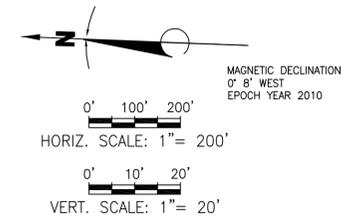


INSUFFICIENT SURVEY DATA: INDIVIDUAL TREES MAY PENETRATE THRESHOLD SITING SURFACE.

APPROACH SURFACE PENETRATION DATA TABLE - RUNWAY 35 (36) END

CFR PART 77 APPROACH SURFACE (PART 77)								APPENDIX 2, DEPARTURE SURFACE (DS)				
OBJECT NO.	OBJECT DESCRIPTION	OBJECT TOP ELEVATION (MSL)	PART 77 (E) SURFACE ELEV. (MSL)	PART 77 (E) PENETRATE (+) CLEAR (-)	PART 77 (F) SURFACE ELEV. (MSL)	PART 77 (F) PENETRATE (+) CLEAR (-)	AIRSPACE DISPOSITION / MITIGATION	TRIGGERING EVENT	DEPARTURE SURFACE (E) ELEV. (MSL)	DEPARTURE SURFACE (E) PENETRATE (+) CLEAR (-)	DEPARTURE SURFACE (F) ELEV. (MSL)	DEPARTURE SURFACE (F) PENETRATE (+) CLEAR (-)
1841	TREE	1,337.4	1,321.0	16.4	1,319.2	18.2	TO BE REMOVED	NONE	1,284.0	53.4	---	---
1884*	TREE	1,348.1	1,336.4	11.7	1,336.5	11.6	TO BE REMOVED	NONE	---	---	---	---
1906*	TREE	1,342.2	1,337.1	5.1	1,334.3	7.9	TO BE REMOVED	RWY EXTENSION	---	---	---	---
1912*	TREE	1,347.2	1,341.2	6	1,340.4	6.8	TO BE REMOVED	NONE	---	---	---	---
2007*	TREE	1,341.7	1,337.7	4	1,338.2	3.5	TO BE REMOVED	NONE	---	---	---	---
2199	TREE	1,340.5	1,311.6	28.9	1,308.4	32.1	TO BE REMOVED	NONE	1,291.1	49.4	1,281.1	59.4
2201	TREE	1,349.2	1,322.2	27	1,319.0	30.2	TO BE REMOVED	NONE	1,288.5	60.7	---	---
2207	TREE	1,323.7	1,306.9	16.9	1,303.6	20.1	TO BE REMOVED	NONE	1,298.2	25.5	1,288.2	35.5
2208	TREE	1,330.6	1,314.7	15.9	1,311.5	19.1	TO BE REMOVED	NONE	1,293.5	37.1	1,283.5	47.1
2214	TREE	1,314.8	1,312.9	1.9	1,309.7	5.1	TO BE REMOVED	NONE	1,300.9	13.9	1,290.9	23.9

* OBJECT NUMBERING AND ELEVATION DATA (OBSTRUCTION ANALYSIS FILES) OBTAINED FROM MARTINEZ GEOSPATIAL, OCTOBER, 2008.
 1. OBJECTS (TREES) WITHIN 10' BELOW THE AIRSPACE SURFACES SHOULD BE MITIGATED (LOWERED OR REMOVED), IN ORDER TO ANTICIPATE FUTURE GROWTH.
 2. SUBJECT TO FURTHER FAA COORDINATION AND AIRSPACE STUDY. EXISTING ODALS AND FUTURE MALS CLEAR OF PART 77 APPROACH SURFACE.
 3. CFR PART 77 SURFACE RECOMMENDED CLEARANCES: 23' RAILROADS | 17' HIGHWAYS | 15' PUBLIC ROADS | 10' PRIVATE ROADS. ELEVATIONS IN TABLE REFLECT THE RECOMMENDED AIRSPACE CLEARANCE HEIGHT.

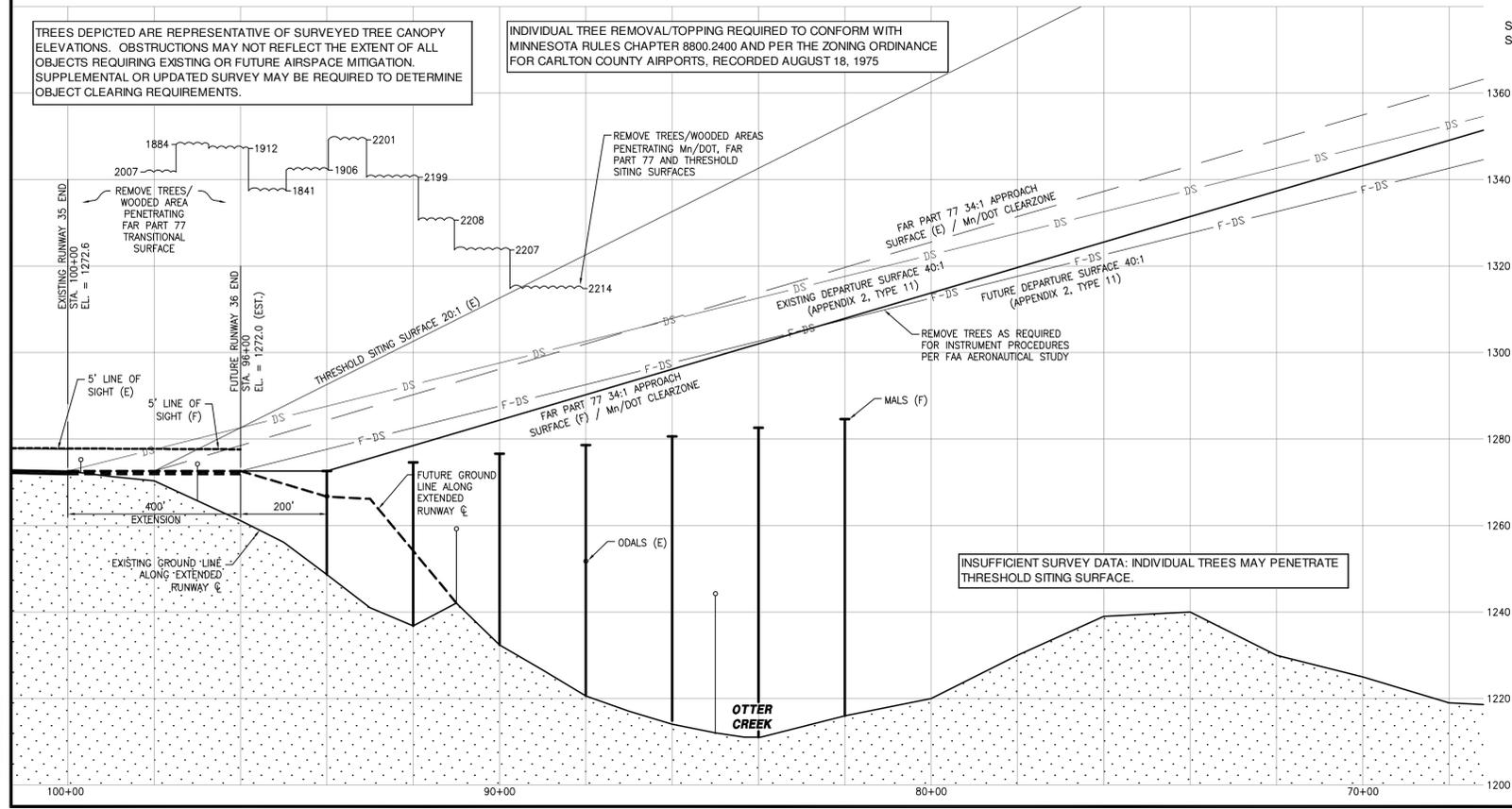


NOTE 1: PLAN AND PROFILE VIEW DEPICT SURVEYED OBJECTS PENETRATING OR WITHIN APPROXIMATELY 10' OF THE FAR PART 77 SURFACES. ACTUAL GROUND ELEVATION AT OBJECT MAY VARY FROM GROUND ELEVATION DEPICTED ALONG RUNWAY CENTERLINE, AS SHOWN. ROADWAY ELEVATIONS INCLUDE RECOMMENDED PART 77 CLEARANCE ELEVATION.
 NOTE 2: ASSUMES OBSTRUCTIONS TO THE FUTURE THRESHOLD SITING SURFACE (TSS) WILL BE REMOVED, THEREFORE, THE FUTURE THRESHOLD SITING SURFACE (TSS) IS NOT DEPICTED IN PROFILE VIEW.
 NOTE 3: EXISTING APPROACH LIGHTING SYSTEM IS ODALS. FUTURE APPROACH LIGHT SYSTEM DEPICTED AS A MEDIUM INTENSITY APPROACH LIGHT SYSTEM (MALS); ACTUAL APPROACH LIGHT SYSTEM TO BE INSTALLED SUBJECT TO FURTHER FAA COORDINATION AND AIRSPACE STUDY. EXISTING ODALS AND FUTURE MALS CLEAR OF PART 77 APPROACH SURFACE.
 NOTE 4: LONGITUDINAL LINE-OF-SIGHT STANDARDS MET FOR EXISTING AND ESTIMATED FUTURE RUNWAY ELEVATIONS.
 NOTE 5: ACQUIRE PROPERTY INTERESTS AND ADOPT/COORDINATE LAND USE CONTROLS NECESSARY TO REGULATE/MITIGATE AIRSPACE OBSTRUCTIONS.

SOURCE: AERIAL PHOTO OBTAINED FROM MARTINEZ, MAY 2006
 SOURCE: OBJECT ELEVATION DATA (OBSTRUCTION ANALYSIS FILE) OBTAINED FROM MARTINEZ GEOSPATIAL, OCT. 2008.
 SOURCE: BASE MAPPING 1995 ALP
 SOURCE: GROUND CONTOUR ELEVATION FROM 1995 ALP, USGS MAP, 1990 ODALS CONSTRUCTION PLANS

TREES DEPICTED ARE REPRESENTATIVE OF SURVEYED TREE CANOPY ELEVATIONS. OBSTRUCTIONS MAY NOT REFLECT THE EXTENT OF ALL OBJECTS REQUIRING EXISTING OR FUTURE AIRSPACE MITIGATION. SUPPLEMENTAL OR UPDATED SURVEY MAY BE REQUIRED TO DETERMINE OBJECT CLEARING REQUIREMENTS.

INDIVIDUAL TREE REMOVAL/TOPPING REQUIRED TO CONFORM WITH MINNESOTA RULES CHAPTER 8800.2400 AND PER THE ZONING ORDINANCE FOR CARLTON COUNTY AIRPORTS, RECORDED AUGUST 18, 1975



INSUFFICIENT SURVEY DATA: INDIVIDUAL TREES MAY PENETRATE THRESHOLD SITING SURFACE.

DESCRIPTION	EXISTING	FUTURE
PROPERTY LINE	---	---
EASEMENT	E	E
EASEMENT BOUNDARY		
LEASE	L	L
RUNWAY SAFETY AREA	--- RSA ---	--- F-RSA ---
RUNWAY OBJECT FREE AREA	--- OFA ---	--- F-OFA ---
RUNWAY OBSTACLE FREE ZONE	--- OFZ ---	--- F-OFZ ---
RUNWAY PROTECTION ZONE	---	---
RUNWAY VISIBILITY ZONE	RVZ	F-RVZ
TAXIWAY SAFETY AREA	TSA	F-TSA
TAXIWAY OBJECT FREE AREA	TOFA	F-TOFA
BUILDING RESTRICTION LINE	BRL	F-BRL
DEPARTURE SURFACE	DS	F-DS
THRESHOLD SITING SURFACE	TSS	F-TSS
APPROACH SURFACE	77	F-77
DRAINAGE FEATURE	---	---
AIRFIELD PAVEMENT	---	---
PAVEMENT REMOVAL	---	
AIRPORT BUILDINGS		
BUILDING TO BE REMOVED	---	
NON-AIRPORT BUILDINGS		---
RUNWAY LIGHT		
AWOS (AUTOMATED WEATHER OBSERVATION SYSTEM)		
REIL (RUNWAY END IDENTIFIER LIGHT)		
PAPI (PERCISION APPROACH PATH INDICATOR)	---	
ARP (AIRPORT REFERENCE POINT)		
BEACON		---
WINDSOCK / WINDCONE		---
TREES		---
FENCE	X	XX XX
POWER POLE		---
FLAG		---

CLOQUET/ CARLTON COUNTY AIRPORT

AIRPORT LAYOUT PLAN

CONSULTANTS

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED: AUGUST, 2012
 REVIEWED BY: DKC
 DRAWN BY: TWZ
 DESIGNED BY: JPS

AEP PROJECT NUMBER
 213-4581-005

SHEET TITLE
**RUNWAY 36
 APPROACH
 DRAWING**

SHEET NUMBER
 9 OF 13

FINAL DOCUMENTS