



U.S. Army Corps
Of Engineers
Buffalo District
CELRB-TD-R

Public Notice

Applicant: Cuyahoga
County Airport,
Department of Public
Works

Published: January 6, 2016
Expires: February 4, 2016

Application No: 2013-00443
Section: OH

All written comments should reference the above Application No. and be addressed to:
US Army Corps of Engineers, Buffalo District
Regulatory Branch (Attn:) Melissa Tarasiewicz
1776 Niagara Street
Buffalo, NY 14207

THE PURPOSE OF THIS PUBLIC NOTICE IS TO SOLICIT COMMENTS FROM THE PUBLIC REGARDING THE WORK DESCRIBED BELOW. NO DECISION HAS BEEN MADE AS TO WHETHER OR NOT A PERMIT WILL BE ISSUED AT THIS TIME.

**Application for Permit under Authority of
Section 404 of the Clean Water Act (33 U.S.C. 1344).**

APPLICANT: Cuyahoga County Airport, Department of Public Works

WATERWAY & LOCATION: Wetlands and streams adjacent to the East Branch of Euclid Creek in the Lake Erie watershed. The project site is located at the Cuyahoga County Airport (CGF) north of the intersection of Richmond Road and Highland Road, within the boundaries of three cities: Richmond Heights, Highland Heights, and Willoughby Hills, and crossing two counties: Cuyahoga and Lake Counties, Ohio

LATITUDE & LONGITUDE: Latitude North: 41.56447
Longitude West: -81.48742

EXISTING CONDITIONS:

Description of delineation of waters of the US: Eighteen (18) Palustrine emergent wetlands for a total of 6.55 acres (ac.); six (6) ephemeral streams for a total of 2,704 linear feet (LF); four (4) intermittent streams for a total of 2,770 LF; and four (4) perennial streams for a total of 1,592 LF were delineated on the subject site and determined to be federally jurisdictional.

PROPOSED WORK: The proposed project would include grading and filling eight (8) emergent wetlands for a total of 2.19 ac. of permanent wetland fill, and grading and filling four (4) ephemeral streams for a total of 1,279 LF of stream fill to extend Runway 6, install an Engineered Materials Arresting System (EMAS), repair runway and taxiway pavement, and install new drainage systems.

PROJECT PURPOSE:

Basic: Expand airport runway length, improve the quality of runway and taxiway surfaces, and improve airport runway safety.

Overall: Provide 5,500 feet of usable runway length, establish compliant runway safety areas pursuant to Federal Aviation Administration (FAA) requirements, and rehabilitate runway and taxiway pavement at the CGF airport.

Water Dependency Determination: The project is non-water dependent.

AVOIDANCE AND MINIMIZATION INFORMATION:

Preferred Alternative

A total of forty (40) project alternatives were considered. The Preferred Alternative (Alternative #23) was chosen because it meets the project's purpose and need while minimizing environmental impacts. Runway 6 would be extended 550 feet to the west and an EMAS would be installed. Runway 24 would be shortened by 110 feet to allow the EMAS to be installed. This alternative would provide 5,502 feet of pavement for takeoff operations in both directions with FAA compliant safety areas. When compared to the other project alternatives, Alternative #23 has the least anticipated impacts to floodplains, streams, and farmland. It does not impact parkland or recreational resources, has no road relocations, and has the least amount of proposed ground disturbance. Construction for Alternative #23 can be accomplished entirely on airport property.

The Preferred Alternative #23 would avoid impacts to higher quality wetlands located southwest and northeast of the airport by using the EMAS system and proposed runway extension distances to reduce the impact footprint. Impacts to degraded streams and wetlands within the existing airfield are proposed, and impacts to higher quality streams and wetlands adjacent to the airfield would be avoided. The stream and wetland fill proposed is limited to only that required to meet the FAA Runway Safety Area (RSA) design criteria. Excavated soil material will be placed only in upland locations and/or hauled off-site. Construction of 1,590 LF of new stream channel on-site with a 50 foot riparian buffer will minimize the direct impacts on the watershed by maintaining existing stream functions on-site. Avoidance of impacts to aquatic resources are somewhat constrained by the extent that open standing water can be allowed on airport property, which could attract wildlife and pose a safety issue for wildlife, people, and property.

Minimal Degradation Alternatives

Out of the 40 alternatives considered, the alternatives listed below would directly address runway safety area deficiencies and provide 5,500 feet of usable runway:

Alternative 15- Runway Reorientation (Relocate Bishop & Richmond Road)

Alternative 16- Runway 6 extension to the west (Relocate Richmond Road)

Alternative 17- Runway 24 extension to the east (Relocate Bishop Road)
Alternative 18- Runway 24 extension to the east (tunnel Bishop Road)
Alternative 23- EMAS at both Runway Ends (Preferred Alternative)
Alternative 24- Combination of Runway 24 shift to west and Runway 6 EMAS

Two of the alternatives (Alternatives #15 and #24) would result in fewer wetland impacts compared to the preferred alternative (Alternative #23). However, Alternatives #15 and #24 would result in greater impacts to the 100-year floodplain, streams, and farmland. The Preferred Alternative #23 has the least total disturbance and the least environmental impact.

Non-Degradation Alternatives

There are three potential non-degradation alternatives including the no-build, building an airport at a new location, or using another nearby airport alternatives.

No-Build Alternative

The proposed RSA improvements would not be brought up to FAA standards and the CGA airport would lose the potential to receive federal funding towards airport improvements including routine maintenance. Therefore, the airport would need to seek local or private funding, or close its operation.

Build a new airport at a new location Alternative

Development of a new site to replace the functions of CGF would likely involve substantial land acquisition, involve considerable residential and commercial property relocations, could take years to construct, and would result in substantial cost.

Use another nearby Airport

Three other airports within a 30-mile radius of CGF were considered as alternatives. The first airport, The Lost Nation Municipal Airport, does not have a runway of sufficient length to meet the project needs. The second airport, Burke Lakefront Airport (BKL), has existing infrastructure constraints and physical limitations to expansion, and it is unlikely that BKL would be able to absorb the tenants and aircraft operations from CGF. The third airport, Cleveland Hopkins International Airport, has the infrastructure to meet the project needs, but is focused on serving commercial airlines, and may not have the capacity to accept a significant number of general aviation operations. Additionally, relocating airport operations to another facility and abandoning the existing CGF infrastructure is not a practicable or feasible alternative since there is a demonstrated need to provide an airport to the local community.

PROPOSED MITIGATION: The applicant proposed to purchase 3.3 mitigation credits at the Cherry Valley mitigation bank through the Ohio Wetlands Preservation, Ltd. Additionally, 1,590 LF of new stream channel with a 50 foot riparian buffer would be constructed on-site.

Location and details of the above described work are shown on the attached maps and drawings.

Comments or questions pertaining to the work described in this notice should be reference the Application Number and be directed to the attention of Melissa Tarasiewicz, who can be contacted at the above address, by calling 716-879-4159, or by e-mail at: melissa.j.tarasiewicz@usace.army.mil A lack of response will be interpreted as meaning that there is no objection to the work as proposed.

The following authorization is required for this project:

Water Quality Certification (or waiver thereof) from the Ohio Environmental Protection Agency

Based on preliminary findings, there is one property adjacent to the federal permit area (Sheets 11-12 and 16-21 of 22, the Curtis-Wright hanger, that is eligible for inclusion in the National Register of Historic Places. This notice constitutes initiation of consultation with the Ohio Historic Preservation Office (SHPO) per Section 106 of the National Historic Preservation Act. All currently available historic resource information pertaining to this proposed project if any has been provided to the SHPO. Additional information concerning historic properties should be submitted to the Corps before the end of the comment period of this notice. The Corps will forward that information to the SHPO for their review.

Pursuant to Section 7 of the Endangered Species Act (16 U.S.C. 1531), the Corps of Engineers is consulting, under separate cover, with the USFWS to evaluate any potential impacts to: Indiana bat (*Myotis sodalis*), northern long-eared bat (*Myotis septentrionalis*), Kirtland's warbler (*Setophaga kirtlandii*), piping plover (*Charadrius melodus*), rufa red knot (*Calidris canutus rufa*), and snuffbox mussel (*Epioblasma triquetra*), and to ensure that the proposed activity is not likely to jeopardize their continued existence or result in the destruction or adverse modification of critical habitat.

This notice is promulgated in accordance with Title 33, Code of Federal Regulations, parts 320-330. Any interested party desiring to comment on the work described herein may do so by submitting their comments, in writing, so that they are received no later than 4:30 pm on the expiration date of this notice.

Comments submitted in response to this notice will be fully considered during the public interest review for this permit application. All written comments will be made a part of the administrative record which is available to the public under the Freedom of Information Act. The Administrative Record, or portions thereof may also be posted on a Corps of Engineers internet web site. Due to resource limitations, this office will normally not acknowledge the receipt of comments or respond to individual letters of comment.

Any individual may request a public hearing by submitting their written request, stating the specific reasons for holding a hearing, in the same manner and time period as other comments.

Public hearings for the purposes of the Corps permit program will be held when the District Commander determines he can obtain additional information, not available in written comments, that will aid him in the decision making process for this application. A Corps hearing is not a source of information for the general public, nor a forum for the resolution of issues or conflicting points of view (witnesses are not sworn and cross examination is prohibited). Hearings will not be held to obtain information on issues unrelated to the work requiring a permit, such as property ownership, neighbor disputes, or the behavior or actions of the public or applicant on upland property not regulated by the Department of the Army. Information obtained from a public hearing is given no greater weight than that obtained from written comments. Therefore, you should not fail to make timely written comments because a hearing

might be held.

The decision to approve or deny this permit request will be based on an evaluation of the probable impact, including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefits which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including the cumulative effects thereof; among these are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and in general, the needs and welfare of the people.

The Corps of Engineers is soliciting comments from the public; Federal, state and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

SIGNED

Diane C. Kozlowski
Chief, Regulatory Branch

NOTICE TO POSTMASTER: It is requested that this notice be posted continuously and conspicuously for 30 days from the date of issuance.

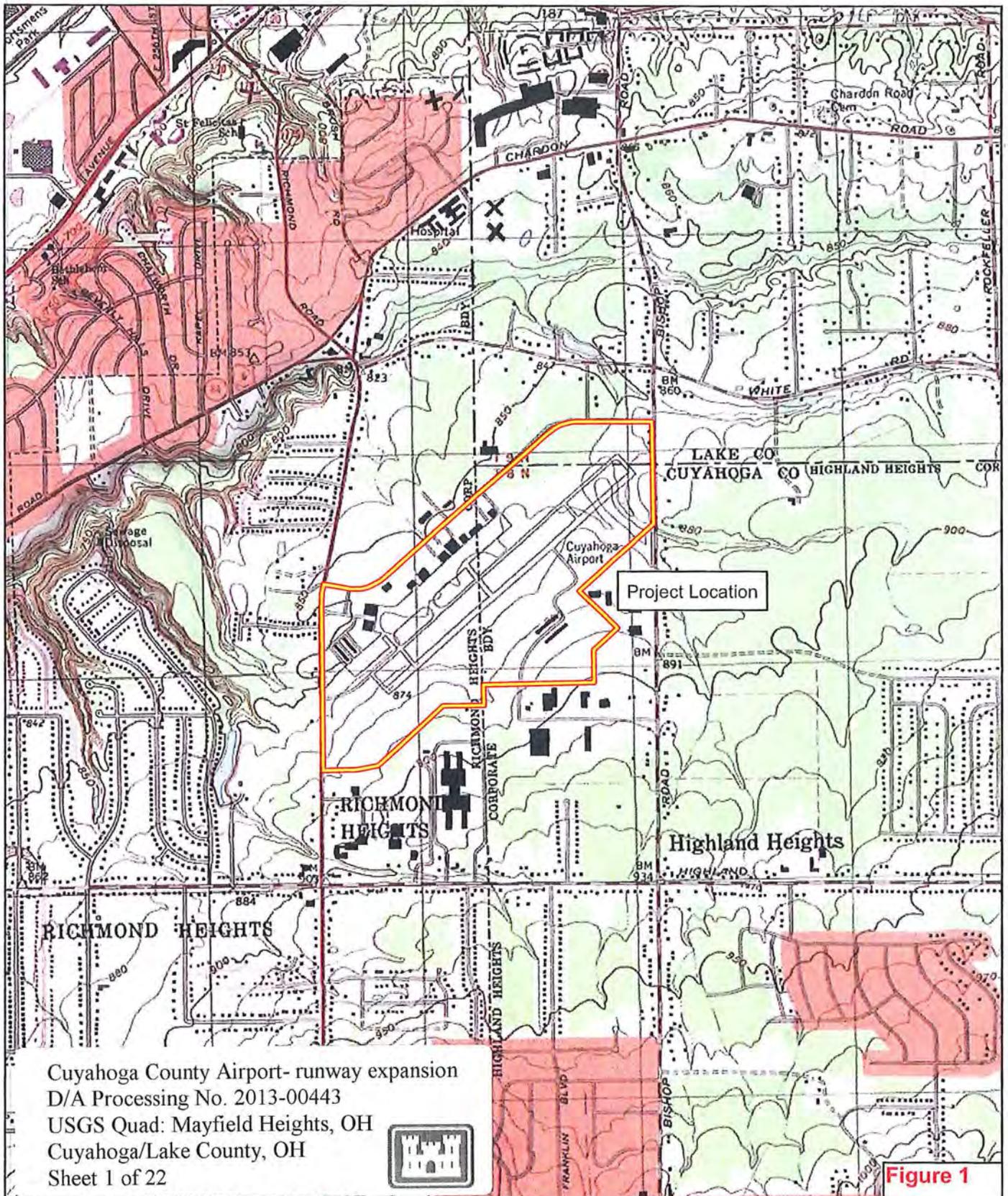
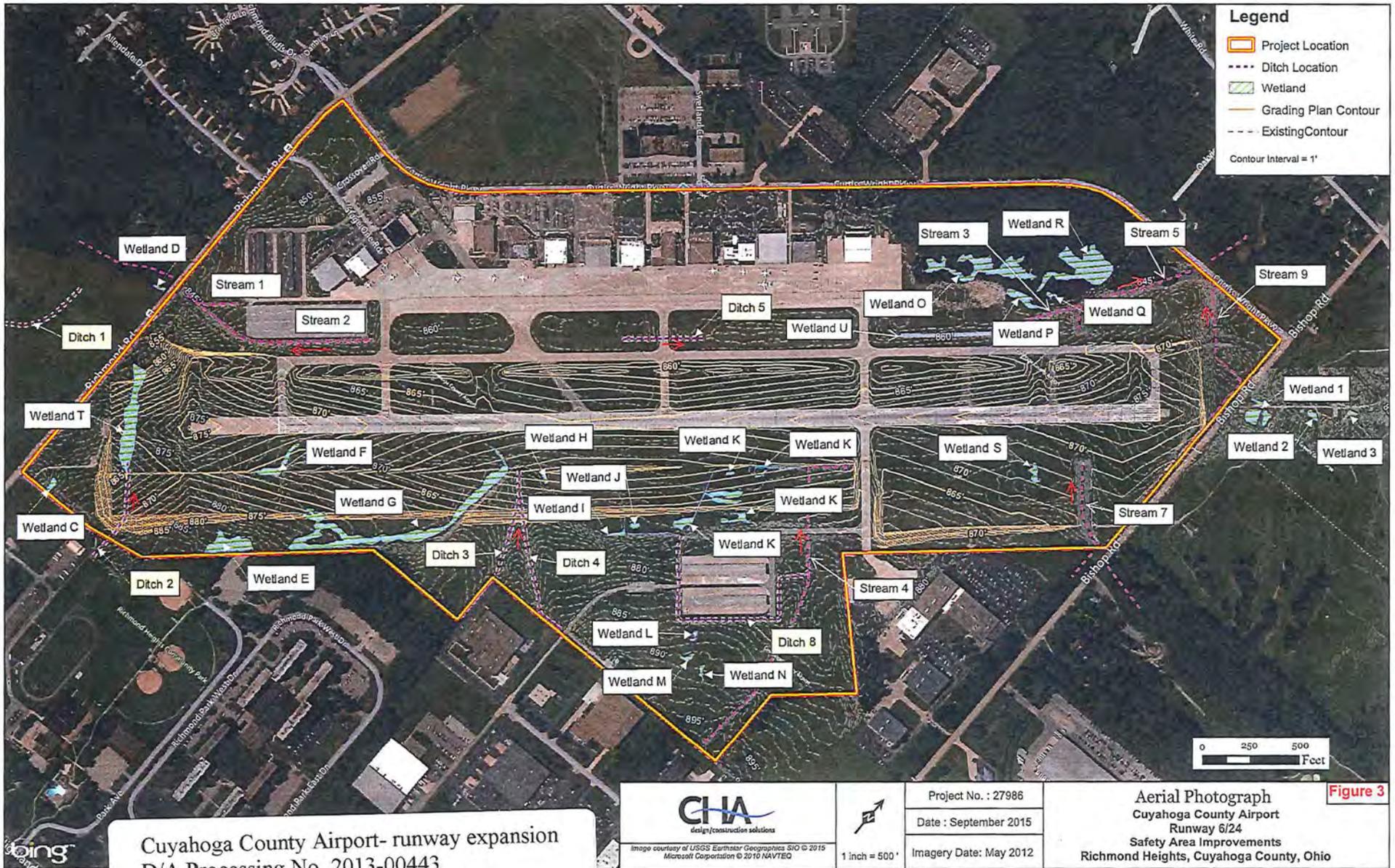


Figure 1

			USGS Topographic Map Cuyahoga County Airport Runway 6/24 Safety Area Improvements Richmond Heights, Cuyahoga County, Ohio
	0 1,000 2,000  Feet Scale 1" = 2000'	CHA No. 27986	



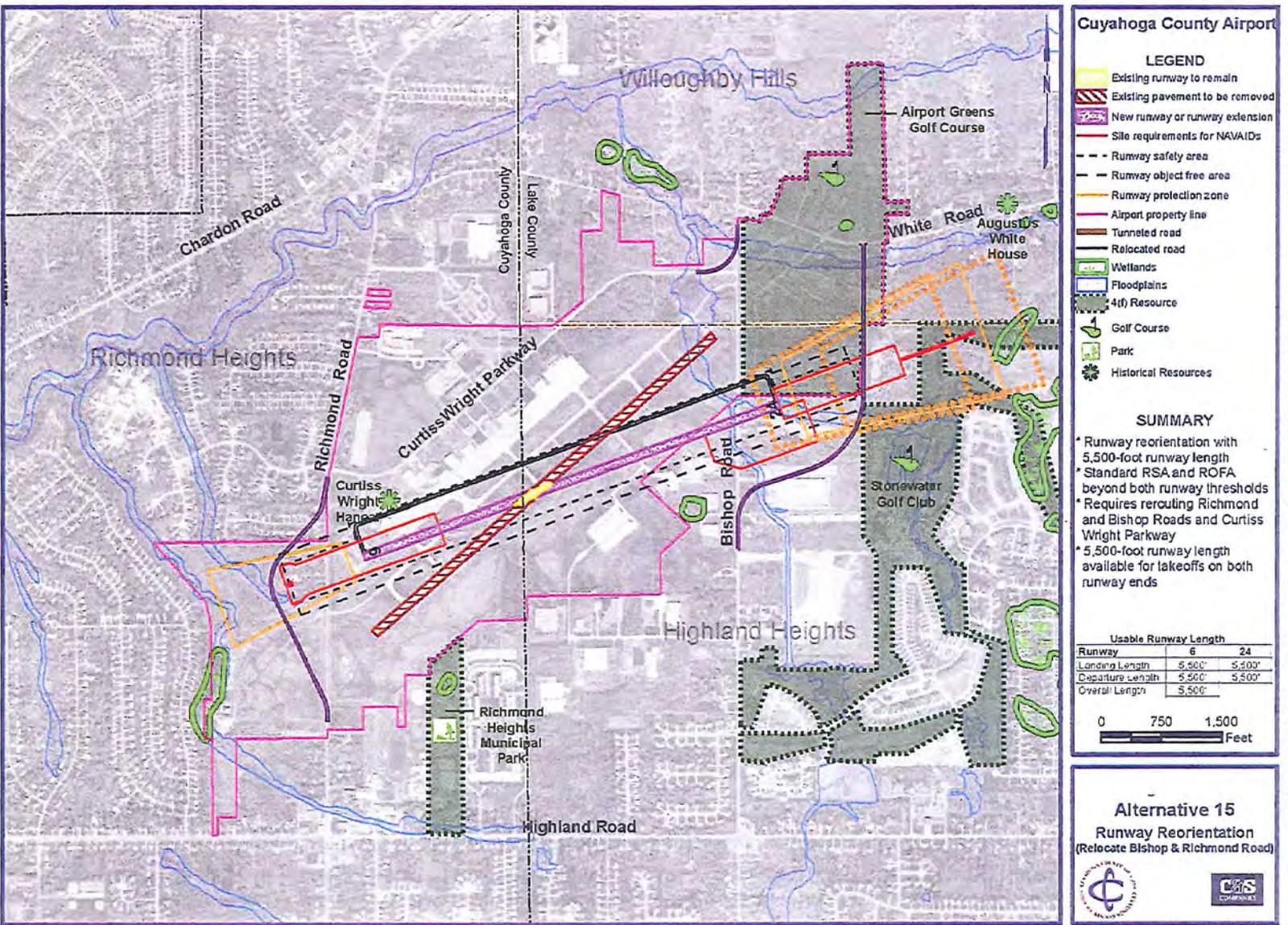
	<p>design/construction solutions</p>	<p>Vicinity Map Cuyahoga County Airport Runway 6/24 Safety Area Improvements Richmond Heights, Cuyahoga County, Ohio</p>	
		<p>0 500 1,000 Feet Scale 1" = 1000'</p>	<p>CHA Project No. 27986</p>



Cuyahoga County Airport- runway expansion
D/A Processing No. 2013-00443
USGS Quad: Mayfield Heights, OH
Cuyahoga/Lake County, OH
Sheet 3 of 22



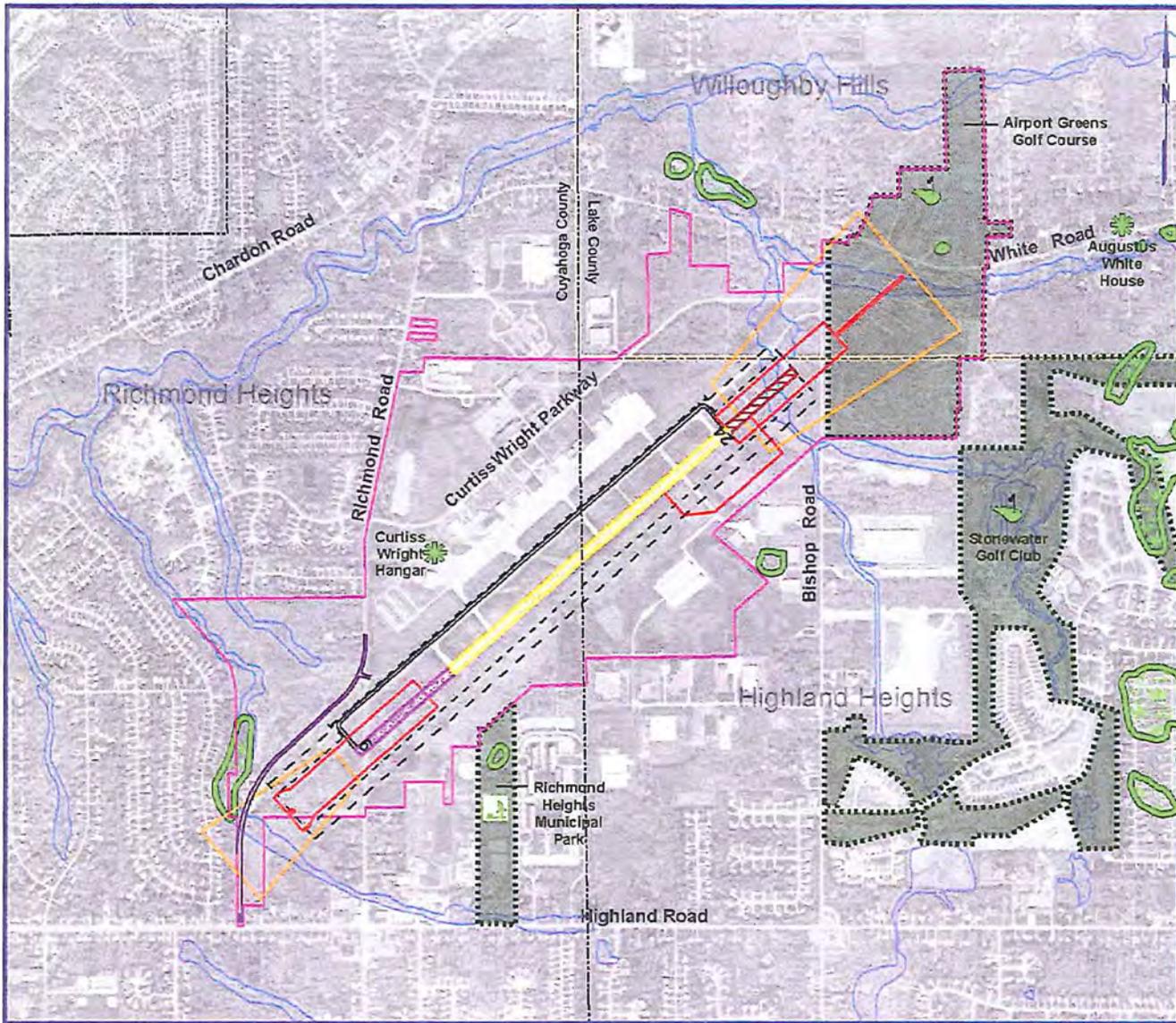
Figure 2.1 Alternative 15 – Runway Reorientation (Relocate Bishop and Richmond Road)



Cuyahoga County Airport- runway expansion
 D/A Processing No. 2013-00443
 USGS Quad: Mayfield Heights, OH
 Cuyahoga/Lake County, OH
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Cuyahoga County Airport

LEGEND

- Existing runway to remain
- Existing pavement to be removed
- New runway or runway extension
- Site requirements for NAVAIDS
- Runway safety area
- Runway object free area
- Runway protection zone
- Airport property line
- Tunnelled road
- Relocated road
- Wetlands
- Floodplains
- 4(f) Resource
- Golf Course
- Park
- Historical Resources

SUMMARY

- * Extend Runway 6 end 1,400 feet (incorporating stopway)
- * Close 1,000 feet at Runway 24 end
- * Standard RSA and ROFA beyond both runway thresholds
- * Requires rerouting of Richmond Road
- * 5,502-foot runway length available for takeoffs on both runway ends

Usable Runway Length	
Runway	6 24
Landing Length	5,502' 5,502'
Departure Length	5,502' 5,502'
Overall Length	5,502'

0 750 1,500
Feet

Alternative 16
Runway 6 Extension to West
(Relocate Richmond Road)

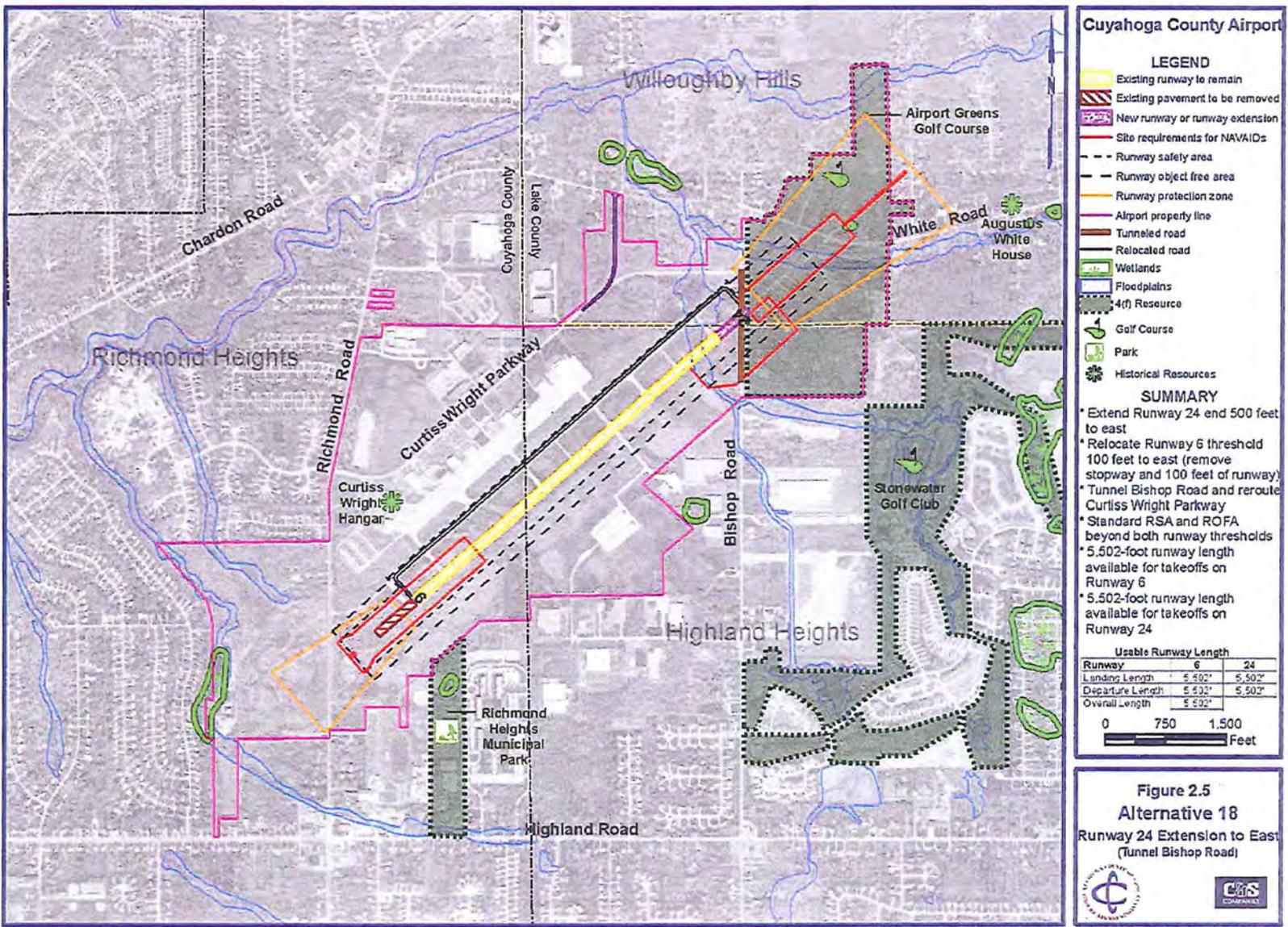
Figure 2.2 Alternative 16 – Runway 6 Extension to West (Relocate Richmond Road)

Cuyahoga County Airport- runway expansion
 D/A Processing No. 2013-00443
 USGS Quad: Mayfield Heights, OH
 Cuyahoga/Lake County, OH
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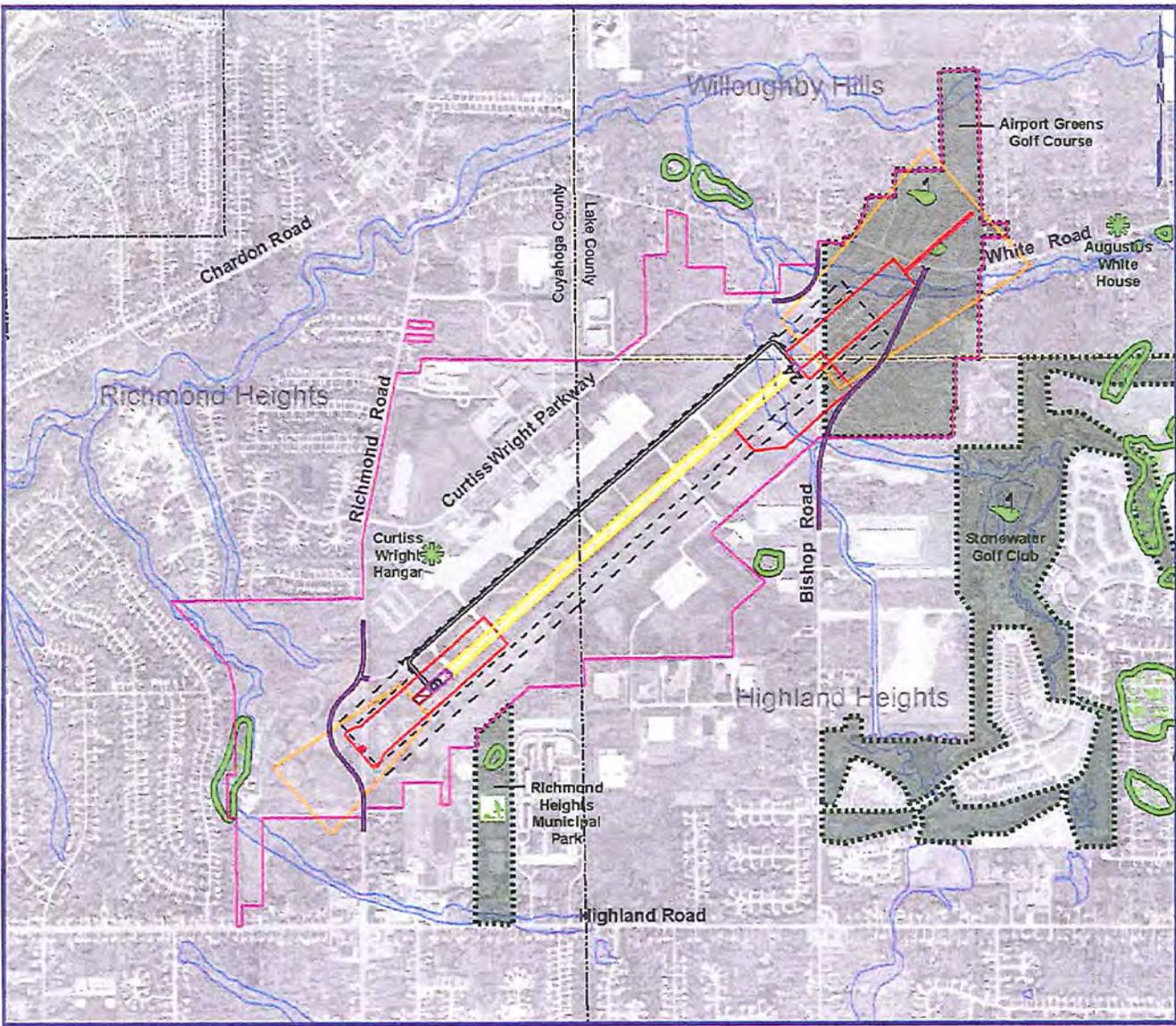
Figure 2.4 Alternative 18 – Runway 24 Extension to the East (Tunnel Bishop Road)



Cuyahoga County Airport- runway expansion
 D/A Processing No. 2013-00443
 USGS Quad: Mayfield Heights, OH
 Cuyahoga/Lake County, OH
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Cuyahoga County Airport

LEGEND

- Existing runway to remain
- Existing pavement to be removed
- New runway or runway extension
- Sillie requirements for NAVAIDS
- Runway safety area
- Runway object free area
- Runway protection zone
- Airport property line
- Tunneled road
- Relocated road
- Wetlands
- Floodplains
- 4th Resource
- Golf Course
- Park
- Historical Resources

SUMMARY

- * Extend Runway 24 end 100 feet
- * Extend Runway 6 end 300 feet
- * Reroute roads to clear RSAs and ROFAs at both runway ends
- * Standard RSA end ROFA beyond both runway thresholds
- * 5,502-foot runway length available for takeoffs on Runway 6
- * 5,502-foot runway length available for takeoffs on Runway 24

Usable Runway Length		
Runway	6	24
Landing Length	5,502'	5,502'
Departure Length	5,502'	5,502'
Overall Length	5,502'	

0 750 1,500 Feet

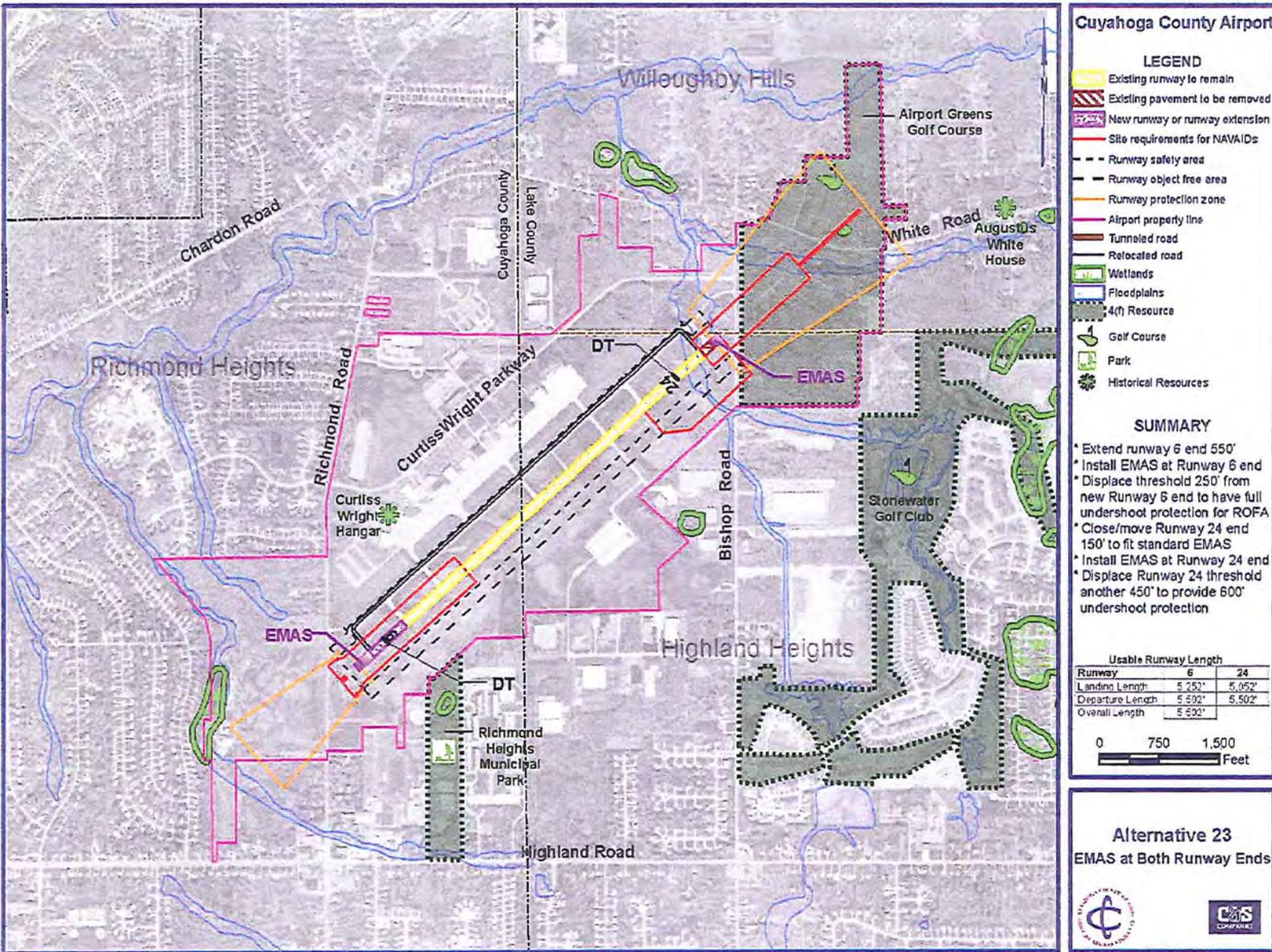
Figure 2.6
Alternative 19
Road Relocations
at Both Runway Ends

Figure 2.5 Alternative 19 – Road Relocations at Both Runway Ends



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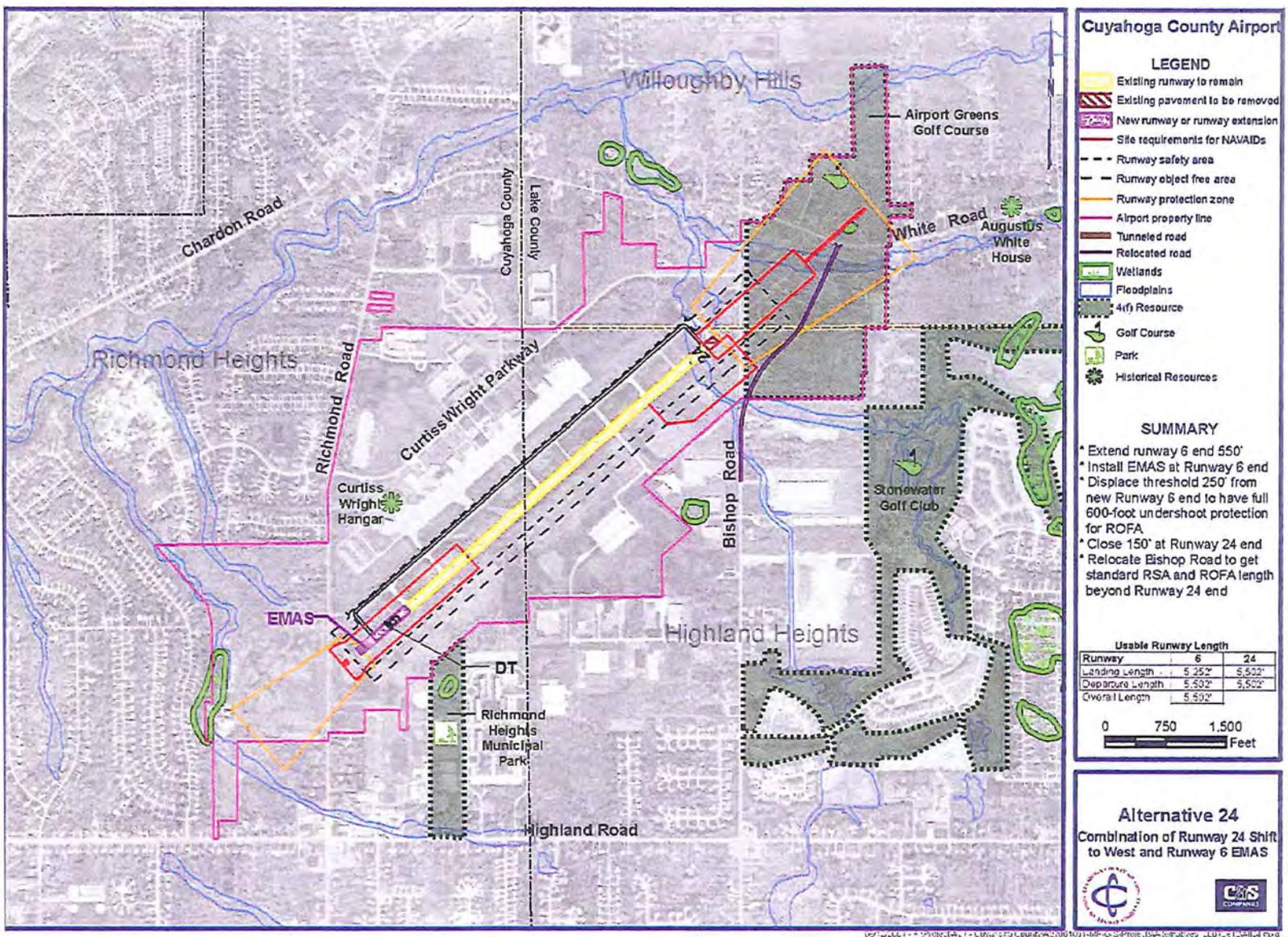
Figure 2.6 Alternative 23 – EMAS at Both Runway Ends (Master Plan Preferred Alternative)



Cuyahoga County Airport- runway expansion
 D/A Processing No. 2013-00443
 USGS Quad: Mayfield Heights, OH
 Cuyahoga/Lake County, OH
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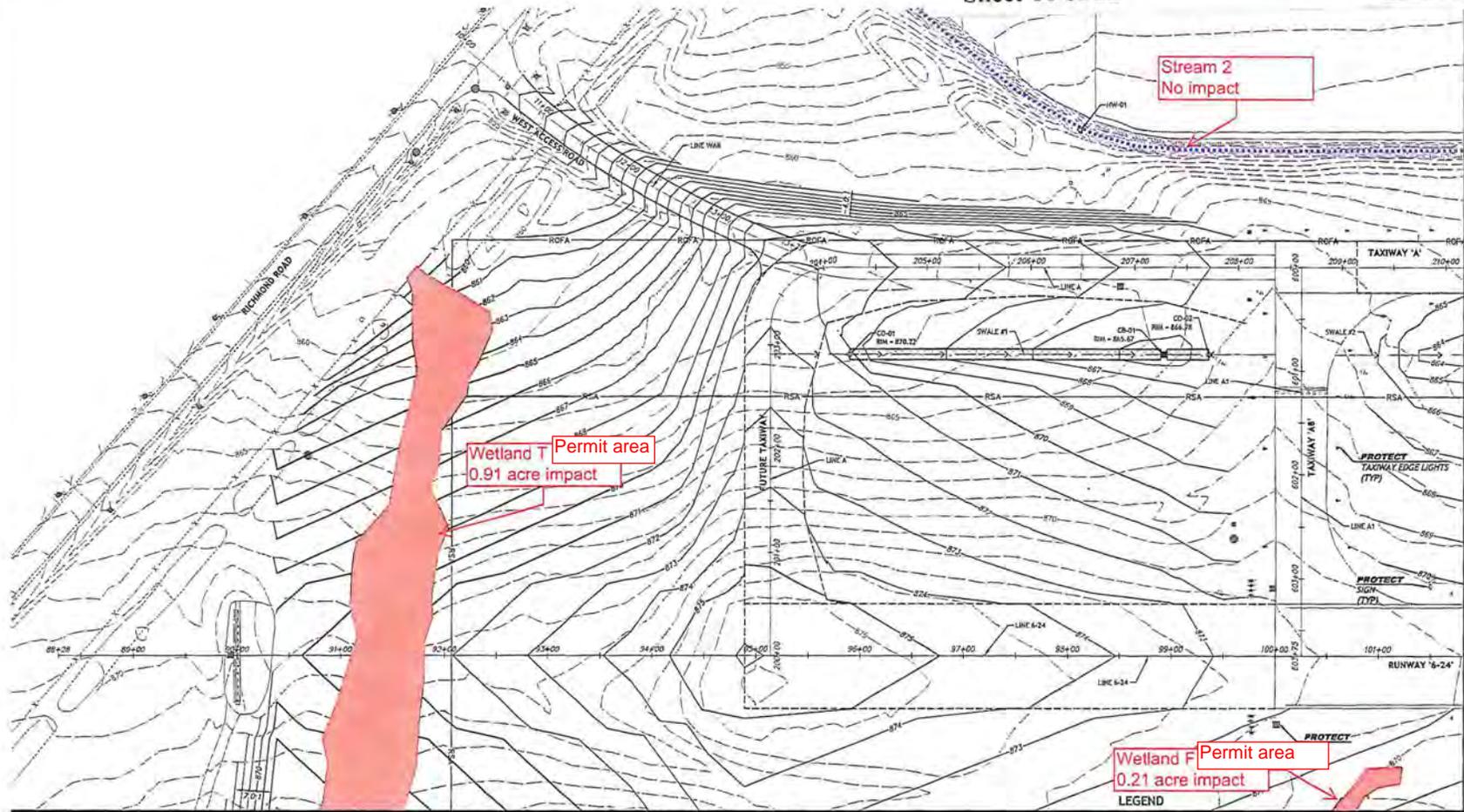
Figure 2.7 Alternative 24 – Combination of Runway 24 Shift to West and Runway 6 EMAS



Cuyahoga County Airport- runway expansion
 D/A Processing No. 2013-00443
 USGS Quad: Mayfield Heights, OH
 Cuyahoga/Lake County, OH
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Cuyahoga County Airport- runway expansion
 D/A Processing No. 2013-00443
 USGS Quad: Mayfield Heights, OH
 Cuyahoga/Lake County, OH
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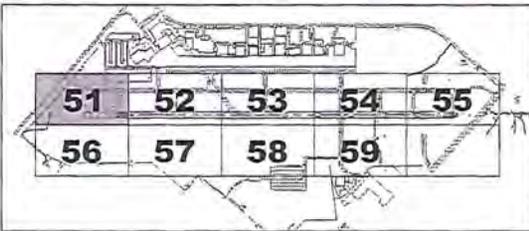


Wetland T Permit area
 0.91 acre impact

Wetland F Permit area
 0.21 acre impact

Stream 2
 No impact

KEYMAP

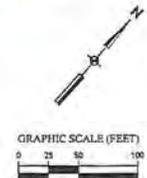


NOTES

1. THE EXISTING CONDITIONS SHOWN ON THIS DRAWING ARE DERIVED FROM MULTIPLE AERIAL AND FIELD SURVEYS. PRIOR TO THE START OF THE CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES IN THE EXISTING INFORMATION REFLECTED IN THE PLANS.
2. UNDOCUMENTED UTILITIES ARE DEPICTED FROM AVAILABLE INFORMATION, BUT ARE NOT KNOWN TO BE ACCURATE OR COMPLETE. IF ACTIVE UNDOCUMENTED UNDERGROUND UTILITIES ARE ENCOUNTERED DURING CONSTRUCTION, IMMEDIATELY NOTIFY THE ENGINEER.
3. STOCKPILE ALL TOPSOIL AND EMBANKMENT MATERIAL REMOVED BY AN ENGINEER APPROVED AREA. THE LIMITS OF THE STOCKPILE SHALL BE SURROUNDED AND PROTECTED BY EQUIPOT FILTER SOCK TO PREVENT EROSION AND DISCHARGES OF SEDIMENT FROM DURING THE STOCKPILE AREA. A DETAIL OF THE COMPOST FILTER SOCK IS SHOWN ON SHEET 20.
4. THE CONTRACTOR SHALL SOIL AND MULCH ALL DISTURBED AREAS AFTER FINAL GRADING AND UNDERDRAIN INSTALLATION IS COMPLETE.
5. THE PROPOSED CONTOUR LINES ARE THE RESULT OF AN ENGINEER GRADING DESIGN AND REFLECT A PLANNED INTENT WITH REGARD TO DRAINAGE AND MOVEMENT OF STORMWATER RUNOFF. THE CONTRACTOR SHALL CONTACT THE ENGINEER IF HE/SHE HAS ANY QUESTIONS REGARDING THE INTENT OF THE DESIGN OR HAVE ANY PROBLEMS WITH THE CONTINUITY OF THE GRADICS OR CONTOURS.
6. THE CONTRACTOR SHALL NOT DISTURB EXISTING VEGETATION UNLESS REQUIRED TO PERFORM A GRADING OPERATION.
7. THE LENGTH OF THE MODIFIED BROOKLETION CELL IS SHOWN IN THE DRAINAGE PLANS ON SHEETS 40 TO 74.
8. SWALE C/C GRADICES ARE SHOWN ON THE STORM PROFILES ON SHEETS 40 TO 74.
9. THERE SHALL BE NO SLOPE WITHIN THE RSA GREATER THAN 6:1 AT THE COMPLETION OF EACH NIGHT AND WEEKEND GRADING ACTIVITY IN THE RSA.
10. IF ALTERNATE BID #1 IS AWARDED SEE THE CROSS SECTIONS FOR THE PROPOSED TRANSITION BACK TO EXISTING GRADE.

LEGEND

- PROPOSED HEADWALL
- PROPOSED MANHOLE
- PROPOSED CATCHBASIN
- PROPOSED CLEANOUT
- PROPOSED TAXIWAY LIGHT
- PROPOSED RUNWAY LIGHT
- RUNWAY SAFETY AREA
- RSA
- ROFA
- RUNWAY OBJECT FREE AREA
- FUTURE AIRFIELD PAVEMENT
- MODIFIED BIODETERIORATION CELL
- ALTERNATE BID #1 LIMITS



MATCH LINE SHEET 52

Scale: AS NOTED	Project No.: 2013-00443
Issue Date: MAY 13	Project No.: 2013-00443
Design: DPF	Drawn: RWH
Checked: DAS	Scale: AS NOTED

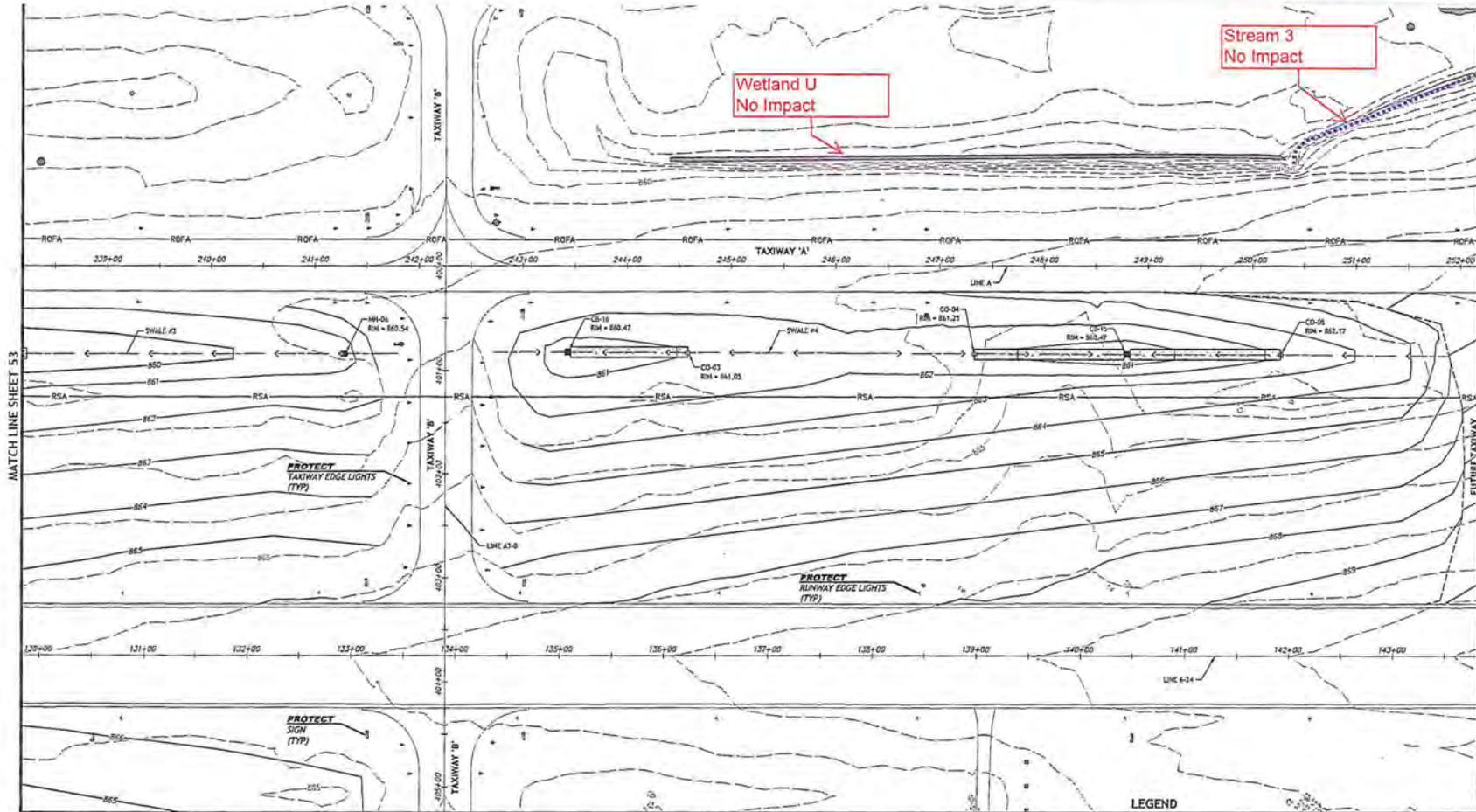
CUYAHOGA COUNTY AIRPORT
 26300 CURTISS WRIGHT PARKWAY
 RICHMOND HEIGHTS, OH 44143

STATE OF OHIO
 DIVISION OF PUBLIC SAFETY
 REGISTERED PROFESSIONAL ENGINEER

CIA
 Cuyahoga County Airport
 10111 Lakeshore Blvd. Ste. 200
 Cleveland, OH 44115
 Tel: (216) 421-1000
 Fax: (216) 421-1001

CUYAHOGA COUNTY AIRPORT
 RUNWAY 6/24
 SAFETY AREA IMPROVEMENTS
 GRADING PLAN - 1

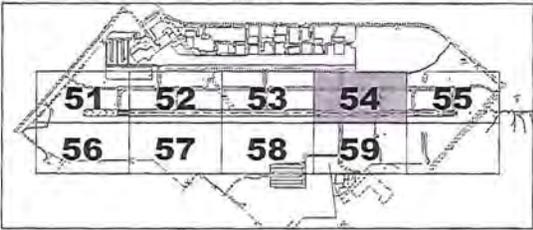
51



MATCH LINE SHEET 53

MATCH LINE SHEET 55

KEYMAP

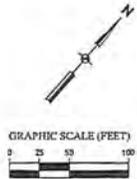


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6. THE CONTRACTOR SHALL NOT DISTURB EXISTING VEGETATION UNLESS REQUIRED TO FOR CONSTRUCTION GRADING OPERATION.
7. THE LENGTH OF THE PROPOSED RETENTION CELLS IS SHOWN IN THE DRAINAGE PLANS ON SHEETS 40 TO 46.
8. SWALE CL GRADERS ARE SHOWN ON THE STORM PROFILES ON SHEETS 40 TO 74.
9. THERE SHALL BE NO SLOPE WITHIN THE RSA GREATER THAN 6:1 AT THE COMPLETION OF EACH NIGHT AND WEEKEND GRADING ACTIVITY IN THE RSA.
10. IF ADDITIVE ALTERNATE BD #1 IS NOT AWARDED SEE THE CROSS SECTIONS FOR THE PROPOSED TRANSITION BACK TO EXISTING GRADE.

LEGEND

- PROPOSED HEADWALL
- PROPOSED MANHOLE
- PROPOSED CATCHBASIN
- PROPOSED CLEANOUT
- PROPOSED TAXIWAY LIGHT
- PROPOSED RUNWAY LIGHT
- RSA — RUNWAY SAFETY AREA
- ROFA — RUNWAY OBJECT FREE AREA
- — — FUTURE AIRFIELD PAVEMENT
- ▨ MODIFIED BIOTRETECTION COLL
- ADDITIVE ALTERNATE BD #1 LIMITS



NO.	DATE	BY	REVISION

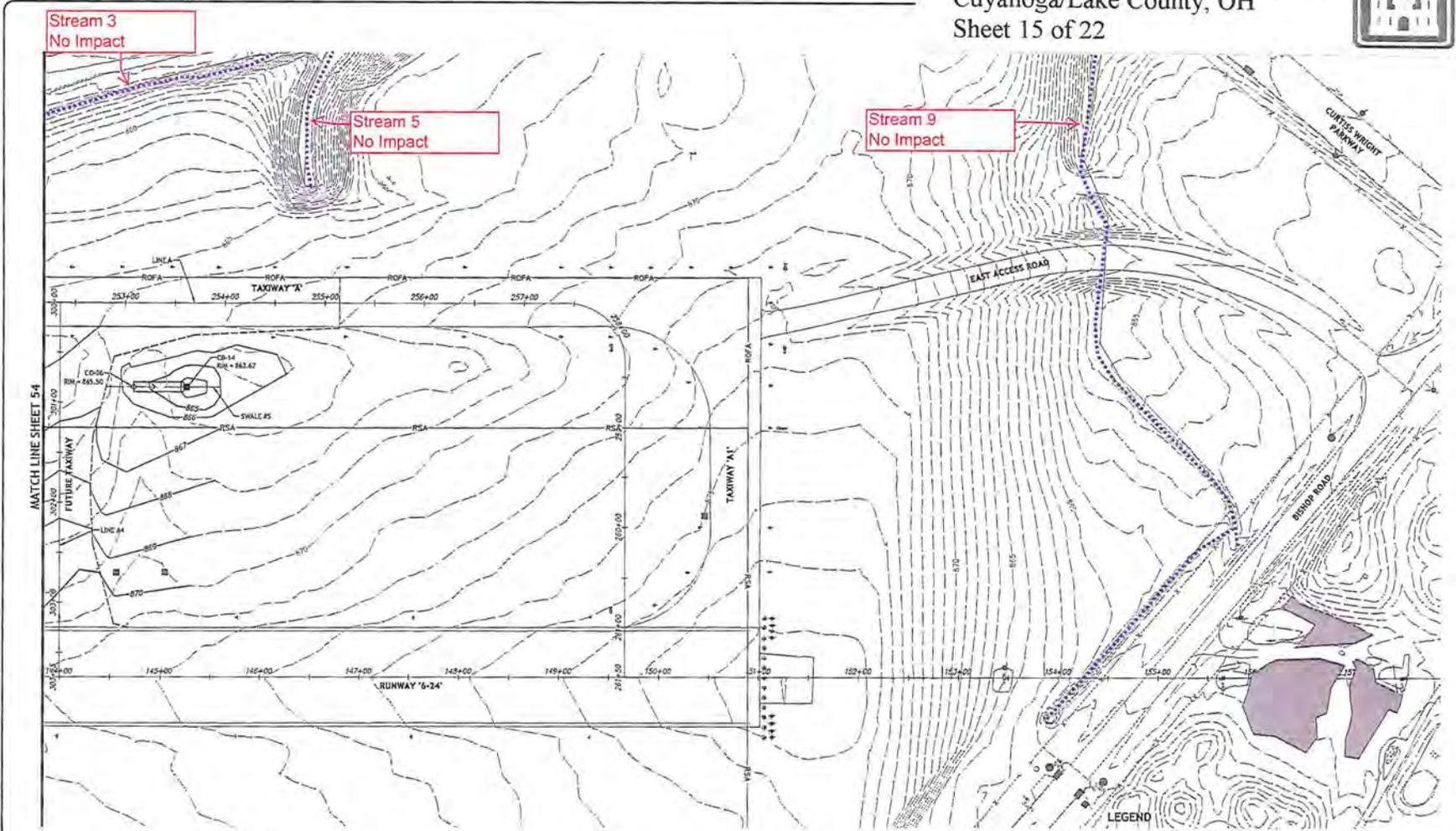
CUYAHOGA COUNTY AIRPORT
 26300 CURTISS WRIGHT PARKWAY
 RICHMOND HEIGHTS, OH 44143

STATE OF OHIO
 DEPARTMENT OF PUBLIC SAFETY
 DIVISION OF AERONAUTICS
 12-419
 1000 EAST 17TH AVENUE, SUITE 200
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GWA
 GEORGE W. ANDERSON & ASSOCIATES, INC.
 1000 EAST 17TH AVENUE, SUITE 200
 DENVER, CO 80202
 (303) 733-1100
 www.gwa.com

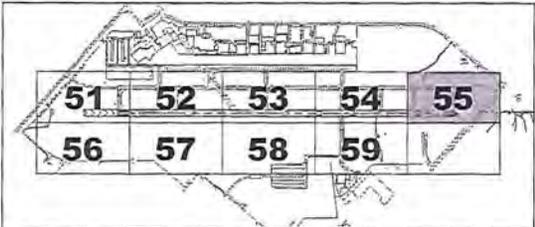
CUYAHOGA COUNTY AIRPORT
 RUNWAY 624
 SAFETY AREA IMPROVEMENTS
 GRADING PLAN - 4

DATE: 04/15/13 PROJECT: 162-2106 SCALE: AS SHOWN



MATCH LINE SHEET 54

KEYMAP

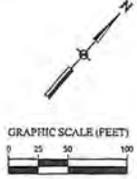


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5. THE LENGTH OF THE MODIFIED BIODIVERSITY CELL IS SHOWN IN THE DRAINAGE PLANS ON SHEETS 50 TO 54.
6. SWALE C/C GRADES ARE SHOWN ON THE STORM PROFILES ON SHEETS 49 TO 54.
7. THERE SHALL BE NO SLOPE WITHIN THE RSA GREATER THAN 8:1 AT THE COMPLETION OF EACH NIGHT AND WEEKEND GRADING ACTIVITY IN THE RSA.
8. IF AN ALTERNATE BID #1 IS NOT AWARDED SEE THE CROSS SECTIONS FOR THE PROPOSED TRANSITION BACK TO EXISTING GRADE.

LEGEND

- ▽ PROPOSED HEADWALL
- PROPOSED MANGLE
- PROPOSED CATCHBASIN
- PROPOSED CLEANOUT
- PROPOSED TAXIWAY LIGHT
- PROPOSED RUNWAY LIGHT
- RSA RUNWAY SAFETY AREA
- ROFA RUNWAY OBJECT FREE AREA
- FUTURE AIRFIELD PAVEMENT
- ▨ MODIFIED BIODIVERSITY CELL
- - - - - ALTERNATE BID #1 LIMITS



DATE	BY	REVISION
08/12/15		
CONFORMED TO CONTRACT		

CUYAHOGA COUNTY AIRPORT
 2630 CURTIS WRIGHT PARKWAY
 RICHMOND HEIGHTS, OH 44143

STATE OF OHIO
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

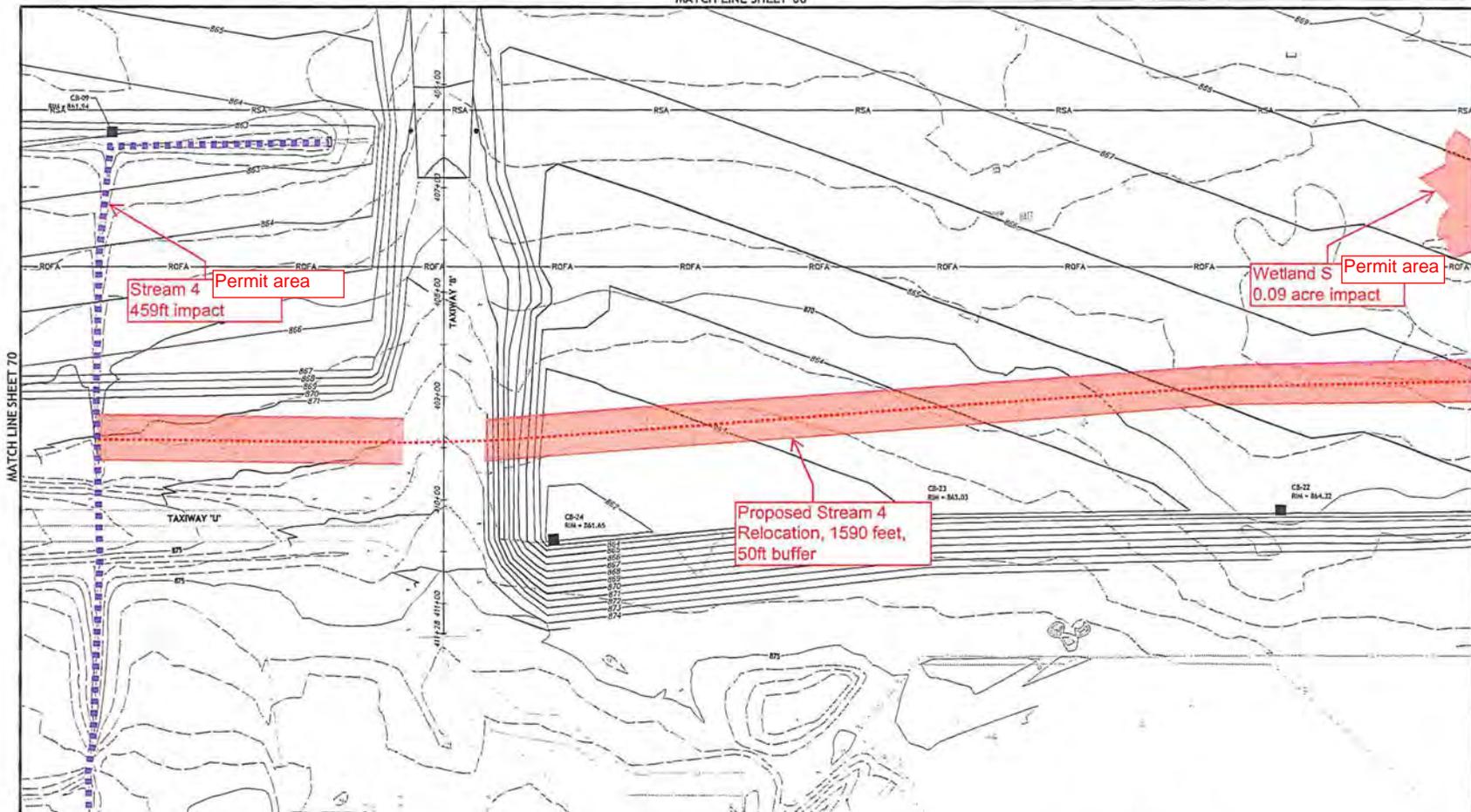
CH2M HILL
 10000 EAST AVENUE, SUITE 200
 CLEVELAND, OH 44130
 (216) 426-1000

CUYAHOGA COUNTY AIRPORT
 RUNWAY 6/24
 SAFETY AREA IMPROVEMENTS
 GRADING PLAN - 5

55



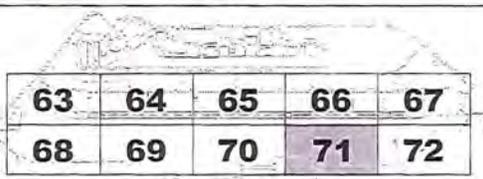
MATCH LINE SHEET 66



MATCH LINE SHEET 70

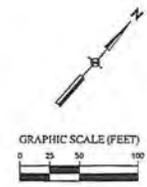
MATCH LINE SHEET 72

KEYMAP



- NOTES**
1. THE EXISTING CONDITIONS SHOWN ON THIS DRAWING ARE DERIVED FROM MULTIPLE AERIAL AND FIELD SURVEYS, PRIOR TO THE START OF THE CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES IN THE EXISTING INFORMATION REFLECTED IN THE PLANS.
 2. UNDERGROUND UTILITIES ARE DEPICTED FROM AVAILABLE INFORMATION, BUT ARE NOT KNOWN TO BE ACCURATE OR COMPLETE. IF ACTIVE UNDOCUMENTED UNDERGROUND UTILITIES ARE ENCOUNTERED DURING CONSTRUCTION, IMMEDIATELY NOTIFY THE ENGINEER.
 3. STOCKPILE ALL TOPSOIL AND EMBANKMENT MATERIAL REMOVED IN AN ENGINEER APPROVED AREA. THE LIMITS OF THE STOCKPILE SHALL BE SURROUNDED AND PROTECTED BY COMPOST FILTER SOCK TO PREVENT ILLEGAL DISCHARGES OF SEDIMENT FROM EXISTING THE STOCKPILE AREA. A SETBACK OF THE COMPOST FILTER SOCK IS SHOWN ON SHEET 19.
 4. THE CONTRACTOR SHALL SEED AND MULCH ALL DISTURBED AREAS AFTER FINAL GRADING AND UNDERDRAIN INSTALLATION IS COMPLETE.
 5. THE PROPOSED CONTOUR LINES ARE THE RESULT OF AN ENGINEER GRADING DESIGN AND REFLECT A PLANNED INTENT WITH REGARD TO DRAINAGE AND MOVEMENT OF SURFACEWATER RUNOFF. THE CONTRACTOR SHALL CONTACT THE ENGINEER IF HE HAS ANY QUESTIONS REGARDING THE INTENT OF THE DESIGN OR HAVE ANY PROBLEMS WITH THE CONTINUITY OF THE GRADES OR CONTOURS.
 6. THE CONTRACTOR SHALL NOT DISTURB EXISTING VEGETATION UNLESS REQUIRED TO PERFORM A GRADING OPERATION.

- LEGEND**
- HEADWALL
 - MANHOLE
 - CATCHBASIN
 - TAXIWAY LIGHT
 - RUNWAY LIGHT
 - RUNWAY SAFETY AREA
 - RSA — RUNWAY SAFETY AREA
 - ROFA — RUNWAY OBJECT FREE AREA



DATE	BY	CHKD

CUYAHOGA COUNTY AIRPORT
 28300 CURTISS WRIGHT PARKWAY
 RICHMOND HEIGHTS, OH 44143

CHA
 CONSULTING ENGINEERS
 15110 W. BURGESS RD., SUITE 100
 CLEVELAND, OH 44130
 WWW.CHACONLINE.COM

Checked: TJS
 Drawn: BOH
 Project No: 2013-00443

CUYAHOGA COUNTY AIRPORT
 RUNWAY 6/24
 SAFETY AREA IMPROVEMENTS
 GRADING PLAN - 9

Issue Date: 10/15/13 Project No: 2013-00443 Scale: AS SHOWN

File: I:\2013\10\24\2013-00443\DWG\2013-00443-09.dwg Plot: 2013-00443-09.dwg Date: 10/24/13 10:09:34 User: hertick_814



MATCH LINE SHEET 67



MATCH LINE SHEET 71

Stream 7
No Impact

Proposed Stream 4
Relocation, 1590 feet,
50ft buffer

KEYMAP

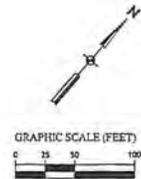
63	64	65	66	67
68	69	70	71	72

NOTES

1. THE EXISTING CONDITIONS SHOWN ON THIS DRAWING ARE DERIVED FROM MULTIPLE AERIAL AND FIELD SURVEYS. PRIOR TO THE START OF THE CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES IN THE EXISTING INFORMATION REFLECTED IN THE PLANS.
2. UNDERGROUND UTILITIES ARE DEPICTED FROM AVAILABLE INFORMATION, BUT ARE NOT KNOWN TO BE ACCURATE OR COMPLETE. IF ACTIVE UNDOCUMENTED UNDERGROUND UTILITIES ARE ENCOUNTERED DURING CONSTRUCTION, IMMEDIATELY NOTIFY THE ENGINEER.
3. STOCKPILE ALL TOPSOIL AND DRAINAGE MATERIALS REMOVED IN AN ENGINEER APPROVED AREA. THE LIMITS OF THIS STOCKPILE SHALL BE SURROUNDED AND PROTECTED BY EROSION FILTER SOCK TO PREVENT ILLICIT DISCHARGES OF SEDIMENT FROM EXITING THE STOCKPILE AREA. A DETAIL OF THE COMPOST FILTER SOCK IS SHOWN ON SHEET 19.
4. THE CONTRACTOR SHALL SEED AND MULCH ALL DISTURBED AREAS AFTER FINAL GRADING AND UNDERDRAIN INSTALLATION IS COMPLETE.
5. THE PROPOSED CONTOUR LINES ARE THE RESULT OF AN ENGINEERED GRADING DESIGN AND REFLECT A PLANNED INTENT WITH REGARD TO DRAINAGE AND MOVEMENT OF STORMWATER RUNOFF. THE CONTRACTOR SHALL CONTACT THE ENGINEER IF HE HAS ANY QUESTIONS REGARDING THE INTENT OF THE DESIGN OR HAVE ANY PROBLEMS WITH THE CONTINUITY OF THE GRADES OR CONTOURS.
6. THE CONTRACTOR SHALL NOT DISTURB EXISTING VEGETATION UNLESS REQUIRED TO PERFORM A GRADING OPERATION.

LEGEND

- ◻ HEADWALL
- MANHOLE
- CATCHBASIN
- TANKWAY LIGHT
- RUNWAY LIGHT
- RSA RUNWAY SAFETY AREA
- ROFA RUNWAY OBJECT FREE AREA



Sheet No.	22
Sheet Title	Grading Plan - 10
Scale	AS SHOWN
Project No.	2013-00443
Date	1/15/14

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 26300 CURTISS WRIGHT PARKWAY
 RICHMOND HEIGHTS, OH 44143

CHA
 CONSULTING ENGINEERS
 15110 HICKORY HILL ROAD, SUITE 100
 MAPLE HURON, OHIO 44130
 (440) 439-8800
 www.cha-engineers.com

Designed: DJF Drawn: BWH
 Download: TWS

CUYAHOGA COUNTY AIRPORT
 RUNWAY 8/24
 SAFETY AREA IMPROVEMENTS
 GRADING PLAN - 10

Issue Date: 1/15/14 Project No: 2013-00443 Scale: AS SHOWN

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 Sheet: 22 of 22
 Date: 1/15/14 11:11:11 AM
 User: bwh@cha.com