subject to conditions, the conditions should be noted for the record. Unless postponed, the Planning and Zoning Commission's action will be forwarded to the Board of Aldermen on January 17, 2017 for final action.

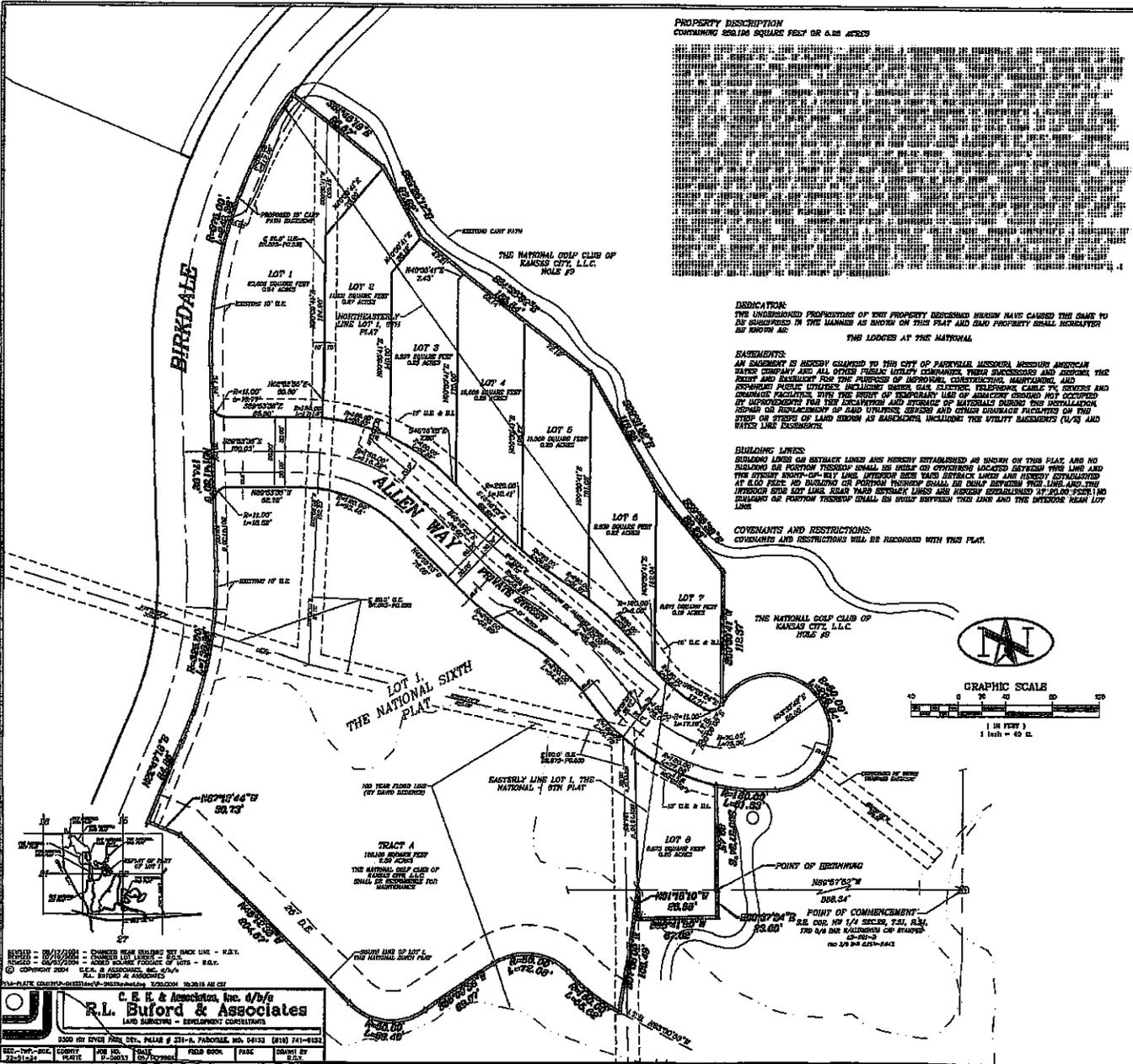
End of Memorandum



01-06-2017

Stephen Lachky, AICP
Community Development Director

Date



PROPERTY DESCRIPTION
CONTAINING 282,100 SQUARE FEET OR 6.42 ACRES

THE LODGES AT THE NATIONAL

DEDICATION
THE UNDERSIGNED PROPRIETORS OF THIS PROPERTY HEREBY HAVE CAUSED THIS DEED TO BE RECORDED IN THE MANNER AS SHOWN ON THIS PLAT AND SAID PROPERTY SHALL HEREAFTER BE KNOWN AS:

THE LODGES AT THE NATIONAL

EASEMENTS
AN EASEMENT IS HEREBY GRANTED TO THE CITY OF PARKVILLE, MISSOURI, MISSOURI AMERICAN WATER COMPANY AND ALL OTHER PUBLIC UTILITY COMPANIES, THEIR SUCCESSORS AND ASSIGNS THE RIGHT AND EASEMENT FOR THE PURPOSE OF IMPROVING, CONSTRUCTING, MAINTAINING, AND OPERATING PUBLIC UTILITIES, INCLUDING WATER, GAS, ELECTRIC, TELEPHONE, CABLE TV, SERVICES AND UTILITIES FACILITIES, INTO THE SUBJECT PROPERTY AND ADJACENT PROPERTY NOT OCCUPIED BY IMPROVEMENTS FOR THE INSTALLATION AND STORAGE OF MATERIALS DURING THE INSTALLATION, REPAIR OR REPLACEMENT OF SAID UTILITIES, SERVICES AND OTHER UTILITY FACILITIES ON THIS TRACT OR STEPS OF LAND SHOWN AS BASEMENTS, INCLUDING THE UTILITY BASEMENTS (U/B) AND WATER LINE EASEMENTS.

BUILDING LINES
BUILDING LINES OR SETBACK LINES ARE HEREBY ESTABLISHED AS SHOWN ON THIS PLAT, AND NO BUILDING OR PORTION THEREOF SHALL BE LOCATED BETWEEN THIS LINE AND THE STREET FRONT-OR-REAR LINE. INTERIOR SETBACK LINES AND EASEMENT ESTABLISHED AT 10 FEET TO BUILDING OR PORTION THEREOF SHALL BE SHOWN BETWEEN THIS LINE AND THE INTERIOR SETBACK LINE. REAR YARD SETBACK LINES ARE HEREBY ESTABLISHED AT 10 FEET TO BUILDING OR PORTION THEREOF SHALL BE SHOWN BETWEEN THIS LINE AND THE INTERIOR REAR LOT LINE.

COVENANTS AND RESTRICTIONS:
COVENANTS AND RESTRICTIONS WILL BE RECORDED WITH THIS PLAT.

(FINAL PLAT)

THE LODGES AT THE NATIONAL

REPLAT OF PART OF LOT 1, THE NATIONAL - SIXTH PLAT
A SUBDIVISION IN PARKVILLE, PLATTS COUNTY, MISSOURI
AND PART OF SECTION 22, TOWNSHIP 01, RANGE 34

- SURVEY NOTES:**
1. THE FOLLOWING STANDARDS MONUMENTATION WILL BE SET UPON COMPLETION OF CONSTRUCTION BUT NOT TO EXCEED 18 MONTHS AFTER THE FILING OF THIS PLAT AT THE NOTED LOCATION UNLESS INDICATED OTHERWISE ON THIS DRAWING.
 1/4" IRON BAR WITH PLASTIC CAP STAMPED "18-081-D" SET AT ALL LOT CORNERS AND OTHER CORNERS MARKED "O".
 PERMANENT MONUMENTATION
 5/8" IRON BAR WITH ALUMINUM CAP STAMPED "18-081-D" SET AT ALL CORNERS MARKED "A".
 2. THE POSITION OF EXISTING MONUMENTATION AS INDICATED BY AN "O" OR "A" IS FROM THE TRUST CORNER, IS BY DISTANCES IN DECIMALS OR BY BEARING ANGLES TO THE PROPERTY LINE AT THE NOTED DISTANCE FROM THE NEAREST BOUNDARY CORNER.
 3. THE SOURCE OF THE DESCRIPTION USED FOR THIS SURVEY WAS DERIVED FROM THE NATIONAL - SIXTH PLAT, A SUBDIVISION IN PARKVILLE, PLATTS COUNTY, MISSOURI.
 4. THE BEARINGS AND COORDINATES ENDING HEREON ARE BASED UPON THE MISSOURI COORDINATE SYSTEM 1983, WESTERN ZONE, AT KANSAS CITY WESTERN COORDINATE POINTS PL-19 TO PL-25 (TOWN ADJACENT).
 5. THIS SURVEY MEETS OR EXCEEDS THE ACCURACY STANDARDS OF A URBAN PROPERTY SURVEY AS DEFINED BY THE MISSOURI MINIMUM STANDARDS FOR PROPERTY BOUNDARY SURVEYS.

IN TESTIMONY WHEREOF:

THE NATIONAL GOLF CLUB OF KANSAS CITY, L.L.C., A MISSOURI LIMITED LIABILITY COMPANY AND R.P. COLP, L.L.C. A MISSOURI LIMITED LIABILITY COMPANY HAVE CAUSED THESE PRESENTS TO BE EXECUTED THIS _____ DAY OF _____ 20____

FOR THE NATIONAL GOLF CLUB OF KANSAS CITY, L.L.C.

JAMES R. WATSON, MANAGING DIRECTOR JAMES S. ALLEN JR., MANAGING DIRECTOR

FOR R.P. COLP, L.L.C.

JAMES R. WATSON, MANAGING DIRECTOR JAMES S. ALLEN JR., MANAGING DIRECTOR

NOTARY CERTIFICATION

STATE OF _____)
 COUNTY OF _____) SS:

NO IT REMEMBERED THAT ON THIS _____ DAY OF _____ 20____, BEFORE ME, THE UNDERSIGNED NOTARY PUBLIC, APPEARED JAMES R. WATSON AND JAMES S. ALLEN, JR. TO ME KNOWN TO BE THE PERSONS DESCRIBED HEREIN AND WHO BECAME DULY SWORN BY ME. I DO ACKNOWLEDGE THAT THEY ARE THE MANAGING DIRECTORS OF SAID THE NATIONAL GOLF CLUB OF KANSAS CITY, L.L.C. AND R.P. COLP, L.L.C., AND THAT THIS INSTRUMENT WAS SIGNED IN BEHALF OF AND IS THE FREE ACT AND DEED OF SAID COMPANY.

IN WITNESS WHEREOF:

MY COMMISSION EXPIRES: _____
 NOTARY PUBLIC

CITY OF PARKVILLE, MISSOURI

THIS IS TO CERTIFY THAT THIS FINAL PLAT, THE LODGES AT THE NATIONAL, WAS SUBMITTED TO, CONSIDERED AND APPROVED BY THE PARKVILLE BOARD OF ALDERMEN THIS _____ DAY OF _____ 20____.

KATHRYN DUSCHENRY, MAYOR BARBARA J. LANCE, CITY CLERK

SURVEYOR'S CERTIFICATION:

I HEREBY CERTIFY THAT I HAVE MADE A SURVEY OF THE PREMISES HEREIN DESCRIBED WHICH MEET OR EXCEED THE CURRENT MISSOURI MINIMUM STANDARDS FOR PROPERTY BOUNDARY SURVEYS AS JOINTLY ESTABLISHED BY THE MISSOURI DEPARTMENT OF NATURAL RESOURCES, DIVISION OF SURVEY AND LAND SURVEY AND THE MISSOURI BOARD FOR ARCHITECTURE, PROFESSIONAL ENGINEERS AND LAND SURVEYORS, AND THAT THE RESULTS OF SAID SURVEY ARE REPRESENTED ON THIS DRAWING TO THE BEST OF MY PROFESSIONAL KNOWLEDGE AND BELIEF.

CHARLES R. YOST, PLS-25779 12/15/2011

FIELD - 1817/2011 - CHANGES REAR BUILDING SETBACK LINE - R.P.C.
 REVISION - 12/15/2011 - CORRECTED THE LOCATION OF LOTS - R.P.C.
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 C.E.R. & ASSOCIATES, INC. 07/11/11
 11. BIRKDALE & ADJACENTS

C. E. R. & Associates, Inc. d/b/a
R.L. Buford & Associates
 LAND SURVEYING - DEVELOPMENT CONSULTANTS

2300 HWY 240 EAST, SUITE 201, PALMER # 231-A, PARKVILLE, MO. 64151 (816) 741-4122

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National Golf Club of Kansas City Air Ambulance Emergency Heliport Feasibility & Site Selection Report

Provided by: HeliExperts International LLC

Report Date: September 9, 2016

Executive Summary

Site Selection

At the request of the National Golf Club of Kansas City, HeliExperts International LLC evaluated several locations located on the National Golf Club of Kansas City property and has, in collaboration with executive member's input, identified a primary site for development. Standards used to evaluate the site included all applicable Federal, State and local regulatory and code criteria as well as safety, functionality, longevity and proximity to adjacent properties.

Heliport Location

The proposed Air Ambulance Emergency heliport site involves a ground based position situated on property adjacent to the National Golf Club's Club House which is located approximately 590' to the East. The approximate location of the center of the heliport is estimated to be:

- Latitude: N – 39° 13' 08.19"
- Longitude: W – 094° 42' 35.65"

Heliport Dimensions

The size of the heliport and its supporting airspace i.e. TLOF, FATO and FATO Safety Area encompasses the following dimensions as outlined by the FAA in their Heliport Advisory Circular, AC 150/5390-2C:

- Touchdown and Liftoff Areas (TLOF): 46' Diameter
- Final Approach and Takeoff Area (FATO): 85' Diameter
- FATO Safety Areas (FSA): 115' Diameter



Conclusions

HeliExperts feasibility and site selection study has concluded that the selected location, with management's approval and appropriate site decisions, can lead to a safe cost-effective private ground based heliport. The required operational and safety plan and training that will be instituted at this location that will meet all Federal, State and Local requirements as well as industry best practices.

Key elements for this to be accomplished include the following:

- A properly designed site and heliport to support the prescribed dimensions and weight of the design helicopter.
- A heliport who's TLOF is slightly elevated above the surrounding area so as to allow for clear airspace within the heliports vicinity to the extent feasible.
- Adherence to all pertinent design, training and operational standards and criteria as outlined in the International Building Code, International Fire Code, and National Fire Protection Association for heliports. This includes all applicable Federal Aviation Administration regulations and guidance as well as identified industry best practices recommendations.

Items of Interest

- The heliport will function as a "Private" heliport with a prior permission requirement for conducting operations with the exception for air ambulance emergency helicopters which will not require prior permission.
- Operating procedures will be codified and published prior to helicopter operations being permitted. The club will administer oversight of enforcement of said operating procedures.
- The site will be designed, constructed and operated in accordance with all pertinent Federal Aviation Administration Regulations and best practice recommendations as well as all National Fire Protection Association (NFPA) pertinent requirements as published in NFPA-418, Standard for Heliports.
- The proposed site was chosen due to its capability to support a safe and regulatory compliant heliport. This along with its centralized location makes this site the preferred location within the confines of the National Golf Club of Kansas City's property.
- Collaboration between the Club and local first responders to include helicopter air ambulance providers will be accomplished so as to provide well thought out procedures for future emergency operations. Onsite hands on safety training will



be accomplished between first responders, helicopter operators and Club staff on an annual basis.

- Prior to the project moving forward, the club has stipulated that they will require a "Favorable Airspace Determination" be provided by the FAA.
- The Approach/Departure paths that have been identified were chosen so as to fully maximize those areas surrounding the heliport that are the least populated and will have the smallest impact on the public.
- The area surrounding the heliport will incorporate a security fence to assist in maintaining a secure location for helicopter operations. The fence will be installed in such a fashion so as to not be a hazard to helicopter operations but still provide adequate restraint to the curious bystander.
- The most common helicopters in the region used for air medical transport purposes are smaller than the "Design Helicopter used in determining the size of this heliport. The heliport was designed using the larger capacity "Design Helicopter" so as to assure that the heliport does not become antiquated or obsolete at some point in the future if larger emergency helicopters ever did begin to operate in the region.
- For nighttime operations the FAA requires that the heliport and the windsock be lighted. So as to limit any potential intrusion caused by the heliport lighting, pilot controlled lighting will be used in lieu of lighting that remains on during the hours of darkness. Pilot controlled lighting is lighting that the pilot can turn on only when he/she requires it utilizing his or her onboard radio. The lighting is designed to only be on during the time that the pilot needs it and is programmed to automatically turn off after 15 minutes.

Respectfully Submitted By

Raymond A. Syms
HeliExperts International LLC
Aeronautical Consultant

Rex J. Alexander
HeliExperts International LLC
Aeronautical Consultant

Heliport Feasibility & Site Selection Report

National Golf Club of Kansas City

6700 North National Drive
Parkville, MO 64118

September 9, 2016

Produced & Provided By



HELIEXPERTS INTERNATIONAL LLC.

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The HeliExperts Team

HeliExperts International LLC was formed in January 2012 with the merging of Raymond A. Syms and Associates LLC and RJ Alexander Consulting LLC. Collectively, the HeliExperts team offers more than 75 years of highly specialized aviation, helicopter and heliport expertise and experience. Both founding members are active participants and contributors to the aviation and helicopter industries in multiple arenas of governmental rule making, regulatory policy authoring, aviation infrastructure design, technical research, education, training, safety initiatives and risk mitigation strategies. HeliExperts team members have donated thousands of hours to and actively collaborate with the Federal Aviation Administration, National Fire Protection Association, National Transportation and Safety Board, Transportation Safety Institute as well as numerous other Aviation, Safety and Trade Organization and Groups and Associations. Both members assisted the Transportation Safety Institute in Oklahoma City in the development of the current Heliport Evaluation Training Course used to train FAA Inspectors throughout the U.S. on heliport evaluation practices and procedures.



Raymond A. Syms
Managing Member

Mr. Syms Possesses more than 45 years of military, general and commercial aviation experience as a pilot, instructor pilot, aviation manager, heliport developer, and aviation expert. Syms has qualified as an unchallenged aviation expert in federal, state and local courts in addition to official hearings and other regulatory proceedings. Additionally, Syms is the designer and primary author of the HAI Heliport/Vertiport Development Guide (a publication by the Helicopter Association International) and has spent more than 20 years serving on FAA and NFPA (National Fire Protection Association) committees that assist with authoring the FAA Heliport and Vertiport Design Advisory Circulars (the FAA's design recommendations for all heliports) and develop the NFPA Standards for Heliports (fire protection and safety standards for heliports). Syms is the current chair of the NFPA 418 Committee Standard for Heliports.

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Rex J. Alexander
Senior Consultant

Mr. Alexander possesses more than 30 years of military, general, and commercial aviation experience as a pilot, instructor pilot, safety manager, aviation regional manager, airframe and power-plant technician, heliport developer, educator, trainer, and aviation expert. Alexander has served as a board member and is a former President of both the National EMS Pilots Association (NEMSPA) and the Indiana State Association of Air Medical Services. Alexander has participated in numerous industry and government initiatives to include; NEMSPA National heliport safety survey, Model Air Medical State Guidelines Task Force, Heliport Risk and Liability Assessment Toolkit, FAA National Proposed Rule Making on HEMS and helicopter operations, and the NTSB hearings on Helicopter EMS operations and accident prevention. Mr. Alexander is a well-known and respected speaker lecturing throughout the United States and has published several well recognized industry articles on air medical, helicopter and heliport operations and safety.

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INTRODUCTION

The following study was conducted at the request of the National Golf Club of Kansas City to analyze the feasibility of establishing an air ambulance emergency private ground based helicopter landing site on its property located at 6700 North National Drive, Parkville, Missouri 64152. The study consisted of an on-site visit and evaluation, plus interviews with Corporate Management. During this process, we considered the following elements:

- Operational capabilities and limitations of the type and model of helicopter(s) that may potentially support this location currently and in the future.
- Required onsite operational space necessary to safely support the type, model and number of helicopter(s) that may potentially service this location currently and in the future.
- Airspace requirements necessary to support a safe and compliant heliport for flight operations into and out of this location for day and night VFR operations.
- Analysis of the overlying and surrounding special use airspace for any special operational considerations for flights conducted into and out of this geographic area.
- Regulatory and safety of flight requirements for state, federal, and local government aviation authorities as they would pertain to this location.
- Review of local zoning requirements and other applicable "By-Laws" provided by the client that may prohibit, restrict or otherwise significantly limit the proposed location.
- Review of on-site conditions to identify and suggest the most practical and cost-effective methods of construction.
- General assessment of the environmental impact on the surrounding community.
- Social, economic, and political analysis of the surrounding community as it would relate to the installation of a helicopter landing site at this facility.
- Determination of the time frame required to correctly evaluate the location, to process the various applications, and to obtain the necessary approvals and ultimately construct a helicopter landing site at this location.
- Analysis of the Climatological conditions that could potentially impact the proposed facility location.



EVALUATION CRITERIA

The site identified and recommended in this study for a potential heliport location was evaluated based on the consideration of the following criteria:

1. Safety (Ground & Air)
2. Aircraft Operational Requirements
3. Regulatory Approval Potential
4. Community Interface Considerations
5. Community Access to Emergency Air Medical Transport
6. Climatological Constraints
7. Security
8. Special Use Airspace Considerations

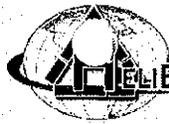
1. SAFETY (Ground & Air)

The issue of safety, not only from the standpoint of the occupants of the helicopters but also the individuals residing in the building as well as those on the ground and in the surrounding area are a primary consideration in identifying potential landing sites. While the probability of an accident occurring is very remote, it is critical to factor this possibility into every site location consideration and decision. Sound aviation practices require a very detailed and in-depth evaluation of not only the physical characteristics of the heliport itself but also the surrounding area and supporting infrastructure. Thus, a major emphasis is placed on an intensive evaluation of the available helicopter maneuvering space in addition to the availability of the required clear unobstructed approach and departure paths.

2. HELICOPTER OPERATIONAL REQUIREMENTS

This category takes into consideration the unique flight characteristics and requirements of the type and model of helicopters that will be employed at this site. Specific physical dimensions of the helicopters are used to determine the required size of the heliport needed as well as the maneuvering space required for safe operations. Helicopter manufacture performance charts are used to determine the climb characteristics and worst-case operational performance conditions, i.e., high ambient temperatures, high density altitude and maximum loading of the helicopter that can be expected.

The "Design Helicopter" is a value that reflects the FAA recommendations for heliports. HeliExperts can provide a separate briefing document regarding this topic. Additional information on this topic can also be found in the Federal Aviation Regulation section of this report.



3. REGULATORY APPROVAL POTENTIAL

There are three primary levels of government that will, in one manner or another, influence any final site selection. The federal government is responsible for a determination of the efficient use of airspace and any possible airspace conflicts with other air traffic in the vicinity. As a state, the Missouri Department of Transportation (MoDOT) Multimodal Aviation Division recommends the use of the FAA heliport design advisory circular in locating and constructing new heliports but does not have a formalized application and permitting process for private facilities. MoDOT officials use the FAA Advisory Circular "Heliport Design" as their primary evaluation guideline on the design and location of heliport facilities. The City of Parkville and Platte County concerns will primarily be focused on zoning, fire protection, building codes, environmental and community issues.

4. COMMUNITY INTERFACE CONSIDERATIONS

Through the efforts of the National Golf Club of Kansas City's planning team the general misperceptions and misunderstanding that HeliExperts has commonly witnessed over the years regarding helicopter transport from the various entities within a community have chiefly been addressed. Concerns that have arisen regarding safety, noise, environmental impact, and property values, through active education and an appropriate proactive integration plan, have, for the most part, been properly identified and dealt with before they have become public issues.

5. COMMUNITY ACCESS TO EMERGENCY AIR MEDICAL TRANSPORT

In many communities around the country, both urban and rural, air ambulance helicopters land under less than optimum conditions at off airport scene locations during all hours of the day and night. These locations are non-permanent sites that are hastily set up by first responders only minutes prior to a helicopters arrival, often during the hours of darkness. These locations are greatly influenced by weather conditions and the changing seasons, often times making them a more hazardous environment for everyone involved. To improve safety and provide a rapid means for delivering lifesaving care during times of crises, many community leaders are working locally to identify areas that will support a permanent well established site for helicopter operations during all hours of the day and night that is always ready and always prepared.

6. CLIMATOLOGICAL CONSTRAINTS

The concept and practice of all helicopter operations can be significantly influenced by a region ever changing weather conditions which can prohibit safe flight operations under certain conditions. Site specific historical analysis using empirical weather data is necessary to determine the suitability of any general location to insure it encompasses the safe operational requirements necessary to assure the highest percentage of usability possible for any given day.

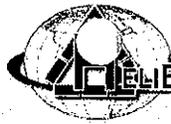


7. SECURITY

A concern expressed by many individuals is the inadvertent entry of members of the public or non-authorized persons to a secure area where a helicopter may be operating. Adequate security measures must be in place to assure the safety of the helicopter, its crew and the public as a whole. Assuming that there will be occasions that may arise wherein the helicopter will remain unattended, even for short periods of time, the project has been evaluated as to the possibility of the helicopter being exposed to anything from the curious onlookers, to vandalism and yes even terrorism.

8. SPECIAL USE AIRSPACE CONSIDERATIONS

In many locations throughout the United States specific areas have been designated with airspace that has been classified as "Special Use". These types of special use airspace often times pose limitations as to who may operate within their boundaries and when to the extent of requiring additional training, radio communications and written authorization up to and including refusal to entry. Types of special use airspace evaluated for the purposes of the establishment of a heliport are: Restricted Airspace, Prohibited Airspace, Military Operations Areas, Waring Areas, Alert Areas, Temporary Flight Restriction (TFR), National Security Areas, and Controlled Firing Areas.



ANALYSIS DETERMINATIONS

TOPICS

1. Site Selection & Operational Needs
2. Aviation Regulatory Considerations
3. Local Regulations & Zoning Requirements
4. Community Effects
5. Airspace Utilization
6. Climatological Considerations
7. Safety
8. Environmental Concerns
9. Special Use Airspace Considerations

1. SITE SELECTION & OPERATIONAL NEEDS

The National Golf Club of Kansas City requested an independent, qualified and unbiased professional investigation for locating a private prior permission required ground based helicopter landing site at its property located at its 6700 North National Drive in Parkville, Missouri. The heliports primary purpose is to support local emergency responders during times of crisis and emergency operations. The first criterion used in this selection was the overall suitability of the property for heliport development coupled with the basic operational needs as determined from the interviews and inventory process.

The initial heliport needs assessment also included the following items:

1. The heliport site should anticipate night operations at some point in the future.
2. An on-site hanger facility, fueling system and or servicing area for the helicopter at this location is not anticipated.
3. A helicopter will not be based at this facility.
4. Any community relationship and interface issues are to be included with the site selection criteria.
5. The potential helicopter sound and noise effects on the community and the immediately adjacent buildings need to be considered.
6. For the purposes of this study the "Design Helicopter" selected was the AgustaWestland AW-139. The AW-139 maximum gross weight potential is 14,991 pounds with a rotor diameter of 45.3' and an overall length of 54.5'. The majority of the potential helicopter types and models currently in use in the air ambulance, along with civilian, and corporate industries within the region will be capable of safely operating at this facility.



Community interface issues have the greatest potential for disruption or outright failure of any heliport regulatory approval process. This will be discussed in more detail later in the report.

2. AVIATION REGULATORY CONSIDERATIONS

Federal Regulations

The heliport that the National Golf Club of Kansas City is considering to establish is not covered directly by the Federal Aviation Administration Regulations, which pertain predominantly to those installations designed for Public-Use, or publicly funded heliports. The design of the heliport can, however, take full advantage of all the safety and efficiency aspects identified in the FAA guidelines. The FAA guidelines are very detailed regarding the heliport area in addition to the clear airspace which a site must possess to be considered adequate for safe helicopter operations to take place. An initial investigation of the site reveals the proposed heliport location would have the ability to meet these parameters.

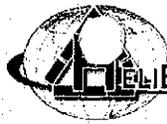
The FAA will, upon the mandatory notification by the proponent of their desire to establish a heliport on or in the general area of their property, initiate an airspace study of the surrounding vicinity of the proposed site. The FAA will ascertain whether the proposed heliport, at the suggested site, would have any detrimental effects upon the safe and efficient use of the surrounding airspace. After a preliminary application of the appropriate FAA airspace criteria and existing area traffic, initial indications regarding the establishment of a heliport on the grounds of the National Golf Club of Kansas City indicates a favorable FAA determination can be anticipated.

HeliExperts recommendation is for the heliport's Touchdown and Liftoff Area (TLOF) to be 46' x 46' and designed for a minimum helicopter gross weight of 15,000 lbs.

Upon the client's decision to proceed an FAA application can be filed rather quickly using the preliminary data from this report and other available information. The processing time and site visit from an official FAA representative varies from region to region, taking from three weeks to several months. Based on past experience, our close follow-up with the regional and local FAA offices has kept this time frame to an average of six weeks to 2 months on those projects with short time constraints.

State Regulations

In so much as there are no direct regulations governing private heliport oversight in the State of Missouri by the Missouri DOT other than those for hospitals, we will adhere to their recommendation to follow the guidance provided by the FAA in the heliport design advisory circular AC 150/5390-2C. The National Golf Club of Kansas City's Heliport project plans have been found to be in compliance with the FAA standards.



3. LOCAL REGULATIONS AND ZONING REQUIREMENTS

Fire Code

Over the years the National Fire Protection Association (NFPA) has integrated numerous common sense safety criterion based on various lessons learned from historical data which have been shown to enhance overall heliport safety throughout the United States. This not only applies to the helicopter operators and their passengers but also to the general public at large. NFPA-418, Standard for Heliports, is mandatory for all new or upgraded heliports and the National Golf Club of Kansas City will adhere to and take full advantage of all pertinent code requirements pertaining to their heliport project as outlined in NFPA-418.

As of January 2011, NFPA-418 requires a heliport to meet all relevant portions of the FAA Heliport Design Advisory Circular (FAA AC 150/5390-2C) for both new and modified heliports. The local Fire Marshall and code officials will use this information as their guide on the physical plant and operational issues dealing with the heliport application. The latest revision of NFPA-418, which was released in January 2016, requires that the Emergency Response Plan be approved by the AHJ for which the National Golf Club of Kansas City intends to conform.

At an appropriate date in the future, a suitable heliport safety presentation to the local land-use and public safety officials will be scheduled. Given the unique issues present at almost all heliports and the broad range and variety of land-use regulatory responses that have been seen in the past at other sites, a collaborative well-orchestrated effort in creating a professional and well thought out safety program between all stake holders involved will be essential for success.

By experience, the indication that the National Golf Club of Kansas City heliport may be treated as an accessory use means it is essentially a permitted use heliport, and the levels of permits required is typically at the minimal level. It is however up to the local officials to determine what exact permits, public hearings or other procedures they will require. There should be no difficulty in the recommended ground level site currently being considered being fully accepted by the FAA.

4. COMMUNITY EFFECTS

A very detailed and intensive inventory of the surrounding land uses and the overall nature of the area was taken. In addition, the potential impact the heliport may have on the surrounding community was also considered.

There are a substantial number of noise generating devices incorporated at all golf courses for the purposes of providing continuous care and maintenance and this location is no exception. These devices include but are not limited; leaf blowers, weed eaters, lawn mower, and various other types of equipment. An additional contributing factor to the background noise environment at this location is the continuous air traffic from the



Kansas City International Airport (KMCI) 4.7 miles North and Kansas City Downtown Airport (KMKC) 7.9 miles south. Given these preexisting conditions, a properly designed heliport location in conjunction with supporting approach/departure paths to the east and the south, should not pose any community interface issues.

Proper heliport site selection, design, and operational policies will provide for an additional reduction in any actual or perceived negative effects upon the surrounding community. A special amount of attention was given to the possible effects caused by the location proposed.

5. AIRSPACE UTILIZATION

Inventory of Current Aviation Facilities in the Vicinity

After close review of the current FAA 5010 Airport Master Record Database, the nearest public use aviation facility to the property is the Kansas City International Airport (KMCI) which is located approximately 4.7 nautical miles to the North. The nearest private aviation facility to the property is the St Luke's Northland Hospital Heliport (MO63) which is located approximately 3.6 nautical mile to the Northeast. There are an additional 7 heliports and 3 airports listed with the FAA in the Airport Master Record Database that are located within a 10 nautical mile radius of the proposed site location. Due to the favorable location and distances from these sites, this heliport will meet all FAA requirements for airspace and there is no perceived negative impact that will be caused by a heliport established at this location.

Heliport Airspace Requirements

To understand what defines the required airspace needed to safely support a heliport, Federal Regulations define three specific airspace categories for a heliport.

- **Primary Surface:** The area of the primary surface coincides in size and shape with the designated take-off and landing area. This surface is a horizontal plane at the elevation of the established heliport elevation.
- **Approach Surface:** The approach surface begins at each end of the heliport primary surface with the same width as the primary surface, and extends outward and upward for a horizontal distance of 4,000 feet where its width is 500 feet. The slope of the approach surface is 8 to 1 for civil heliports.
- **Transitional Surfaces:** These surfaces extend outward and upward from the lateral boundaries of the primary surface and from the approach surfaces at a slope of 2 to 1 for a distance of 250 feet measured horizontally from the centerline of the primary and approach surfaces.



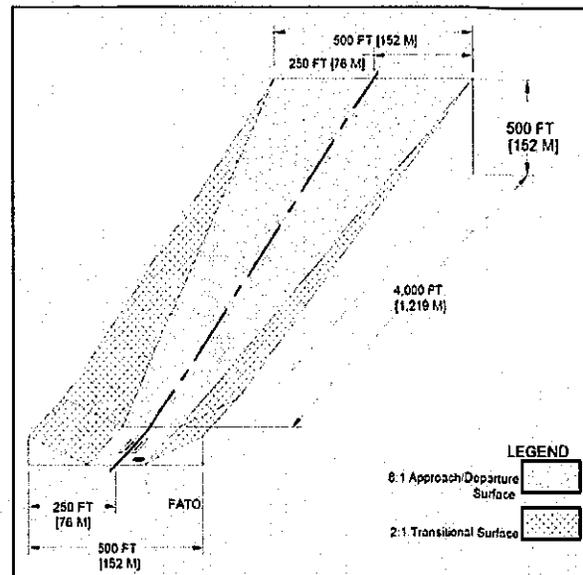
The FAA AC 150/5390-2C, Heliport Design Guide, further breaks down the “Primary Surface” into to three specific components for operational and obstruction evaluation purposes.

- **Touchdown and Liftoff (TLOF).** A load-bearing, generally paved area, normally centered in the FATO, on which the helicopter lands and/or takes off.
- **Final Approach and Takeoff (FATO).** A defined area over which the pilot completes the final phase of the approach to a hover or a landing and from which the pilot initiates takeoff. The FATO elevation is the lowest elevation of the edge of the TLOF.
- **Safety Area.** A defined area on a heliport surrounding the FATO intended to reduce the risk of damage to helicopters accidentally diverging from the FATO.

The Approach/Departure path is the flight track helicopters follow when landing at or departing from a heliport. The approach/departure paths may be straight or curved.

The two defined airspace surfaces of an approach/departure path that must be kept free of obstructions to meet FAA airspace criteria are identified in the FAA Heliport Advisory Circular, AC 150/5390 2C as the 8:1 Approach/Departure Surface and the 2:1 Transitional Surface.

The airspace surface identified as the Approach/Departure surface, is an unobstructed imaginary 8:1 (7.125°) plane starting at the edge of the FATO, at FATO height and FATO width which extends out to 4,000' horizontally to an altitude 500' above the horizontal FATO plane to a total width of 500' wide.



FAA AC 150/5390-2C Figure 2-7
VFR Heliport Approach/Departure and Transitional Surfaces.

The airspace surface identified as the transitional surface, is an unobstructed imaginary 2:1 (26.5°) plane surrounding the FATO which starts at the edge of the FATO at FATO height extending out to 250' horizontal in a 360° arch from the center of the FATO which includes that area which is parallel to the 8:1 approach/departure surface within 250' of either side of the approach/departure center line and extends along the entire length of the 4,000 feet of the approach/departure path.



Airspace Rights & Ownership

In the United States property rights of an owner go from the ground level up to infinity. The U.S. Government, with the FAA being the designated agency, oversees all airspace not occupied by a structure. The FAA sets criteria for obstructions within airspace for the general public.

The FAA requires notice for all structures greater than 200' above ground level as well as other lower structures close to public or military facilities. The FAA "DOES NOT" require notice for structures in the vicinity of private airports and heliports with the exception of those facilities having an instrument procedure.

FAA determination related to obstacles on private property is advisory only. Hence, compliance by the FAA is "NOT" required in the cases of private facilities.

If the obstacle is a radio tower or another transmitter platform an FCC license is required. The FCC requires that applicants follow the FAA guidelines and have a "No Objection" Determination from the FAA. If the structure is allowed by the local zoning and building code authorities, (to include variances) the FAA "CANNOT" and "WILL NOT" prevent construction.

Many local land-use authorities require an FAA determination to be sought and complied with for issuing zoning and building permits. It is therefore the local authority who is the enforcer in these instances and not the FAA, but only to the extent provided for by law and local land use zoning criteria.

Airspace Protection

To protect the airspace of a private use heliport the owner has two general courses of action at their disposal. The first being the adoption of local zoning rules by the local regulatory body that would restrict the height of any future building/object construction within the designated supporting airspace of the heliport in question. General guidance on drafting an ordinance that would limit building and object heights can be found in FAA Advisory Circular AC 150/5190-4, A Model Zoning Ordinance to Limit Height of Objects Around Airports.

The second option to protect private use airspace is the adoption of air rights and property or "Avigation Easements". An Avigation Easement is a conveyance of airspace over another property for use by the heliport. The owner of an easement-encumbered property (servient property) has restricted use of their property subject to the heliport sponsor's easement (dominant property) for overflight and other applicable restrictions on the use and development of the servient parcel.

Easement rights acquired typically include the right-of-flight of aircraft; the right to cause noise, dust, etc.; the right to remove all objects protruding into the airspace together with the right to prohibit future obstructions or interference in the airspace; and the right of



ingress/egress on the land to exercise the rights acquired. The avigation easement on the property shall "run with the land" and any future owner's use of the servient parcel is also restricted as described in the avigation easement.

It is the same basic legal agreement one would use for a driveway or other easement but in this case it deals with a three-dimensional corridor in the air and not on the ground.

The grantor of the easement in this case does not control the airspace, only the FAA is allowed to control airspace in the U.S. for the benefit of the general public. The easement is an agreement that the owner of the property will not erect any structure(s) within that desired airspace, hence waiving their right to the development of said airspace.

The use of air rights and property easements are viable options that can help to "Reserve" a heliports supporting airspace to prevent the encroachment of obstacles in the vicinity at a future date.

6. CLIMATOLOGICAL CONSIDERATIONS

Of primary importance in selecting an appropriate site for an aeronautical facility are the prevailing winds, cloud cover and horizontal visibility. The prevailing winds greatly influence the approach and departure routes to and from a facility. The general orientation of the touchdown area is, to some degree, also related to the prevailing wind direction. The historic wind data for the general area indicates the suggested heliport sites and plans are compatible with the prevailing winds.

Cloud cover and visibility can, of course, affect the operation significantly. The location and design of the heliport take advantage of these Climatological considerations and no problems are perceived in this area. If the weather conditions are such to pose a safety or comfort issue, flights will either be turned down prior to acceptance or canceled enroute by the pilot in command.

7. SAFETY

The proposed location possesses all of the components which meet or exceed the recognized safety standards of the FAA, State of Missouri, Kansas City and the aviation industry in general. This includes the complete compliance with the NFPA-418 and adopted local building codes and standards.

The FAA completed a study in August of 1991 entitled "Analysis of Helicopter Accident Risk Exposure at Heliports, Airports and Unimproved Sites" FAA /RD 90/9. The results of this study statistically derived that there is a once in every 432-year probability exposure of a helicopter accident in a community where a heliport is located. Using NTSB (National Transportation Safety Board) and FAA real-life historical heliport safety data on over 40 years of records for properly designed and operated private use heliports of the type considered here; those facilities have had a PERFECT safety record as it relates to



physical risk to any members of the general public or anyone in the surrounding community.

8. ENVIRONMENTAL CONCERNS

Exhaust Emissions, Dust and Lights

Today's modern aircraft, such as the helicopters that would operate at the proposed facility, are powered by gas turbine engines which produce very few pollutants. Much of this is due to the engine's high combustion temperatures and its ability to burn fuel very efficiently.

Due to the low amount of emissions from helicopter turboshaft engines, the most widely used, these engines are exempt from Engine Emission Certification requirements of the Federal Aviation Administration and Foreign Civil Aviation Authorities specified in the Federal Aviation Regulations (FARS) and the International Civil Aviation Organization (ICAO) Annex 16 Volume II.

In layman's terms, the exhaust of the helicopter is essentially invisible and due to the temperature difference with the surrounding air it rises and dissipates very rapidly. Another major factor is the natural dispersal of helicopter exhaust both by the helicopter's relative distance from members of the general public and the subsequent effect the rotor system has on the exhaust itself.

While there is minimal odor associated with the exhaust, it is detectable only while the helicopter is on the heliport and then only within a few feet of the helicopter. Under all proposed conditions, no member of the surrounding community would be normally aware of any odors or effects from the exhaust emissions during the operation of the proposed heliport.

While helicopter exhaust is an issue that needs to be inventoried in regards to a buildings HVAC system, there is methodology within conventional HVAC technology that has had success in mitigating the helicopter exhaust ingestion issue when necessary. This is an issue that all elevated or even ground based heliports in close proximity to buildings need to take into account.

The approach/departure paths for the helicopter at an average climb/approach speed of 70 mph has the helicopter spending less than 45 seconds in the climb out or approach phase of normal flight. A truck would need about two minutes for travel by roads to cover the same approximate distance providing there were no stops for traffic or traffic signals.

The helicopter does not discharge or leak any oil or fuel in the normal course of operation. The likelihood of any fuel spill is very remote. All of the fuel discharges on records of the FAA and NFPA have been associated with fueling or maintenance operations, which will not occur at this location.



There are no lights associated with the heliport that will create a beam of light offsite. The windsock lights, obstruction lights and lights around the heliport are designed to be glare-free and not produce any direct "beams" of light for illumination off the heliport. The heliport lights will be limited to the small period of time the heliport is actually in use.

Noise & Acoustic Considerations

The sound level of the helicopter that would utilize the proposed facility is far below that of many accepted noise producers in the surrounding environment. Trains, jet airliners, ships, lawn equipment, leaf blowers, chain saws, tractors, irrigation pumps, vacuum cleaners, hair dryers, motor cycles, buses, trucks, and cars all regularly produce noise levels higher than that which the average person would perceive when they hear a helicopter.

The relative distance, nature and intensity of the noise generated, height above the ground, type and vintage of the aircraft, sound attenuation factors of the terrain between the source and the receptor are all factors in the way sound is perceived. Older, heavier military helicopters are very different from the more modern, light, efficient and much quieter civil helicopters utilized by the vast majority of air ambulance, corporate and executive helicopter transport community.

It must be kept in mind that the proposed helicopter activity represents an extremely transitory sound in nature. The entire sound event only last for approximately 45-60 seconds either on landing or takeoff. At any one point along the flight route, providing the observer is close enough to hear or notice it, the helicopter will typically only be heard for about 20 seconds or less. This compares very favorably with sounds already found in most metropolitan, urban and neighborhood settings. The sounds from a well-planned landing area that have appropriately factored in distances in its site selection can result in the sound level at sensitive receptors being typically equal to or less than the current sounds already in the community.

There are few active recreational or transportation activities in the modern world that are completely silent. Historically, the vast majority of heliports do not have any detrimental quality of life issues with the neighboring land-uses.

9. Special Use Airspace Considerations

While the proposed location at the National Golf Club of Kansas City does not reside directly within an FAA designated Restricted or Prohibited area it is however located under the supporting airspace for the Kansas City International Airport. Based on early findings and our assessment of the site location, a favorable letter of agreement with the FAA facility at the Kansas City International Airport is anticipated.



RECOMMENDATIONS

SUMMARY

The following is an Executive Summary pertaining to the feasibility and site selection study and design considerations conducted by HeliExperts International LLC for a proposed Private-Use, ground based, Prior Permission Required heliport to be incorporated on the grounds of the National Golf Club of Kansas City located at 6700 North National Drive, Parkville MO 64118.

SITE SELECTION

At the request of the National Golf Club of Kansas City, HeliExperts International LLC evaluated several locations located on the National Golf Club of Kansas City property and has, in collaboration with executive member's input, identified the primary site for development. Standards used to evaluate the site included all applicable Federal, State and local regulatory and code criteria as well as safety, functionality, longevity and proximity to adjacent properties.

HELIPORT LOCATION

The proposed heliport site involves a ground based position situated on property adjacent to the National Golf Club's Club House which is located approximately 590' to the East. The approximate location of the center of the heliport is estimated to be:

- Latitude: N – 39° 13' 08.19"
- Longitude: W – 094° 42' 35.65"

HELIPORT DIMENSIONS

The size of the heliport and its supporting airspace i.e. TLOF, FATO and FATO Safety Area encompasses the following dimensions as outlined by the FAA in their Heliport Advisory Circular, AC 150/5390-2C:

- Touchdown and Liftoff Areas (TLOF): 46' Diameter
- Final Approach and Takeoff Area (FATO): 85' Diameter
- FATO Safety Areas (FSA): 115' Diameter

**Note: Nothing is allowed to penetrate the horizontal plane that constitutes the TLOF/FATO horizontal surface area except the heliport perimeter lighting, which can only extend to a maximum height of 2" above the horizontal TLOF/FATO plane.*



HELIPORT AIRSPACE

The proposed site location is entirely capable of supporting one fully compliant standard approach/departure flight paths to the south which meets the requirements set forth by the FAA for private-use heliport facilities. A functional secondary approach/departure path has been identified to the east which will help assure expanded utilization capabilities during varying wind conditions. Due to vegetation under this flight path this approach/departure path will not meet the 8:1 guideline for a standard approach/departure path but is within the criteria for an FAA determination for a nonstandard approach/departure path. This nonstandard flight path will require the implementation of a power limitation such that helicopter pilots will need to verify that they have what is known as Hover Out of Ground Effect (HOGE) power available before utilizing this approach/departure path.

The predominant winds, based on readings provided by the National Oceanic and Atmospheric Administration (NOAA) taken between 2002 and 2011 at the Kansas City International Airport show specific concentrated directions from the S, SSE, SSW and the NNW. This will favor an East and South approach/departure path.

The prospective ground based heliport located on the National Golf Club of Kansas City property presents an excellent location which will allow for excellent access to emergency vehicles and first responders as well as the main club house and other surrounding local amenities.

Historically, the longest lead times for heliport approvals has been with the local land-use authorities and the aviation approvals with the FAA have always fallen nicely within the minimal time frames. Once the sites preliminary design studies have been completed HeliExperts can suggest using one of its proven strategies for acceptance and hopefully support from the local public safety officials.



CONCLUSION

HeliExperts feasibility and site selection study has concluded that the selected location, with management's approval and appropriate site decisions, can lead to a safe cost-effective private ground based heliport. The required operational and safety plan and training that will be instituted at this location that will meet all Federal, State and Local requirements as well as industry best practices.

Key elements for this to be accomplished include the following:

- A properly designed site and heliport to support the prescribed dimensions and weight of the design helicopter.
- A heliport who's TLOF is slightly elevated above the surrounding area so as to allow for clear airspace within the heliports vicinity to the extent feasible.
- Adherence to all pertinent design, training and operational standards and criteria as outlined in the International Building Code, International Fire Code, and National Fire Protection Association for heliports. This includes all applicable Federal Aviation Administration regulations and guidance as well as identified industry best practices recommendations.

Respectfully Submitted By

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National Golf Club of Kansas City Feasibility & Site Selection Report: 9/8/2016
Exhibit-A: Inventory of Local Airports and Heliports Within 10NM

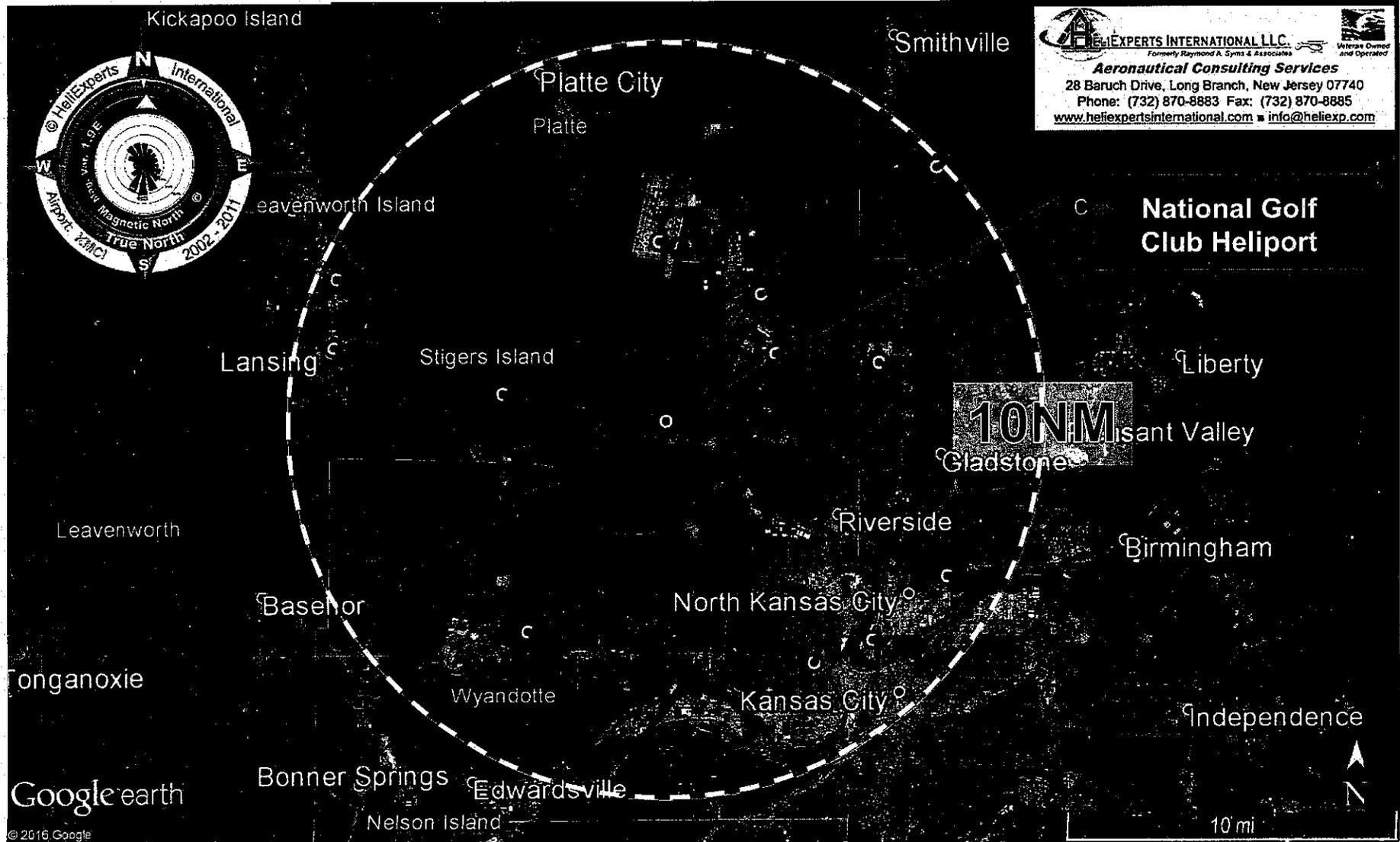
There are 8 Heliports and 4 Airports (Public, Private and Military) on record and listed in the FAA 5010 Airport Master Record database located within a 10 nautical mile radius of the National Golf Club of Kansas City proposed heliport site located at:

Address: National Golf Club of Kansas City
 6700 N National Dr
 Parkville MO 64118

Coordinates: Latitude: N – 39° 13' 08.19"
 Longitude: W – 094° 42' 35.65"

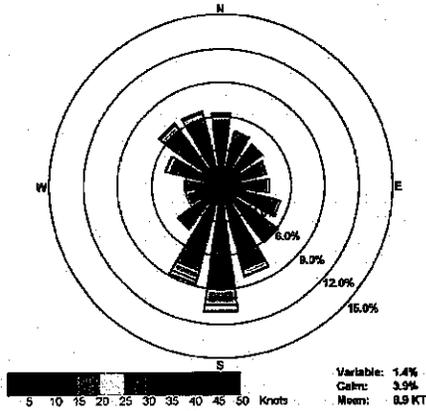
ID	CITY	AIRPORT/HELIPORT NAME	WHERE
MO63	KANSAS CITY, MO	ST LUKE'S NORTHLAND HOSPITAL HELIPORT	3.6 nm NE
72MU	KANSAS CITY, MO	EXECUTIVE HILLS POLO CLUB HELIPORT	4.1 nm NE
06MO	WALDRON, MO	NOAH'S ARK AIRPORT	4.4 nm W
MCI	KANSAS CITY, MO	KANSAS CITY INTERNATIONAL AIRPORT	4.7 nm N
19MO	KANSAS CITY, MO	NORTH PATROL DIV STATION HELIPORT	5.8 nm ENE
6KS9	KANSAS CITY, KS	PROVIDENCE MEDICAL CENTER HELIPORT	6.6 nm SSW
SN79	KANSAS CITY, KS	MUNICIPAL OFFICE BLDG HELIPORT	7.5 nm SSE
MKC	KANSAS CITY, MO	CHARLES B WHEELER DOWNTOWN AIRPORT	7.9 nm SE
83MO	NORTH KANSAS CITY, MO	NORTH KANSAS CITY HOSPITAL HELIPORT	8.5 nm ESE
SN60	LANSING, KS	LCF HELIPORT	9.0 nm WNW
SN01	LEAVENWORTH, KS	DWIGHT EISENHOWER VA MEDICAL CENTER HELIPORT	9.1 nm WNW
79MU	SMITHVILLE, MO	DUNHAM PRIVATE AIRPORT	9.8 nm NE

National Golf Club of Kansas City Feasibility & Site Selection Report: 9/8/2016
Exhibit-B: Inventory of Local Airport & Heliports within 10NM

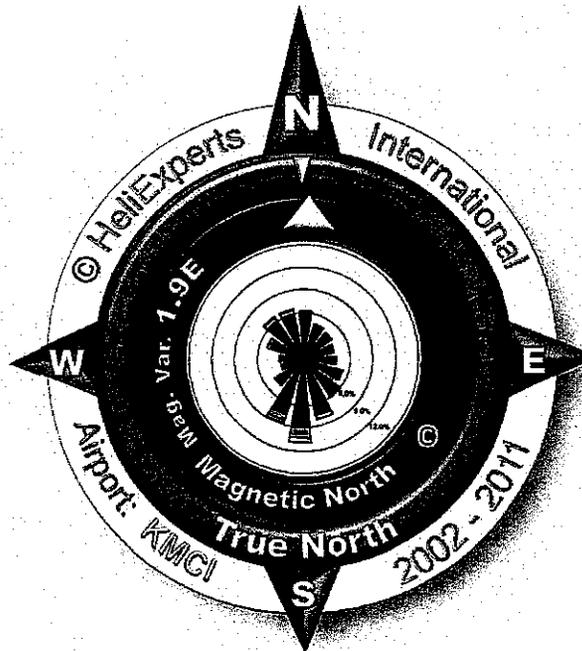


National Golf Club of Kansas City Feasibility & Site Selection Report: 9/8/2016
Exhibit-C: Local Wind Patterns at Kansas City International Airport (2002-2011) & Local Magnetic Declination

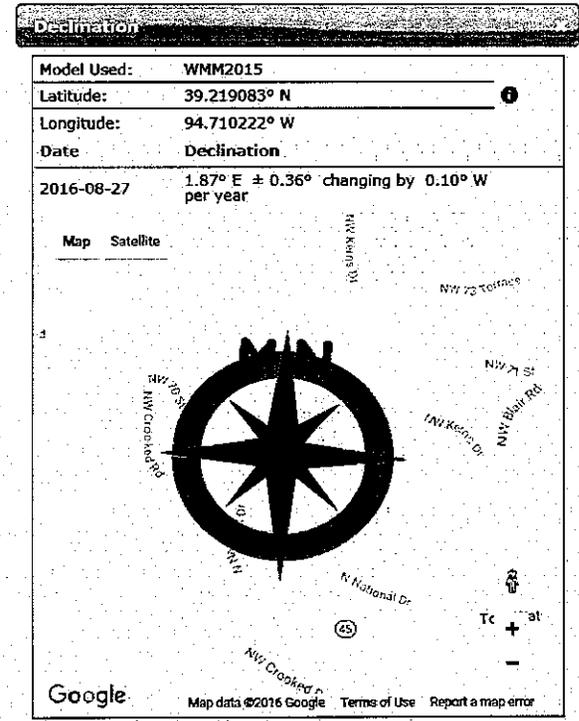
KANSAS CITY INTERNATIONAL AIRPORT
 10-year summary: 2002 - 2011



Local wind speed and direction variability
 10-year summary from NOAA



HeliExperts site specific Wind & Compass
 Rose for both Magnetic and True North

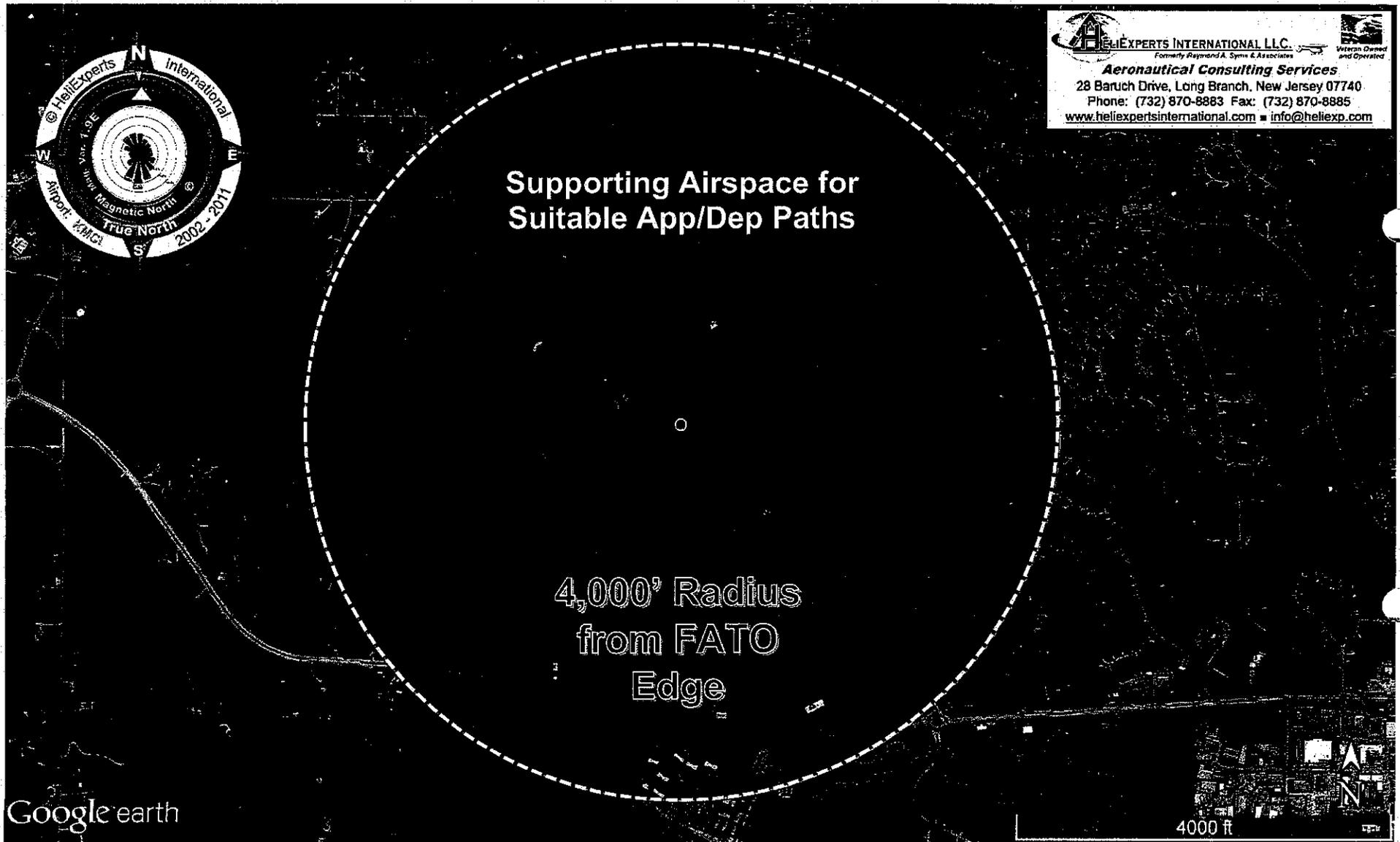


Site magnetic declination as of 8/27/2016

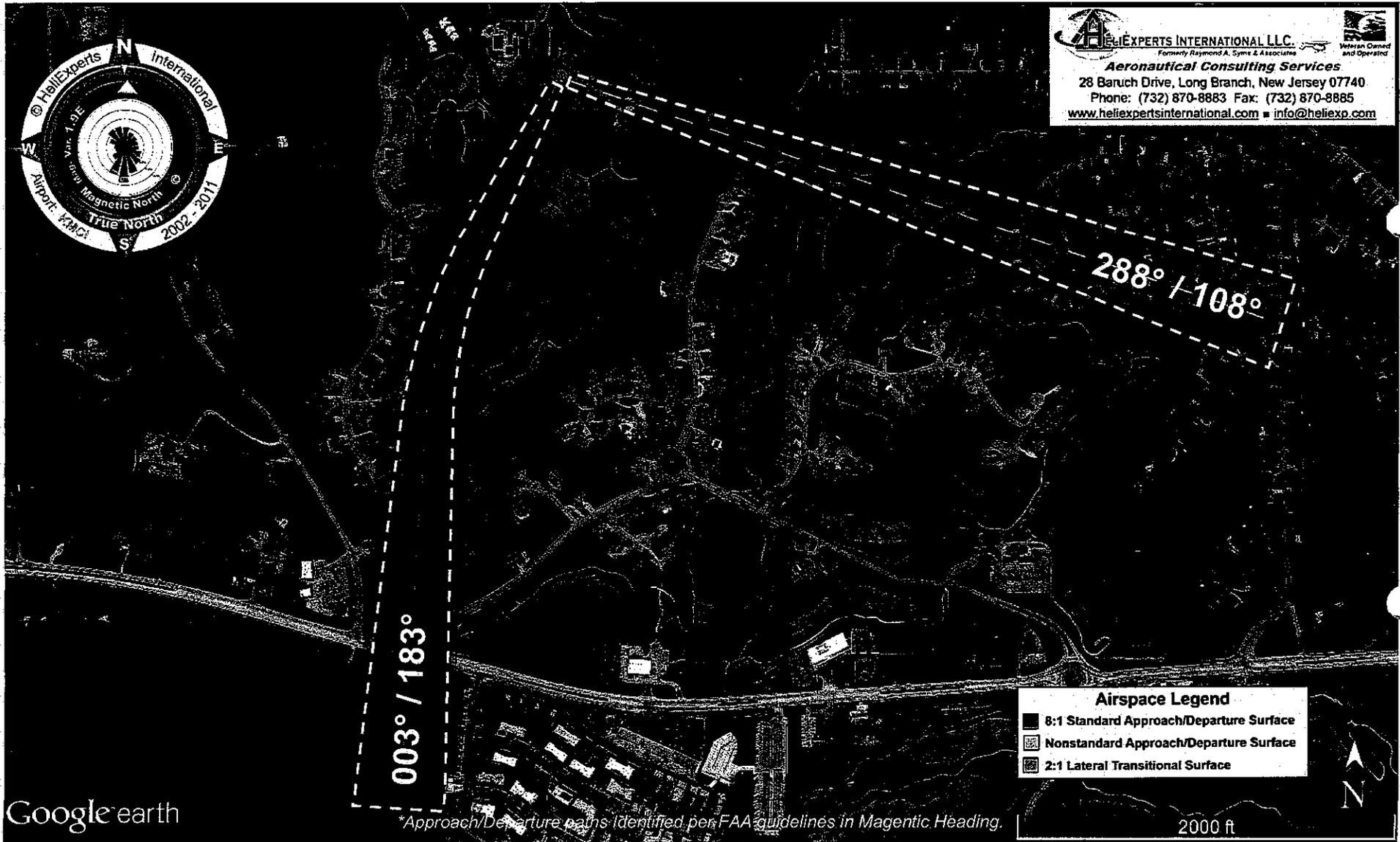
National Golf Club of Kansas City Feasibility & Site Selection Report: 9/8/2016
 Exhibit-D: Local Airspace Overlay (Kansas City Sectional)



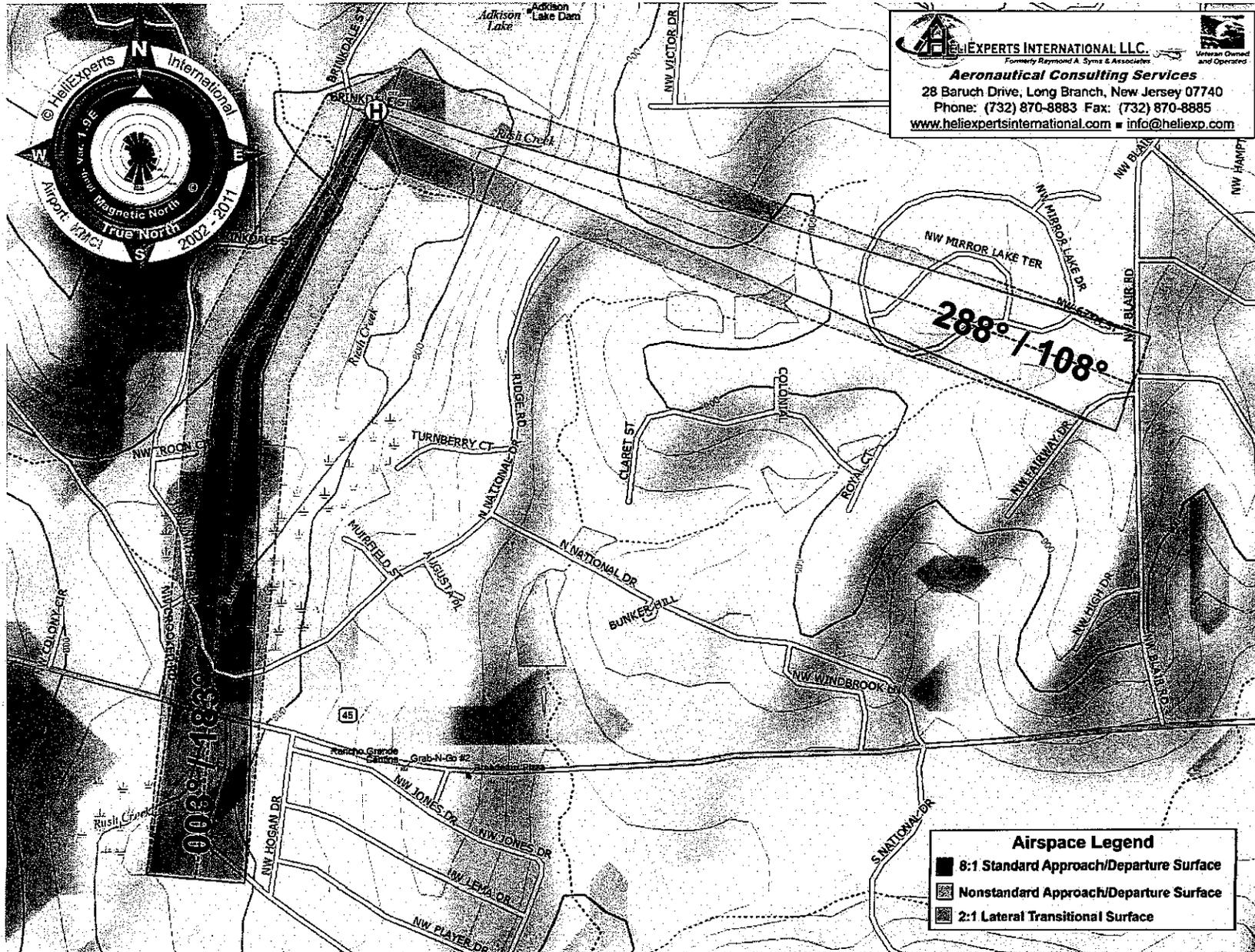
National Golf Club of Kansas City Feasibility & Site Selection Report: 9/8/2016
Exhibit-E: Supporting Airspace for VFR Approach/Departure Paths



National Golf Club of Kansas City Feasibility & Site Selection Report: 9/8/2016
Exhibit-F: Proposed Approach/Departure Paths Airspace Overlay (High Altitude View)

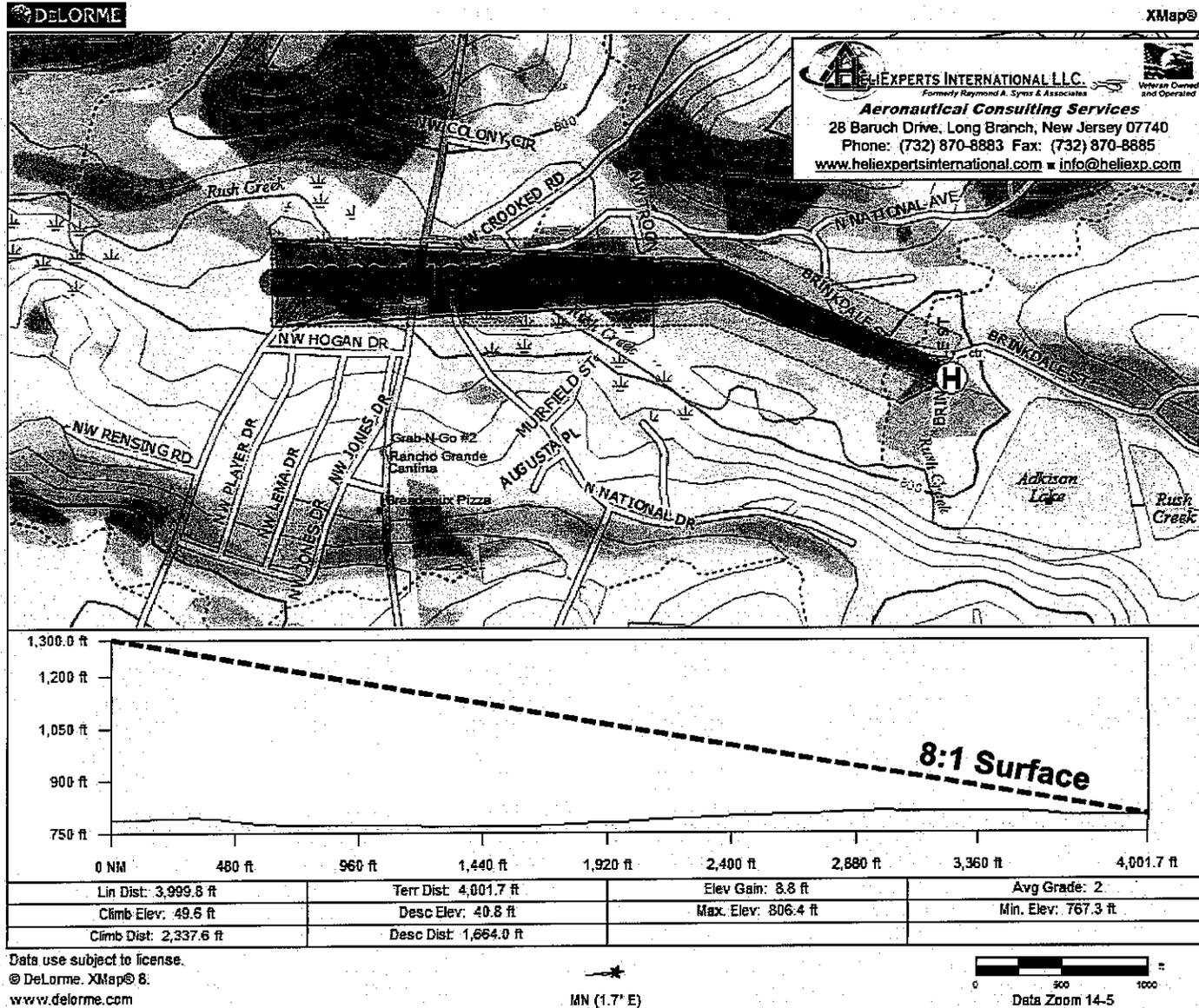


National Golf Club of Kansas City Feasibility & Site Selection Report: 9/8/2016
Exhibit-G: Proposed Approach/Departure Path Topographical Overlay



National Golf Club of Kansas City Feasibility & Site Selection Report: 9/8/2016

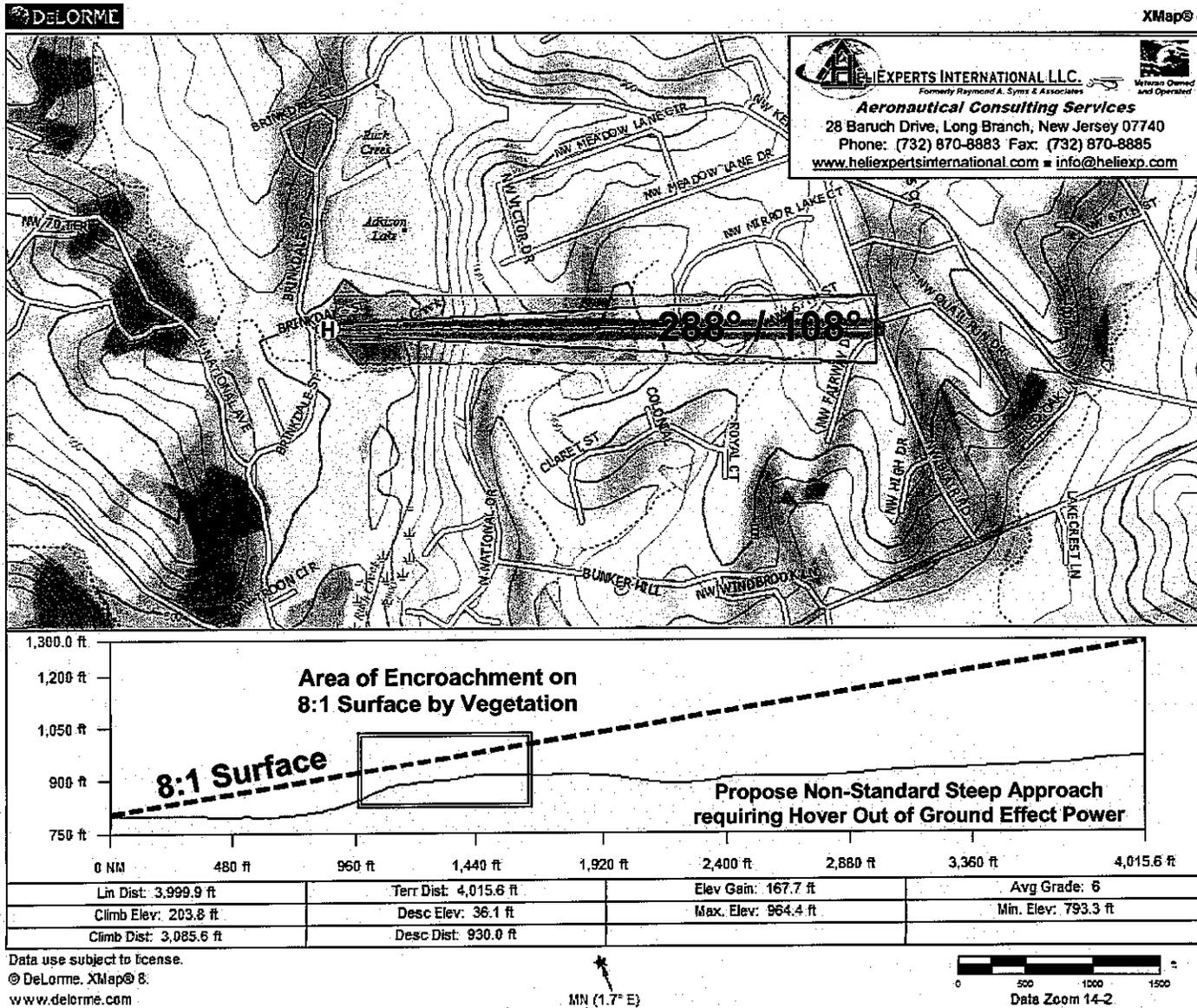
Exhibit-H: 003° / 183° Approach/Departure Path Topographical Profile



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Aeronautical Consulting Services
 28 Baruch Drive, Long Branch, New Jersey 07740
 Phone: (732) 870-8883 Fax: (732) 870-8885
 www.helixexpertsinternational.com ■ info@helixexp.com

National Golf Club of Kansas City Feasibility & Site Selection Report: 9/8/2016

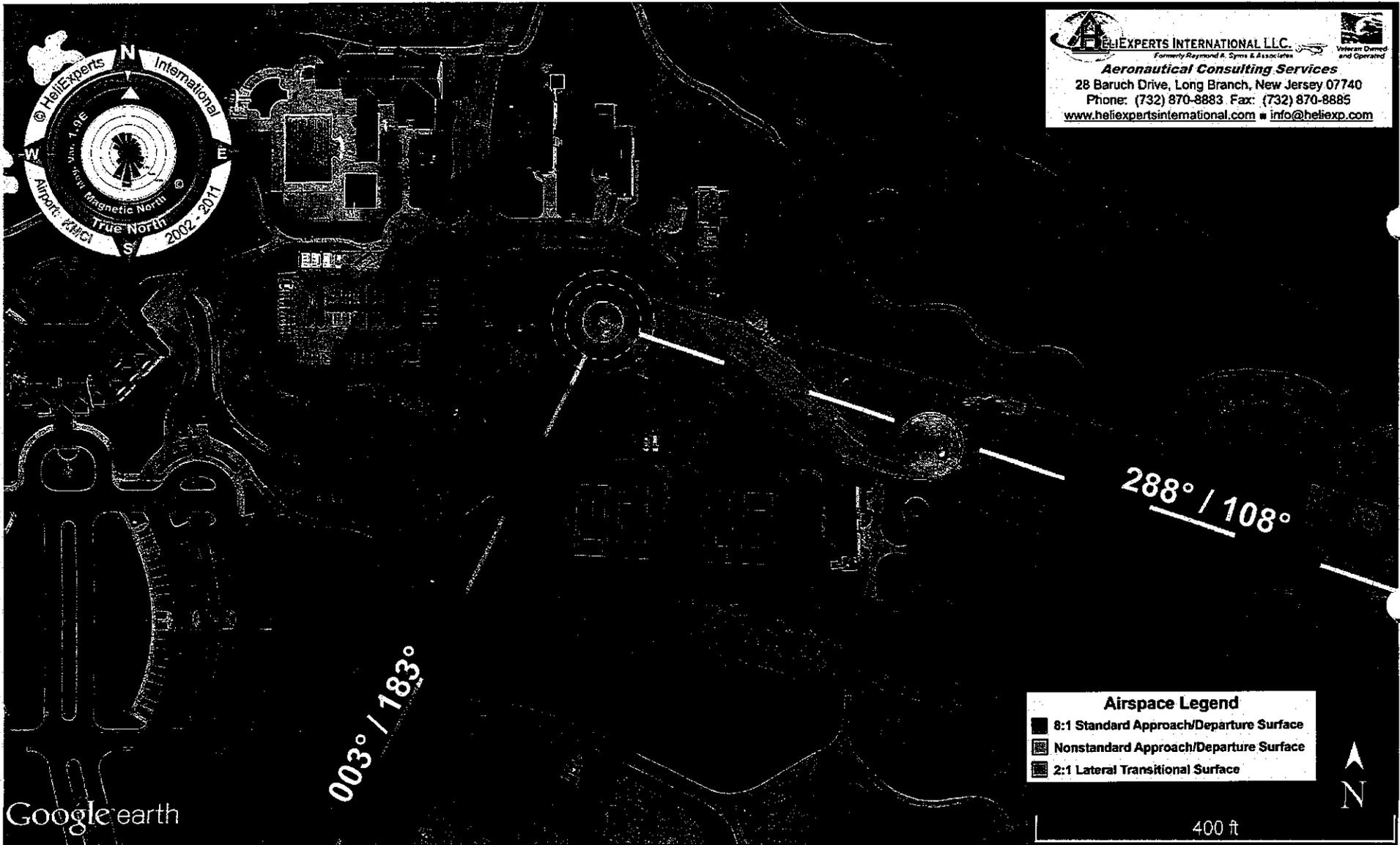
Exhibit-I: 003° / 183° Approach/Departure Path Topographical Profile



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 www.heliexpertsinternational.com • info@heliexp.com

Veteran Owned and Operated

National Golf Club of Kansas City Feasibility & Site Selection Report: 9/8/2016
Exhibit-J: Proposed Approach/Departure Paths Airspace Overlay (Low Altitude View)

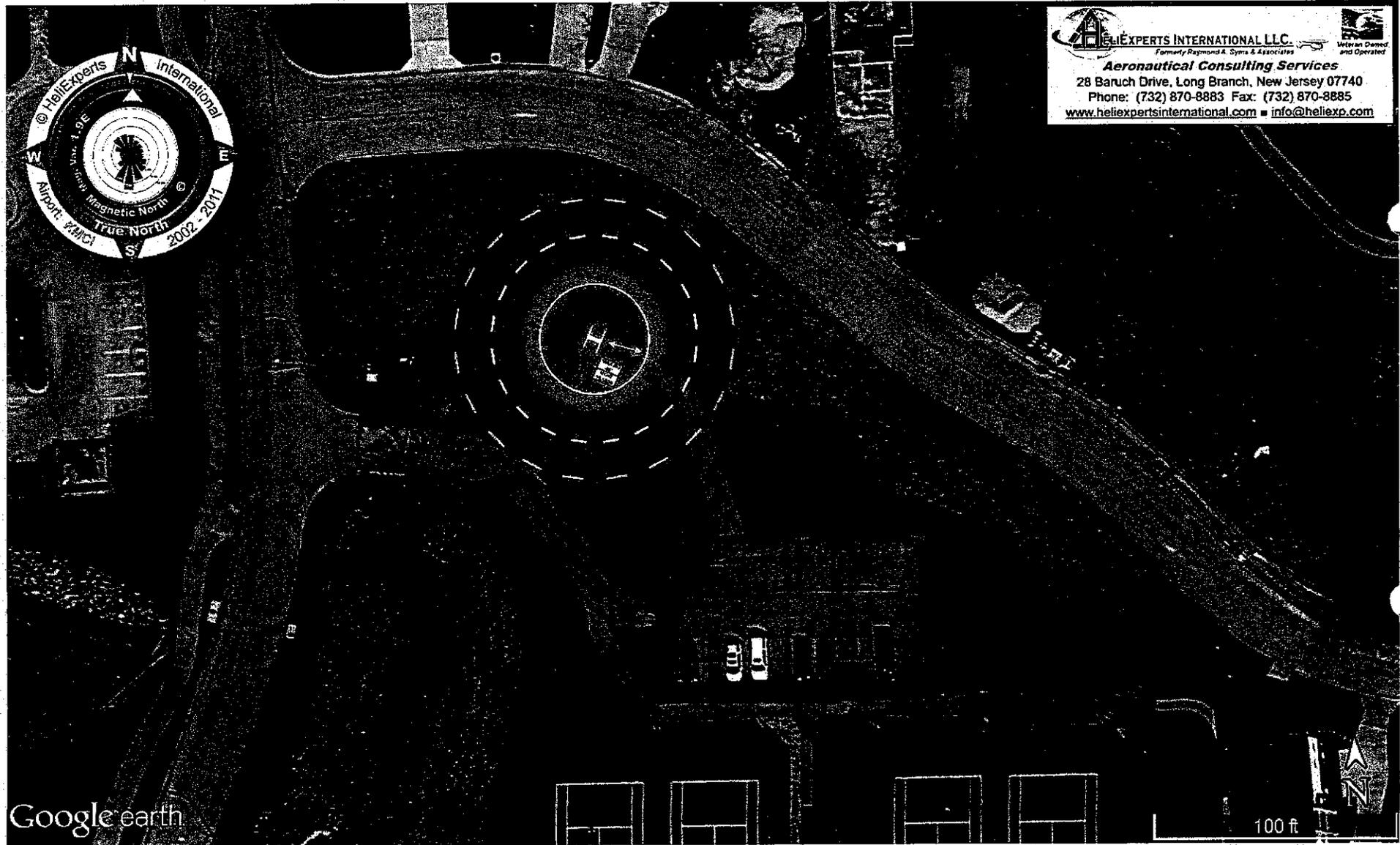


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Airspace Legend

- 8:1 Standard Approach/Departure Surface
- ▨ Nonstandard Approach/Departure Surface
- ▤ 2:1 Lateral Transitional Surface

National Golf Club of Kansas City Feasibility & Site Selection Report: 9/8/2016
Exhibit-K: Proposed Heliport Site Orientation and Dimensional Integration



National Golf Club of Kansas City Feasibility & Site Selection Report: 9/8/2016
Exhibit-L: Proposed Heliport Layout



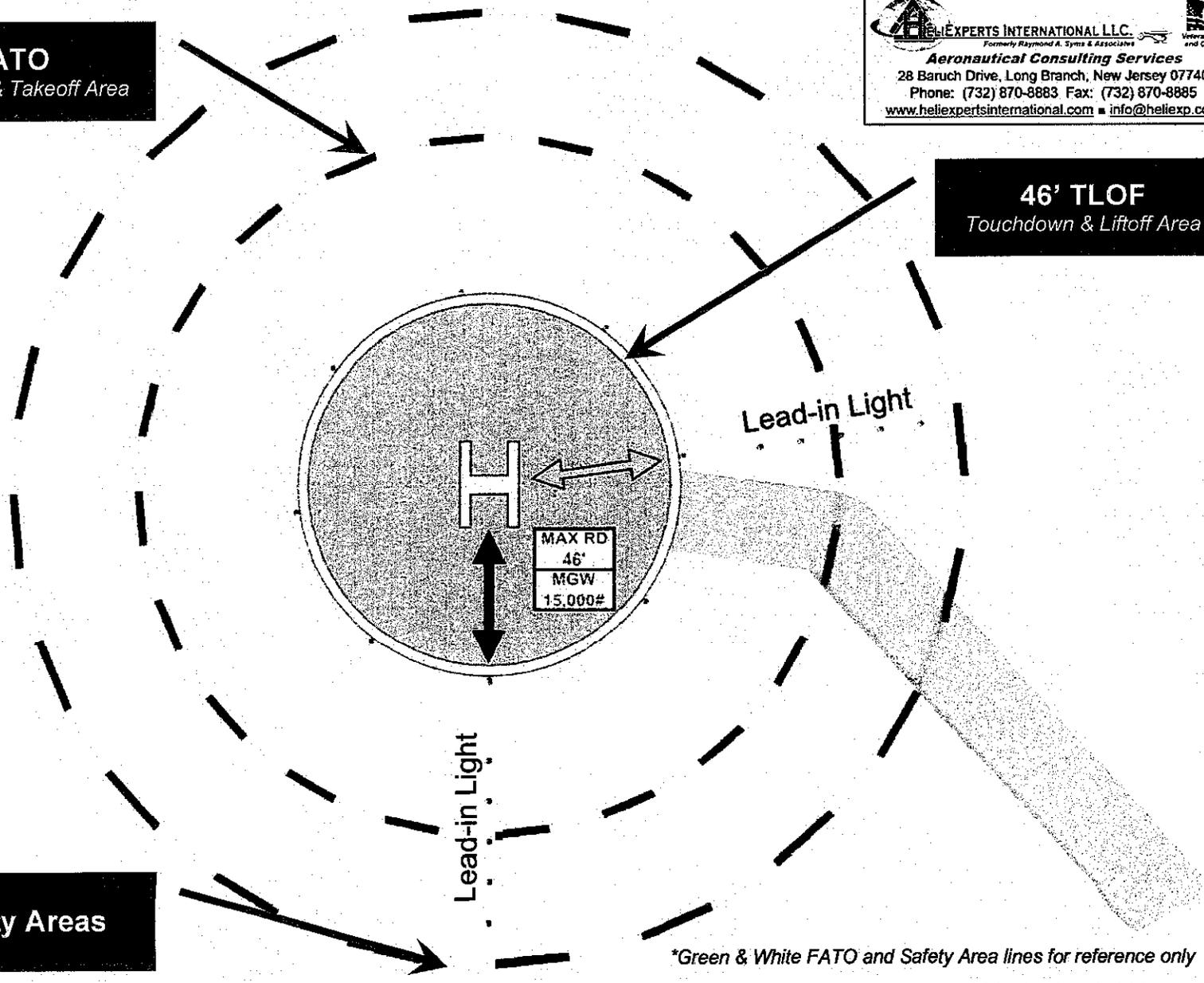
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85' FATO
Final Approach & Takeoff Area

46' TLOF
Touchdown & Ltoff Area

115' Safety Areas

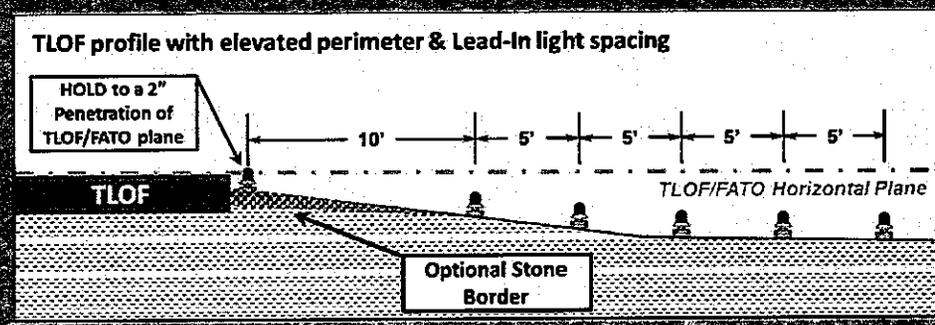
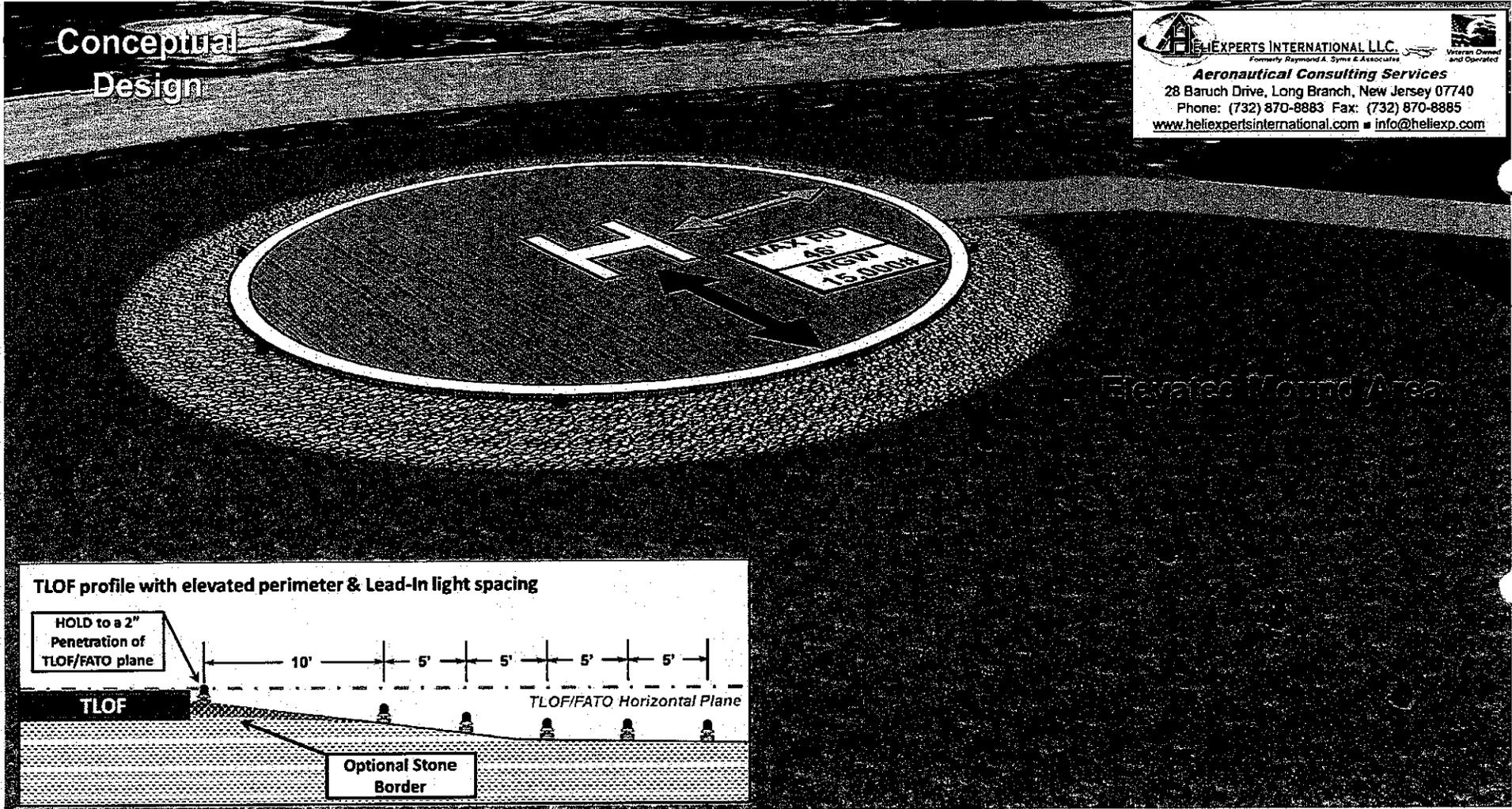


**Green & White FATO and Safety Area lines for reference only*

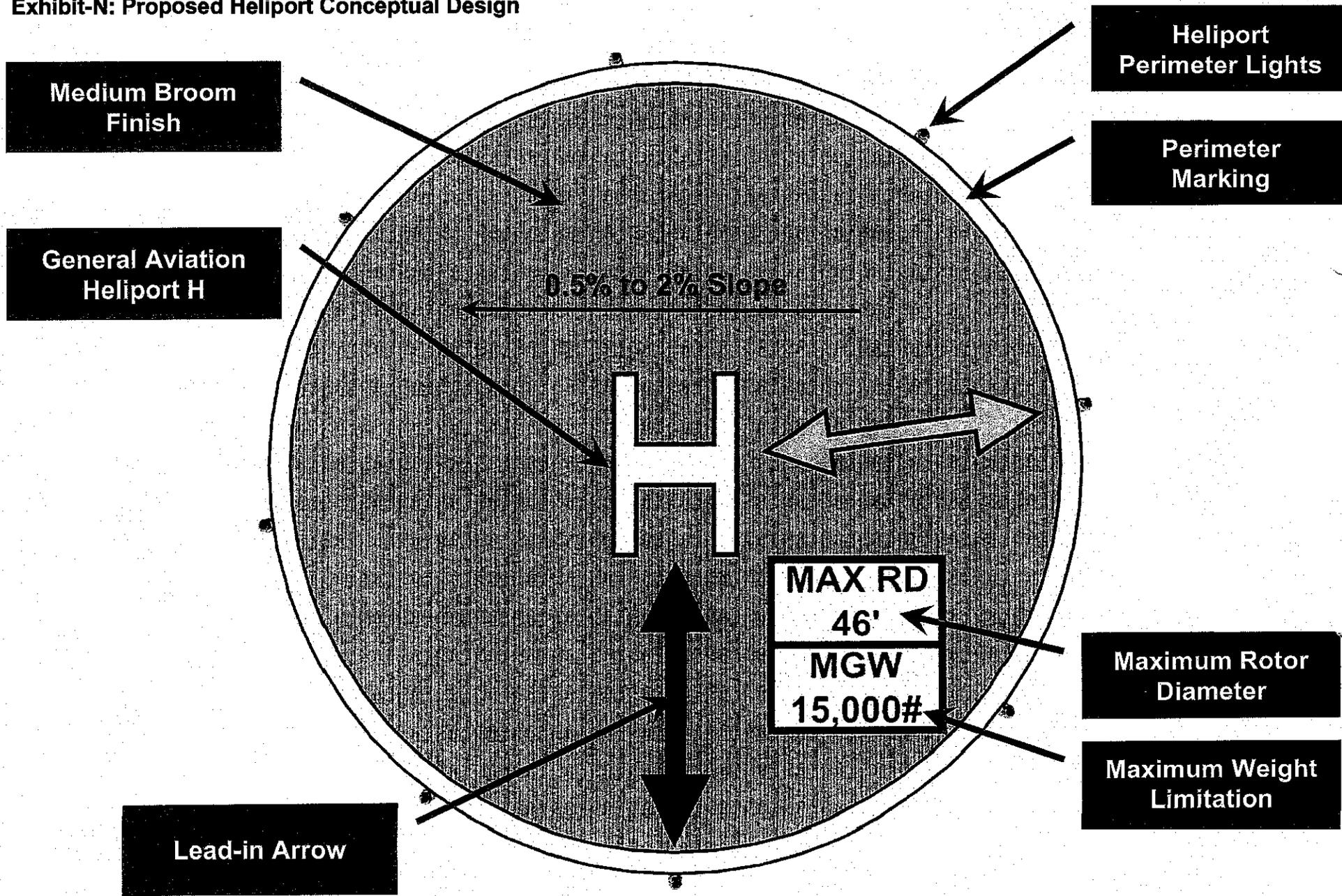
National Golf Club of Kansas City Feasibility & Site Selection Report: 9/8/2016
Exhibit-M: Proposed Heliport Conceptual Design

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National Golf Club of Kansas City Feasibility & Site Selection Report: 9/8/2016
Exhibit-N: Proposed Heliport Conceptual Design





Emergency and General Aviation Heliport Proposal

Planning & Zoning Commission Meeting Parkville, Missouri

December 13, 2016

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- **A Combined 80+ years of rotary wing and fixed wing aviation piloting, maintenance and management experience with an extensive background in military, corporate, offshore, and air medical operations.**
- **35+ Years in aeronautical consulting, safety, heliport development, education, and litigation support services.**
- **750+ Heliports designed and over 3,000 heliports visited or audited worldwide.**
- **Clients Include: FAA, DOD, Department of Energy, Transportation Safety Institute, Department of Justice, U.S. Army, U.S. Air Force, U.S. Navy, U.S. Army Corp of Engineers, States of New York, New Jersey, Hawaii and Illinois as well over 400 corporations, organizations and individuals.**

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01/13/2017 2



- **Senior Member of the Helicopter Association International Heliport and FAA/Industry Heliport /Vertiport Design A/C Working Groups.**
- **Designer and primary author of the HAI Heliport Development Guide.**
- **Industry Contributor and Consultant to the Transportation Safety Institutes Heliport Evaluation Training Program for FAA Inspectors.**
- **One of the most senior and now Chairman of National Fire Protection Association NFPA 418 Committee – Fire Protection Standards for Heliports.**
- **FAA Heliport Advisory Circular Industry Contributor.**
- **Volunteer and Contributing Member to the International & U.S. Helicopter Safety Team.**



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- **Member NFPA-418 Committee Fire Protection Standards for Heliports.**
- **Past President and Board Member of the National EMS Pilots Association and Indiana Association of Air Medical Services.**
- **Volunteer and Contributing Member to the International & U.S. Helicopter Safety Team.**
- **Industry Contributor and Consultant to the Transportation Safety Institutes FAA Heliport Evaluation Training Program.**
- **FAA Heliport Advisory Circular Industry Contributor.**
- **Author and Designer of the International Heliport Risk and Liability Assessment Toolkit.**
- **Author and Designer of the National EMS Pilots Association Hospital Heliport Safety Program.**



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AIRCRAFT OWNERS AND PILOTS ASSOCIATION



National EMS Pilots Association



International Helicopter Safety Team



FEDERAL AVIATION ADMINISTRATION



United States Helicopter Safety Team



NFAA



FEDERAL AVIATION ADMINISTRATION



NATIONAL SAFETY COUNCIL



International Standard for Business Aircraft Operations



Federal Aviation Administration SAFETY TEAM



Helicopter Association International



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FEDERAL AVIATION ADMINISTRATION

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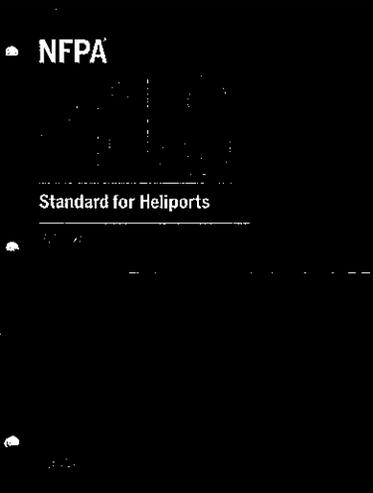
01/12/2017

5





Advisory Circular



Standard for Heliports

Subject Helicopter Design	Date: 02/16/2017 Issued by: Amd-170	AC No: 110-100-000 Change
<p>1. Purpose. This advisory circular (AC) provides standards for the design of heliports serving helicopters with single rotors. Apply basic concepts to facilities serving helicopters with tandem (front and rear) and side-by-side rotors, however many standards will not apply.</p> <p>2. Coordination. This AC meets AC 159.590-15, Helipad Design, dated September 30, 2004.</p> <p>3. Application. The Federal Aviation Administration (FAA) recommends the guidelines and specifications in this AC for materials and methods used in the construction of heliports. In general, use of this AC is not mandatory. However, use of this AC is mandatory for all projects funded with federal grant money through the Airport Improvement Program (AIP) and with revenue from the Passenger Facility Charge (PFC), Federal Aviation No. 73, Policies, Standards, and Specifications, and PFC Assurance No. 9, Standards and Specifications. For information about grant assistance, see http://www.faa.gov/grants/assistance/. The use of terms implying cost compliance applies only to those projects. When federal agencies, states, or other institutions having jurisdiction over the construction of heliports decide the extent to which these standards apply.</p> <p>4. Principal changes.</p> <ul style="list-style-type: none"> a. Changed the term for the helicopter overall length (OL) to "W" or "D-value." b. Added definition for design loads for static and dynamic load-bearing areas (DLBA). c. Added guidance for pavement or concrete thicker than the touchdown and lift-off area (TLOF), but less than the size of the final approach and take-off (FATO). d. Added guidance for radiobeacon effects. e. Added guidance to provide adequate clearance between parking areas and taxi routes and within parking areas. f. Added guidance for re-orientation of curved approach, departure airspace. g. Added guidance for Touchdown Positioning Circle (THPC) Marking. h. Added guidance for Flight Path Alignment Guidance marking and lights. i. Added an appendix providing guidance for Emergency Helicopter Landing Facility Requirements (EHLF). j. Added FATO to CATO separation criteria for simultaneous operations. k. Revised standards for use of "H" for general aviation heliports. l. Added increased TLOF use when the FATO of a heliport is not load bearing. 		



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FEDERAL AVIATION ADMINISTRATION

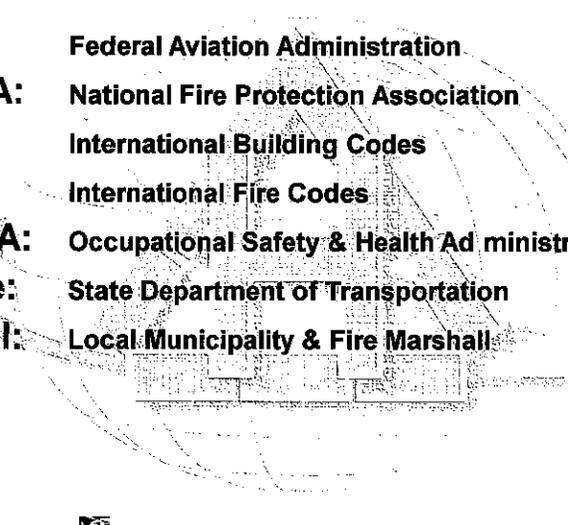
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6



- **FAA:** Federal Aviation Administration
- **NFPA:** National Fire Protection Association
- **IBC:** International Building Codes
- **IFC:** International Fire Codes
- **OSHA:** Occupational Safety & Health Administration
- **State:** State Department of Transportation
- **Local:** Local Municipality & Fire Marshall

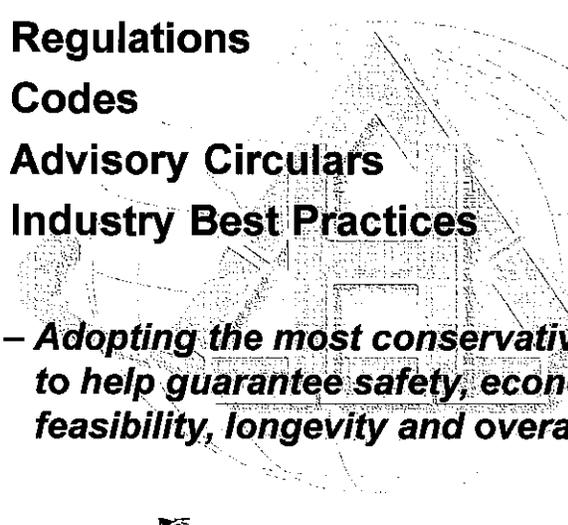


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1. Regulations
2. Codes
3. Advisory Circulars
4. Industry Best Practices

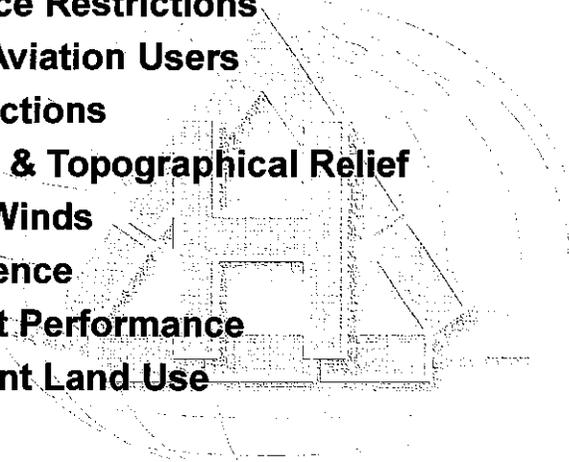
– Adopting the most conservative standards to help guarantee safety, economic feasibility, longevity and overall efficiency.



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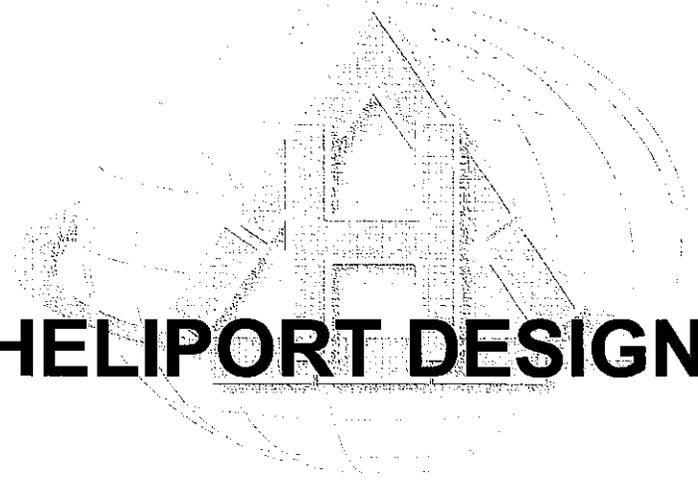
- **Airspace Restrictions**
- **Local Aviation Users**
- **Obstructions**
- **Terrain & Topographical Relief**
- **Local Winds**
- **Turbulence**
- **Aircraft Performance**
- **Adjacent Land Use**
- **Zoning**



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Specialty Planning & Consulting

 HELIEXPERTS INTERNATIONAL LLC
Professional Engineer

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HELIPORT DESIGN

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Professional Engineer

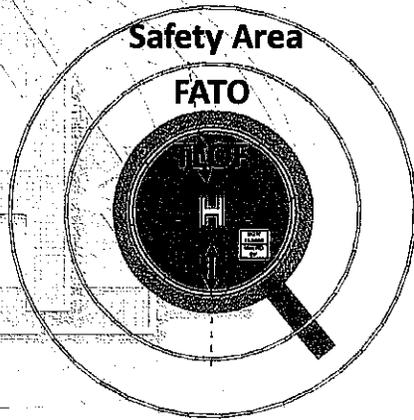
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TERMINOLOGY

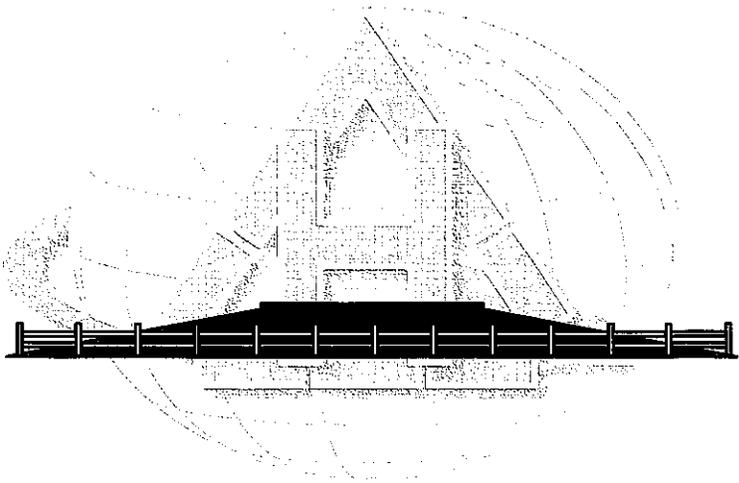
- **TLOF**
 - Touchdown & Liftoff Area
- **FATO**
 - Final Approach & Takeoff Area
- **Safety Area**
 - 1/3 rotor diameter but not less than 10'

LOCATION

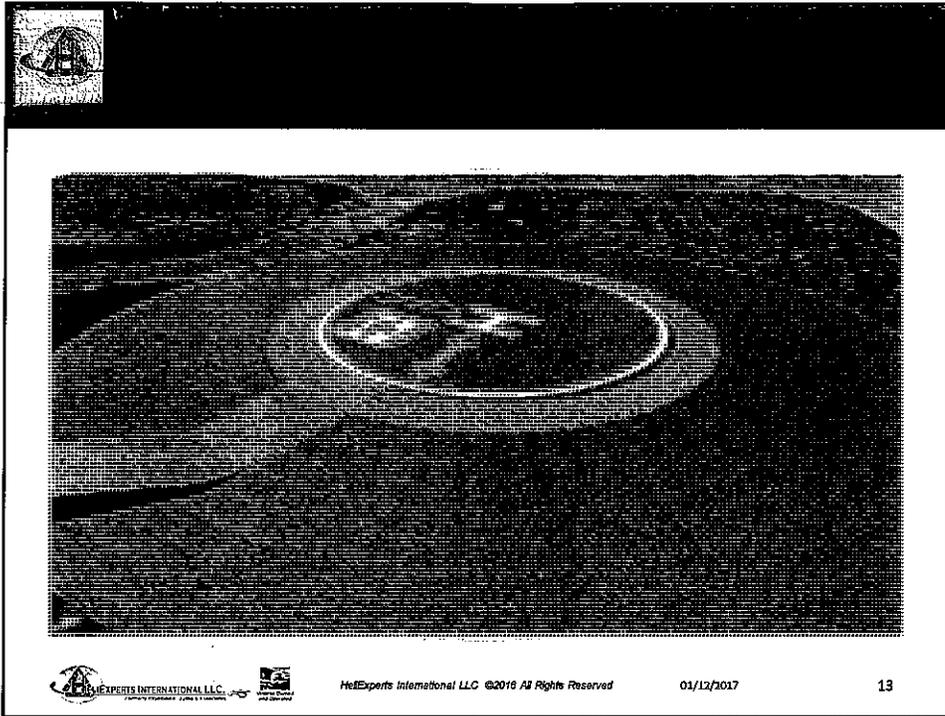


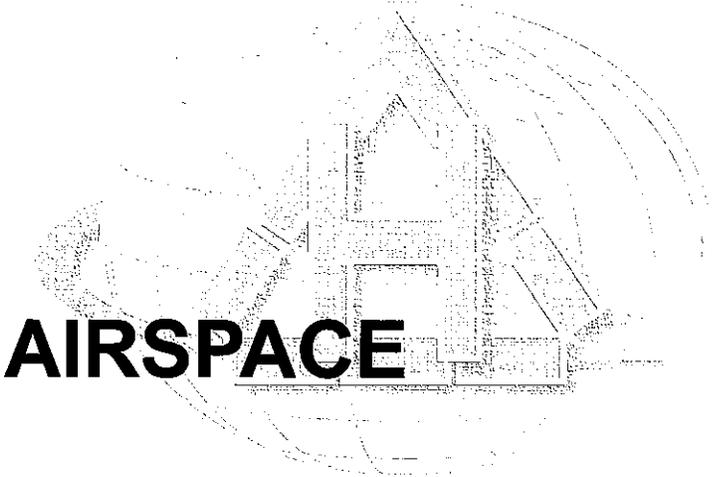
*Green & white lines for illustration purposes only.

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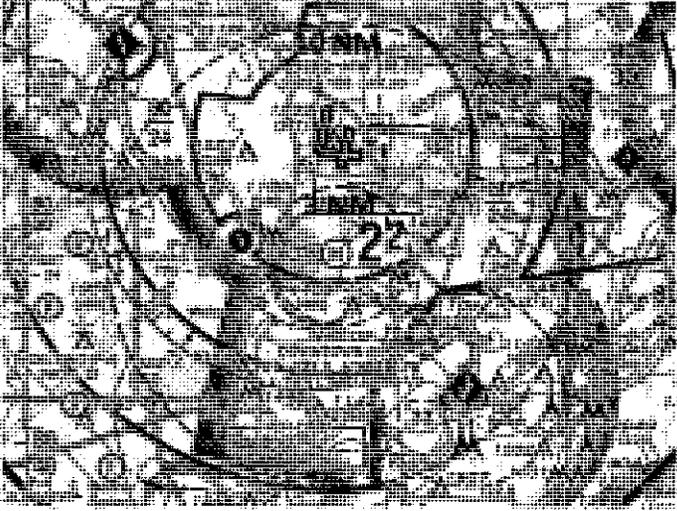




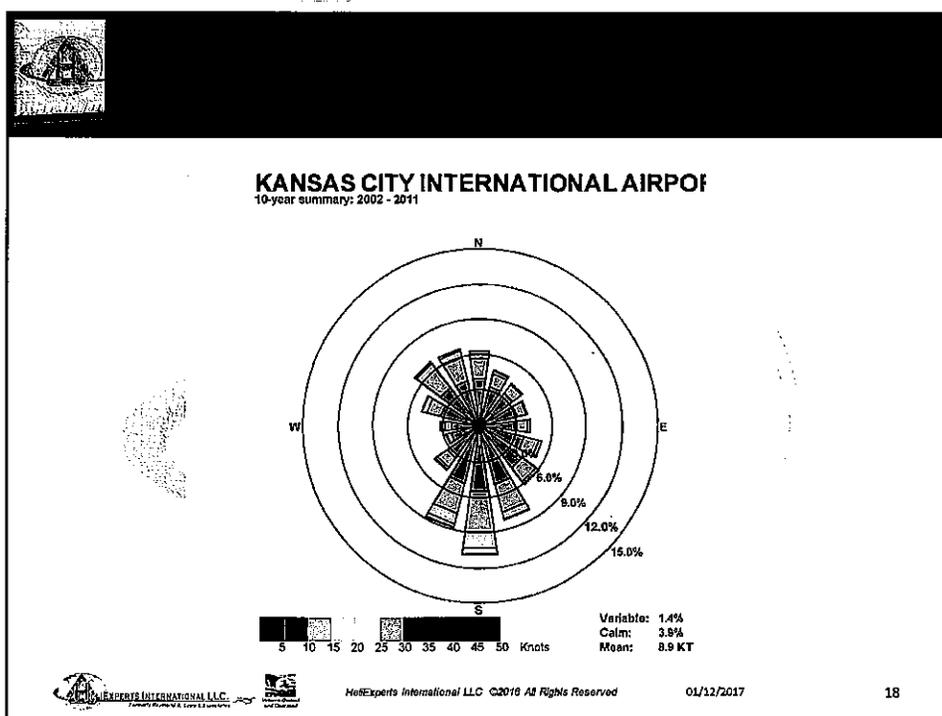
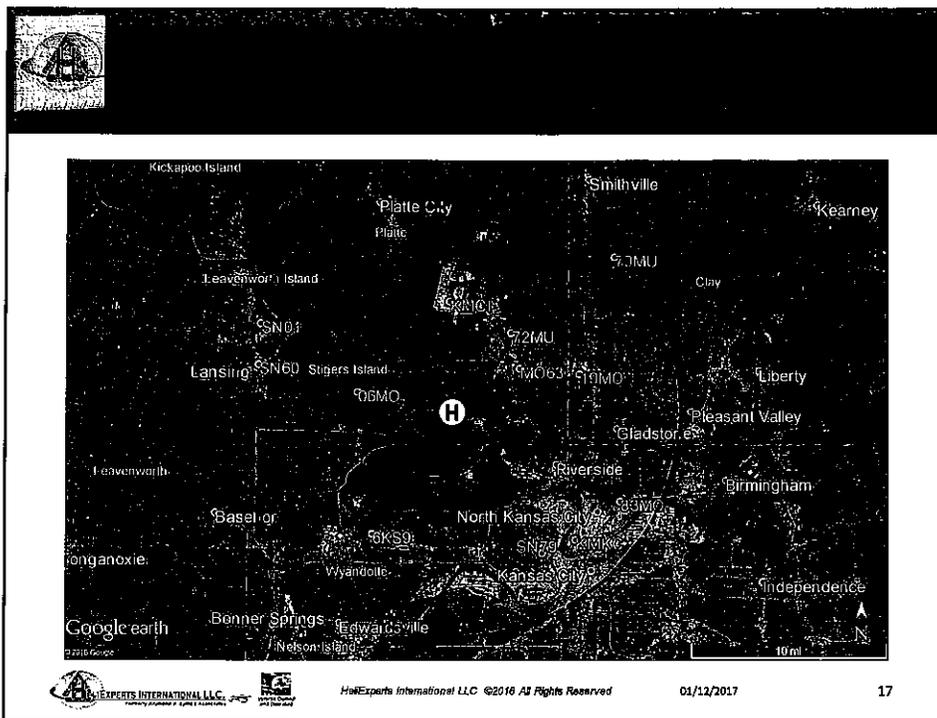
AIRSPACE

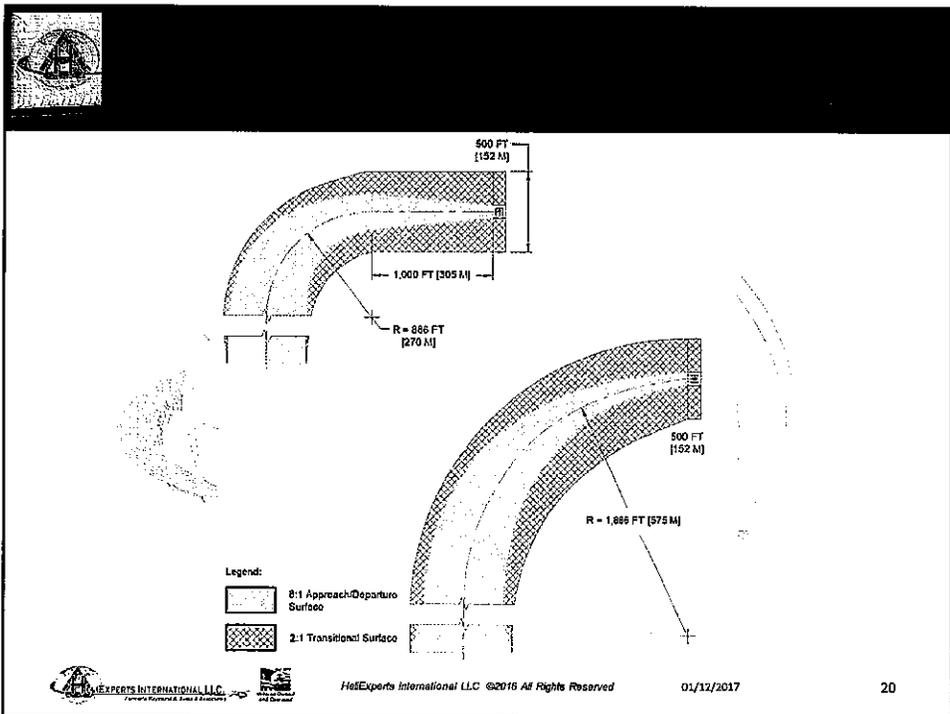
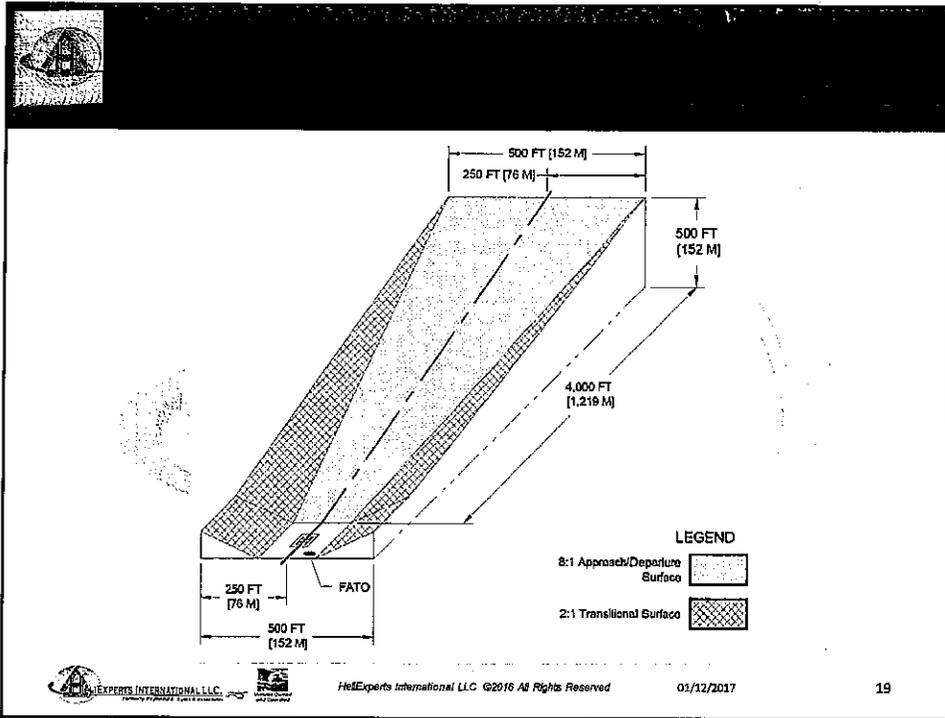


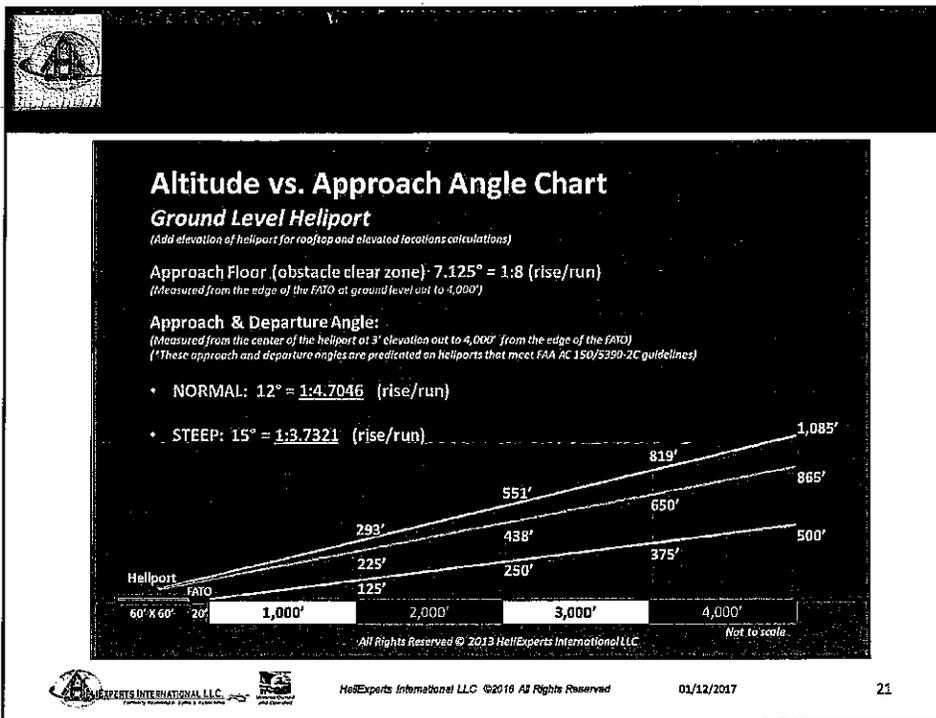
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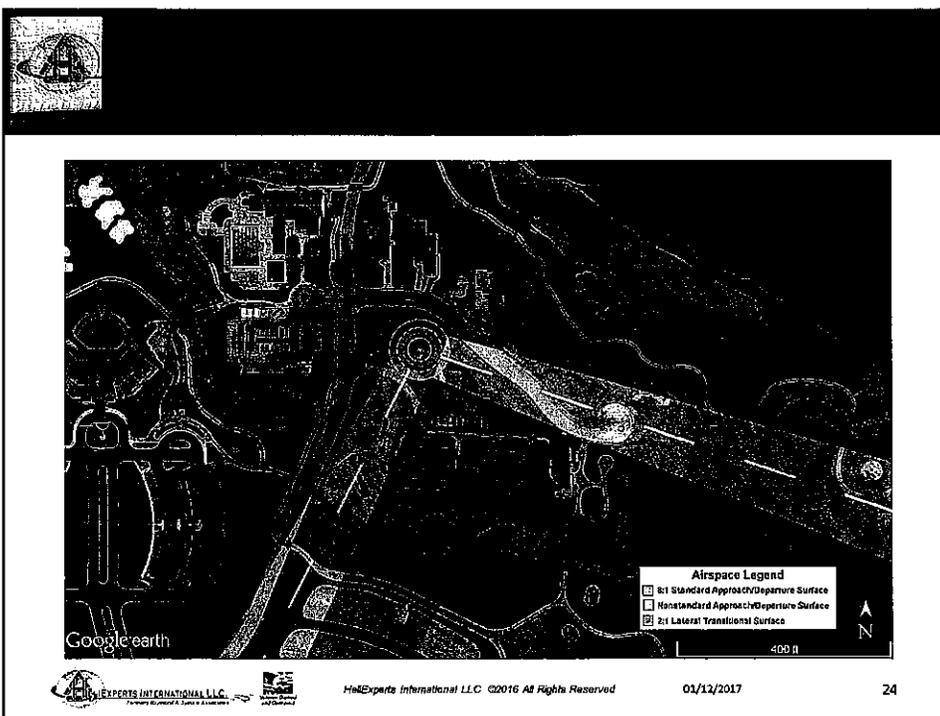
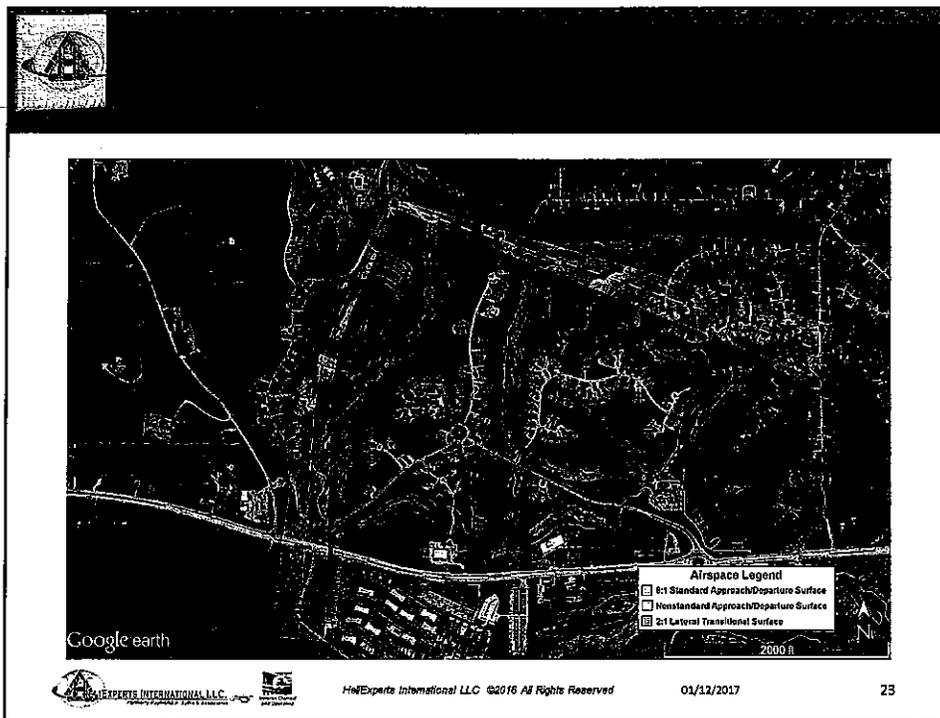
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- **Number of Approach/Departure Paths**
(FAA AC 150/5390-2C Section 210)
 - “Align preferred approach/departure paths with the predominant wind direction to avoid downwind operations and minimize crosswind operations.”
 - To accomplish this, design the heliport with more than one approach/departure path.





- Develop preliminary design in accordance with FAA AC 150/5390-2C
- Complete FAA Form 7480 "Notice of Landing Area Proposal"
- Submit FAA 7480 to FAA Airports District Office
- FAA airports district office checks 7480 for completeness
- Project then assigned an airspace case number
- Application distributed to the appropriate lines of business within the FAA
- Flight standards assigns a trained airspace inspector. (Commonly a helicopter pilot who is a primary operations inspector and has completed the Evaluation course at TSI in Oklahoma City)
- The inspector will go to the site and meet with the component and review all of the heliport design elements
- Upon completion of the inspection a recommendation is rendered
- A determination letter is issued
- When the heliport is constructed and the FAA may opt for an additional inspection
- FAA Form 5010 Airport Master Record then issued



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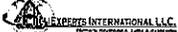
COMMUNITY CONCERNS

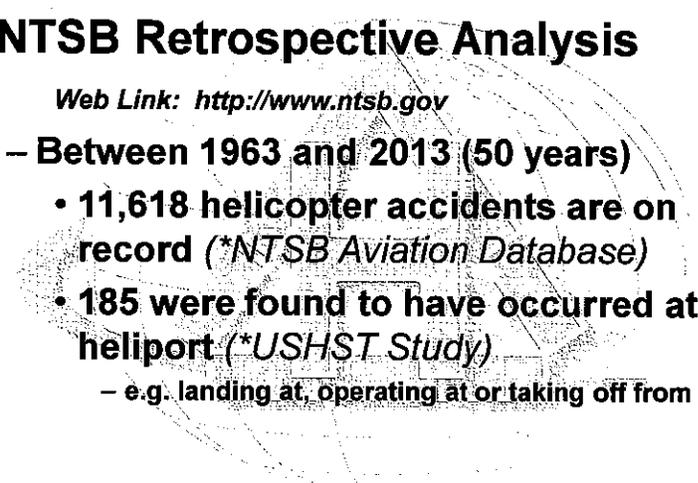


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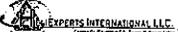


Historical Data Review
SAFETY

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- **NTSB Retrospective Analysis**
 - Web Link: <http://www.nts.gov>
 - **Between 1963 and 2013 (50 years)**
 - **11,618 helicopter accidents are on record (*NTSB Aviation Database)**
 - **185 were found to have occurred at a heliport (*USHST Study)**
 - e.g. landing at, operating at or taking off from

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• Number of the general public who have been hurt, injured or killed as a result of an accident occurring at a private heliport designed and incorporated similar to the one proposed by the National Golf Club?

ZERO





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“...we searched our holdings for documents detailing any injuries of persons from the general public by helicopters or in the vicinity of heliports.”

“The search located a number of documents addressing incidents resulting in injuries and fatalities to flight crew members and passengers.”

“However, we found no accounts of injuries to members of the general public, whether from direct contact with the helicopter itself or as the result of being distracted by the helicopter while driving.”



Raymond Egan, Managing Member
HelExperts International LLC
28 Emerald Drive
Long Beach, CA 90801

March 3, 2016

Dear Mr. Serna:

The mission of the National Safety Council is to save lives by preventing injuries and deaths at work, in homes and communities, and on the road through leadership, research, education and advocacy. To support this mission, the Library of the National Safety Council gathers, catalogs and disseminates every research, research and other materials from a wide range of reputable sources.

As you requested, we searched our holdings for documents detailing any injuries or deaths from the general public by helicopters or in the vicinity of heliports. The search located a number of documents addressing incidents resulting in injuries and fatalities to flight crew members and passengers. However, we found no accounts of injuries to members of the general public, whether from direct contact with the helicopter itself or as the result of being distracted by the helicopter while driving.

I hope this information is helpful. Please let me know if we can be of any further assistance.

Raymond Egan
Attn: Mr. Serna
Library, National Safety Council

making our world safer





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QUESTIONS

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CONTACT

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PHONE: (732) 870-8883 ■ EMAIL: INFO@HELIEXP.COM

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**Minutes of the
Planning & Zoning Commission Regular Meeting
City of Parkville, Missouri
Tuesday, December 13, 2016 at
5:30pm
City Hall Boardroom**

1. CALL TO ORDER

Chairman Katerndahl called the meeting to order at 5:30 p.m.

2. ROLL CALL

Commissioners Present:

Dean Katerndahl, Chairman

Keith Cary, Vice Chairman

John Delich

Walt Lane (absence with prior notice)

Barbara Wassmer

Doug Krtek

Shane Smeed

Kim Verhoeven (arrived at 5:33 p.m. with prior notice)

Michael Wright

A quorum of the Planning & Zoning Commission was present.

Staff Present:

Stephen Lachky / Community Development Director

Shakedra Knight / Community Development Assistant

4. GENERAL BUSINESS

A. Approval of Planning & Zoning Meeting Agenda.

Chairman Katerndahl discussed moving a regular business item up on the agenda in order to accommodate citizens attending for items aside from the Zoning Code Updates. He called for any discussion of the proposed agenda. Seeing none Chairman Katerndahl called for a motion to approve the agenda with the one proposed change.

Commissioner Delich moved to approve the agenda, Commissioner Wright seconded. Motion passed: 7-0.

B. Approval of the minutes from the November 14, 2016 Planning and Zoning Commission meeting.

Chairman Katerndahl called for any discussion of the minutes or changes needed. Commissioner Delich requested a correction on page three (3), third paragraph. He clarified his comment was about slope differential and the amount of roadway that exceeded fifteen (15) percent. Chairman Katerndahl called for a motion to approve the minutes with the correction as proposed.

Commissioner Wright moved to approve the minutes, Commissioner Krtek seconded. Motion passed: 7-0.

Chairman Katerndahl opened the public hearing and read the application to be addressed.

4. PUBLIC HEARING

- A. Application for a Conditional Use Permit (CUP) for an emergency and general aviation helicopter landing facility at The Lodges At The National at the southeast corner of Birkdale Dr. and Allen Way. *Case #PZ16-13 National Helipad CUP; The National Golf Club of Kansas City, Applicant*

Chairman Katerndahl turned the meeting over to Director Lachky to address the first item on the agenda. Lachky invited Rex Alexander, Senior Consultant with The HeliExperts International to present. Alexander gave an overview of the company background that included years of experience, training, organization affiliations, and clients. Next Alexander presented information on the Federal Aviation Administration (FAA) Advisory Circular; it is the primary source used for guidance in Heliport design. He also presented standards from the National Fire Protection Agency (NFPA 418); it is the second source the organization used for guidance. Alexander stated that International Building Code, International Fire Code, Occupational Safety & Health Administration (OSHA), Stated Department of Transportation, and Local Municipality & Fire Marshall were additional resources used by HeliExperts. He explained that several of those resources referred back to NFP418 and ultimately the FAA. HeliExperts adopted standards were presented next. Alexander listed the areas reviewed in the adoption process, regulations, codes, advisory circulars, and industry best practices; he stated the organization adopted the most conservative standards to help guarantee safety, economic feasibility, longevity, and overall efficiency. Key considerations were listed next and then heliport design. Alexander explained the terminology and then detailed location factors. The touchdown and liftoff area (TLOF) was discussed first; the size of that area was determined by the diameter of the rotor of the aircraft being operated. Alexander stated emergency medical service (EMS) aircraft units within a one hundred fifty (150) mile radius were researched by the organization when constructing the proposed design for the applicant. They learned the largest one was an EC145 carrier; catering to this type of aircraft would accommodate all EMS units.

Final approach and takeoff (FATO) area was presented. Alexander reported that area was protected airspace that established the safety zone. The safety area was discussed and concept images from the proposed design were presented. Commissioner Delich asked Alexander whether the foundation would be concrete or asphalt. Alexander responded that concrete would be used.

Consultant Alexander discussed the proposed site location which was near the volleyball court. Commissioner Verhoeven confirmed the court would be moved, not removed and stated it was a very popular attraction in the community. Alexander replied it would in fact be moved.

Alexander displayed a sectional map of local airspace and explained its importance with the FAA. Neighboring heliports were addressed; there are no

conflicts with the proposed location. Alexander explained how local winds were researched and how protected airspace was established. He detailed three (3) proposed flight paths and then presented FAA guidelines considered with proposal. Operation procedures were explained in regards to the actual flight path and landing at the proposed location. He stated that only the applicant (National Golf Club of Kansas City) could grant permission for an individual to land at the proposed location because it was considered a prior permission required (PPR) site. He added the applicant could impose procedural or insurance requirements on individuals who landed there.

Consultant Alexander explained the FAA determination process of preliminary design, form completion, submission, inspection, recommendation, and construction (upon approval). Next he addressed the community concerns of safety and noise. He presented National Transportation Safety Board (NTSB) accident statistics and revealed that over a fifty (50) year period, out of eleven thousand helicopter accidents only one hundred eighty-five (185) occurred at a heliport. Alexander reported the National Safety Council (NSC) supported those findings. He presented the NSC's letter of support and then made himself available for questions.

Chairman Katerhdahl pointed out the Consultant Alexander had not addressed the concern of noise. Alexander proceeded to address the issue. He compared the noise produced by a helicopter with noise producers present at the golf club; leaf blower, weed eater, and lawn mower were examples he provided. He stated the proposed design for both the primary and alternate approach/departure paths were created to keep the noise footprint as low as possible. Alexander explained the noise experienced would be transitory and would come and go within a few seconds.

Commissioner Cary asked if there were any projections of the frequency of flights in or out. Alexander replied not at that time; he added EMS estimated their use in the helipad at four (4) times a year maximum.

Commissioner Cary asked the follow-up question of why EMS would want to land at the proposed helipad site. Alexander answered that decision would be on the emergency responder. He referenced his experience of twenty (20) years in the EMS field and then explained in situations of cardiac events, getting the individual to a "cath" lab in less than ninety (90) minutes was the goal. Utilizing a flight in that instance would minimize transport time. Next Alexander addressed trauma events and stated that depended on the type of injury, the situation, traffic, and the first responder's availability.

Commissioner Cary commented his take was that EMS was not the primary motivation behind the project. Alexander responded that EMS was an asset. Chairman Katerndahl added LifeFlight stated they would hardly use the proposed helipad and would not use it for travel to North Kansas City Hospital. Katerndahl stated the primary motivation was the clients coming in and encouraged the

applicant to be upfront about that. Next he asked the frequency of flights for clients. Alexander replied he did not know the answer. Chairman Katerndahl asked who could provide the answer. The applicant, Dale Brouk, approached the podium. He responded that no rules had been defined as to flight frequency. He added that would be established after approval and could be modified to fit what works best.

Commissioner Cary asked for the background of how the idea for the helipad developed. He specified that he wanted to know the anticipated use for those who made the request. Brouk responded that their ownership group, Neil Patterson, Cliff Heely and the Herzog Group, was pushing the proposal. Cary asked if there had ever been discussion on frequency of use, once a week; once a month; or once a year, for example. Brouk answered there had not. Cary clarified there was no projection regarding frequency of use for the proposed facility. Brouk followed up stating the discussion had been to start the process and then decide on installing the facility if they could handle the restrictions put in place by the Commission. Cary then asked where they were in the FAA process. Alexander responded stating they had not submitted any information to the FAA and addressing the Planning Commission was the first step in the process. He gave an estimated timeframe for FAA approval of ninety (90) days to one year. Alexander explained the expectations from the FAA.

Commissioner Cary questioned whether there were any known heliports that had restrictions in terms of frequencies of use give week, month, or year. Alexander replied he did not know of any in the state but there were in some areas. He used downtown Miami zoning code as an example and referenced their time restriction to daylight hours with no operation inside the city from sunset to sunrise.

Commissioner Delich asked what the landing authorization procedure envisioned. Alexander explained the individual interested in landing would contact the owner with the request, sign a letter of agreement that included operation requirements, and provide the date, time and number of people in flight. He added the facility was strictly for drop off and pick up and the facility owner may require insurance as a condition in agreement.

Commissioner Delich followed up asking who monitored compliance. Alexander answered it was the owner. Delich then clarified the owner would designate an individual. Alexander confirmed. He added someone within the organization would be selected as the heliport manager and his organization, HeliExperts International, would provide hands on training.

Delich asked what the community involvement jurisdictional oversight was traditionally. Alexander answered it ranged all over and was based on local municipality. Director Lachky explained City of Parkville's oversight would be any conditions set by the Board of Aldermen. He added current code permitted use of landing fields/aviation facilities and then explained the ordinances that addressed

the issue. One instance was for specific business park zoning and the other was through conditional use in any district.

Chairman Katerndahl asked whether the Commission could put in place any restrictions they felt were appropriate, time of day or number of landings per month, for example. Lachky answered yes. Director Lachky referenced staff recommended conditions and detailed the steps for approval. Katerndahl confirmed the federal government would not restrict when and how many times and those issues were for the Commission to address. Lachky confirmed stating it was the case due to the helipad being privately owned.

Commissioner Verhoeven addressed the applicant, Dale Brouk. She stated her concern for residents and asked if they had reached out the community. Brouk responded they reached out the nearby residents and named a few directly. Verhoeven asked what the feedback was. Brouk stated feedback was the issue was no big deal and the main concern was how many times there would be landings. He added he had only spoken with a few people. Verhoeven stated the area was used recreationally and her concern was the impact to the tennis and volleyball court communities. Brouk restated the helipad was permission only and would not be granted during any tournaments. He added they had thought through restrictions regarding community safety, no landing on the Fourth of July, was one example. Brouk also stated he would be the helipad manager.

Chairman Katerndahl stated he had another question regarding Commission authority. He acknowledged one of staff recommendations was an operational procedure. He asked if there was a way for the Commission to review proposed procedures before the applicant proceeded. Lachky stated he was unsure of the exact approach from a legal standpoint. He added it was still early in the preliminary phase and the applicant did not want to put in a lot of effort and then be denied.

Commissioner Cary asked what other categories of restriction there were apart from hours of operation. Alexander stated the most common restriction was time. He explained private facilities referred to the FAA Advisory Circular "owner's responsibility" to establish limitations. He added the major concern for the FAA was with code and operations and local municipalities usually addressed the issue of time restrictions.

Commissioner Cary followed up asking what the enforcement mechanism was in the event of a violation. Alexander responded landing on private property without permission was trespassing. Cary pointed out it would be one of the owners in violation and stated he was not sure how much authority the Commission had regarding enforcement.

Chairman Katerndahl questioned whether the Commission could adopt restrictions and then if not followed take away the authorization. Director Lachky

agreed it could be done via code enforcement. He stated any written agreement with the City could be legally defended.

Commissioner Delich pointed out facts regarding costs and time and then questioned the applicant on what the real cost/benefit was. He added he could offer support if he had a better understanding. Applicant Brouk explained the ownership group wanted the helipad to accommodate clients who used the golf lodge and could potentially buy property. Delich responded that was supportable aside from the nuisance caused to homeowners. Chairman Katerndahl commented there was a benefit to the corporation but a cost the neighbors would pay. Alexander explained the actual use frequency was mostly seasonal and could possibly go a month with no use.

Commissioner Cary asked what notice was provided to the general public. Lachky listed the methods used. He addressed the concern of why notice was not sent to homeowners in the flight path. He stated deviation from the mailing process opened the City to favorability and it was in the City's best interest to adhere to procedure.

Commissioner Krtek pointed out EMS was able to land wherever needed and stated he did not know of any EMS helicopter that was required to land at a heliport. Alexander commented based on his EMS experience, landing at a predesignated zone was safest. He added that hospital helipads were not used often but if used to save one life it was worth having.

Commissioner Delich asked Alexander's professional opinion of whether the general public, aside from those at the National, would experience any effect from the helipad. Alexander answered they would not and added his organization aimed to design helipads to have minimal impact on the general public.

Commissioner Verhoeven asked whether the applicant had looked at other locations. Alexander replied that six (6) sites were researched and the proposed site was the number one choice in regards to minimal impact.

Chairman Katerndahl invited Director Lachky to speak before opening up for public comments.

Lachky stated most of what was addressed in the staff report was covered in the presentation.

Chairman Katerndahl opened the meeting for public comments.

Citizen Lianne Lance addressed the Commission. Lance explained an event of a helicopter landing just feet from her children during a golf tournament and her concern for their safety. She stated she knew applicants Neil and Cliff very well and they did everything first class. Lance presented several accounts in support of her main concerns, helipad location and decreased homeowner value. She

stated her request for restrictions on landing frequency and night-time landings. Citizen Lance read the factors present in a well-managed helipad taken from HeliExperts website. She highlighted the need to police for loose items and stated the potential damage it could cause. Lance wrapped up by stating she hoped the helipad would be as safe as possible and was not a nuisance.

Citizen Steven Dillman addressed the Commission. He began by referencing the seventy-five question risks and liability assessment toolkit taken from the HeliExperts website; he highlighted point fifty-eight. He stated he believed the helipad would be self-serving. Chairman Katerndahl added there would be operation procedure but that came later in the process. Dillman presented photos of the proposed helipad location and the lake nearby. He presented his concerns with supporting facts regarding the numerous birds that frequent the lake and the dangerous effects the helipad presented. Citizen Dillman read several articles that detailed incidents of bird strikes by helicopters, statistics and other risks; he provided copies of the articles to Director Lachky. He ended by asking the Commission to consider the great risks of bird strikes bringing down helicopters. Additionally, he recommended the City required the applicant to hire a firm to complete a Transport Canada Airport Bird Hazard Risks Assessment to provide a clear picture of the risks of using the proposed site as a heliport.

Citizen Chris Musgrave addressed the Commission with his comments. He stated he lived across from the proposed site. He asked for an explanation on the differences between a helipad, heliport and helistop. Consultant Alexander clarified; he explained the proposed site would be a helistop because its purpose was to drop off and pick up, much like a bus stop.

Commissioner Cary asked if any aircraft would stay on the helipad overnight. Alexander stated the current consideration was that if there was a helicopter occupying the space no one else would be able to land; he added that criteria being looked at was those utilizing the pad land, drop off, and leave.

Citizen Musgrave resumed his comments. He stated Mr. Herzog had rocks in his yard used for helicopter landing and the goal of the proposal was for a personal/recreational landing pad. He expressed his concern as a new resident and the presentation to the Commission as an emergency use facility. He asked that the site was well-maintained, enforced safety measures, and added some type of value to the entire community. Musgrave addressed his concern with daily flight traffic in the event Mr. Herzog traveled to and from St. Joseph, MO. Lastly, he stated he felt more information was needed in order to make an fair decision.

Citizen Laurie Hill addressed the Commission. She pointed out her home on the photo displayed. She detailed her credentials as a pilot and fifteen years experience in aerospace design and stated her support for the proposed helipad. She gave her main reason for support was for regulation purposes.

Citizen Musgrave addressed the podium again. He stated his request that there be a stipulation stating how many flights could land.

Chairman Katerndahl asked for additional public comments. Seeing none he closed the meeting to public comments.

Director Lachky summarized the concerns. Chairman Katerndahl asked whether the issue could be postponed to allow time to put together a set of procedures for Commission review.

Discussion ensued on how to proceed with procedure agreement and review.

Director Lachky addressed past concerns with use of a helicopter by a property owner. He stated the City could regulate land use and zoning through code enforcement and any future violations would be fined.

Discussion ensued on helipad regulation and enforcement through the federal, state, and local government of private properties. Consultant Alexander stated the local Fire Marshall has the most legal authority.

Commissioner Krtek asked Alexander whether there would be on-going training for the helipad staff. Alexander responded there would be annual trainings in addition to new hire training.

Krtek asked whether there would be an increase to homeowner's insurance. Alexander replied based on his research there was no history of an increased premium.

Chairman Katerndahl asked for additional questions. Seeing none he presented the available options of approval, denial, or postponement to the Commission.

Vice Chair Cary stated he was neutral in his position but had an issue with the Commission being asked to approve an item with serious concerns expressed by neighbors most directly affected. He added he felt additional neighborhood feedback should be presented before the Commission was asked to take a position.

In response to Cary's statement, Commissioner Delich recommended the Commission continue the item subject to those conditions being honored and a report which stated the general resolution.

Commissioner Wright added he would like to see an operational report in addition to the previous recommendations stated.

Commissioner Krtek stated he would like to see set criteria on intended uses, timeframes, and number of flights. He added he believed neighbors may feel more comfortable with the idea having the information.

Chairman Katerndahl addressed the Commission for additional questions. Seeing none he called for a motion to approve the Application for Final Plat as proposed.

Commissioner Delich moved to postpone the Application for CUP subject to staff conditions and a report which stated the general resolution, Commissioner Wright seconded subject to an operational report in addition to previous recommendations. Motion passed: 8-0.

- B. Application for Conditional Use Permit (CUP) to operate an office use of low traffic generation at 8904 NW Hwy 45 in Parkville, MO in an "R-1" Single-Family Residential District. *Case #PZ16-21 By The Blade CUP 8904 NW 45 Hwy; By The Blade, Applicant*

Chairman Katerndahl read the next item on the agenda and then turned the meeting over to Director Lachky to present the issue. Lachky gave a brief overview and then invited the applicant to speak. Patrick Vogt, the applicant, stated his business and then presented his intended use of the proposed property. He stated the proposed location could increase business opportunities and would be used solely as an office; he added no equipment or vehicles would be stored at the location.

Commissioner Delich asked whether Vogt would make improvements to the building; he specified he was referring to vehicle access and signage. Vogt responded he would upgrade the current sign and curb appeal.

Vice Chair Cary confirmed the proposed application was to approve office use at the location, not to approve modifications to the building. Vogt agreed.

Chairman Katerndahl confirmed public notice of the CUP was given. Lachky stated it was and no comments were received.

Commissioner Krtek asked if the applicant anticipated employees showing up at the proposed location on a regular and on-going basis. Vogt explained his current setup had two office staff and himself and that he did not anticipate more than two to four vehicles on the property during business hours. Krtek clarified workers would not flood the office with traffic on payday, for example. Vogt stated that would not happen; he explained he had an offsite location for storage and other conveniences.

Commissioner Wassmer asked Vogt if he met with clients at the proposed location. He answered clients could potentially be there; he added typically he met with clients at their home.

Director Lachky stated there may be an application for sign permit and recommended consideration on the issue in addition to the CUP application.

Applicant Vogt presented a sign concept image to the Commission for review.

Vice Chair Cary asked what color Vogt would paint the building. He answered he planned to use earth tones.

Commissioner Verhoeven stated she was a By The Blade customer and they had excellent service and quality.

Commissioner Wright addressed the Commission asking whether customers of the applicant needed to be recused. Katerndahl and Lachky explained that

Commissioners did not need to recuse since they would not benefit personally from the CUP approval.

Following review, staff recommended approval of the CUP based on the merits of the application and the findings and conclusions in staff report. Additionally, staff recommended approval of the CUP, subject to the following conditions:

- The length of the Conditional Use Permit shall be 20 years.
- Any lighting shall avoid glare, night-glow, and spillover onto abutting properties.
- Any illuminated signage shall not cause a direct glare of light upon occupants of neighboring properties, or upon drivers of vehicles traveling the public streets.
- Any other conditions the Planning and Zoning Commission determines are necessary.

Chairman Katerndahl called for additional questions. Seeing none he called for a motion to approve the CUP application as proposed.

Commissioner Wright moved to approve the Application for CUP as proposed with the additional recommendation of sign improvements consistent with code requirements, Commissioner Verhoeven seconded. Motion passed: 8-0.

Chairman Katerndahl skipped over the last public hearing. The next item to be addressed was the Regular Business Application for Planned District Development Permit for applicant Café Des Amis restaurant.

5. REGULAR BUSINESS

- A. Application for a Planned District Development Permit for exterior modifications in the "OTD" Old Town District at 112 Main St. – addition of a roof over an existing outdoor patio / dining area at Café Des Amis restaurant. *Case #PZ16-20 Café Des Amis Roof Addition; Guillaume Hanroit, Applicant*

Director Lachky gave an overview of the application. He stated the project was presented to the Planning Commission because the Old Town district required approval for exterior modifications. Lachky explained the applicant had moved forward with the project because cost would increase significantly from waiting; he added the applicant had signed a Letter of Understanding, agreeing to remove completed construction if the application was denied. He invited the applicant to speak and answer any questions.

Guillaume Hanroit addressed the Commission. Chairman Katerndahl asked whether the roof would be covered. Hanroit stated it would be completely covered and then asked forgiveness. He explained the worker completing construction was a veteran and wanted to finish before winter. He added he requested a temporary permit and submitted a letter stating he would remove the structure if denied approval.

Commissioner Krtek asked whether Hanroit anticipated adding sides to the structure later. Hanroit stated he may add a canopy next winter but liked the openness of the patio in the spring.

Katerndahl inquired whether the canopy and enclosure required Commission approval. Lachky stated it would not; he added the Fire Department did annual inspections and would not allow fire hazards.

Commissioner Wright asked if the project had been permitted through the City. Lachky replied it had.

Commissioner Delich asked if the applicant had an at-risk permit. Lachky stated the applicant had signed an at-risk permit for the roof.

Commissioner Wright inquired whether the roof covered the back portion of the deck. Hanroit stated it only covered the side.

Vice Chair Cary asked if there had been any public comments. Lachky commented there had not; he added that past experience showed the community was pro-business.

Staff concluded that the proposed exterior modifications were generally consistent and compatible with other improvements in the "OTD" Old Town District; were consistent with the adopted "OTD" Old Town District guidelines; maintained the building's current architectural style; did not negatively impact the historic nature or character of the downtown; and promoted inviting pedestrian spaces and better outdoor dining usage by restaurant patrons. Staff recommended approval as submitted, subject to any additional conditions the Planning and Zoning Commission recommends.

Chairman Katerndahl called for a motion to approve the Application.

Commissioner Krtek moved to approve the Application for Planned District Development Permit as proposed, Commissioner Smeed seconded. Motion passed: 8-0.

Chairman Katerndahl called for a 5 minute break.

PUBLIC HEARING

- C. Amendment to replace Parkville Municipal Code, Title IV. Zoning Code in its entirety; repeal Title V, Chapter 505: Subdivisions; and add Section 142.040. Planning Commission to Title I, Chapter 142: Committees, Commissions, Boards And Advisors via the *Zoning Code and Subdivision Regulations Update* project. *Case #PZ16-22 Zoning Code and Subdivision Regulations Update; City of Parkville, Applicant*

Chairman Katerndahl introduced the last item for discussion and invited Consultant Chris Brewster to speak.

Brewster addressed the final draft of the Zoning Code and Subdivision Regulations. He stated he submitted several drafts and that was the first draft he requested adopting. Brewster explained the draft was a framework and that it was common to make amendments over then next six months to a year as a measure of fine tuning. He stated he would walk through the process and point out the high level changes. He listed the issues with formatting, grammar, and punctuation that he was aware of and

that he would clean up terminology for consistency. He reported the conditional use table would be updated to include uses from recent applications as well as clean up to the telecommunications code. Brewster addressed concerns regarding driveway approaches and parking access; he stated the changes would be specific for neighborhood and standard streets. Next he addressed signs exemptions; a size adjustment was needed to allow real estate signs.

Brewster presented the latest draft to the Commission and gave an overview of each section. He started by going over important dates and meetings held that influenced the final draft. Next he detailed the overall project goals and then phases and tasks in the process. Brewster explained key findings of issues with the current code and then presented an overview of changes made. Next he illustrated and explained the revised framework and then a table of overall procedures. He explained in detail criteria for major/minor site plans; all major site plan proposals required Commission approval. Minor site plan projects must meet standards but may be approved by staff. Director Lachky gave examples of major and minor site plan projects from the past year for clarification. Café Des Amis and Bank Liberty were minor site plans; Missouri American Water was a major site plan.

Brewster went on to present subdivision standards; he began with street types and open/civic space types. He explained the details of each. Zoning districts and uses was presented next. Brewster explained the goal with that section was to preserve and simplify. He walked through the process with each district, highlighted major changes, and pointed out discrepancies that were cleaned up in final draft. Site design and landscape was presented. Brewster explained that section was created in coordination with design and standards of the subdivision regulations and open space standards. He briefly addressed access and parking; he stated he would tweak a few things to keep with status quo. The section on signs was presented next. Brewster explained it was different but the substance had not changed much. He stated the changes simplified things and allowed more flexibility. Last, Brewster stated the next steps which were presenting the final draft to the Board of Aldermen and potential adoption and then he opened discussion for questions.

Chairman Katerndahl asked if the City had any I-3 Industrial areas. Director Lachky responded the only I-3 he knew of was along the riverfront years ago and the mine. Katerndahl added Parkville was not recognized as a high industrial area and wondered if this was an opportunity to change that zone.

Brewster stated he looked at combining I-3 but the two most compatible, I-1 and I-2, were not a close enough match; also, completely doing away with it required a zoning map change.

Lachky read the current definition for the I-3 district and explained the need to retain it.

Chairman Katerndahl commended Consultant Brewster on the organization of the final draft. Brewster stated his pleasure in constructing the draft knowing the benefit to the City.

Katerndahl opened the floor for public comments.

Citizen Kevin Day approached the Commission. He expressed his appreciation to the Commission, Director Lachky, and Consultant Brewster. He stated he worked for several years on a committee to develop a proposal for OTD residential. He went on to say he was worried the district would be combined with R-4 but glad it made it into the final draft. Day explained the proposal was the work of a lot of dedicated individuals and he hoped the neighborhood remained maintained in the way it had developed.

Day asked Consultant Brewster for clarification on 408.020 whether the driveway specs applied to R-4 only. Brewster stated he would address the concern to make it clear. Day pointed out a typo in section 406.020 which read ten inches instead of ten feet. Brewster made note of the error.

Chairman Katerndahl closed the Public Hearing at 8:47 p.m.

Commissioner Wright asked how to make a motion to include the issue brought up regarding parking. Discussion ensued on the matter. Chairman Katerndahl stated the motion could be made subject to the issues raised.

Commissioner Wright moved to approve the Amendment to replace Parkville Municipal Code, Title IV. Zoning Code in its entirety; repeal Title V, Chapter 505: Subdivisions; and add Section 142.040. Planning Commission to Title I, Chapter 142: Committees, Commissions, Boards and Advisors as proposed subject to staff review, Commissioner Wassmer seconded. Motion passed: 8-0.

6. UNFINISHED BUSINESS

A. None.

7. OTHER BUSINESS

A. Upcoming Meetings & Dates of Importance:

- Board of Aldermen Meetings: Tuesday, December 20, 2016 at 7:00 p.m. and Tuesday, January 3, 2016 at 7:00 p.m.
- Board of Zoning Adjustment Meeting: Tuesday, December 27, 2016 - Cancelled No Agenda Item
- Planning & Zoning Commission Regular Meeting: Tuesday, January 10, 2017 at 5:30 p.m.

8. ADJOURNMENT

Seeing no further discussion, Chairman Katerndahl called for a motion to adjourn.

Commissioner Krtek moved to adjourn, Chairman Katerndahl seconded.
Motion passed: 8-0. Meeting adjourned at 8:52 pm.

Submitted by:

Stephen Lachky
Community Development Director

12-13-16
Date

Shakedra Knight
Community Development Department Assistant

12-13-16
Date



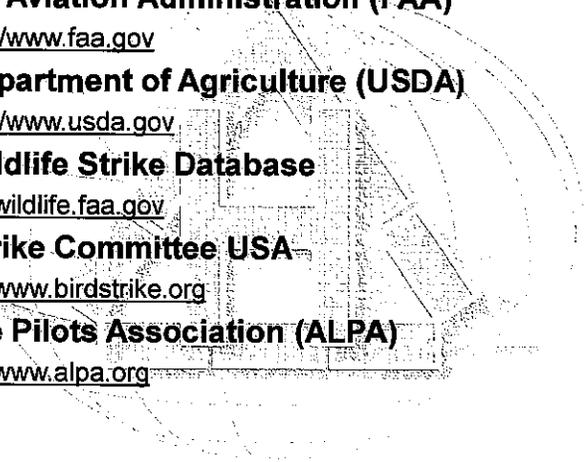
Statistical Analysis of Avian Incursions with Helicopters at Heliports in the State of Missouri

Planning & Zoning Commission Meeting Parkville, Missouri

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- **Federal Aviation Administration (FAA)**
– <https://www.faa.gov>
- **U.S. Department of Agriculture (USDA)**
– <https://www.usda.gov>
- **FAA Wildlife Strike Database**
– <http://wildlife.faa.gov>
- **Bird Strike Committee USA**
– <http://www.birdstrike.org>
- **Air Line Pilots Association (ALPA)**
– <http://www.alpa.org>



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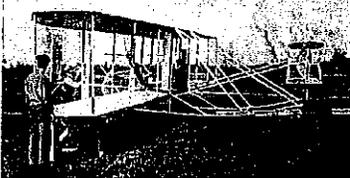


01/12/2017

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1905: The First Bird Strike




Date: 7 Sept 1905
Aircraft: Wright Flyer
Location: Dayton, OH
Phase of flight: Cruise over cornfield
Damage: None
Wildlife Species: Red-winged blackbird?



WS Wildlife Services Protecting People
 Protecting Agriculture
 Protecting Wildlife




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1912: The First Bird Strike Fatality





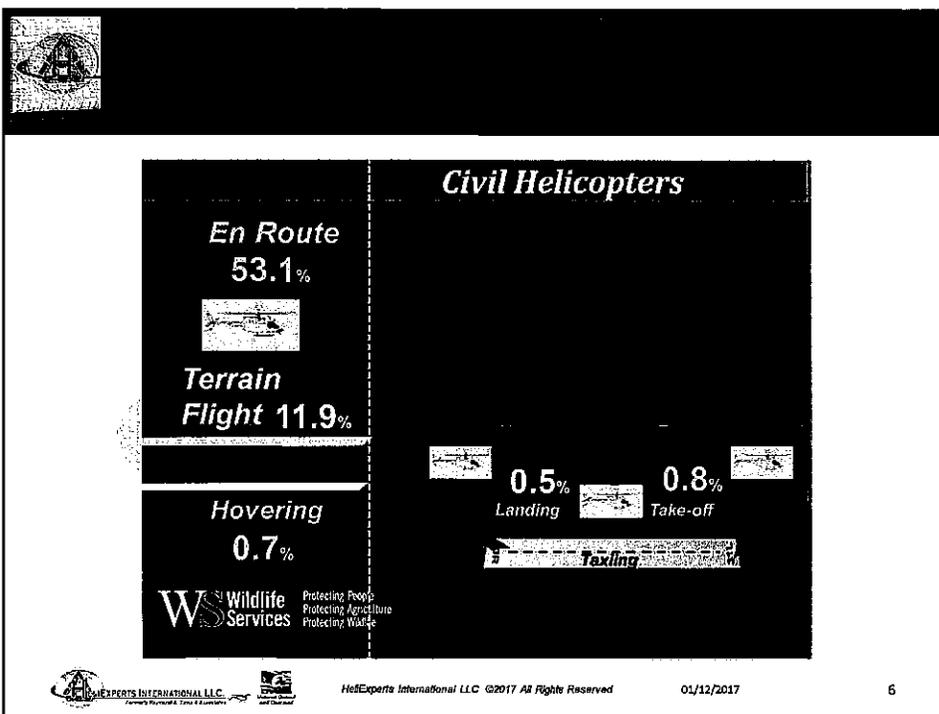
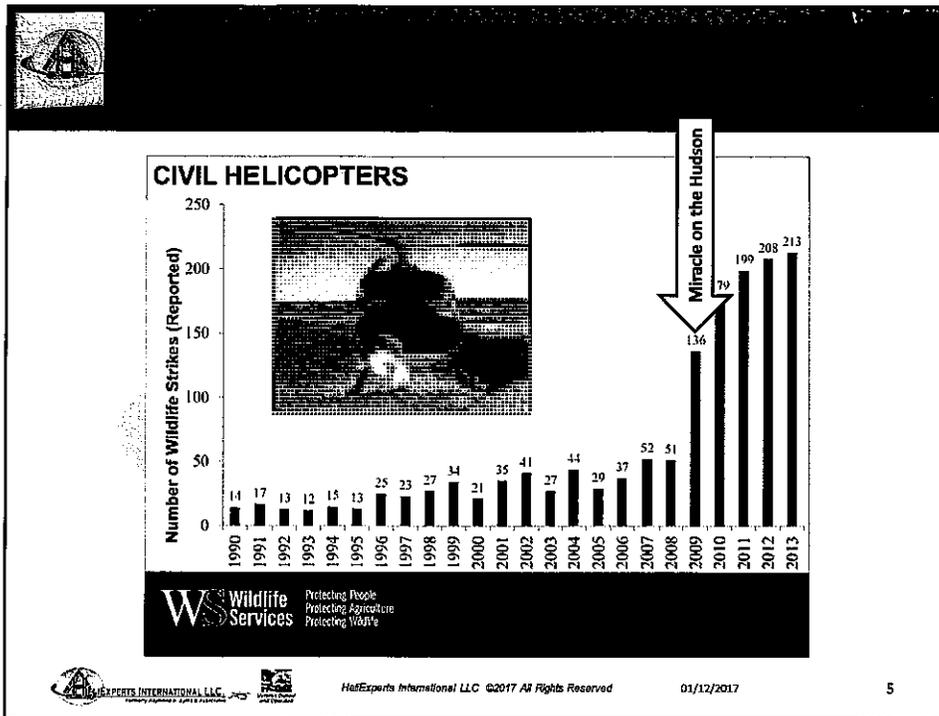
Date: 3 April 1912
Aircraft: Wright Pusher
Location: Long Beach, CA
Phase of flight: Cruise over water
Damage: Aircraft Destroyed
Wildlife Species: Gull

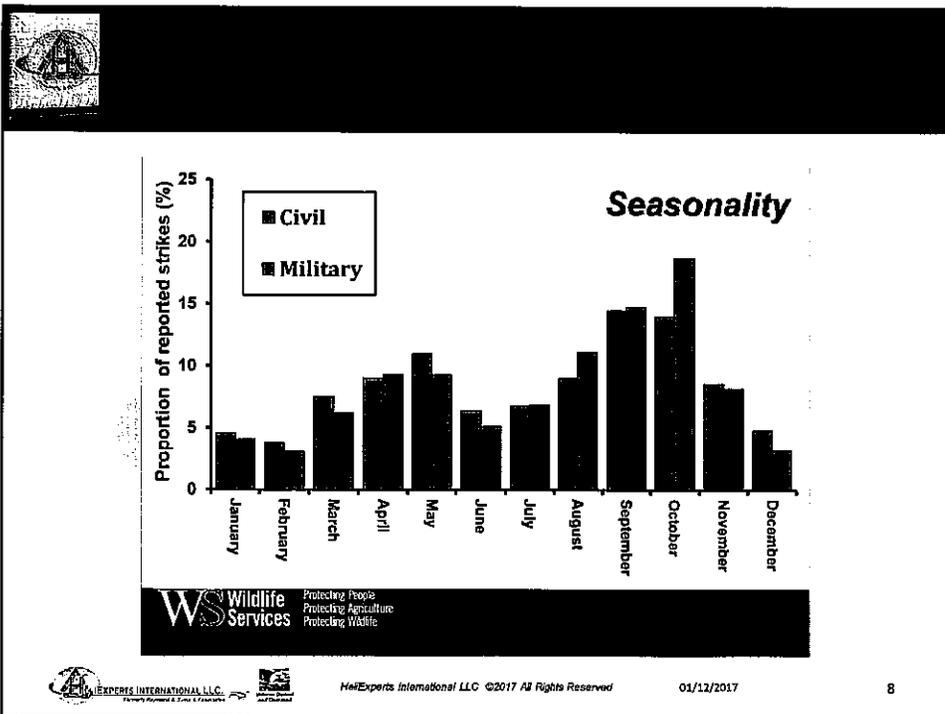
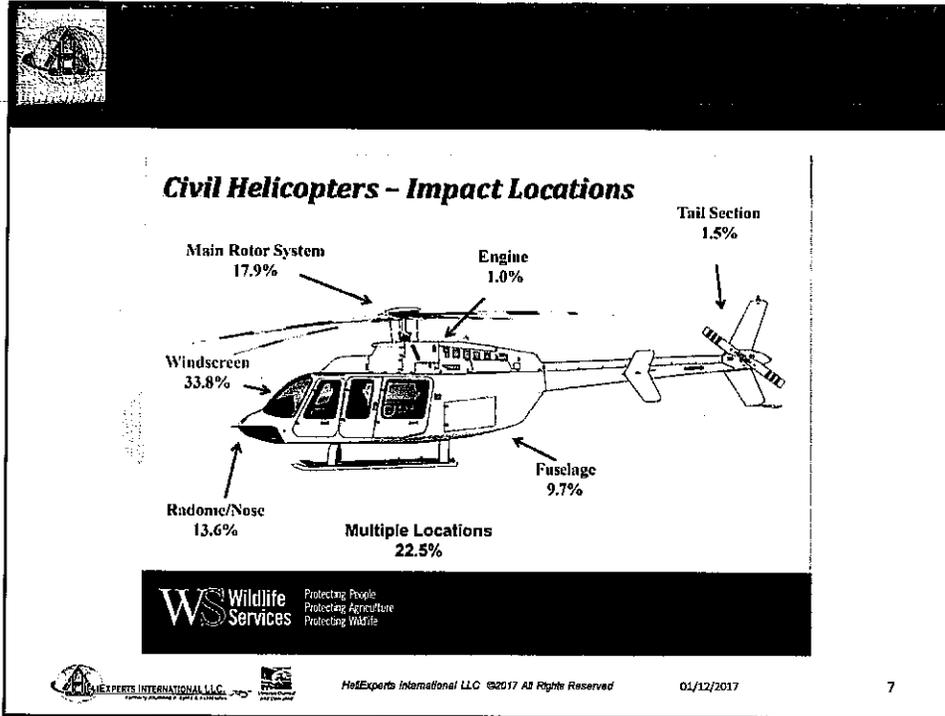


WS Wildlife Services Protecting People
 Protecting Agriculture
 Protecting Wildlife




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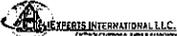




• FAA Registered Airfields in the State of Missouri.

Airfield Type	Number	Percentage
Airport	370	73%
Heliport	128	25%
Seaplane Base	3	0.59%
Ultralight	3	0.59%
Total:	504	

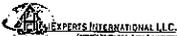
– Reference: FAA 5010 Airport Master Record Database
 • https://www.faa.gov/airports/airport_safety/airportdata_5010/

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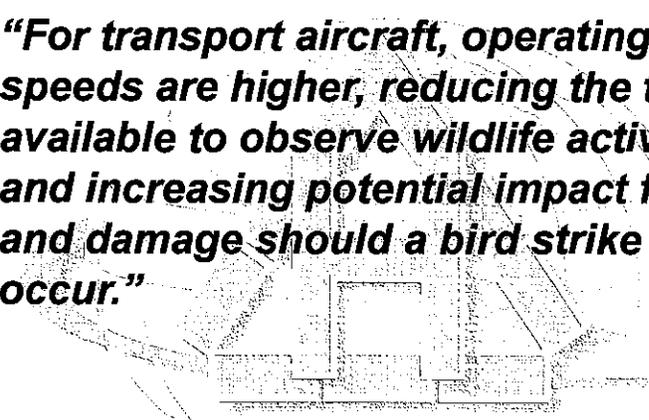
Item	Number	Percent
Total Number of Reported Bird Strikes in Missouri	3,456	100%
Total Number of Reported Bird Strikes Reported At Kansas City International Airport	1,751	50.6%
Total Number of Reported Bird Strikes involving a Helicopter in Missouri	8	0.230%
Total Number of Reported Bird Strikes Occurring at a Missouri Heliport	4	0.116%

– Reference: FAA Wildlife Strike Database
 • <http://wildlife.faa.gov>

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- ***“For transport aircraft, operating speeds are higher, reducing the time available to observe wildlife activity and increasing potential impact force and damage should a bird strike occur.”***

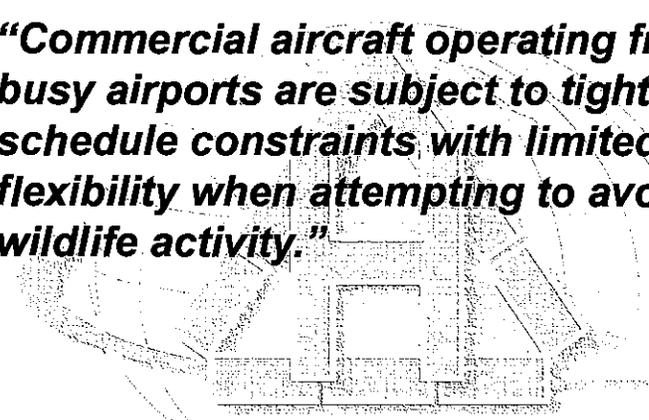


— Reference: Air Line Pilots Association White Paper: Wildlife Hazard Mitigation Strategies for Pilots, February 2009
• <http://www.alpa.org/en/news-and-events/news-room/white-papers>

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- ***“Commercial aircraft operating from busy airports are subject to tight schedule constraints with limited flexibility when attempting to avoid wildlife activity.”***

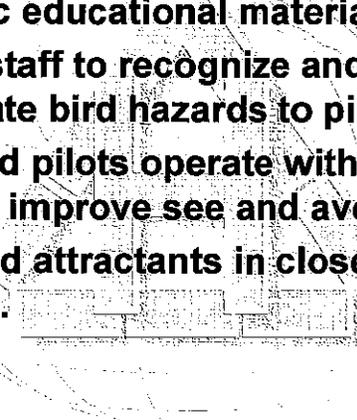


— Reference: Air Line Pilots Association White Paper: Wildlife Hazard Mitigation Strategies for Pilots, February 2009
• <http://www.alpa.org/en/news-and-events/news-room/white-papers>

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- **Alert pilots to potential on-site bird activity in site specific educational materials.**
- **Train club staff to recognize and communicate bird hazards to pilots.**
- **Recommend pilots operate with landing lights on to improve see and avoid.**
- **Remove bird attractants in close proximity to the heliport.**

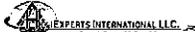


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QUESTIONS



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01/12/2017

17

Exhibit H

From: Dale Brouk
To: stephenlachky@gmail.com; Stephen Lachky
Subject: HOA Annual Meeting minutes, 2016/2017 financials & Planning & Zoning Changes
Date: Wednesday, January 04, 2017 1:07:02 PM

https://imgssl.constantcontact.com/letters/images/1101116784221/PM_DP_TCAP600G1_DarkGreen.png



[Click for 2016 HOA Annual Meeting Minutes](#)

[Click to view the Financial Report](#)

[Click to view CUP for Helipad at Clubhouse](#)

Questions or concerns?

Please contact Paul Grigsby

PaulG@FiveStarLifestyles.com

816.505.4295

The National Golf Club of Kansas City,
www.thenationalgolfclub.com, Parkville, MO 64152

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MINUTES of MEETING

Tuesday, September 20, 2016

4:30 p.m. Offsite

National Property Owners Association Board of Directors

Attendees: Dale Brouk, Cathy Meek, Shelley Risley and Paul Grigsby.

- I. The meeting was called to order by Dale at 4:30 p.m. The Board approved the minutes from the August 24, 2016, meeting as written.
- II. **Treasurer's Report:** For the period ending 8/31/2016, Revenues were \$426,754, plan was \$417,655, resulting in a positive variance of \$9,099.

Expenses were \$226,494, plan was \$231,697, resulting in a positive variance of \$5,203.

Overall operations produced net cash flow of \$200,260 versus plan of \$185,958. Cash balance, as of 8/31/16 was \$285,586.

Homes Association Report:

- a. **SWIMMING POOL:** Status – waiting for the replacement parts for several umbrellas to arrive and be installed. Guier Fence will install hardware to prevent expansion / contraction at the gate, a problem that caused the gate malfunction. A solution providing shade without sustaining damage will be investigated. The community pool was closed on 9/18/16.
 - i. **Surge Protection** – Paul received a bid from Joe Kilowatt for approximately \$300, to install a surge suppression system on the entire pool complex. A lightning strike in a storm at the end of August destroyed most of the computer equipment.
- b. **Street Light on NW 70th:** Shelved until October Board meeting. Bid was received from Clayco: \$9,650.00.
- c. **Delinquency Status:** Letters will be sent out prior to year-end to residents who are delinquent. Liens will be filed on all accounts still delinquent.
- d. **Miscellaneous Update:** 10 signs instructing residents to pick up after their dogs are in stock, ready to be installed. 2 signs placed at Lime Stone paths.

- e. **Heliport** – Dale briefed the board on project status and proposed location, at the site of the sand volleyball court. The helipad will be built, maintained and insured by parties other than the NPOA. It's current design will accept life flight size helicopters. Usage is expected to be 20-25 times annually.
- f. **Annual Garage Sale Date** – Status - Friday, September 23 and Saturday the 24th, 2016. Hillcrest pick up starts after 3:00p.m. Saturday. A Constant Contact email was sent to residents in that system on August 4, 2016. Ads have been placed with the Kansas City Star, online and hardcopy publications. They will run 4 days, from 9/21 to 9/24. Signs will be placed throughout The National prior to the sale and removed the following Monday.
- g. **Waste Management** – Status – We will continue to work with Waste Management for the term of the contract and keep them accountable for their poor performance as the contract term nears a new trash contractor will be pursued.
- h. Cathy will contact the company who installed the Christmas lights last year to discuss reimbursement for nonperformance.

Date for the October meeting was set for Thursday, October 27, 2016, 4:30pm at The National. Several other dates were set as follows:

There will be no Board meeting in November.

Monday, December 5, 2016, the Board will meet at 5:00pm

Wednesday, December 7, 2016, the Annual Meeting will be held in the Watson Library from 6:00pm to 7:30pm

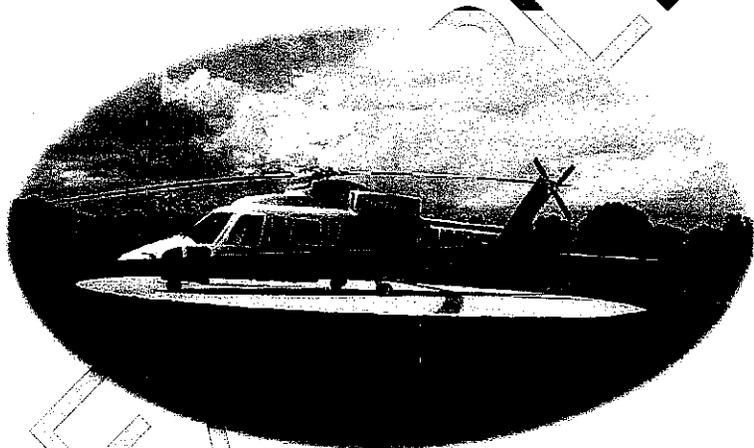
Exhibit J

Heliport Facility and Training Manual

Trump Doral Golf Resort and Spa

4400 NW 87th Avenue
Miami, FL 33178

December 21, 2014



Developed & Distributed By:



An Aeronautical Consultancy

28 Baruch Drive, Long Branch, New Jersey 07740
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APPLICATION

This Heliport Facility and Training Manual is designed for the heliport owner and designated users and covers the minimum standards that should be addressed with respect to facility administrative management, security and maintenance oversight, flight operations, safety and training.

This manual has been designed to become an initial and annual prerequisite facility recurrent training requirement for all personnel whose job descriptions include activity around the heliport.

This document provides the necessary background information and required reading for the property owner's representative(s) and property management team. Each individual directly or indirectly involved with these functions should be provided the opportunity to review this manual, which includes sections on safety, general operating rules, along with professionally administered hands-on training for all individuals whose duties include responsibilities at or around the heliport.

PILOT BRIEFING SHEET & FACILITY INFORMATION PACKET

Section 7 on page 21-22 contains the Pilot Briefing Sheets which have been designed for flight operations. Anyone at the facility dealing with the heliport and flight operations should refer to the facility Information presented on pages 2 through 6. This information should be made available to any and all helicopter operators who may have a foreseeable need or requirement to land at this facility.

EMERGENCY PROCEDURES & NOTIFICATION SHEET

An Emergency Procedures and Notifications checklist can be found on pages 16 and 17. This checklist is to be utilized in the case of any helicopter incident or accident. Building Management personnel should post this checklist conspicuously for use on site. Pre-accident planning and training should be practiced on a regular basis to ensure all personnel are properly trained in their duties. This is in addition to the Heliport Emergency Procedures manual which details specific training procedures and interfaces with the local emergency management representatives.

CAMPUS EMERGENCY GRID MAP

On page 18 is a Campus Emergency Grid Map with street labels. In the event of an incident or accident, the map can be used to describe the exact location of an emergency occurring in close proximity to the facility. Copies of this map are also to be posted in the Fire Cabinet area where heliport security personnel are stationed during flight operation as well as supplied to the local Fire Station(s).

PPR (PRIOR PERMISSION REQUIRED):

Trump Doral Golf Resort and Spa policy requires a Letter of Agreement for any non-company helicopter(s) to land at any of their heliports. This can be accomplished through direct contact with Darrin Helfrick, who will refer requesters to the proper personnel.

For those helicopter operators where a written permission is in place, Trump Doral Golf Resort and Spa will be notified of a helicopter transport as soon as it has been scheduled. Trump Doral Golf Resort and Spa management will act as the coordinator for all helicopter and heliport operations. Specific notice is required for each transport or flight operation. All preapproved flight operations will have reviewed this material and have a specific written agreement for use of the heliport. Pilot acknowledgement of reading and agreeing to follow the prescribed procedures on this briefing material is mandatory for operations at this location.

FLIGHT PATHS:

Recommended heliport Approach/Departure paths are depicted on enclosed aerial photo inserts.

PAD-A

- 170°/350° & 050°/230° App/Dep Path supports a standard approach departure angle of 12° or greater and is free of obstacles within the 8:1 App/Dep floor as of the printing of this manual and is suitable for day and night operations.

PAD-B

- 230°/050° & 120°/300° App/Dep Path supports a standard approach departure angle of 12° or greater and is free of obstacles within the 8:1 App/Dep floor as of the printing of this manual and is suitable for day and night operations.

Pilot discretion and safety considerations dictate the best course of action for all potential situations.

SIZES AND LIMITATIONS:

The "Design" helicopter for the Trump Doral Golf Resort and Spa heliports is the Agusta Westland 109.

Key Heliport Dimensions Area as Follows:

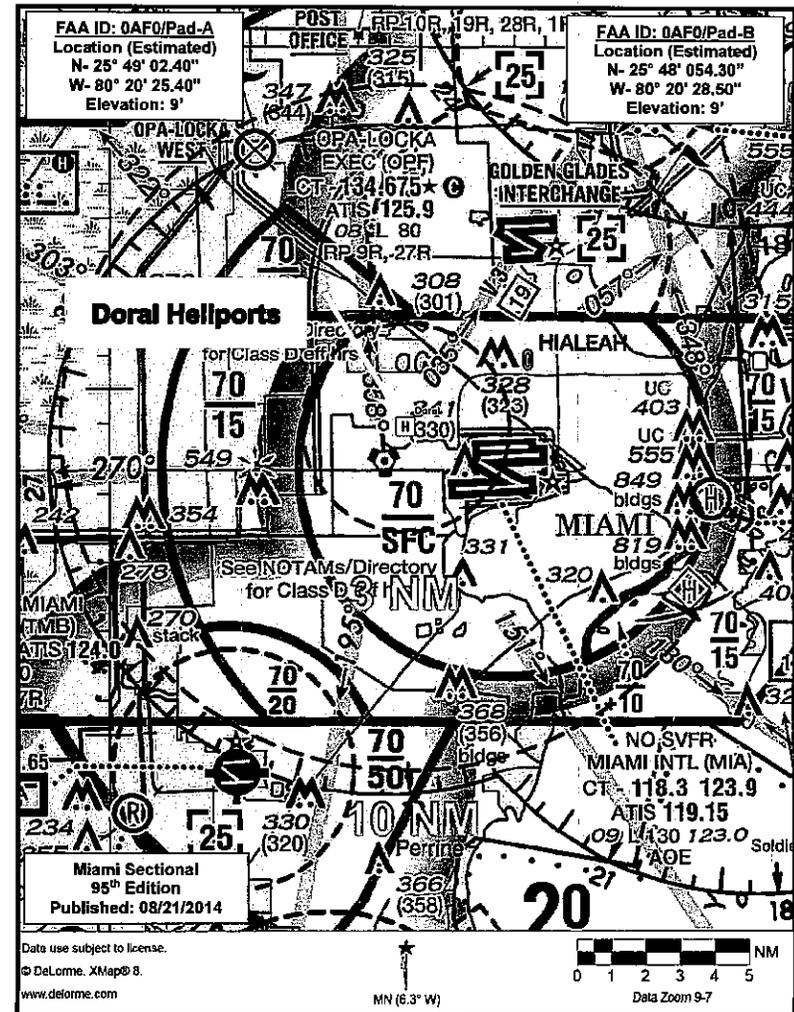
- | | |
|---|---------------|
| • TLOF (Touchdown and Liftoff Area): | 46' Diameter |
| • FATO (Final Approach and Takeoff Area): | 95' Diameter |
| • FATO Safety Area: | 135' Diameter |
| • TLOF Max Gross Weight Capacity: | 30,000 lbs. |

FACILITY INFORMATION

FAA Identifier	0AF0
Facility Name	Doral Resort & Country Club Heliport
0AF0-Pad A	N- 25° 49' 02.40" / W- 80° 20' 25.40"
Latitude/Longitude (estimated)	N- 25° 49.040' / W- 80° 20.423' N- 25.817333° / W- 80.340350°
0AF0-Pad B	N- 25° 48' 54.30" / W- 80° 20' 28.50"
Latitude/Longitude (estimated)	N- 25° 48.905' / W- 80° 20.475' N- 25.815084° / W- 80.341250°
Heliport Elevation (estimated)	9 ft. / 3m
Preferred App/Dep Paths	PAD-A: 170°/050° and 050°/230° PAD-B: 230°/050° and 020°/300°
Magnetic Variation	6.3
Size:	TLOF: 46' X 46' ATO: 95' X 95' ATO Safety Area: 135' X 135'
Max Gross Weight	35,000 lbs.
Lighting	Perimeter (portable)
Wind Indicator	Yes (portable & lighted)
Radio Frequency	123.05
Hours of Operations	Day & Night / VFR Only
Type Operations	Private Use PPR (Prior Permission Required)
On Site Manager	[REDACTED]
• Phone (office)	[REDACTED]
• Phone (cell)	[REDACTED]
Security	[REDACTED]
Club House	[REDACTED]

AERONAUTICAL MAP OVERLAY

Trump Doral Golf Resort and Spa



Responsibilities and Guidelines

Three separate departments are involved to one degree or another with the helicopter operations:

- Administration
- Security Staff
- Ground Maintenance Staff

Each department head is responsible for the safe and proper conduct of his or her staff members who, as part of their job functions, are exposed to operating helicopters at the heliport.

ADMINISTRATION

The Trump Doral Golf Resort and Spa Manager is charged with the overall operational responsibility of the landing area and will review and authorize any requests for the use of the facility. All transport requests MUST be forwarded to [REDACTED] for their operational approval of the helicopter operator and flight.

Safety requests should always receive the highest priority. Of course, requests to operate the heliport for operations that directly relate to the specific site mission should receive the next priority. All accommodating operations that are not directly associated with client transport (e.g., requests from a neighboring corporate facility to land guests or clients) must be reviewed and approved by senior management staff.

Trump Doral Golf Resort and Spa system administration, legal department, safety and risk management will coordinate the permission for other Transport agencies and assure the operator has the appropriate certifications, insurances as well as has named Trump Doral Golf Resort and Spa, it's management and design team as "Additionally Named Insured" on the appropriate insurance policies. Administration officials will assure that all other operators have copies of the appropriate Trump Doral Golf Resort and Spa policies and a copy of the most up to date Pilot Briefing Sheet for the heliports they may use.

The expected date and time of landing, anticipated ground time (if any), number and names of passengers to include individual contact information and contact with the aviation organization involved are the minimum requirements that should be addressed. Any special needs, such as handicap transport i.e. Wheelchairs, multiple passengers, multiple aircraft and extended ground times should be handled on a case-by-case basis.

The Trump Doral Golf Resort and Spa administration has designated [REDACTED] to be the lead in all matters dealing with the FAA and other agencies as it pertains to their

heliport and flight operations at their facility. The Director of Safety and Director of Facilities at each location will be familiar with all of the pertinent information regarding the FAA Heliport Master Record (FAA Form 5010) and the need for keeping that information up to date. It is noted that FAA regulations requires a minimum of a 90 day notice for any construction, alteration, activation, deactivation, or changes in status at any heliport. There are also additional notification requirements for any aviation hazards which may occur on or around the heliport.

SECURITY STAFF

In addition to those specific items identified in the Heliport General Safety section, the following list identifies specific general responsibilities for security personnel:

1. Each shift security personnel should include a visual inspection of the heliport to ensure that there are no unauthorized personnel, vehicles or objects, snow, ice, or debris that may affect the safe operation of the heliport. If possible, immediate removal of any unwanted personnel, or correction of any deficiency, should be performed. If such action cannot be accomplished, the heliport should be closed and secured until the situation can be rectified. Immediately notify facility administration and the Trump flight department.
2. Check all lights and lighting systems daily. Lights that are not functioning should be immediately reported to the facilities maintenance department in charge of repairing such items. Any other safety discrepancy should also be corrected. Flight operations personnel should be notified immediately of any discrepancy.
3. A security person shall be present for all operations (landings and takeoffs).
4. Onsite security personnel shall be trained in the proper operation of available portable fire-fighting equipment to control minor fires.
5. Onsite security personnel shall also be fully trained in the activation of the facilities Emergency Action Plan.
6. Onsite security personnel shall be fully trained in the location and use of all pertinent fire alarms.
7. All security personnel should wear both hearing and eye protection during all helicopter flight operations as directed by OSHA standards and within 200' feet of a running helicopter.
8. At a minimum of 10 minutes prior to the scheduled arrival of any helicopter onsite security personnel will go to the heliport and conduct a pre-check to verify safe and operational conditions exist. Security personnel will then await either a radio call from the incoming helicopter or phone call the corresponding flight center.

9. When the helicopter is in sight or can be heard, onsite security personnel will then assure the entire area within a 200' radius of the heliport center is clear.
10. Onsite security personnel shall ensure that no one approaches the aircraft while the rotor blades are in motion, unless clearly and specifically authorized by the pilot or flight crew on the helicopter. DO NOT APPROACH the helicopter unless specifically instructed to do so by the pilot and only if properly equipped with hearing and eye protection and trained to do so in the manner instructed by the flight operations program being used.
11. Onsite security personnel shall ensure that bystanders and any personnel not connected directly with the helicopter operation are kept clear of the heliport and at a safe distance.
12. Onsite security personnel may be asked to assist the flight crew or staff members during client transports.

Safety Equipment List

The following equipment is to be stored in the heliport designated area at all times and readily available for onsite operations:

1. Hearing Protection (*required within 100' of running helicopter*)
2. Safety Glasses (*required within 100' of running helicopter*)
3. Portable Fire Extinguisher
4. Radio or cell phone for direct communications with helicopter or flight department
5. Portable heliport perimeter lights

MAINTENANCE STAFF

Facility maintenance personnel are not ordinarily associated with the operation of the helicopter during normal flight operations. However, the facility maintenance team's responsibilities are significant and contribute to the overall safe and efficient use of the heliport. Beyond the knowledge of those items identified in the Heliport General Safety guidelines, ground maintenance team members are responsible for the following:

1. Maintain the heliport, the lighting system, fire extinguisher and the surrounding area in a clean and orderly manner. Removal of snow, ice, and any other debris from the area of the heliport will be the responsibility of maintenance in coordination with security and facility administration. When grass is cut, the clippings should be removed from the heliport area. Care should be taken not to damage the heliport lights during mowing or other operations in the vicinity of the helipad.

2. Repaint heliport markings when they become faded or worn and difficult to read.
3. Replacement of the windsock fabric before it becomes worn and tattered and no longer functional and replacement of the windsock lights as needed.
4. Perform, at a minimum, a weekly check of all lights and lighting systems when onsite. Lights that are not functioning should be replaced or repaired immediately. Any other safety discrepancy should also be corrected. Flight operations personnel should be notified immediately of any discrepancy. Coordination with the onsite security department should occur during normal daily operations for any additional maintenance requirements.
5. Notify facility administration and security personnel immediately if the heliport is not fully functional for any reason. The appropriate flight department can make the determination on how the discrepancy will affect their operations at the heliport and suggest the most appropriate course of action. This may entail instituting operational restrictions be imposed until corrective action can be taken. For example, if there were a problem with the heliport lighting a restriction of daytime only operations may be imposed.

SAFETY AND TRAINING PROGRAM

APPLICATION

The purpose of the safety and training program is to familiarize all personnel with the hazards associated with heliport flight operations and helicopter transport. It also provides maintenance personnel with standard operating procedures for the ongoing upkeep and maintenance of the heliport.

This manual is designed to supplement the Trump Flight Operations Department as well as create standard operating procedures for the onsite heliport. Any helicopter specific hands on training should be conducted with the appropriate helicopter transport personnel. Any conflict arising between existing manuals and this manual should be resolved immediately between resort staff and the appropriate representative from the helicopter flight program.

Each member of the ground support team, including authorized heliport manager(s), should be intimately familiar with the contents of this section of the Heliport Facility Manual. Following a reasonable time for review and study, the supervisor of each support service team will personally examine each team member with respect to the hazards associated with working around operating helicopters and the responsibility to perform his or her duties in a safe and professional manner.

NO ONE shall be allowed on or around the heliport during flight operations, unless they have been specifically trained by a qualified person. The training, testing and authorization of individuals may be administered and controlled by instituting a documented and written training schedule for both initial and annual recurrent training purposes. *(This process is highly recommended)*

BASIC INFORMATION TO THE HELICOPTER

While each helicopter has its own distinct design and characteristics, the mechanics of control are basically the same. The single-rotor helicopter produces lift by rotating airfoils (rotor blades) at speeds of 350 to 500 revolutions per minute (rpm). These rotor blades are driven by an engine(s) through a transmission. While an airplane requires forward airspeed to produce lift over its wings, the helicopter need only rotate its blades to achieve the same results.

To produce lift, the pilot merely raises the **collective pitch control** located on the left side of the pilot seat. This effectively changes the pitch angle of all rotor blades collectively, thereby increasing or decreasing the resultant lift. As the rotor blades revolve, they form a disc, called the rotor disc. The cyclic stick that is located in front of the pilot's seat controls the rotor disc tilt for directional control. To move the helicopter forward, the cyclic stick is moved forward, tilting the rotor disc only a few degrees down

in front. The resulting thrust pushes the helicopter forward. Movement of the cyclic control either laterally left or right or in the rearward direction results in a similar action, as the helicopter will then move in the desired direction. In forward flight, the cyclic stick controls forward speed, direction of flight, and, in coordination with the collective control, altitude.

The **anti-torque rotor**, also known as the **tail rotor**, counteracts and controls the torque created by the main rotor. Without a tail rotor, the body of the helicopter would normally spin at a hover (with direction varying by helicopter model), reacting to the rotation of the main rotor blades. The tail rotor also provides heading control for turning while at a hover or in flight. Hovering turns are made as the pilot changes the pitch of the tail rotor blades by using the **tail rotor pedals**, located on the cockpit floor just in front of the pilot's seat.

HAZARDS OF ROTATING BLADES

There exists a definite hazard for blade contact for those not familiar with the procedures required for safe operations around a helicopter whose rotor blades are turning. The main rotor blades on certain types of helicopters can drop to below four feet above ground level when the aircraft is being started or stopped, i.e. slow moving blades. Being familiar with the various makes and models of helicopters that will ultimately utilize your facility and the required main and tail rotor clearances they require will improve overall operational safety.

Due to their high rotational rate the turning tail rotor blades of a helicopter can be invisible to the naked eye and should command great respect. Some tail rotor systems are only a foot or so above the ground and average about five feet in diameter. Extreme caution should be exercised when walking around an operating helicopter and personnel should NEVER walk toward the tail end of the helicopter or approach a running helicopter from the rear. Passing behind a running helicopter is extremely dangerous as the tail rotor extends beyond the end of the aircraft and the rotating blades are not easily visible.

NEVER pass behind an operating helicopter! Always approach the helicopter in full view of the pilot and only after receiving his or her permission to do so. The tail rotor cannot be seen from the cockpit and is not generally lighted; as a result, it is even more difficult, if not impossible to see at night.

There are some specific models of helicopters that you may encounter that are only safe to approach and depart from the sides, not directly from the front of the helicopter. Knowing these differences is crucial to maintaining a safe working environment at the heliport.

PERSONNEL AROUND HELICOPTERS

There should be a designated area clear of the helicopter landing and takeoff area where personnel assisting in the flight operation can safely wait for the helicopter to land or takeoff. This area should be identified with some type of signage and or visual markings on the pavement and should be included in both initial and annual recurrent training. As a general rule of thumb a safe distance for individuals near the heliport to remain clear is at least 200' from the Touchdown and Liffoff (TLOF) area.

It must be made clear to all personnel connected with the program that no one, other than those properly briefed and trained, may approach an operating aircraft. Responsibility for this lies with the administration and is a basic requirement for helicopter safety. A strong commitment to safety must be made to protect everyone from the hazards of the rotating main and tail rotor blades.

Who may approach the helicopter?

1. Authorized and trained personnel only.
2. Only the necessary number of individuals to accomplish the required task.

When to approach the helicopter?

1. Only after the helicopter has touched down and engine speed has been reduced to idle and only if one of the pilots or other crew member has exited the helicopter and--
2. When a visible and clear signal has been given from pilot to approach.

How to approach the helicopter?

1. Approach from front, preferably from the 10 and 2 O'clock position or the sides as appropriate for the helicopter make and model.
2. Remain visible to the pilot at all times.
3. Do not run, always walk.
4. Never approach from or depart towards the tail of the aircraft.
5. The airspeed probe of the helicopter is generally a bare metal pointed tube with a hole in the center of it located at the front of the helicopter. They can be hot if the anti-ice heater for that probe has been activated. It is highly recommended not touch the airspeed probe at any time.

NOISE HAZARDS

Helicopter engines, blades and transmissions produce a great deal of high frequency sound; therefore, continual close-in exposure can impair and damage hearing. Personnel in and around an operating helicopter should be provided and use appropriate hearing protection as spelled out by OSHA criteria.

CAUTION helicopter noise can make verbal communication very difficult around the helicopter and this can lead to miscommunication and confusion. The typical high noise area is generally restricted to within 50' of the helicopter at ground idle but will be greater when aircraft are at full throttle, at a hover, taking off or landing.

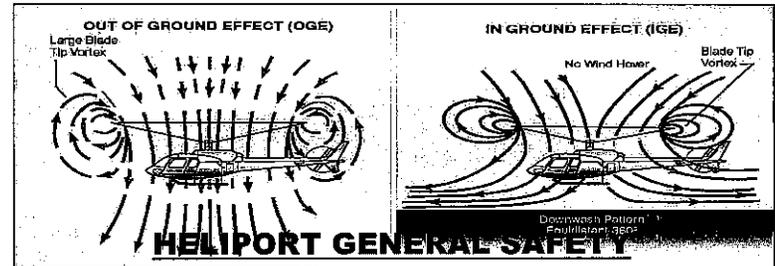
Members of the general public should never be within this area when the helicopter is running.

Helicopter noise may cause disorientation and severe distraction to those not familiar with helicopters. Main rotor and engine noise, in addition to the engine exhaust, can distract personnel. Always use caution.

DOWNWASH HAZARDS

Helicopters can generate a significant amount of air flow during normal operations. From the perspective of ground safety, we are most concerned with the wind generated by the helicopters during hovering operations or slow flight, e.g. landing and takeoff. The figures below illustrate a typical helicopter downwash, AKA "Rotor-Wash".

The velocity of the rotor wash of a helicopter is dependent on its disc loading. As a general rule, larger heavier helicopters have higher disc loadings and therefore will develop higher downwash velocity. For example an S-76 (one of the larger helicopters in EMS service) has a horizontal velocity of about 40 MPH some 40' from the center of the rotor. This downwash can extend some distance, up to 3-4 rotor diameters away from the helicopter. Locations within this area of influence should be inventoried and kept clear of loose debris, patients and sensitive property during all operations.



The following guidelines are applicable to all staff members:

1. No unauthorized personnel are to be on the heliport any time the heliport is active. Only designated and trained personnel should be around the heliport.
2. No one is allowed on the heliport while the rotor blades are in motion unless directed by and specifically authorized by the pilot.
3. Never approach the helicopter until signaled by the pilot or other flight crew member.
4. At no time is anyone permitted near the tail of the aircraft. Certain helicopters also have hazards to the front of the helicopter. Be familiar with the different procedures needed for the type of aircraft utilizing your heliport.*
5. Always approach the aircraft in full view of the pilot.*
6. No smoking is permitted on the heliport or within 50' of the helicopter itself.
7. No running is permitted on or in the vicinity of the heliport.
8. No hats, bed sheets, loose articles, trash, or other objects and debris that could be blown by or ingested by the helicopter should be allowed on the heliport.*
9. Do not throw anything toward or from the aircraft.*
10. Only properly trained and qualified personnel should be allowed to assist with the boarding of passengers from a landing helicopter.*
11. Do not lift anything higher than eye level when near the helicopter.*
12. No equipment is to be under the rotor disc of the helicopter at any time.*
13. During night operations, care should be taken that any lights, floodlights, flashbulbs, etc. be pointed away from the aircraft while it is landing or taking off.
14. Helicopters should never be left unattended at the heliport. There should always be a crew member or security staff member at the helicopter at all times. Helicopters by their very nature are subject to the curious.
15. Be familiar with emergency action plans that include provisions for a helicopter mishap on or in the vicinity of the heliport. Be knowledgeable of, and able to perform, assigned duties.

(*) denotes items where the procedures for a helicopter parked with the blades stopped do not pose the same need for extreme caution.

DORAL HELIPORT EMERGENCY ACTION PLAN PROCEDURES & NOTIFICATIONS IN THE EVENT OF AN ACCIDENT!

1. **Communications:** The heliport security person on duty will contact the appropriate public emergency agencies (i.e., fire or police department) by dialing 911 and advise them of the exact emergency, where it is located, what assistance is needed, and if there are any injuries. If assistance is needed other than on the heliport, refer to the Area Map with labels posted in the heliport document cabinet for appropriate area and street names. The authorized heliport manager is required to carry a radio at all times and a hard line telephone is located in the main building office which also serves as the Heliport office. If there are injuries to any persons, the security person will assist in a manner consistent with the situation and capabilities of that person and training received.
2. **Fires:** The authorized heliport security person will attempt to control any small fires with the portable fire extinguishers and assist in the safe evacuation of any crew, passengers or other personnel. This also applies to fires not associated with the helicopter or heliport.
3. **Follow-up:** Property management will then coordinate follow-up efforts with the following public safety agencies as needed:

Doral Police Department:	(305) 593-6669
Doral Fire Department:	(786) 331-5000

NOTE: Use 911 for urgent communications
4. **Aviation Notifications:** After the situation is under control, if the accident involves substantial damage to the aircraft or personal injury, notify the following:

FAA Flight Standards District Office:	(954) 641-6000
National Transportation Safety Board (NTSB):	(202) 314-6000

HELIPORT Emergency Action Plan- Cont.

5. **Reporting:** If there is doubt about the need to report the accident, call any of the above agencies with a brief description of the circumstances to determine whether or not a formal report is required.
6. **Crash Site:** In the event of a serious aircraft accident, property management or their designee will ensure the crash site is preserved until the NTSB or its authorized representative takes custody of the wreckage and establishes control of the site. The following items are standard NTSB protocols that should be followed.
7. **Establish a Perimeter**
 - Protect property
 - Prevent the disturbance of wreckage and debris except to preserve life, rescue the injured, or protect the wreckage from further damage
 - Protect and preserve ground scars and marks made by the aircraft
 - Admit Public Safety Personnel access to the wreckage to the extent necessary to preserve life, and/or stabilize HAZMAT
 - Maintain a record of personnel who enter the accident site
8. **Prior to NTSB Arrival on scene, Restrict Access only to Authorized Personnel**
 - FAA
 - Police/Fire/EMS
 - Medical Examiner/Coroner
 - Other Emergency Services Agencies

NOTE: While the formal notification to the NTSB by the *operator* of the aircraft is required under NTSB rules, some state regulations require the licensee or their agents to report ALL aircraft accidents/incidents on or near their facility to the local police and the State Aeronautics Authority.

MEDICAL EMERGENCIES – If the emergency does not involve the helicopter; follow the normal building management procedures for addressing the medical emergency.

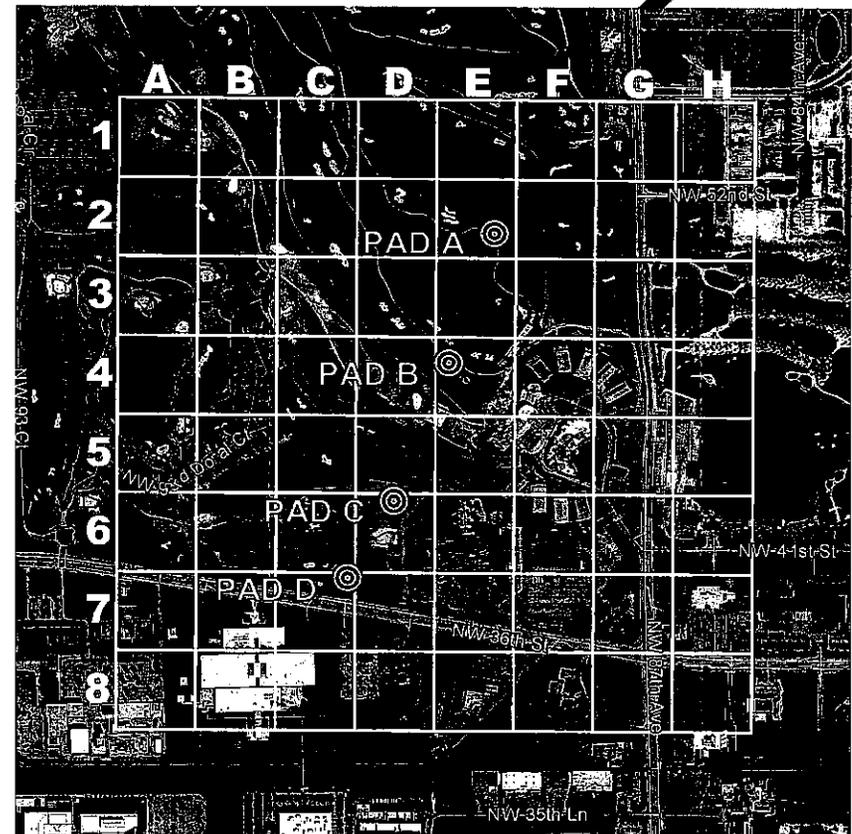
DANGEROUS GOODS – These materials are not anticipated to be on the heliport. In the event they are on the heliport; please contact the Security Department.

NATURAL DISASTERS & SECURITY ISSUES – Reference building management's published formal or informal policy and procedures.

**NOTE: The Fire and Police Department are the leads in the event of an emergency and in charge of the scene upon arrival.*

DORAL HELIPORT EMERGENCY GRID MAP IAW NFPA-418

*(To be posted at Heliport & local first responders' stations)
Grid squares are 500' X 500'; total grid is 4,000' X 4,000'*



HELIPORT EMERGENCY PLANNING AND TRAINING SECTION I/A/W NFPA 418

Items not already covered in this manual will be jointly developed with Trump Doral Golf Resort and Spa administration, fire safety professionals and local public safety agencies and included as either supplements or additions to this manual.

Some of these already exist in the system and need only to be incorporated or referenced. Examples include medical emergencies, fires and natural disasters.

Appropriate details concerning emergency planning and interface with first responders can only be developed as a result of a one on one team effort.

NFPA-418 / Annex B Heliport Emergency Planning and Training for Safety Personnel

This annex is not a part of the requirements of this NFPA document but is included for informational purposes.

B.1 General.

If safety personnel are provided at a heliport, the heliport operator should provide initial and recurrent training aimed at providing the safety personnel with the knowledge and skills necessary to deal effectively with an emergency at the heliport.

B.1.1 The training should address, at least, the following subjects:

1. Operation of the heliport
2. Safety procedures around helicopters during ground operations
3. Communication systems at the heliport
4. Heliport emergency plan

B.1.2 Heliport emergency planning is the process of preparing a heliport to cope with an emergency that takes place at the heliport or in its vicinity. The following are examples of heliport emergencies:

1. Aircraft emergencies, such as crashes on or off the heliport
2. Medical emergencies
3. Dangerous goods occurrences
4. Fires
5. Natural disasters

B.1.3 The purpose of heliport emergency planning is to minimize the impact of an emergency by saving lives and maintaining aircraft operations.

B.1.4 The heliport emergency plan sets out the procedures for coordinating the response of heliport agencies or services (e.g., air traffic services unit, fire-fighting services, heliport administration, medical and ambulance services, aircraft operators, security services, and police) and the response of agencies in the surrounding community (fire departments, police, medical and ambulance services, hospitals, military, and harbor patrol or Coast Guard) that could be of assistance in responding to the emergency.

B.1.4.1 A heliport emergency response plan should be established at a heliport.

B.1.4.2 The plan should identify agencies that, in the opinion of the heliport operator, could be of assistance in responding to an emergency at the heliport or in its vicinity.

B.1.4.3 The plan should specify the procedures for at least the following emergencies:

1. Aircraft crash or other accident within the heliport perimeter
2. Aircraft crash outside the heliport perimeter
3. Trauma injury to personnel
4. Medical emergencies

B.1.4.4 Where an approach/departure path at a heliport is located over water, the plan should identify which agency is responsible for coordinating rescue in the event of an aircraft ditching and indicate how to contact that agency.

B.1.4.5 The plan should include, as a minimum, the following information:

1. Types of emergencies planned for
2. How to initiate the plan for each emergency specified
3. Names of agencies on and off the heliport to contact for each type of emergency, with telephone numbers or other contact information
4. Role of each agency responding to each type of emergency
5. List of pertinent and available on-heliport services with telephone numbers or other contact information
6. Copies of any agreements with other agencies for mutual aid and the provision of emergency services
7. Grid map of the heliport and its immediate vicinity
8. Use of any of the following equipment, if that equipment is provided at the heliport:
 - a. Portable extinguishers
 - b. Fire hoses, nozzles, and other similar appliances
 - c. Extinguishing agents

B.1.4.6 A heliport operator should consult all agencies identified in the plan about their role in the plan.

B.1.4.7 The plan should be reviewed and the information in it updated yearly by the heliport operator.

B.1.4.8 A test of the emergency response plan should be carried out at least once every 3 years at a heliport that provides a scheduled service for the transport of passengers.

B.1.4.9 At a rooftop heliport, at least one person who has received the training described in this annex should be available during aircraft operations.

EXAMPLE

Exhibit K

PARKVILLE BOARD MEETING
December 13, 2016

RE: HELIPAD AT THE NATIONAL / CONCERNS

BY: Liane Lance

7002 Waters Edge THE NATIONAL Parkville, MO 64152

1. Proposal Site in a densely populated area - Why is it critical that The National have a helipad in the middle of the most densely populated area in the neighborhood? This helipad is directly adjacent to the tennis courts, which are frequently populated not only by neighbors and their children during the tennis season, but also by neighboring schools, etc., who come and use the courts? This helipad is also directly across from the Family Activity Center, where the pools and workout center are located. The flight path would also go directly over the heads of the golfers at the driving range and putting greens. The National has a lot of land in areas that are not densely populated? Why does it need to be in this particular location? Why could it not, for example, be located on the land adjacent at the dead-end of North National Drive? The proposal says that other locations were considered and rejected, but there is no mention as to why they were rejected. What makes this highly dense location the very best of all the potential options?
2. Home Owner Value / Member Value – Do the homeowners (HOA) in The National know that a helipad is to be constructed in this area? Do they know that there is potential risk of flying debris? Many cars are parked within 200 feet of this potential helipad. The consultants recommend that the landing area of the helipad must be policed regularly for loose items and debris (FOD) within 200 feet – who will regularly perform this task as there is no mention of this in the proposal.
 - a. Have there been any studies on what this would do to homeowner values? Also, is there any potential risk to golf and recreational memberships not being purchased and/or renewed due to the location of this helipad?
3. Frequency – How many landings will be allowed per day? Per week? Per month? How many homeowners will be allowed to have landing rights here? Will it be restricted to homeowners? Could it also be members who live elsewhere? There is no mention to limiting landings in the proposal.
4. Will night landings be allowed? Landing lights are included in the proposal. If so, what hours of the night will it be restricted to? Are there any noise abatement restrictions so as not to disturb homeowners in the flight path of the helicopters during sleeping hours? It is hard to believe that night landings, however infrequent, wouldn't affect the ability of the homeowners in the lodges to resell their property. Who would want to be disturbed by that even ONE time?
5. Will there be anyone on the ground during landings to direct foot and cart and car traffic away from the helicopter and its' flight path? If so, does this mean there is potential for residents to not be able to leave the neighborhood until the path is cleared? The consultants highly recommend that during all take off and landing operations that properly trained security personnel be in place.

From: Steven Dillman [mailto:srdill@aol.com]

Sent: Tuesday, December 13, 2016 9:46 PM

To: Stephen Lachky; liane@picturethistravel.com

Subject: Re: PZ16-13 The National Helipad- Supporting materials for my presentation today.

Stephen:

Thanks for the opportunity to speak tonight.
I thought the results were very reasonable.

Liane and I have been told (by a party who would know) that we can't possibly "win" and get this thing moved to a better location, but we are happy to have had our say on the matter. Knowing that the homeowners have very little chance of changing any outcomes here, it is entirely up to the Commission and I appreciate their concerns.

The Commission should know that the female neighbor who spoke in favor of the helipad did not give the Commission full disclosure.
Her husband works for the applicant, and they should all know that.

Also - I sensed from some language used after my presentation that there may have been some misunderstanding.
I am not concerned about the safety of the wildlife - my concern is with the safety of the helicopters as they fly into and out of a habitat for large numbers of big birds. One bird can bring down a helicopter. That was my point.

Please pass around everything I provided either on paper copies or as the web links copied below.

Thanks, again.

Steven Dillman | (816) 590-9416 |

Links for my documentation today:::

<http://www.cnbc.com/2015/12/28/most-helicopters-unprotected-as-bird-strikes-rise-faa-warns.html> [http://](http://blogs.usda.gov/2013/06/06/helicopters-and-bird-strikes-results-from-first-analysis-available-online/)

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http://www.birdstrike.org/wp-content/uploads/2014/11/November-Newsletter-BS-Buzz_-20141112.pdf

https://en.wikipedia.org/wiki/Bird_strike

<https://www.tc.gc.ca/eng/civilaviation/publications/tp8240-awmb38-appendix-b-5033.htm>

http://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=2245&context=icwdm_usdanwrc

<http://heliexpertsinternational.com/toolkit>

-----Original Message-----

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To: Steven Dillman <srdill@aol.com>

Cc: liane <liane@picturethistravel.com>

Sent: Wed, Dec 14, 2016 9:51 am

Subject: RE: PZ16-13 The National Helipad- Supporting materials for my presentation today.

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Stephen Lachky, AICP, CFM

Community Development Director | City of
Parkville 8880 Clark Ave. | Parkville, MO 64152
t. 816.741.7676 | slachky@parkville.gov



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please check out the new web site!
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I hope the Commission agrees that, the more information they have, the better they can analyze and respond to the proposal.

I think more specific information can be requested.

Steven Dillman
7002 Waters Edge Dr
Parkville MO 64152

From: Walt Lane [mailto:wlane@Netstandard.com]

Sent: Wednesday, January 04, 2017 3:29 PM

To: Stephen Lachky; Dean Katerndahl (deankaterndahl@gmail.com); Keith Cary (kcary@fsmllawfirm.com); Shane B. Smeed (Shane.smeed@gmail.com); Michael Wright (MWWright@HNTB.com); Barbara Wassmer (mzswazz@kc.rr.com); John T. Delich (Jdelich4@kc.rr.com); R. Douglas "Doug" Krtek (dkrtek@krtekrealestate.com); Kim Verhoeven (kaverhoeven@gmail.com)

Cc: Shakedra Knight; Melissa McChesney; cwilliams@publiclawfirm.com

Subject: RE: P&Z regular meeting agenda - January 10, 2017

P&Z Commissioners:

I am sorry I am missing the meeting next week January 10. I am out of the country again on business. Yes, it will be 85 degrees there but I will be working so that is no fun! LOL

The main reason I am emailing you is that I am a member and resident of The National and I received the HOA notice from The National regarding the helicopter pad request.

I am personally engaged with many of the residents at The National and I feel the helicopter pad and the availability of emergency use of this pad will be an improvement to the neighborhood. I understand that no helicopter will permanently be parked at the location. In fact, I believe it is a very short time period for the helicopter to be parked on the pad.

I also know that The National golf club will find it in their best interest to closely monitor the activity and access to the helicopter pad so that it does not disturb the golfing experience or the experience for the neighborhood. I understand that this pad will also allow for Life Flight helicopter use for our neighborhood.

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Thank you

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CITY OF PARKVILLE

Policy Report

Date: Tuesday, January 10, 2017

Prepared By:
Alysen Abel
Public Works Director

Reviewed By:
Tim Blakeslee
Assistant to the City Administrator

ISSUE:

Review the construction options outlined in the technical memorandum for the low water crossing in English Landing Park and authorize staff to proceed with the design of the low water crossing in English Landing Park.

BACKGROUND:

In May 2016, the City applied for funding through the Federal Emergency Management Agency (FEMA) for the Hazard Mitigation Grant Program (HMGP) for the reconstruction of the low water crossing at the entrance to English Landing Park. Through HMGP, the federal government offers assistance to communities to implement hazard mitigation measures following a Presidential major disaster declaration. Following the widespread flash flooding and severe storms from May 15 to July 27, 2015, a federal government issued a major disaster declaration for 68 counties in Missouri, including Platte County.

The low water crossing at the entrance to English Landing Park is the only vehicular access into the park. There is a pedestrian access into the park from the A-Truss Bridge. There is a secondary vehicular access on the east side of the park, but requires entering on private property to access the park.

The elevation of the roadway is lower than the banks of the Missouri River. When the river levels rise, the creek overtops the low water crossing. The low water crossing floods several times each year, causing English Landing Park to be closed. This has a direct impact to the City due to lost revenue from canceling events and reservations. In 2016, the raising water in the creek overtopped the low water crossing two days prior to the Brewfest event, threatening cancellation or relocation of the event. Luckily the water level receded and the event was held with minor modifications.

The improvement to the low water crossing is necessary, not only to the patrons of the park, but the emergency vehicles necessary to deal with issues in the park. The modifications to the low water crossing will allow the park to remain open when the Missouri River reaches critical levels. At the strategic planning workshop in July 2015, the Board of Aldermen included the reconstruction of the low water crossing in English Landing Park as a priority park improvement. The low water crossing was also identified by CLARB as a priority project.

For the submittal of the HMGP application, staff worked with Olsson Associates to prepare conceptual design options and cost estimates. Since that time, staff received notice from Missouri State Emergency Management Agency (SEMA) that the low water crossing will be recommended for federal funding. In anticipation of the funding, staff requested that Olsson prepare a technical memorandum that shows the construction options and cost estimates in a report format (Attachment 2). Once authorized by the Board, staff will move forward with the selection of an engineering firm for the preparation of the construction documents.

ITEM 4E
For 01-17-17
Board of Aldermen Meeting

Staff recommends proceeding with the mid-level option that balances the construction costs and provides adequate protection from flooding. Staff also recommends delaying the construction until the end of summer/beginning of fall, to allow most of the large 2017 events to be held in the park prior to commencement of construction. Ideally, construction will take place after Turkey Trot (November 2017) and be completed prior to Brewfest (April 2018). The Community Land and Recreation Board reviewed the report and recommend proceeding with the mid-level option and recommended that staff also to investigate the feasibility versus value of increasing the height of the crossing to the maximum allowable height.

BUDGET IMPACT:

The Hazard Mitigation Grant Program reimburses 75% of the engineering and construction cost. The City would be responsible for the 25% match. The total estimated project cost would be about \$500,000, the City's matching contribution would be \$125,000. The Capital Improvement Program (CIP) includes \$12,500 in 2017 and \$112,500 in 2018 to cover the City's matching contribution. Staff also plans to apply for a Platte County stormwater grant in 2017 to cover a portion of the engineering and construction costs for the low water crossing.

ALTERNATIVES:

1. Authorize staff to proceed with the design of the low water crossing in English Landing Park.
2. Provide alternative direction to staff.
3. Postpone the item.

STAFF RECOMMENDATION:

Staff recommends the Board of Aldermen authorize staff to proceed with the design of the low water crossing in English Landing Park.

COMMUNITY LAND AND RECREATION BOARD RECOMMENDATION:

At the meeting on January 11, 2017, by a vote of 6 to 0, the Community Land and Recreation Board recommended that the Board of Aldermen authorize staff to proceed with the design of the low water crossing at the entrance to English Landing Park and also to investigate the feasibility versus value of increasing the height of the crossing to the maximum allowable height.

POLICY:

Section 150.050.A. of the Parkville Municipal Code directs CLARB to act in an advisory capacity to the Board of Aldermen to develop and administer a writer plan for the care, preservation, pruning, planting, replanting, removal, or disposition of trees and shrubs along streets and in other public areas. As CLARB serves in an advisory capacity, its recommendations must be approved by the Board of Aldermen.

SUGGESTED MOTION:

I move authorize staff to proceed with the design of the low water crossing in English Landing Park.

ATTACHMENTS:

1. Low Water Crossing Pictures
2. Preliminary Engineering Study

**English Landing Park
Saturday, June 6, 2015
River Near Crest 30.10 Feet**



English Landing Park





TECHNICAL MEMORANDUM

	Overnight
	Regular Mail
	Hand Delivery
x	Other: <u>E-mail</u>

TO:	Alysen M. Abel, PE Public Works Director
FROM:	Chad Johnson, PE Eric Shelton, PE
RE:	Project Technical Memo – McAfee Drive Culvert Replacement Parkville, MO
DATE:	January 5, 2017
PROJECT #:	016-0854

This memorandum provides a brief summary of the conceptual alternatives that were analyzed for the HMGP Grant Application for McAfee Drive. Additionally, this memorandum will discuss positives and negatives of each alternative including opinions of probable construction cost and permitting requirements.

Purpose & Understanding:

The purpose of this study was to evaluate alternatives for replacing the existing culvert crossing at McAfee Drive at the entrance of English Landing Park. The existing crossing is frequently overtopped by storm runoff in White Aloe Branch. McAfee Drive is the only road going into or out of English Landing Park. Roadway overtopping creates safety concerns for park users, denies access to the park, and creates additional maintenance responsibilities for park staff. Since there is pedestrian-only access that floods less frequently, it is important to provide an emergency vehicle access route for patrons who access the park by foot.

Existing Condition Hydrology/Hydraulics:

The project is located in the FEMA designated floodway of White Aloe Branch and within the 100-year (Zone AE) Special Flood Hazard Area (SFHA) of the Missouri River (FIRM Panel 29165C0383D). The FIS Report (29165CV001A) provides peak discharge information for White Aloe Branch upstream of Rush Creek, which is roughly 400 feet from the project location. **Table 1** summarizes the peak discharge information provided in the FIS Report.

Table 1: Peak Discharge Information from FIS Report					
<u>Flooding source and Location</u>	<u>Drainage Area (sq. mi.)</u>	<u>10-Pct-Annual Chance</u>	<u>2-Pct-Annual Chance</u>	<u>1-Pct-Annual Chance</u>	<u>0.2-Pct-Annual Chance</u>
Just upstream of the confluence with Rush Creek	2.54	964	1,368	1,680	2,208

For the purpose of this analysis, it was necessary to calculate peak discharge rates for more frequent flood events. The values from the FIS report were used to create a flow-frequency graph. We extrapolated a log-based trend line of the flow-frequency plot in order to determine peak discharge values for the 100%, 50%, and 20% annual chance flood events. These values were determined to be 220 cfs, 400 cfs, and 700 cfs, respectively.

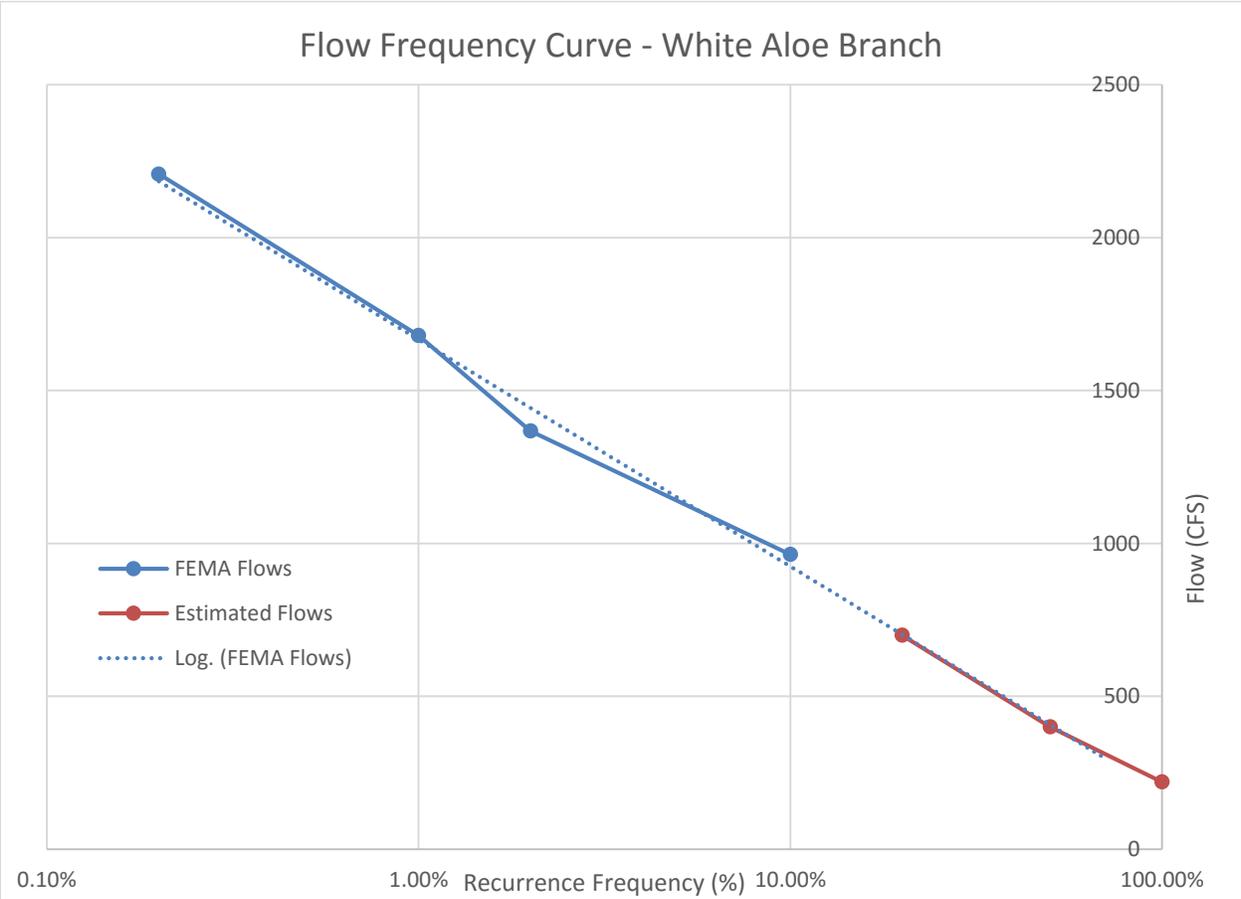


Figure 1: Flow Frequency Curve

Hydraulic modeling of the culvert was performed using HY8 7.30. Surveyed cross section and culvert information was provided by the city for this area. The hydraulic modeling results showed that the existing (4) 36" RCP culvert crossing has capacity equivalent to the 100% annual chance (1-year) event prior to flows overtopping McAfee Drive.

Design Criteria:

The site constraints and nearby channel capacity make it infeasible to achieve 100-year culvert capacity. Also, it is likely that this area may be inundated by the Missouri River during a 100-year event on White Aloe Branch. Instead, a 10-year design capacity was targeted. This design capacity would greatly reduce the overtopping frequency of the culvert, while still maintaining a sag curve at the culvert for excess flows to overtop.

Alternatives:

Alternative 1 – (4) 8' x 4' Reinforced Concrete Box Culverts

The first culvert replacement alternative consists of (4) 8'x4' reinforced concrete box culverts (RCB). This alternative would raise the low point elevation in the roadway profile from 742.87' to 744.50' in order to provide adequate cover over the box culverts. The 10-year headwater elevation would be 744.10' and the 100-year headwater elevation would be 746.21'.

The benefits of this alternative are that it provides 10-year culvert capacity with 0.4' of freeboard and only raises the roadway profile by 1.63 feet while providing 1' minimum cover on the box culvert. The negative aspects of this alternative are higher construction costs and the channel must widen from 15 feet to nearly 40 feet locally at the crossing in order to accommodate four, 8-foot wide culverts. The localized channel widening would result in inefficiencies due to expansion/contraction losses and insufficient downstream channel capacity. Additional grading and stabilization or larger wingwalls may be required to help the channel transition work. The opinion of probable construction cost for this alternative is \$560,900.00.

Alternative 2 – (3) 7' x 4' Reinforced Concrete Box Culverts

The second culvert replacement alternative consists of (3) 7'x4' reinforced concrete box culverts (RCB). This alternative would raise the low point elevation in the roadway profile from 742.87' to 744.50' in order to provide adequate cover over the box culverts. This option does not meet the 10-year design without overtopping the roadway. Instead, this option has a 5-year capacity with 0.92' of freeboard. The 10-year headwater elevation would be 745.35' and the 100-year headwater elevation would be 746.66'.

The benefits of this alternative are lower probable construction costs, better fit with channel geometry, and the roadway profile is only raised by 1.63 feet (equivalent to Alternative 1) while providing 1' minimum cover on the box culvert. The negative aspect of this alternative is that it does not pass the 10% annual chance design storm. The opinion of probable construction cost for this alternative is \$463,225.00.

Alternative 3 – (3) 9' x 5' Reinforced Concrete Box Culverts

The final culvert replacement alternative consists of (3) 9'x5' reinforced concrete box culverts (RCB). This alternative would raise the low point elevation in the roadway profile from 742.87' to 745.0'. The cover on the box culvert will be limited because raising the roadway profile too much will cause backwater in the 1% annual chance event. Due to limited cover, a special box culvert design may be required. The 10-year headwater elevation would be 744.58' and the 100-year headwater elevation would be 746.40'.

The benefits of this alternative are that it provides 10-year culvert capacity with 0.4' of freeboard and it fits better with the existing channel geometry than alternative 1. The negative aspects of

this alternative is that the raised roadway profile will result in limited cover on the box culverts and may require a special culvert design. The opinion of probable construction cost for this alternative is \$491,850.00.

Other Alternatives

The following alternatives were considered and discarded for the reasons stated:

- (3) 8'x5' RCB – This alternative is very similar to alternative 3. However, the 10-year peak flow would overtop the roadway for this alternative.
- Bridge Crossing – This alternative was disregarded due to higher anticipated construction cost. Superstructure thickness would require additional increases to roadway profile. Additional roadwork would be required east and west of the existing culverts impacting the parking lot entrance and the bathroom. Overtopping flow would be pushed toward bathrooms.
- Maintain existing culverts and add additional culverts – The existing culverts take up the entire width of the channel. Adding additional culverts would require localized widening. The new culvert would be out of alignment with the channel. Assuming the road would be raised similar to Alternative 3, the hydraulic capacity would be less than the 10-year peak flow and not comparable to Alternatives 1 through 3. Localized widening could create inefficiencies and maintenance issues due to sediment deposition.
- Further increase roadway elevation – For large events, raising roadway to increase culvert capacity must be balanced with spillway capacity for larger events. Raising the roadway too much will cause a rise in the 100-year event. Additionally, raising the roadway may push overtopping flows away from the culvert toward the bathrooms.

Preferred Alternative

Alternative 3 is the preferred alternative because it provides capacity for the 10% annual chance event, fits well with the existing channel geometry, and is comparable in probable construction cost to the other alternatives.

Permitting Requirements:

The proposed project will impact Waters of the United States, which means a Corps of Engineer Section 404 permit will be required. However, the project is anticipated to meet the criteria for Nationwide Permit #14 which would reduce the permitting efforts. The anticipated time required to obtain this permit is 3 - 6 months. Additionally, the project is located within a regulatory floodway so the improvements must result in no rise to the base flood elevations for the Missouri River or White Aloe Branch. A floodplain development permit and no-rise certification must be completed prior to construction.

Appendix A- Figures

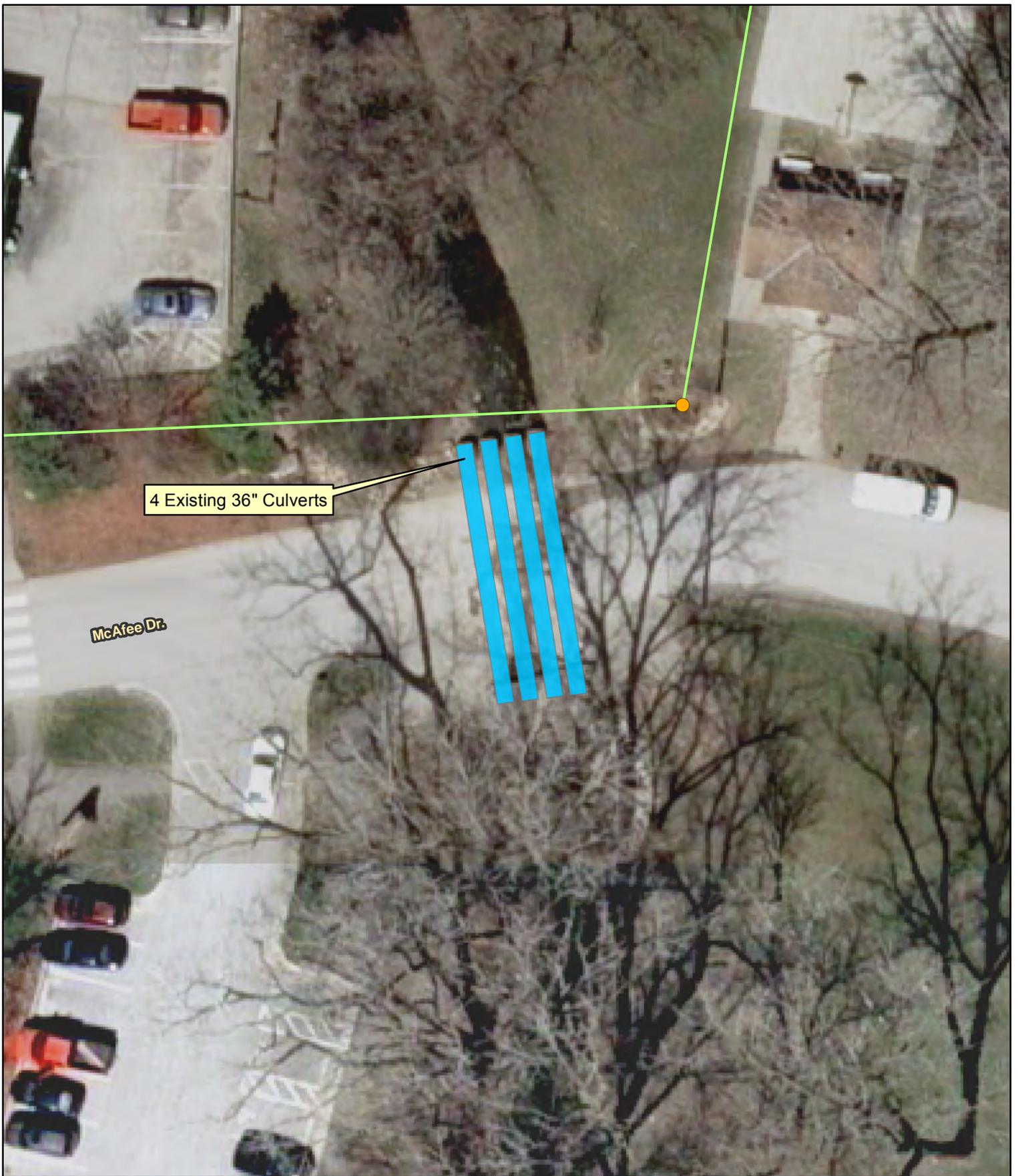


Figure 1
McAfee Drive Replacement Culverts
Parkville, Missouri
Existing Conditions

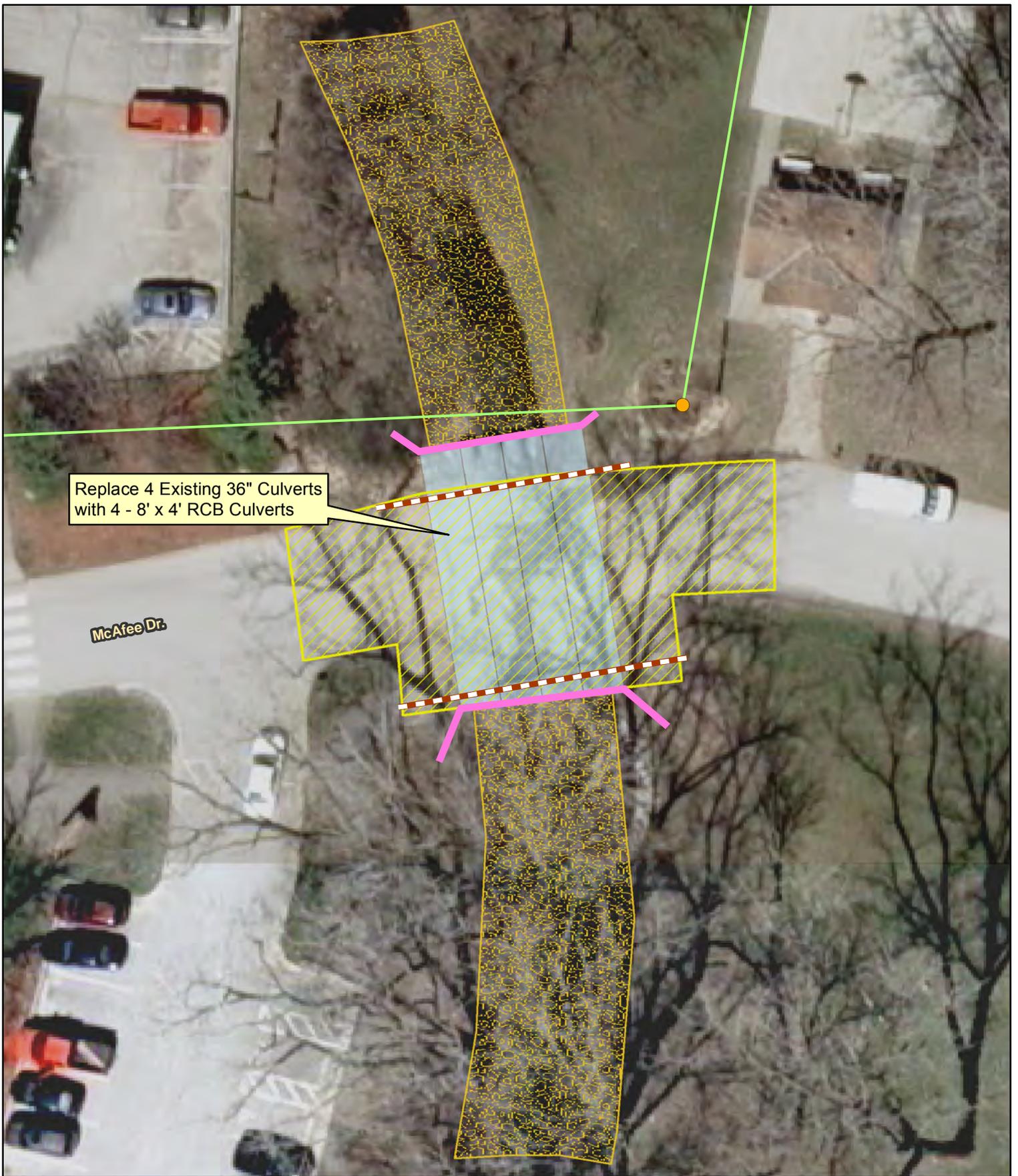
Legend

- Sanitary Manhole
- Sanitary Pipe
- Existing Culverts

0 25 50
 ─────────────────── Feet

1 inch = 25 feet





Legend

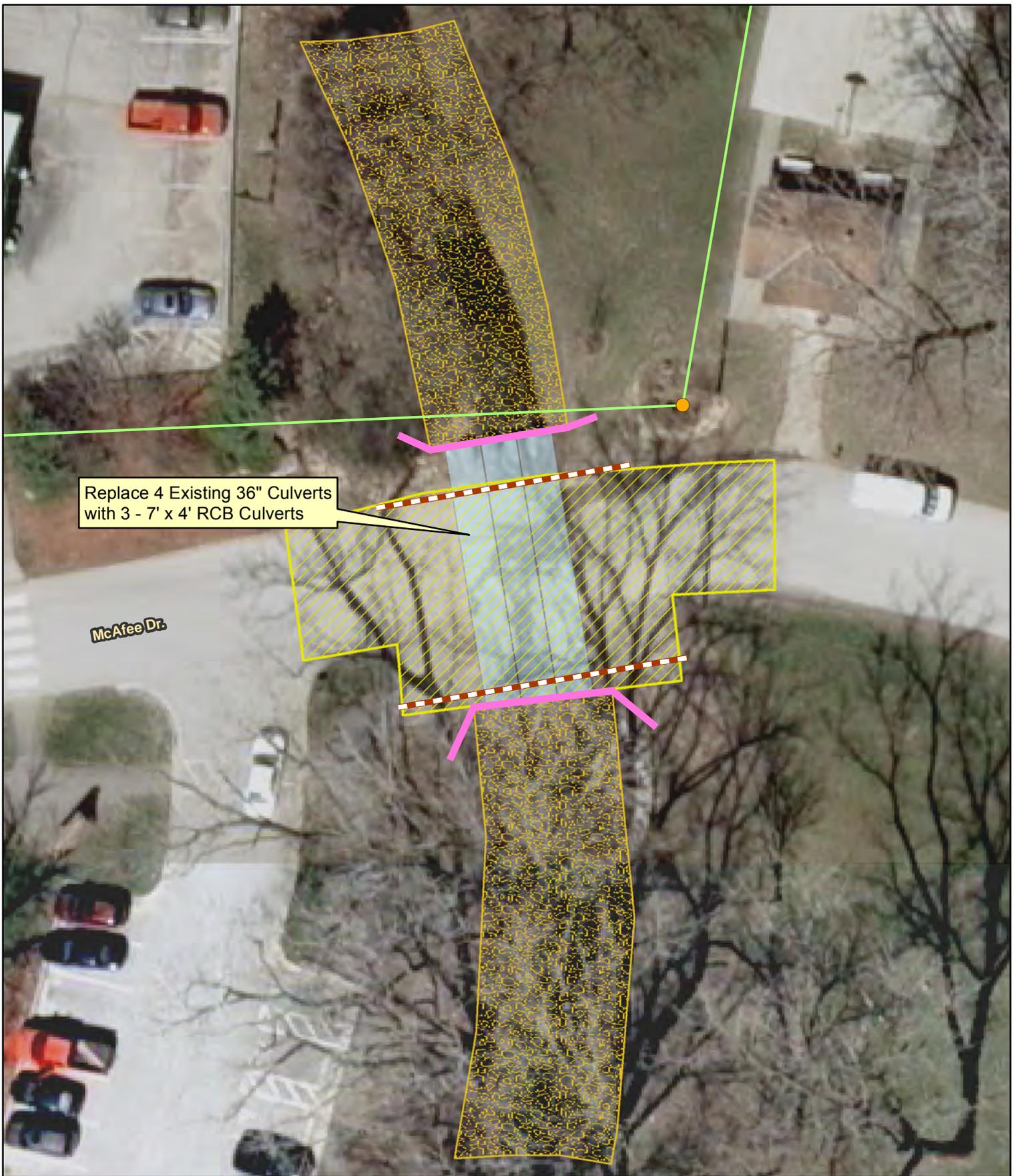
- Sanitary Manhole
- Guardrail
- Wingwalls
- Sanitary Pipe
- Pavement Removal
- Replacement Culverts
- Riprap

Figure 2
McAfee Drive Replacement Culverts
Parkville, Missouri
Alternative 1



1 inch = 25 feet





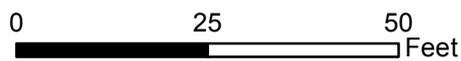
Replace 4 Existing 36" Culverts with 3 - 7' x 4' RCB Culverts

McAfee Dr.

Legend

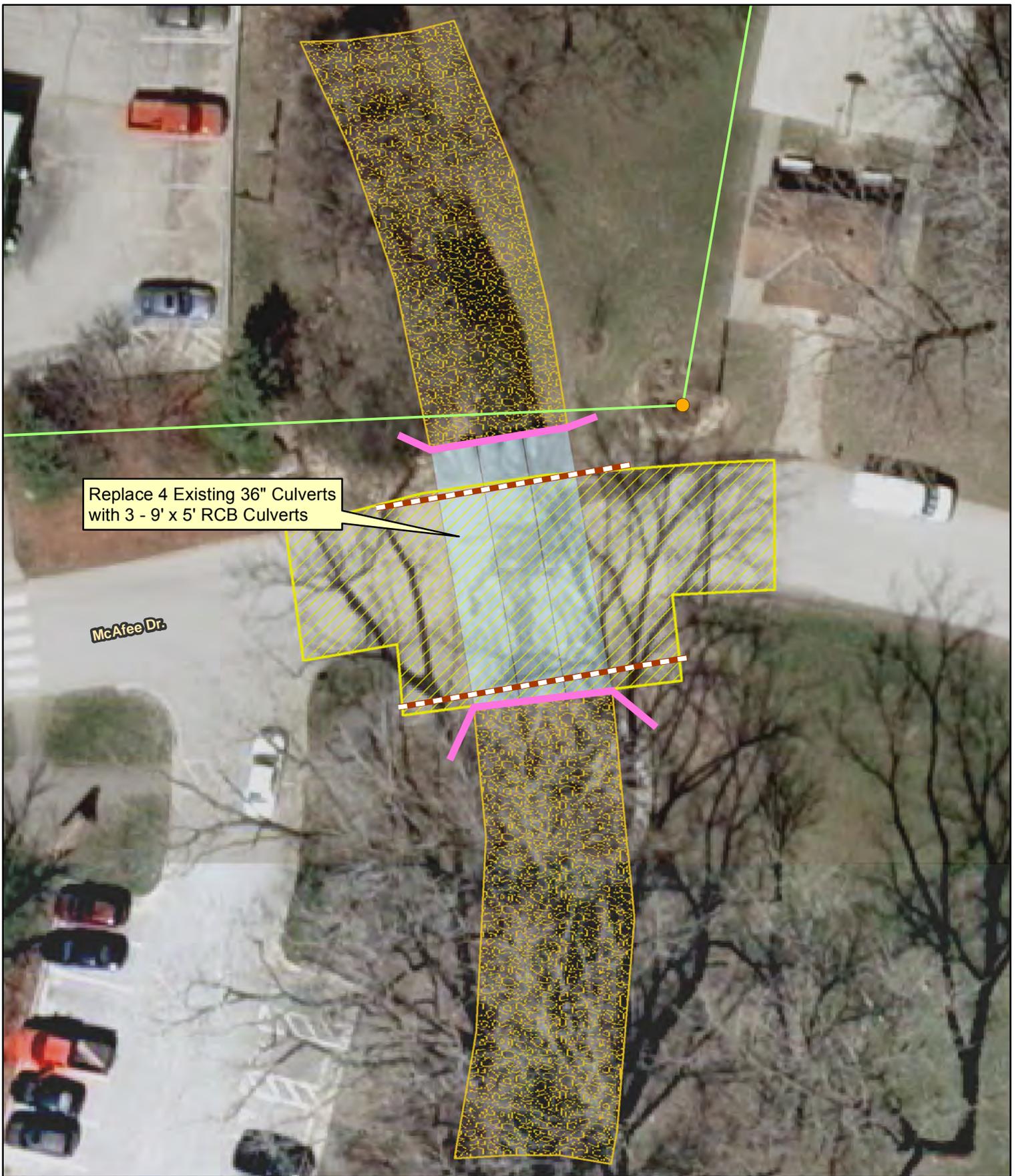
- Sanitary Manhole
- Sanitary Pipe
- Guardrail
- Wingwalls
- Pavement Removal
- Replacement Culverts
- Riprap

Figure 3
McAfee Drive Replacement Culverts
Parkville, Missouri
Alternative 2



1 inch = 25 feet

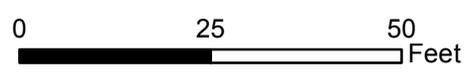




Replace 4 Existing 36" Culverts with 3 - 9' x 5' RCB Culverts

- Legend**
- Sanitary Manhole
 - Sanitary Pipe
 - Guardrail
 - Wingwalls
 - Pavement Removal
 - Replacement Culverts
 - Riprap

Figure 4
McAfee Drive Replacement Culverts
Parkville, Missouri
Alternative 3



1 inch = 25 feet

Appendix B- Opinions of Probable Construction Costs

Opinion of Probable Construction Costs
McAfee Drive Culvert Replacement - Alternative #1- (4) 8'x4' RCB
Parkville, Missouri
 Current as of 12/07/2016

Item Number	Item	Units	Approximate Quantity	Estimated Unit Cost	Extension
SECTION A: MATERIALS/SERVICES					
1	Erosion/Sediment Control	LS	1.00	\$ 5,000.00	\$5,000.00
2	Demolition	LS	1.00	\$ 10,000.00	\$10,000.00
3	Asphalt Pavement	SY	400.00	\$ 35.00	\$14,000.00
4	Guardrail	LF	150	\$ 30.00	\$4,500.00
5	Guardrail End Terminals	EA	4	\$ 1,250.00	\$5,000.00
6	Power Pole Relocation	EA	1	\$ 2,500.00	\$2,500.00
7	8'x4' Reinforced Concrete Box Culvert	LF	252	\$ 575.00	\$144,900.00
8	Quadruple 9'x5' RCB Wingall and Apron	EA	2	\$ 30,000.00	\$60,000.00
9	Stream Stabilization/Transition	SY	260	\$ 40.00	\$10,400.00
10	Access Restoration/ Seeding	EA	1	\$ 2,000.00	\$2,000.00
MATERIALS/SERVICES SUBTOTAL					\$258,300.00
SECTION B: LABOR					
11	Mobilization/Demolition	LS	1	\$ 50,000.00	\$50,000.00
12	Erosion/Sediment Control	LS	1	\$ 4,000.00	\$4,000.00
13	Asphalt Pavement Installation	SY	400	\$ 40.00	\$16,000.00
14	Guardrail Installation	LF	150	\$ 30.00	\$4,500.00
15	Guardrail End Terminals Installation	EA	4	\$ 1,250.00	\$5,000.00
16	Power Pole Relocation/Installation	EA	1	\$ 2,500.00	\$2,500.00
17	8'x4' Reinforced Concrete Box Culvert Installation	LF	252	\$ 400.00	\$100,800.00
18	Quadruple 8'x4" RCB Wingall and Apron Installation	EA	2	\$ 25,000.00	\$50,000.00
19	Stream Stabilization/Transition	SY	260	\$ 30.00	\$7,800.00
20	Access Restoration/ Seeding	EA	1	\$ 2,000.00	\$2,000.00
LABOR SUBTOTAL					\$242,600.00
SECTION C: FEES PAID (INCLUDE ANY OTHER COSTS ASSOCIATES WITH THE PROJECT):					
21	Engineer Design and Permitting	HRS	600.00	\$ 100.00	\$60,000.00
FEES PAID SUBTOTAL					\$60,000.00
SECTION A + SECTION B + SECTION C					\$560,900.00
ALTERNATIVE 1: TOTAL					\$560,900.00

Opinion of Probable Construction Costs
McAfee Drive Culvert Replacement - Alternative #2 - (3) 7'x4' RCB
Parkville, Missouri
 Current as of 12/07/2016

Item Number	Item	Units	Approximate Quantity	Estimated Unit Cost	Extension
SECTION A: MATERIALS/SERVICES					
1	Erosion/Sediment Control	LS	1.00	\$ 5,000.00	\$5,000.00
2	Demolition	LS	1.00	\$ 10,000.00	\$10,000.00
3	Asphalt Pavement	SY	400.00	\$ 35.00	\$14,000.00
4	Guardrail	LF	120	\$ 30.00	\$3,600.00
5	Guardrail End Terminals	EA	4	\$ 1,250.00	\$5,000.00
6	Power Pole Relocation	EA	1	\$ 2,500.00	\$2,500.00
7	7'x4' Reinforced Concrete Box Culvert	LF	189	\$ 525.00	\$99,225.00
8	Triple 7'x4' RCB Wingall and Apron	EA	2	\$ 22,500.00	\$45,000.00
9	Stream Stabilization/Transition	SY	260	\$ 40.00	\$10,400.00
10	Access Restoration/ Seeding	EA	1	\$ 2,000.00	\$2,000.00
MATERIALS/SERVICES SUBTOTAL					\$196,725.00
SECTION B: LABOR					
11	Mobilization/Demolition	LS	1	\$ 50,000.00	\$50,000.00
12	Erosion/Sediment Control	LS	1	\$ 4,000.00	\$4,000.00
13	Asphalt Pavement Installation	SY	400	\$ 40.00	\$16,000.00
14	Guardrail Installation	LF	120	\$ 30.00	\$3,600.00
15	Guardrail End Terminals Installation	EA	4	\$ 1,250.00	\$5,000.00
16	Power Pole Relocation/Installation	EA	1	\$ 2,500.00	\$2,500.00
17	7'x4' Reinforced Concrete Box Culvert Installation	LF	189	\$ 400.00	\$75,600.00
18	Triple 7'x4' RCB Wingall and Apron Installation	EA	2	\$ 20,000.00	\$40,000.00
19	Stream Stabilization/Transition	SY	260	\$ 30.00	\$7,800.00
20	Access Restoration/ Seeding	EA	1	\$ 2,000.00	\$2,000.00
LABOR SUBTOTAL					\$206,500.00
SECTION C: FEES PAID (INCLUDE ANY OTHER COSTS ASSOCIATES WITH THE PROJECT):					
21	Engineer Design and Permitting	HRS	600.00	\$ 100.00	\$60,000.00
FEES PAID SUBTOTAL					\$60,000.00
SECTION A + SECTION B + SECTION C					\$463,225.00
ALTERNATIVE 2: TOTAL					\$463,225.00

Opinion of Probable Construction Costs
McAfee Drive Culvert Replacement - Alternative #3 - (3) 9'x5' RCB
Parkville, Missouri
 Current as of 1/05/2016

Item Number	Item	Units	Approximate Quantity	Estimated Unit Cost	Extension
SECTION A: MATERIALS/SERVICES					
1	Erosion/Sediment Control	LS	1.00	\$ 5,000.00	\$5,000.00
2	Demolition	LS	1.00	\$ 10,000.00	\$10,000.00
3	Asphalt Pavement	SY	400.00	\$ 35.00	\$14,000.00
4	Guardrail	LF	120	\$ 30.00	\$3,600.00
5	Guardrail End Terminals	EA	4	\$ 1,250.00	\$5,000.00
6	Power Pole Relocation	EA	1	\$ 2,500.00	\$2,500.00
7	9'x5' Reinforced Concrete Box Culvert	LF	189	\$ 650.00	\$122,850.00
8	Triple 9'x5' RCB Wingall and Apron	EA	2	\$ 25,000.00	\$50,000.00
9	Stream Stabilization/Transition	SY	260	\$ 40.00	\$10,400.00
10	Access Restoration/ Seeding	EA	1	\$ 2,000.00	\$2,000.00
MATERIALS/SERVICES SUBTOTAL					\$225,350.00
SECTION B: LABOR					
11	Mobilization/Demolition	LS	1	\$ 50,000.00	\$50,000.00
12	Erosion/Sediment Control	LS	1	\$ 4,000.00	\$4,000.00
13	Asphalt Pavement Installation	SY	400	\$ 40.00	\$16,000.00
14	Guardrail Installation	LF	120	\$ 30.00	\$3,600.00
15	Guardrail End Terminals Installation	EA	4	\$ 1,250.00	\$5,000.00
16	Power Pole Relocation/Installation	EA	1	\$ 2,500.00	\$2,500.00
17	9'x5' Reinforced Concrete Box Culvert Installation	LF	189	\$ 400.00	\$75,600.00
18	Triple 9'x5' RCB Wingall and Apron Installation	EA	2	\$ 20,000.00	\$40,000.00
19	Stream Stabilization/Transition	SY	260	\$ 30.00	\$7,800.00
20	Access Restoration/ Seeding	EA	1	\$ 2,000.00	\$2,000.00
LABOR SUBTOTAL					\$206,500.00
SECTION C: FEES PAID (INCLUDE ANY OTHER COSTS ASSOCIATES WITH THE PROJECT):					
21	Engineer Design and Permitting	HRS	600.00	\$ 100.00	\$60,000.00
FEES PAID SUBTOTAL					\$60,000.00
SECTION A + SECTION B + SECTION C					\$491,850.00
ALTERNATIVE 3: TOTAL					\$491,850.00

Appendix C- HY-8 Results

EXISTING
CONDITION

Crossing: Existing Culvert

Front View (Not to scale)


Roadway

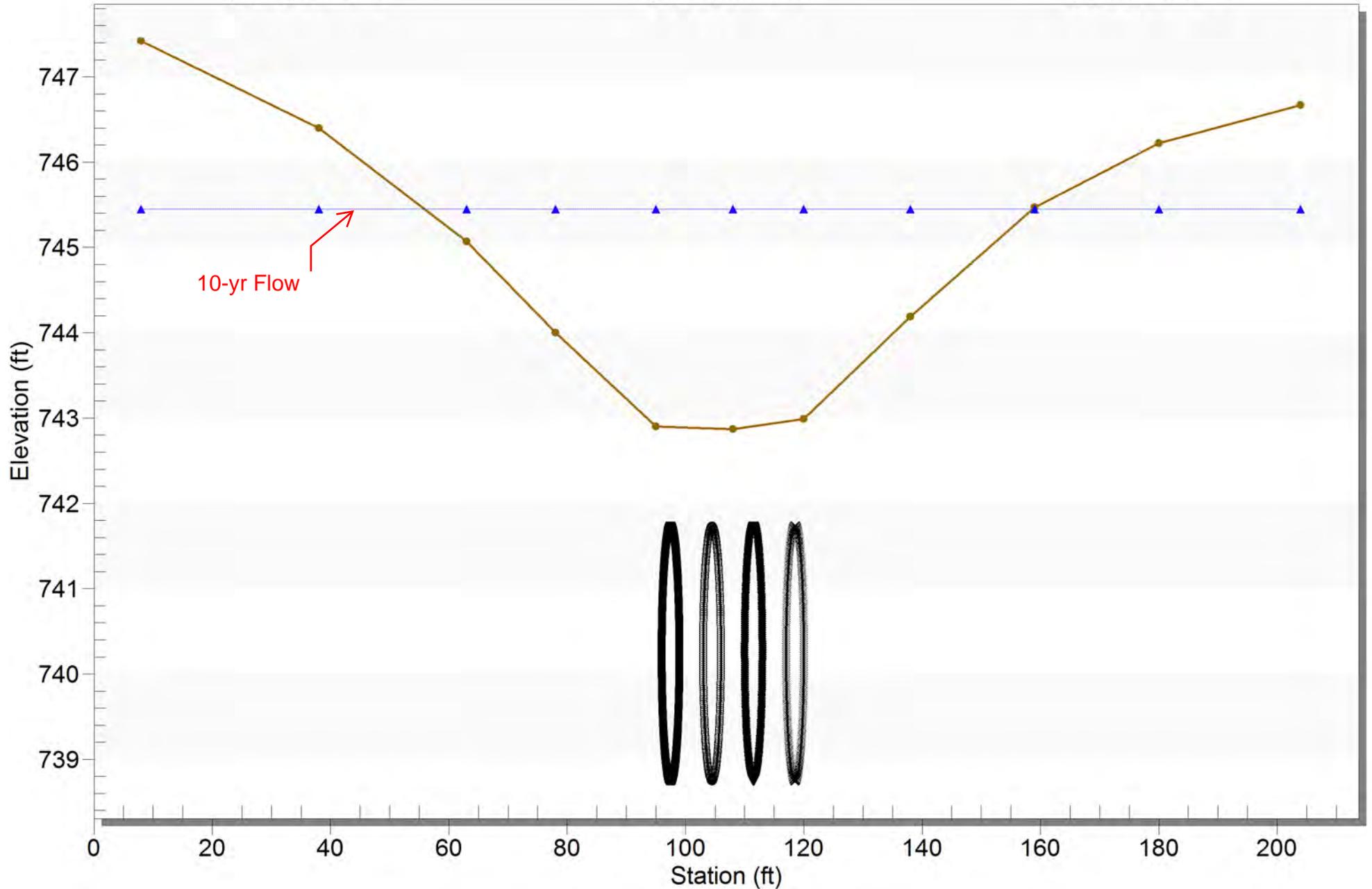
(4) 36, barrel 2


Design Headwater

(4) 36, barrel 3


(4) 36

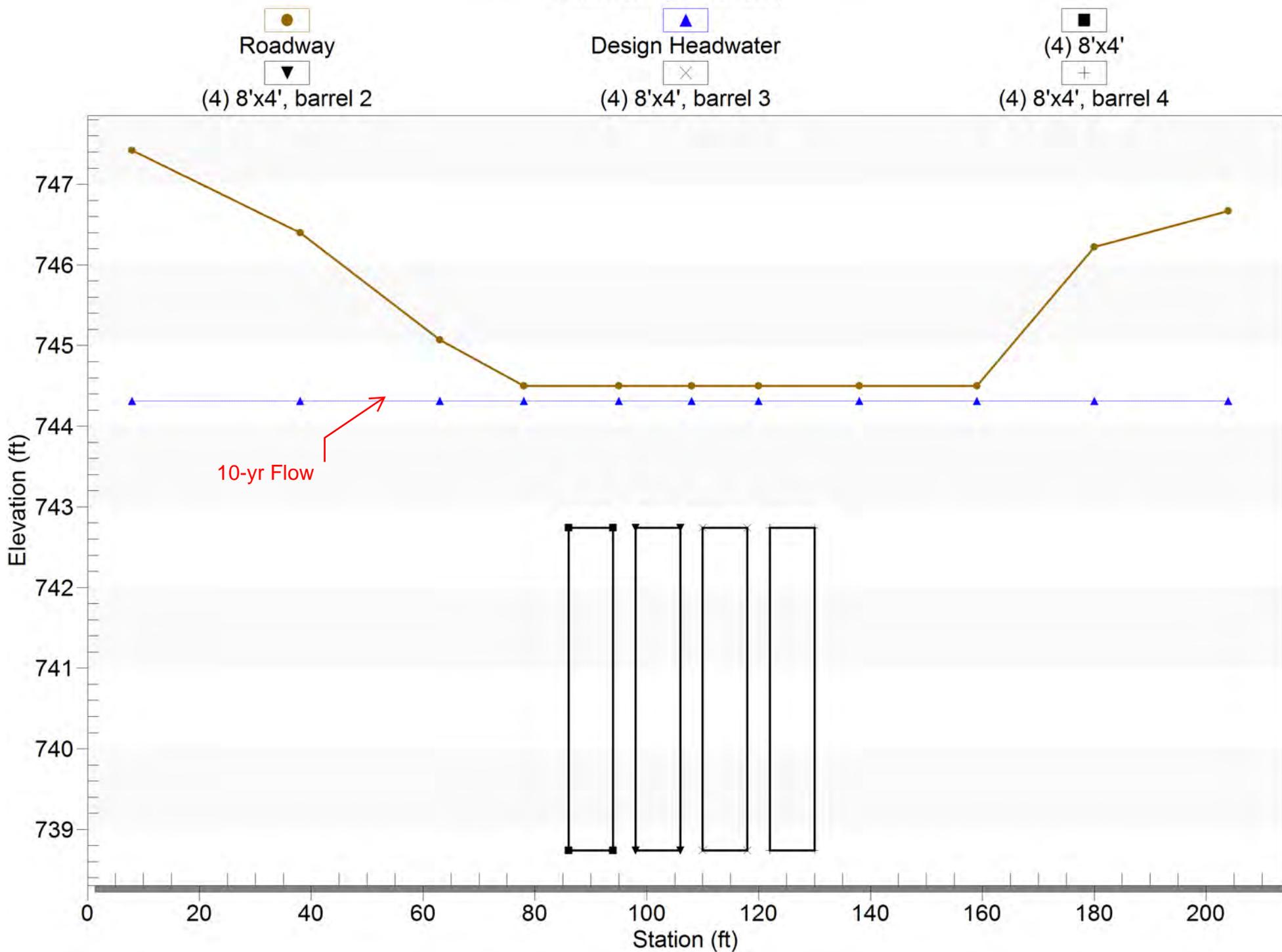
(4) 36, barrel 4



ALT: 1

Crossing: 10-yr-design (Prop)

Front View (Not to scale)

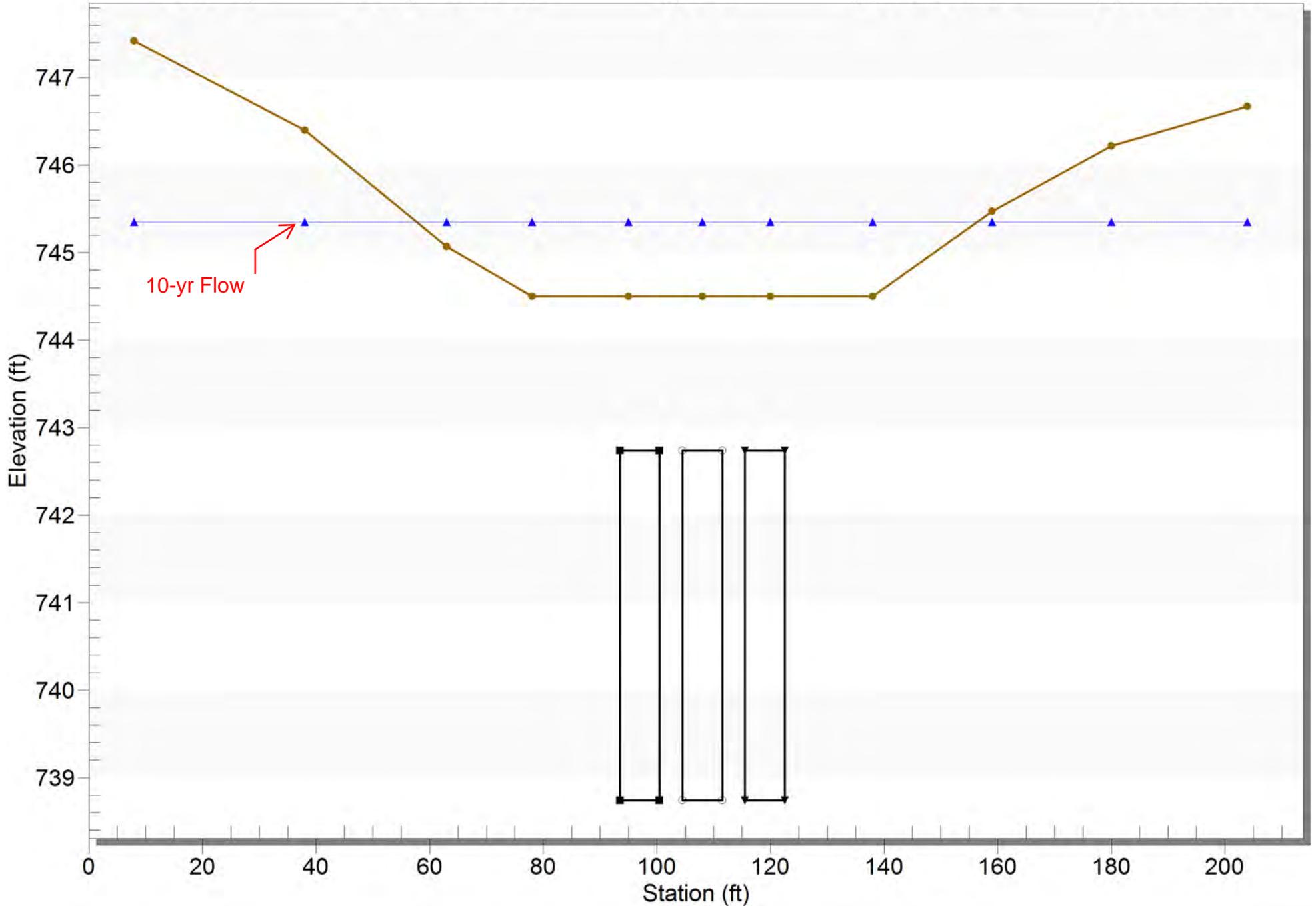


ALT: 2

Crossing: Alt 2: 5-yr-Design

Front View (Not to scale)

-  Roadway
-  Design Headwater
-  (3) 7'x'4
-  (3) 7'x'4, barrel 2
-  (3) 7'x'4, barrel 3

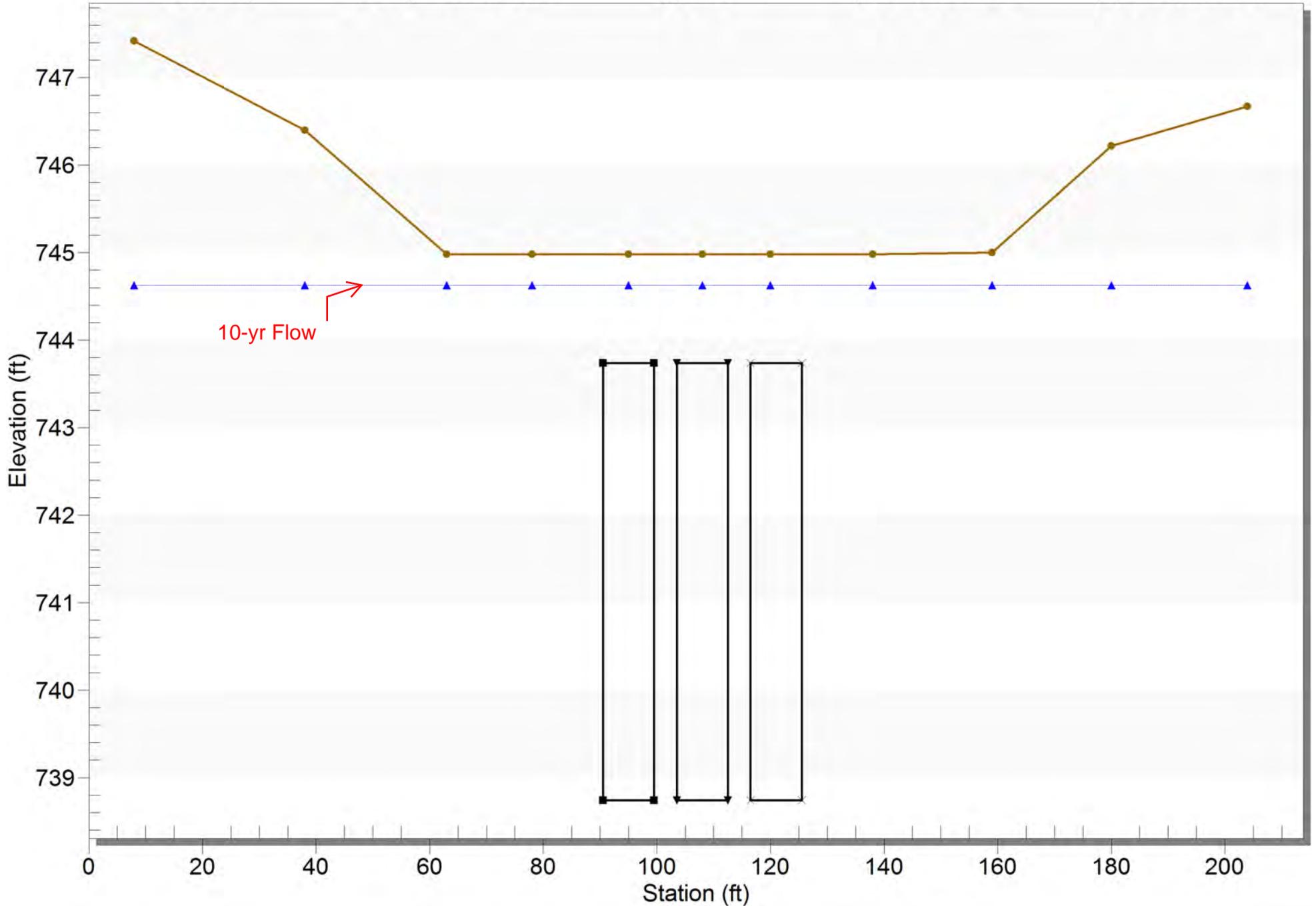


ALT: 3

Crossing: 10yr design (2)

Front View (Not to scale)

-  Roadway
-  Design Headwater
-  (3) 9'x5'
-  (3) 9'x5', barrel 2
-  (3) 9'x5', barrel 3



CITY OF PARKVILLE

Policy Report

Date: January 10, 2017

Prepared By:
Tim Blakeslee
Assistant to the City Administrator

Reviewed By:
Alysen Abel
Public Works Director

ISSUE:

Request to approve a resolution approving and endorsing an application for the Platte County Parks and Recreation Outreach Grant Program.

BACKGROUND:

In 2009, the voters of Platte County approved a 10-year, half-cent sales tax for parks, recreation and stormwater control. A portion of the sales tax proceeds are allocated for the Outreach Grant Program to promote the development of local parks, recreation facilities and programs. Approximately \$250,000 is available each year through this program.

The Platte County Commission developed the Outreach Grant Program to promote the development of local parks, recreation facilities and programs to enhance the quality of life for all residents. The program strengthens partnerships between the County, local governments and non-profit organizations to strategically meet our common goals. Applicants must be a local government, school district or other public subdivision of the State of Missouri. The current grant cycle began on December 1, 2016, and the deadline for applications is January 29, 2017.

Groups who are awarded grants can use the funds for a number of purposes related to parks and recreation. Eligible projects include, but are not limited to, the development or improvement of recreational facilities such as playgrounds, ball fields and trails. In addition, plans to establish recreational programs are also eligible for grant awards. Based on direction from the Community Land and Recreation Board at its November 9, 2016, meeting, staff is preparing the following grant applications for the Outreach Grant Program:

Priority #1 – Friends of Parkville Parks (FOPP) Shelter: On September 8, 2016, FOPP awarded the City a \$25,000 grant. FOPP approved \$15,000 of that donation for a new shelter house near the southeast corner of the Grigsby Field parking lot, provided additional matching funding can be obtained via a Platte County Outreach Grant. Staff recommends a grant request of \$20,000 to support construction of the project.

Priority #2 - Small Dog Park Trail: Staff recommends applying for an outreach grant to help fund a gravel trail along the perimeter of the Small Dog Park, on the inside of the fence. The trail installed at the Large Dog Park last year has been tremendously popular. Staff recommends a grant request of \$3,000. The local match associated with installation of Dog Park Trail would be the labor to install the trail.

Priority #3 – English Landing Park Restroom Phase Two: Staff recommends applying for a \$35,000 outreach grant to help fund phase two improvements to the English Landing Park restroom facility. The proposed renovation is one of the Board of Aldermen's top priorities and has been included in the city's 2017 Capital Improvements Program (CIP). This \$35,000 grant would be a portion of the estimated \$70,000 needed to complete exterior renovations and

ITEM 4F
For 1-17-17
Board of Aldermen Meeting

includes the addition of an HVAC system to keep the restroom open in the winter. The local match would be \$35,000 which was budgeted in 2017 for the project.

Priority #4 - Parks Storage Facility: Staff recommends applying for an outreach grant for the Parks storage building. The parks maintenance and equipment storage facility has an estimated cost of \$120,000. The estimated cost includes the site improvements associated with the building (access drive, fence, etc.). Staff plans to budget \$50,000 in 2017 to complete the design/bid process and begin construction of the storage facility and \$70,000 in 2018 finalize construction. Staff recommends a grant request of \$25,000 to support design/bid and construction portion of the project. The local match would be \$95,000 budgeted over 2017 and 2018.

It is possible to apply and receive multiple Platte County outreach grants. Staff will include the priority order for the projects listed above in the grant proposals. Staff is seeking a resolution approving and endorsing an application for the Platte County Parks and Recreation Outreach Grant Program (Attachment 1).

BUDGET IMPACT:

Friends of Parkville Parks (FOPP) Shelter: The projected 2017 budget proposes \$15,000 from the Parks Donation Fund to support construction of the FOPP Shelter.

Small Dog Park Trail: The projected 2017 budget proposes \$3,600 for trail maintenance.

Parks Storage Facility: The projected 2017-2022 Capital Improvements Program schedules \$50,000 in 2017 to complete the design/bid process and begin construction of the storage facility and \$70,000 in 2018 finalize construction.

English Landing Park Restroom Phase Two: The projected 2017 budget proposes \$70,000 for restroom renovations.

ALTERNATIVES:

1. Approve Resolution No. 17-001 to endorse an application for the Platte County Parks and Recreation Outreach Grant Program for the stated priorities.
2. Approve Resolution No. 17-001 to endorse an application for the Platte County Parks and Recreation Outreach Grant Program with changes recommended by the Board of Aldermen.
3. Approve Resolution No. 17-001 but direct staff to apply for alternative project(s).
4. Do not submit an application for this grant cycle.
5. Postpone the item.

STAFF RECOMMENDATION:

Staff recommends the Board of Aldermen approve a resolution to endorse an application for the Platte County Parks and Recreation Outreach Grant Program for the stated priorities.

COMMUNITY LAND AND RECREATION BOARD RECOMMENDATION:

At the meeting on November 9, 2016, CLARB voted 8-0 to recommend to the Board of Aldermen for staff to prepare and submit Platte County Parks and Recreation Outreach Grant applications in the priority order listed in the policy report.

POLICY:

Platte County requires a resolution of support from the governing body to accompany each application for the Outreach Grant Program.

ITEM 4F
For 1-17-17
Board of Aldermen Meeting

SUGGESTED MOTION:

I move to approve Resolution No. 17-001 endorsing an application for the Platte County Parks and Recreation Outreach Grant Program for the priorities stated in the policy report.

ATTACHMENTS:

1. Resolution of Support
2. 2017 Grant Guidelines



CITY OF PARKVILLE • 8880 Clark Avenue • Parkville, MO 64152 • (816) 741-7676 • FAX (816) 741-0013

**CITY OF PARKVILLE, MO.
RESOLUTION No. 17-001**

**A RESOLUTION APPROVING AND ENDORSING AN APPLICATION TO THE PLATTE
COUNTY COMMISSION FOR FUNDING UNDER THE PARKS AND RECREATION
OUTREACH GRANT PROGRAM, FUNDED BY THE COUNTY-WIDE DEDICATED PARKS
AND RECREATION HALF-CENT SALES TAX**

WHEREAS, the County of Platte and the City of Parkville deem it a high priority to improve quality of life for all citizens through parks and recreation programs; and

WHEREAS, the County Commission of the County of Platte seeks to support local parks and recreation efforts, create effective partnerships, and increase the level of cooperation between County government and cities, schools, and non-profit community service organizations within the county; and

WHEREAS; the citizens of Platte County on August 4, 2009, approved a renewal of the dedicated half-cent sales tax for parks, recreation, and stormwater control for a period of ten (10) years; and

WHEREAS, the County Commission of the County of Platte has developed the *Parks and Recreation Outreach Grant Program*, funded by the citizen approved half-cent county-wide sales tax; and

WHEREAS, the City of Parkville wishes to make application to the County for consideration of specific projects for Outreach Grant Program funds; and

WHEREAS, the City of Parkville agrees to comply with all program guidelines and requirements of said Outreach Grant Program if such application shall be funded by the County Commission.

NOW, THEREFORE, BE IT RESOLVED that the Board of Aldermen approves and endorses an application for the Platte County Parks and Recreation Outreach Grant Program to help fund the Friends of Parkville Parks (FOPP) Shelter (priority 1), to help fund the Small Dog Park Perimeter Trail (priority 2), to help fund English Landing Park Restroom Phase Two (priority 3), and to help fund the Parks Storage Facility (priority 4).

BE IT FURTHER RESOLVED that the Board of Aldermen directs City Administration to complete and submit the required grant application documents.

IN TESTIMONY WHEREOF, I have hereunto set my hand, in the City of Parkville this 17th day of January 2017.

Mayor Nanette K. Johnston

ATTESTED:

City Clerk Melissa McChesney



Parks and Recreation Outreach Grant Program

2017 Guidelines

- I. Program Overview
 - A. Introduction
 - B. Administration & Funding
 - C. Eligibility, Project Areas & Requirements
 - D. Evaluation Criteria
 - E. Application Process

- II. Application
 - A. Directions
 - B. Application Form
 - C. Budget Form
 - D. Check-Off Page
 - E. Sponsor Resolution

I. Program Overview

A. Introduction

Recognizing that Platte County is a growing and dynamic area with a population that demands the highest quality parks and recreation and wellness opportunities, the Platte County Commission has developed the Parks and Recreation Outreach Grant Program. This program is intended to promote the development of local parks and recreation facilities and programs within Platte County to enhance the quality of life for all residents. The program strengthens partnerships between the County, local governments, and non-profit organizations to strategically meet the needs of our citizens.

The absolute priority of the Parks and Recreation Outreach Grant Program is to significantly increase and improve recreational and wellness opportunities for Platte County residents.

B. Administration & Funding

Under the direction of the County Commission, the program is administered by the staff of the Parks and Recreation Department and Board of Parks Commissioners. All applications for funding are submitted to the Department and reviewed and evaluated by the Parks Board. The Board makes recommendations to the County Commission which has final approval authority.

Funds for the program are derived from the ½ cent sales tax approved by Platte County voters in August 2000, and renewed in August 2009. As outlined in the Park System Master Plan (updated in 2009), the Department requests an annual budget for the grant program from the sales tax proceeds. The total amount available each year shall be subject to approval by the County Commission. A copy of the master plan is available at the Platte County web site, www.platteparks.com.

C. Eligibility, Project Areas & Sponsor Requirements

Eligibility

Applicants for Outreach Grant funds must be a local government, school district, or other political subdivision of the state of Missouri as provided for in Article VI, Section 23, of the Missouri Constitution or an Internal Revenue Service designated non-profit organization such as a 501c(3) or c(4). Public aid for religious institutions is prohibited by Missouri law. Applicants are encouraged to partner with other organizations, including the private sector, and seek public feedback on their projects. **All applicants are required to provide significant matching contributions to the proposed project.**

Applicants must be in compliance with all previous Outreach Grant Program projects including completion, maintenance and public availability components.

All applications must include copies of adequate documentation for budget estimates and quotes, i.e. contractor proposals and estimates outlining work to be provided and associated costs. If sufficient documentation is not provided, the application will be ineligible for consideration.

Platte County does not contribute to organizations that practice discrimination by race, color, creed, sex, age or national origin. Projects will be funded only for facilities or programs in Platte County which primarily and significantly benefit Platte County citizens.

Project Areas

Eligible projects include capital improvements for parks and recreation facilities, public recreation programs, and capital maintenance of parks, recreational, and historic facilities.

1) Capital Improvement Projects

Capital improvement projects include the development or renovation of park and recreational facilities. Eligible projects include, but are not limited to, playgrounds, ballfields, trails, picnic shelters, and open space. Development and renovation projects for parks and recreation facilities shall comply with the Americans with Disabilities Act and Missouri prevailing wage laws. All equipment purchased, installed, and/or renovated shall be in accordance with U.S. Consumer Product Safety Commission (CPSC) and American Society of Testing Materials (ASTM) guidelines and be available for public use during its standard expected lifetime, generally considered to be no less than twenty (20) years.

Projects involving land acquisition **must** include ownership by a public agency and be dedicated for public recreational purposes in perpetuity (non-profit organizations are encouraged to partner with their local government). Land acquisition projects must also meet a high priority need as defined in the sponsor's comprehensive/master plan and the County's Park System Master Plan (available at the County web site, (www.platteparks.com)). Project sponsors applying for land acquisition should consult with staff before applying and provide documented research of land value. At the County's discretion, a certified appraisal, land survey and environmental assessment may be required.

Generally no less than 80% of the funds available for the Outreach Grant program will be awarded to Capital Improvement Projects.

2) Public Recreation Programs

Recreation programs eligible for Outreach Grant funds may be sports, wellness, historical or cultural arts related. Programs must be open to the general public and take place within Platte County. Programs receiving grant funds **may not** charge admission fees. Admission fees shall be defined as the charge for access and participation in special events such as concerts, festivals, athletic camps, or instructional clinics.

Project sponsors applying for programs should, within their application submission, provide an outline of the event and include a schedule of activities, detailed descriptions of the programs that will be offered, and intended outcomes and benefits to program attendees. Program applicants should also provide a detailed budget; broad categories that may include administrative expenses or fundraising items cannot be funded. Please provide evidence of the program's success if it has occurred in the past.

Outreach Grant funds are not designed to be a sole or continuous funding source for programs. Funds are intended to support new efforts and assist with diversifying audiences for worthy programs amongst Platte County citizens. Generally, Outreach Grant funding for a single recreation program shall not be approved for more than two consecutive years.

3) Capital Maintenance for Parks, Recreational, and Historic Facilities.

Capital maintenance, as defined by this program, shall include the acquisition of maintenance equipment and the replacement or renovation of recreational or historic facilities.

Sponsor acquisition of capital maintenance equipment such as mowers, tractors, storage facilities and other devices used in the regular maintenance/operation of parks, trails, and recreation facilities are eligible under the Outreach Grant program. *All equipment funded from Outreach Grant monies must be used strictly for the maintenance and/or operation of park and recreation facilities and may not be used for maintenance of other sponsor assets, such as road right-of-way not along recreational facilities, public works facilities or administrative grounds or buildings.*

All capital equipment acquired through the Outreach Grant program must be utilized by sponsors for the life of the equipment, generally considered no less than ten (10) years. Should a sponsor discontinue use of equipment purchased through the Outreach Grant program before the useful life of the equipment has expired, or re-assigns the equipment to other non-park and recreation purposes, the sponsor shall reimburse Platte County fair market value of the Outreach Grant amount. Should the sponsor wish to sell or trade said equipment, prior approval shall be sought from Platte County with all proceeds going to a similar equipment or function of the sponsor.

Capital maintenance shall also include replacement or renovation of recreational or historic facilities. Qualified items include, but are not necessarily limited to, playground resurfacing, trail resurfacing, ballfield reconditioning activities, and concession/restroom building refurbishments.

Platte County is unable to fund projects through the Outreach Grant Program that do not substantially improve recreational opportunities for county residents. Projects **not eligible** for funding include, but are not necessarily limited to, monthly utility costs, maintenance personnel costs, consumable maintenance supplies such as fuel or cleaners, janitorial services, small tools, administrative or travel expenses, facility rentals, fundraising, program equipment such as footballs, baseball bats, uniforms, pads and nets, or any project that requires the use of eminent domain or condemnation.

Sponsor Requirements

Successful applicants, (sponsors) **are required to provide significant matching resources** in the form of cash or in-kind services, such as donated labor or materials to the project. All matching resources shall be verified by a resolution or letter from the applicant or agency providing the match. Applicants shall also complete a project application and submit it to the County by the annual due date, administer the project through completion, follow all applicable local, state, and federal laws, and operate and maintain the site or program after completion.

- 1) All project sponsors are required to follow Missouri prevailing wage laws for Platte County when paying contractors. Volunteer labor should be calculated at \$15.71/hr unless the volunteer is donating professional services. Professional volunteer hours should be calculated at the volunteer's regular hourly rate.
- 2) Project sponsors shall agree to include reference to Platte County and the Outreach Grant program on project signage and/or promotional literature produced by the sponsor and to accept any additional identification signage from the County to be placed at the project site.
- 3) Project sponsors shall provide annual program participation information including number of participants per program offered and demographic information as requested.
- 4) All proposed project costs must be documented within the proposal submission. Applicants shall include written estimates or bids from contractors or vendors, or written opinions of probable costs from a professional consultant to the project, such as an architect, engineer, or landscape architect.

D. Evaluation Criteria

All projects and programs will be evaluated on the information provided in the application and by the sponsor's compliance with past grant projects. **Significant matching funds or in-kind services are required**, and priority will be given to projects that include a significant sponsor match with consideration to applicant size and resources.

Preference will be given to projects meeting one or both of the following:

- Projects utilizing materials or equipment proven to be sustainable, including the use of energy efficient and environmentally friendly technologies.
- Projects utilizing materials, supplies, equipment, and/or services from Platte County based businesses.

Using the categories listed below, all applications will be evaluated by the Parks Board for recommendation to the County Commission.

1) Quality of Project

- Does the project address a major need in the community?
- Is the project supported in the sponsors' comprehensive plan/master plan and/or the Platte County Park System Master Plan?
- Is there a significant population to be served by this project?
- Is there a regional, state, or national significance to the project?
- Is the implementation of the project reasonable; can it be done in the time allotted?
- Are the quality of the components and features of the project high?
- Is the project sponsor (and partners) qualified to complete and maintain the project?
- Are there significant matching funds or non-cash donations for the requested grant?
- Is the project sponsor adequately maintaining previous Outreach Grant projects?
- Will the project have a positive impact on community aesthetics?
- Is the project sponsor utilizing Platte County based businesses?
- Does the project contain elements that improve the environment, such as energy efficient components, native plantings, and/or reduction of stormwater runoff?
- Is the application complete and clear?

2) Public Input & Partnerships

- Has the proposed project been approved by the governing body of the applicant?
- To what extent was the general public or affected user groups a part of project planning?
- Are significant partnerships being utilized to develop and maintain the project?
- Are partners contributing matching resources to the project?
- Is there adequate support to complete and maintain the project?

3) Project Budget and Finances

- Are proposed budget estimates included in the application? Are the proposed project costs reasonable, and documented from an independent source such as a contractor, vendor, or consultant?
- Has the sponsor received an Outreach Grant before? During the past two years?
- Is there a need for Outreach Grant funds?
- Is the applicant using Platte County based businesses in the project or program?

E. Application Process

All proposals must be received by **5:00 p.m., January 27th, 2017** in order to be considered. Please contact the Parks and Recreation Department if you should have any questions regarding the application or project eligibility before this deadline. A voluntary pre-application meeting will be held on **December 13th from 6:00 to 7:00 PM at Platte County Community Center South, 8875 Clark Ave. in Parkville**, to answer questions from prospective applicants. Proposals will be reviewed by the Board of Park Commissioners and considered by the County Commission. Grant awards will be announced by March 2017; successful applicants will be issued a Grant Agreement and "Notice to Proceed".

All costs associated with the project **must** be documented. Any costs incurred prior to the formal approval of the project are ineligible for matching purposes or reimbursement. All grant funds are provided on a reimbursement basis. Approved project sponsors shall use the following process for reimbursement:

- 1) Sign and return Grant Agreement; begin project upon receipt of Notice to Proceed.
- 2) Purchase equipment and/or contract services.
- 3) For recreation programs, project sponsors shall notify County staff of program dates and times to allow staff to attend and evaluate the program.
- 4) Complete the project or program and notify the County in writing that all requirements of the grant agreement have been satisfied, including applicable guidelines such as CPSC and ASTM.
- 5) Submit paid invoices and documentation of payment for project expenses up to the amount approved by the County in the grant agreement.

The County will examine submitted materials and inspect the completed project for compliance with the grant agreement. Upon satisfactory completion, the County will issue a reimbursement check in approximately 15 business days to the project sponsor for an amount up to the approved award. **Successful applicants shall complete their project no later than November 1, 2017. Please notify the Parks and Recreation Department office if you are unable to complete your project by this date.** Limited project extensions may be granted for special circumstances. Applicants may submit a 2017 Outreach Grant application for programs or events occurring in early 2018.

II. Application

A. Directions

- 1) Submit only one project or program per application form.
- 2) Sponsors may submit multiple applications for consideration; if submitting multiple applications sponsors should designate project priority (#1 = highest) on the upper right hand corner of the application front page (the County shall reserve the right to award funding based on its own priority evaluation).
- 3) Application must be in original format (Microsoft Word document available at www.platteparks.com) and typewritten. **No handwritten applications will be accepted.**
- 4) Project description section must be completed.
- 5) Application must be signed and dated.
- 6) Pages of the application are automatically numbered. Additional pages added to the application must also be numbered.
- 7) **All new construction or renovation projects** are required to include a development plan or a diagram with the application. Application submissions may also include the following optional support information: map identifying the project location; photographs of proposed project site; promotional printed fliers or brochures for your project. **Land acquisition projects** must include a location map of the property.
- 8) Applicants must include a signed Resolution or Letter of Approval from their governing body supporting the application and committing matching funds or resources.
- 9) Non-profit Organizations **must include** a letter from the Internal Revenue Service that establishes non-profit organization status, or a letter from a political subdivision or local government stating their willingness to sponsor the project. A project sponsor agrees to complete the project if the original applicant is unable to complete the work.
- 10) Pay particular attention to the "Itemized Budget" page of the application. Instructions for completing this page are written above the Itemized Budget Table (Page 11). Round all amounts to the nearest dollar and use specific line item costs. **Include copies of adequate documentation for budget estimates, i.e. contractor proposals and estimates outlining work to be provided and associated costs.**
- 11) Complete the "Check Off" page to ensure you have met all requirements to apply for the Outreach Grant. Please submit this page with your application.
- 12) Make 11 copies of your Application. Do not include the application guidelines. Deliver the original **and** 11 copies to (12 copies total) to **Parks and Recreation**

Applications must be received by *January 27th, 2017*