

Figure 4. Runway 26 MALSR with new RSA and Water Conveyance Improvements.

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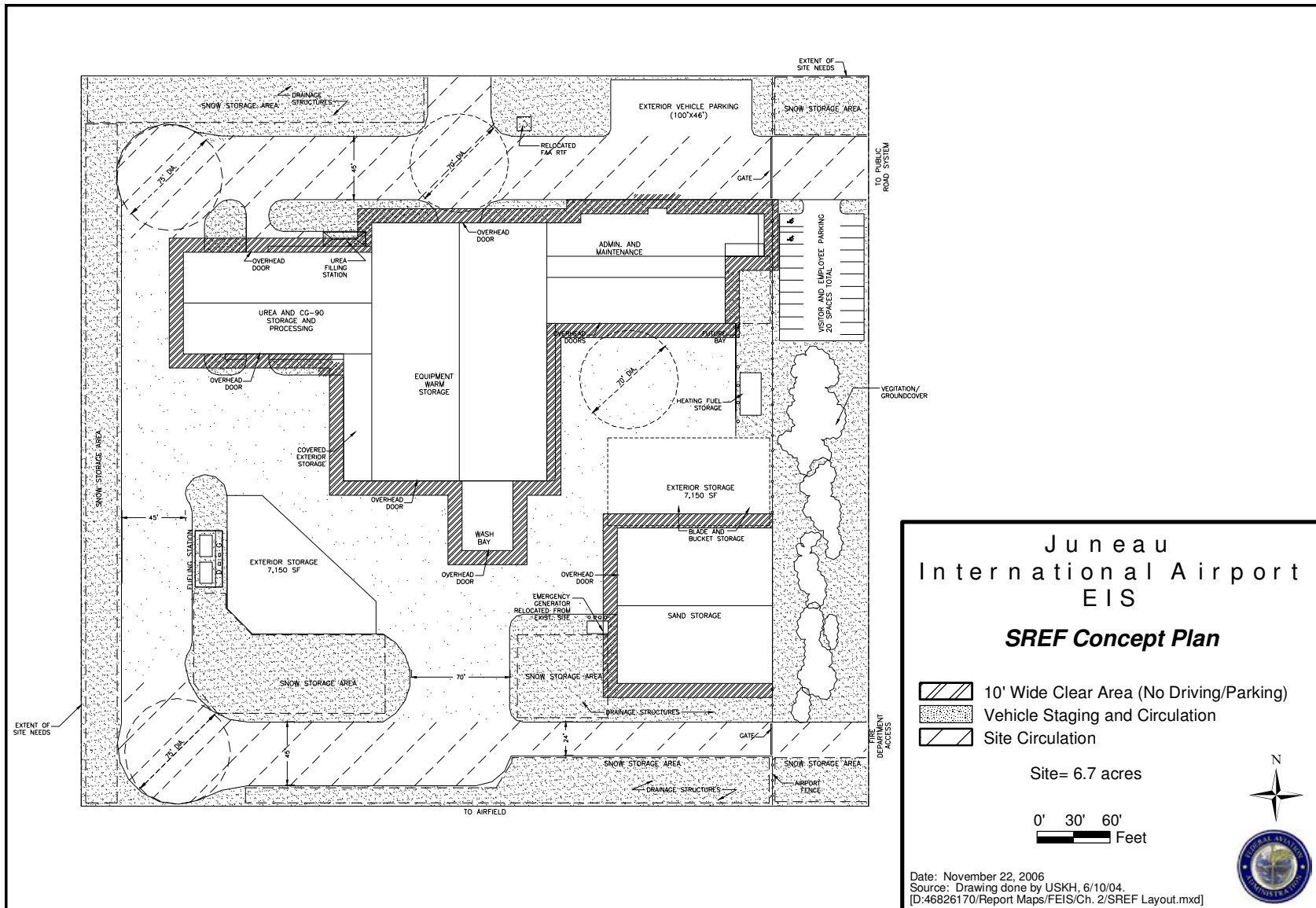


Figure 5. Snow removal equipment facility concept plan.

## **8.4 AVIATION FACILITIES: AIRCRAFT PARKING AND STORAGE**

After a rigorous analysis of the projected growth in aviation at JNU, FAA developed two comprehensive alternatives for facilities development on the Airport. Each alternative would use the Northeast Development Area for commercial and fixed-base operations, as well as large aircraft hangars, and the Northwest Development Area for general aviation users, typically based tie-downs as well as executive and T-hangars. The main difference between the two alternatives is FW/RW-1 would adapt the facilities layout around the existing Duck Creek corridor, while FW/RW-2 incorporates relocation of Duck Creek into the design. The costs to implement these two alternatives are similar, although relocation of Duck Creek would add approximately 7% to the overall development expense.

FAA's Preferred Alternative and the Sponsor's Proposed Action is FW/RW-2. Alternative FW/RW-2 would have slightly lesser impact on environmental resources than FW-RW-1 and would represent the least environmentally damaging of the two action alternatives. FAA believes that it would be preferable to relocate most of Duck Creek that is on Airport property (and on the Refuge, west of the Airport) for a number of reasons. First, it would remove a development obstacle. It would be easier to complete the infrastructure for these facilities without the barrier of Duck Creek. Second, aviation facilities will be more integrated into the rest of the Airport if the Duck Creek corridor is moved, and this will prove beneficial in terms of both safety and operational efficiency. Third, lower Duck Creek is a severely degraded stream with poor water quality, low and at times no flows in some stretches during dry seasons, and poor conditions for fisheries. It is FAA's belief that airfield development combined with relocation of the creek will provide an opportunity and additional incentive to improve conditions in the lower stream reach. Figure 6 illustrates a possible layout for the northeast Airport development area. Figure 7 illustrates a facility configuration for the northwest Airport development area, including relocation of Duck Creek and a new fuel farm access road.

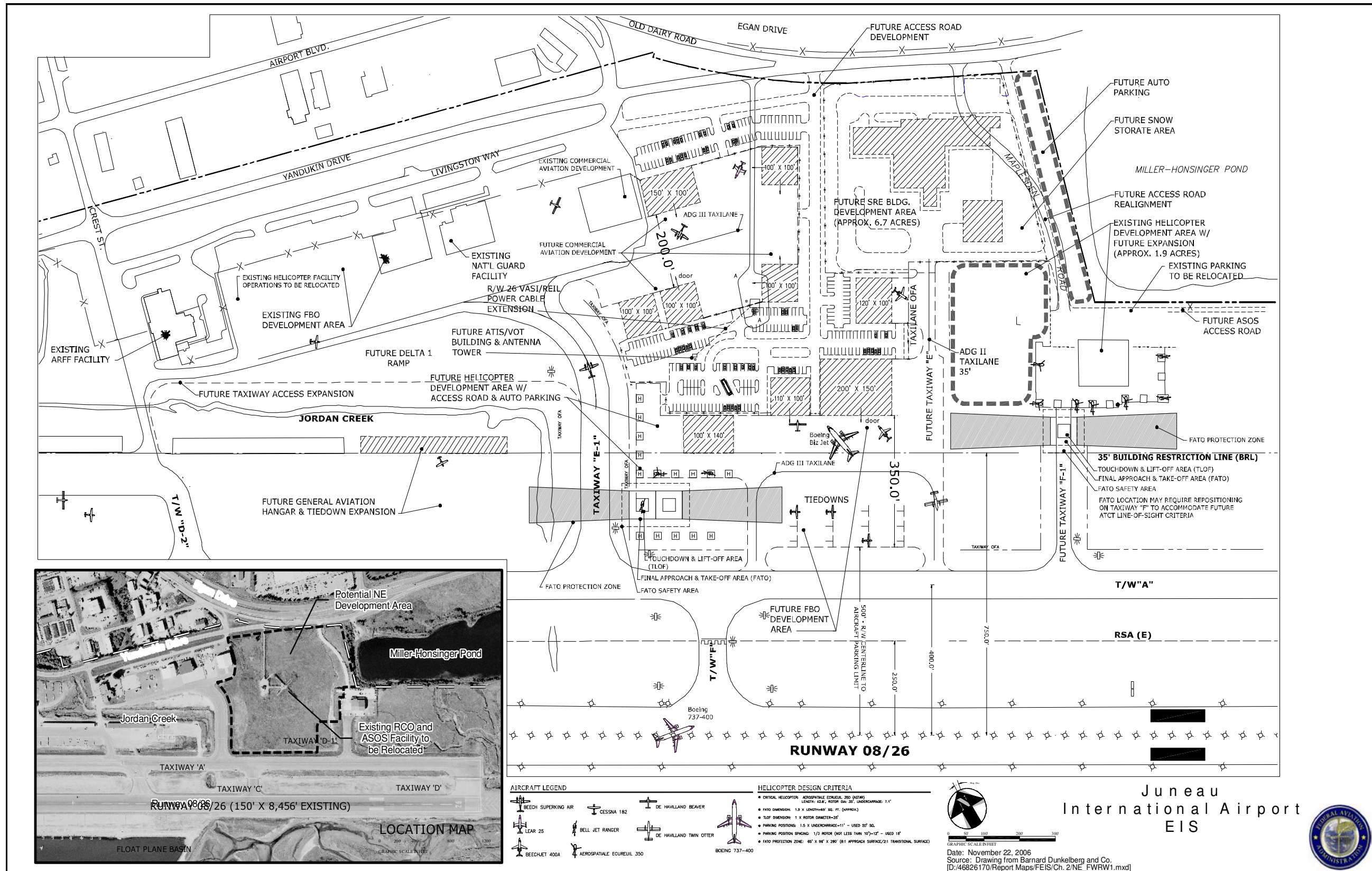


Figure 6. Northeast Aviation Development Area with SREF Site.

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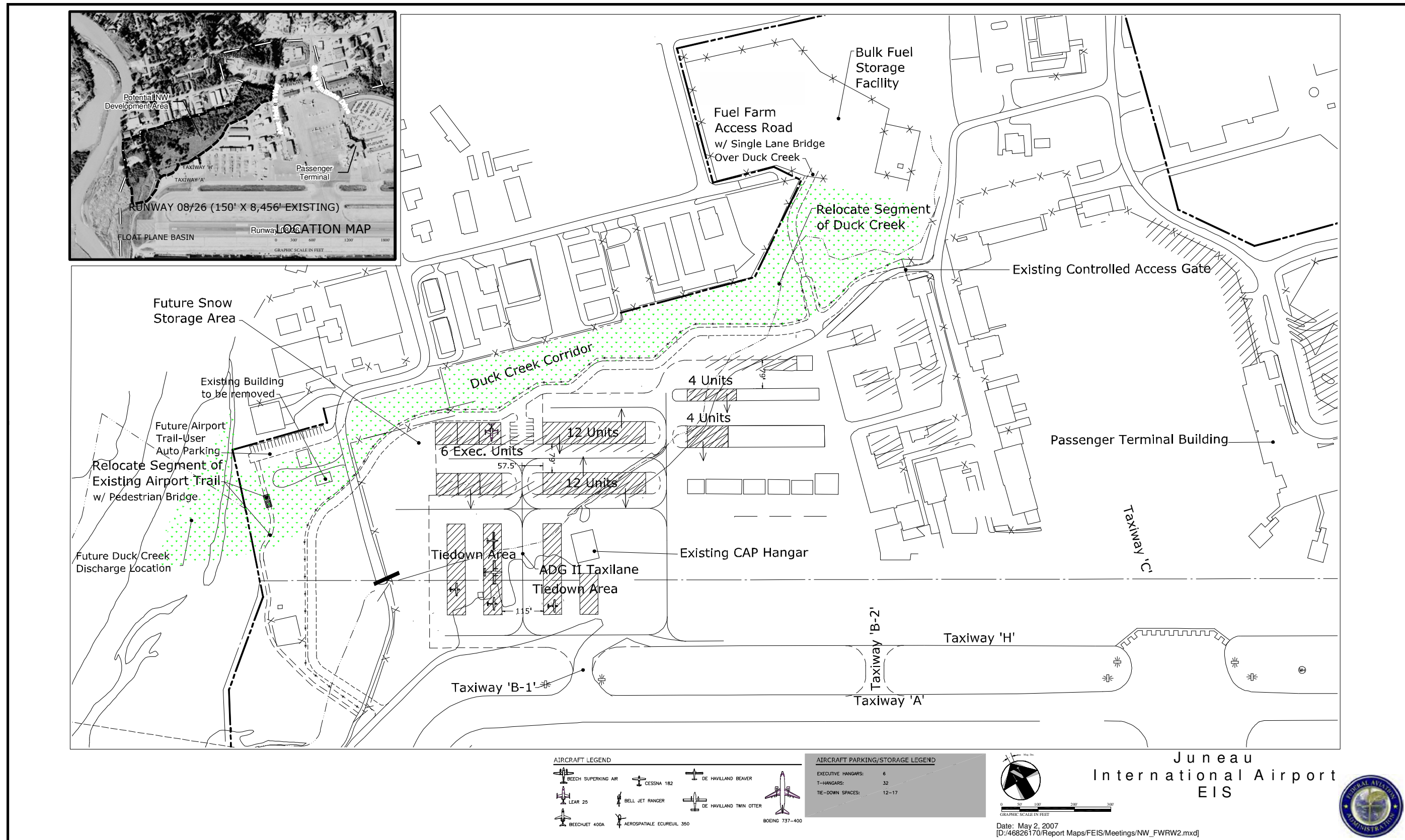


Figure 7. Northwest Aviation Development Area with Duck Creek relocation and Fuel Farm Access Road.

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FAA recognizes that the substantial airfield modifications and facilities developments incorporated in Alternative FW/RW-2 present an opportunity to improve environmental conditions, particularly with respect to water management and discharge. As a condition of the development, JNU will revise their Stormwater Pollution Prevention Plan and incorporate techniques and activities to prevent or reduce the off-site discharge of pollutants. Some of the practices to be incorporated include:

- Prevent discharge of stormwater into Duck Creek (and possibly into Jordan Creek, depending on the final Total Maximum Daily Load [TMDL]),
- Limit aircraft and equipment cleaning and washdown areas to specific locations,
- Review Airport deicing operations to reduce and eliminate over-applications, and evaluate measures to capture and treat deicing runoff,
- Evaluate options including oil/water separators or other measures, including use of the Float Plane Pond, to treat stormwater for oil, grease, and other pollutants prior to off-site discharge, and
- Incorporate buffer zones along habitat and surface waters, and identify specific snow storage locations, to keep collected snow and sediments, metals, glycols, and nitrogen-rich urea from discharge into surface water systems.

Development of aviation facilities in the northwest Airport area will necessitate relocation of Duck Creek. The FAA's Preferred Alternative incorporates a number of creek relocation objectives, and design elements to meet those objectives, as described in Section 2.8.2.3 of the FEIS.

The preferred alternative also incorporates actions to relocate the RCO from the Northeast Development Area to the Engineer's Cut west of the Airport on the saddle between the Mendenhall River outwash and Auke Bay. The ASOS would be relocated from the Northeast Development Area to the site shown on Figure 2-47 of the FEIS, approximately 500 feet south of the Miller Honsinger Pond and 200 feet north of Taxiway A.

## **8.5 FUEL FARM ACCESS**

Two alternatives to satisfy the need for improved fuel farm access were evaluated in the EIS. Alternative FF-1 would include construction of a new, on-Airport access road to the fuel farm. Alternative FF-2 would entail installation of a system of fuel pipelines from the fuel farm to a new refueling station in the Northwest Development Area. There are environmental and economic tradeoffs associated with these two alternatives. Alternative FF-2 would involve a slightly larger disturbance area, but in the long term the disturbance between paved areas and the fuel farm could be reclaimed to native habitat. Both alternatives should reduce the potential for accidents involving fuel trucks by removing the trucks from travel on public roads. Alternative FF-1 would still have a greater risk than Alternative FF-2 of truck accidents and contaminant release to Duck Creek because of the new single-lane, creek crossing to reach the fuel farm. However, long-term environmental consequences and cleanup costs could be greater for the fuel pipeline system because leaks may go unnoticed for some time and access to underground lines would be more difficult to quickly address.

After considering the environmental consequences, FAA believes that both alternatives would be acceptable solutions to the existing need for improved access to fuel farm supplies. However, the cost to install a fuel pipeline system would be much greater—approximately three times that to construct a new road—and for this reason FAA's Preferred Alternative is the Sponsor's Proposed Action, FF-1. Section 2.8.3.1 of the FEIS describes the preferred alternative. Figure 7 identifies the route for the access road from the fuel farm to the apron. Figure 8 shows a cross section of the road construction.




## **8.6 WILDLIFE HAZARD MANAGEMENT PLAN**

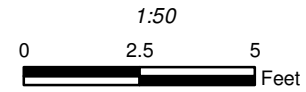
FAA has evaluated the environmental and economic consequences of the actions incorporated into each wildlife hazard management alternative. In addition, FAA has considered the hazards posed by wildlife using different areas of the Airport in terms of hazard location, wildlife abundance and other relative risk factors based on site-specific observations and strike history at JNU, and national databases relevant to wildlife hazard management. FAA in general concurs with JNU's modified Proposed Action (WH-1) for wildlife hazard management that the following actions should be implemented:

- Filling and grading of the wetlands located near the mouth of Duck Creek on Airport property to a free-draining surface above high-tide level at about the level of the proposed Northwest Development Area.
- Selective dredging and filling of the wetlands on the Refuge, west of Runway 08 and extending north past the mouth of Duck Creek, starting above high-tide level to create a free-draining surface to the Mendenhall River (see Figure 2-56 of the FEIS for a representation of the location and nature of this fill in conjunction with the preferred RSA alternative, RSA-5E).
- Relocating the mouth of Duck Creek toward the north Airport boundary, from just south of the intersection of Cessna Drive and Alex Holden Way and into a new discharge location in the Mendenhall River (in accordance with the Duck Creek relocation adopted into Preferred Alternative FW/RW-2).
- Removing swales and areas that pond water along the edges of the runway and parallel taxiway by filling, leveling, and grading the areas to approximately the level of the RSA.
- Alteration of vegetation management techniques and increased hazing in the infield areas.
- Removing vegetation from the Float Plane Pond by dredging it to a depth of at least 10 feet in all waters south of the Float Plane Pond and in the main portion of pond where vegetation exists. (Dredging to greater depths would be conducted as necessary to provide materials for new construction projects associated with the RSA, facilities, etc.).
- Removing the dam at the mouth of Jordan Creek.

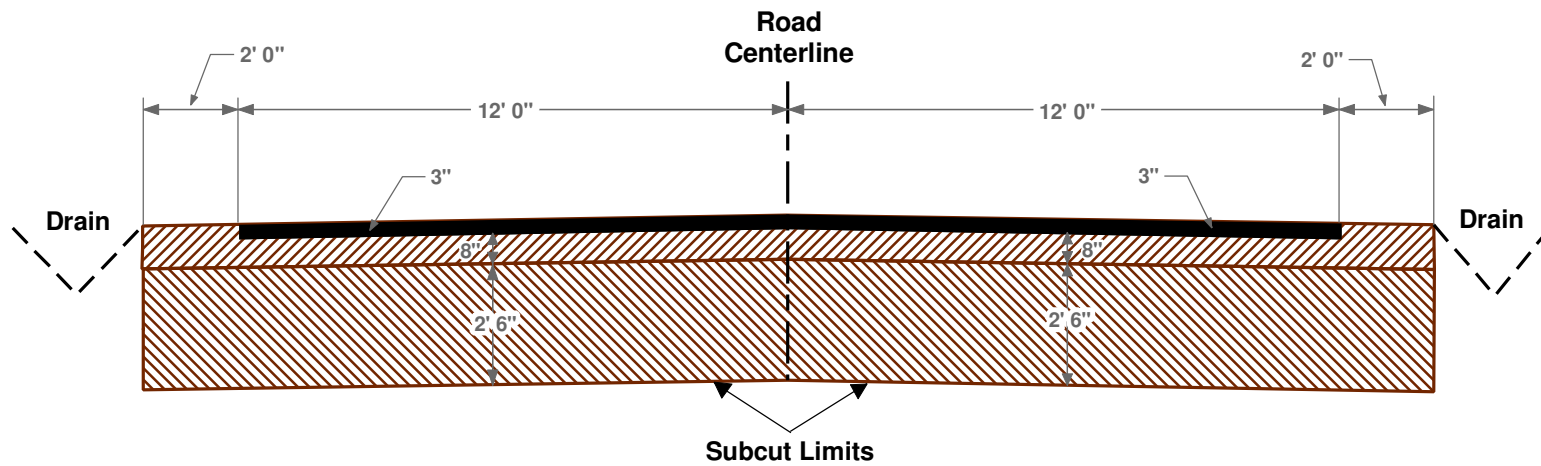
Juneau International Airport  
EIS

**Fuel Farm Road Cross Section**

-  AC Pavement (3")
-  Graded D-1 Base Course (8")
-  Selected Borrow (2' 6")



Date: November 22, 2006  
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**Figure 8. Fuel farm road cross section.**

- Implementation of an adaptive hazard management approach to the Float Plane Pond woodlands. The Airport would continue to monitor, evaluate, and document hazards along with the effectiveness of wildlife hazard control techniques such as those described in FEIS Section 2.5.1.2 to determine if additional habitat modifications would be required. Initial habitat modifications would include:
  - Installation of a deer fence along the north side of the dike, from the existing fence on the west end to the existing fence on the east end, and
  - Removal of corvid nests as needed to prevent re-establishment of crow rookeries in the woodlands.

FAA also prefers incorporation of the following elements into JNU's WHMP, as summarized from FEIS Section 2.9.3:

- Increased commitment of staff and resources allocated to the wildlife hazard management program for the purpose of hazard control, wildlife monitoring, documentation, program review, staff and public education, and planning.<sup>9</sup>
- Elimination of the on-Airport waterfowl hunting program. Elimination of the hunting program should be done in conjunction with an increase in wildlife control activities, particularly through an increase of staff to prevent the Float Plane Pond fingers from serving as a refuge to waterfowl.
- Establishment of a wildlife hazards working group to facilitate communication, cooperation and coordination between the Airport authority, tenants and the community at large.

The FAA's Preferred Alternative for wildlife hazard management avoids some adverse environmental impact associated with the Proposed Action, particularly by not incorporating tree cutting or vegetation thinning in the Float Pane Pond woodland. The Preferred Alternative preserves the existing bird habitat and visual screen so important to many users of the Dike Trail. FAA recommends that JNU establish a long-term study of the woodlands with the objective to answer questions raised during scoping about the overall effect of this habitat in the context of aviation safety and wildlife hazard management.

FAA recognizes that there needs to be some inherent flexibility in wildlife hazard management to account for changing degrees of wildlife activity, influenced by such factors as migration seasons, food availability, human activity, weather, and so forth. The Airport needs to be able to adapt to the hazards by increasing or decreasing the use of hazard repellent and even depredation techniques, irrespective of other, regulated habitat modifications that may have been approved for wildlife hazard control. The ability and authority to make adjustments in the type and degree of wildlife hazard control is vested in the Airport Manager, or delegated to the Wildlife Hazard Control Officer. Federal and state permits have been issued that provide a framework for the manner by which wildlife management takes place, particularly for the "take" of wildlife. The WHMP should provide the necessary detail for program implementation and monitoring.

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<sup>9</sup> At the time of ROD preparation, JNU had already taken steps to increase wildlife hazard management control activities. In May, 2007 the Airport contracted for a full-time WHMP officer for one year.