



WHITEFACE

FINAL GENERIC ENVIRONMENTAL IMPACT STATEMENT VOLUME 1

MARCH 2004

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Whiteface Mountain Ski Center
Final Generic Environmental Impact Statement
2004-2009

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*2004 Whiteface Unit Management Plan Update
March 2004*

EXECUTIVE SUMMARY

Section 816 of the Adirondack Park Agency Act directs the Department of Environmental Conservation (DEC) to develop, in consultation with the Adirondack Park Agency (APA), Unit Management Plans (UMPs) for each unit of land under its jurisdiction classified in the Adirondack Park State Land Master Plan (SLMP). Concurrent with the development of UMPs is the preparation of a Generic Environmental Impact Statement (GEIS), which analyzes the significant impacts and alternatives related to each UMP. The Olympic Regional Development Authority (ORDA), pursuant to its enabling law and agreement with the NYSDEC for the management of Whiteface Ski Center, prepared the unit's initial UMP in 1987, together with an EIS for such action. The 1987 UMP was updated and amended in 1996.

A. UMP Process And Documents

This UMP/GEIS is an update to the 1996 UMP and GEIS for the Whiteface Mountain Ski Center ("Whiteface" or "Whiteface Mountain"). As a Unit Management Plan Update which incorporates by reference the 1996 UMP/GEIS, it satisfies the requirements that such plans contain an inventory of existing resources, facilities, systems and uses, a discussion of management policy, a description of proposed management actions, a discussion of the potential impacts of such actions, a description of mitigating measures and a description of alternative actions which have undergone change since the 1996 document. As an environmental impact statement, it meets the requirements of the State Environmental Quality Review Act (SEQRA), which are similar to those for UMPs, as well as requirements unique to SEQRA, such as a discussion of growth inducing aspects.

The preparation, review and approval of the UMP require compliance with SEQRA. The SEQRA aspects of this document are presented as a GEIS. A GEIS may be used to assess the environmental effects of a sequence of actions contemplated by a single agency or an entire program or plan having wide application [6NYCRR 617.15(a)(2) and (4)]. They differ from a site specific EIS in that it applies to a group of common and related activities which have similar or related impacts. It is the intent of this GEIS to provide sufficient, site-specific information for all new actions proposed in this UMP. Generally, no additional SEQRA analyses are anticipated to be required for proposed new actions in this UMP, provided that such actions are carried out in accordance with the recommendations of this document. As a GEIS, the document takes a hard look at all of the projects and activities contemplated by this GEIS. However, as individual actions are implemented, if permits or approvals are required, additional environmental review will occur to determine if any environmental impacts exist that have not been evaluated

in this GEIS. A separate determination under SEQRA will be made for each such project or activity that requires a permit or approval.

In addition to providing specific information on the proposed actions in this UMP, the UMP also discusses and provides information regarding actions that are being contemplated, but are not proposed at this time. These actions are considered “conceptual actions” for the purpose of this UMP. Conceptual actions will require separate SEQRA analyses as part of a UMP amendment or a UMP update. The purpose of including conceptual actions in this UMP is to provide insight into longer range planning and vision for Whiteface and to get preliminary public input which will assure adequate assessment if and when they are eventually proposed.

The UMP and GEIS for Whiteface Mountain Ski Center is composed of two documents, the 1996 UMP/DGEIS and the 2004 Unit Management Plan Update. The 1996 UMP/GEIS is incorporated by reference and consists of two volumes. Volume I is the November 1995 Unit Management Plan and Draft Generic Environmental Impact Statement (UMP/DGEIS), and Volume II is the May 1996 Final Generic Environmental Impact Statement (FGEIS). This 2004 UMP Update consists of this FGEIS and the August 2002 UMP/DGEIS which are collectively referred to as “the GEIS”.

The GEIS evaluates the potential impacts of the proposed improvements included in the Whiteface Mountain Ski Center Unit Management Plan Update on the environment and provides supporting documentation for the consideration of the adoption of the Unit Management Plan by the Department of Environmental Conservation in consultation with the Adirondack Park Agency.

A public scoping session was held on October 25, 2001. The UMP/DGEIS was accepted as complete for review by ORDA, as lead agency, on August 19, 2002 and a Public Hearing on the document was held on September 12, 2002.

Following the close of the SEQRA comment period on September 23, 2002 the FGEIS was prepared and includes all substantive comments made on the DGEIS together with responses to such comments. The FGEIS was deemed complete for review by the SEQRA lead agency on March 31, 2004. Notice of its publication has been made public and the FGEIS is under review by all interested and involved agencies and the public. After a minimum ten-day contemplation period the NYSDEC, APA and any other involved agencies will each prepare a written statement of Findings of Fact, which specify potential impacts and mitigating measures, as appropriate. The Findings of Fact form the basis for the DEC adoption of the UMP. After the Commissioner adopts the

Final UMP, the UMP will be filed with the APA.

All volumes of the GEIS are available for review at the following offices: ORDA in Lake Placid, Whiteface Mountain, APA headquarters in Ray Brook, DEC in Ray Brook and Warrensburg, Wilmington Town Hall and the Essex County Planning Department at the Essex County Municipal Center.

B. Whiteface Mountain and UMP Goals

Whiteface Mountain Ski Center is a year-round recreational, day-use resort owned by the State of New York under the administrative jurisdiction of the Department of Environmental Conservation. Whiteface is currently managed by ORDA under an agreement with the DEC. Whiteface is located off NY Route 86 approximately nine miles northeast of Lake Placid, and is in the Town of Wilmington, Essex County, New York.

The facility is classified as an "Intensive Use Area" under the SLMP. Whiteface targets winter sports enthusiasts for downhill skiing. The resort includes 74 downhill trails extending 18 miles, a gondola from the base to the Little Whiteface Mountain summit, nine other lifts, a ski school program, three lodges, a nursery program and a cocktail lounge/restaurant. There are five car and bus parking lots.

The 1996 UMP set out a much needed program of modernization and improvement for Whiteface Mountain. This program was based on a comprehensive master plan for the mountain facilities including a new gondola, chair lifts, and snowmaking improvements. Many of the mountainside facility improvements have been completed, or are well underway or need modification as described in this document. Table 1 that follows, entitled "Status of Actions Discussed in the 2004 UMP," includes 1996 UMP actions and their current status, new proposed actions that are approved under the 2004 UMP Update, and actions that are only conceptual in nature, and not proposed at this time.

The primary motivation behind this UMP Update is to continue implementing and complement the work begun as part of the 1996 UMP with new improvements.

The following specific goals were identified for the upgrade and development program in the 1996 UMP and have been refined in this UMP Update.

1. To continue the planning process for Whiteface that is consistent with the Adirondack Park State Land Master Plan and Article XIV of the NYS Constitution. Whiteface is

quite unique because it is a designated Intensive Use Area within the Forest Preserve that has received special authorization under Article XIV of the NYS Constitution. As an Intensive Use Area, Whiteface's basic management guidelines include providing facilities for intensive forms of outdoor recreation by the public. At the same time, Whiteface development will blend with the Adirondack environment and have minimum adverse impacts on surrounding State lands. A careful approach to enhancements at Whiteface will provide continued opportunity for the public to enjoy a unique experience, gain an appreciation for sensitive development, and expose large numbers of people to the Forest Preserve.

2. To bring all of the facilities into balance in a manner whereby the ski center will comfortably accommodate peak days.
3. To improve the ability of Whiteface to compete in the modern ski industry through optimizing skier visits and revenues providing an attractive venue for year round use. The growth and prosperity of the ski center should be related to the growth and prosperity of the regional economy.
4. To evaluate the current abilities of the ski center to host major alpine events, now and in the future, with particular focus on conformance to Federation International de Ski (FIS) homologation criteria.
5. To create a pleasing, user-friendly environment that enhances the opportunities for generating tourism and other economic stimuli in the region.
6. To develop a UMP that has Management Actions that are consistent with the National Ski Areas Association (NSAA) Environmental Charter.

The development of the 2004 UMP Update follows a logical sequence which includes an update to the inventory of existing conditions, an analysis of potential improvements, and the creation of the proposed plan for new improvements or management actions which is the subject of this UMP Update that complements and builds on the 1996 UMP.

Many of the improvements listed in the proposed UMP are safety-related and pertain directly to present needs of the mountain in terms of customer expectations and the proposed comfortable carrying capacity (CCC) of the mountain. Primarily, the proposed improvements are designed to spread traffic out in order for skiers and riders to experience less congestion on trails, which makes it safer and more enjoyable for all. Excelsior is the only intermediate trail from the top of Little Whiteface. Consequently, it is very busy during weekends and holiday periods. The addition of intermediate terrain

on Little Whiteface and the possible future conceptual Tree Island Pod system will greatly enhance safety and the Whiteface experience.

As a result of the management actions proposed in the 2004 UMP Update, the comfortable carrying capacity (CCC, the number of skiers that can be accommodated at any given time) is expected to increase from 5,070 to 5,640, an 11% increase.

C. UMP Actions

1. New Proposed Actions

The following new improvements and upgrades are proposed in the 2004 UMP Update (“Proposed Actions”):

On-Mountain

1. Terrain expansion
2. Low intermediate terrain on Little Whiteface
3. Terrain park
4. Extreme skiing

Base Area

1. Base Lodge expansion
2. Base area bus drop-off and , parking lot #5
3. Easy Acres expansion
4. NYSEF Training Center

Snowmaking

1. Update snowmaking analysis – evaluate potential need for reservoir
2. Update snow gun inventory

Civil/Infrastructure

1. Drainage improvements

Green Theme

1. Sustainable Slopes Charter
2. Whiteface Wildlife Interpretive Program
3. Environmentally Sensitive Construction

- 4.
5. Bicknell Thrush Research and Monitoring

Events

1. Trail homologation
2. Definition of events agenda

The above improvements will increase the amount of downhill ski trails on the mountain from approximately 18.06 miles of alpine ski trails to 20.02 miles, or a 1.96 mile increase (below the 25 miles as authorized by the New York State Constitution).

2. Previously Approved Actions

In addition to the above, the improvements identified in the 1996 Unit Management Plan, which remains in effect today, are still valid. Certain of the improvements in the 1996 UMP have been modified and updated in this UMP Update. Many improvements identified in the 1996 UMP have been constructed, while others are under construction or have not been implemented to date. The status of actions in the 1996 UMP is summarized completely in the 2002 DGEIS/UMP Update in Section I.E.

The actions approved in the 1996 UMP/GEIS which remain a part of the 2004-2009 plan include:

1. Base Lodge rehabilitation
2. Easy Acres facilities expansion
3. Extend parking
4. Lift improvements
5. Trail improvements
6. Snowmaking improvements

3. Conceptual Actions

The following actions are conceptual in nature at this time and would require a separate UMP amendment or update and SEQRA review.

1. Cloudsplitter Lodge and associated infrastructure
2. Snowmaking Reservoir
3. Tree Island Pod and Lift M

4. Entrance area improvements and other base area vehicular and pedestrian circulation improvements
5. New Water source for the Base Lodge
6. Creation of new glades and other new trails above 2,800 feet

The following table summarizes all actions (proposed, previously approved and conceptual) included in the 2004 UMP/GEIS.

TABLE 1 STATUS OF ACTIONS DISCUSSED IN THE 2004 UMP

FACILITY	IMPROVEMENTS	CURRENT STATUS
Parking and Access		
Lot #5	An additional parking facility (350 cars) is proposed near the Easy Acres base area.	New Action 2004 UMP Update. See Appendix P.
Bus Drop-off	A bus drop-off area is proposed along the existing access road to the right after the bridge.	New Action, additional planning and permitting may be required.
Entrance and Base Area	Various alternatives to improve the Route 86 access as well as pedestrian and vehicular circulation in the area of the Base Lodge.	Conceptual only; not a proposed action at this time.
Utilities		
Potable Water	An additional source of water should be developed for the Base Lodge area.	Conceptual only; not a proposed action at this time.
	A new source of water will need to be developed for Cloudsplitter Lodge.	Conceptual only; not a proposed action at this time.
Drainage	Culvert No. 2 should be replaced with a single large diameter pipe.	New Action 2004 UMP Update.
	Debris control structures, as depicted in DGEIS Figures IV-20 and IV-21, will be installed upstream from large culverts to prevent potential clogging with debris during flood conditions. Structures will consist of metal grates (typically welded rebar) attached to the upstream ends of the culverts to capture, primarily, woody debris. Debris will be regularly removed after storm events.	New Action 2004 UMP Update.
Sanitary Wastewater	A new wastewater disposal system will need to be constructed for the proposed Cloudsplitter Lodge.	Conceptual only; not a proposed action at this time.

Buildings		
Base Lodge	Improvements to the Base Lodge will include: (a) a larger reception and ticket area (4,000sf. additional space); (b) enclosing the existing deck area to provide additional cafeteria space (2,500 sf.); (c) a second retail shop (replacing 860sf. administration space); (d) the relocation of the ski school operations (replacing 880sf. of locker and ticketing space and adding 770sf.); (e) a VIP room (700sf.) and coffee shop (700sf.) to be established in the relocated ski school space; (f) additional rest rooms (utilizing 750sf. of the retail shop space); (g) an expansion of the ski patrol/first aid space (680sf.); (h) additional offices, storage and conference space for administration (350sf.); (i) the relocation of employee lockers/lounge space to the breezeway storage space (950sf.); (j) an expansion of employee lockers/lounge space, (336sf.); (k) updating the computer ticketing system, creating more efficient sales points; (l) updating the drop-off area to reflect the reception/ticketing area addition.	<p>The 1996 UMP indicated that several changes should be made to the Base Lodge to improve space use and internal circulation.</p> <ul style="list-style-type: none"> (a) underway (b) not yet started (c) not yet started (d) not yet started (e) not yet started (f) not yet started (g) not yet started (h) not yet started (i) not yet started (j) not yet started (k) underway (l) not yet started
Easy Acres Lodge	The Easy Acres Lodge should be renovated to increase the size of the restaurant facility, kitchen/scramble, restrooms, rentals, ticket sales, storage and administration. An additional building (6,000sf. total) should be constructed to accommodate SkiWee/Drop-in Center functions.	The 1996 UMP indicated that the Kid's Kampus Lodge (recently renamed the Easy Acres Lodge) should be expanded to 10,500 s.f.. Not yet started.
Alpine Training Center (Existing NYSEF Building)	Rehabilitation of the existing Alpine Training Center building, including: improvements to first floor level without increasing floor space; Addition of approximately 960 sf. to the second floor plan; Addition of an approximately 940 sf. conference space to the upper level floor; Improvement to the façade	New Action 2004 UMP Update.

	of the existing building; Providing water and sewer service to the building.	
New NYSEF Training Center Building	Construction of a new building adjacent to the Base Lodge and the Alpine Training Center	New Action 2004 UMP Update
Cloudsplitter Lodge	A new on-mountain restaurant with 355 seats (13,500 sf.) is proposed at the summit of Little Whiteface.	Conceptual only; not a proposed action at this time. See Appendix S for preliminary information.
Mid-station Lodge	The Mid-station Lodge will be relocated approximately 150 feet to the south of its current position.	This action was approved in the 1996 UMP. Not yet started.
Fox Pole Barn	The relocation of the Fox Pole Barn. Double the size of the barn to 3,400sf.	New Action 2004 UMP Update. See Sketch Plan in Appendix O.
Lot 5 Pole Barn	Relocate the Lot 5 Pole Barn to the maintenance facility. Double the size of the barn to 2,400sf.	New Action 2004 UMP Update. See Sketch Plan in Appendix O.
Don Straight's Building	Double the size of Don Straight's building to 720sf.	This action was approved in the 1996 UMP. Not yet started.
New maintenance building	Create an additional maintenance building (1,200sf.) to accommodate two vehicle bays for equipment storage.	New Action 2004 UMP Update. See Sketch Plan in Appendix O.
Ski Lifts		
Lift A	It is recommended that the existing Mixing Bowl lift be upgraded from a double chair to a triple chair.	This action was approved in the 1996 UMP. Not yet started.
Lift B	The existing Bear double chair lift should be replaced with a fixed grip quad chair, and the bottom terminal should be relocated as shown.	This action was approved in the 1996 UMP. Not yet started.
Lifts D and E	The existing Mid-Station Shuttle double chair and the Valley triple chair should be replaced with a high-speed detachable quad (L).	This action was approved in the 1996 UMP. (The new lift was installed summer 2002.)
Lifts G and H	The removal of the Mountain Run lift (H) double chair and the replacement of the Little Whiteface (G) double chair with a fixed grip quad is recommended.	This action was approved in the 1996 UMP. Not yet started.
Lift I	The top terminal of the Freeway double chair should be lowered approximately 60 vertical feet and the lift should be shortened approximately 500 feet.	This action was approved in the 1996 UMP. Not yet started.
Lift J	The beginner Handle Tow should be	This action was approved in the

	replaced with a surface conveyor lift, realigned with the bottom terminal extended to a point where it is more easily accessible.	1996 UMP and has been completed.
Lift M	Relocate a lift or install new lift to service the conceptual Tree Island Pod.	Conceptual only; not a proposed action at this time.
Snowmaking		
Water System Improvements	Reconfigure PH1 Intake	New Action 2004 UMP Update. Engineering Review Underway
	Increase System Pumping Capacity PH 2 Water	This action was approved in the 1996 UMP. Pumping Capacity was increased from 2,400 gpm to 5,100 gpm between 1996-2001. New improvements are proposed to increase capacity to 6,000 gpm.
	Electrical Revisions to achieve 6,000 gpm	This action was approved in the 1996 UMP; same as above.
	Monitoring and Control Revisions	This action was approved in the 1996 UMP, recommendations updated based on current technology.
	PH 1 Water Pressure Increase	New Action 2004 UMP Update.
	PH 3 Water, Electrical Revisions to achieve 6000 gpm	This action was approved in the 1996 UMP. Pumping Capacity was increased from 1,800 gpm to 3,800 gpm between 1996-2001.
	Tree Island Pod Pump House	Conceptual only; not a proposed action at this time.
	New Water Storage Reservoir	Conceptual only; not a proposed action at this time.
Air System Improvements	Replace Existing Rotary Screw Compressors	This action was approved in the 1996 UMP. Two rotary screw compressors replaced between 1996-2001.
	Air-to-Air Aftercooler Repair	New Action 2004 UMP Update.
	Install Additional Cooling Water System	This action was approved in the 1996 UMP. A water cooling tower system and injection pumps were installed to improve cooling.

Mountain Infrastructure	Piping	Piping Upgrades were approved in 1996 UMP and are underway.
	Valve House (VH)	VH Upgrades in conjunction with Piping upgrades were approved in 1996 UMP but has not yet started.
Snowguns and Hose	Fan Guns and Fan Support (10 fan guns)	1996 UMP approved increase in low energy snowgun capacity. Two fan guns were added between 1996-2001.
	Tower Guns (300 tower guns)	1996 UMP approved increase in low energy snowgun capacity. Two permanent mount fan guns were added between 1996-2001 and five are rented annually.
	Hose	This action was approved in the 1996 UMP. Hose is replaced annually as part of ongoing maintenance and is also purchased to facilitate operation of new snowguns.
Ski Trails		
Upper Mountain	(1) The upgrading to occur on the Upper Mountain focuses on the Downhill/FIS trail homologation standards. (2) Trail 3a, Niagara, will be used to connect Upper Skyward (trail 3) to Upper Cloudspin (trail 1). (3) A new 9.8-acre expert glade, Trail 5a, will be constructed in the forest between Paron's Run (trail 5), Excelsior (trail 6), Connector (trail 10) and Upper Cloudspin (trail 1).	Conceptual only; not a proposed action at this time.
Lower Mountain	Selective widening on the Lower Mountain terrain should include Broadway (25), Upper Valley (22) and Lower Valley A (23), Lower Thruway (21), Danny's Bridge (28) and Mixing Bowl (30)	This action was approved in the 1996 UMP and is underway.
	A new trail Fox (31A) will be built between Wolf (31) and Wolf Run (66).	This action was approved in the 1996 UMP but has not yet started.
	A new 5.7-acre intermediate glade (27A) will be built along the northern edge of	New Action 2004 UMP Update.

	Boreen (27). This area will span the entire area between Boreen (27) and Medalist (43).	
	The improvements on the lower mountain consist mainly of the widening of certain low intermediate, and intermediate trails in order to satisfy FIS requirements for Downhill homologation. Routing the Downhill course down Broadway (25), Ladies Bridge (48), and Lower Gap (49), circumventing the mid-station/ mid-mountain lodge intersection is also recommended.	This action was approved in the 1996 UMP but has not yet started.
Little Whiteface	The addition of an intermediate trail (73/73a) from the summit of Little Whiteface.	Approved under June 2001 amendment to 1996 UMP. Portions above 2,800 feet elevation will not occur until after completion of the VINS report and the 2004 field study of Bicknell's Thrush.
	An additional intermediate trail, 12a, will be added, beginning at Approach near the top of Upper Mackenzie.	Conceptual only; not a proposed action at this time.
	Selective widening to Empire (12), Upper Mackenzie (13), Upper Wilderness (15), Upper (18) and Lower Parkway (19) and Upper Thruway (20).	This action was approved in the 1996 UMP. This work is underway. Empire, Upper MacKenzie and part of Upper Wilderness above 2,800 feet elevation will not occur until after completion of the VINS report and 2004 field study on Bicknell's Thrush.
Trail 36a	A new glade (36a) should be constructed in the area between Gold and Bronze.	New Action 2004 UMP Update.
Easy Acres pod (formerly Kid's Kampus)	Selective widening of Bronze (36), Gold (35), Silver (34) and Silver Shoot (40).	These actions were approved in the 1996 UMP, however most but not all improvements have been implemented.
	It is also recommended that a children's snow play area be constructed on the south side of the lodge. A "magic carpet" type of surface conveyor should	This action was approved in the 1996 UMP and has been completed.

	be installed.	
Tree Island pod	This new pod (74 through 83) will be established north of the Summit Quad pod. Situated around a double chair, the trail network will consist of several weaving, intertwined and interconnected narrow (40 – 80 foot wide) expert trails.	Conceptual only; not a proposed action at this time.
Alternative Recreation		
Trails	A 0.7-mile hiking/cross country skiing/snowshoeing trail along the Ausable River on the south side of the base area; 0.5 miles of hiking trails on the north side of the Easy Acres base area; A 2.5-mile hiking loop trail to Bear Den Mountain.	New Action 2004 UMP Update.

D. Implementation of Actions

The improvements identified in this UMP Update are proposed to be accomplished in several phases. ORDA recognizes that implementation may take longer than the planned five years for a variety of reasons. Throughout the course of the development phases, progress evaluations will be conducted annually, work compared with the goals and objectives, and the project refocused as deemed necessary by Whiteface and ORDA. The results of this annual review will be a budget for the next phase of work that can be taken to the appropriate agencies for funding approval prior to the beginning of the work period and an assessment of any additional permitting or UMP revision needs.

The implementation of the proposed UMP Update is governed by a variety of laws and regulations. Article XIV of the State Constitution governs the use and character of State

Lands in the Forest Preserve. The proposed UMP actions on all State Lands at Whiteface Mountain will be conducted in accordance with the provisions of Article XIV as they apply.

The SLMP classifies State Lands in the Adirondack Park Forest Preserve according to their character and capacity to withstand use and sets forth general guidelines and criteria for the management and use of State Lands. The SLMP classifies the Ski Center as an Intensive Use Area. Intensive Use Areas are provided to allow for a significant number of visitors and a high level of use. The SLMP contains a number of management guidelines, including a recommendation that Whiteface be modernized to the extent that physical and biological resources allow. The actions in this UMP are in conformance with the guidelines in the SLMP.

E. Impact Analysis

The following potential impacts have been identified for the actions proposed in the UMP.

1. Vegetation

The construction of the identified 2004 UMP management actions for new ski trails and lifts, widening of existing trails and construction of other improvements will result in the cutting of trees. The amount of tree cutting resulting from the implementation of recommended actions in this UMP has been greatly reduced (over 90% reduction) by changing the status of the Tree Island Pod and the snowmaking reservoir ideas to "Conceptual Only, not currently proposed actions at this time."

This work will be spread out in several phases over several years, as time and budget constraints are measured against the need to maintain the existing ski center components as the first priority. All vegetative cutting in this Intensive Use Area will be conducted in compliance with DEC tree cutting policies and New York State Constitution Article XIV. Less than 1% of the mountain spruce-fir forest would be impacted. However, over 630 acres of this covertime would remain undisturbed within the Intensive Use area alone at Whiteface. This impact to the covertime will not be significant (99+% will remain undisturbed). An even smaller percentage of this covertime would be disturbed in relation to the whole mountain.

2. Water and Wetland Resources

No new or increased snowmaking water withdrawal is proposed in the 2004 UMP over what was approved in the 1996 UMP.

Upgrades to the snowmaking system to increase Whiteface's ability to pump water within the system to various parts of the Mountain are proposed, but these have no effect on snowmaking water withdrawal.

An updated Cooperative Agreement between DEC and ORDA has been signed in November 2003 regarding withdrawal of water from the West Branch Ausable River for snowmaking purposes. It references a water withdrawal system employing a stream improvement device that monitors river discharges in real time, and requires snowmaking water withdrawals to be discontinued as the flows in the river drop below an established threshold. The Cooperative Agreement is attached in Appendix V.

Wetland resources will be avoided to the maximum extent practicable by project components. APA staff will perform field checks prior to construction. If it is determined that jurisdictional wetlands are present, a permit may be required from the Agency.

DEC and ORDA will investigate opportunities to monitor the water quality of the West Branch Ausable River to determine if any impacts are occurring due to the use of ammonium nitrate on selected ski trails to provide safe skiing conditions.

Adequate groundwater resources are available to meet the needs of the Ski Center; therefore, there will be no significant impact to such resources.

For the Mid-Station Lodge an elapsed time meter for the present wastewater pumping units is recommended in the DGEIS to determine loading volume to the present system. After additional consultation between ORDA and NYSDEC it was agreed that metering the water flow into the building is preferred as the method to confirm loading volume to the present system. Any odors at this site are related to operation of the pump and evacuation of the chamber under septic conditions.

Debris control structures, as depicted in DGEIS Figures IV-20 and IV-21, will be installed upstream from large culverts to prevent potential clogging with debris during high flow conditions. Structures will consist of metal grates (typically welded rebar) attached to the upstream ends of the culverts to capture, primarily, woody debris. Accumulated debris will be removed from the structures following storm events to allow unimpeded flow through the culverts during subsequent storms.

3. Soils

This FGEIS contains an updated Draft Construction Stormwater Pollution Prevention Plan (CPPP). The draft CPPP describes those best management practices to be implemented during construction to prevent erosion and sedimentation. The CPPP includes details of specific best management practices produced by the USDA – Natural Resources Conservation Service as well as other practices and materials that have proven to be effective in controlling erosion, particularly on steeper slopes. A discussion of specific erosion control products recently developed for the purpose of establishing vegetation on steep slopes is provided, as well as the specifications for their use.

Expanded Construction Pollution Prevention Plans for specific construction activities will be prepared in accordance with NYSDEC's Phase II stormwater requirements and will be reviewed by NYSDEC prior to being implemented during construction. In accordance with NYSDEC General Permit GP-02-01, these materials will be prepared by a licensed/certified professional and submitted to NYSDEC for review and approval prior to beginning construction. The CPPP to be implemented during construction will also be submitted to the APA for review prior to the initiation of construction activities. As an example, this FGEIS (Appendix P) contains the CPPP prepared specifically for the construction of Lot #5 which is a proposed action in this UMP.

4. Visual Resources

The low elevation of proposed Parking Lot #5 and the building relocations preclude them from being visible from locations removed from the immediate vicinity of the Mountain. Views into Parking Lot #5 from Route 86 will be blocked by the landform (hills) and vegetation that exist on both sides of the entrance road to Whiteface. Placement of the NYSEF Training Center in close proximity to the base lodge and in an area of other existing improvements consolidates building mass and does not increase visibility of this portion of the Ski Center.

Preliminary visual assessments of the conceptual Tree Island Pod are included in (Section XII Errata XII.B , Appendix W). Similar information for the conceptual Cloudsplitter Lodge appears in Appendix S.

5. Fish and Wildlife

This FGEIS, in particular Section 2.04, describes the significant efforts made by ORDA to protect the Bicknell's thrush since the preparation of the August 2002 DGEIS.

No state or federal listed threatened or endangered species will be affected by the project. In order to avoid the potential of impacting nesting Bicknell's Thrush, which is categorized as a species of special concern in New York state, the management of Whiteface has agreed that new trail construction above 2,800 feet in elevation not already approved in the 1996 UMP, including the Tree Island Pod, will be treated only conceptually in this UMP, and that no such new actions will occur until a separate UMP amendment/SEQRA review process has occurred and satisfactorily addressed potential impacts to the Bicknell's thrush and provided measures to mitigate impacts to the maximum extent practicable in accordance with SEQRA.

The management of Whiteface has hired the Vermont Institute of Natural Science (VINS) to complete a study ("the VINS study") and develop a report that will assist with the evaluation of future high elevation ski area development and the development and implementation of measures to mitigate potential impacts to Bicknell's thrush associated with ski trail construction and ski area operation and management.

VINS has studied the ecology and population dynamics of the Bicknell's thrush since 1995 on two Vermont ski areas - the Stowe Mountain Resort (Mt. Mansfield) and Stratton Mountain. VINS is analyzing its extensive data on ski area use by Bicknell's Thrush and will apply its findings as a means to assess potential impacts of the conceptual Tree Island Pod project on Bicknell's Thrush and recommend mitigation measures. Data to be analyzed will include those on movements and behavior, nest site selection, reproductive success, and demography. Findings from Mt. Mansfield and Stratton Mountain will be compared between study areas within the developed part of each mountain and areas that are currently undeveloped for skiing. The VINS report will include recommendations for design, mitigation, and management measures that will minimize both short- and long-term potential impacts to Bicknell's Thrush.

The management of Whiteface has also agreed to implement on-site Bicknell's Thrush field studies, the findings of which will also be used to assess the compatibility of ski area development with the existing thrush population and, where appropriate, to develop measures to mitigate potential impacts to Bicknell's thrush. Section 2 of this FGEIS provides a more detailed description of the tasks that will be taken to address this issue.

The management of Whiteface has also agreed that construction of ski trails above 2,800 feet that are already approved from the 1996 UMP will be delayed until after the completion of the VINS study and the on-site field study work scheduled to be conducted in the spring of 2004. This will allow an opportunity to further evaluate potential

impacts to thrush habitat and, where appropriate, include appropriate mitigation measures.

Additionally, Whiteface management will continue their ongoing cooperative efforts with the Wildlife Conservation Society and with other similar groups interested in the Bicknell's thrush on Whiteface Mountain.

Whiteface management has also already implemented its "Whiteface Wildlife " interpretive program to increase awareness among users of Whiteface facilities of the values and benefits of the New York State Forest Preserve, including the State-designated Bird Conservation Area above 2,800 feet, and of the wildlife at Whiteface Mountain. Components of the Whiteface Wildlife program include providing summertime lift riders with binoculars for use when riding the gondola. The gondola cars will also be equipped with literature and photographs to help identify wildlife, including Bicknell's thrush, while riders make their ascent and descent. Riders will then be able to record their observations on a checklist of observed wildlife that will be available in the lodge. So far, this program focuses on summertime, but it is likely that the Wildlife at Whiteface program will be expanded to include additional wintertime activities to foster appreciation of the Forest Preserve and the wildlife at Whiteface by skiers and non-skiers alike. A brochure describing this program is included in Appendix R of this FGEIS.

6. Transportation

Currently, the entrance to the Whiteface Mountain Ski Center operates at acceptable levels of service during the AM and PM peak hours. With the increase in traffic volumes as a result of the expansion, skiers will experience longer delays during the PM peak hour. Circulation conflicts exist between Route 86 and the Base Lodge. Most significant is the merge of the main entrances and the main access road and the loading area at the Base Lodge.

The UMP Update identifies several measures, such as entrance road improvements near NY Route 86, installing new sidewalks and other similar measures, which will improve vehicular and pedestrian circulation, and may be implemented in the future in combination with others or as stand alone projects.

7. Community Services

There will be some increase in demand for community services such as fire, police, rescue, solid waste and health care. However, the Ski Center presently makes very little

demand on such services and the increase in such demand is anticipated to be small and can be accommodated by the service providers.

8. Local Land Use Plan

The actions in the UMP Update are consistent with local efforts to create a year-round recreation and sports-oriented destination resort. The UMP contains specific actions and commitments to continue cooperation and links between the Ski Center and the community such as the continuance of the ski shuttle bus.

9. Economics

Actions identified in the 2004 UMP Update will have positive economic impacts through direct construction purchases, payroll and through new hires. In addition, new skiers drawn to Whiteface will spend money. All such spending will be positively multiplied throughout the community. According to McKinsey & Company, Final Report to the Marketing Task Force-National Ski Areas Association (January 19, 1989), "For every dollar spent on skiing, another six dollars are spent in the local and regional economies on ski shop purchases, transportation, real estate, lodging, food and drink, and entertainment."

10. Growth Inducing, Secondary and Cumulative Impacts

The proposed UMP is not likely to cause significant growth in the lodging, housing, restaurant and retail sectors. Induced growth is likely to have positive impacts such as the creation of jobs, taxes and spending. The proposed management actions are not anticipated to create any significant secondary or cumulative impacts, but are designed to maintain the number of skier visits and potentially increase the comfortable carrying capacity by up to 11%. This will tend to help stabilize the local economy and job market.

11. Alternatives

The 2004 UMP Update and GEIS considers alternative lift configurations, alternative trail improvements, alternative lodge improvements, alternative parking/circulation improvements, and the No-Action alternative. The discussion covers the feasibility of each alternative.

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I. INTRODUCTION

A. Project Purpose

ORDA, the Olympic Regional Development Authority, is updating and amending the 1996 Unit Management Plan (UMP) for the Whiteface Mountain Resort located in the Town of Wilmington, Essex County, New York. Also contained as a basis for the updated and amended 2004 UMP, is a Generic Environmental Impact Statement (GEIS), which evaluates potential impacts of identified improvements along with an evaluation of viable alternatives. Whiteface Mountain Resort's UMP is in compliance with Section 816 of the Adirondack Park Agency Act as directed by the New York State Department of Environmental Conservation (NYSDEC). This updated and amended UMP satisfies requirements to develop a unit management plan for each unit of land classified under jurisdiction of the Adirondack State Land Master Plan (SLMP) in consultation with the Adirondack Park Agency (APA).

This UMP Update and amendment is a tool used to assess existing natural resources, facilities, lifts, ski trails, management objectives, operations and systems of the Whiteface Mountain Resort (Whiteface). Updated UMP's are to be used as the basis for actions that meet the projected needs of competitive year-round recreational day-use facilities. The GEIS is part of the State Environmental Quality Review Act (SEQRA), which is in compliance with Article 8 of the Environmental Conservation Law. As such, the GEIS fulfills the requirements pertaining to the SEQRA process. The level of site-specific information and impact analysis for the proposed management actions is sufficient to satisfy site-specific SEQRA requirements. Similarly, this document meets the standards and regulations pertaining to the SLMP.

The GEIS meets the requirements set forth by SEQRA by responding to a list of actions proposed in the UMP Update and Amendment. These actions are further analyzed with regard to significant or adverse environmental impacts. The purpose of a GEIS is to produce a written document that can be used to assess the environmental implications of a broad-based action. In this case, the action involves proposed improvements within the Intensive Use Area boundaries of Whiteface. A unique feature of a GEIS is that it allows the identification and analysis of the cumulative effects of a group of actions or combination of effects from a single action. More specifically, these include the effects ranging from a single action to a group of actions regarding the proposed improvements to Whiteface in terms of ski trails, lifts, facilities and management operations system. As a GEIS, the document takes a hard look at all of the projects and activities contemplated by this GEIS. However, as individual actions are implemented, if permits or

approvals are required, additional environmental review will occur to determine if any environmental impacts exist that have not been evaluated in this GEIS. A separate determination under SEQRA will be made for each such project or activity that requires a permit or approval.

The 5-year UMP Update and Amendment is presented in 5 essential phases to update facilities, lifts, ski trails, management, operations and systems at Whiteface. The primary objective of the UMP Update and Amendment/GEIS is to continue the maintenance and operation of Whiteface at a constant level over the ensuing five-year management period in such a way that will contribute to stabilizing Olympic Region employment, economics, public recreation and governmental administration. Additional objectives include improving facilities that will add to the public carrying capacity, increase user safety, and enhance recreational pursuits. Many of the improvements listed in the proposed UMP are safety-related and pertain directly to present needs of the mountain in terms of customer expectations and the proposed comfortable carrying capacity (CCC) of the mountain. Primarily, the proposed improvements are designed to spread traffic out in order for skiers and riders to experience less congestion on trails, which makes it safer and more enjoyable for all.

The purpose of the UMP Update and Amendment/GEIS is to update the 1996 UMP with regards to the environmental setting, management objectives, and management actions, along with the analysis of the associated environmental impacts of those objectives and actions. This document will provide the foundation for ORDA's management decisions and capital expenditures through the year 2009.

B. Brief Overview

The Whiteface Mountain Resort is a New York State-owned facility operated by ORDA to provide the public with an intensive form of recreation for both the spectator and participant. Host of the 1980 Olympic Winter Games, Whiteface is located just nine miles northeast of Lake Placid. Whiteface provides diverse opportunities for year-round public use including competitive and recreational downhill skiing, cross-country skiing, hiking, mountain biking and summer scenic gondola rides.

Whiteface Mountain derived its name from the white anorthositic bedrock exposed on the northern flanks and summit of the mountain. The unique topography of Whiteface is unparalleled in the northeast ski industry with the greatest vertical drop east of the Mississippi;

3,166 feet¹. The unique terrain accommodates all levels of skiing abilities in this natural and scenic setting. There are a total of 72 trails that are suitable for all skier ability levels from beginner to expert. Snowmaking covers approximately 87% of the trails at Whiteface, or 186 acres. Whiteface has a total of eleven lifts including one gondola, one quad chairlift, two triple chairlifts, six double chairlifts and one pony lift. The mountain mass is characterized by two separate peaks, Whiteface and Little Whiteface, and contains separate, but interconnected, ski terrain on the lower mountain called Kid's Kampus.

C. General Description

1. Location Description

The Whiteface Mountain Resort, located in the Town of Wilmington, Essex County, is approximately nine miles northeast of the Village of Lake Placid on New York State Route 86. The Ski Center rests in the northeastern portion of the Adirondack Park approximately 2 1/2 hours north of Albany and 2 hours south of Montreal (see Exhibit I-1 - Site Location Map). A paved access road leads from Whiteface to Route 86. Route 86 runs northeast/southwest in this general vicinity and connects the Town of Wilmington to the heart of the Olympic Village in Lake Placid. This road also follows the general configuration of the West Branch of the Ausable River.

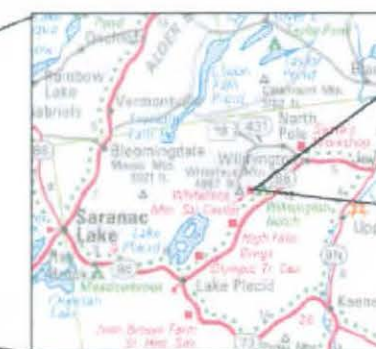
Whiteface is nestled between Route 86 and Whiteface Mountain Memorial Highway (New York State Route 431) located in the Town of Wilmington. Whiteface Mountain Memorial Highway is the highest road in New York State. After skiers leave in the spring, Whiteface Mountain Memorial Highway opens for auto traffic to the summit. This very scenic highway wraps up and around the back of the mountain.

2. Property Description

Whiteface Mountain Resort, as identified in the Adirondack Park State Land Master Plan, is classified as an Intensive Use Area. The property covers a total of 2,910 acres. Approximately 7% or 211.4 acres (the slide area is an additional 30 acres) of the site has been developed for ski trails, lifts, lodge facilities, roads and parking. Whiteface is significant in that it is designated as Forest Preserve Land and as such must be managed consistent with Article XIV of the New York State Constitution.

¹ 3,166 feet represents lift serviced vertical drop. The vertical drop from the top of the 'Slides' area (non-lift serviced) is 3,340 feet.

According to the APA, adjacent land use classifications include State and private land. State land classified as Wild Forest is located to the north of Whiteface, while Wilderness is located to the south and west. Some private land uses adjacent to Whiteface are located towards the Hamlet of Wilmington. Such private land uses classified by the APA include Resource Management, Rural Use, Low Intensity Use, and Moderate Intensity Use. The following exhibits provide descriptions of the Whiteface Mountain Resort boundaries and surrounding property.



Whiteface Area



WHITEFACE

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OLYMPIC REGIONAL DEVELOPMENT AUTHORITY
LAKE PLACID, NEW YORK

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**COMPREHENSIVE MANAGEMENT
AND PLANNING REVIEW
AND UNIT MANAGEMENT PLAN**

<p>TITLE:</p> <p>LOCATION MAP</p>	<p>DATE:</p> <p>MARCH 2002</p> <p>FIGURE #:</p> <p>I-1</p>
<p>PROJECT NUMBER: 01102</p>	<p>FILE: [whiteface]</p>



INTENSIVE USE
AREA BOUNDARY



WHITEFACE

Prepared For:
OLYMPIC REGIONAL DEVELOPMENT AUTHORITY
LAKE PLACID, NEW YORK

Prepared By:



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**COMPREHENSIVE MANAGEMENT
AND PLANNING REVIEW
AND UNIT MANAGEMENT PLAN**

Scale: 1" = 1200'
600 0 300 600 1200 2400
Contour Interval = 5 Feet



TITLE:

**INTENSIVE USE
AREA MAP**

DATE:

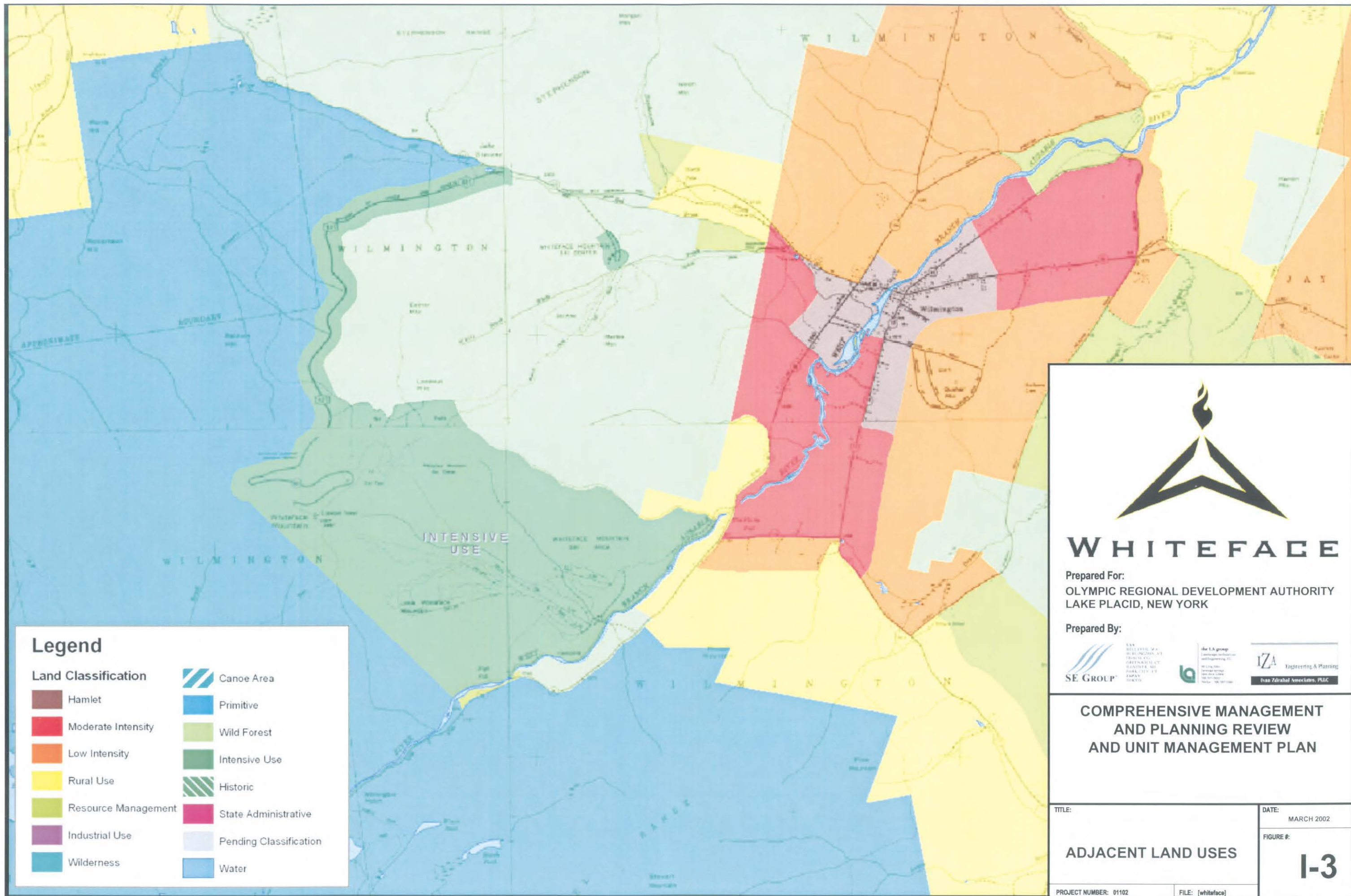
MARCH 2002

FIGURE #:

I-2

PROJECT NUMBER: 01102

FILE: [whiteface]



D. Historical Overview

1. Constitutional Amendment

Whiteface Mountain Resort is located on State forest preserve lands and is, therefore, governed by Article XIV of the NYS Constitution (the “forever wild” provision).

Article XIV strictly controls the use of forest preserve lands, allows for no alienation of these lands, and prohibits the cutting or removal of vegetation. Vegetative cutting for the ski trails at the Whiteface Mountain Resort is allowed pursuant to a specific amendment to Article XIV, which allows a specified width and a specified number of linear miles for ski trails on the north, east and northwest slopes of the mountain. This amendment was approved by a State referendum in November 1941 and became effective on January 1, 1942. It allowed for the construction and maintenance of 20 miles of ski trails on the northern, eastern and northwestern slopes of Whiteface Mountain. Additional limitations included that trails be restricted to a minimum of 30 feet wide to a maximum of 80 feet wide. This was amended in 1988 to allow for up to 25 miles of trails with related amendments to allowable trail widths.

Following World War II during the administration of Governor Dewey, development was undertaken on the northeast flank of Whiteface Mountain. This site was used briefly as a ski center then was later abandoned. It currently houses the State University of New York Atmospheric Sciences Research Center.

2. Adirondack Mountain Authority

Governor Harriman signed into law the Main-McEwen bill in 1957 authorizing development of the ski center. Whiteface was officially opened on January 25, 1958 and dedicated to the Mountain Ski Troops of World War II. The Ski Center opened with two chairlifts and has been operating as a recreational area open to the public during seasonal recreation periods. Winter activities include a variety of skiing events, both competitive and non-competitive. Summer uses include hiking and scenic chairlift rides.

The Adirondack Mountain Authority built and operated the Ski Center until 1968. A 1,500-foot T-bar lift was added in 1960 with associated trails. In 1961 snowmaking was extended from mid-station to the top of lift E (#1) and a J-bar was added to the lift facilities. Further extension of snowmaking was made in 1964 on the J-bar

practice slope. Another chairlift was opened in 1966 serving novice trails in the “Olympic Acres” area and lift F (#6) was completed in 1967, rising to the highest elevation of 4,386 feet of any lift in the northeast. Expansion of the Main Lodge was also completed in 1967. Another compressor was added to the snowmaking equipment in 1968 along with additional water capacity from the West Branch of the Ausable River.

3. Department of Environmental Conservation

The State Legislature terminated the Adirondack Mountain Authority in 1968 and transferred authority of the Whiteface Mountain Resort facilities to the NYSDEC beginning on October 1 of that year. The NYSDEC has had a long-term plan to improve its facilities at Whiteface to better accommodate the recreational skier. The facility gradually improved over the years, as funds were made available.

Whiteface has frequently been the site of major international alpine events including the 1971 pre-FISU Races and the 1972 World University Alpine events. The Canadian-American Slalom, Giant Slalom and the United States National Downhill races were held at Whiteface in 1974. The Empire Cup, the Governor’s Cup and the Can-Am Finals were held in 1975 and 1976. In 1978, Whiteface hosted the Nor-Am and U.S. National Alpine Championship events. Most recently, Whiteface again hosted the National Alpine Championships in 2003, and in 2004 was host to the US Alpine Junior Olympic Championships.

Beginning in 1976, an extensive construction program was undertaken in order to host the Alpine Events for the XIII Olympic Winter Games. The Main Lodge was expanded and new water and sewer systems were constructed. An additional lodge was also constructed in an effort to serve the Olympic Acres area. Additional buildings were constructed which served the men’s and women’s downhill and slalom start and finish areas. This included the slalom area on “Mountain Run” and the common finish area for the men’s and women’s downhill and giant slalom runs. Continuing the 1976 program, a new maintenance shop was built on the eastern portion of the Olympic Acres area while the existing shop was razed to improve the aesthetics of the area. A new snowmaking system was also installed to serve the trails scheduled for the Olympic events. Lift E was rebuilt as a “double-double” lift, Lift G was rebuilt, Lift F was shortened and a surface lift added to reach its former upper

terminal. An additional lift, Lift I, was added to serve the new Giant Slalom “Parkway” trail.

The alpine events of the XIII Winter Olympic Games were staged at Whiteface Mountain during February 1980. Immediately prior to the 1980 XIII Winter Olympics, Whiteface was thoroughly evaluated in an EIS. This EIS did not, however, address the important issue of development beyond the 1980 Winter Olympics.

4. Olympic Regional Development Authority

The New York State Legislature determined and declared in 1981 that there was an immediate need to institute a comprehensive, coordinated program of activities utilizing the optimum year-round operation, maintenance and use of Winter Olympic venues. Article Eight of the Public Authorities Law was amended in 1981 by adding Title Twenty-Eight effectuating the declared policy and creating the “New York State Olympic Regional Development Authority” (ORDA). ORDA currently operates and manages the Whiteface Mountain Resort under an agreement with the NYSDEC. This agreement was entered into on October 4, 1982 pursuant to the Public Authorities Law, Section 2614.

5. Adirondack Park State Land Master Plan

The Adirondack Park State Land Master Plan (SLMP) was adopted in 1971 and provides guidelines for the preservation, management and use of State-owned lands by State Agencies within the Adirondack Park. The Whiteface Mountain Resort is classified under the plan as an “Intensive Use Area.” The plan states that the primary management guideline for Intensive Use Areas is to provide the public opportunities for a variety of outdoor recreational pursuits in a setting and on a scale in harmony with the relatively wild and undeveloped character of the Adirondack Park. An intensive use area according to the Adirondack Park State Land Master Plan is defined as follows:

“An intensive use area is an area where the state provides facilities for intensive forms of outdoor recreation by the public. Two types of intensive use areas are defined by this plan: campground and day use areas. (Whiteface is a Day Use Area)

These areas provide overnight accommodations or day use facilities for a significant number of visitors to the Park and often function as a base for use of wild forest, wilderness, primitive and canoe areas."

6. 1987 Constitutional Amendment

The number of miles of ski trails that may be constructed on the north, east and northwest slopes of Whiteface Mountain were increased by an amendment to Article XIV, effective on January 1, 1988, from 20 to 25 miles. The maximum width of trails was increased from 120 to 200 feet provided that no more than 5 miles can be used in excess of 120 feet width. Currently, there are 18.06 miles of trails. Under this plan, ski trail miles will be increased to 20.02 miles.

E. Status of 1996 Unit Management Plan Update and Amendment

This document, which is a UMP Update and Amendment, proposes to update and amend the 1996 UMP. As it stands today, the 1996 UMP is still in effect. Various improvements have been identified in the 1996 UMP, which, under the present circumstances either have been implemented, are currently being implemented, are planned to be implemented or have been abandoned altogether. Table I-1 identifies the status of improvements that were approved in the 1996 UMP. (Table I-1 below is different from Table 1 in the Executive Summary which includes not only 1996 UMP actions, but Table 1 in the Executive Summary also includes New Actions and Conceptual Actions from this 2004 Update.) Section IV.C of this UMP Update and Amendment identifies SE GROUP's current recommended improvements and, where appropriate, notations are made if the same or similar improvements were approved in the 1996 UMP.

**TABLE I-1
STATUS OF 1996 UMP**

FACILITY	IMPROVEMENTS	CURRENT STATUS
Parking		
Lot 3	Expand lot 3 by 130 spaces	Has not been implemented
Lot 3	Expand lot 3 by 40 more spaces	Has not been implemented
Lot 3	Expand lot 3 by 230 more spaces	Has not been implemented
Utilities		
Units 1 & 2	Identify and correct electrical problems in Units 1 & 2	Partially implemented (roofs built over units)
Pole Barns	Replace pole barns by maintenance building	Has not been implemented. Current sketch plans are included in this 2004 Update in Appendix O.

FACILITY	IMPROVEMENTS	CURRENT STATUS
Powerlines	Relocate overhead powerlines between poles 18 and 31	Implemented
Electrical system	Complete electrical system improvements	Has been partially implemented, but will be modified and included in the UMP Update and Amendment
Mid-station well	Test Mid-station Lodge water well to see if it will handle Mid-station Lodge expansion	Has not been implemented, but may be implemented at a later date
Sewage Treatment – Base Area	Expand sewage treatment facility / Base Lodge	Has not been implemented, but may be implemented at a later date
Sewage Treatment – Mid-station	Expand sewage treatment facility / Mid-station Lodge	Has not been implemented, but may be implemented at a later date
Buildings		
Base Lodge Basement Level	Enclosing the patio and raising the roof-line to provide the kitchen with sufficient storage space	Has not been implemented, but may be implemented at a later date
Area Under Base Lodge	Enclosing the area under the Base Lodge (except for a 25 foot path) to relocate the Ski Shop and Rental Shop	Implemented
Warm-Up Building	Adding a warm-up building, approximately 40' x 40', located at the intersection of Folly's Trail and Cloudspin	Has not been implemented, but may be implemented at a later date
Visitor Lodge	Adding a two-story visitor lodge located on the summit of Little Whiteface	Has been modified and included in the UMP Update and Amendment, but only as a Conceptual Action requiring additional review if and when pursued.
Base Lodge	Architectural evaluation of base lodge	Has not been implemented, but may be implemented at a later date
Entry & Drop-off	Planning to reconfigure existing entry and drop-off	Has been partially implemented and has been modified and included in this UMP Update and Amendment
Main Lodge	Improve/expand space-use and internal circulation of Main Lodge	Has been partially implemented but will be modified and included in the UMP Update and Amendment
Arrival Plaza	Upgrade Arrival Plaza	Has been partially implemented, and has been modified and included in this UMP Update and Amendment
Kid's Kampus	Expand Kid's Kampus Lodge (Kid's Kampus to be renamed Easy Acres)	Temporary Facilities have been added, expansion will be included in the UMP Update and

FACILITY	IMPROVEMENTS	CURRENT STATUS
		Amendment
Mid-station Lodge	Move and expand the Mid-station Lodge	Has not been implemented, but may be implemented at a later date
Ski Lifts		
Lift F	Evaluate lift and make repairs	Implemented
Lift C	Replace and shorten	Implemented
Lift J	Realignment of lift	Implemented
Lift I	Redesign of unload area of lift	Implemented
Lifts D and E	Replace Lift D and E with high-speed detachable quad	Implemented
Gondola	Install a gondola from the Base Lodge to the top of Little Whiteface	Implemented
Lift G	Replace Lift G with a fixed-grip quad	Has not been implemented, will be included in the UMP Update and Amendment
Lift H	Remove lift	Has not been implemented, will be included in the UMP Update and Amendment
Lift B	Realign Lift B and replace with a fixed-grip quad	Has not been implemented, will be included in the UMP Update and Amendment
Lift A	Upgrade Lift A to a triple	Has not been implemented, will be included in the UMP Update and Amendment
Snowmaking		
Little Whiteface and Summit	Improve water capacity to summit and Little Whiteface	Has been partially implemented, but will be modified and included in the UMP Update and Amendment
Pumphouse	Replace pumps and upgrade water and air capacity in PH2, PH3 & PH4	Has been partially implemented, but will be modified and included in the UMP Update and Amendment
Air system	Upgrade air system- efficiency and capacity	Has been partially implemented, but will be modified and included in the UMP Update and Amendment

FACILITY	IMPROVEMENTS	CURRENT STATUS
Mountain piping infrastructure	Continue improvements to mountain infrastructure	Has been partially implemented, but will be modified and included in the UMP Update and Amendment
Air system	Install cooling system for compressed air	Has been implemented
Mountain	Improve water capacity on upper, mid, and lower mountain	Has been partially implemented, but will be modified and included in the UMP Update and Amendment
Snowmaking Pond	Assess need for snowmaking pond	Has not been implemented. Has been included in this UMP Update and Amendment, but only as a Conceptual Action requiring additional review if and when pursued.
Pumphouses	Install new water pumps at PH2, PH3 & PH4	Has been partially implemented, but will be modified and included in the UMP Update and Amendment
Mid-station	Review condition of last 6 compressors, install compressors at Mid-station	Has not been implemented, but may be implemented at a later date
Mid-station	Install new centrifugal compressors at Mid-station pump station	Has not been implemented, but may be implemented at a later date
Screw Compressors	Repair air ends of 20,000+ hour screw compressors	Has been partially implemented, but will be modified and included in the UMP Update and Amendment
Flow Monitoring of West Branch of Ausable River	Establishing flow monitoring in the West Branch of Ausable River.	Has been implemented
Ski Trails		
Ridge Runner	Improvements to top section of trail	Implemented
Paron's Run	Improvements to top section of trail	Has not been implemented
Boreen	Trail improvements	Implemented
Lift Pods C & J	Widen trails associated with Lifts C & J; Silver, Gold, Bronze, Silver Shoot, Main Street, Runner Up	Implemented
Purchase groomer	Purchase groomer	Implemented (continuous process)
Snow Play	Add Snow Play area	Has not been implemented, but may be implemented at a later date

FACILITY	IMPROVEMENTS	CURRENT STATUS
Lift Pod F	Trail improvements associated with Lift F; Cloudspin ² , Excelsior, Northway, Connector, 4a	Has been partially implemented, but will be modified and included in the UMP Update and Amendment
Lift Pods D & E	Trail improvements associated with Lifts D & E; Lower MacKenzie, Thruway, Upper Valley, Lower Valley, Broadway, Danny's Bridge, Calamity Lane, Ladies Bridge, Lower Gap	Has been partially implemented, but will be modified and included in the UMP Update and Amendment
Lift Pod G	Trail improvements associated with Lift G; Essex, Northway, Empire, Upper MacKenzie, Upper Wilderness, Mountain Run, Parkway, 19a, 63, 27a	Has been partially implemented, but will be modified and included in the UMP Update and Amendment
Lift Pod B	Trail improvements associated with Lift B; Mixing Bowl, Wolf, 31a	Implemented

F. Management Goals

At the beginning of the UMP Update and Amendment the consulting team met with management of ORDA and Whiteface to establish a clear direction for the planning process. The comments and issues that were raised during the meeting have influenced the recommendations for development alternatives to be addressed over the next five years.

The meeting was conducted by considering the components of a Vision Statement. They are:

PURPOSE - What business are you in and why?

VALUES - Qualities that you will not compromise as you pursue your day-to-day business.

IMAGE - What does the final picture look like when you have achieved your vision?

Listed below are the comments that were given by the management team during the meeting.

PURPOSE: What business is ORDA/Whiteface in?

- Entertainment.
- Outdoor recreation.

² Trail improvements on Lower Cloudspin were traded for other trail improvements.

- Service to customers.
- People pleasing.
- Events, competitions.
- Athlete training.

What business are we in and why?

- To provide an economic stimulator/catalyst in region.
- Maintaining the public's investment.
- Preserve the proud Olympic heritage of the region, state and nation.
- Family orientation.
- Provide quality skiing and snowboard training and competitions

VALUES

- A friendly work environment.
- Striving for the best product that is possible.
- Friendly, thoughtful customer service.
- Concern for the environment.
- Cleanliness - facilities, staff, and language.
- Exceed customer expectations.
- Follow through on commitments.
- Participatory management.
- Fun skiing and riding.

IMAGE

- Adirondack – Wilderness image
- Smooth running, well-oiled machine.
- No-hassle entry at main road with clear and attractive signage.
- Good looking, well-run shuttle system.
- Modern lifts visible and well maintained.
- Trails are freshly groomed.
- Base lodge is efficient and attractive.
- Base lodge has clear/grand sense of arrival.
- Turning off the road to enter "someplace different."
- Convenient parking.
- Unfolding entry experience.

- Disney - like welcome center.
- Organized base area services.
- Relaxing, easy pace.
- Not anxious to leave.
- Meet a friendly person at entry.

The following Mission Statement, Vision, and Values appear in Whiteface's employee handbook, and are stated as the "Whiteface Mountain Operational Objectives".

MISSION STATEMENT: To provide an excellent skiing and/or mountain recreation experience and exceptional services for our guests.

VISION: To exceed our guests' expectations in our product and our services. To establish competency and excellence in all mountain operations.

VALUES: Our guiding principles:

1. Honesty
2. Professional attitude and appearance
3. Friendliness
4. Respect for fellow employees and guests
5. Teamwork
6. Loyalty and dedication
7. Willingness to find ways to continually improve
8. Commitment to achieving our goals
9. Concern for safety of our guests and fellow employees.

The following specific goals were identified for the upgrade and development program in the 1996 UMP and have been refined in this UMP Update.

1. To continue the planning process for Whiteface that is consistent with the Adirondack Park State Land Master Plan and Article XIV of the NYS Constitution. Whiteface is quite unique because it is a designated Intensive Use Area within the Forest Preserve that has received special authorization under Article XIV of the NYS Constitution. As an Intensive Use Area, Whiteface's basic management guidelines include providing facilities for intensive forms of outdoor recreation by the public. At the same time, Whiteface development will blend with the Adirondack environment and have minimum adverse impacts on surrounding State lands. A careful approach to enhancements at Whiteface will provide continued opportunity for the public

to enjoy a unique experience, gain an appreciation for sensitive development, and expose large numbers of people to the Forest Preserve.

2. To bring all of the facilities into balance in a manner whereby the ski center will comfortably accommodate peak days.
3. To improve the ability of Whiteface to compete in the modern ski industry through optimizing skier visits and revenues providing an attractive venue for year round use. The growth and prosperity of the ski center should be related to the growth and prosperity of the regional economy.
4. To evaluate the current abilities of the ski center to host major alpine events, now and in the future, with particular focus on conformance to Federation International de Ski (FIS) homologation criteria.
5. To create a pleasing, user-friendly environment that enhances the opportunities for generating tourism and other economic stimuli in the region.
6. To develop a UMP that has Management Actions that are consistent with the National Ski Areas Association (NSAA) Environmental Charter.

Additionally, the consulting team is continuing to utilize the goals set out in the RFP and in the Proposal/Contract as guidelines throughout the planning process. For purposes of clarity, those goals are repeated here.

1. To offer a quality recreational and tourist program on publicly owned lands for the benefit and enjoyment of the people of the State.
2. To insure that programming, operating procedures and capital expenditures are based on sound cost/benefit comparisons when viewed from two perspectives:
 - a. Annual revenues shall pay back return on investment and equal operating costs. A minimum of 3 to 5 year averages will be examined to minimize the effects of fluctuating weather conditions.
 - b. To position the facility as an economic catalyst so as to strengthen the private sector and local government economies.
3. To protect the natural resource base in accordance with all applicable environmental and land use control laws; and to ensure consistency with Article

XIV of the New York State Constitution and the Adirondack Park State Land Masterplan.

II. INVENTORY OF FACILITIES, SYSTEMS, RESOURCES AND USE

A. Inventory of Natural Resources

1. Physical Resources

a) *Topography*

Topography on the upper portion of Whiteface Mountain may be described as steep and rugged. Slopes in excess of 50% are not unusual. Landslides in this area have occurred in the past exposing the "white" rock of the mountain. On the other hand, the lower elevations are characterized by grades ranging between 10% and 30% where trail construction for the lower ability level skiers can be carried out with relatively few restrictions.

Elevations range from approximately 1,220 feet in the valley near the Ski Center Base Lodge to 4,867 feet at the summit of the main mountain. This significant relief provides the greatest vertical drop east of the Mississippi.

b) *Geology and Soils*

Whiteface Mountain is situated in the High Peaks Region of the Central Highlands in the Adirondack Mountains. Most of Whiteface Mountain is underlaid by anorthositic bedrock thinly mantled by a layer of gravelly and bouldery soil. However, Whiteface Mountain's Base Lodge and the area adjacent to the West Branch of the Ausable River are not underlaid by anorthositic bedrock. The soil on the upper portion of the mountain (above approximately 2,000 feet) consists primarily of weathered fragments of bedrock (hard crystalline, anorthositic, igneous rock). There is very little glacial till and the unconsolidated deposits are very thin. The soil of the lower area consists principally of shallow glacial till, varying up to a possible thickness of ten feet, mantling the same kind of anorthositic bedrock. In the valley bottom, sandy and gravelly outwash deposits are fairly common. However, due to their limited extent, it is doubtful that large quantities of groundwater can be obtained from these areas.

A past history of landslides on the mountain necessitates careful site selection for any future development. Those areas of the mountain which have exhibited major

landslides are located within the areas of a steep walled cirque, whereas trail development lies on the outer flanks of the mountain. Within the cirque, the relatively smooth rock surface has allowed slippage of the overburden. On the outer flanks, the rock surface is sufficiently irregular to hold the overburden in place.

As part of the comprehensive planning for the 1980 Olympic Winter Games, local governments requested the USDA Soil Conservation Service (SCS) to survey soils specifically in the vicinity of the Olympic Games. The primary purpose in preparing this soil survey was to "pay attention to safeguarding the irreplaceable resources of the old and valued mountains in Lake Placid." Included in the report produced by the USDA SCS, "Soil Survey of Lake Placid Area, New York" is the Whiteface Mountain Ski Center. The Soil Survey Report has provided background information used as a basis for the soil portion of this document.

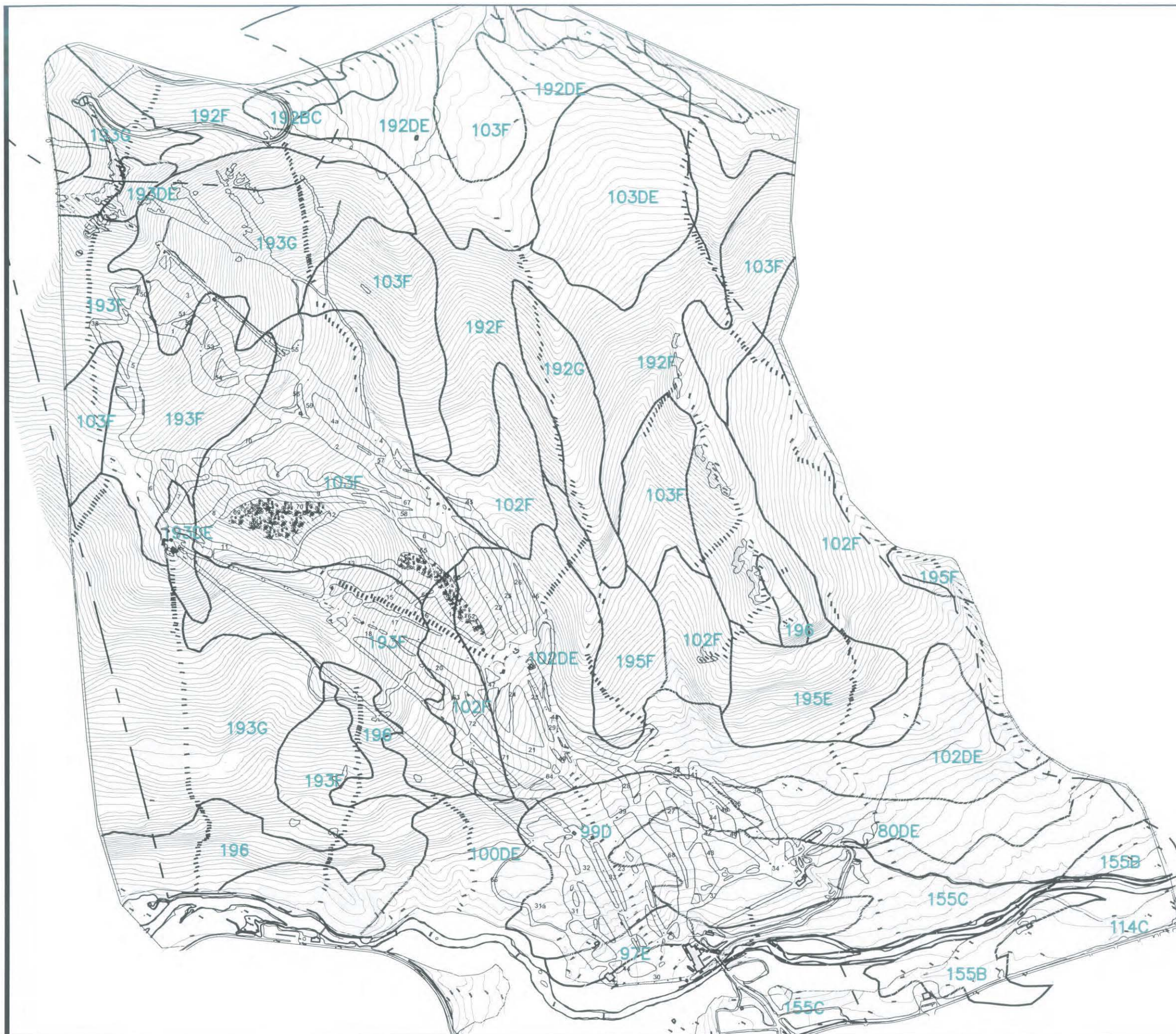
The Whiteface Mountain area is characterized by poorly or incompletely developed soils. The natural fertility of the soils is low. Soils found in this area are generally much younger and less fertile than soils found in other parts of New York State. In areas of steep slopes, which occur at high elevations, the soil is two inches in depth or less. The high altitude of this area tends to retard those biochemical processes which form soil. Consequently, the soils and associated ecosystems which predominate in this area are particularly vulnerable to damage by trail construction and other human activity. Immediate mulching and seeding of exposed soil will therefore be necessary during the development of these areas as will implementation of other best management practices to control erosion, prevent sedimentation and control runoff.

See Exhibit II-1 - Soils Map, for the distribution of soils on Whiteface Mountain Ski Center, Table II-1 - Soil Types, for a list of those soils, and Exhibit II-2 - Slope Erodability Map, for a general outline of those areas which are susceptible to erosion.

**TABLE II-1
SOIL TYPES**

Symbol	Scientific Name	Composition
80 DE	Becket	Fine sandy loam
97 E	Berkshire	Fine sandy loam
99 D	Hermon	Very bouldery sandy loam
100 DE	Typic Haplorthods	Extremely bouldery
102 DE	Typic Haplorthods	Extremely bouldery
102 F	Typic Haplorthods	Extremely bouldery
103 DE	Typic Cryohumods	Extremely bouldery
103 F	Typic Cryohumods	Extremely bouldery
155 C	Skerry	Bouldery sandy loam
192 BC	Cryohumods-Lithic	Complex, extremely bouldery
192 DE	Cryohumods-Lithic	Complex, extremely bouldery
192 F	Cryohumods-Lithic	Complex, extremely bouldery
192 G	Cryohumods-Lithic	Complex, very rocky
193 DE	Lithic Borofolists	Complex, very rocky
193 F	Lithic Borofolists	Complex, very rocky
193 G	Lithic Borofolists	Complex, very rocky
195 DE	Lithic Haplohumods	Very rocky
195 F	Lithic Haplohumods	Very rocky
196	Rock Outcrop	Very rocky

The Slope Erodability Map is based on specific information in the soil survey which rates these areas accordingly. Soil potential for building site development and recreation development is rated according to slight, moderate or severe limitations. Severe limitations are influenced by slope and have a depth to bedrock of less than 2 feet.



SOURCE:
NEW YORK, USDA SOIL CONSERVATION SERVICE SOURCE:
SOIL SURVEY OF LAKE PLACID



WHITEFACE

Prepared For:
OLYMPIC REGIONAL DEVELOPMENT AUTHORITY
LAKE PLACID, NEW YORK

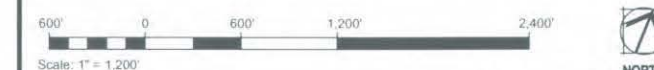
Prepared By:



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COMPREHENSIVE MANAGEMENT AND PLANNING REVIEW AND UNIT MANAGEMENT PLAN



TITLE:

SOILS MAP

DATE:	MARCH 2002
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EXHIBIT:

11-1

PROJECT NUMBER: 01102

FILE: [whiteface]



SOURCE:
NEW YORK, USDA SOIL CONSERVATION SERVICE SOURCE:
SOIL SURVEY OF LAKE PLACID



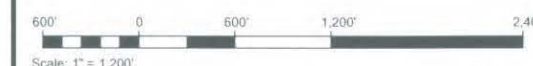
WHITEFACE

Prepared For:
OLYMPIC REGIONAL DEVELOPMENT AUTHORITY
LAKE PLACID, NEW YORK

Prepared By:



COMPREHENSIVE MANAGEMENT AND PLANNING REVIEW AND UNIT MANAGEMENT PLAN



TITLE:
**SLOPE ERODABILITY
MAP**

DATE:
MARCH 2002

EXHIBIT:
II-2

PROJECT NUMBER: 01102

FILE: [whiteface]

c)

Hydrology

(1) Surficial

The Whiteface Mountain Ski Center is bordered on the east by the West Branch of the Ausable River and is located within the Lake Champlain Drainage Basin. According to the NYSDEC Division of Water Resources, Article 7, Chapter X, there is one tributary to the West Branch of the Ausable River and four sub-tributaries located within the Whiteface Mountain boundaries. Eventually, surface water from Whiteface Mountain drains via the main tributary into the West Branch of the Ausable River which ultimately discharges into Lake Champlain to the northeast. See Exhibit II-3 - Hydrology and Wetlands Map, for the locations of these tributaries and sub-tributaries on Whiteface Mountain.

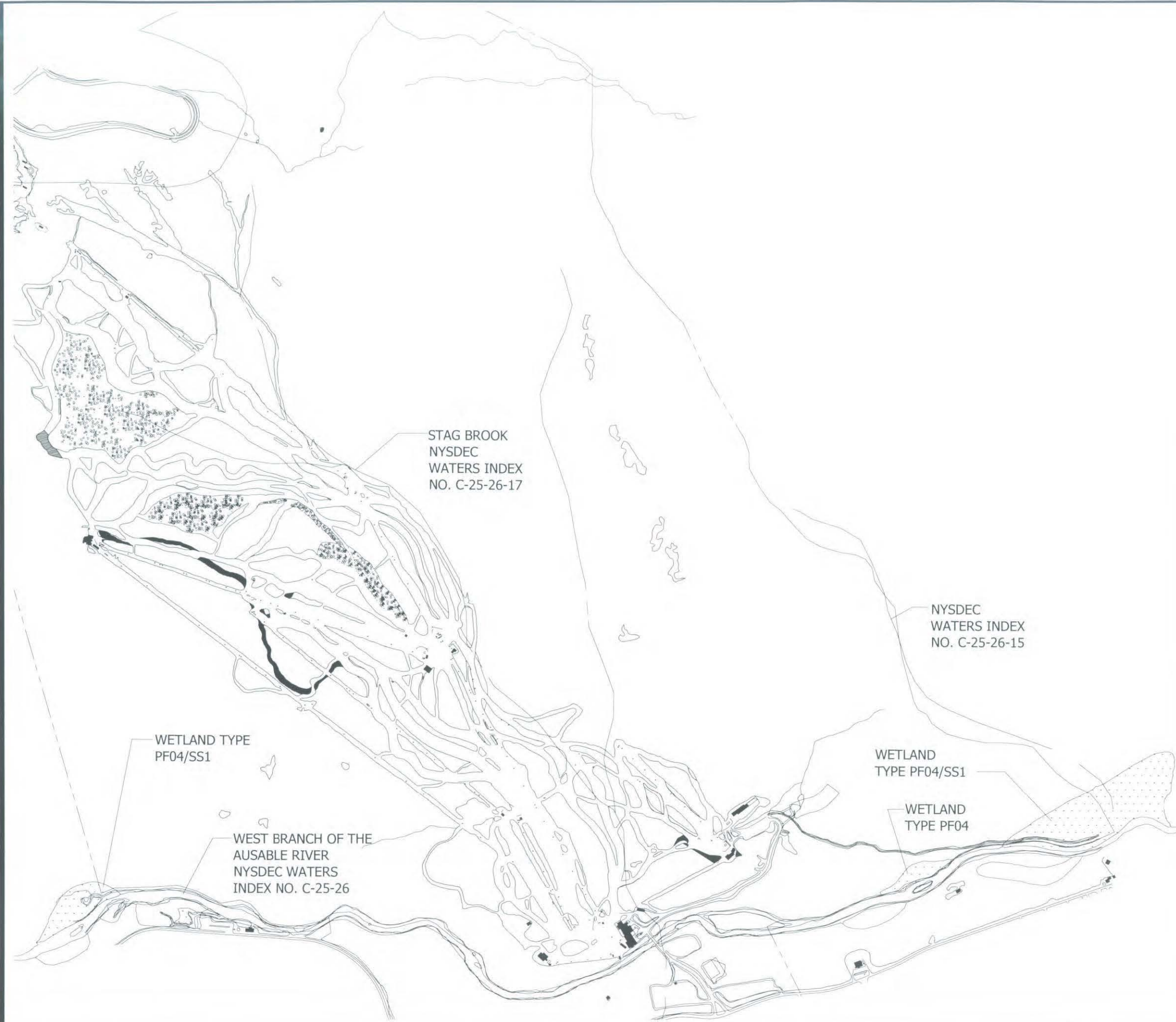
The portion of the West Branch of the Ausable River which is within the UMP is designated within the State's Wild, Scenic and Recreational Rivers System as a Recreational River.

Flow monitoring of the West Branch of the Ausable River has been implemented to minimize the impacts to the river's aquatic ecology and properly manage the fishery during times of low flow.

An operational plan has been developed in conjunction with the NYSDEC and formalized in a Cooperative Agreement between the two organizations to ensure snowmaking operations will not adversely affect the stream environment (See Appendix V, Snowmaking Withdrawal Cooperative Agreement).

(2) Subsurface

The groundwater aquifer system in the vicinity of Whiteface Mountain is found in both consolidated and unconsolidated deposits. Bedrock aquifers are fed by infiltration from precipitation, runoff and percolation from sand and gravel blanketing a portion of the valley bottom.



SOURCE:
WETLANDS ACCORDING TO ADIRONDACK PARK AGENCY WETLANDS
MAP.
STREAM CLASSIFICATIONS ACCORDING TO REGULATIONS OF THE
NYSDEC DIVISION OF WATER RESOURCES (6 NYCRR SECT. 830.4)



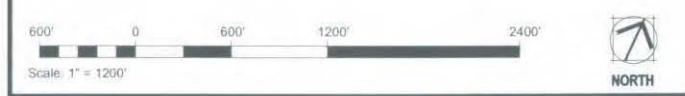
WHITEFACE

Prepared For:
OLYMPIC REGIONAL DEVELOPMENT AUTHORITY
LAKE PLACID, NEW YORK

Prepared By:



**COMPREHENSIVE MANAGEMENT
AND PLANNING REVIEW
AND UNIT MANAGEMENT PLAN**



TITLE: HYDROLOGY AND WETLANDS MAP	DATE: March 2002
	EXHIBIT: II-3
PROJECT NUMBER: 01102	FILE: [whiteface]

d) Visual Resource

(1) Visual Setting

Whiteface Mountain is located in a setting dominated by the scenic quality and character of the natural environment. The visual setting of Whiteface within the Adirondack Park has largely contributed to its designation as Forest Preserve Land. This land owned by the State functions to preserve the unique ecologic, geologic, scenic and historic features of the area according to the SLMP. In addition, all development has been restricted to comply with the SLMP that is, being in a setting and on a scale that is in harmony with the relatively wild and undeveloped character of the Adirondack Park.

(2) Visibility

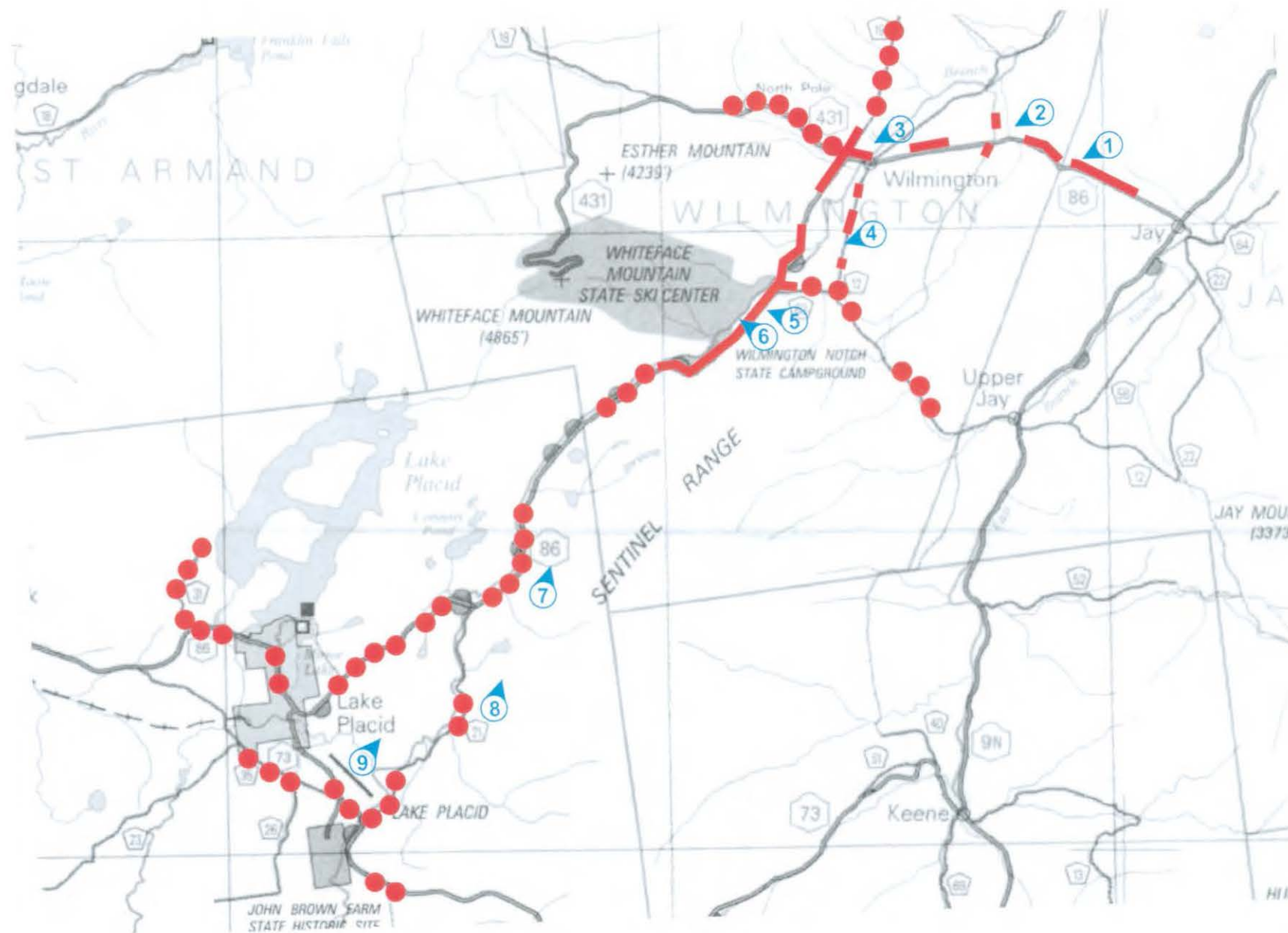
Whiteface Mountain is a relatively remote area in the Adirondacks. Due to the dense vegetation of the area and tree-lined roads, Whiteface is not clearly visible from most outside locations. However, because of the unique topography of the region and scattered clearings, Whiteface is visible at various vantage points along some nearby state and local roads. A study has been conducted to identify those areas in which Whiteface Mountain is visible. This study surveys the Ski Center within a 10-mile radius and forms the basis for the visibility section of this document.

Whiteface is visible from scattered vantage points along Route 86 beginning near Bassett Mountain and ending by High Falls Gorge. The Ski Center's lifts, ski trails, and supporting facilities are most visible from Route 86 near the Whiteface Mountain entrance road. Views west of High Falls Gorge on Route 86 begin quickly to diminish as vegetation dominates views from the roadway. Visibility to the Ski Center east on Route 86, however, is scattered due to vegetation and topography until it reaches the final vantage point at the former Paleface Mountain Ski Center located near Bassett Mountain. East of this point, visibility diminishes altogether. The upper section of Fairview Terrace on Quaker Mountain provides the most prominent vantage point to Whiteface Mountain. Although the mountain can be viewed from as far south as Route 73 near the Heart Lake Road, no ski facilities, lifts or trails are

visible. Exhibit II-4 - Viewshed Analysis Map, depicts locations along state and local roads where the Whiteface Mountain Ski Center is visible. Exhibits II-5, II-6, and II-7 - Viewshed Photos, illustrate those vantage points on the Viewshed Analysis Map that most clearly represent the quality and character of the existing views to Whiteface Mountain.

Generally speaking, Whiteface Mountain is not visible from hiking trails on Forest Preserve lands in the area. Because of intervening topography, including Wilmington Notch and Little Whiteface Mountain, there are no views into Whiteface from the trails south of Route 86 around Owen Pond, Copperas Pond and Winch Pond.

Lookout Mountain is within the same Intensive Use Area that contains the Ski Center. Field work was conducted in this area to investigate potential views. Views from the summit of Lookout include the Memorial Highway, the observatory, the upper portion of the Slides area, and the uppermost reaches of the existing ski trails. Views into portions of the Ski Center are mostly blocked by vegetation and intervening topography, a southeast sweeping ridgeline that obscures the potential views. Views towards the mountain are also available from the Wilmington trail east of the summit of Lookout Mountain before the trail drops down a steep slope on the way to Marble Mountain.



LEGEND



PHOTO LOCATIONS



WHITEFACE MOUNTAIN VISIBLE



WHITEFACE MOUNTAIN SKI CENTER VISIBLE



WHITEFACE

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OLYMPIC REGIONAL DEVELOPMENT AUTHORITY
LAKE PLACID, NEW YORK

Prepared By:



COMPREHENSIVE MANAGEMENT AND PLANNING REVIEW AND UNIT MANAGEMENT PLAN



TITLE:

VIEWSHED ANALYSIS
MAP

DATE:

March 2002

EXHIBIT:

II-4

PROJECT NUMBER: 01102

FILE: [whiteface]

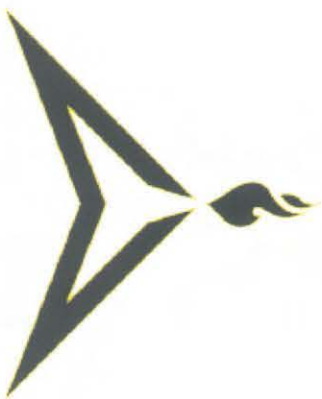
1. View from Route 86 at the former Paleface Ski Center near Bassett Mountain looking southwest.



2. View from Route 86 near Beaver Brook looking southwest.



3. View from Route 86 on the west branch of the Ausable River bridge looking south in the hamlet of Wilmington.



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TITLE:

VIEWSHED PHOTOS

DATE:

March 2002

EXHIBIT:

II-5

PROJECT NUMBER: 01102

FILE: [whiteface]

4. View from Fairview Avenue on Quaker Mountain looking southwest.



5. View from Fox Farm looking west.



6. View from Route 86 to the entrance of Whiteface Mountain Ski Center looking west.



	
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Prepared By:   	
COMPREHENSIVE MANAGEMENT AND PLANNING REVIEW AND UNIT MANAGEMENT PLAN	
TITLE: VIEWSHED PHOTOS	DATE: March 2002
PROJECT NUMBER: 01102	EXHIBIT: 11-6
FILE: [whiteface]	

7. View from Route 86 just south of Monument Falls looking north.



8. View from River Road at Lake Placid Skeet Range looking north.

9. View from Route 73 looking north.



WHITEFACE

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AND UNIT MANAGEMENT PLAN

TITLE:

DATE:

March 2002

VIEWSHED PHOTOS

EXHIBIT:

11-7

2. Biological Resources

a) Freshwater Wetlands

Freshwater wetlands comprise approximately 0.5% of the Whiteface Mountain Intensive Use Area total acreage. The Adirondack Park Agency has mapped approximately 13.2 acres of freshwater wetlands within the boundaries of the Ski Center. Most of these wetlands are located in areas remote from any roads, ski trails or ski facilities. However, there is one small forested coniferous wetland with a value rating of 2 located near parking lot #3 which is adjacent to the West Branch of the Ausable River. The placement of downhill ski slopes and the construction of various support facilities have not disturbed nor affected the wetlands.

Exhibit II-3 - Hydrology and Wetlands Map, shows the wetlands mapped by the Adirondack Park Agency, and uses the coded symbol system of the U.S. Fish and Wildlife Service (Cowardin *et al.*, 1979) for classifying freshwater wetlands. All of the wetlands are in the palustrine ecological system, and so their identifying symbols begin with a P. The next two letters of the symbol indicate a wetland class of either forested (FO) or scrub-shrub (SS). The number following the class designation indicates whether the vegetation is deciduous (1) or evergreen (4). Some wetlands have both forest and scrub-shrub vegetation, and the code symbol shows both separated by a slash.

The Adirondack Park Agency (APA) official wetlands map was confirmed to be accurate based on file review and observations of the site. In the course of preparation of the previous Unit Management Plan, APA Resource Analysis staff were consulted and visited the sites in question for confirmation.

The wetlands identified by the APA as being under their jurisdiction are also under the jurisdiction of the US Army Corps of Engineers (ACOE). In addition, the ACOE exercises jurisdiction over other “waters of the United States,” including the West Branch of the Ausable River and the small streams that drain the Whiteface Intensive Use Area, as well as pockets of riparian wetland that exist along these streams. These riparian wetlands are, in general, too small to identify on a small-scale map as in Exhibit II-3. The area of the West Branch of the Ausable River within the Ski Center boundaries is approximately 11.8 acres.

b) Vegetation

(1) Plant Species

Whiteface Mountain hosts a wide variety of plant species. A list of the common species found in the UMP area is provided in Table II-2 - "Flora of the Whiteface Mountain Ski Center Area." Most of these species thrive throughout the Adirondack Park. However, due to ecological factors, change in climate, and man-made development, there are some species that warrant protection. According to the New York State Department of Environmental Conservation, Natural Heritage Program, various plant species and ecological communities in the Whiteface Mountain Intensive Use Area have been identified as rare, threatened, or endangered. These plant species and communities are primarily ones found in the alpine meadows and krummholz (stunted forest) on the upper reaches of Whiteface Mountain where soil conditions and climate provide unique habitats.

In a report recently obtained from the New York Natural Heritage Program, sixteen plant species classified as rare, threatened, or endangered were identified to be present in the Whiteface Mountain area. The legal status of these species by New York State law is as follows: seven are on the list of endangered species, eight are listed as threatened, and one is listed as rare. Thirteen of these species are associated with the alpine meadow and/or alpine krummholz communities of the mountain summit. One species is known from the spruce-fir forest just below the alpine krummholz. Another species occurs in both the alpine krummholz and spruce-fir forest communities. Only one species occurs at lower altitudes, growing on cliffs along the Ausable River.

The files of the Fish and Wildlife Service (FWS) of the US Department of the Interior were also checked for records of plants and animals on the federal lists of threatened and endangered species. This search turned up only one record of a plant species which is considered a "species of concern" by the FWS, and which is on the New York State list of endangered species. This federal status as a species of concern does not provide protection under the federal Endangered Species Act. In addition, the FWS stated that no habitat in the project area is currently designated or proposed "critical habitat," as defined in the Endangered Species Act.

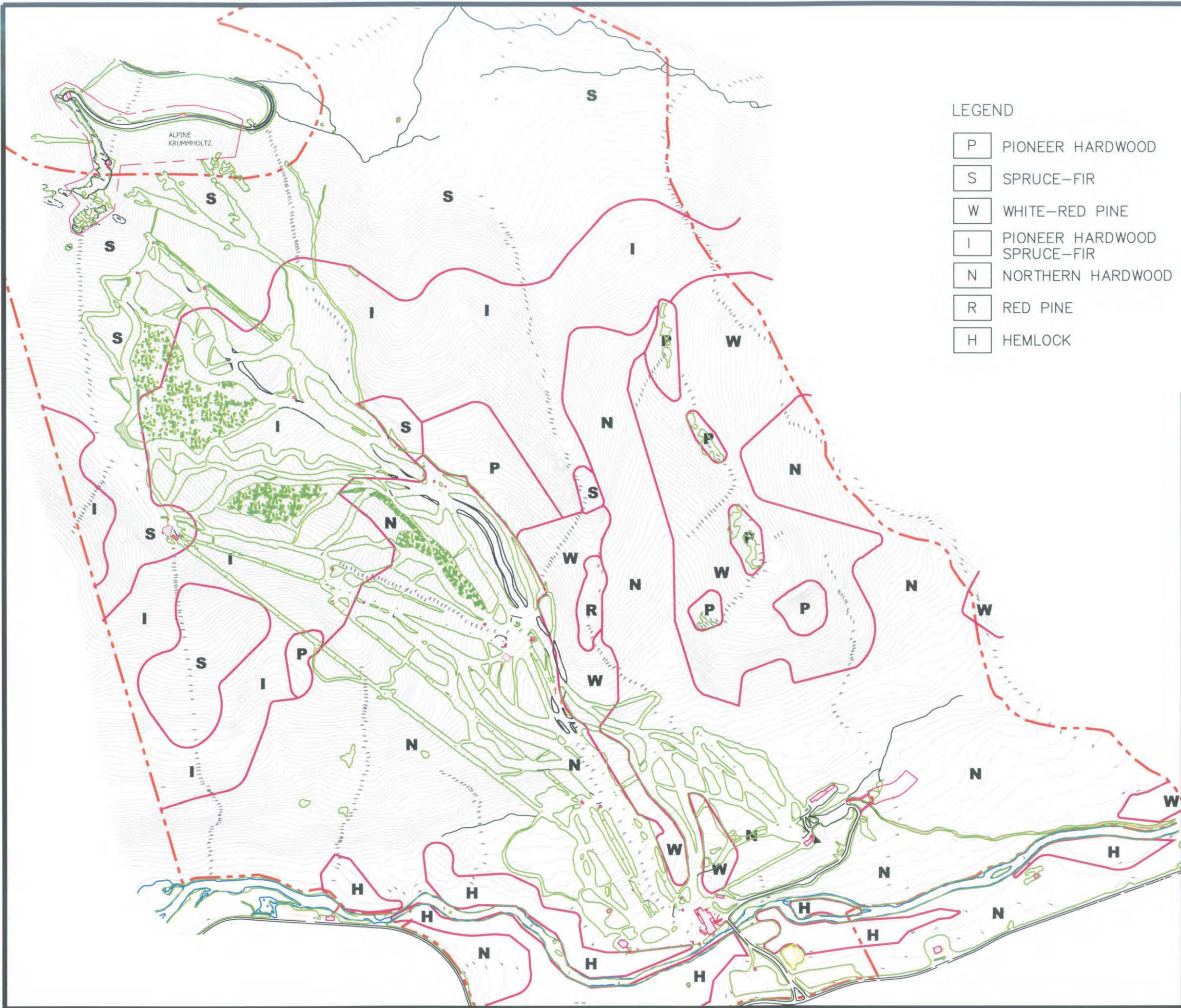
None of the known locations of any of these rare, threatened or endangered species lies within or substantially near the areas of the IUA proposed for construction activities or areas of current ski center operations.

TABLE II-2
FLORA OF THE WHITEFACE MOUNTAIN SKI CENTER AREA

Scientific Name	Common Name
Trees	
<i>Abies balsamea</i>	balsam fir
<i>Acer rubrum</i>	red maple
<i>Acer saccharum</i>	sugar maple
<i>Betula alleghaniensis</i>	yellow birch
<i>Betula cordifolia</i>	mountain paper birch
<i>Betula papyrifera</i>	paper birch
<i>Fagus grandifolia</i>	American beech
<i>Ostrya virginiana</i>	hop hornbeam
<i>Picea rubens</i>	red spruce
<i>Pinus resinosa</i>	red pine
<i>Pinus strobus</i>	white pine
<i>Populus grandidentata</i>	bigtooth aspen
<i>Populus tremuloides</i>	trembling aspen
<i>Prunus serotina</i>	black cherry
<i>Quercus rubra</i>	red oak
<i>Salix nigra</i>	black willow
<i>Sorbus americana</i>	mountain ash
<i>Thuja occidentalis</i>	northern white cedar
<i>Tilia americana</i>	basswood
<i>Tsuga canadensis</i>	hemlock
Shrubs and Small Trees	
<i>Acer pensylvanicum</i>	striped maple
<i>Alnus incana</i> ssp. <i>rugosa</i>	speckled alder
<i>Clematis</i> sp.	virgin's-bower
<i>Cornus sericea</i>	red osier
<i>Hamamelis virginiana</i>	witch hazel
<i>Rubus allegheniensis</i>	northern blackberry
<i>Rubus idaeus</i>	red raspberry
<i>Rubus odoratus</i>	pink thimbleberry
<i>Spiraea alba</i>	meadow-sweet

Scientific Name	Common Name
<i>Viburnum acerifolium</i>	maple-leaf viburnum
Herbaceous Plants and Low Woody Plants	
<i>Apocynum</i> sp.	dogbane
<i>Aster puniceus</i>	purple-stemmed aster
<i>Athyrium filix-femina</i>	lady fern
<i>Calamagrostis canadensis</i>	bluejoint grass
<i>Carex crinita</i>	sedge
<i>Carex intumescens</i>	sedge
<i>Cichorium intybus</i>	Chicory
<i>Cinna latifolia</i>	drooping woodreed
<i>Coptis trifolia</i>	gold thread
<i>Cornus canadensis</i>	bunchberry
<i>Dryopteris carthusiana</i>	spinulose wood fern
<i>Eupatorium maculatum</i>	spotted Joe-Pye weed
<i>Eupatorium rugosum</i>	white snakeroot
<i>Euthamia graminifolia</i>	bush goldenrod
<i>Glyceria striata</i>	fowl manna-grass
<i>Hypericum perforatum</i>	St. John's-wort
<i>Lycopodium lucidulum</i>	shining clubmoss
<i>Lycopodium obscurum</i>	ground pine
<i>Lycopodium tristachyum</i>	ground cedar
<i>Lycopus virginicus</i>	water-horehound
<i>Monotropa uniflora</i>	Indian-pipe
<i>Onoclea sensibilis</i>	sensitive fern
<i>Osmunda claytoniana</i>	interrupted fern
<i>Osmunda regalis</i>	royal fern
<i>Oxalis montana</i>	common wood sorrel
<i>Potentilla recta</i>	five-fingers
<i>Solidago caesia</i>	wreath goldenrod
<i>Solidago canadensis</i>	common goldenrod
<i>Solidago squarrosa</i>	ragged goldenrod
<i>Thelypteris noveboracensis</i>	New York fern
<i>Tussilago farfara</i>	coltsfoot

Source: Nomenclature used here follows Mitchell, and Tucker (1997).



LEGEND

- P PIONEER HARDWOOD
- S SPRUCE-FIR
- W WHITE-RED PINE
- I PIONEER HARDWOOD
SPRUCE-FIR
- N NORTHERN HARDWOOD
- R RED PINE
- H HEMLOCK



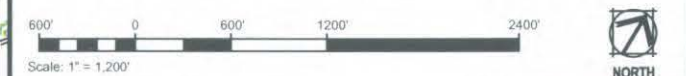
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LAKE PLACID, NEW YORK

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TITLE: VEGETATION COVERTYPE MAP		DATE: March 2002
PROJECT NUMBER: 01102		EXHIBIT II-8
FILE: [whiteface]		

(2) **FOREST COVERTYPES AND ECOLOGICAL COMMUNITIES**

The 2910-acre Whiteface Mountain Ski Center Intensive Use Area (IUA) is situated in the Adirondack High Peaks Ecozone, as identified by the New York Natural Heritage Program. The IUA is comprised primarily of terrestrial communities with a predominance of forested uplands, and to a lesser extent terrestrial cultural communities of the ski center and the riverine communities of the West Branch Ausable River and its tributaries. The dominant cultural feature in the IUA is the ski center, which utilizes approximately 211 acres or 7% of the IUA total area. Another major cultural feature consists of the summit facilities associated with the Whiteface Mountain Veterans Memorial Highway. However, this use is outside the Whiteface Mountain Ski Center IUA and is in the adjacent Veterans Memorial Highway IUA.

The terrestrial cultural features consisting of the ski center trails and facilities dominate the visual landscape of the IUA. As is shown in Exhibit II-8, the ski center stretches from the upper slopes of the mountain, about 400 feet below the summit of Whiteface Mountain, including the Little Whiteface Summit, down to the existing base lodge facilities adjacent to the West Branch Ausable River. The northern half of the IUA remains essentially wild, with no current ski center trails or facilities, however, the remnants of a former ski trail in an area about 4000 feet due east of the Whiteface Mountain summit are still discernible.

In general, the vegetation of the Ski Center area progresses from a hardwood forest dominated by sugar maple and beech, on the lower slopes of the mountain, to conifer forests with red spruce and balsam fir upwards toward the summit. This is a common progression found on most mountainous terrain throughout the Adirondacks. In previous unit management plans for the Ski Center, vegetation was described in terms of forest coetypes, which is a forestry-oriented approach. Exhibit II-8 - Vegetation Coetype Map, shows the forest coetypes identified by NYSDEC. The vegetation unit boundaries on this map have been altered from previous versions on the basis of in-field observations and interpretation of recent aerial photographs.

Following are descriptions of these covertypes:

a) Northern Hardwood

This forest cotype is composed primarily of sugar maple, American beech and yellow birch. Other associated species are red maple, white ash, black cherry, hemlock, red spruce, paper birch, and red oak. The northern hardwood forest type is a climax forest capable of reproducing itself under its own canopy. As the stand regenerates itself in the natural forest condition, yellow birch will tend to become less important due to its relative intolerance or inability to grow in the shade as compared to maple and beech.

b) Pioneer Hardwood

In the Adirondacks, this forest cotype is normally composed of aspen, paper birch, and pin cherry with occasional red maple and balsam fir. In the Ski Center area, the overstory of this forest type is almost entirely composed of mountain paper birch while the understory is composed of thick balsam fir.

Other associated species, as mentioned above, can be found in this forest cotype. However, the almost pure dominance of mountain paper birch overshadows the importance of the other hardwood species normally found. Pioneer hardwood is a successional forest cotype and over a period of time it will give way to climax forest coverts due to the intolerance of the species involved. A few places mapped as this cotype are areas of thin soil and bedrock outcrops, and are not likely to progress quickly to climax forest.

c) Spruce-Fir

The species composition of this forest cotype normally consists of balsam fir, red spruce, and black spruce, which are sometimes associated with tamarack, hemlock and white cedar. The spruce-fir forest cotype on Whiteface Mountain is composed almost entirely of balsam fir and red spruce. Balsam fir is the more numerous of the two species. The presence of a heavy understory consisting of balsam fir and red spruce mixed with an overstory of the same species is evidence of a spruce-fir climax forest cotype. As shown on Exhibit II-8, the highly significant Alpine Krummholz Zone is found within the area mapped as spruce-fir forest cotype, and is dominated by stunted balsam fir and birch.

d) Pioneer Hardwood-Spruce-Fir

This combination of forest covertypes occupies an important transition niche on Whiteface Mountain, although pioneer hardwood-spruce-fir is not usually designated as a separate forest covertype. Species composition consist of mountain paper birch, balsam fir and red spruce overstory with a thick spruce-fir understory. There is a higher percentage of balsam fir in both the understory and overstory of this forest covertype than the associated red spruce. This type lies between the pioneer hardwood and spruce-fir types previously described and is a transition between the intermediate pioneer hardwood type and the climax spruce-fir type.

e) White Pine-Red Pine

This forest covertype is dominated by eastern white pine and red pine. Associated species are balsam fir, red spruce, hemlock, aspen, red maple and white birch.

f) Red Pine

A pure forest covertype of red pine exists in a small area on Whiteface Mountain. Pure natural red pine is considered a unique forest covertype due to the fact that red pine is almost always associated with white pine in unplanted situations. The red pine forest covertype is located on the rocky crest of a ridge, at an elevation of about 2400 feet.

g) Hemlock

This forest covertype occurs in the southern part of the Ski Center, immediately adjacent to the West Branch of the Ausable River. The Eastern hemlock stand is dense and very heavy with just a few associated species consisting of white birch, yellow birch, and American beech. Hemlock is a climax forest covertype capable of reproducing itself under its own shade.

This vegetation covertype classification is less useful when assessing the significance of the vegetation in the context of New York State as a whole. The New York Natural Heritage Program (NYNHP) of NYSDEC has defined and classified the ecological communities of New York State, and has ranked them in terms of their comparative rarity (Reschke, 1990). Table II-3 lists the forest covertypes identified at Whiteface Mountain, the corresponding

ecological communities defined by NYNHP, and the state element rank of each community.

In some cases, the forest coverytype has more than one corresponding ecological community (See Table II-3). For instance, the spruce-fir coverytype includes the mountain spruce-fir forest, mountain fir forest, and alpine krummholz ecological communities. The mountain spruce-fir forest occurs in the lower part of the area mapped as the spruce-fir coverytype, and is dominated by red spruce and balsam fir, with lesser amounts of mountain paper birch, mountain ash, and pin cherry. Around 3500 feet elevation, this community grades upward into mountain fir forest, which has a tree layer composed almost entirely of balsam fir, with small amounts of mountain paper birch, and scattered individuals of red spruce. Above mountain fir forest, at elevations higher than about 4500 feet, to the summit of Whiteface Mountain, is the alpine krummholz community, a stunted woodland dominated by balsam fir. The extent of the alpine krummholz community is mapped on Exhibit II-8.

**TABLE II-3
FOREST COVERTYPES AND CORRESPONDING ECOLOGICAL COMMUNITIES**

Forest Coverytype	Ecological Community
Northern Hardwood	Beech-Maple Mesic Forest Spruce-Northern Hardwood Forest
Pioneer Hardwood	Successional Northern Hardwoods
Spruce-Fir	Mountain Spruce-Fir Forest Mountain Fir Forest Alpine Krummholz
Pioneer Hardwood-Spruce-Fir	(successional stage leading towards Mountain Spruce-Fir Forest)
White Pine-Red Pine	Pine-Northern Hardwood Forest
Red Pine	
Hemlock	Hemlock-Northern Hardwood Forest

Mapping of the boundary of the “alpine krummholz ecozone” shown in Exhibit II-8 started with “Resource Composite Map B39” from the 1995 Whiteface Mountain Comprehensive Management and Planning Review and Unit Management Plan. A map of the location which was included with a

letter dated September 13, 2001, from Heidi J. Krahling of the NY Natural Heritage program showed essentially an identical boundary for this community. LA Group Biologists verified this boundary and refined it slightly through examination of aerial photographs supplemented by field investigations at the summit area of Whiteface Mountain on December 10, 2001. That slightly revised boundary is shown on the Vegetation Covertypes Map, Exhibit II-8. On the basis of this boundary, the area of the alpine krummholz community within the UMP area is measured at 7.18 acres (see Table V-2).

The pioneer hardwoods and pioneer hardwoods–spruce–fir covertypes are successional vegetation units that appear to be trending towards the mountain spruce–fir forest community, or possibly towards the spruce–northern hardwood forest in their lower reaches, below about 2800 feet.

The northern hardwood forest cootype is also represented by two ecological communities. The beech–maple mesic forest community, which is dominated by sugar maple and beech, occupies the lower slopes. At higher elevations, red spruce becomes a more significant component among the hardwoods (mainly sugar maple, beech, yellow birch, and red maple), forming the spruce–northern hardwoods forest.

Hemlock forest cootype corresponds with the hemlock–northern hardwood forest community, which varies from nearly pure stands of hemlock to mixtures of hemlock, white pine, beech, sugar maple, red maple, red oak, and other hardwoods. The white pine–red pine cootype is equivalent to the pine–northern hardwoods community, which is dominated by white pine, usually with a significant amount of red pine, mixed with some paper birch, aspens, other hardwoods, red spruce, and balsam fir.

The one cootype for which there is no equivalent ecological community defined by NYNHP (Reschke, 1990) is red pine forest. This consists of one stand of about 5 acres on the top of a dry, rocky ridge. Red pine is by far the most abundant tree, with smaller numbers of red spruce, white cedar, white pine, and balsam fir. According to Greg Edinger, ecologist for NYNHP

(personal communication), there is a draft description of a “red pine rocky summit” community, which appears to fit this stand.

c) Fish and Wildlife

(1) Wildlife

Considering the present degree of development and use, Whiteface supports a wide variety of wildlife species. Included in Appendix L is a list of wildlife species, resident and migrant, that have been physically or visually confirmed or are species which may utilize the area because of suitable habitat conditions. Forty-six mammalian species, eighty-four avian species, eleven amphibian species, and five reptile species are identified.

Data from the breeding bird atlas of New York State (Andrle and Carroll, 1988) indicate that 21 bird species are confirmed to be breeding in the Whiteface Mountain area, and another 63 species are listed as probable or possible breeders. One of the confirmed species, the peregrine falcon, is listed as an endangered species in New York. One species listed as threatened, the osprey, is a probable breeder in the Whiteface Mountain area. Three species of special concern, Bicknell’s thrush, the northern raven and Cooper’s hawk, are probable breeders in the area.

The ruffed grouse (*Bonasa umbellus*) is a species not included on the list in Appendix L, but which was observed in the course of fieldwork on the Ski Center site, and which is a confirmed breeder in this vicinity, according to Andrle and Carroll (1988).

The distribution and abundance of wildlife species are determined by physical and biological factors such as elevation, topography, climate, vegetation and land use, combined with the habitat requirements and population dynamics of each species. Five major wildlife habitats can be identified at Whiteface: Northern Hardwood, Pioneer Hardwood-Spruce-Fir combination, Krummholz, Grassland (ski slopes), and Alpine Zone. The types listed above generally represent differences in wildlife habitat and, therefore, may not conform to the more technical descriptions of forest covertypes as detailed in Section II.2.b. above.

The clearings and brushy ecotones created by the ski trails provide additional habitats not frequently found in many of the "Wilderness Areas." In fact, a greater diversity of wildlife can reside in or utilize the ski trail area than is possible in portions of the maturing "Forest Preserve Wilderness Areas." Those wildlife species dependent on the earlier stages of succession can inhabit the grasslands, whereas in the adjacent forest covertypes only those species preferring mature forests can prosper. Included in Appendix L is a description of wildlife habitat types and additional information regarding the wildlife at Whiteface.

(2) Fish

Information regarding fish is derived from a study conducted on the "West Branch Ausable River; Habitat, Fishery Resources and Angler Concerns," prepared by the NYSDEC. Fishery and habitat surveys were conducted in the West Branch Ausable River and public opinions regarding the fishery were obtained during 1992. In conclusion, the 1992 study summarizes the following information:

1. The quality of the West Branch Ausable fishery is lower than might be expected for a river of such renown. Large and wild trout are present, but less abundant than is desirable.
2. The historic fish survey data is inadequate to document whether the present quality represents a decline from previous periods.
3. Habitat problems contribute significantly to poor angling quality. Severe winter ice conditions (during years of low snow pack) cause high winter mortality. Substrate embeddedness contributes to the winter mortality, probably decreasing invertebrate production and reducing natural reproduction of trout.
4. Angler use is apparently not responsible for poor quality. Use declined substantially in the period from the late 1960's to the mid-1980's with a perceived decline, not improvement, in the quality of the fishery. Therefore, additional reductions in exploitation, such as no kill regulations, are not expected to substantially improve quality. However,

the greatest potential to improve quality and satisfy constituent desires would be along the River Road section where prospects of over-winter survival are best.

5. Given the low abundance of wild fish and the evidence that stocked fish are not impacting wild fish abundance or growth, continued stocking is appropriate to achieve desired catch rates. Stocking rates will be based on CROTS estimates and the angling regulations applied to each river section.

Several changes were made in fisheries management of the river following the 1992 study. Increased numbers of two-year-old trout are stocked annually to improve the abundance of large trout. Also, catch-and-release regulations have been applied to about 5 miles of the river.

Angler use and popularity of the river has apparently increased due to the revised management. In a 1996 statewide survey of anglers conducted by Cornell University, The Ausable River received the highest satisfaction rating and the highest location rating of the 29 most heavily fished waters in the state (satisfaction and location ratings were not analyzed for waters fished less frequently due to small sample size (Connelly *et al.*, 1997). An estimated 13,440 anglers fished the Ausable during 1996 for a total of 105,600 angler-days. The survey estimated that fishing-related expenditures in 1996 for fishing in the Ausable River totaled \$4,774,000, with \$3,663,000 of that being “at location” expenditures.

DEC staff electrofished stations upstream of the Whiteface Ski Center on the West Branch Ausable River during the week of July 21, 2003. The study was not designed to assess the impacts of Whiteface water withdrawals or compare fish population parameters above and below Whiteface. Instead, the objectives of the electrofishing survey were to evaluate the current status of the fish resources in the river and to evaluate the biological effects of the catch-and-release regulations affecting that stretch of river from the mouth of Holcomb Pond outlet downstream to the marked boundary 2.2 miles downstream of Monument Falls. The river had last been surveyed in the early 1990s prior to enacting the catch-and-release regulations. It is possible that

results of the surveys in the 1990s led to the Commentor's statement that the fishery quality may be lower than expected.

Brown trout in the 2003 sample averaged substantially larger than the early 1990's. Considering yearling and larger trout, 41 percent were longer than 12 inches in 2003 compared to only 4 percent in the earlier period. The increased average size was observed in both the catch-and-release section and the areas where harvest is allowed. The largest brown trout collected was 19 inches long.

Overall, 23 percent of the yearling and older brown trout were wild, which was very similar to the 22 percent wild observed in the early 1990's. However, wild fingerling trout (young-of-the-year trout) were several times more abundant in 2003 than previously, which indicates increased natural reproduction. The increased abundance of wild fingerlings occurred in both the catch-and-release and in the harvest allowed sections. Qualitative observations indicated that the abundance of fines (sand) in the substrate had decreased substantially since the early 1990's, which could explain the increased natural reproduction. Also, ice conditions on the river last winter were favorable for over winter survival of trout.

The overall abundance of trout longer than 12 inches, indicate a very desirable fishery resource (from Region 5 Inland Fisheries August 2003 Monthly Highlights).

B. Inventory of Existing Ski Center

The following Inventory of Existing Ski Center reflects the existing conditions of the Whiteface lift and terrain system as inventoried during the initial UMP process in 2002. Several improvements proposed in the 1996 UMP have since been implemented, including:

- The creation of Off-Broadway and Golden Glades trails
- The creation of a terrain park on Lower Parkway, Lower Thruway and Parkway Exit (and removal of terrain parks on Danny's Bridge and Brookside)
- The replacement of the Mid-station Shuttle and Valley Triple lifts with a detachable quad chairlift – Face Lift
- Two additional grooming vehicles

These actions are consistent with the overall management goal of increasing mountain capacity.

1. Lifts – Existing

**TABLE II-4
EXISTING LIFT SPECIFICATIONS**

Map Ref.	Lift Name	Lift Type	Vert. Rise (ft.)	Slope Length (ft.)	Avg. Grade (%)	Actual Design Capacity (persons/hr.)	Year INSTALLED/ Upgraded
A	Mixing Bowl	Double	92	687	13%	800	1984
B	Bear	Double	310	1,534	20%	1,200	1984
C	Bunny Hutch	Triple	258	1,792	14%	1,600	1966/97
D ¹	Mid-Station Shuttle	Double	880	4,140	21%	1,200	1976
E ¹	Valley Triple	Triple	1,314	6,265	21%	1,670	1988
F	Summit Quad	Quad	1,830	4,706	39%	1,500	1997
G	Little Whiteface	Double	1,555	4,515	34%	1,100	1988
H	Mountain Run	Double	979	2,475	40%	1,200	1989
I	Freeway	Double	1,458	4,220	35%	800	1979
J ²	Handle Tow	Surface	40	450	9%	400	1992
K	Cloudsplitter Gondola	Gondola (8)	2,432	8,487	29%	1,800	1999
	TOTAL					13,270	

Some of the specific characteristics of each of the eleven lifts serving the Whiteface terrain are set forth below.

- **Mixing Bowl (A):** This lift is well located and suitably designed for the beginner skier.
- **Bear (B):** The bottom terminal of this lift is located at a distance of 500' from the base lodge and is accessed by Lift A.
- **Bunny Hutch (C):** Lift C was relocated in 1997 so that its base terminal is at the same level as the Kid's Kampus building. Its top terminal has been lowered to

¹ These two lifts have been removed and replaced with the Face Lift quad (as specified in Table IV-1 – proposed lift F).

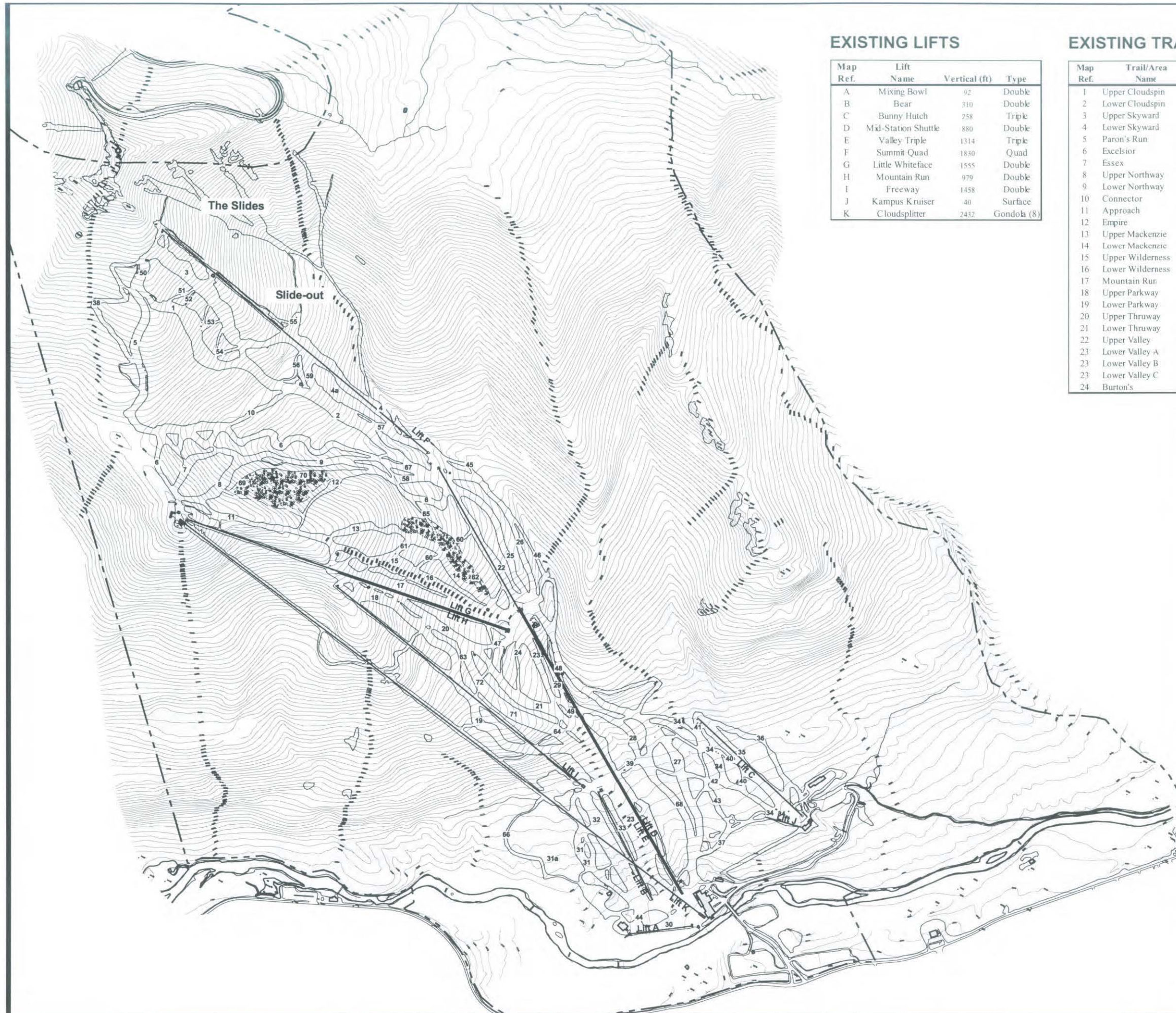
² The handle tow has been removed and replaced with a conveyor lift (as specified in Table IV-1 – proposed lift J)

provide better and easier access to the trail system and to avoid the steep section at the top which made the trail ability level too difficult for skiers in this area.

- **Mid-Station Shuttle (D) and Valley Triple (E):** The combination of these two aging lifts serving basically the same terrain contributes to skier congestion problems on the trails they serve and at the top of D and the mid-station of E; these areas will require careful consideration in future planning. Replacement of these lifts with a detachable quad (with no mid-station) is an approved action of the 1996 UMP.
- **Summit Quad (F):** Lift F serves the upper mountain terrain in a satisfactory manner. Its hourly capacity is in balance with the trails it serves.
- **Little Whiteface and Mountain Run (G & H):** As with lifts D and E, the combination of these two lifts causes skier congestion problems at the top terminal of H and the mid-station unload of G and on the trails they serve when both lifts (in addition to Lift I) are operating at full capacity. This congestion is also a factor at the base terminals of these two lifts due to their proximity to the top and mid-station unloads of D and E respectively and to the mid-station lodge. Lifts G and H are both aging and have functional problems.
- **Freeway (I):** Lift I provides excellent skiing opportunities for the intermediate and advanced skiers. It is particularly useful on race event days as it provides a somewhat isolated area for round trip skiing on the race terrain that it serves. It is also useful when wind conditions shut down other lifts.
- **Handle Tow (J):** The location of this lift has two major disadvantages for the beginner skier. First, it requires a short but difficult climb for the new skier from the Kid's Kampus building to the bottom loading area. Second, it involves the undesirable mix of beginner skiers with the faster traffic emanating from the Silver and Gold Trails (#34 and #35).
- **Gondola (K):** The Gondola lift was installed as recommended in the 1996 UMP. Summer use of the gondola has proven to be a valuable addition to the Whiteface and Lake Placid venues. Winter use has also proven to be a valuable addition to

the ski center by improving the out-of-base capacity and as a means to access the upper reaches of the mountain on days of inclement weather.

Many improvements have been made at Whiteface over the past five years, however several lifts are more than twenty years old. It is the goal of this UMP Update to continue the modernization of the Ski Center through the focused implementation of management actions that will improve the user-friendly nature of the Ski Center while concurrently responding to the market and economic opportunities to increase public access and business potential. Items such as lift replacements will be necessary to maintain operating efficiency and avoid costly repairs and excessive maintenance.



EXISTING LIFTS

Map Ref.	Lift Name	Vertical (ft)	Type
A	Mixing Bowl	92	Double
B	Bear	310	Double
C	Bunny Hutch	258	Triple
D	Mid-Station Shuttle	880	Double
E	Valley Triple	1314	Triple
F	Summit Quad	1830	Quad
G	Little Whiteface	1555	Double
H	Mountain Run	979	Double
I	Freeway	1458	Double
J	Kampus Kruiser	40	Surface
K	Cloudsplitter	2432	Gondola (8)

EXISTING TRAILS

Map Ref.	Trail/Area Name
1	Upper Cloudspin
2	Lower Cloudspin
3	Upper Skyward
4	Lower Skyward
5	Paron's Run
6	Excelsior
7	Essex
8	Upper Northway
9	Lower Northway
10	Connector
11	Approach
12	Empire
13	Upper Mackenzie
14	Lower Mackenzie
15	Upper Wilderness
16	Lower Wilderness
17	Mountain Run
18	Upper Parkway
19	Lower Parkway
20	Upper Thruway
21	Lower Thruway
22	Upper Valley
23	Lower Valley A
23	Lower Valley B
23	Lower Valley C
24	Burton's
25	Broadway
26	Easy Street A
26	Easy Street B
27	Boreen
28	Danny's Bridge [Terrain Park]
29	River Run
30	Mixing Bowl
31	Wolf
32	Bear [Half Pipe]
33	Deer
34	Silver- upper
34	Silver- lower
34	Silver- Kampus Kruiser
35	Gold
36	Bronze
37	Home Run
38	Follies
39	Valvehouse Road
40	Silver Shoot
41	Main Street
42	Runner Up - upper
42	Runner Up - lower
43	Medalist
44	Round-a-bout
45	Easy Way
46	Upper Boreen
47	Calamity Lane
48	Ladie's Bridge
49	Lower Cap
50	Riva Ridge
51	Cloudspin Cut
52	Yellow Brick Road
53	Upper Switchback
54	Lower Switchback
55	Crossover Loop
56	Glen
57	Victoria Shoot
58	Lower Empire
59	Weber's Way
60	1900 Road
61	2200 Road
62	High Country Glade
63	Low Road
64	Tom Cat
65	On Ramp
66	Wolf Run
67	Summit Express
68	Brookside [Terrain Park]
69	Cloudsplitter Glade
70	10th Mtn Division Glade
71	Draper's Drop
72	Parkway Exit



WHITEFACE

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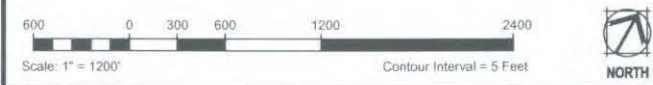


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COMPREHENSIVE MANAGEMENT
AND PLANNING REVIEW
AND UNIT MANAGEMENT PLAN



TITLE:	DATE:
EXISTING SKI CENTER	March 2002
PROJECT NUMBER: 01102	FIGURE #:
FILE: [whiteface]	II-9

2. Alpine Ski Trails – Existing

TABLE II-5 EXISTING TERRAIN SPECIFICATIONS

Map Ref.	Trail/Area Name	Slope Length (ft.)	Avg. Width (ft.)	Buffers Snow.	Lift	Appr. Area (ac.)	Skier Ability Level
1	Upper Cloudspin	2,600	140	*		8.4	Expert
2	Lower Cloudspin	2,500	118	*		6.8	Adv. Inter.
3	Upper Skyward	800	175	*	*	3.2	Expert
4	Lower Skyward	3,800	140	*		12.2	Adv. Inter.
5	Paron's Run	2,200	102	*		5.2	Adv. Inter.
6	Excelsior	5,600	85	*		10.9	Inter.
7	Essex	1,000	83	*		1.9	Expert
8	Upper Northway	1,000	74	*		1.7	Expert
9	Lower Northway	1,700	87	*		3.4	Inter.
10	Connector	700	40	*		0.6	Adv. Inter.
11	Approach	1,900	65	*		2.8	Adv. Inter.
12	Empire	1,600	50			1.8	Expert
13	Upper Mackenzie	1,000	80	*		1.8	Expert
14	Lower Mackenzie	1,400	106	*		3.4	Adv. Inter.
15	Upper Wilderness	500	80	*		0.9	Expert
16	Lower Wilderness	1,400	170	*		5.5	Adv. Inter.
17	Mountain Run	2,400	180	*	*	9.9	Adv. Inter.
18	Upper Parkway	1,800	120	*		5.0	Adv. Inter.
19	Lower Parkway (Terrain Park)	2,700	120	*	*	7.4	Inter. (Expert)
20	Upper Thruway	1,000	140	*		3.2	Adv. Inter.
21	Lower Thruway (Terrain Park)	1,400	110	*		3.5	Inter. (Expert)
22	Upper Valley	2,000	90	*	*	4.1	Low Inter.
23	Lower Valley A	1,500	70	*	*	2.4	Low Inter.
23	Lower Valley B	900	200	*	*	4.1	Low Inter.
23	Lower Valley C	1,700	160	*	*	6.2	Novice
24	Burton's	600	30	*		0.4	Inter. (Expert)
25	Broadway	1,700	80	*		3.1	Inter.
25a	Off Broadway	200	100			0.5	Inter.
26	Easy Street A	400	110	*		1.0	Low Inter.
26	Easy Street B	1,700	65	*		2.5	Low Inter.

Map Ref.	Trail/Area Name	Slope Length (ft.)	Avg. Width (ft.)	Buffers Snow.	Lift	Appr. Area (ac.)	Skier Ability Level
27	Boreen	5,600	86	*		11.1	Low Inter.
28	Danny's Bridge <i>[no longer Terrain Park]</i>	1,100	70	*		1.8	Expert <i>(Inter.)</i>
29	River Run	1,000	75		*	1.7	Inter.
30	Mixing Bowl	800	142	*	*	2.6	Beginner
31	Wolf	1,800	58	*		2.4	Novice
32	Bear <i>[Halfpipe]</i>	1,700	150	*		5.9	Expert
33	Deer	950	50		*	1.1	Novice
34	Silver- upper	1,000	73	*		1.7	Low Inter.
34	Silver- lower	1,500	73	*		2.5	Novice
35	Gold	1,800	125	*	*	5.2 (5.8)	Novice
36	Bronze	1,650	87	*		3.3	Novice
36a	<i>Golden Glade</i>	<i>1,600</i>	<i>100</i>			3.8	<i>Inter.</i>
37	Home Run	500	25	*		0.3	Novice
38	Follies	2,400	60	*		3.3	Inter.
39	Valvehouse Road	300	50	*		0.3	Expert
40	Silver Shoot	700	30	*		0.5	Low Inter.
41	Main Street	400	60	*		0.6	Low Inter.
42	Runner Up - upper	400	30	*		0.3	Low Inter.
42	Runner Up - lower	400	30	*		0.3	Low Inter.
43	Medalist	1,600	50			1.7	Low Inter.
44	Round-a-bout	1,100	50	*		1.3	Novice
45	Easy Way	500	25	*		0.3	Low Inter.
46	Upper Boreen	800	40			0.7	Low Inter.
47	Calamity Lane	400	70	*		0.6	Inter.
48	Ladies Bridge	500	50	*		0.6	Inter.
49	Lower Gap	300	50	*		0.3	Inter.
50	Riva Ridge	1,400	25	*		0.8	Adv. Inter.
51	Cloudspin Cut	400	25	*		0.2	Adv. Inter. <i>(Expert)</i>
52	Yellow Brick Road	300	20	*		0.1	Adv. Inter. <i>(Expert)</i>
53	Upper Switchback	600	25	*		0.3	Adv. Inter.
54	Lower Switchback	600	25	*		0.3	Adv. Inter.
55	Crossover Loop	600	25	*		0.3	Adv. Inter.

Map Ref.	Trail/Area Name	Slope Length (ft.)	Avg. Width (ft.)	Buffers Snow.	Lift	Appr. Area (ac.)	Skier Ability Level
56	Glen	450	25			0.3	Adv. Inter.
57	Victoria Shoot	250	100	*		0.6	Adv. Inter.
58	Lower Empire	350	80	*		0.6	Inter.
59	Weber's Way	400	120	*		1.1	Inter.
60	1900 Road	700	25	*		0.4	Adv. Inter.
61	2200 Road	300	60	*		0.4	Adv. Inter.
62	High Country Glade	1,550	150			5.3	Adv. Inter.
63	Low Road	200	70			0.3	Inter.
64	Tom Cat	400	38	*		0.3	Inter.
65	On Ramp	600	25	*		0.3	Adv. Inter.
66	Wolf Run	550	80	*		1.0	Novice
67	Summit Express	550	80	*		1.0	Inter.
68	Brookside <i>[no longer a Terrain Park]</i>	1,800	100	*		4.1	Expert <i>(Inter.)</i>
69	Cloudsplitter Glade	300	500			3.4	Expert
70	10th Mtn Division Glade	1,000	450			10.3	Expert
71	Draper's Drop	1,700	130	*		5.1	Inter.
72	Parkway Exit <i>(Terrain Park)</i>	200	100	*		0.5	Inter. <i>(Expert)</i>
TOTAL		17.78 miles (18.13 miles)				211.4 ACRES (215.6 AC)	

Note: *italicized* text in this table indicate changes that have been implemented since the original inventory in 2002. These changes have not been included in the following discussions or capacity calculations.

Discussion

The trail network at Whiteface for the most part has been well conceived and implemented particularly in light of the fact that the mountain mass itself is characterized by shifting fall lines and uneven ground cover, which present physical challenges to classic ski area design. The basic configuration of the mountain also presents several challenges with respect to a) the fact that Little Whiteface, which in many ways is similar to a mid-size ski area in itself, intersects the main mountain in the constrained section of the Mid-station, and b) due to the topography of the main mountain the layout of the trails has the appearance of an hour glass where the middle

section is very restricted and the constrained situation there is exacerbated by the intersection of the Little Whiteface trails, the terminals of Lifts G and H, and the location of the Mid-station lodge and restaurant.

In addition to the trails detailed in the table above, there is extensive skiing terrain in the Slides area, accessible via the Summit Quad. There are two designated trail sections, Slides and Slideout. The skiable area is comprised of natural terrain only; there is little or no trail maintenance, no grooming, and no artificial snowmaking. As such, the Slides are only open as natural snowfall allows. The terrain is included as officially patrolled trails, but it is not included in the capacity or terrain acreage calculations, as usage varies significantly and is only accessible to expert skiers. As shown in DGEIS Figure II-8, the alpine krummholz vegetation is located at elevations that are higher than the "Slides." Therefore, there is no impact on this vegetation from skiers at the "Slides." Note that the Slides are only open when ski conditions are absolutely perfect. The Slides are open about 7 to 12 days per season, depending on snow conditions. Similar to other trails, the entrance to the Slides is roped off when the Slides are closed. On the occasions when the Slides are open, the ski patrol sweep the trails (i.e., the patrol is the last to ski down the trail to make sure that there are no skiers left on the trail) prior to closing for the day.

A number of improvements have been made following the recommendations of the 1996 UMP. Certain trails (or sections thereof) still require fine tuning in terms of widening, reshaping, and general upgrading in order to a) improve the overall skiing experience, b) provide a greater diversity of terrain for a broader range of user groups, c) interact more effectively with the lifts, and d) provide better on-mountain skier traffic flow.

Although a later section of this report dealing with the upgrading of Whiteface will discuss the specific trail improvements in more detail, SE GROUP makes reference below to general areas of the trail system that do not satisfy the demands of the modern day skier.

- **Lift System C (Bunny Hutch):** The trail work widening specified in the 1996 UMP was completed on most all of the designated areas on Gold, Silver, Silver Shoot and Bronze. As such, the pod is acceptable to modern design standards

- **Lift System E (Valley Triple):** The narrow width of the upper trails restricts the flow of skier traffic in this area where the terrain is shared with skiers using Lift G (Little Whiteface). When lift E is replaced, the proper lift towers and the elimination of a mid station will open up the congested area around the mid-station lodge and improve the traffic flow. *Lift E has been replaced by the new Face Lift detachable quad.*
- **Lift System F (Summit Quad):** Some of the terrain in the Summit Quad pod has been modified since the 1996 UMP for the purpose of obtaining a homologated Downhill trail. Upper Skyward has been widened by 100' through amendments to the 1996 UMP. A new section now called "Weber's Way" was also added, which connects Lower Skyward with Lower Cloudspin. Additional widening still needs to occur on certain trails to meet new FIS homologation standards. The Follies Trail was also completed as designated in the 1996 UMP, which reduces intermediate traffic on Paron's Run.
- **Lift System G (Little Whiteface):** The most significant issue with Little Whiteface is the shortage of intermediate terrain. At present, there is one intermediate trail from the summit, Excelsior, which is heavily overused, especially since the installation of the Gondola. One goal of this UMP Update is to establish at least one more intermediate trail from the summit of Little Whiteface, thereby reducing the skier density on Excelsior and improving the skiing experience for a significant number of intermediate skiers round-tripping on the Gondola.

As shown in the table above, there are 211. acres of ski trails at Whiteface, measuring 93,900 lineal feet. This yields a total of 17.78 miles, which is 7.22 miles less than the maximum of 25 miles stipulated in Section 1 of Article XIV of the New York State Constitution³. Of this total 17.78 miles, 1.3 miles (or 6,700 lineal feet) exceed 120' wide, which is 3.7 miles less than the 5-mile maximum allowed in Article XIV. These maximum widths assume that there are exclusions of 50' for a lift and 15' for a snowmaking line which can apply to any given trail on which they appear. ORDA's policy regarding ski trail widths is set forth in a memorandum from Philip H. Gitlen of the Department of Environmental Conservation, dated February 17, 1977. In said

³ Since the 2002 inventory was completed, trail acreage has been increased to 215.6 acres, measuring 95,700 lineal feet. This yields a total of 18.13 miles, which is 6.87 miles less than the maximum of 25 miles stipulated in Section 1 of Article XIV of the New York State Constitution.

memorandum, the following rules regarding the measurement of trail widths are set forth:

1. Where a lift bisects a trail, an allowance for the clearing required for the lift must be made. In such cases, a minimum of 30 additional feet clearing is required for the lift line.
2. Where trails join together or at the junction of two trails a multiple of the 80 foot width is allowable; and
3. Sufficient clearing adjacent to ski trails can be allowed for the purpose of installing and maintaining snowmaking systems, an appurtenance of a modern ski center.

The sections of trails that exceed the 120 foot *adjusted* width are as follows. The raw trail widths (shown in the table above) reflect actual cleared swaths. Adjustments are made to reflect snowmaking infrastructure and lift lines, to reflect the adjusted trail widths, for the purposes of satisfying the guidelines of Article XIV. The following trails exceed the 120-foot maximum width limit, after adjustments have been made for lift lines and snowmaking infrastructure.

Map Ref	Slope Length	Actual Slope Width
1	2,600	140
3	800	175
16	1,400	170
20	1,000	140
23B	900	200
TOTAL	6,700	

FIS – Race and Event Trail Homologations

ORDA has a long history of holding major events at Whiteface Ski Center, including two winter Olympics. Continuing this important heritage is an important element in the mission of ORDA while it is also very important to the health of the regional economy and to the stature of the State of New York. In order to provide the appropriate venues for high quality competition events and training, specific facilities must be made available. Most of these facilities must meet standards that have been

set by governing organizations. In the case of national and international alpine events that may be held at Whiteface, the governing organization is the Federation Internationale du Ski (FIS).

At present, the following slopes and trails are homologated to meet FIS standards. It should be noted that these standards may change over time as equipment, events, and athlete's capabilities evolve.

<u>Event</u>	<u>Course or Venue</u>	<u>FIS Certificate #</u>	<u>Current Status⁴</u>
World Cup Slalom; Men & Ladies	Thruway	5715-225-00	October, 2010
	Mountain Run Olympic Parkway	5716-226-00	October, 2010
World Cup Giant Slalom; Men & Ladies	Thruway		
	Skyward	5717-227-00	October, 2010
World Cup Super G; Men & Ladies	Skyward	4941-124-97	October, 2002
World Cup Downhill; Men & Ladies	Skyward/Boreen/to Base	5421-151-99	October, 2004
Freestyle Aerials	Kodak Sports Park	7006-005-90	
Freestyle Moguls	Wilderness	7006-003-90	

The event organizers at ORDA and management at Whiteface have indicated that there is a need to upgrade and modernize the facilities that are available at the Ski Center for holding alpine competition events. These necessary improvements include on-mountain as well as base area facilities. The improvements and management actions should focus on the following criteria:

- Upgrade all alpine terrain to meet modern requirements for holding national and international events.
- Investigate the potential to create one primary finish area for all alpine race events so that there is a centralized finish arena with all the necessary space and equipment in place. Ideally, media trucks should be able to access this site.

⁴ The date when current homologation must be renewed.

- Base facilities should have adequate space and equipment (including the proper electronic transmission capabilities) to handle media and event officials.
- There should be certain conditions that are embodied in the Ski Center UMP that allows for the temporary installation of signs and banners that are used for major events, without the requirement for special permits for each event. This is especially important from the viewpoint of attracting sponsors for these events.

a) Ability Level Breakdown - Existing

For the purposes of Mountain Planning, SE GROUP uses six ability level classifications, whereas North American norms dictate only three ability levels. While the North American norms are in place at Whiteface, planning and terrain considerations require a more precise differentiation than three major levels. As such, this report will refer to the six levels outlined above. The North American norms are included here for easy comparison and conversion.

The six ability levels are defined by the following gradient limits:

<u>Max Gradient</u>	<u>SE GROUP</u>	<u>North American</u>
0% to 12%	Beginner	Green
13% to 25%	Novice	
26% to 30%	Low Intermediate	Blue
31% to 40%	Intermediate	
41% to 50%	Advanced Intermediate	Black
> 50%	Expert	

It should be noted that trail widths have an influence on ability levels wherein narrow widths tend to make trails more difficult to negotiate and wider dimensions will usually make them easier. At Whiteface for example, because of their narrow widths, some of the trails served by Lift C (Bunny Hutch) are classified as low intermediate rather than novice in spite of the fact that their grades are less than 25%.

SE GROUP analyzes terrain ability level distribution by capacity, rather than acreage. Acreage, while a common traditional measurement of distribution, does not accurately reflect the comfortable carrying capacity of the terrain, as the acceptable densities of skiers varies significantly by ability level. For instance,

due to slower skiing speeds, beginner trails can accommodate 20 to 25 skiers at one time on a given acre, while some expert terrain can accommodate only 2 or 3 skiers on an acre of terrain, as skiing speeds, turn shapes, and skier habits are very different for expert skiers and novice skiers. As such, this analysis will compare the actual terrain capacity at Whiteface to industry averages, as shown in the following table.

The ability level classification breakdown by terrain capacity is set forth in the following table. The right column in each ability level represents what can be considered the ideal skill level distribution in Whiteface's skier market; i.e., the aggregate market demand while the left column reflects existing distribution by capacity of each ability level at Whiteface.

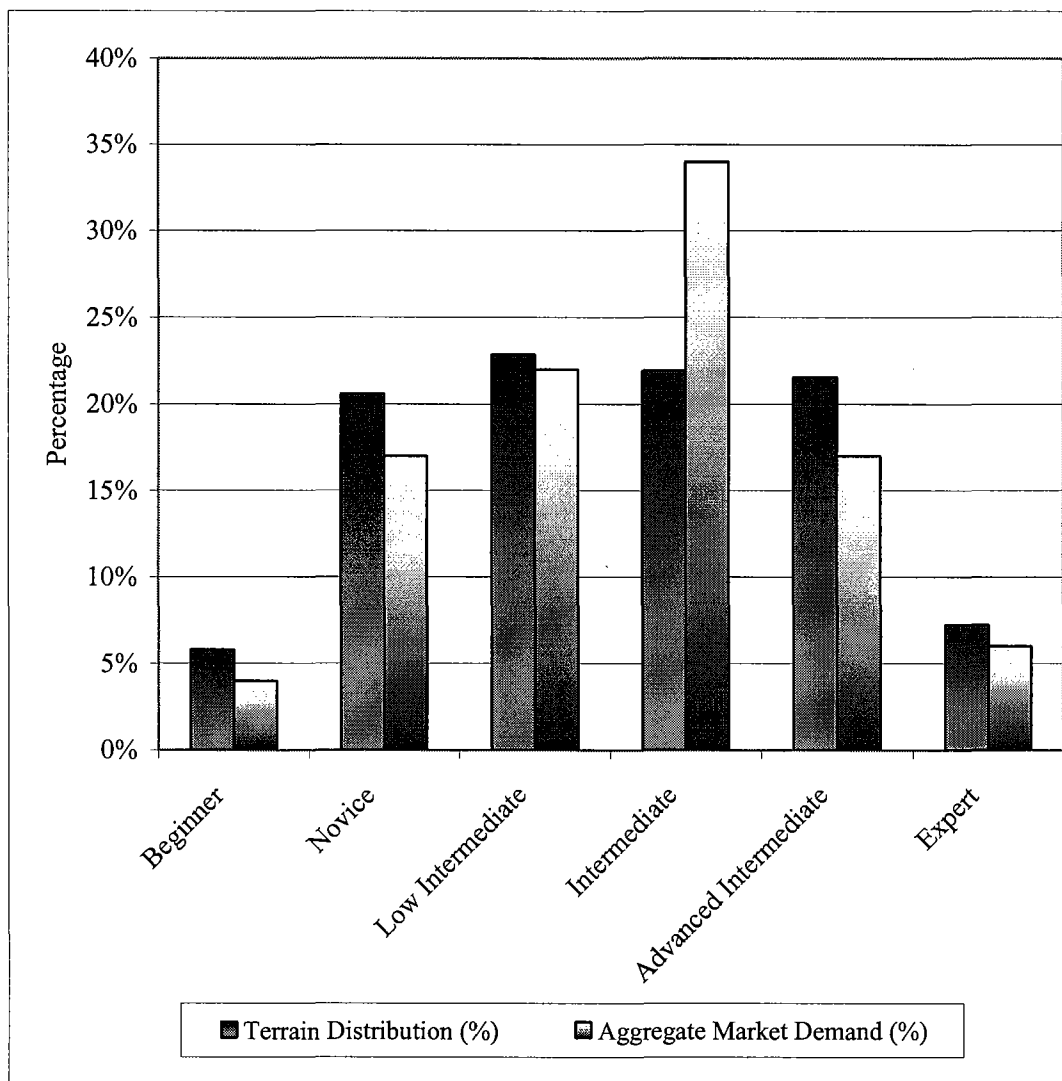
**TABLE II-6
EXISTING ABILITY LEVEL DISTRIBUTION**

Slope Ability Levels	Terrain Area (ac.)	Terrain CCC (guests)	Distribution by Capacity	Aggregate Market Demand
Beginner	3.4	293	5.8%	4.0%
Novice	20.8	1,040	20.6%	17.0%
Low Intermediate	33.0	1,156	22.9%	22.0%
Intermediate	44.4	1,109	22.0%	34.0%
Advanced Intermediate	64.1	1,090	21.6%	17.0%
Expert	45.6	365	7.2%	6.0%
TOTAL	211.4⁵	5,053		

The following figure illustrates the comparison of available capacity at Whiteface and the market demand.

⁵ Terrain acreage has increased to 215.6 acres since the initial 2002 inventory.

**FIGURE II-1
EXISTING ABILITY LEVEL BREAKDOWN**



As illustrated in the table above, there is a significant shortage of intermediate terrain. There is an adequate amount of beginner, novice, and advanced intermediate terrain. Low intermediate and expert terrain compare favorably with the market demand. As a result of this analysis and the discrepancy that exists within the intermediate category, the upgrading program will attempt to increase the amount of intermediate terrain.

3. Comfortable Carrying Capacity - Existing

TABLE II-7
COMFORTABLE CARRYING CAPACITY (CCC) – EXISTING⁶

Map Ref.	Lift Name	Slope Length (ft.)	Vertical Rise (ft.)	Actual Design Capacity (persons/hr.)	VTF/Day* (000)	CCC (guests)
A	Mixing Bowl	687	92	800	442	150
B	Bear	1,534	310	1,200	2,232	350
C	Bunny Hutch	1,792	258	1,600	2,312	370
D ⁷	Mid-Station Shuttle	4,140	880	1,200	6,336	540
E ⁶	Valley Triple	6,265	1,314	1,670	10,698	910
F	Summit Quad	4,706	1,830	1,500	18,254	760
G	Little Whiteface	4,515	1,555	1,100	10,776	550
H	Mountain Run	2,475	979	1,200	7,401	390
I	Freeway	4,220	1,458	800	6,532	320
J ⁸	Handle Tow	450	40	400	96	50
K	Gondola	8,487	2,432	1,800	14,774	680
TOTAL				13,270	79,853	5,070

* VTF/Day: Represented in thousands, VTF/Day measures the number of guests the lift is able to transport 1,000 vertical feet each day. $VTF/Day = [(Lift\ PPH \times Lift\ Vertical\ Rise) / 1,000] \times \text{Hours per day}$

Discussion

Comfortable Carrying Capacity (CCC) is defined as the optimum level of utilization of a ski area (the number of skiers that can be accommodated at any given time) which guarantees a pleasant recreational experience while at the same time preserving the quality of the environment.

The CCC figure is based on a combination of the uphill hourly capacity of the lifts, the downhill capacity of the trail systems, the total vertical rise of the lifts, and the

⁶ Due to changes in mapping technology and a more comprehensive understanding of all of the variable factors needed to calculate CCC, there are some minor variations between the CCC calculations of the 1996 UMP and the calculations in the 2002 update.

⁷ These two lifts have been removed and replaced with the Face Lift Quad (as specified in Table IV-4) – proposed lift F).

⁸ This handle tow has been removed and replaced with a conveyor lift (as specified in Table IV-1 – proposed lift J).

total amount of time spent in the waiting lines, on the lifts themselves, and in the downhill descent.

The capacity figures are based on maximum waiting lines of ten minutes on Valley Triple (E) and the Gondola (K); seven to eight minutes on Summit Quad (F), Little Whiteface Double (G), Mountain Run (H), and Freeway (I); and three to five minutes on the Mixing Bowl (A), Bear (B), Bunny Hutch (C), and the Handle Tow (J). It is a common practice among ski area operators, and one that has been generally accepted by the ski industry, to exceed the stated CCC on approximately ten to twenty days during the season by a total of 25%. In the case of Whiteface, this represents an increase over the CCC of almost 1,270 skiers, from 5,070 to 6,340 during those days. While this is an acceptable policy at many resorts, it is not believed that Whiteface can comfortably accommodate that quantity of skiers. Given the mountain's unique layout, Whiteface will find significant crowding and skier flow issues on days when visitors exceed the CCC of 5,070. Therefore, in this UMP, an emphasis will be placed on establishing the proper *balance* of capacities between the mountain, guest services and buildings, parking, and other resort infrastructure to ensure that all aspects of the resort operation can comfortably accommodate 5,070 guests.

a) Terrain Density – Existing

One of the critical elements in estimating total capacity and a means of making certain that the CCC figures are reasonable, is to determine the density of skiers per acre of skiable terrain. Using the trail and capacity figures developed above, the density breakdown for the ski area is as follows.

**TABLE II-8
EXISTING TRAIL DENSITY ANALYSIS**

Lift			Guest Dispersement				Density Analysis				
			Guests				Terrain				
Ref.	Name	CCC	Support Facility/ Milling	In Lift Lines	On Lift	On Terrain	Area (ac.)	Actual Density	Desired Density	Diff. (+/-)	Density Index (%)
								(guests/ac)			
A	Mixing Bowl	150	38	32	18	62	3.9	16	21	-5	76
B	Bear	350	88	80	49	133	11.6	11	17	-6	66
C	Bunny Hutch	370	93	64	91	122	12.8	10	13	-3	76

Lift			Guest Dispersement				Density Analysis				
			Guests				Terrain				
Ref.	Name	CCC	Support Facility/ Milling	In Lift Lines	On Lift	On Terrain	Area (ac.)	Actual Density	Desired Density	Diff. (+/-)	Density Index (%)
								(guests/ac)			
D ⁹	Mid-Sta Shuttle	540	135	112	132	161	15.1	11	9	1	112
E ⁸	Valley Triple	910	228	181	222	279	22.3	13	10	3	128
F	Summit Quad	760	190	190	224	156	43.8	4	4	-1	79
G	Little Whiteface	550	138	132	135	145	41.8	3	4	-1	82
H	Mountain Run	390	98	126	89	77	16.0	5	5	0	96
I	Freeway	320	80	85	97	58	21.9	3	7	-4	39
J ¹⁰	Handle Tow	50	13	16	9	12	0.8	14	25	-10	58
K	Gondola	680	170	135	105	270	21.5	13	8	4	154
TOTAL		5,070	1,271	1,153	1,171	1,475	211.4 ¹¹	7.0	8.8	-1.8	79

The table above is derived from assumptions about which trails are serviced by which lifts, the actual daily capacity of lifts, and the comfortable density of skiers per acre by ability levels. The table accounts for individuals using the support facilities, in the lift mazes, riding the lifts, and on the terrain. As an example, the Summit Quad services 43.8 acres of terrain. Given that this lift can accommodate 760 skiers *per day*, it is assumed that, on average, 190 of these visitors are using support facilities at any given time. 190 skiers are in the lift line, 224 are riding the lift, and 156 are actually on the terrain. Given the total pod acreage of 43.8, there are an estimated 3.6 skiers per acre. The *desired* terrain density, taking into consideration the type of terrain and the anticipated ability level of skiers in that pod, is 4.5. This shows that the actual density of skiers is slightly lower than what is desired in the Summit Quad pod. Mathematically speaking, the density index is 79, which means that actual density is 79% of the desired density. A density index greater than 100 indicates that there is not enough terrain to service the skier ability level and current lift capacity. A density index less than 100 indicates that more skiers could be comfortably accommodated on the terrain, and the lift capacity is not adequate to service the expanse of terrain in the pod. This

⁹ These two lifts have been removed and replaced with the Face Lift quad (as specified in Table IV-5 – proposed lift F).

¹⁰ This handle tow has been removed and replaced with a conveyor lift (as specified in Table IV-5 – proposed lift J).

¹¹ Terrain acreage has increased to 215.6 acres since the initial 2002 inventory.

analysis is very important in regards to determining which pods have a terrain deficit, or which lifts need a capacity upgrade.

Overall, the terrain densities at Whiteface are appropriate relative to the skier ability levels and terrain distribution. There are discrepancies, however, in several of the lift systems between desired terrain density and capacity of the lift system.

Of the eleven lift systems listed above, two have trail densities that closely match the desired density. Little Whiteface is operating at 82% of acceptable density, while Mountain Run is operating at 96% of acceptable density. Four lifts (A, B, C, I, & J) are operating less than the desired density. This may require upgrades in lift capacity to maximize efficient use of the terrain. Three lifts (D, E, K) are operating at higher skier densities than is acceptable. An effort will be made to adjust lift capacity, skier distribution, and increase available terrain in these pods to alleviate heavy skier traffic. This analysis concludes that adjustments either in the hourly capacity of the lift or the amount of trail acreage served would provide a better balance in several pods.

The addition of the Gondola has significantly changed the skier flow patterns on the mountain, and resulted in high skier densities, particularly on Excelsior, the only intermediate trail from the summit of Little Whiteface. This is quantified by the density index of 154, which reflects the low supply of intermediate terrain on Little Whiteface, as well as the high daily capacity of the gondola. It will be a goal of this UMP Update to improve this situation.

It is more desirable to have skier densities that are lower than the desired densities since it provides a higher quality skiing experience at a relatively low cost. However, one of the major goals of the upgrading program is to create a better density balance throughout the mountain complex which will still retain the quality skiing experience while at the same time helping to maximize profit potential through a justifiable increase in skier capacity on certain lift systems.

4. Grooming - Existing

The following tables depict recommendations in regards to terrain grooming at Whiteface. It is recommended that the following trails *not* be groomed on a daily basis:

**TABLE II-9
TERRAIN NOT GROOMED**

Trail	Name	Acreage
4	Skyward (Lower)	12.2
7	Essex (Upper)	1.9
8	Northway (Upper)	1.7
12	Empire	1.8
13	Mackenzie (Upper)	1.8
14	Mackenzie (Lower)	3.4
62	High Country Glade	5.3
69	Cloudsplitter Glade	3.4
70	10th Mtn Division Glade	10.3
TOTAL		41.8

The following table summarizes the grooming vehicles in use at Whiteface:

**TABLE II-10
GROOMING VEHICLE INVENTORY¹²**

Vehicles	Year	Condition
Pisten Bully 200	2001	Very Good
Pisten Bully 260DW	1995	Good
Bombardier ME Plus	1995	Fair
LMC 3700C	1992	Poor
Pisten Bully 200	1999	Very Good
Pisten Bully 300 (Winch)	1999	Very Good
Pisten Bully 280	1996	Very Good

¹² A Pisten Bully 300 in excellent condition was added to the fleet in 2003. A Pisten Bully EDGE in excellent condition was added to the fleet in 2004.

TABLE II-11
GROOMING – TERRAIN & VEHICLES

Total Skiable Acreage	211.4 ¹³
Acres Not Groomed Daily	41.8
Total Groomed Acreage	169.6
Ratio of Groomed Acreage to Vehicles	30 to 1
Number of Vehicles Required	6
Number of Vehicles Available	7
Vehicle Surplus (Deficit)	1

The ratio of one grooming vehicle for every 30 acres of skiable terrain reflects the predominance of advanced and expert terrain at Whiteface and the fact that it is necessary to use winch cats on some of the trails due to their steep grades. It assumes a single shift operation with overtime allowed when required to complete the grooming cycle.

Given the amount of groomed terrain, there is a surplus of one grooming vehicle.

C. Existing Snowmaking System

1. General Description

The existing snowmaking system at Whiteface has a compressed air capacity of 29,500 cubic feet per minute (cfm), comprised of a variety of water cooled electric centrifugal and rotary screw compressors located in Pump House 2 (PH-2) and a diesel centrifugal compressor installed at the maintenance garage. Water for snowmaking operations is withdrawn from the West Branch of the Ausable River and pumped to PH-2, where it passes through filter strainers that eliminate sand, silt, and organics. From PH-2 it is pumped to the mountain distribution system and upper Pump Houses 3 and 4 (PH-3, and PH-4). A stream gauging station has been constructed (completed fall 2001) in the West Branch of the Ausable River near the existing intake structure to measure stream flow during the snowmaking season. With the installation of this structure Whiteface will be required to maintain a minimum base flow of 38 cubic feet per second (cfs) in the river immediately downstream of the intake. ORDA and DEC have adopted a Memorandum of

¹³ Total skiable acreage has been increased to 215.6 acres since the initial 2002 inventory.

Understanding (MOU) which establishes the methods and procedures by which water for snowmaking operations can be withdrawn from the river while maintaining the integrity of this surface water resource (See Appendix V). Flow monitoring of the river will minimize the impacts to the river's aquatic ecology and properly manage the fishery during times of low flow.

There are four (4) sections of the water system:

- River Withdrawal 6000 gpm
- Lower Mountain System 5,100 gpm
- Mid Mountain System 3800 gpm
- Upper Mountain System 2850 gpm

The average system air/water ratio is approximately 8:1.

The older mountain distribution system is comprised of steel pipe coupled by victaulic fittings. The newer mountain distribution system is comprised of welded steel pipe. All piping is installed on the surface except on trail crossings and the lower sections of the bottom system, where the pipe is shallow buried. The routing of piping and generalized water flow directions is indicated on Exhibit IV-3.

Snowmaking operations use a variety of snowguns at this time, with a primary concentration of Ratnik Sno-Giants, Ratnik II + II's, K-3000's, HKD Towers, and two (2) SMI Pole-Cats. Whiteface uses 2" hose and hydrants to connect the guns to the water and compressed air distribution system.

2. Condition of Equipment

An inventory of major snowmaking equipment is included in Appendix M. In general, the equipment is very well maintained and operational. Specific comments are:

- The existing rotary screw compressors are nearing the end of their life expectancy. Increased condensate and oil carryover exists as the compressor's age and snow production efficiency decreases.
- The pumping system is in good mechanical condition with significant upgrades occurring in the past 5 years.

While there is no immediate need to replace the rotary screw compressors, this type of machine is less efficient than the centrifugal compressors that are common in large modern snowmaking installations. This issue will be addressed in Section IV of the UMP.

3. Snowmaking Systems Limitations

a) System Issues

One critical limitation to the operation of the snowmaking plant at Whiteface is the lack of process control, automation, and management information.

Operational data is critical to:

- Efficiently operate snowmaking equipment.
- Provide management critical real-time and historical data.
- Allow for sequencing of pumps and compressors.
- Identify problems before a crisis exists.
- Provide maintenance scheduling.
- Reduce system and snowgun start-up time.

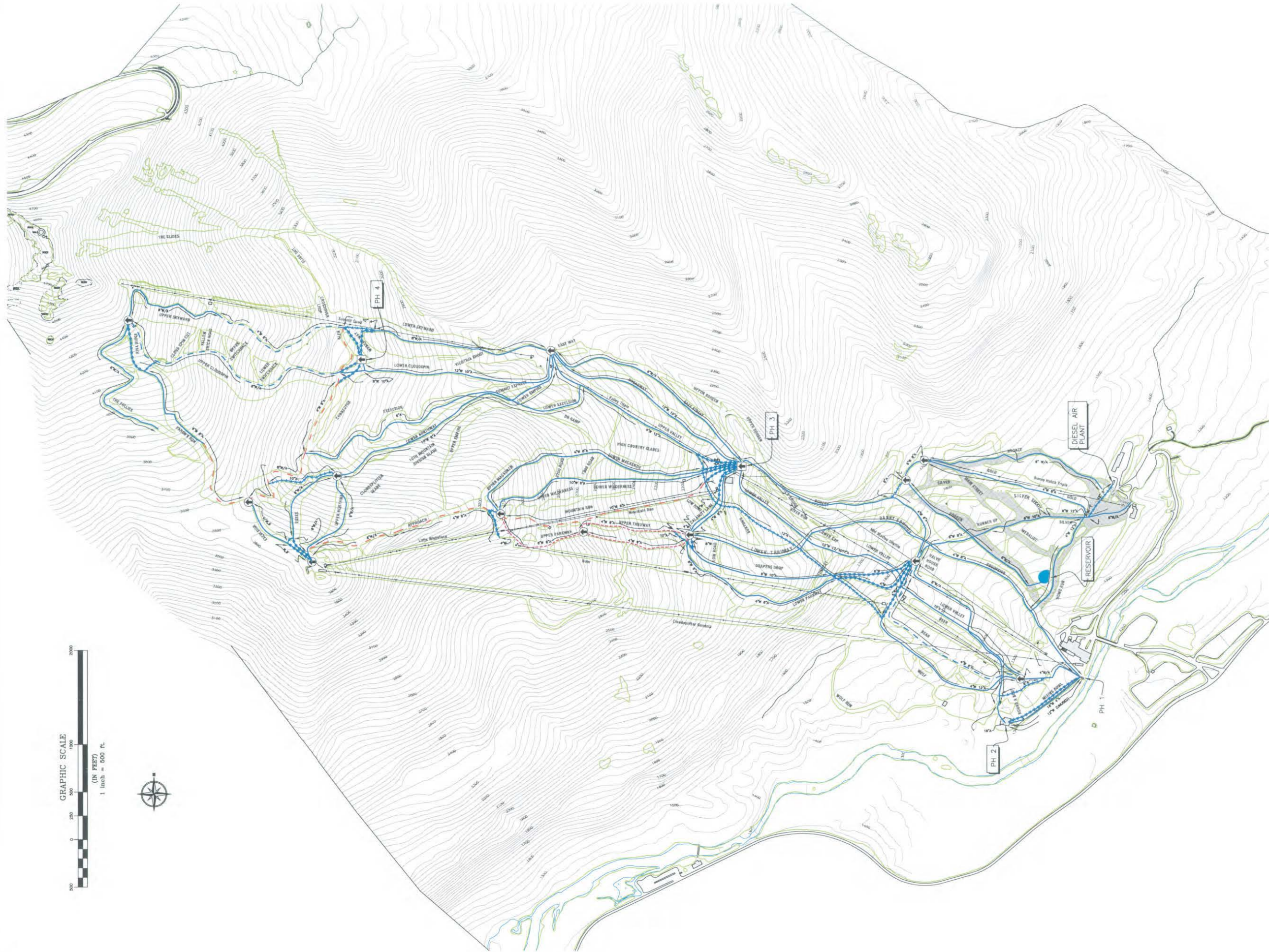
Another system limitation is the minimal integration of energy efficient snowmaking technology. Recent advances in fan and external mix tower gun technology has significantly reduced operational expenses. Whiteface employs a minimal amount of this technology to produce snow, whereas many competitors have significantly reduced energy and labor costs through integration of these technologies.

b). Operational Issues

The following limitations were identified with Whiteface personnel as existing operational issues:

- Significant frazil ice conditions in PH-1 river intake pit building up on the pump intake screen causing cavitation and potential damage to pumps. This creates a condition where only two (2) pumps can operate simultaneously reducing system capacity to 4000 gpm. Solutions to this problem are being investigated.
- Water level too low in the wet well of PH-1 causing vortexing around the pump intakes which could cavitate and damage intake pumps.
- Operational issues on the remote diesel compressor.

- Pressure control valve system at PH-3 requires tuning and adjustment.
- Lack of automation and process control of plant equipment and facilities.



REVISIONS				
No.	DATE	DESCRIPTION	DRAWN BY	APP'D BY

NOTES / LEGEND

- ASBUILT PIPING
- ASBUILT PIPING AIR ONLY
- ASBUILT PIPING WATER ONLY
- LEGACY PROPOSED PIPING
- PUMP HOUSE
- VALVE HOUSE
- ASBUILT PIPING
- ASBUILT PIPING
- ASBUILT PIPING

DRAFT
FOR REVIEW ONLY
NOT FOR CONSTRUCTION



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CLIENT
**WHITEFACE
MOUNTAIN RESORT**

PROJECT TITLE
**WHITEFACE
SNOWMAKING SYSTEM**

DRAWING TITLE
**ASBUILT MOUNTAIN
PIPING
FIGURE II -10**

Designed by S. BARTHOLD	Approved by M. PURCELL
Project no. 115.1	Drawn by J. WILKINSON
Revision 2/22/02	Scale 1" = 500'-0" D SIZE
Drawing no. WF-GE-01.DWG	Sheet no. — — —

D. Inventory of Man-made Facilities

1. Buildings

There are 29 buildings on the Whiteface property that were evaluated, all of which are currently used by the mountain in some capacity. The buildings range in size from the three story base lodge with a total of 52,848 square feet to the snowmaking valve houses that can be as small as 20 square feet. In all cases, the buildings employ a variety of construction materials and are in a varying state of physical condition. In general, the buildings that service the public are in fair to good condition and show no signs of overstress or excessive deterioration. That is, the buildings are safe for everyday use and require only minor repairs and maintenance.

This section has been organized into four categories, one for each of the major building use groups. The categories include: primary buildings, mountainside buildings, maintenance buildings, and snowmaking buildings. Included in Appendix F are details regarding the building sizes and construction materials. This section of the report covers the findings and conclusions concerning the general serviceability and condition of the buildings.

a) Primary Buildings

The primary buildings include: Base Lodge, Mid-station Lodge, Easy Acres Lodge, and the Alpine Training Center. All of these buildings are used daily by the Ski Center employees and by customers. For that reason, their overall structural integrity is very important. The buildings are in good condition with localized areas of deterioration. Typically, the deterioration is due to exposure to the elements and deferred maintenance, which results in the need for maintenance type repairs. For example, the Base Lodge has experienced deterioration of wood fascia, handrails, and window frames, while at the Mid-station Lodge checking of the timber framing and deterioration at timber column bases is visible. All of these items, although not a threat to the structural integrity of the buildings at the present time, must be repaired to prevent further deterioration and possible damage to the structural integrity of the building.

b) Mountainside Buildings

The mountainside buildings include: four race start buildings, two race finish buildings, three warming huts, and the bus-lot ticket booth. The four race start buildings are only used during the ski season and only during downhill and slalom races, and even then very few people are in the buildings at one time. The race finish buildings, as the name implies, are also used during races; however, portions of the buildings have also been converted to office and storage space.

The warming huts and the bus-lot ticket booth are used by Ski Center employees during the ski season. In all cases these buildings need maintenance work to replace damaged and missing items and to generally improve appearance. For example, fascia and trim pieces are missing or have been damaged, metal roof and wall panels are dented, floors are experiencing deterioration due to exposure to water and cold, and paint in many cases is old and deteriorated. The structural integrity of these buildings has not been compromised by the deficiencies; however, if the deterioration is allowed to continue, structural members may be weakened.

The Porcupine Lodge structure was built in 1933± and is not utilized currently. This lodge is not shown on the Whiteface ski trail map, the lodge is closed and in need of repair. No skier services are available here. Nothing is proposed here at this time. Any potential future actions relating to the Porcupine Lodge would be the subject of a future UMP update and SEQRA review.

c) Maintenance Buildings

The maintenance buildings include: the maintenance garage, Don Straight's building, and two pole barns. Unlike the other buildings associated with the mountain, these buildings are only used by employees, and with the exception of the maintenance garage, they are used primarily for storage. The maintenance garage is used primarily to service the Ski Center trucks, plows and mountain grooming equipment. In addition, the building is used for electrical and mechanical repair shops and the servicing of equipment used in the daily operation of the mountain. The building is in fair condition, requiring maintenance work to clean and repair areas that have deteriorated or damaged during the life of the building.

Don Straight's building is in good condition, requiring only minor repair work. The pole barns are in poor condition. The structural support framing of both barns has deteriorated and in some cases has broken down, requiring extensive rehabilitation or replacement. However, because the barns are not used for anything more than storage, the importance of their structural integrity is low. That is, the repairs are not critical to the operation of the Ski Center, nor do they pose a substantial threat to the well being of an employee or customer. For that reason, the repairs may be postponed until the buildings are replaced.

The maintenance garage and the Don Straight building contain a total of 9,660 square feet and 360 square feet, respectively. The breakdown of this available space, and a comparison with what is required is shown in Table II-12 below.

**TABLE II-12
MAINTENANCE FACILITIES**

Use	Available Square Feet	Required Square Feet
Major maintenance, repair and vehicle storage – 4 vehicles	5,940 ¹⁴	4,800
Parts, supplies, storage, office, toilets, etc.	0 ¹⁵	800
Other vehicle repair and storage	0 ²	2,200
Shop space - lifts, carpentry, electrical, etc.	4,080	3,000
TOTAL	10,020	10,800

Source: SE GROUP, Whiteface

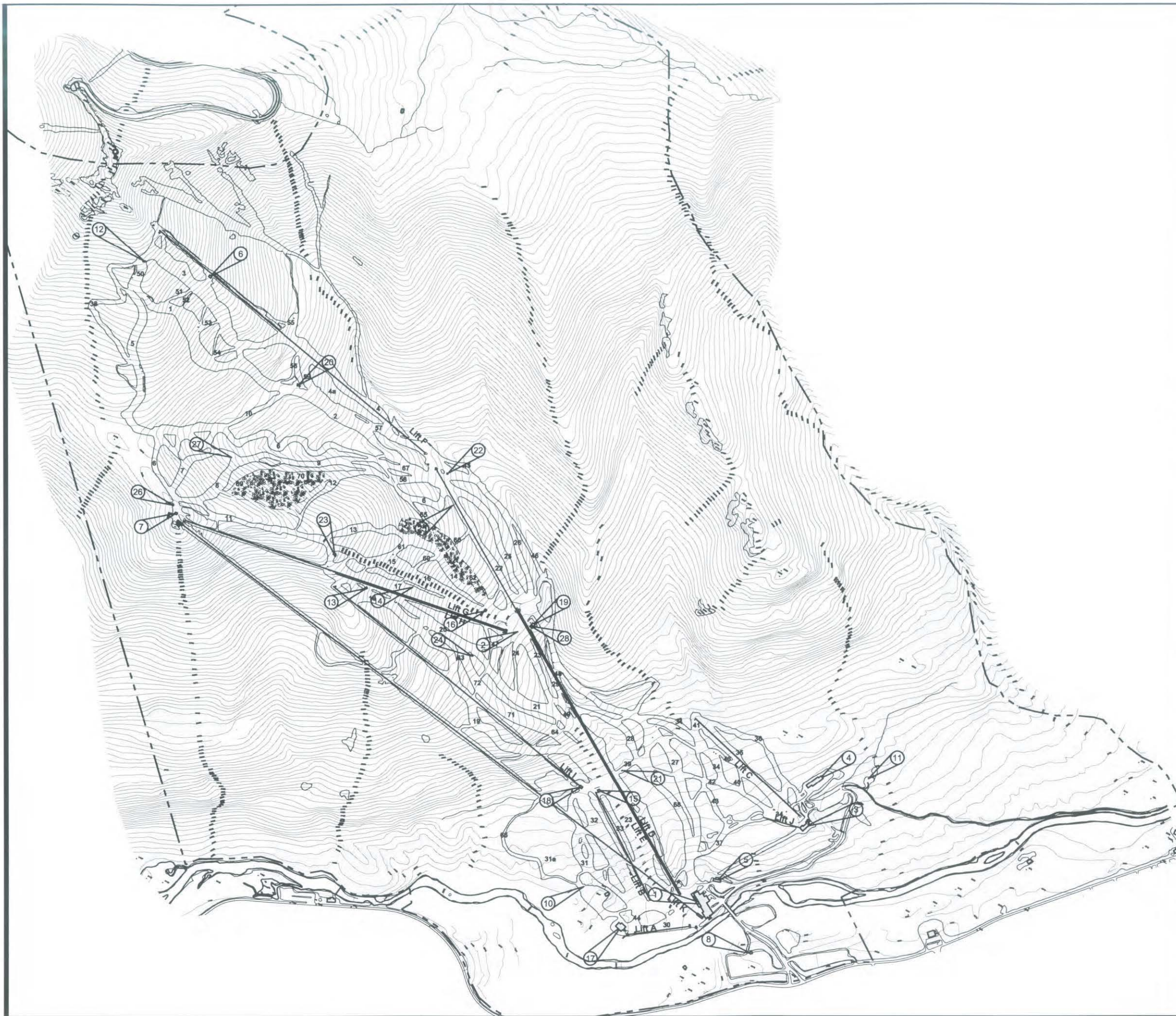
The two pole barns contain a total of 2,900 square feet with 1,700 square feet located near the Fox Trail and 1,200 square feet at the bottom of parking lot #4. Storage space is needed for many items including race supplies that were purchased for the Goodwill Games. Over 4.5 miles of B netting and thousands of fiberglass net poles, 4-5 meter wide A nets, safety pads, etc., are all currently jammed into shipping containers which makes it difficult to access and inventory.

In addition, not all of the items fit into these containers. An 80-foot by 40-foot pole barn would be adequate for proper storage of these items.

¹⁴Includes 5,580 square feet in the garage and 360 square feet in the Don Straight building.

¹⁵Included in the 5,940 square feet.

An additional two bays for vehicle and Snow Cat maintenance bays are needed to accommodate the existing fleet. An additional 60-foot by 20-foot maintenance building would provide for equipment storage and increase the length of Snow Cat and equipment life spans.



LEGEND

- 1 Main Lodge
- 2 Mid-Mountain Lodge
- 3 Kids Kampus Lodge
- 4 Vehicle Maintenance Garage
- 5 Alpine Training Center
- 6 Race Building Ladies SG & Downhill Start
- 7 Butler/First Aid Building
- 8 Bus Lot Ticket Booth
- 9 Don Straight's Building (Not Shown)
- 10 Pole Barn Fox
- 11 Pole Barn Lot #5
- 12 First Aid
- 13 Race Building Men's GS and S Start
- 14 Race Building Ladies GS and S Start
- 15 Race Building Downhill Finish
- 16 Race Building Slalom Finish
- 17 Snowmaking Pump House #1
- 18 Snowmaking Pump House #2
- 19 Snowmaking Pump House #3
- 20 Snowmaking Pump House #4
- 21 Snowmaking Valve House A
- 22 Snowmaking Valve House B
- 23 Snowmaking Valve House C
- 24 Snowmaking Valve House D
- 25 Snowmaking Valve House E
- 26 Snowmaking Valve House F
- 27 Snowmaking Valve House G
- 28 Snowmaker's Warming Hut



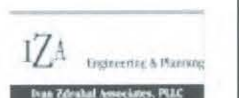
WHITEFACE

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LAKE PLACID, NEW YORK

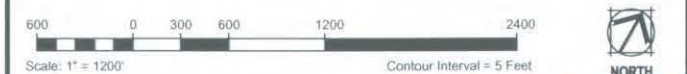
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COMPREHENSIVE MANAGEMENT AND PLANNING REVIEW AND UNIT MANAGEMENT PLAN



<p>TITLE:</p> <h3>BUILDING LOCATION MAP</h3>	<p>DATE:</p> <p>March 2002</p> <p>FIGURE #:</p> <h2>II-11</h2>
<p>PROJECT NUMBER: 01102</p>	<p>FILE: [whiteface]</p>

d) Snowmaking Buildings

The snowmaking buildings are limited to the pumphouse and valve houses located at various locations on the mountain. The pumphouses are typically constructed using pre-engineered metal buildings and are in good condition. Some of the metal panels have been dented while others have developed minor leaks, both of which can be easily repaired. The valve houses vary in size, construction, and condition. The valve houses are in fair condition, requiring some maintenance. However, because the use of the buildings is critical to the efficient operation of the ski center, those in the worst condition should be repaired immediately and the remainder repaired on a regular maintenance schedule.

In general, the buildings at Whiteface Mountain Resort are in good condition requiring only maintenance and other minor repairs. Where more extensive repairs are required, for instance at the pole barns, the importance and the value of the structure should be considered prior to commencing design and construction.

2. Visitor Services and Ski Center Operations

a) Facilities Overview

Existing visitor services and Ski Center operations are provided in the main base area, as well as at Easy Acres and in the Mid-station Lodge. The following discussion outlines the general function and layout of the base area and on-mountain buildings and their relationship to the ski activities.

MAIN BASE AREA

PROS

- Lodge well located relative to Mixing Bowl, Valley, and Mid-Station Shuttle Chairlifts, and Cloudsplitter Gondola.
- Sundecks relate very well to sun and views.
- Drop off well located, but layout could be improved.
- Well located learners area.
- Rental shop conveniently located to main entrance and learners area.

CONS

- Main entrance to lodge lacks definition.
- Bear Double Chairlift is not well located relative to Lodge/skier staging area.
- Location of ticket booths is difficult to find from dropoff area.

EASY ACRES LODGE

EASY ACRES BASE AREA

PROS

- Vehicular drop-off well located.

CONS

- Poorly connected to main ski area via lifts/trails.
- Parking could be brought closer to dropoff.
- Lifts are too high above staging area.
- Building undersized.

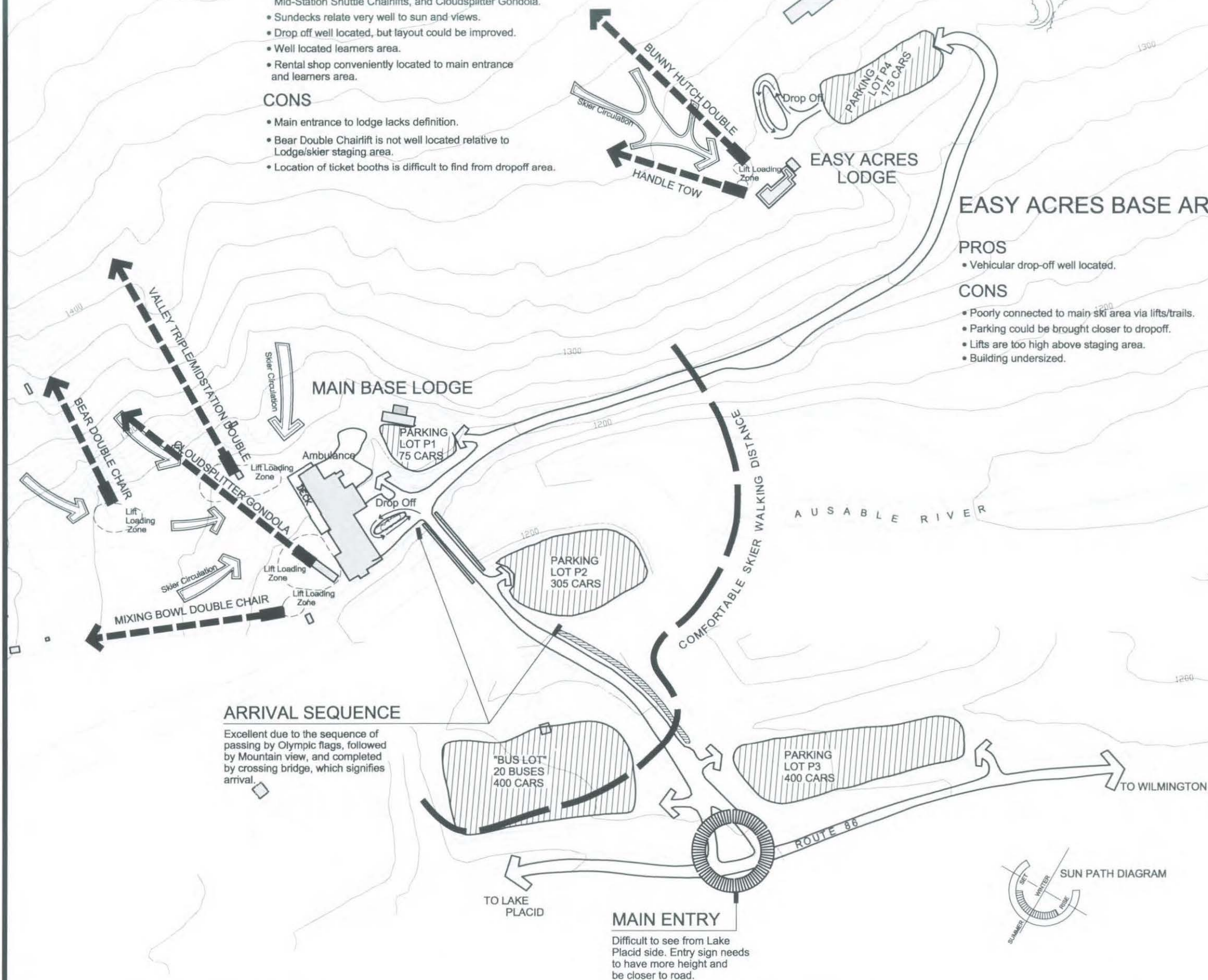
MAIN BASE LODGE

ARRIVAL SEQUENCE

Excellent due to the sequence of passing by Olympic flags, followed by Mountain view, and completed by crossing bridge, which signifies arrival.

MAIN ENTRY

Difficult to see from Lake Placid side. Entry sign needs to have more height and be closer to road.



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LAKE PLACID, NEW YORK

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COMPREHENSIVE MANAGEMENT AND PLANNING REVIEW AND UNIT MANAGEMENT PLAN



TITLE: **BASE AREA INVENTORY AND ANALYSIS**

DATE: March 2002

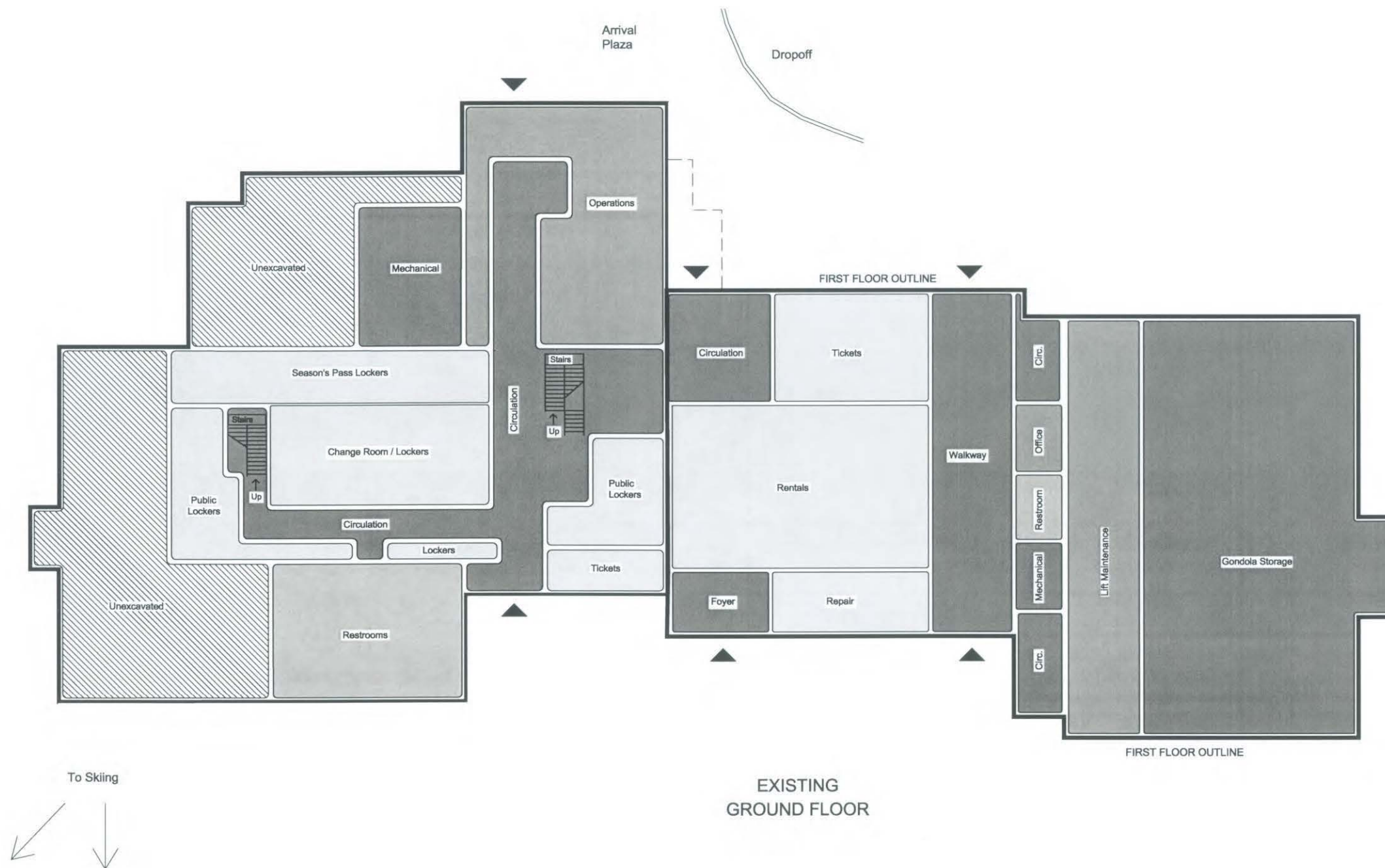
FIGURE #: **II-12**

PROJECT NUMBER: 01102

FILE: [whiteface]

LEGEND

- Food and Beverage
- Customer Service
- Restrooms
- Operations
- Circulation, Storage, Mechanical



WHITEFACE

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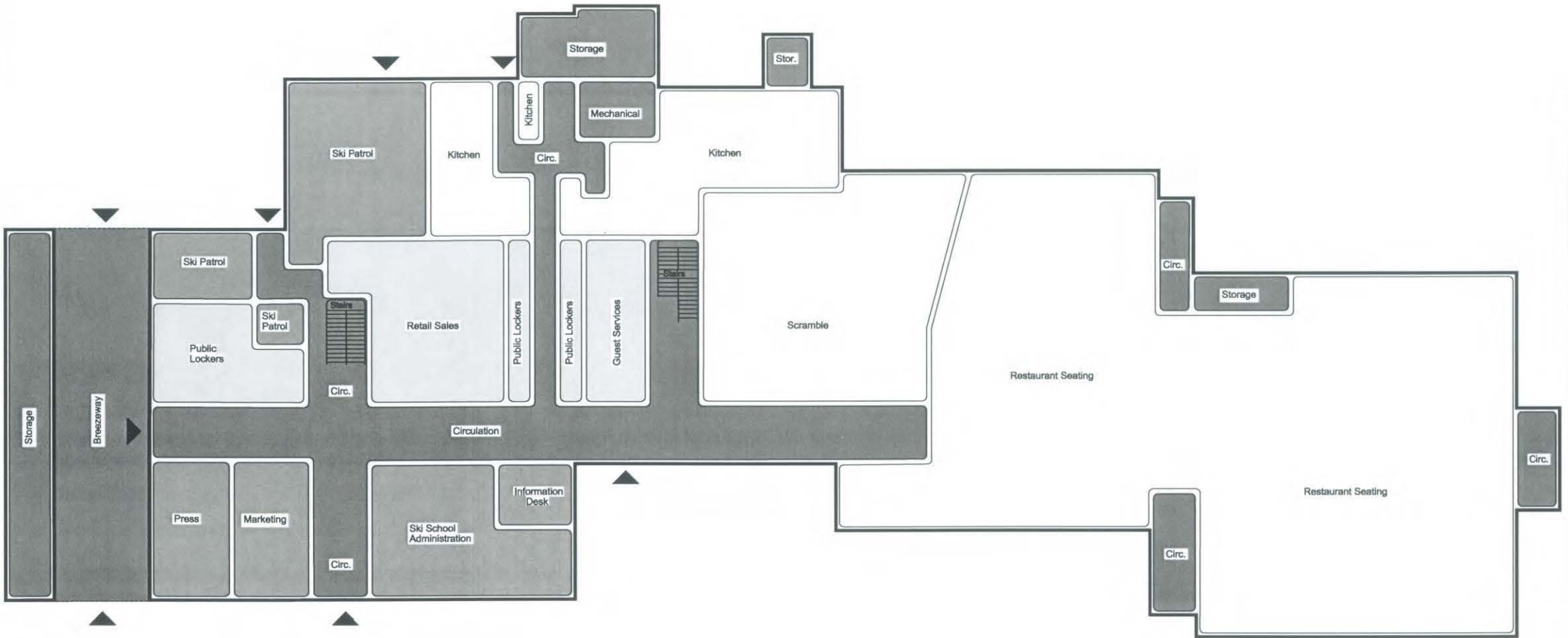


COMPREHENSIVE MANAGEMENT AND PLANNING REVIEW AND UNIT MANAGEMENT PLAN

<p>TITLE:</p> <p>MAIN BASE LODGE SPACE-USE SCHEMATIC</p> <p>EXISTING GROUND FLOOR</p> <p>PROJECT NUMBER: 01102</p>	<p>DATE:</p> <p>March 2002</p> <p>FIGURE #:</p> <p>II-13</p> <p>FILE: [whiteface]</p>
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LEGEND

- Food and Beverage
- Customer Service
- Restrooms
- Operations
- Circulation, Storage, Mechanical



EXISTING
SECOND FLOOR



WHITEFACE

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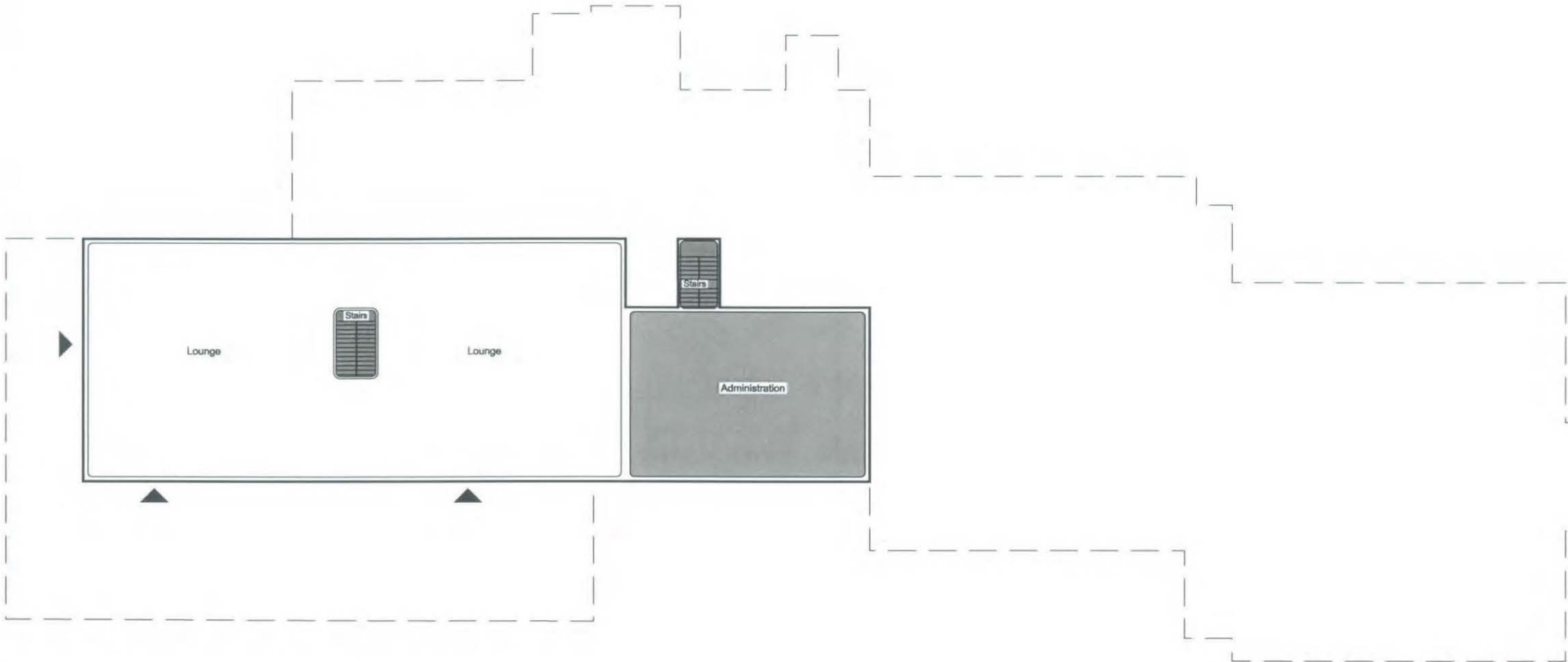
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COMPREHENSIVE MANAGEMENT AND PLANNING REVIEW AND UNIT MANAGEMENT PLAN

TITLE:	DATE:
MAIN BASE LODGE SPACE-USE SCHEMATIC EXISTING SECOND FLOOR	March 2002
PROJECT NUMBER: 01102	FIGURE #:
FILE: [whiteface]	II-14

LEGEND

- Food and Beverage
- Customer Service
- Restrooms
- Operations
- Circulation, Storage, Mechanical



EXISTING
THIRD FLOOR



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**COMPREHENSIVE MANAGEMENT
AND PLANNING REVIEW
AND UNIT MANAGEMENT PLAN**

TITLE:
**BASE LODGE
SPACE-USE SCHEMATIC
EXISTING THIRD FLOOR**

DATE: March 2002

FIGURE #:
II-15

PROJECT NUMBER: 01102 FILE: [whiteface]

Main Base Area

The primary skier support services are located in the Base Lodge. This building houses the main cafeteria, lounge, ticket sales, rental and repair shop, retail shop, ski school sales, public lockers, gondola garage, lift maintenance department and administration.

The Base Lodge is currently undergoing major changes that will enhance customer service and the general appeal of the building. Phase I of the construction project, which is nearly complete, involves enclosing the area directly beneath the cafeteria on the second level. This new area includes a new entrance, entry foyer, rental shop and tuning shop. The old rental shop space (2,486 square feet) will be used for public changing and storage space and additional seasonal locker rentals.

Phase II calls for a larger reception and ticket area for the purpose of a one-stop shopping area for all lift tickets, rentals and ski school packages. This phase will also involve the relocation of the ski school operations and desk from the second level to the first floor of the Base Lodge near the present ticket sales location. Until Phase II is completed, the Base Lodge entrance foyer will be used as a ticket sales area for ski school and/or rental packages. Individual lift tickets will still be purchased in the present ticket location on the slope side of the Base Lodge.

In addition to the physical improvements to the Base Lodge, the computer ticketing system will also be updated, creating more efficient sales points.

These improvements to the Base Lodge will greatly expedite the arrival process – tickets, rentals, ski school – promoting greater customer satisfaction prior to beginning the day on the slopes.

The Cloudspin Lounge on the upper floor of the Base Lodge is well located relative to the maze area for the Valley and Mid-station Shuttle chairlifts because there is little grade change between them. It is also well located to the maze area for the Cloudsplitter Gondola; guests may slide down to the mazing area from the lounge sundecks. The sundecks are also well situated because they allow patrons to view activity in the lift line and on the slopes coming in to the maze.

The function of the Base Lodge on the mountain-side has pros and cons. The beginner skier areas (Mixing Bowl chairlift maze, ski school meeting area, and first timer learning area) are well located relative to the lodge so that new skiers can find them quickly. The terminal for the Cloudsplitter Gondola is well located to the lodge, and specifically to the exit of the rental shop, and is very visible for unfamiliar guests. Conversely, the lower terminal of the Bear double chairlift is not well situated since getting to it involves an arduous 500 foot uphill walk from the Base Lodge. This walk may be avoided by riding the Mixing Bowl double chairlift and skiing down to the Bear double, which is convenient unless the Mixing Bowl chair is overcrowded.

Mid-station Lodge

The Mid-station Lodge is located at the top of the Mid-station Shuttle chairlift. It contains cafeteria style eating on the main floor and a bistro restaurant and washrooms on the lower level. There is a small, well-placed sundeck off the main floor.

The building is located in the middle of the Upper and Lower Valley ski runs which causes skiers to circulate to either side. The bottom terminals of Little Whiteface and Mountain Run chairlifts are located very close to the building as well. Significant circulation problems exist because of the placement of the building.

Easy Acres Lodge

The Easy Acres Lodge is located at the base of the Bunny Hutch chairlift approximately one third of a mile north of the main base area. The primary activities include several play areas for young children (separated by age group), meeting areas for older ski school children, cafeteria and small kitchen, washrooms, and instructor space. Skiers can stage out of this area if they choose, however, there is no direct lift serviced link to the main base area.

Easy Acres Lodge is very congested and uncomfortable during busy weekends and holiday periods. A temporary structure, made up of two adjoining 12'x36' trailers, has been installed on the north side of the lodge to help alleviate this congestion. This new space contains a ticket sales area, which frees up additional rental space in the lodge.

Although the temporary addition does mitigate some of the congestion, there is still insufficient restaurant and program space making the lodge uncomfortable for employees and guests. The Easy Acres Lodge should be expanded and improved in order to sufficiently support the excellent children's services and programs provided by Whiteface.

b) Location and Size of Functions

Table II-13 shows the size, in square feet, of all existing Visitor Service/Operations functions by building location.

**TABLE II-13
EXISTING SPACE USE BY FACILITY/LOCATION (SQ.FT.)**

Space Use Functions	Main Lodge	Easy Acres	Mid-Stn. Lodge	Total
Restaurant Seating	12,792	1,638	6,633	21,063
Kitchen/Scramble	5,312	260	880	6,452
Bar/Lounge	5,304	0	200	5,504
Restrooms	1,408	296	360	2,064
Retail Sales	1,280	0	0	1,280
Rental/Repair Shop	3,770	800	0	4,570
Ski School	1,408	406	0	1,814
SkiWee/Drop-in Center	0	3,684	0	3,684
Public Lockers	4,318	0	150	4,468
Ticket Sales	2,686	864	0	3,550
Ski Patrol/First Aid	1,488	0	315	1,803
Administration	2,731	0	0	2,731
Employee Lockers/Lounge	1,050	0	0	1,050
Storage/Mechanical	1,659	400	477	2,536
Circulation	7,642	1,391	1,755	10,788
TOTAL SQ. FT.	52,848	9,739	10,770	73,357

Source: Whiteface

Based upon the CCC of 5,070 skiers, Table II-14 compares the current space use allocations of the main visitor service and operational functions to industry standards for a resort of similar size and market orientation to Whiteface Mountain.

TABLE II-14
TOTAL SPACE USE REQUIREMENTS (SQ.FT.)
CCC=5,070

Space Use Functions	Whiteface Mountain	Industry Average Low	Industry Average High	Difference Low	Difference High
Restaurant Seating	21,063	20,500	25,100	563	-4,037
Kitchen/Scramble	6,452	5,500	6,700	952	-248
Bar/Lounge	5,504	3,200	3,900	2,304	1,604
Restrooms	2,064	2,700	3,300	-636	-1,236
Retail Sales	1,280	1,600	2,000	-320	-720
Rental/Repair Shop ¹⁶	4,570	4,500	6,500	70	-1,930
Ski School	1,814	3,700	4,500	-1,886	-2,686
SkiWee/Drop-in Center	3,684	4,100	5,000	-416	-1,316
Public Lockers	4,468	900	1,100	3,568	3,368
Ticket Sales/Guest Services	3,550	3,200	3,900	350	-350
Ski Patrol/First Aid	1,803	1,800	2,200	3	-397
Administration	2,731	2,300	2,800	431	-69
Employee Lockers	1,050	1,400	1,700	-350	-650
Storage/Mechanical	2,536	1,100	1,400	1,436	1,136
Circulation/Waste	10,788	6,400	7,800	4,388	2,988
TOTAL SQ. FT.	73,357	62,900	77,900	10,457	-4,543

Source: SE GROUP, Whiteface

Note: Rental space based on existing fleet of 1,200 skis (24% of existing CCC), 200 blades (4% of existing CCC) and 200 snowboards (4% of existing CCC).

¹⁶ Approximately 5% of rental/repair space should be allocated to the repair shop.

c) Description of Functions

Restaurant Seating

Existing food and beverage service seating is divided between the Base Lodge, Easy Acres, and the Mid-station Lodge. Seats in the Cloudspin Lounge have been included in the total Base Lodge seats because there is food service in this facility. A total of 1,453 food service seats are provided, including the Ausable Room in the Base Lodge. Outdoor restaurant seating totals 300. The breakdown of seating locations is shown below in Table II-15.

**TABLE II-15
EXISTING RESTAURANT SEATING**

Location	Facility	Seats	
		Indoor	Outdoor
Base Lodge	Cafeteria	368	60
	Ausable Room	362	0
	Cloudspin Lounge	299	192
	Total Base Lodge	1029	252
Easy Acres	Cafeteria	94	
Mid-station Lodge	Cafeteria	238	48
	Bistro Restaurant	95	
	Total Mid-station	333	48
Cloudsplitter Lodge	Cafeteria/Bar		
	TOTALS	1,456	300

Source: SE GROUP, Whiteface

A key factor in evaluating restaurant capacity is the turnover rate of the seats. That is, the number of times a seat will be utilized in a day. Several factors influence the turnover rate including the ski resorts' climate, market orientation, and the type of food service provided. At Whiteface Mountain a seat turnover rate of 3 has been utilized, taking into account all existing food service areas. Based upon this rate and a total of 1,456 seats, Whiteface Mountain has a seating capacity of 4,368 skiers. With a mountain capacity of 5,070 there is deficit of seating of 234 seats.

Outdoor seats are not utilized for this analysis, as they cannot be used on a regular basis at Whiteface Mountain. Alternatively, the ski area must also provide a certain amount of outdoor seating for occasions when warmer temperatures

prevail. The extent of outdoor seating provided by Whiteface Mountain (17% of all seating) is low. The Mid-station Lodge is particularly lacking in outdoor seating.

Table II-14 indicates that the square footage of the existing restaurant seating at Whiteface Mountain is on the low end of the industry averages. This deficit is particularly evident at the Mid-station Lodge where approximately one half of the total CCC of the lifts and trails is centered, but where only 32% of the total food service space is allocated. Any additional seating capacity should be focused on the middle or upper mountain to address the current imbalance, and at Easy Acres to accommodate peak period crowds.

Kitchen and Scramble

Kitchen space and food serving (scramble) areas in the Base Lodge and Mid-station Lodge are adequate for the current mountain capacity. The Easy Acres kitchen and food serving spaces are undersized. The food court in the Base Lodge functions particularly well, and is considered state-of-the-art in the ski industry.

Waste disposal areas for kitchens are well located and visually screened.

Bar/Lounge

The bar/lounge is situated on the third floor of the Base Lodge and is called the Cloudspin Lounge. It has 222 seats, and a stage area for bands and a small food service area. Additional minor bar service is available in the Mid-station Bistro. Space devoted to bar/lounge is above industry averages. Many visitors eat lunch in the Cloudspin Lounge and this takes pressure off the other food service areas on busy days, particularly the main cafeteria.

Restrooms

Table II-16 illustrates the existing number and distribution of restrooms. Based upon the existing CCC of 5,070 per day, the current men's and women's restroom facilities are below industry standards. The number of facilities required to accommodate the mountain capacity is indicated at the bottom row of Table II-16.

**TABLE II-16
EXISTING RESTROOM FACILITIES**

Facility	Men			Women	
	Urinals	Toilets	Sinks	Toilets	Sinks
Main Base Lodge	9	7	6	12	8
Easy Acres	2	4	3	6	3
Mid-station Lodge	3	4	4	8	4
TOTAL	14	15	13	26	15
Required ^a	21	17	13	42	25

Source: SE GROUP, Whiteface

^a Based upon standards developed by SE GROUP.

Retail Sales

The retail shop is not well situated relative to other skier services in the main base lodge. Ideally, all guests should encounter this shop as they arrive at the ski area. On the other hand, the shop is easily accessible for skiers coming into the lodge during the day from the slopes.

The shop is not adequately sized to match the capacity of the mountain.

Rental/Repair Shop

A new rental area, in the new enclosure directly beneath the cafeteria, has been completed. Consisting of 3,770 square feet, this facility has an adjoining entry foyer for ticket sales which is conveniently adjacent to the main entrance to the lodge from the drop-off area, and a tuning shop on the slope side of the lodge. Lockers are provided within the main rental area.

The new location of the rental facility within the Base Lodge has greatly improved guest service, especially for beginners and first time guests. The rental shop is now conveniently located adjacent to the main entrance of the Base Lodge. There is ample room for filling out forms and purchasing equipment within the general ticketing area. Guests may also purchase lift tickets at this location. The shop is laid out to expedite the rental process, both at the beginning and end of the day. The rental shop exits directly onto the slopes, close to the gondola terminal.

The number of rental units (1,200 skis, 200 snowblades and 200 snowboards) is adequate to meet demand on all but the busiest days. The recently completed space allocated for rental shop is adequate. The new layout of the equipment area is very efficient.

Ski School

Ski school operations are located on the 2nd floor of the Base Lodge building. Ski School administration, private lesson sales, and instructor change/locker room are grouped together in the same area and occupy 1,814 square feet, which is considerably below industry standards. Additional lesson sales will be located in the new rental shop ticketing area.

Phase II of the Base Lodge renovations include moving the ski school to the first level of the Base Lodge near the present ticket sales area. This ground level area faces the Mixing Bowl and the lesson reservations window will be very visible to customers going to, or coming from, the slopes. Access from the ski school staff space into the Base Lodge will provide a convenient connection with the new ticket sales area where ski school personnel plan to meet, greet and educate potential customers.

SkiWee/Drop-in Center

The SkiWee/Drop-in Center facility is located on the main and lower floors of the Easy Acres building. It is well located relative to the ski lifts and trails serving these skiers. This facility is open to ages one and up. Many resort child care facilities also include newborns which encourages young families to visit the resort.

Space related to this facility is below industry standards. Despite the recent addition of temporary structures there is still insufficient restaurant and program space making the lodge uncomfortable for employees and guests.

Public Lockers

The majority of public lockers (membership and public) are located on the first and second levels of the Base Lodge. There are a small number of public lockers in the Mid-station Lodge. Additional lockers and changing area are available in

the old rental shop location. The number of lockers and amount of floor space allocated to them is adequate for the existing mountain capacity.

Ticket Sales and Guest Services

Lift tickets are sold at four outside window locations on the first level (mountain side) of the Base Lodge. They are also sold at the Easy Acres Lodge. Package tickets - packages including rentals, lessons and lift tickets - may be purchased at the new rental shop ticketing area. The Guest Services desk is located on the second level of the Base Lodge, adjacent to the cafeteria. This is a highly visible location. The floor space and number of ticket windows allocated to lift tickets and guest services is adequate.

Phase II improvements will include the development of a larger reception and ticket area adjacent to the drop-off area of the Base Lodge, for the purpose of a one-stop shopping area for all lift tickets, rentals and ski school packages.

Ski Patrol/First Aid

This facility is well located on the 2nd floor of the Base Lodge, with good access from the ski runs and for the arrival of ambulance vehicles. There is also a small space for ski patrollers and toboggans in the Mid-station Lodge. The space allocated to this is similar to industry standards.

Administration

The majority of administrative functions are located on the top floor of the Base Lodge. Overall space is more than ample, and the location within the building is good. There is a need for additional office and conference space for marketing staff, which is currently limited to a small office space on the first floor.

The lobby space for administration is far too small to serve its current purpose, which includes season pass photos and some complimentary ticketing. Visitors must line up on the stairway below the lobby area on a busy day.

Employee Lockers

This activity is located on the first level of the Base Lodge in the northeast corner near the drop off area. This is a prime location for important skier arrival services or retail space.

Storage/Mechanical

The amount of storage and mechanical space provided in all buildings is slightly more than typical for a ski area the size of Whiteface Mountain. Additional records storage space is needed.

Circulation/Waste

Circulation space is far greater than required. Some areas where this is evident include: the long circulation space in the Mid-station Lodge required to get through the cafeteria from the main entrance to the stairway, and the oversized hallways on the 2nd floor of the Base Lodge.

3. Roads and Parking**a) *Roads***

Whiteface Mountain Ski Center is located off of Route 86. This highway is in good traveling condition. Turning lanes for left and right traffic movement are provided at the Route 86 and the Ski Center access road intersection. The access road from Route 86 to the Base Lodge and Easy Acres is a two lane paved road that is in good condition.

Traffic Volumes

Traffic counts were provided by the New York State Department of Transportation (NYSDOT). The traffic counts for Route 86 between the Intersection of Route 431 and the entrance road to Whiteface were taken in a year 2000 survey and indicate a traffic volume of 2,350 vehicles per day based on an Average Annual Daily Traffic (AADT). Counts between the access road to Whiteface Mountain Ski Center and Route 73 in Lake Placid were taken in 2000 and indicate a traffic volume of 2,720 vehicles per day AADT.

Arrival Sequence

Direct access to the mountain is from New York State Route 86. This access consists of dual roads approximately 180 feet apart, which converge to a single two-lane road at a point of access to the “Bus Lot” parking lot. A large identification sign for the resort is located in a landscaped island, which is formed by the two access roads.

Once on the entry road, drivers pass a long row of national flags, which introduces the ski area's image as the "Olympic Mountain". Cars and pedestrians continue across the Ausable River on a bridge, which strongly signals arrival at the main base area. A directional decision must be made (to the drop off, other parking, or Easy Acres), which is aided by an attendant.

The arrival sequence to the Base Lodge entry area terminates at the newly constructed drop off area which directs access directly to the Base Lodge lobby area or to the back of the base lodge and gondola station through the building with an open passage. Planned future improvements to the Base Lodge building will be to further enhance a positive arrival feeling by construction of a formal Base Lodge lobby at the entrance.

b) Parking

Parking is available in five primary parking lots, with additional space available along the internal roads. The total parking available at Whiteface is 1,513 cars.

Lot 1, which is located adjacent to the Alpine Training Center, has a capacity of 75 cars and is ideally located close to the drop off. Lot 2 is across the bridge and holds 305 cars. Lot 3 is close to Route 86 and has a capacity of 400 cars. Most of these parking spaces lie beyond a comfortable walking distance from the Base Lodge and skiers are shuttled in. The "Bus Lot" has functioned primarily as a car lot in recent times, and its capacity is 400 cars and 20 buses. Most of these spaces are also dependent on the shuttle service. Lot 4 is located at the Easy Acres Lodge and provides convenient parking for 175 cars at this facility. An additional 86 cars can be parked along the access road to Easy Acres, and 72 cars can be parked on the main entrance road east of the bridge.

The area can accommodate virtually unlimited buses since drivers historically take their buses in to Lake Placid until pick-up time in the afternoon, thereby alleviating parking loads.

Bus access to the Base Lodge is a major problem due to the very limited maneuvering space available. Bus traffic creates unsafe conditions in the drop off area especially for the pedestrians. Ideally, buses should not be allowed to cross the bridge into the tight drop off space presently available. Various alternatives for bus access should be evaluated. This includes evaluating the following:

- Special drop off area to be created at the Bus Parking Lot with convenient shuttle service available.
- New turnaround and drop off area to be constructed prior to the Ausable River Bridge crossing.
- Construct a second bridge to create a sufficient drop off space for passenger cars and buses. Easier traffic circulation will be provided by the second bridge since the access to the outgoing travel lane on the ski center main access road will be on the easterly side of the two bridges.

Additional alternatives to be considered are presented in Section VI. D. Alternative Parking/Circulation Improvements.

Parking should be capable of handling 125% of the ski resorts' CCC, which equates to 6,338 skiers, so that peak day crowds can find adequate parking. Approximately 75% of all skiers will arrive by car and with an average car occupancy of 3 skiers, 1,584 parking spaces would be required. Adding in employee parking requirements brings the total to 1,711. With 1,513 spaces currently available, Whiteface has a deficit of approximately 200 spaces. The parking requirements are noted below in Table II-17.

TABLE II-17
EXISTING AND REQUIRED PARKING¹⁷
CCC=5,070

Total skier capacity arriving by auto (75% of the 6,338 peak capacity)	4,753
Number of skiers per auto	3
Total auto parking spaces required	1,584
Plus: employee parking (8% of 1,584)	127
Total auto parking spaces required (skiers and employees)	1,711
Autos per acre	133
Total acres required for autos	12.9
Total skier capacity arriving by bus (25% of the 6,338 peak capacity)	1,584
Number of skiers per bus	44
Total buses	36 (20)¹⁸
Buses per acre	35
Total acres required for buses	0.6
Total acres required for cars and buses	13.5
Total acres available (including roadsides currently used for parking)¹⁹	12.0
Total acre deficit	1.5

Source: SE GROUP, Whiteface

The area experiencing most frequent parking problems is the Easy Acres facility. This area is over its capacity nearly every weekend. The Base Lodge area has a need to utilize the Huntington fields on Fox Farm Road two to three times per year for parking. This area is approximately ten minutes away and can accommodate up to 600 cars.

¹⁷Figures rounded to the nearest 10.

¹⁸Historically only up to 20 buses remain parked at the resort, while the rest go to Lake Placid. The number of 20 has been used for calculations.

¹⁹Car parking on the side of the road has been included in the total of existing parking capacity. For planning purposes, however, this parking will not be included since it does not represent the optimum situation.



View due east along access road of a typical Saturday evening departure. Note the line of cars and buses lined up along the bridge waiting to enter the skier pick-up area. Note pedestrians mixing with vehicular traffic, and buses accepting skiers with equipment who must cross incoming vehicles in order to access buses.

View facing west of evening departure. Vehicles enter from the right from the upper parking areas, and exit left across bridge toward viewer. Note mix of skiers with buses, shuttles and private vehicles, all accessing three lane pick-up area. Traffic control is labor intensive. Note also that the ambulance access point at the ski center is located at the base of the mountain, on the far side of the pick-up area.



WHITEFACE

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OLYMPIC REGIONAL DEVELOPMENT AUTHORITY
LAKE PLACID, NEW YORK

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COMPREHENSIVE MANAGEMENT AND PLANNING REVIEW AND UNIT MANAGEMENT PLAN

TITLE: EXISTING CONDITIONS AT
SKI CENTER PICK-UP
AND DROP-OFF AREA

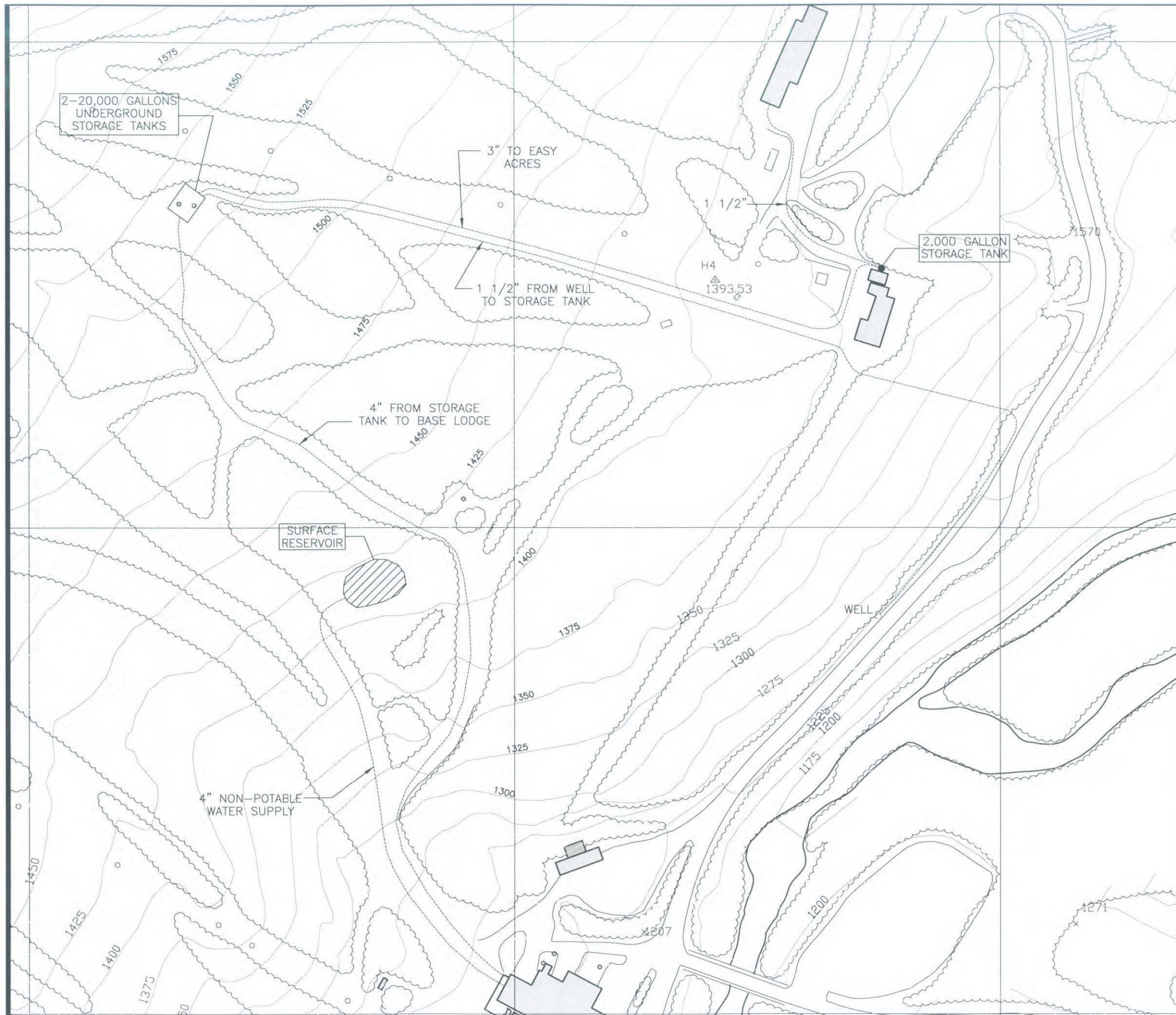
DATE: MARCH 2002

FIGURE 8:

II-17

PROJECT NUMBER: 01102

FILE: WHITEFACE 2001 UMP



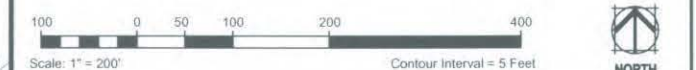
WHITEFACE

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COMPREHENSIVE MANAGEMENT AND PLANNING REVIEW AND UNIT MANAGEMENT PLAN



<p>TITLE:</p> <p>POTABLE WATER SUPPLY SYSTEM</p> <p>PROJECT NUMBER: 01102</p> <p>FILE: [whiteface]</p>	<p>DATE:</p> <p>March 2002</p> <p>FIGURE #:</p> <p>II-18</p>
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4. Potable Water

Potable Water is supplied to the following facilities at the Ski Center:

- Base Lodge
- Easy Acres Lodge
- Maintenance Garage
- Mid-station Lodge

a) Base Lodge/Easy Acres Lodge/ Maintenance Garage

Potable water for the Base Lodge is provided from a 500 feet deep well located near the Easy Acres Lodge access road. The well has a reported yield of 55 gpm. However, based on reports of motor failure resulting from excessive drawdowns, the actual yield may be closer to 30 gpm.

Water is pumped via a 1½ inch PVC main to two 20,000 gallon storage tanks located above Home Run Trail. From this point, the water flows by gravity through a 4 inch main to the Base Lodge. In addition, a 3-inch polyethylene gravity feed line from the 20,000 gallon storage tanks supplies a 2,000 gallon storage tank outside the Easy Acres Lodge. The water is then pumped to the Easy Acres Lodge and the Maintenance Garage (see Exhibit II-18).

It appears that during some periods of time of high demand, the existing well source cannot keep up with demand which results in over pumping of the well. It should be noted that this is the only source of potable water. Development of an additional source for increased capacity and redundancy is a priority.

A second well approximately 800 feet deep has been drilled, but its yield is only 15 gpm.

The Base Lodge is using non-potable water for flushing of toilets. This system should be checked to eliminate any possibility of interconnection with potable water. (This was done in accordance with NYSDOH requirements.)

Safe yield of the existing well should be established in order to determine need and capacity for additional water source.

b) Mid Station Lodge

Potable water for the Mid-Station Lodge is provided by a shallow dug well (4 feet deep with concrete tile) located 50 feet south of power line #32 (approximately 50 feet above the Mid-station Lodge) at the junction of Upper Valley and McKenzie Run Trails. The well provides potable water via a 1½ inch gravity feed line to a 6,000 gallon storage facility located inside the Mid-station Lodge. The water is chlorinated and pumped into the cafeteria and restroom areas of the lodge.

The capacity of the dug well has not been determined. However, the yield is observed to far exceed the peak demands of the lodge.

5. Sanitary Wastewater

There are four sanitary wastewater systems at Whiteface Mountain Ski Center which provide service to the Base Lodge, Mid-Station Lodge, Easy Acres and Maintenance Garage.

A single State Pollution Discharge Elimination System (SPDES) permit was issued by the NYDEC in September 1993 for the Base Lodge, Easy Acres, and Mid-Station Lodge. The Easy Acres system was partially rebuilt in 2000 by constructing a new pump station and installation of new septic tanks.

No violations of the permit have been reported by the NYSDEC. As such, the existing systems are adequately treating the permitted daily flow rates of each facility.

a) Base Lodge

The SPDES permit for the Base Lodge lists the design flow for the wastewater system as 25,000 gpd (gallons per day). Effluent from the Base Lodge flows by gravity to a 24,000 gallon septic tank. The effluent then flows by gravity across the Ausable River Bridge to a pumping station. The pumping station houses two – 20 h.p., 400 gpm capacity pumps which alternately pump the effluent to the main leachfields. Each leachfield is 95 feet by 104 feet in size. The leachfields are located adjacent to the main Ski Center entrance approximately 200 feet from Route 86.

Field observation of each leachfield area did not disclose any visible problems. Metering of potable and non-potable water should be implemented as soon as possible to determine actual loading on the disposal system.

b) Easy Acres Lodge

The existing wastewater disposal system was partially reconstructed in the fall of 2000. The following improvements were constructed:

- The plumbing inside the building was adjusted to separate kitchen and restroom wastewater.
- 1,000 gallon grease trap and 3,000 gallon septic tank was installed.
- New 5 feet I.D. pumping station was installed. This station will be able to handle projected future design flows of 5,600 gpd (as established in the 1996 UMP).

The capacity of the existing system is approximately 1,950 gpd based on four – 8 foot O.D., 12 feet deep seepage pits. The present permit allows discharge of 1,880 gpd (see Exhibit II-20).

c) Mid-Station Lodge

The SPDES permit for the Mid-Station Lodge lists the design flow for the wastewater system as 5, 530 gpd. Effluent flows by gravity to an 8,650 gallon septic tank located adjacent to the southeast corner of the lodge. Effluent then flows by gravity to a pumping station located adjacent to the septic tank. The pumping station houses two – 3 h.p. 100 gpm capacity pumps which alternately pump the effluent to two leachfields. The leachfields are located approximately 230 feet to the north of the lodge. The western leachfield is 90 feet by 45 feet and the eastern leachfield is 85 feet by 43 feet.

d) Maintenance Garage

Wastewater from the Maintenance Garage is treated and disposed of via a septic system located on the east side of the building. The septic system is comprised of a 1,000-gallon septic tank, a distribution box and two drywells. System installation occurred in September 1979.



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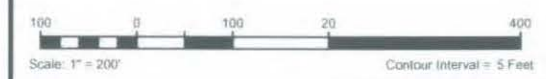


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**COMPREHENSIVE MANAGEMENT
AND PLANNING REVIEW
AND UNIT MANAGEMENT PLAN**



TITLE:
**WASTEWATER DISPOSAL
BASE LODGE SYSTEM**

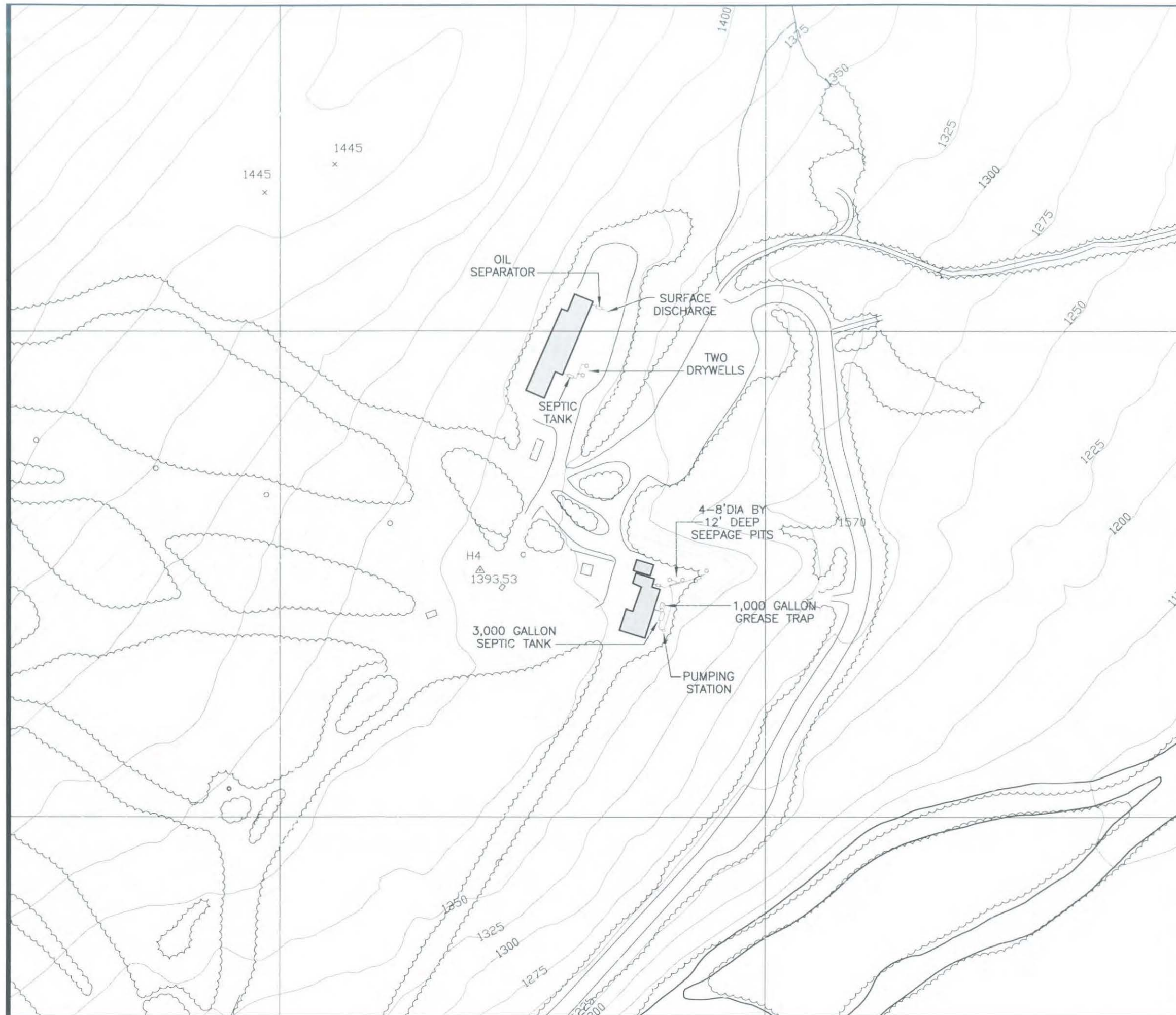
DATE:
March 2002

FIGURE:

II-19

PROJECT NUMBER: 01011

FILE:



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OLYMPIC REGIONAL DEVELOPMENT AUTHORITY
LAKE PLACID, NEW YORK

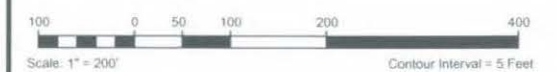
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**COMPREHENSIVE MANAGEMENT
AND PLANNING REVIEW
AND UNIT MANAGEMENT PLAN**



TITLE:
**WASTEWATER DISPOSAL
EASY ACRES LODGE**

DATE:
March 2002
FIGURE #:
II-20

PROJECT NUMBER: 01102

FILE: [whiteface]

In addition to the septic system, floor drains in the Maintenance Garage area are connected to a separate 500 gallon oil/water separator. Ultimately, the effluent for the oil/water separation discharges at ground surface. The surface discharge will be eliminated by installation of a drywell.

6. Drainage

This section provides a brief evaluation of the ski resort main drainage components. The following areas have been reviewed:

- Drainage course which flows from Whiteface Cirque.
- Drainage system from Route 86 along “Bus Lot” and under parking Lot 2.

Whiteface Cirque Drainage

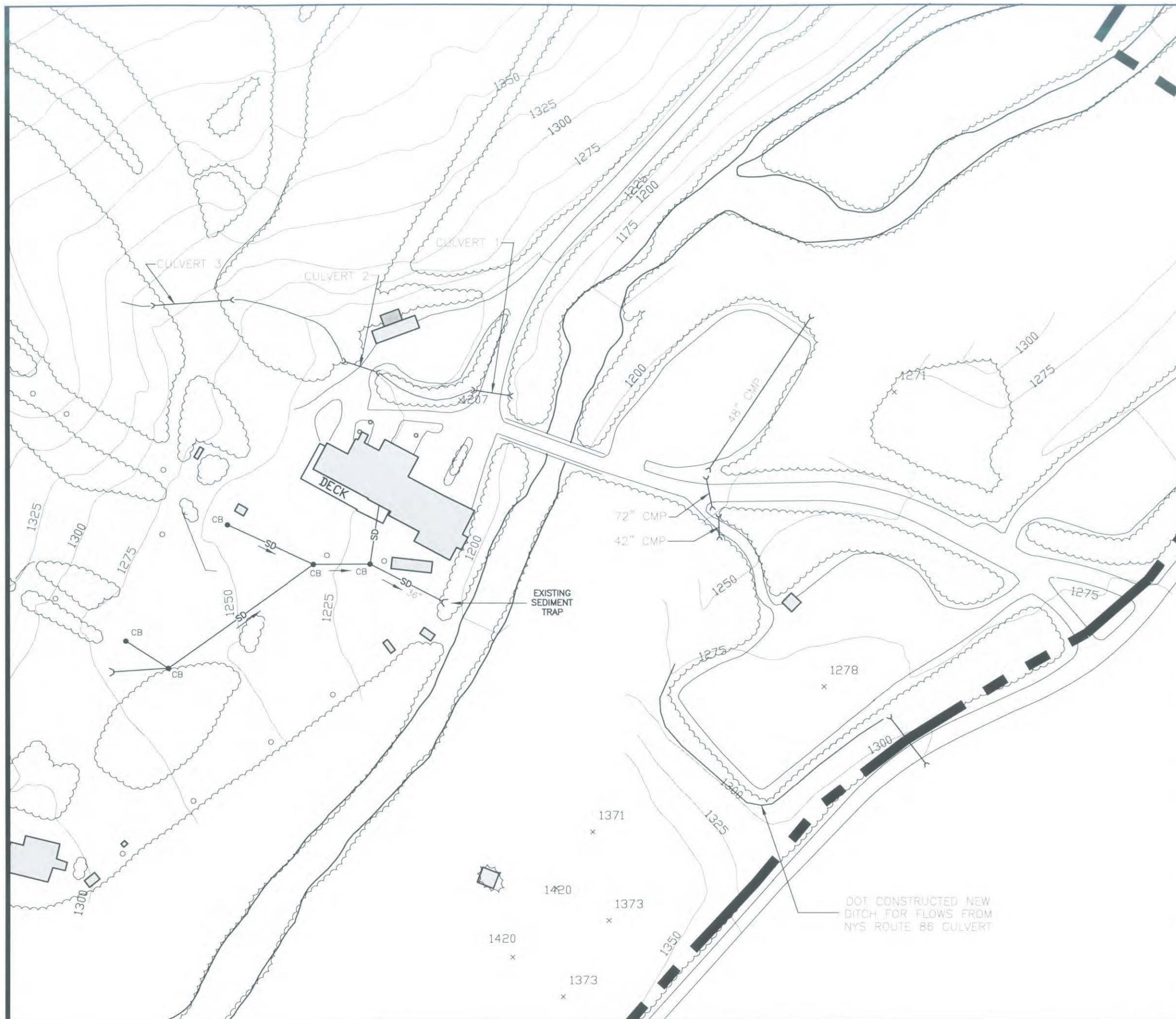
This drainage course enters into the Ausable River just downstream from the Ski Center access road bridge. There are five (5) major culverts altogether. Its location and size is shown on Exhibits II-22 and II-23. All culverts should be evaluated for structural integrity and hydraulic adequacy (especially culvert No. 1). Consideration should be given to protect these culverts to prevent clogging with debris during major storms as it occurred during the 1996 storm.

Route 86, Bus Lot and Lot 2 Drainage Course

Location of this system is shown on Exhibit II-22. After the 1996 flood, the NYSDOT did make improvements to the Route 86 culvert and installed a new drainage channel which directs flows around the Bus Lot parking.

Other

Remaining drainage system at the Ski Center consists of several small diameter piping systems, ditches and swales. Large parking areas are drained by sheet flow to adjacent wooded areas. Slope areas where concentrated runoff discharges occur should be regularly checked for erosion.



NOTES:

CULVERT 1:

7'x9' CMP ARCH PIPE

CULVERT 2:

TRIPLE - 42\", 48\" & 72\" CMP (42\" & 48\" PARTIALLY CLOGGED WITH STONES). CULVERT IS IN BAD SHAPE, CAN'T TAKE HIGH FLOWS, WATER RISES TO A POINT THAT IT OVERTOPS ROAD.

CULVERT 3:

11'x7'9\" CMP ARCH PIPE



WHITEFACE

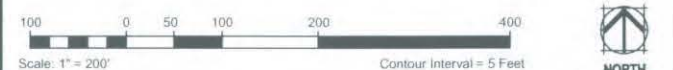
Prepared For:

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LAKE PLACID, NEW YORK

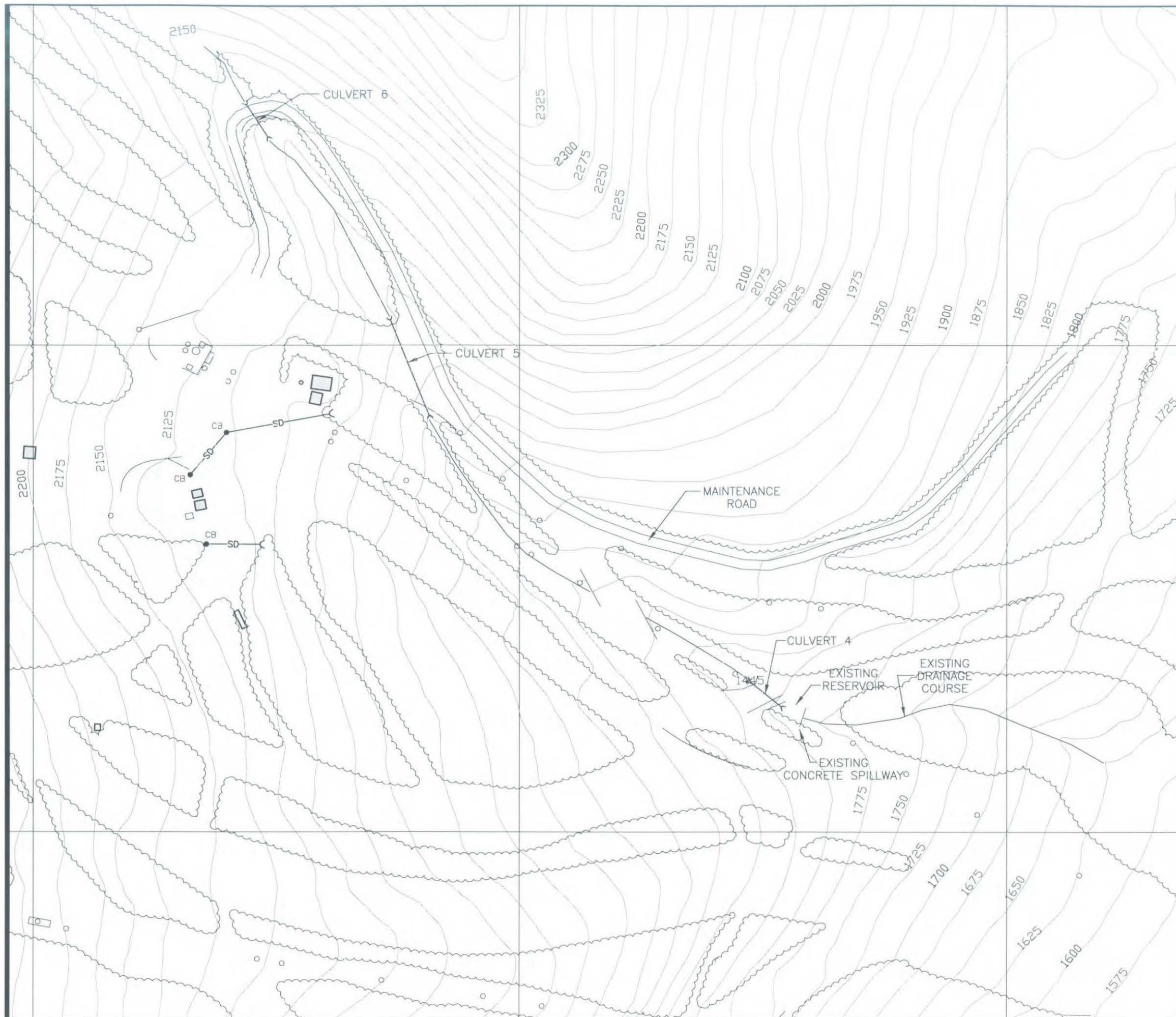
Prepared By:



COMPREHENSIVE MANAGEMENT AND PLANNING REVIEW AND UNIT MANAGEMENT PLAN



<p>TITLE:</p> <h3>DRAINAGE SYSTEM BASE LODGE</h3> <p>PROJECT NUMBER: 01102</p>	<p>DATE:</p> <p>March 2002</p> <p>FIGURE #:</p> <h2>II-22</h2>
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NOTES:

CULVERT 4: DANNY'S BRIDGE CULVERT 9'x6'5" CMP ARCH

CULVERT 5: 9'x6'5" CMP ARCH

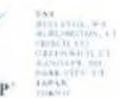
CULVERT 6: 10' DIA. CMP CULVERT



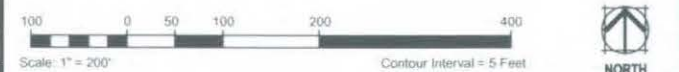
WHITEFACE

Prepared For:
OLYMPIC REGIONAL DEVELOPMENT AUTHORITY
LAKE PLACID, NEW YORK

Prepared By:



**COMPREHENSIVE MANAGEMENT
AND PLANNING REVIEW
AND UNIT MANAGEMENT PLAN**



<p>TITLE:</p> <p>DRAINAGE SYSTEM MID STATION LODGE</p> <p>PROJECT NUMBER: 01102</p>	<p>DATE:</p> <p>March 2002</p> <p>FIGURE #:</p> <p>II-23</p> <p>FILE: [whiteface]</p>
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7. Electrical Distribution

a) General Description

Electrical service for the facility is provided by five (5) circuits. Circuits 1 and 2 start directly from the incoming New York State Electric and Gas (NYSEG) 34.5 KV incoming line. Remaining circuits (3, 4 and 5) start at Unit A and B switchgear. Single line diagram of these circuits is presented in Exhibit II-23. This diagram was developed from the one that was included in the 1996 Unit Management Plan and is updated with new circuits based on information provided by the facility's electrician. A thorough verification of this diagram must be completed prior to its use for maintenance or planning and is only included to show general equipment connections and sizes.

As expected, the facilities electrical demand varies based on seasonal changes. Peak demands typically occur in January and February, and coincides with maximum snowmaking efforts.

The table below presents electrical demand and costs for the five seasons following the 1996 UMP Update.

Season	Highest Demand KWH	Total Annual KWH	Annual Cost (\$)
95-96	7,867	12,706,725	1,190,849
96-97	7,770	13,951,779	1,285,431
97-98*	6,802	11,279,988	1,043,374
99-00	7,921	12,955,241	1,126,284
00-01	8,160	13,329,615	1,074,437

*A 6,000 CFM diesel air compressor was installed and in use by December for snowmaking purposes.

b) Pole Line

The majority of the lifts and mountain facilities are supplied by circuit No. 4 and the overhead line routed up the mountain. The poles and cross-arms appear to be in good condition. However, an annual inspection should be performed to assist in the identification of potential system weaknesses.

The remaining distribution system appears to be operational but system testing is needed to ascertain exact conditions. The following issues were identified for the present system:

- Need isolation switches for each circuit in the distribution system. Existing oil switch shuts down the whole ski complex.
- At pump house No. 1, need isolation switches for transformers and main line.
- “Kamlock” switches in pump house 1 and 3 need to be replaced.

c) Testing

To fully establish current system conditions, a comprehensive testing and maintenance program should be considered. As a minimum, testing should include cabling, splices, equipment grounds, transformers (electrical and oil testing), switches (electrical and operations), and overcurrent protection devices for all equipment from the service down to, and including, the 480V switchboards. Along with testing, all equipment should be cleaned and repaired as necessary. Testing such as this will help establish current equipment conditions and a baseline for future testing and repairs. Future testing and maintenance should be considered annually. Additionally, testing is recommended to determine the demand profile for the facility to assist in developing an energy management plan.

As part of the system testing program, the enclosed single diagram should be verified and augmented. Access to the equipment, while de-energized, will permit a more thorough evaluation than allowed under this project.

d) Expansion

Based on the maximum capacity for the service entrance equipment, there appears to be spare capacity available. However, the verification of the one line diagram via the testing plan is needed to confirm exactly how much spare capacity exists in all the circuits.

E. Inventory of Systems

1. Program Direction

a) The Authority

The New York State Olympic Development Authority (ORDA) was created by the State Legislature to institute a comprehensive, coordinated program of activities utilizing Olympic facilities, such as Whiteface Mountain Resort, in order to insure optimum year-round use and enjoyment (Chapter 404, Laws of 1981). The “Authority” consists of ten board members who shall include the Commissioners of Environmental Conservation, Commerce, and Parks and Recreation, and seven other members appointed by the Governor, by and with the advice and consent of the Senate.

b) Whiteface Mountain Resort Management

The Department of Environmental Conservation is the statutory custodian of the Whiteface Mountain Resort. The Authority, however, operates and manages the Whiteface Mountain Resort under an agreement with the Department of Environmental Conservation. Under this agreement, ORDA is to maintain the facility subject to DEC inspections; make capital improvements with DEC’s prior written approval; establish a sinking fund for capital improvements; continue the level of prior public recreation; comply with specified prior agreements; and cooperate with DEC in completion of a Unit Management Plan Update and Amendment for the ski area. The Authority also manages the Mount Van Hoevenberg Recreation Area, Gore Mountain and Whiteface Mountain Memorial Highway under this agreement.

In March, 1991, DEC and ORDA consummated an inter-agency Memorandum of Understanding, superseding a 1984 Memorandum, for the continued use, operation, maintenance and management of the ski area by ORDA (See Appendix A).

c) United States Olympic Committee

Under an agreement entered into in October 1982, the Authority permitted the United States Olympic Committee the use of the Whiteface Mountain Resort facilities, along with other Authority facilities, for its training and competition

needs in connection with the Olympic Training Center located in Lake Placid, New York. The United States Olympic Committee does not have management authority under this agreement and cannot make any capital improvements to the premises.

d) New York Ski Educational Foundation

The Authority permits the New York Ski Educational Foundation (NYSEF) to conduct, under certain terms and conditions, its ski training, educational and competition programs at the Whiteface Mountain Resort. A specific building at Whiteface is dedicated to NYSEF.

2. Organization

a) Functions

The Olympic Regional Development Authority will operate the Whiteface Mountain Resort as necessary and in keeping with established legislation, plans and agreements.

b) Administration

Administrative functions are centralized for the Olympic Regional Development Authority. Programs of the Authority are directed by the CEO, working through department heads and venue managers. The organizational chart on the following page illustrates the administrative organization that covers all Olympic venues including Whiteface Mountain Resort.

c) Whiteface Mountain Resort Staff

Personnel at Whiteface Mountain Resort is comprised of approximately 40 permanent staff. The winter season requires the employment of 240 seasonal persons. The summer season requires employment of 41 seasonal positions to supplement the permanent staff.

3. Equipment

The equipment assigned to Whiteface Mountain Resort consists of automotive (such as trucks, tractors) and non-automotive (such as tables, chairs) items. A

current equipment inventory is maintained at Whiteface and the ORDA headquarters in Lake Placid and is available for public inspection.

4. Contractual

a) Concessionaire

On June 1, 1983, the Authority entered into an agreement with Centerplate whereby the Authority granted Centerplate a license consisting of exclusive rights to operate concessions including liquor/sales, food, and retail services at all ORDA Olympic facilities. Under the terms of the agreement, Centerplate Service America's exclusive rights are subject to certain other contracts existing with the Authority, including, in the case of Whiteface Mountain Resort. Food concession inspections by the State Health Department occur about twice a year and adjustments to operations are made accordingly. Centerplate must provide ORDA annually with proof of any required liquor licenses.

Proposals are currently being sought by ORDA from concessionaires, and ORDA is scheduled to select a vendor by April 2004.

5. Fiscal

Annual expenditures and budgeting is divided into three (3) general categories.

a) Annual Maintenance and Operation

Such expenditures include routine costs, which do not extend or change the life or usefulness of the capital facility. This includes the allocation of funds for personnel services, supplies, utilities, contractual, administrative, and maintenance services. Revenues generated at Whiteface are used directly to defer annual maintenance and operation costs.

b) Rehabilitation and Improvement

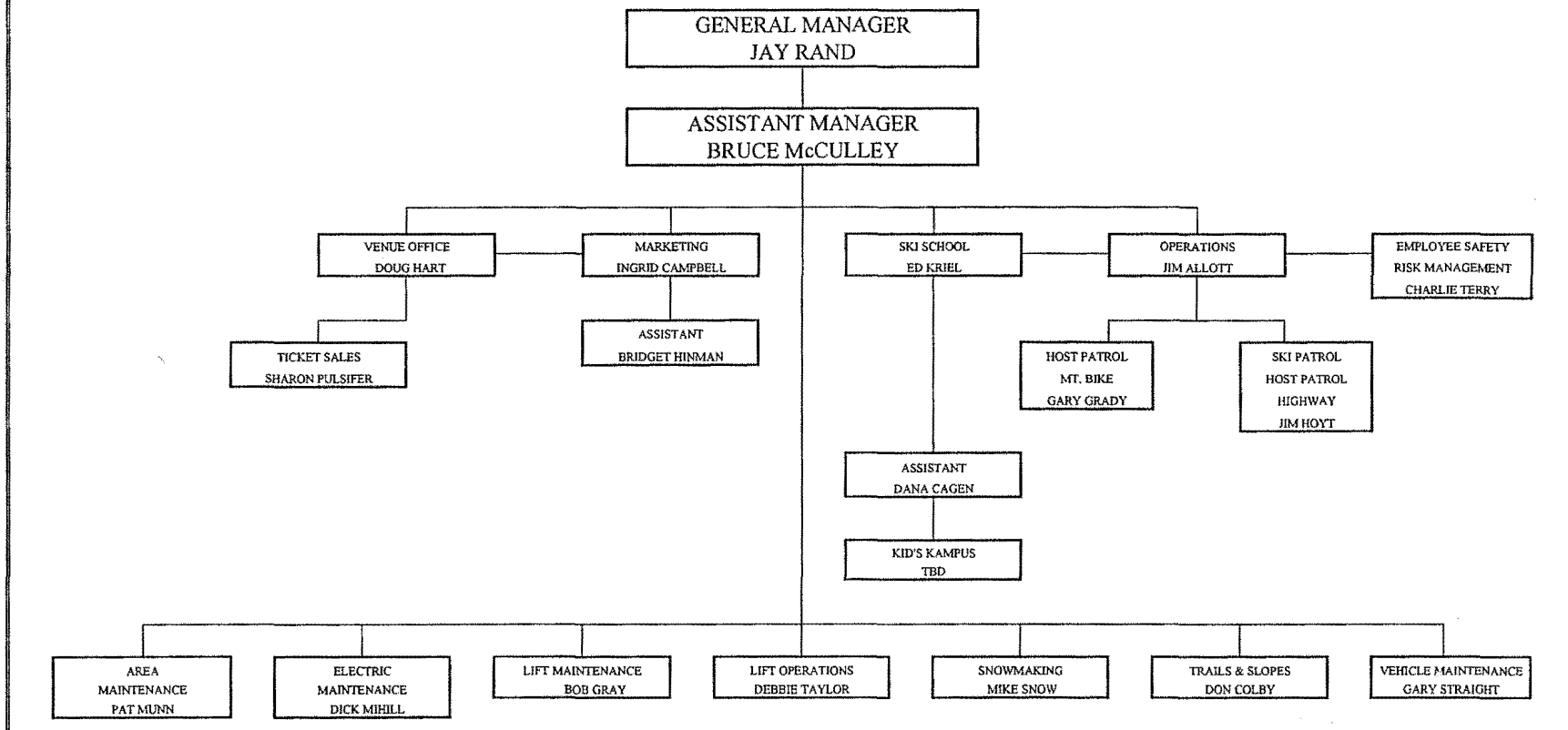
Rehabilitation and improvement expenditures are defined as those which extend or change the useful life of existing capital facilities. This includes general repair projects such as installation of new plumbing in existing buildings or a new roof over an existing building.

c) Capital

Capital expenditures are defined as the initial construction, development and acquisition costs of new facilities, resources and furnishings or for major reconstruction of facilities.

WHITEFACE MT. SKI CENTER

MANAGEMENT CHART



III. MANAGEMENT AND POLICY

A. Management Philosophy

The general goals, as specified in the 1996 Whiteface UMP, which continue to be applicable to this 2004 UMP Update are as follows:

1. To continue the planning process for Whiteface that is consistent with the Adirondack Park State Land Master Plan and Article XIV of the NYS Constitution. Whiteface is quite unique because it is a designated Intensive Use Area within the Forest Preserve that has received special authorization under Article XIV of the NYS Constitution. As an Intensive Use Area, Whiteface's basic management guidelines include providing facilities for intensive forms of outdoor recreation by the public. At the same time, Whiteface development will blend with the Adirondack environment and have minimum adverse impacts on surrounding State lands. A careful approach to enhancements at Whiteface will provide continued opportunity for the public to enjoy a unique experience, gain an appreciation for sensitive development, and expose large numbers of people to the Forest Preserve.
2. To continue the maintenance and operation of Whiteface Mountain Ski Center at a constant level over the ensuing five-year management period that will contribute to a stabilizing effect on Olympic region employment, economics, public recreation and governmental administration.
3. To continue the on-going improvement and modernization of parking lots, lodges and guest service facilities, ski trails, snowmaking and lift facilities at Whiteface that will add to the public accessibility, increase user safety, and enhance recreational pursuits.

In addition, the following more specific goals have been established specifically for this 2004 UMP Update.

1. Given the demographic trends in the North American ski and recreation market, there should be a clear family focus related to the upgrading and expansion of facilities.
2. At present there are several areas of imbalance throughout the Ski Center, in particular:
 - There is a need to establish a better balance between the uphill carrying capacity of the

- lift systems and the downhill carrying capacity of the trails,
- There is a shortage of intermediate terrain on Little Whiteface,
 - There is a need to develop a greater diversity of alternative recreation opportunities such as glade skiing and snowshoeing.
3. Whiteface Ski Center and ORDA have been in the business of world-class skiing events and providing high quality training for current and future world-class athletes for many years. One of the many goals of this current UMP is to identify management actions that will improve the ability and capacity for Whiteface to provide quality training opportunities for future Olympians and to attract hold a greater number of world-class alpine events.
 4. One of the primary goals of this UMP update is to identify and formalize the commitment that ORDA and Whiteface have made to creating an atmosphere of environmentally-sensitive business practices. This commitment is plainly evidenced by ORDA'S allocation of funds and efforts to study the ecology of Bicknell's thrush before embarking on any actions that could possibly negatively affect this important bird species. This effort is precedent-setting in New York State. To date, no detailed studies have been performed, or have even been specifically proposed, to elucidate a critical analyses of how to best protect this species in New York's Adirondack region. This far-reaching effort being put forth by ORDA and Whiteface for the study of the ecology of Bicknell's thrush will contribute greatly to the protection of the Bicknell's thrush worldwide.
 5. In addition, Whiteface has recently participated in the creation of the National Ski Areas Association Sustainable Slopes Charter, which outlines a series of best management practices related to the investigation and implementation of proactive, environmentally-friendly management actions that embody the philosophy of ORDA and Whiteface.

The following sections of the 2004 UMP Update have been prepared with the above objectives in mind. ORDA realizes that for Whiteface to compete in the northeastern ski market through the year 2009, it must provide state-of-the-art facilities which will attract skiers. Equally important, these objectives must be pursued within the context of the provisions of Article IV, as well as the SLMP, in order to perpetuate ORDA's commitment to a unique Forest Preserve skiing experience that Whiteface provides. In addition, in order for the Lake Placid region to be competitive in attracting future major events, Whiteface must offer the high quality facilities

expected by world-class athletes.

B. Regulatory Issues

There are many regulatory bodies that affect the operation and possible expansion of Whiteface Mountain. They are as follows:

1. New York State Constitution Article XIV

According to Article XIV of the NYS Constitution, Forest Preserve Lands are to be kept wild, with certain authorized uses and exceptions. The certain authorized uses and exceptions as they relate to Whiteface are as follows:

a) Ski Trails

The number of miles of ski trails that may be constructed and maintained on the north, east and northwest slopes of Whiteface Mountain in Essex County is 25 miles; and the maximum width of such trails is 200 feet provided that no more than 5 miles of such trails shall be in excess of 120 feet wide.

In addition to the above, the Constitution discusses buffer zones between ski trails and features such as other ski trails, access roads, maintenance areas, electrical distribution equipment and surrounding facilities. However, there are no clear criteria regarding the width of these buffer zones in relation to topography, drainage, outcrops, soil stabilization, public use carrying capacity, safety considerations, machinery requirements, and aesthetic concerns.

b) Vegetative Cutting

Article XIV states that Forest Preserve land, as currently fixed by law, either presently owned or acquired in the future by the State, will be kept forever as wild forest lands. As such, Forest Preserve lands cannot be leased, sold, or exchanged, or be taken by any public or private corporation. Timber on Forest Preserve land cannot be removed, sold or destroyed. In the interest of public safety and in consideration of the development of protective and recreational facilities, it has been necessary for the Department of Environmental Conservation, as the managing authority for Forest Preserve lands, to periodically ascertain the

limitations of legislative intent from the State Attorney General pertaining to the cutting, removal and destruction of trees.

In instances where cutting has not been sanctioned by constitutional amendment, the opinion and interpretation of the State's Attorney General has been sought on allowable cutting activities. One such opinion, dated January 18, 1934 pertaining to ski trail construction, states "ski trails (cross-country) may be constructed by the Conservation Department in the Forest Preserve when cutting trees to any material degree will not be necessary and the wild forest character of the Preserve will not be impaired."

In addition, trees may be removed for several other purposes. An Attorney General's opinion dated February 5, 1935 authorizes the removal of trees in the Forest Preserve that endanger public safety.

An Attorney General's opinion dated September 20, 1934 allows the use or removal of vegetation for surveying triangulation stations, where these stations serve as an aid to the conservation work of the State, and where the number of small trees used or removed for the work appear immaterial.

The cutting of trees to establish scenic vistas is addressed in an Attorney General's opinion of January 17, 1935. In this opinion, vistas may be established as long as the work is "carried on with care in order that the tree removal may not be sufficient to pass the point of immateriality." Before the creation of a vista, alternate locations in the area and alternate methods of achieving the view must be considered. For example, a more sparsely wooded site might be found, or an observation platform erected.

The salvage of windfall timber is authorized when it is determined that it represents a fire hazard in an opinion dated July 26, 1945. Salvaged timber cannot be sold or given away to anyone who may sell it, but it can be used for any project under Department of Environmental Conservation jurisdiction. Refer to the September 2, 1998 letter, provided in Appendix C from the NYSDEC Regional Forester noting the permissibility of milling lumber on-site for on-site use.

In addition to authorizing tree cutting for ski trails, Article XIV permits cutting for appurtenances associated with the trails. ORDA, as with the previous DEC management, considers appurtenances to the ski trails to be those improvements and structures necessary to operate a modern, state-of-the-art ski center for safe, enjoyable skiing. Generally, these include such facilities as ski lifts, lodges, service roadways, parking lots, utility and water lines and other buildings and improvements needed for the operation and management of the ski center. Appurtenances are constructed on a case-by-case basis based upon criteria of effective use, safe engineering design and minimum disturbance to vegetation and other natural features. They are performed in accordance with this UMP Update and Amendment and the 1991 DEC/ORDA MOU, as well as in accordance with the guidelines and criteria expressed in the Adirondack Park State Land Master Plan.

Attached in Appendix D is a February 17, 1977 letter from the NYSDEC General Counsel's office detailing the width to be accorded to ski center appurtenances, i.e., snowmaking lines, ski trail mergers, areas where trails and lifts coincide, and trail width necessary for ski trail grooming, skier safety, and compliance with international standards.

DEC's established policy regarding cutting, removal and destruction of trees and other vegetation on all forest preserve lands is found in the Policies and Procedures of the Commissioner of Environmental Conservation (Organization and Delegation Memorandum #84-06 as amended). This policy recognizes the tree cutting sanctioned through constitutional amendment (e.g., ski trails) and by the Attorney General's Opinions above. Adherence to the commissioner's tree cutting policy is mandated in the DEC/ORDA Memorandum of Understanding of 1991. A copy of the MOU is provided in Appendix A. All vegetation cutting at the Whiteface Mountain Ski Center must, and will be, in accordance with this policy.

The removal of cut trees may be done in any manner consistent with the guidelines of the SLMP, the UMP Update and Amendment and Article 8 of the ECL.

c) Non-Alienation

Article XIV of the State Constitution provides that Forest Preserve Lands "...shall not be leased, sold or exchanged to any corporation public or private."

2. Adirondack State Land Master Plan (SLMP)

As was indicated in the 1987 and 1996 Whiteface UMP's, the Adirondack State Park SLMP, adopted in 1971, provides general guidelines and criteria for the preservation, management and use of State Forest Preserve lands in the Adirondack Park by all State agencies. Under the plan, Whiteface Mountain Ski Center is classified as an Intensive Use Area:

"an area where the State provides facilities for intensive forms of outdoor recreation by the public."

The SLMP provides that the primary management guidelines for Intensive Use Areas is to provide the public opportunities for a variety of outdoor recreational pursuits in a setting and on a scale in harmony with the relatively wild and undeveloped character of the Adirondack Park.

The SLMP further states that:

"Priority should be given the rehabilitation and modernization of existing Intensive Use Areas and the complete development of partially developed existing Intensive Use Areas before the construction of new facilities is considered."

"The primary management guideline for Intensive Use Areas will be to provide the public opportunities for family group camping, developed swimming and boating, downhill skiing, cross country skiing under competitive or developed conditions on improved cross country ski trails, visitor information and similar outdoor recreational pursuits in a setting and on a scale that are in harmony with the relatively wild and undeveloped character of the Adirondack Park."

"All intensive use facilities should be located, designed and managed as to blend with the Adirondack environment and to have the minimum adverse impact possible on surrounding state lands and nearby private holdings. They will not be situated where

they will aggravate problems on lands already subject to or threatened by overuse, such as the eastern portion of the High Peaks Wilderness, the Pharaoh Lake Wilderness or the St. Regis Canoe Area or where they will have a negative impact on competing private facilities. Such facilities will be adjacent to or serviceable from existing public road systems or water bodies open to motorboat use within the Park.”

“Construction and development activities in Intensive Use Areas will:

- avoid material alteration of wetlands;
- minimize extensive topographic alterations;
- limit vegetative clearing; and,
- preserve the scenic, natural and open space resources of the intensive use area.”

“No new structures or improvements at any Intensive Use Area will be constructed except in conformity with a final adopted unit management plan for such area. This guideline will not prevent the ordinary maintenance, rehabilitation or minor relocation of conforming structures or improvements.”

“Since the concentrations of visitors at certain intensive use facilities often pose a threat of water pollution, the State should set an example for the private sector by installing modern sewage treatment systems with the objective of maintaining high water quality. Standards for the State should in no case be less than those for the private sector and in all cases any pit privy, leach field or seepage pit will be at least 150 feet from the mean high water mark of any lake, pond, river or stream.”

“Existing ski centers at Gore and Whiteface should be modernized to the extent physical and biological resources allow.”

This UMP Update and Amendment for Whiteface Mountain Ski Center has considered all the above provisions for the SLMP. As a result, the UMP represents a document, when implemented, that will enhance Whiteface Mountain and the surrounding region in conformance with the SLMP.

3. 1996 Unit Management Plan

The 1996 UMP for Whiteface is still in effect for the Ski Center. Included in Section I of this update (see Table I-1) is a detailed status of management actions adopted in the 1996 UMP.

Amendments made to the 1996 UMP since its adoption include the following:

June 1997-Approval to exchange 3 acres of trail widening approved in the 1996 UMP for widening of the Skyward Trail and construction of a cross-over trail from the Skyward Trail to the Cloudspin Trail.

June 1999-Approval of three amendments to widen Upper Excelsior-Lower Northway and Skyward Trails and construct four emergency evacuation routes to access the gondola lift line.

June 2000-Approval to create 13 acres of glade skiing between the Upper Empire and Upper Northway trails, and to use the gondola to transport mountain bikers and their bikes to access three designated mountain bike routes.

June 2001-Approval to widen trail 19a an additional 11 feet, minor tree removal on the Upper Parkway Trail, widening of the Upper Thruway Trail to 132 feet to meet FIS standards, and a new exit off of the Lower Valley Trail.

Many of the management actions approved under the 1996 UMP update have been carried out. Some 1996-approved action still remain to be undertaken, and their implementation will be carried out under the specific conditions established in the 1996 UMP, as well as this 2004 UMP update.

4. Environmental Conservation Law

Section 9-09031 of the Environmental Conservation Law places the “care, custody and control” of the Whiteface Mountain Ski Center with the Department of Environmental Conservation.

5. Olympic Regional Development Authority Act

The Olympic Regional Development Act (Article 8, Title 28, NYS Public Authorities Law) establishes the Olympic Regional Development Authority (ORDA) and sets forth its responsibilities, functions and duties. The management of Whiteface was transferred to ORDA pursuant to Chapter 99 of the Laws of 1984. This authority was implemented by an agreement between the DEC and ORDA on April 1, 1984.

6. DEC - ORDA Memorandum of Understanding

The DEC and ORDA implement their mutual responsibilities for management of Whiteface through a Memorandum of Understanding (MOU) dated March 8, 1991 (see Appendix A). The MOU sets forth mutually agreeable methods and procedures by which managerial requirements are implemented. The MOU also establishes the means by which the 1996 and 2004 Updates and Amendments are to be implemented.

Such means generally involve notification, inspection and review of actions to ensure compliance with the UMP Update and Amendment and applicable regulations.

IV. PROPOSED MANAGEMENT ACTIONS AND PROJECTED USE

A. Introduction

The following section of the Whiteface Ski Center UMP Update and Amendment identifies recommended management actions to upgrade the ski facilities and supporting infrastructure. Recommended actions include New Management Actions proposed in this UMP Update, as well as Conceptual Actions that, if and when they are proposed, will be the subject of future UMP amendments with accompanying SEQRA reviews.

The overall objectives of the upgrading plan are to:

- bring all of the facilities into balance in a manner whereby the Ski Center will comfortably accommodate peak days,
- improve the ability for Whiteface to compete in the modern ski industry through optimizing skier visits and revenues and providing an attractive venue for summer visitors,
- create a pleasing, user-friendly environment that enhances the opportunities for generating four-season tourism and other economic stimuli in the region,
- continue the on-going improvement and modernization of parking lots, lodges and guest service facilities, ski trails, snowmaking and lift facilities at Whiteface to add to the public accessibility, increase user safety, and enhance four-season recreational pursuits,
- develop a clear family focus for all programs and facilities,
- identify management actions that will improve the ability and capacity for Whiteface to attract and hold a greater number of alpine events, and
- identify and formalize the commitment that ORDA and Whiteface have made to create an atmosphere of environmentally sensitive business practices. Whiteface has recently participated in the creation of the National Ski Areas Association Sustainable Slopes Charter, which outlines a series of best management practices related to the investigation and implementation of proactive, environmentally-friendly management actions.

The goal of planning for a ski center is to balance all of the components of the facility (including parking, ski terrain type and amount, lift capacity, lodge capacity and sewer and water services) in order to have a well run ski center that is easily accessed, that is utilized by its patrons comfortably and safely, and is able to be managed and maintained efficiently and cost-effectively. Most importantly at Whiteface these considerations must be developed with great

sensitivity for the Forest Preserve. This UMP represents the continuation of a planning process for Whiteface that takes into account the Adirondack Park State Land Master Plan and Article XIV of the NYS Constitution. Whiteface is very unique because it is a designated Intensive Use Area within the Forest Preserve. As an Intensive Use Area, Whiteface's basic management guidelines include providing facilities for intensive forms of outdoor recreation by the public. At the same time, Whiteface is still required to blend with the Adirondack environment and have minimum adverse impacts on surrounding State lands.

The format of this section is broken down to two basic components. The first component identifies the full recommended upgrading plan in terms of improvements to lifts, trails, snowmaking, base area, lodges, parking, and utilities. The second component of this section has broken the full upgrading program into five phases wherein the first phase is intended to begin in the spring of 2004. Each phase describes the proposed management actions and an estimate of associated costs.

The first priorities of the phasing program are to:

- replace the Mid-station Shuttle double chair and the Valley triple chair with a high-speed detachable quad (completed in summer 2002),
- construct intermediate trails from the summit of Little Whiteface (#73) (completed by June 2002 Amendment to 1996 UMP),
- finish widening the Easy Acres terrain,
- upgrade the snowmaking system in order to permit Whiteface to be more resilient to the variations of weather in the northeast,
- complete the Phase II improvements to the Base Lodge,
- upgrade and expand the Easy Acres Lodge, and
- construct the Lot #5 parking area.

Further priorities include completing on-mountain improvements focused on bringing the lift and trail pods into balance in terms of uphill and downhill carrying capacities, widening the Downhill piste for homologation, and completing Base Lodge renovations. Concurrently, improvements have been recommended in each phase regarding the surface condition of certain trails in order to allow them to be skied by a greater range of skier ability levels.

One of the results of the full upgrading program is that the Comfortable Carrying Capacity of the Ski Center will increase from the current figure of 5,070 skiers at one time to 5,640 skiers.

B. Justification for Proposed Upgrading of Whiteface

There are two overriding reasons to implement the recommendations presented in this UMP Update and Amendment: (1) to maintain market share and the related \$38 million impact to the region from the current business levels, and (2) to increase market share and thereby increase the positive regional economic impact. A detailed argument for these two reasons is provided below.

1. Defensive Move to Maintain Current Level of Economic Impact

Currently, Whiteface has an economic impact to the Lake Placid Region of almost \$38 million, which could potentially decline if the ski facilities are not maintained at a competitive level. This decline would result in increased regional unemployment, lower tax revenues, lower property values, a decrease in sponsorship dollars supporting ORDA, and an overall decline in New York State tourism.

The three primary defense reasons compelling continued improvements to the four-season recreation product are to:

- keep pace with competitors,
- mitigate the adverse effect of marginal snow years, and
- justify any future price increases.

A brief description of these factors is provided below.

a) Competitive Position

With the consolidation of the ski industry, the ever-increasing demands of the skiing public, decreasing customer loyalty, and the slower growth in the overall U.S. ski industry, Whiteface more than ever faces increased competition in retaining its skier base.

Whiteface is facing the stiffest competition in the industry - the biggest resort in the East, Killington; the well-funded Quebec areas (Mont Tremblant and Mont Ste. Anne), and the Western mega-resorts in Colorado, Utah, and California. In order for Whiteface to even maintain its current market share, it needs to not only maintain the current levels of service and product offerings, but also invest in improvements commensurate with the improvements being made by its

competitors. Otherwise, industry competition has shown that those areas that are not able to keep pace with customer demands and other resorts will soon be forced out of business. Evidence of this trend is shown by the dramatic decrease in the number of operating ski areas in the past 10 years.

b. Mitigate Effects of Weather with Snowmaking

A key factor in operating a successful ski area is to be able to offer skiers a long ski season with excellent conditions - regardless of the natural snowfall levels and wind conditions. Thus, Whiteface needs to improve its snowmaking capacities in order to provide a consistent product and to create a form of insurance or protection against the pitfalls of years with poor snowfall. As experienced with the results of the 2001-02 ski season, poor natural snowfall is a very real threat to operating a viable ski area business.

c. Justify Price Increases while Maintaining Perceived Value

Whether it is to keep pace with the rate of inflation or escalating costs, ski areas need to be able to demand annual price increases in order to maintain profitability and also to reach the higher profitability level that allows for continued capital re-investment. However, consumers are unwilling to pay these higher prices without realizing improvements in the products and services offered, or in the relative value of the overall experience. Whiteface has made marked improvements to its product since the 1996 UMP, however, Whiteface's product is still perceived to be lower than that provided by its competitors. Its prices also are lower than those charged by the larger competitors. Thus, for Whiteface to be able to improve its profitability, it needs to be able to realize higher per capita revenue from its skiers, and it thereby needs to make continued improvements in order to justify these price increases.

2. Offensive Move to Increase Skier Volume and Economic Impact

As opposed to trying just to maintain the current skier volume, Whiteface needs to increase its business to become a more profitable and self-sustaining growth operation. Growing skier visit volume involves increasing skier frequency and creating new skiers. To be successful, all of these efforts require that Whiteface provide an excellent product and service offering, while maintaining a competitive pricing structure.

Increasing Skier Frequency – Recent trends in the recreation industry indicate that people are taking shorter vacations (2-4 days) and are choosing destinations that are closer to home. In addition, current demographics indicate that baby-boomers and their children represent the two largest population groups. As such, destinations that are focused on families and offer a variety of attractions in one spot are most successful. This is true for both the summer and the winter months. Increasing the four-season recreational offerings at Whiteface will increase the appeal of the mountain and the Lake Placid area as a vacation destination.

Creating New Skiers – In recent years the National Ski Areas Association (NSAA) has focused on increasing the number of people being introduced to snow sports and, more importantly, insuring that the first-timer's experience encourages repeat participation. To bring new skiers to the sport this conversion rate (turning first-timers into repeat participants) must be increased. In addition to specialized lesson programming, incentive packages, and individual attention, creating a positive experience for a first-timer includes minimizing hassles and confusion throughout the day. To increase its conversion rate, Whiteface must focus on improving base area sequencing and guest service facilities. Guests must be able to easily drop-off passengers and gear close to the Base Lodge. Ticketing areas and rental facilities must be easy to find, adequately sized and convenient to the snow surface. Restrooms must also be easy to find, and conveniently placed. Restaurants and cafeterias must provide enough seating for the lunchtime rush, and be pleasant spaces to sit and relax.

C. Proposed Ski Center Upgrading Plan

1. Lifts

TABLE IV-1
PROPOSED LIFT SPECIFICATIONS

Map Ref.	Lift Name	Lift Type	Vert. Rise (ft.)	Slope Length (ft.)	Avg. Grade (%)	Actual Design Capacity (persons/hr.)	Year Installed/ Upgraded
A	Mixing Bowl	Triple	92	887	10%	1,200	1984
B	Bear	Quad	325	1,712	19%	1,800	1984
C	Bunny Hutch	Triple	258	1,792	14%	1,600	1986/97
D	Mid-Station Shuttle (Removed)						
E	Valley Triple (Removed)						
F	Summit Quad	Quad	1,830	4,706	39%	1,500	1997
G	Little Whiteface	Quad	1,555	4,515	34%	1,800	1988
H	Mountain Run (Removed)						
I	Freeway	Double	1,400	3,749	37%	800	1979
J	Handle Tow	Surface	40	350	11%	400	1992
K	Cloudsplitter Gondola	Gondola (8)	2,432	8,487	29%	1,800	1999
L	New Detachable Quad	Det. Quad	1,314	6,265	21%	2,400	TBD
M*	Double Chair	Double	1,565	3,682	43%	1,200	TBD
	TOTAL					14,500	

Source: SE GROUP, Whiteface

Italics denote change from Existing Conditions

* Denotes Conceptual Actions

Discussion

As set forth in the above table, it is recommended that the following lift improvements be made in the upgrading program of this UMP Update. The hourly capacities of the lifts, where possible, have been established so that they more closely match the downhill terrain they serve than is the case with the existing lifts.

- **Mixing Bowl (A):** The existing lift should be upgraded from a double chair to a triple chair. The lift will be lengthened 200' and the top station will be re-aligned towards the southeast to allow for more beginner terrain and better unloading capability.

- **Bear (B):** The existing double chair should be replaced with a fixed grip quad chair, and the bottom terminal should be relocated as shown on the map to make it more easily accessible to the novice and low intermediate skiers.
- **Mid-Station Shuttle (D) and Valley Triple (E):** The existing double chair and triple chair should be replaced with a high-speed detachable quad (L). The mid-station of the Valley Triple should be eliminated. (Completed summer 2002).
- **Little Whiteface and Mountain Run (G and H):** In order to balance uphill and downhill capacities and still provide acceptable service to the Little Whiteface ski terrain, the removal of the Lift H double chair and the replacement of the Lift G double chair with an 1800 per hour fixed grip quad is recommended. As a means of making the popular lower portion of Little Whiteface directly accessible to skiers using Lift G, the mid-station unload should be retained and redesigned to accommodate the four seater chairs.
- **Freeway (I):** The top terminal of this lift should be lowered approximately 60 vertical feet and the lift should be shortened approximately 500 feet. This will help accommodate the intermediate skiers on the proposed new trail from Little Whiteface (Trail 73), and allow smooth access from the Freeway chair to Parkway, Thruway, Draper's Drop, and associated terrain.
- **Handle Tow (J):** This beginner lift should be replaced with a surface conveyor lift and realigned with the bottom terminal extended to a point where it is more easily accessible (in terms of elevation) to the first day skier.
- **Double Chair (M): Conceptual Action.** A double chair would service a new "Tree Island" pod of expert terrain north of the Summit Quad. The bottom terminal would be situated in the vicinity of the bottom terminal of the existing Summit Quad and the top terminal of the new detachable quad (Lift L).

In addition, all of the aerial lifts should be equipped with restraining bars and all but the shortest lifts should also be equipped with foot rests. In order to reduce wind exposure and to accommodate those skiers uncomfortable with excessive heights, lift profiles should be maintained at, or as close to as possible, the minimum distance of 13' from the bottom of the chair seat to the snow surface on those sections of trails where skiing is allowed under the lift line. (NYS code requirement). This is of particular importance on those lifts serving the beginner, novice, and low intermediate skiers.

2. Alpine Ski Trails

**TABLE IV-2
PROPOSED TERRAIN SPECIFICATIONS**

Map Ref	Trail/Area Name	Slope Length (ft.)	Avg. Width (ft.)	Buffers		Appr. Area (ac.)	Skier Ability Level
				Snow-making	Lift		
1	Upper Cloudspin	2,600	149	*		8.9	Expert
2	Lower Cloudspin	2,500	138	*		7.9	Adv. Inter.
3	Upper Skyward	800	177	*		3.3	Expert
3a	New- Niagara	150	150	*		0.5	Adv. Inter.
4	Lower Skyward	3,800	140	*	*	12.2	Adv. Inter.
5	Paron's Run	2,600	107	*		6.4	Adv. Inter
5a	New Glade	1,700	250			9.8	Expert
6	Excelsior	5,600	85	*		10.9	Inter.
6a*	New-Excelsior Bypass	300	110	*		0.8	Adv. Inter.
7	Essex	1,000	83	*		1.9	Expert
8	Upper Northway	1,000	74	*		1.7	Expert
9	Lower Northway	1,700	87	*		3.4	Inter.
10	Connector	700	40	*		0.6	Adv. Inter.
11	Approach	1,900	65	*		2.8	Adv. Inter.
12	Empire	5,600	60			2.2	Expert
12a*	New	985	80	*		1.8	Inter.
13	Upper Mackenzie	1,000	95	*		2.2	Expert
14	Lower Mackenzie	1,400	106	*		3.4	Adv. Inter.
15	Upper Wilderness	500	105	*		1.2	Expert
16	Lower Wilderness	1,400	170	*		5.5	Adv. Inter.
17	Mountain Run	2,400	180	*	*	9.9	Adv. Inter.
18	Upper Parkway	1,800	135	*		5.6	Adv. Inter.
19	Lower Parkway	2,700	122	*	*	7.6	Inter.
20	Upper Thruway	1,000	165	*		3.8	Adv. Inter.
21	Lower Thruway	1,400	113	*		3.6	Inter.
22	Upper Valley	2,000	106	*	*	4.9	Low Inter.
23	Lower Valley A	1,500	74	*	*	2.5	Low Inter.
23	Lower Valley B	900	200	*	*	4.1	Low Inter.
23	Lower Valley C	1,700	160	*	*	6.2	Novice
24	Burton's	600	30	*		0.4	Inter.
25	Broadway	1,700	135	*		5.3	Inter.
26	Easy Street A	400	10	*		1.0	Low Inter.
26	Easy Street B	1,700	65	*		2.5	Low Inter.
27	Boreen	5,600	86	*		11.1	Low Inter.
27a	New Glade	1,425	175			5.7	Inter.
28	Danny's Bridge [Terrain Park]	1,100	86	*		2.2	Expert
29	River Run	1,000	110		*	2.5	Inter.
30	Mixing Bowl	1,100	150	*	*	3.8	Beginner

Map Ref	Trail/Area Name	Slope Length (ft.)	Avg. Width (ft.)	Buffers		Appr. Area (ac.)	Skier Ability Level
				Snow-making	Lift		
31	Wolf	1,800	58	*		2.4	Novice
31a	Fox	2,500	71	*		4.1	Low Inter.
32	Bear	1,700	150	*		5.9	Expert
33	Deer	950	50		*	1.1	Novice
34	Silver-upper	1,000	73	*		1.7	Novice
34	Silver-lower	1,000	90	*		2.1	Beginner
34	<i>Silver-Kampus Kruiser</i>	500	73	*		0.8	<i>Beginner</i>
35	<i>Gold</i>	1,800	135	*	*	5.6	<i>Novice</i>
36	Bronze	1,650	90	*		3.4	Novice
36a	<i>New Glade</i>	950	175			3.8	<i>Low Inter.</i>
37	Home Run	500	25	*		0.3	Novice
38	Follies	2,400	60	*		3.3	Inter.
39	Valvehouse Road	300	50	*		0.3	Expert
40	Silver Shoot	700	60	*		1.0	Novice
41	Main Street	400	60	*		0.6	Novice
42	Runner Up – upper	400	30	*		0.3	Low Inter.
42	Runner Up – lower	400	30	*		0.3	Low Inter.
43	Medalist	1,600	50			1.8	Novice
44	Round-a-bout	1,100	50	*		1.3	Novice
45	Easy Way	500	25	*		0.3	Low Inter.
46	Upper Boreen	800	40			0.7	Low Inter.
47	Calamity Jane	400	70	*		0.6	Inter.
48	<i>Ladies Bridge</i>	500	110	*		1.3	<i>Inter.</i>
49	<i>Lower Gap</i>	300	110	*		0.8	<i>Inter.</i>
50	Riva Ridge	1,400	25	*		0.8	Adv. Inter.
51	Cloudspin Cut	400	25	*		0.2	Adv. Inter.
52	<i>Yellow Brick Road-REVEG</i>	-	-			-	-
53	Upper Switchback	600	25	*		0.3	Adv. Inter.
54	Lower Switchback	600	25	*		0.3	Adv. Inter.
55	Crossover Loop	600	25	*		0.3	Adv. Inter.
56	Glen	450	25			0.3	Adv. Inter.
57	Victoria Shoot	250	100	*		0.6	Adv. Inter.
58	Lower Empire	350	80	*		0.6	Inter.
59	Weber's Way	400	120	*		1.1	Inter.
¹ 60	1900 Road	700	25	*		0.4	Adv. Inter.
61	2200 Road	300	60	*		0.4	Adv. Inter.
62	High Country Glade	1,550	150			5.3	Adv. Inter.
63	Low Road	200	70			0.3	Inter.
64	Tom Cat	400	38	*		0.3	Inter.

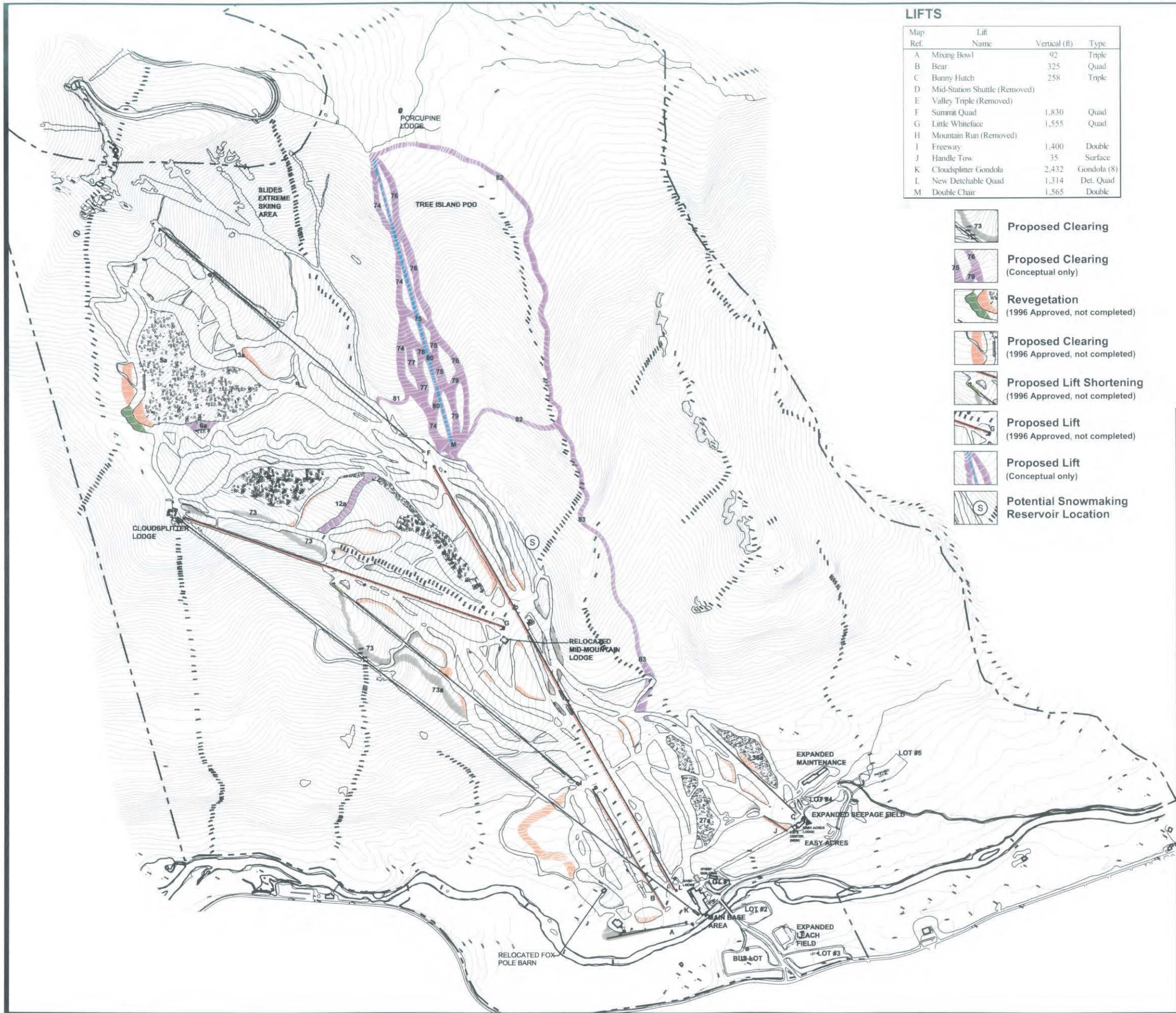
¹ Constructed summer 2002 per June 2002 Amendment to 1996 UMP.

Map Ref	Trail/Area Name	Slope Length (ft.)	Avg. Width (ft.)	Buffers		Appr. Area (ac.)	Skier Ability Level
				Snow-making	Lift		
65	On Ramp	600	25	*		0.3	Adv. Inter
66	Wolf Run	550	80	*		1.0	Novice
67	Summit Express	550	80	*		1.0	Inter.
68	Brookside [Terrain Park]	1,800	100	*		4.1	Expert
69	Cloudsplitter Glade	300	500			3.4	Expert
70	10 th Mtn Division Glade	1,000	450			10.3	Expert
71	Draper's Drop	1,700	130	*		5.1	Inter.
72	Parkway Exit	200	100	*		0.5	Inter.
73	<i>New Intermediate Trail¹</i>	<i>3,500</i>	<i>90</i>	<i>*</i>		<i>7.2</i>	<i>Inter.</i>
73a	<i>New Adv. Intermediate Trail¹</i>	<i>1,150</i>	<i>100</i>	<i>*</i>		<i>2.6</i>	<i>Adv. Inter.</i>
74*	<i>New Trail – Island Pod</i>	<i>3,790</i>	<i>60</i>	<i>*</i>	<i>*</i>	<i>5.2</i>	<i>Expert</i>
75*	<i>New Trail – Island Pod</i>	<i>1,360</i>	<i>70</i>	<i>*</i>		<i>2.2</i>	<i>Expert</i>
76*	<i>New Trail – Island Pod</i>	<i>3,770</i>	<i>60</i>	<i>*</i>		<i>5.2</i>	<i>Expert</i>
77*	<i>New Trail – Island Pod</i>	<i>990</i>	<i>80</i>	<i>*</i>		<i>1.8</i>	<i>Expert</i>
78*	<i>New Trail – Island Pod</i>	<i>410</i>	<i>70</i>	<i>*</i>	<i>*</i>	<i>0.7</i>	<i>Expert</i>
79*	<i>New Trail – Island Pod</i>	<i>800</i>	<i>75</i>	<i>*</i>		<i>1.4</i>	<i>Expert</i>
80*	<i>New Trail – Island Pod</i>	<i>320</i>	<i>60</i>	<i>*</i>	<i>*</i>	<i>0.4</i>	<i>Expert</i>
81*	<i>New Escape Trail</i>	<i>540</i>	<i>35</i>	<i>*</i>		<i>0.4</i>	<i>Expert</i>
82*	<i>New Intermediate - Upper</i>	<i>6,390</i>	<i>55</i>	<i>*</i>		<i>8.1</i>	<i>Inter.</i>
83*	<i>New Intermediate - Lower</i>	<i>3,750</i>	<i>50</i>	<i>*</i>		<i>4.3</i>	<i>Inter.</i>
	TOTAL	24.45	miles			290.6	Acres

Source: SE GROUP, Whiteface

*Italics denote change from Existing Conditions, **Bold** denotes improvements approved in 1996 UMP, as listed on the following page.*

*** Denotes Conceptual Action**



LIFTS

Map Ref.	Lift Name	Vertical (ft)	Type
A	Mixing Bowl	92	Triple
B	Bear	325	Quad
C	Bunny Hutch	258	Triple
D	Mid-Station Shuttle (Removed)		
E	Valley Triple (Removed)		
F	Summit Quad	1,830	Quad
G	Little Whiteface	1,555	Quad
H	Mountain Run (Removed)		
I	Freeway	1,400	Double
J	Handle Tow	35	Surface
K	Cloudsplitter Gondola	2,432	Gondola (8)
L	New Detachable Quad	1,314	Det. Quad
M	Double Chair	1,565	Double



Proposed Clearing



Proposed Clearing
(Conceptual only)



Revegetation
(1996 Approved, not completed)



Proposed Clearing
(1996 Approved, not completed)



Proposed Lift Shortening
(1996 Approved, not completed)



Proposed Lift
(1996 Approved, not completed)



Proposed Lift
(Conceptual only)



Potential Snowmaking
Reservoir Location

TRAILS

Map Trail/Area Ref. Name		
1 Upper Cloudspin	27 Boreen	53 Upper Switchback
2 Lower Cloudspin	27a New Trail-glades	54 Lower Switchback
3 Upper Skyward	28 Danny's Bridge [Terrain Park]	55 Crossover Loop
3a New - Niagara	29 River Run	56 Glen
4 Lower Skyward	30 Mixing Bowl	57 Victoria Shoot
5 Paron's Run	31 Wolf	58 Lower Empire
5a New Trail-glades	31a Fox	59 Weber's Way
6 Excelsior	32 Bear [Half Pipe]	60 1900 Road
6a New-Bypass	33 Deer	61 2200 Road
7 Essex	34 Silver- upper	62 High Country Glade
8 Upper Northway	34 Silver- lower	63 Low Road
9 Lower Northway	34 Silver- Kampus Kruser	64 Tom Cat
10 Connector	35 Gold	65 On Ramp
11 Approach	36 Bronze	66 Wolf Run
12 Empire	36a New Trail-glades	67 Summit Express
12a New Trail	37 Home Run	68 Brookside [Terrain Park]
13 Upper Mackenzie	38 Follies	69 Cloudsplitter Glade
14 Lower Mackenzie	39 Valvehouse Road	70 10th Mtn Division Glade
15 Upper Wilderness	40 Silver Shoot	71 Draper's Drop
16 Lower Wilderness	41 Main Street	72 Parkway Exit
17 Mountain Run	42 Runner Up - upper	73 New Intermediate Trail
18 Upper Parkway	42 Runner Up - lower	73a New-Trail
19 Lower Parkway	43 Medalist	74 New Trail - Island Pod
20 Upper Thruway	44 Round-a-bout	75 New Trail - Island Pod
21 Lower Thruway	45 Easy Way	76 New Trail - Island Pod
22 Upper Valley	46 Upper Boreen	77 New Trail - Island Pod
23 Lower Valley A	47 Cakimty Lane	78 New Trail - Island Pod
23 Lower Valley B	48 Ladies Bridge	79 New Trail - Island Pod
23 Lower Valley C	49 Lower Gap	80 New Trail - Island Pod
24 Burton's	50 Riva Ridge	81 New Escape Trail
25 Broadway	51 Cloudspin Cut	82 New Intermediate - Upper
26 Easy Street A	52 Yellow Brick Road	83 New Intermediate - Lower
26 Easy Street B		

WHITEFACE

Prepared For:
OLYMPIC REGIONAL DEVELOPMENT AUTHORITY
LAKE PLACID, NEW YORK

Prepared By:

COMPREHENSIVE MANAGEMENT AND PLANNING REVIEW AND UNIT MANAGEMENT PLAN

TITLE:
**PROPOSED SKI
CENTER**

PROJECT NUMBER: 01102

DATE:
MARCH 2004

FIGURE #:
IV-1

FILE: [whiteface]

The recommended trail improvements noted above for the following trails were approved in the 1996 UMP, but have not been completed:

- Upper Cloudspin, Empire, Upper Mackenzie, Upper Wilderness, Upper Parkway, and Lower Thruway.

Discussion

As a result of the recommended trail additions and deletions which are shown on Exhibit IV-1, including Conceptual Actions, the skiable terrain would increase from 211.4 to 290.6 acres, a total of 79.2 acres or 37%.

The upgraded trail design reflects the desire to provide additional acreage at critical locations throughout the mountain in order to improve the flow of skier traffic, segregation of ability levels, and diversity of terrain. For the most part this involves the widening and reshaping of existing trails and the addition of new trails, or sections thereof, where the terrain is suitable.

The most significant increase in skiable terrain comes from the addition of the conceptual "Tree Island" pod situated north of the Summit Quad pod. This pod would be comprised of a series of weaving, intertwined, and interconnected narrow (40 – 80 foot width) expert trails, utilizing the natural terrain and tree cover wherever possible. There would also be a long, scenic intermediate run following the primary ridge down towards Easy Acres. These trails would be serviced by a double chairlift (potentially the relocation of the Mid-Station Shuttle double chair) and would add more than 30 acres of skiable terrain.

Where trail acreage has been deleted from the upgrading plan due to what is considered to be terrain which no longer contributes to the skiability of the mountain, Temporary fencing will be used to block off these routes (except those required for vehicle use) and they will be allowed to revegetate. Once revegetation is complete, the fencing can be removed.

It is recommended that all of the new trail acreage be shaped to a fall line configuration and that it be shaped to a smooth surface. The shaping should include

the placement of sufficient water bars to prevent soil erosion, and the use of, suitable seed mixture, and straw mulch to aid in the control of erosion.

Section IV.D of this report, the phasing plan, identifies the recommended sequencing for each of the trail improvements. The following descriptions divide the skiable terrain into five separate areas: the upper mountain, Little Whiteface, the lower mountain, the Easy Acres area (formerly Kid's Kampus) and the Tree Island Pod.

- Upper Mountain: The upgrading to occur on the Upper Mountain focuses on the Downhill/FIS trail homologation standards. Trail 3a, Niagara, would be used to connect Upper Skyward to Upper Cloudspin. A new 9.8-acre expert glade, Trail 5a, would be constructed in the forest between Paron's Run, Excelsior, Connector and Upper Cloudspin. These are Conceptual Actions.
- Little Whiteface: One of the high priority goals of the upgrading program for Little Whiteface is the addition of an intermediate trail from the summit. This will start from the top terminal of Cloudsplitter Gondola and run parallel to the upper section of Approach. The new trail will cross Approach twice as it descends the ridge to the previous top terminal of the Freeway double chair, which will be lowered ~500 feet to accommodate the new traffic flow. The trail will continue towards the gondola lift line and then return to join Lower Parkway.

An additional intermediate trail, 12a, would be added, beginning at the approach near the top of Upper Mackenzie. Trail 12a is a Conceptual Action.

This improvement will not only *directly* add nearly 5 acres of intermediate skiing on Little Whiteface, but it will effectively lower the ability level of Approach to an intermediate rating, as users of Approach will now have an intermediate option. As such, this single new trail construction will effectively add *two* intermediate runs from Little Whiteface, bringing the total to three (including Excelsior). This much-needed improvement should significantly improve the intermediate skiing experience for round-trip Gondola passengers, and all skiers on Little Whiteface.

Other improvements to the Little Whiteface terrain include selective widening to Empire, Upper Mackenzie, Upper Wilderness, Upper Parkway and Lower Thruway.

Lower Mountain: The improvements on the lower mountain consist mainly of the widening of certain low intermediate, and intermediate trails in order to satisfy FIS requirements for Downhill homologation. A minimum 40 meter-wide route must be established through the Mid-station area. Routing the Downhill course down Broadway, Ladies Bridge, and Lower Gap, circumventing the mid-station/ Mid-station lodge intersection is recommended. Each of these trails will be widened to a minimum of 40 meters. This solution will allow downhill races to occur without disturbing the traffic patterns on Lower Valley, allowing intermediate skiers to descend Little Whiteface and upper mountain areas without interfering with race events.

Other selective widening on the Lower Mountain terrain should include Broadway, Upper Valley and Lower Valley A. A new 5.7-acre intermediate glade, Trail 27a, is proposed along the northern edge of Boreen. This area will span the entire area between Boreen and Medalist, providing a unique and exciting glade-skiing experience for many intermediate skiers and riders.

Easy Acres pod (formerly Kid's Kampus): Selective widening of Bronze, Gold, Silver, and Silver Shoot in order to lower the effective ability levels of these trails and improve traffic flow patterns in this designated novice learning pod is recommended. These suggestions were approved in the 1996 UMP, however, not all improvements have been implemented. A new glade, Trail 36a, should be constructed in the region between Gold and Bronze. This 3.8-acre low-intermediate glade will provide a very exciting skiing experience that low ability level skiers rarely have the opportunity to enjoy.

It is also recommended that a children's snow play area be constructed on the south side of the lodge. This area should be fenced off and be set up with learning and play stations for children 3-6 years old. A "magic carpet" type of surface should be installed.

Tree Island Pod: As a Conceptual Action, this new pod would be established north of the Summit Quad pod. Situated around a double chair, the trail network would consist of several weaving, intertwined, and interconnected narrow (40 – 80 foot wide) expert trails, utilizing the natural terrain and tree cover as much as possible. The trails would incorporate tree islands, traditional glades, and open, narrow trails to create a unique skiing experience unlike anything in the northeast. There would also be a long, scenic intermediate run following the primary ridge down towards Easy Acres. Snowmaking would be installed on this pod to allow consistent conditions for the entire season.

The new Tree Island Pod is intended to provide an alternative to the traditional ski trail experience yet it would also be different than the typical glade skiing experience. The main differences are that the island pod would have snowmaking and the narrow trails would be groomed. Additionally, the pod has been designed to have very low terrain densities as a result of the limited capacity of the double chairlift. If and when it comes time to flag the trees in this area for cutting, it should be done with very close attention and sensitivity to preserve the natural setting. It may, in fact, require years of successive flagging to ensure that not too many trees are cut in the initial stages of development.

As shown in the table above, there would be 290.6 acres of ski trails at Whiteface when the upgrading program, including Conceptual Actions, is completed. These trails are 129,080 feet in length, which yields a total of 24.45 miles, which is 0.55 mile less than the maximum of 25 miles stipulated in Section I of Article XIV of the New York State Constitution. Of the total 24.45 miles, 2.7 miles (or 14,400 lineal feet) of open trails are in excess of 120' wide, which is 2.3 miles less than the 5-mile maximum allowed. These maximum widths assume that there are exclusions of 50' for a lift and 15' for a snowmaking line, which can apply to any trail on which they are present.

The sections of trails that exceed the 120 foot *adjusted* width are as follows. The raw trail widths (shown in the table above) reflect actual cleared swaths. Width adjustments are made to the swath measurement to reflect snowmaking infrastructure and lift lines to determine the adjusted trail width measurement, for the purposes of

satisfying the guidelines of Article XIV. The following trails exceed the 120 foot maximum width limit, after adjustments have been made for lift lines and snowmaking infrastructure.

Map Ref	Slope Length	Average Width
1	2,600	149
2	2,500	138
3	800	177
16	1,400	170
18	1,800	135
20	1,000	165
23B	900	200
25	1,700	135
32	1,700	150
TOTAL	14,400	

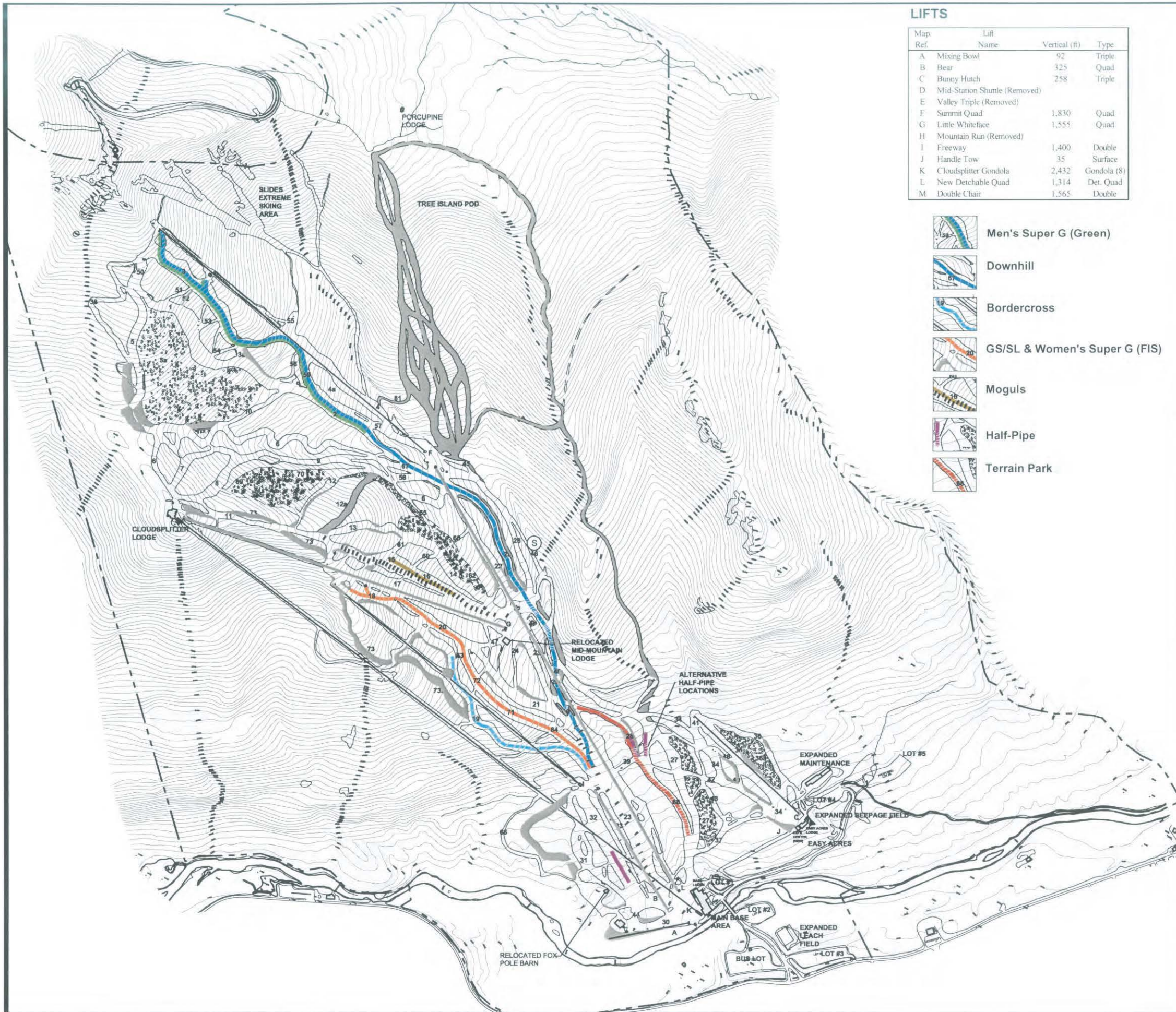
FIS – Race and Event Trail Homologations

As noted in the discussion above, there will be several modifications to existing trails in order to obtain Downhill (DH) FIS homologation. One criteria of homologation is the establishment of a 40-meter minimum width on the entire Downhill piste. In some sections the Downhill trail will need to be even wider. There are several alternatives for establishing a high caliber Downhill piste at Whiteface and there may be different routes for Continental Cup races vs. World Cup races. For the World Cup and Continental Cup events, the minimum vertical drop for a men's race is 800m, although exceptions may be made to 750m for World Cup and 650m for Continental Cup.

At Whiteface, a Continental Cup race may be held whereby the finish area is set above the mid-station restaurant, thereby alleviating any issues having to do with minimum widths in the vicinity of the mid-station restaurant. The following trails will be used to establish the DH piste for a Continental Cup: Upper Skyward, Lower Cloudspin, and Broadway.

For a World Cup event, where more vertical drop is required, the same upper mountain route may be used as for the Continental Cup but the piste must extend

(Exhibit IV-2, FIS Homologated Trails and Events) further down the mountain. In this case, the ideal World Cup DH piste would pass directly through the area that is



LIFTS

Map Ref.	Lift Name	Vertical (ft)	Type
A	Mixing Bowl	92	Triple
B	Bear	325	Quad
C	Bunny Hutch	258	Triple
D	Mid-Station Shuttle (Removed)		
E	Valley Triple (Removed)		
F	Summit Quad	1,830	Quad
G	Little Whiteface	1,555	Quad
H	Mountain Run (Removed)		
I	Freeway	1,400	Double
J	Handle Tow	35	Surface
K	Cloudsplitter Gondola	2,432	Gondola (8)
L	New Detachable Quad	1,314	Det. Quad
M	Double Chair	1,565	Double



Men's Super G (Green)



Downhill



Bordercross



GS/SL & Women's Super G (FIS)



Moguls



Half-Pipe



Terrain Park

TRAILS

Map Trail/Area Ref. Name	Trail Name	Trail Name	Trail Name
1	Upper Cloudspin	27	Boreen
2	Lower Cloudspin	27a	New Trail-glades
3	Upper Skyward	28	Danny's Bridge [Terrain Park]
3a	New - Niagara	29	River Run
4	Lower Skyward	30	Mixing Bowl
5	Paron's Run	31	Wolf
5a	New Trail-glades	31a	Fox
6	Excehior	32	Bear [Half Pipe]
6a	New-Bypass	33	Deer
7	Essex	34	Silver- upper
8	Upper Northway	34	Silver- lower
9	Lower Northway	34	Silver- Kampus Kruiser
10	Connector	35	Gold
11	Approach	36	Bronze
12	Empire	36a	New Trail-glades
12a	New Trail	37	Home Run
13	Upper Mackenzie	38	Follies
14	Lower Mackenzie	39	Valvehouse Road
15	Upper Wilderness	40	Silver Shoot
16	Lower Wilderness	41	Mam Street
17	Mountain Run	42	Runner Up - upper
18	Upper Parkway	42	Runner Up - lower
19	Lower Parkway	43	Medalist
20	Upper Thruway	44	Round-a-bout
21	Lower Thruway	45	Easy Way
22	Upper Valley	46	Upper Boreen
23	Lower Valley A	47	Calamity Lane
23	Lower Valley B	48	Ladies Bridge
23	Lower Valley C	49	Lower Gap
24	Burton's	50	Riva Ridge
25	Broadway	51	Cloudspin Cut
26	Easy Street A	52	Yellow Brick Road
26	Easy Street B		
		53	Upper Switchback
		54	Lower Switchback
		55	Crossover Loop
		56	Glen
		57	Victoria Shoot
		58	Lower Empire
		59	Weber's Way
		60	1900 Road
		61	2200 Road
		62	High Country Glade
		63	Low Road
		64	Tom Cat
		65	On Ramp
		66	Wolf Run
		67	Summit Express
		68	Brookside [Terrain Park]
		69	Cloudsplitter Glade
		70	10th Mtn Division Glade
		71	Draper's Drop
		72	Parkway Exit
		73	New Intermediate Trail
		73a	New-Trail
		74	New Trail - Island Pod
		75	New Trail - Island Pod
		76	New Trail - Island Pod
		77	New Trail - Island Pod
		78	New Trail - Island Pod
		79	New Trail - Island Pod
		80	New Trail - Island Pod
		81	New Escape Trail
		82	New Intermediate - Upper
		83	New Intermediate - Lower



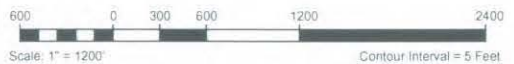
WHITEFACE

Prepared For:
OLYMPIC REGIONAL DEVELOPMENT AUTHORITY
LAKE PLACID, NEW YORK

Prepared By:



COMPREHENSIVE MANAGEMENT
AND PLANNING REVIEW
AND UNIT MANAGEMENT PLAN



TITLE:
**FIS HOMOLOGATED
TRAILS & EVENTS**

PROJECT NUMBER: 01102

DATE:
MARCH 2002

FIGURE #:
IV-2

FILE: [whiteface]

currently occupied by the mid-station restaurant. Therefore, the mid-station restaurant should be relocated as mentioned in the 1996 UMP and reiterated in this UMP Update. Other alternatives for holding a World Cup DH event prior to moving the mid-station restaurant include the use of Broadway (by-passing Upper Valley), a portion of Boreen, Ladies Bridge, River Run, and Lower Gap. Alternatively, Upper and Lower Valley could be used if the piste could pass through the mid-station area and to the north side of the restaurant. Both of these alternatives will require special exceptions to be made to the FIS trail criteria. In all cases noted herein, the proposed DH pistes will end at the designated central finish area on the Lower Valley run.

Given the importance and specificity of the design criteria for a modern Downhill piste, It is recommended that ORDA/Whiteface use the design services of Mr. Bernhard Russi, one of the foremost race trail designers in the world, to undertake the detailed design of this trail route.

Other trails that will be used in the future may also require some upgrading in order to meet current and future FIS certification standards. The objective of the competition certification program is to maintain an up to date “inventory” of race and event trails that will demonstrate Whiteface’s commitment to providing top quality, world-class terrain and facilities for training and holding major events.

It is a recommendation of this UMP Update that Whiteface establish a central finish area to serve the maximum number of alpine race events. The logical place to put such a finish arena would be in the area at the top of Bear Lift and the bottom of the new Draper’s Drop trail. All necessary electronic and communications equipment should be permanently in place and other facilities for athletes, coaches, media, and spectators should be located there.

3. Ability Level Breakdown

For the purposes of Mountain Planning, SE GROUP uses six ability level classifications, whereas North American standards dictate only three ability levels. While the North American standards are in place at Whiteface, planning and terrain considerations require a more precise differentiation than three major levels. As such, the report will refer to the six levels outlined above. The North American standards are included here for easy comparison and conversion for the reader.

The six ability levels are defined by the following gradient limits:

<u>Max Gradient</u>	<u>SE GROUP</u>	<u>North American</u>
0% to 12%	Beginner	Green
13% to 25%	Novice	
26% to 30%	Low Intermediate	Blue
31% to 40%	Intermediate	
41% to 50%	Advanced Intermediate	Black
> 50%	Expert	

Source: SE GROUP, Whiteface

It should be noted that trail widths have an influence on ability levels wherein narrow widths tend to make trails more difficult to negotiate and wider dimensions making them easier. At Whiteface for example, because of their narrow widths, some of the trails served by Lift C (Bunny Hutch) are classified as low intermediate rather than novice in spite of the fact that their grades are less than 25%.

SE GROUP analyzes terrain by capacity, rather than acreage. Acreage, while a common traditional measurement of distribution, does not accurately reflect the comfortable carrying capacity of the terrain, as the acceptable densities of skiers varies significantly by ability level. For instance, due to slower skiing speeds, beginner trails can accommodate 20 to 25 skiers at one time on a given acre, while some expert terrain can accommodate only two or three skiers on this same area, as skiing speeds, turn shapes, and skier habits are very different for expert skiers and novice skiers. As such, the analysis compares the actual terrain capacity at Whiteface to industry averages.

The ability level classification breakdown by terrain capacity is set forth in the following table. The right column in each ability level represents what can be considered the ideal skill level distribution in Whiteface's skier market, while the left column reflects existing terrain capacity of each ability level at Whiteface.

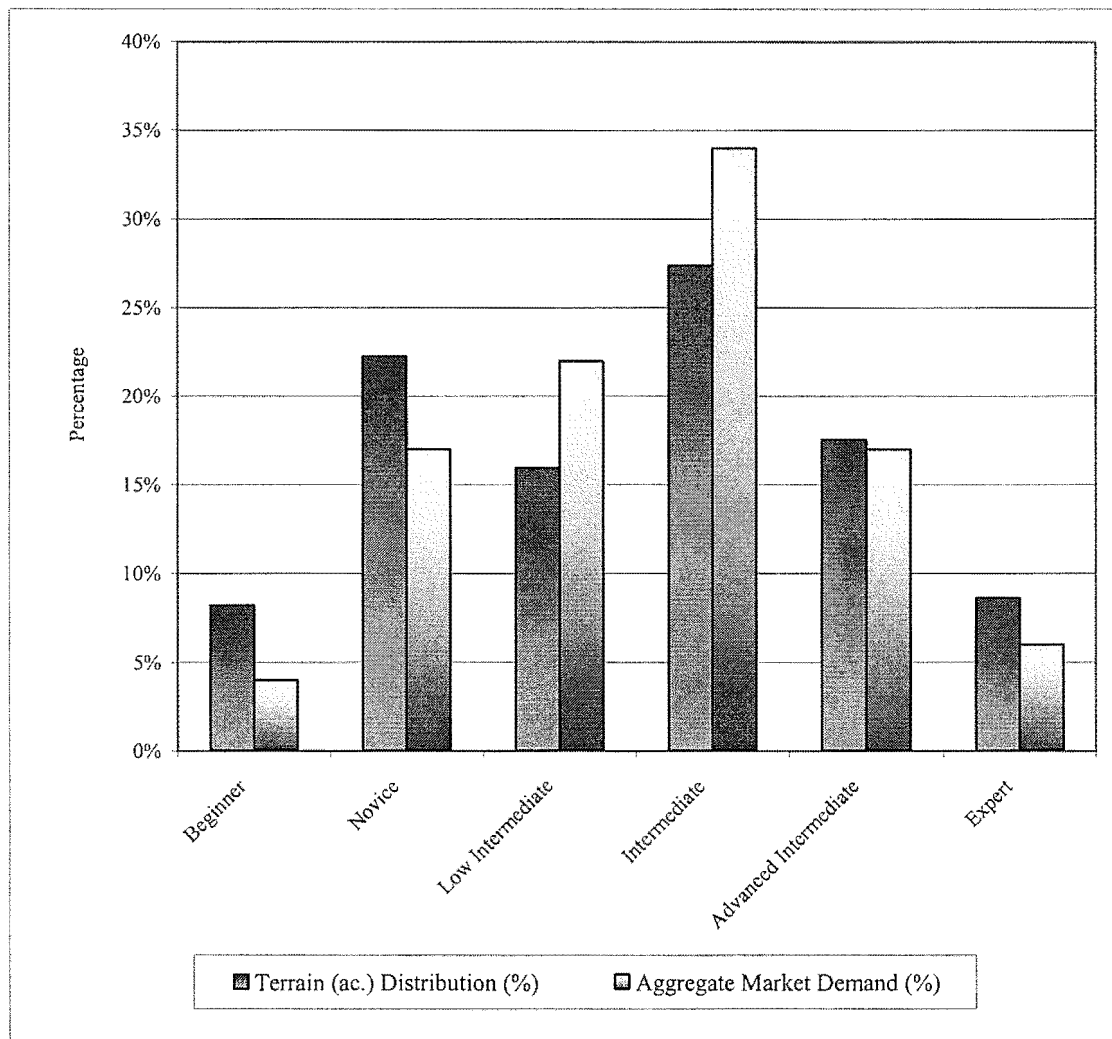
**TABLE IV-3
PROPOSED ABILITY LEVEL DISTRIBUTION**

Slope Ability Levels	Terrain Area (ac.)	Terrain CCC (guests)	Distribution by Capacity	Aggregate Market Demand
Beginner	6.7	569	8.2%	4%
Novice	30.4	1,539	22.2%	17%
Low Intermediate	31.5	1,104	16.0%	22%
Intermediate	75.8	1,895	27.4%	34%
Advanced Intermediate	71.5	1,215	17.6%	17%
Expert	74.7	598	8.6%	6%
TOTAL	290.6	6,919	100%	100%

Source: SE GROUP, Whiteface

The figure below illustrates the differences in available terrain from industry averages.

**FIGURE IV-1
PROPOSED ABILITY LEVEL BREAKDOWN**



Source: SE GROUP, Whiteface

As shown in the preceding table, there is an overall improvement in the breakdown of ability levels as a result of the trail improvements, particularly in the beginner, novice, and intermediate categories. Although the low intermediate and expert categories no longer correspond exactly to the ideal distribution of ability levels as they did under existing conditions, they still compare reasonably favorably with the ideal. The loss of low intermediate terrain is a result of the re-classification of several trails serviced by Bunny Hutch as novice, rather than low intermediate, due to trail widening. The increase in expert terrain is mostly due to the construction of conceptual Tree Island pod, which is comprised primarily of expert terrain.

The improvement in the intermediate category, while noteworthy, is still slightly less than ideal. Perhaps in the future additional terrain analysis will yield more potential intermediate terrain, but due to constraints in the mountain mass and existing trail layout, this improvement is the most economically feasible alternative for Whiteface to undertake at this point in time. Due to the work to be performed on Little Whiteface, intermediate terrain would increase from 22% of terrain capacity to 27.4% of capacity. While mathematically small, this would be a significant improvement in the skiing experience for intermediate skiers at Whiteface.

It is important to note that the surplus of lower ability levels (beginner and novice) is less severe of an issue than an equivalent shortage of lower ability level terrain. The reason for this is that while lower ability level terrain is still available to higher ability level skiers, higher ability terrain is inaccessible to low-level skiers.

4. Comfortable Carrying Capacity

**TABLE IV-4
ANALYSIS OF COMFORTABLE CARRYING CAPACITY**

Map Ref.	Lift Name	Slope Length (ft.)	Vert. Rise (ft.)	Actual Design Capacity (person/hr)	VTF/Day (000)	CCC (guests)
A	Mixing Bowl	887	92	1,200	662	220
B	Bear	1,712	325	1,800	3,510	530
C	Bunny Hutch	1,792	258	1,600	2,312	370
D	<i>Mid-Station Shuttle (Removed)</i>					
E	<i>Valley Triple (Removed)</i>					
F	Summit Quad	4,706	1,830	1,500	17,294	720
G	Little Whiteface	4,515	1,555	1,800	16,654	850
H	<i>Mountain Run (Removed)</i>					
I	Freeway	3,749	1,400	800	7,056	330
J	Handle Tow	450	40	400	96	50
K	Gondola	8,487	2,432	1,800	18,058	830
L	<i>New Detachable Quad</i>	6,265	1,314	2,400	18,922	1,350
M*	<i>New Double Chair</i>	3,682	1,565	1,200	10,986	390
	TOTAL			14,500	95,388	5,640

Source: SE GROUP, Whiteface

Italics denote change from Existing Conditions

*** Denotes Conceptual Actions**

Discussion

Comfortable Carrying Capacity (CCC) is defined as the optimum level of utilization of a ski area (the number of skiers that can be accommodated at any given time) which guarantees a pleasant recreational experience while at the same time preserving the quality of the environment.

The CCC figure is based on a combination of the uphill hourly capacity of the lifts, the downhill capacity of the trail systems, the total vertical rise of the lifts, and the total amount of time spent in the waiting lines, on the lifts themselves, and in the downhill descent.

The capacity figures are based on maximum waiting lines of ten minutes on the Gondola (K) and the New Detachable Quad (L); eight minutes on the Summit Quad (F), the Little Whiteface Quad (G), and the Freeway Double (I); and three to five minutes on all other lifts.

It is common practice among ski area operators, and one that has been generally accepted by the ski industry, to exceed the stated CCC on approximately ten to twenty days during the season by a total of 25%. In the case of the upgrading program at Whiteface, this represents an increase in CCC of almost 1,410 skiers, from 5,640 to 7,050 during those days. As stated in the Existing Conditions, SE GROUP feels this is an acceptable policy at many resorts, but it is not believed that Whiteface can comfortably accommodate that quantity of skiers. Given the mountain's unique layout, Whiteface would find significant crowding and skier flow issues on days when visitors exceed the new CCC of 5,640.

5. Terrain Density

One of the critical elements in estimating total capacity and a way of making certain that the figures are applicable, is to determine the density of skiers per acre of skiable terrain. Using the trail and capacity figures developed above, the density breakdown for the ski area is as follows.

**TABLE IV-5
PROPOSED TRAIL DENSITY ANALYSIS**

Lift			Guest Dispersement				Density Analysis				
			Guests				Terrain				
Map Ref.	Name	CCC	Support Facility/ Milling	In Lift Lines	On Lift	On Terrain	Area (ac.)	Actual Density (guests/ac.)	Desired Density	Diff. (+/-)	Density Index (%)
A	Mixing Bowl	220	55	48	35	82	5.1	16	21	-5	77
B	Bear	530	133	120	110	167	16.3	10	16	-6	63
C	Bunny Hutch	370	93	64	91	122	18.1	7	13	-6	51
D	Mid-Station Shuttle (Removed)										
E	Valley Triple (Removed)										
F	Summit Quad	720	180	180	212	148	56.9	3	4	-1	72
G	Little Whiteface	850	213	204	256	177	58.6	3	4	-1	72
H	Mountain Run (Removed)										
I	Freeway	330	83	96	97	54	28.9	2	6	-4	31
J	Handle Tow	50	13	16	7	14	0.8	17	23	-6	73
K	Gondola	830	208	165	129	328	32.9	10	8	2	132
L	New Detach. Quad	1,350	338	320	334	358	43.3	8	8	0	101
M*	New Double Chair	390	98	90	133	69	29.7	2	4	-2	57
TOTAL		5,640	1,414	1,303	1,404	1,519	290.6	6.7	8.2	-1.5	82

Source: SE GROUP, Whiteface

* Denotes Conceptual Actions

Discussion

The table above is derived from assumptions about which trails are serviced by which lifts, the actual daily capacity of lifts, and the comfortable density of skiers by ability levels. The table accounts for individuals using the support facilities, in the lift mazes, riding the lifts, and on the terrain. As an example, the Summit Quad will service 56.9 acres of terrain. Given that the quad chairlift will accommodate 720 skiers *per day*, it is assumed that, on average, 180 of these visitors are using support facilities at any given time, 180 skiers are in the lift line, 212 are riding the lift, and 148 are actually on the terrain. Given the total pod acreage of 56.9, there are an estimated 3.3 skiers per acre. The *desired* terrain density, taking into consideration the type of terrain and the anticipated ability level of skiers in that pod, is 4.2. This implies that the actual density of skiers is slightly lower than what is desired in the Summit Quad pod.

Mathematically speaking, the density index is 72, which means that actual density is 72% of the desired density. A density index greater than 100 indicates that there is not enough terrain to service the skier type and current lift capacity. A density index less than 100 indicates that more skiers could be comfortably accommodated on the terrain, and the lift capacity is not adequate to service the expanse of terrain in the pod. This analysis is very important in regards to determining which pods have a terrain deficit, or which lifts need a capacity upgrade.

The proposed lift and terrain improvements would yield the following changes in density at Whiteface:

- The density index of Mixing Bowl would increase only slightly, from 76 to 77, as the chairlift will be upgraded to a triple, and the terrain acreage will increase.
- The density index of Bear would decrease from 66 to 63, as the chairlift will be upgraded to a quad and Trail 31a would be built.
- The density index of the New Detachable Quad, servicing the terrain previously serviced by both the Mid-Station Shuttle and the Valley Triple, would be 101. Previously, the density indices were 112 and 128 for the double and triple, accordingly.
- The densities of the Summit Quad, Little Whiteface, Freeway, and the Handle Tow would not change significantly.

- The addition of intermediate terrain to Little Whiteface would help lower the density index on Cloudsplitter Gondola from 154 to 132. This is due to increased terrain and new skier distribution and flow patterns. It is important to note that the density would improve (density index will decrease) even with the capacity of the gondola *increasing* from 680 to 830 CCC, due to new skier flow patterns and more round-trip riders.

Overall, the density index of Whiteface's terrain would increase from 79 to 82, signaling an improved use of available terrain, improved lift capacity, and an improved lift system that better manages and distributes skiers. The more efficient use of terrain and even distribution of skiers should allow trails to maintain better surface conditions. This positive effect will be very noticeable to Whiteface skiers.

6. **Grooming**

The following tables depict recommendations in regards to terrain grooming at Whiteface, once the proposed actions have been completed. It is recommended that the following trails *not* be groomed on a daily basis:

**TABLE IV-6
TERRAIN NOT GROOMED**

Trail	Name	Acreage
4	Skyward (Lower)	12.2
5a*	New Glade	9.8
7	Essex (Upper)	1.9
8	Northway (Upper)	1.7
12	Empire	2.2
13	Mackenzie (Upper)	2.2
14	Mackenzie (Lower)	3.4
27a	New Glade	5.7
36a	New Glade	3.8
62	Glade	5.2
69	Cloudsplitter Glade	3.4
70	10th Mtn Division Glade	10
74-80*	<i>New Tree Island Pod</i>	<i>10</i>
TOTAL		71.5

Source: SE GROUP, Whiteface

* Denotes Conceptual Actions

It is anticipated that roughly half of the Tree Island pod would not be groomed, or 10 acres. This would bring the total ungroomed terrain to 71.5 acres. The following table summarizes the grooming vehicles in use at Whiteface:

**TABLE IV-7
GROOMING VEHICLE INVENTORY**

Vehicles	Year	Condition
Pisten Bully 200	2001	Excellent
Pisten Bully 260DW	1995	Good
Bombardier ME Plus	1995	Fair
LMC 3700C	1992	Poor
Pisten Bully 200	1999	Excellent
Pisten Bully 300 (Winch)	1999	Very Good
Pisten Bully 280	1996	Very Good

Source: Whiteface

**TABLE IV-8
GROOMING – TERRAIN & VEHICLES**

Total Skiable Acreage	291.2
Acres Not Groomed Daily	71.5
Total Groomed Acreage	219.7
Ratio of Groomed Acreage to Vehicles	30 to 1
Number of Vehicles Required	7
Number of Vehicles Available	7
Vehicle Surplus (Deficit)	0

Source: SE GROUP, Whiteface

The ratio of one grooming vehicle for every 30 acres of skiable terrain reflects the predominance of advanced and expert terrain at Whiteface and the fact that it is necessary to use winch cats on some of these trails due to their steep grades. It assumes a single shift operation with overtime allowed when required to complete the grooming cycle.

Given the amount of groomed terrain, there is currently an adequate number of grooming vehicles. Of course, grooming vehicles will need to be replaced on a rotating basis to ensure an efficient, operational fleet.

7. Snowmaking System Upgrading Plan

a) *Snowmaking Coverage Objectives*

The existing snowmaking system at Whiteface Mountain covers approximately 190 acres of terrain. The following table lists the existing trails currently covered with snowmaking and the objective snow depth required for opening the trail.

**TABLE IV-9
EXISTING SNOWMAKING ACREAGE**

Map Ref.	Trail/Area Name	Appr. Area (acres)	Skier Ability Level	Snow Depth (inches)	Snow Volume (ac-ft)
EXISTING SNOWMAKING TERRAIN					
1	<i>Upper Cloudspin</i>	8.9	Expert	36	26.7
2	<i>Lower Cloudspin</i>	7.9	Adv. Inter.	28	18.5
3	<i>Upper Skyward</i>	3.3	Expert	36	9.8
4	<i>Lower Skyward</i>	12.2	Adv. Inter.	28	28.5
5	<i>Paron's Run</i>	5.2	Adv. Inter.	28	12.0
6	<i>Excelsior</i>	10.9	Inter.	24	21.9
7	<i>Essex</i>	1.9	Expert	36	5.7
8	<i>Upper Northway</i>	1.7	Expert	36	5.1
9	<i>Lower Northway</i>	3.4	Inter.	24	6.8
10	<i>Connector</i>	0.6	Adv. Inter.	28	1.5
11	<i>Approach</i>	2.8	Adv. Inter.	28	6.6
13	<i>Upper Mackenzie</i>	1.8	Expert	36	5.5
14	<i>Lower Mackenzie</i>	3.4	Adv. Inter.	28	7.9
15	<i>Upper Wilderness</i>	0.9	Expert	36	2.8
16	<i>Lower Wilderness</i>	5.5	Adv. Inter.	28	12.7
17	<i>Mountain Run</i>	9.9	Adv. Inter.	28	23.1
18	<i>Upper Parkway</i>	5.0	Adv. Inter.	28	11.6
19	<i>Lower Parkway</i>	7.4	Inter.	24	14.9
20	<i>Upper Thruway</i>	3.2	Adv. Inter.	28	7.5
21	<i>Lower Thruway</i>	3.5	Inter.	24	7.1
22	<i>Upper Valley</i>	4.1	Low Inter.	20	6.9
23	<i>Lower Valley A</i>	2.4	Low Inter.	20	4.0
23	<i>Lower Valley B</i>	4.1	Low Inter.	20	6.9
23	<i>Lower Valley C</i>	6.2	Novice	16	8.3
24	<i>Burton's</i>	0.4	Inter.	24	0.8
25	<i>Broadway</i>	5.3	Inter.	24	10.5
26	<i>Easy Street A</i>	1.0	Low Inter.	20	1.7
26	<i>Easy Street B</i>	2.5	Low Inter.	20	4.2
27	<i>Boreen</i>	11.1	Low Inter.	20	18.4

Map Ref.	Trail/Area Name	Appr. Area (acres)	Skier Ability Level	Snow Depth (inches)	Snow Volume (ac-ft)
28	Danny's ridge [Terrain Park]	1.8	Expert	48	7.1
30	Mixing Bowl	2.6	Beginner	12	2.6
31	Wolf	2.4	Novice	16	3.2
32	Bear [Half Pipe]	5.9	Expert	36	17.6
34	Silver- upper	1.7	Low Inter.	20	2.8
34	Silver- lower	2.1	Novice	16	2.8
34	Silver- Kampus Kruiser	0.8	Beginner	12	0.8
35	Gold	5.6	Novice	16	7.4
36	Bronze	3.3	Low Inter.	20	5.5
37	Home Run	0.3	Novice	16	0.4
38	The Follies	3.3	Inter.	24	6.6
39	Valve House Road	0.3	Expert	36	1.0
40	Silver Shoot	0.5	Low Inter.	20	0.8
41	Main Street	0.6	Novice	16	0.7
42	Runner Up – upper	0.3	Low Inter.	20	0.5
42	Runner Up – lower	0.3	Low Inter.	20	0.5
44	Round-a-bout	1.3	Novice	16	1.7
45	Easy Way	0.3	Low Inter.	20	0.5
47	Calamity Lane	0.6	Inter.	24	1.3
48	<i>Ladies Bridge</i>	1.3	Inter.	24	2.5
49	Lower Gap	0.3	Inter.	24	0.7
50	Riva Ridge	0.8	Adv. Inter.	28	1.9
51	Cloudspin Cut	0.2	Adv. Inter.	28	0.5
52	Yellow Brick Road	0.1	Adv. Inter.	28	0.3
53	Upper Switchback	0.3	Adv. Inter.	28	0.8
54	Lower Switchback	0.3	Adv. Inter.	28	0.8
55	Crossover Loop	0.3	Adv. Inter.	28	0.8
57	Victoria Shoot	0.6	Adv. Inter.	28	1.3
58	Lower Empire	0.6	Inter.	24	1.3
59	Weber's Way	1.1	Inter.	24	2.2
60	1900 Road	0.4	Adv. Inter.	28	0.9
61	2200 Road	0.4	Adv. Inter.	28	1.0
64	Tom Cat	0.3	Inter.	24	0.7
65	On Ramp	0.3	Adv. Inter.	28	0.8
66	Wolf Run	1.0	Novice	16	1.3
67	Summit Express	1.0	Inter.	24	2.0
68	Brookside [Terrain Park]	4.1	Expert	48	16.5
71	Draper's Drop	5.1	Inter.	24	10.1
72	Parkway Exit	0.5	Inter.	24	0.9
		189.5 acres			405.8 ac-ft

Source: Sno.matic Controls & Engineering Inc., Whiteface

Snowmaking is proposed for the following existing trails:

TABLE IV-10
PROPOSED SNOWMAKING FOR EXISTING TERRAIN
(including proposed trail widening)

Map Ref.	Trail/Area Name	Appr. Area (acres)	Skier Ability Level	Snow Depth (inches)	Snow Volume (ac-ft)
5	<i>Paron's Run Widening</i>	1.2	Adv. Inter	28	2.8
12	<i>Empire</i>	2.2	Expert	36	6.6
13	<i>Upper McKenzie Widening</i>	.4	Expert	36	1.2
15	<i>Upper Wilderness</i>	.3	Expert	36	.9
18	<i>Upper Parkway</i>	.6	Adv. Inter.	28	1.4
19	<i>Lower Parkway</i>	.2	Inter.	24	.4
20	<i>Upper Thruway</i>	.6	Adv. Inter.	28	1.4
21	<i>Lower Thruway</i>	.1	Inter.	24	.2
22	<i>Upper Valley</i>	.8	Low Inter.	20	1.3
23	<i>Lower Valley A</i>	.1	Low Inter.	20	.2
29	<i>River Run</i>	2.5	Inter.	24	5.0
30	<i>Mixing Bowl</i>	1.2	Beginner	12	1.2
33	Deer	1.1	Novice	16	1.5
36	Bronze	.1	Novice	16	.1
40	Silver Shoot Widening	.5	Novice	16	.7
43	Medalist	1.8	Novice	16	2.4
46	Upper Boreen	0.7	Low Inter.	20	1.2
49	Lower Gap	.5	Inter.	24	1.0
52	Yellow Brick Road Reveg.	-.1	Adv. Inter.	28	-.2
56	Glen	0.3	Adv. Inter.	28	0.6
63	Low Road	0.3	Inter.	24	0.6
		15.4 acres			30.5 ac-ft

Source: Sno.matic Controls & Engineering Inc., Whiteface

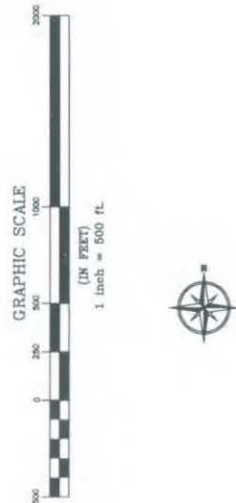
Snowmaking is proposed for all of the additional terrain that would be added (except for gladed trails). Installing snowmaking piping at the same time that the trail is constructed provides the most economical method of trail construction since it eliminates the duplication of equipment operation and re-vegetation efforts.

**TABLE IV-11
PROPOSED SNOWMAKING FOR NEW TERRAIN**

Map Ref.	Trail/Area Name	Appr. Area (acres)	Skier Ability Level	Snow Depth (inches)	Snow Volume (ac-ft)
PROPOSED TERRAIN WITH SNOWMAKING					
3a	New Niagara	.5	<i>Adv. Inter.</i>	28	
6a*	<i>New Excelsior Bypass</i>	.8	<i>Adv. Inter.</i>	28	1.9
12a*	<i>New</i>	1.8	<i>Inter.</i>	24	3.6
31a	<i>Fox</i>	4.1	<i>Low Inter.</i>	20	6.8
73	<i>New Intermediate Trail</i>	7.2	<i>Inter.</i>	24	14.4
73a	<i>New Adv. Intermediate</i>	2.6	<i>Adv. Inter.</i>	28	6.1
74*	<i>New Trail-Island Pod</i>	5.2	<i>Expert</i>	36	15.6
75*	<i>New Trail - Island Pod</i>	2.2	<i>Expert</i>	36	6.6
76*	<i>New Trail - Island Pod</i>	5.2	<i>Expert</i>	36	15.6
77*	<i>New Trail - Island Pod</i>	1.8	<i>Expert</i>	36	5.4
78*	<i>New Trail - Island Pod</i>	0.7	<i>Expert</i>	36	2.1
79*	<i>New Trail - Island Pod</i>	1.4	<i>Expert</i>	36	4.2
80*	<i>New Trail - Island Pod</i>	0.4	<i>Expert</i>	36	1.2
81*	<i>New Escape Trail</i>	0.4	<i>Expert</i>	36	1.2
82*	<i>New Intermediate – Upper</i>	8.1	<i>Inter.</i>	24	16.2
83*	<i>New Intermediate – Lower</i>	4.3	<i>Inter.</i>	24	8.6
		46.7 acres			110.6 ac. ft

Source: Sno.matic Controls & Engineering Inc., Whiteface

* Denotes Conceptual Action



REVISIONS				
No.	DATE	DESCRIPTION	DRAWN BY	APP'D BY

NOTES / LEGEND	
	ASBUILT PIPING
	ASBUILT PIPING AIR ONLY
	ASBUILT PIPING WATER ONLY
	PUMP HOUSE
	VALVE HOUSE
	ASBUILT PIPING TO REMOVE OR RELOCATE
	ASBUILT STRUCTURE TO REMOVE OR RELOCATE
	PROPOSED PIPING
	PROPOSED PIPING UPGRADE WATER ONLY
	PROPOSED PIPING UPGRADE AIR ONLY
	FAN GUN SNOWMAKING AREA
	PUMP HOUSE
	VALVE HOUSE
	PROPOSED PIPING WATER ONLY
	PROPOSED PIPING AIR ONLY
	PROPOSED FAN GUN WIRING
	PROPOSED WATER PIPE SIZING
	PROPOSED AIR PIPE SIZING

DRAFT
FOR REVIEW ONLY
NOT FOR CONSTRUCTION



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SNO.MATIC

CLIENT
WHITEFACE MOUNTAIN RESORT

PROJECT TITLE
WHITEFACE SNOWMAKING SYSTEM

DRAWING TITLE
PROPOSED SNOWMAKING AIR AND WATER PIPING

Designed by S. BARTHOLD	Approved by M. PURCELL
Project no. 115.1	Drawn by J. WILKINSON
Revision 4/18/02	Scale 1" = 500'-0" D SIZE
Drawing no. WF-GE-01.DWG	Sheet no. — — —

The following table summarizes the total snowmaking objectives for the terrain at Whiteface:

**TABLE IV-12
SNOWMAKING TERRAIN OBJECTIVES SUMMARY**

Terrain Description	Appr. Area (acres)	Snow Volume (ac-ft)
Existing Terrain with Snowmaking	189.5	405.8
Existing Terrain with Proposed Snowmaking	15.4	30.5
Total Existing Terrain with Snowmaking	204.9	436.3
Proposed Terrain with Snowmaking*	46.7	110.6
Total Terrain with Snowmaking*	251.6	546.9
Total Terrain with No Snowmaking*	39.0	
Total Skiable Terrain	290.6	

Source: Snowmatic Controls & Engineering Inc., Whiteface

* Denotes Conceptual Actions Included

b) Snowmaking Technology Analysis

Present snowmaking technologies can be categorized into direct and indirect processes. Direct processes utilize the cooling capacity of ambient air at sub-freezing conditions to produce snow. This involves generating a spray of water droplets, nucleating and freezing these droplets, and depositing the droplets on the trail or slope. Indirect processes utilize refrigeration systems to either produce flake ice or to control the climate inside a structure. Indirect processes have been installed primarily in Asia and indoor facilities, and are not considered for Whiteface due to energy expense and capital costs constraints.

There are three basic types of direct snowmaking equipment, internal mix compressed air/water systems, external mix compressed air/water tower guns, and fan systems. Each type of snowmaking equipment has certain benefits and drawbacks.

Internal Mix Compressed Air/Water Equipment

The original snowmaking devices used compressed air to shatter a water stream into a spray, and propel this spray into the air to provide enough time airborne to freeze the droplets before they hit the ground. Many modifications have been

made to the nozzle configurations of this equipment, but the basic approach is identical to the original design. A major advantage of this technology is that it is very flexible in terms of the type of snow that can be created, or the temperatures at which this snow is made.

To use this equipment, dual pipelines are installed, one containing pressurized water and the other containing compressed air. Snowmaking nozzles or guns mounted on a small sled, tripod or tower are connected to the main pipelines by flexible hoses. The water hydrant allows the water pressure and flow to be adjusted, which impacts the amount of compressed air consumed, the size of water droplet that is formed, and the type of snow produced. The snow quality of internal mix compressed air/water equipment is very adjustable, providing that temperatures are below 28 to 30° F WB.

Internal mix snowguns are inexpensive and are very portable. This makes it easy to purchase large numbers of guns to operate on different sections of the trails. It is not uncommon to have one of these guns operating every 75-100 feet down the length of a trail to produce enough snow to open a slope in one night.

The primary disadvantage of this process is the energy consumed by the compressed air. At higher temperatures, compressed air can make up 95% of the total energy consumption of the snowgun. This translates directly to operating costs, which can be very high for internal mix snowguns. A secondary disadvantage is the noise created when large quantities of compressed air expand out of the nozzle. This can make internal mix technology unacceptable in environmentally sensitive areas.

External Mix Compressed Air/Water Equipment

External mix snowguns were originally developed in the mid 1970's, but have become popular only in the last decade. These guns utilize high-pressure water passing through nozzles located on a 20-35 foot tower to generate a spray. A secondary stream of either compressed air or compressed air/water mixture is directed into the primary spray at a location approximately 1-2 feet from the nozzle. This secondary stream provides nucleating particles to the primary stream.

Nozzle manufacturers with varying amounts of water and compressed air volumes have developed a variety of external mix configurations. Typically, the towers are fixed on the sides of the trail due to their height, which can restrict operations when unfavorable winds are experienced.

Recently, several manufacturers' have advanced the portability of this style of snowgun technology. Sled mounted versions are available, though difficulties arise due to the weight/center of gravity, and the fact that sleds can be easily buried if not often moved frequently. Other developments include lighter towers that can be hand carried, mounts which can be drilled into the snow with a hand tool, and mechanical mounts that make it easier to raise and lower the guns. In addition, a water-only tower gun has been introduced which produces snow at colder temperatures. This gun does not have any nucleation equipment, so it therefore requires nucleating additives.

The primary advantage of these types of tower guns is the ability to create large volumes of snow with minimal energy, especially at lower temperatures. In addition, water flows through the guns are typically constant through a wide range of pressures, though generally the higher the water pressure the more consistent the snow production and the higher the snow quality. External mix guns do not typically require any adjustment by the snowmaking crews. Because the guns use little compressed air, they are both inexpensive to operate and create minimal noise disturbances. The disadvantage of these guns is susceptibility to inclement winds (due to both location and height of the towers), the fact that most are normally fixed at one location, the inability to adjust the type of snow being produced without changing out nozzle assemblies, and difficulties in generating a uniform snow cover over wide trails.

Whiteface has high winds, especially at the upper elevations. The potential for high amounts of drift loss at these elevations makes it difficult to justify the use of tower guns.

Fan Snowmaking

Fan snowmaking guns were developed in the late 1960's to provide better efficiencies and lower operating costs. These guns use a multitude of small pressure nozzles to project a spray into the airflow of a ducted axial fan. The equipment is mounted on a small, wheeled carriage, with snow quality adjusted by turning on or off banks of nozzles.

To assist in the nucleation of the spray, a small air/water gun is used to generate fine ice particles. A small on-board vane compressor typically feeds this nucleating gun.

The development of multi-nozzle fan guns, which use many small nozzles built into the air duct, has significantly improved the performance of fan guns. Traditionally considered a colder weather gun, fans have now become the preferred technology for many resorts in mild climates.

Fan snowmaking guns offer the best energy efficiency of all technologies (except for water-only tower guns). In addition, fan guns are quiet and project the snow far onto the trail. However, fan guns are large and typically require a grooming machine to move them (especially in steep and rolling terrain). In addition, fan guns are less adaptable to operations that must resurface wide areas of terrain with limited depths due to the high capital cost of each fan gun. Finally, fan guns require electrical cable to be installed on the sides of the trail. While the electrical cable is typically similar in cost to the compressed air lines fan guns can replace, costs increase for long trails or areas where wiring cannot be conveniently buried. A matrix of advantages/disadvantages for each type of equipment is included below:

ADVANTAGES

DISADVANTAGES

INTERNAL MIX AIR/WATER

- | | |
|--|----------------------------|
| --Adjustable snow quality at all temps | --high energy requirements |
| --Portable | --Loud |
| --Low cost per nozzle | --Variable adjustment |
| --Good projection | --High Operating Costs |

EXTERNAL MIX AIR/WATER

- | | |
|--------------------------------|--------------------------------|
| --Low operating cost | --limited temp range per setup |
| --Easy on/off | --Limited projection |
| --Limits compressor investment | --Fixed snow characteristics |
| --High productivity | --Often fixed, not portable |

FAN

- | | |
|------------------------------------|------------------------------------|
| --Low operating cost | --More difficult to move |
| --Low noise | --High Labor requirement |
| --Good projection | --High cost per nozzle |
| --Variable snow quality adjustment | --Requires electrical distribution |

A table of energy costs for some snowguns of these types is included below (based on Whiteface's present levelized electrical rate of 0.072\$/kwh).

Air/Water--Internal mix (based on Ratnik Snow Giant)

Temp	A/W	Ft ³ /kW-hr	\$/ac-ft (snow)
28	25	4.13	\$760
25	18	5.73	\$547
20	10	10.32	\$304
15	7	14.75	\$213
10	5	20.64	\$152

Air/Water—External Mix (based on HKD Millennium)

Temp	GPM	Ft ³ /kW-hr	\$/ac-ft (snow)
28			
25	15	38.71	\$203
20	15	38.71	\$203
15	40	102.22	\$76
10	40	102.22	\$76

Fan System (based on Lenko/SMI with cold water)

Temp	GPM	Ft ³ /kW-hr	\$/ac-ft (snow)
28	25	20.05	\$156
25	40	32.09	\$98
20	78	62.557	\$50
15	100	80.21	\$39
10	140	112.30	\$28

There are variations in energy consumption between specific gun set-ups within these categories, especially in external mix towers where performance depends on the type of gun and the nozzles selected for operation.

c) Trends in Snowmaking Operations

Present trends in snowmaking operations are driven by several factors. The first is a demand for higher quality skiing surfaces. Improvements in snowmaking technology and a highly competitive business environment provide a significant advantage to resorts that provide good snow surfaces through abundant snowmaking capacity. To retain a good surface throughout the season, many resorts produce a fairly dry and light snowpack early in the year as opposed to traditional “base” coverage. While this often increases operating expenses, the snow does not degrade as quickly to hardpack or ice after a thaw or peak traffic day.

A second trend has been toward the use of external mix towers and fan guns to provide faster coverage rates at colder temperatures. This in turn has led to a rapid increase in water pumping capacity, and often to substantial investments in

storage reservoirs as well. The benefit is that coverage can be achieved very quickly when conditions are ideal and operating costs are low. A core capacity of equipment is normally retained to provide for marginal snowmaking production and to achieve coverage during warmer seasons. However, the snow that can be produced with this equipment during temporary cold periods helps minimize the numbers of hours of operation during warm periods when costs are high.

A third trend stems from a strong domestic economy and low unemployment rates which results in limited availability of reliable seasonal labor for snowmaking. This has made it difficult for large resorts to obtain enough staff to safely operate their system, and has placed a premium on equipment that is easy to operate without extensive experience. Automatic snowmaking plants (automation of pumps, compressors, and/or guns) are becoming more common as a result of these factors.

From an economic vantage point, the difference in energy costs between producing snow using conventional air/water internal mix vs. low energy technology is over \$200,000 per year, assuming 518 acre-ft of snow is produced at an average operating temperature of 20-25 degrees. On the other side, the loss of 10-15,000 skier visits due to poor early season snow quality would eliminate the benefit of this operating savings. In view of this, it is recommended that Whiteface invest in low energy technology where it applies, while focusing on diversity of technology that provides for rapid production rates and premium snow quality.

d) Snowmaking Production Analysis

To determine the optimal capacity and configuration for the expanded snowmaking plant at Whiteface a snowmaking system production model was developed. This model integrates:

Water availability from the West Branch of the Ausable River.

Temperature/climate data from the NOAA weather site in Lake Placid at elevation 1940' (approximately mid-mountain).

Historic operational efficiencies from historic data collected at similar snowmaking system.

Snow requirements defined in Table IV-12.

Field data collected from various snowgun manufacturers through testing programs.

The following assumptions provided additional data required to complete the analysis:

HKD or McKinney External Mix tower guns.

25 kW fan guns.

Ratnik Snow Giant air/water guns.

Minimum of 8 hours of consecutive temperatures below 28°F wetbulb (WB) for early season snowmaking (before January 1).

Minimum of 16 hours of consecutive temperatures below 28°F wetbulb (WB) for mid/late season snowmaking (after January 1).

Snowmaking System Start-up on or after November 15 of each year.

De-rating factor for manual snowmaking operations at 65% of ideal performance levels. This accounts for start-up/shutdown losses, snowgun adjustments, switching from trail to trail for setup, and general operating conditions for a manual snowmaking system. This percentage was developed from historical and field data collected from similar manual snowmaking systems.

Snowmaking objective: Cover 100% of the snowmaking terrain in 80% of the years before Christmas.

Four snowmaking systems were investigated for Whiteface:

1. The model was used to predict the snow production potential of the existing snowmaking system capacity of 4,200 gpm/29,500 cfm/2 fans/12 towers. This system is predicted to produce approximately 284 acre-feet of snow before Christmas week in 80% of the years, falling 30% short of the objective of 409 acre-feet (see Table IV-13).
2. To achieve the goal of covering the existing snowmaking terrain by Christmas in 80% of the years, the pumping capacity is increased to 5,000 gpm and 100

external mix air/water tower snowguns² are added, as well as an additional 2 fan guns. This system produces approximately 418 acre-feet of snow by Christmas (see Table IV-14 for summary).

3. To provide adequate coverage on the existing trails that presently do not have snowmaking (in addition to trail widening recommendations), additional fan guns are proposed on the lower flatter terrain. By increasing to 10 fans, all existing terrain is covered by Christmas in 80% of the years. The predicted production amount under this scenario is 459 acre-ft by Christmas as opposed to the objective of 440 acre-ft (see Table IV-15 for summary).
4. The final system is for Build-out conditions with the conceptual Tree Island Pod. This system would require an increase in:
 - Water and air capacity to 6,000 gpm and 34,500 cfm
 - Increased numbers of external air/water tower snowguns (150).

This system would produce approximately 567 acre-feet of snow by Christmas in 80% of the years. See Table IV-16 for a summary of production.

e) Snowmaking Water Analysis

Whiteface Mountain currently withdraws water from the West Branch of the Ausable River. Water withdrawals are limited by the State to periods when the river flow downstream of the intake exceeds 38 cfs. In order to determine the quantity of storage necessary to offset potential withdrawal restrictions, a supply/demand study was developed.

The USGS abandoned their gauging station on the West Branch of the Ausable River in 1968, though substantial water flow data exists before this date. There are more recent gauging records on the East Branch of the Ausable and on the Ausable River, however, these records cannot be statistically correlated with the early data on the West Branch.

² Note that if all tower guns are permanently mounted, additional tower guns will need to be purchased. Most fixed towers operate less than 150 hours before the area around the gun has sufficient snow, so that other guns must be available to provide the total amount of production expected from a mobile gun.

Based on these variances, water flow data was collected from the West Branch gauging station (located 5 miles east of Lake Placid³). The drainage watershed for this station is 116 square miles in area, with the gauge at 1621' in elevation. Thirty years of daily flow data from 1938 through 1968 were analyzed to determine weekly waterflow exceedance probabilities throughout the snowmaking season. This data was then prorated to the watershed above the snowmaking water intake⁴, and compared to estimated snowmaking demands based on the weather analysis. The results are included in Table IV-17.

³ Station 02010004 located at Latitude 44° 18' 40", Longitude 73° 55' 00"

⁴ The watershed above the existing snowmaking water intake is +/- 130 square miles.

**TABLE IV-13
SNOWMAKING SYSTEM PRODUCTION
EXISTING SNOWMAKING SYSTEM**

Production Statistics ¹			
	acre-feet of snow		
	90%	80%	70%
November 20	13	17	21
December 1	61	73	77
December 15	171	189	219
December 25	261	284	310
January 1	358	370	386
January 31	672	688	752

1. Production Percentile indicates the minimum volume of snow that could be statistically produced. IE. By December 25, 261 acre-feet of snow would be produced in at least 90% of the years.

Production Assumptions	
System Water Capacity	4200gpm
System Compressed Air Capacity	29500cfm @ 100 PSI
Number of Fan Guns	2each @ 25 kW
Number of Tower Guns	12each fixed
Hours before Startup Early Season	8hrs
Hours before Startup Mid Season	16hrs
Startup Temperature	28Degrees F Wet Bulb
Startup Date	November 15
System Operation Efficiency	35%Production loss
Water Cooling Gain	0%Production gain

**TABLE IV-14
SNOWMAKING SYSTEM PRODUCTION
EXPANDED EXISTING SNOWMAKING SYSTEM**

Production Statistics ¹			
	acre-feet of snow		
	90%	80%	70%
November 20	15	24	29
December 1	89	103	109
December 15	252	272	318
December 25	382	418	448
January 1	518	540	554
January 31	985	1010	1107

1. Production Percentile indicates the minimum volume of snow that could be statistically produced. IE. By December 25, 382 acre-feet of snow would be produced in at least 90% of the years.

Production Assumptions	
System Water Capacity	5000 gpm
System Compressed Air Capacity	29500 cfm @ 100 PSI
Number of Fan Guns	4 each @ 25 kW
Number of Tower Guns	100 each fixed
Hours before Startup Early Season	8 hrs
Hours before Startup Mid Season	16 hrs
Startup Temperature	28 Degrees F Wet Bulb
Startup Date	November 15
System Operation Efficiency	35% Production loss
Water Cooling Gain	0% Production gain

TABLE IV-15
SNOWMAKING SYSTEM PRODUCTION
EXPANDED EXISTING SNOWMAKING SYSTEM FOR ALL EXISTING TERRAIN

Production Statistics ¹			
	acre-feet of snow		
	90%	80%	70%
November 20	17	27	32
December 1	100	115	121
December 15	279	299	352
December 25	426	459	490
January 1	565	592	613
January 31	1069	1097	1213

1. Production Percentile indicates the minimum volume of snow that could be statistically produced. IE. By December 25, 426 acre-feet of snow would be produced in at least 90% of the years.

Production Assumptions	
System Water Capacity	5000gpm
System Compressed Air Capacity	29500cfm @ 100 PSI
Number of Fan Guns	10each @ 25 kW
Number of Tower Guns	100each fixed
Hours before Startup Early Season	8hrs
Hours before Startup Mid Season	16hrs
Startup Temperature	28Degrees F Wet Bulb
Startup Date	November 15
System Operation Efficiency	35%Production loss
Water Cooling Gain	0%Production gain

TABLE IV-16
SNOWMAKING SYSTEM PRODUCTION
SNOWMAKING SYSTEM BUILD-OUT FOR ALL EXISTING AND PROPOSED TERRAIN

Production Statistics ¹			
	acre-feet of snow		
	90%	80%	70%
November 20	20	34	40
December 1	124	141	149
December 15	344	369	435
December 25	529	567	602
January 1	694	731	755
January 31	1315	1353	1497

1. Production Percentile indicates the minimum volume of snow that could be statistically produced. IE. By December 25, 529 acre-feet of snow would be produced in at least 90% of the years.

Production Assumptions	
System Water Capacity	6000gpm
System Compressed Air Capacity	34500cfm @ 100 PSI
Number of Fan Guns	10each @ 25 kW
Number of Tower Guns	150each fixed
Hours before Startup Early Season	8hrs
Hours before Startup Mid Season	16hrs
Startup Temperature	28Degrees F Wet Bulb
Startup Date	November 15
System Operation Efficiency	35%Production loss
Water Cooling Gain	0%Production gain

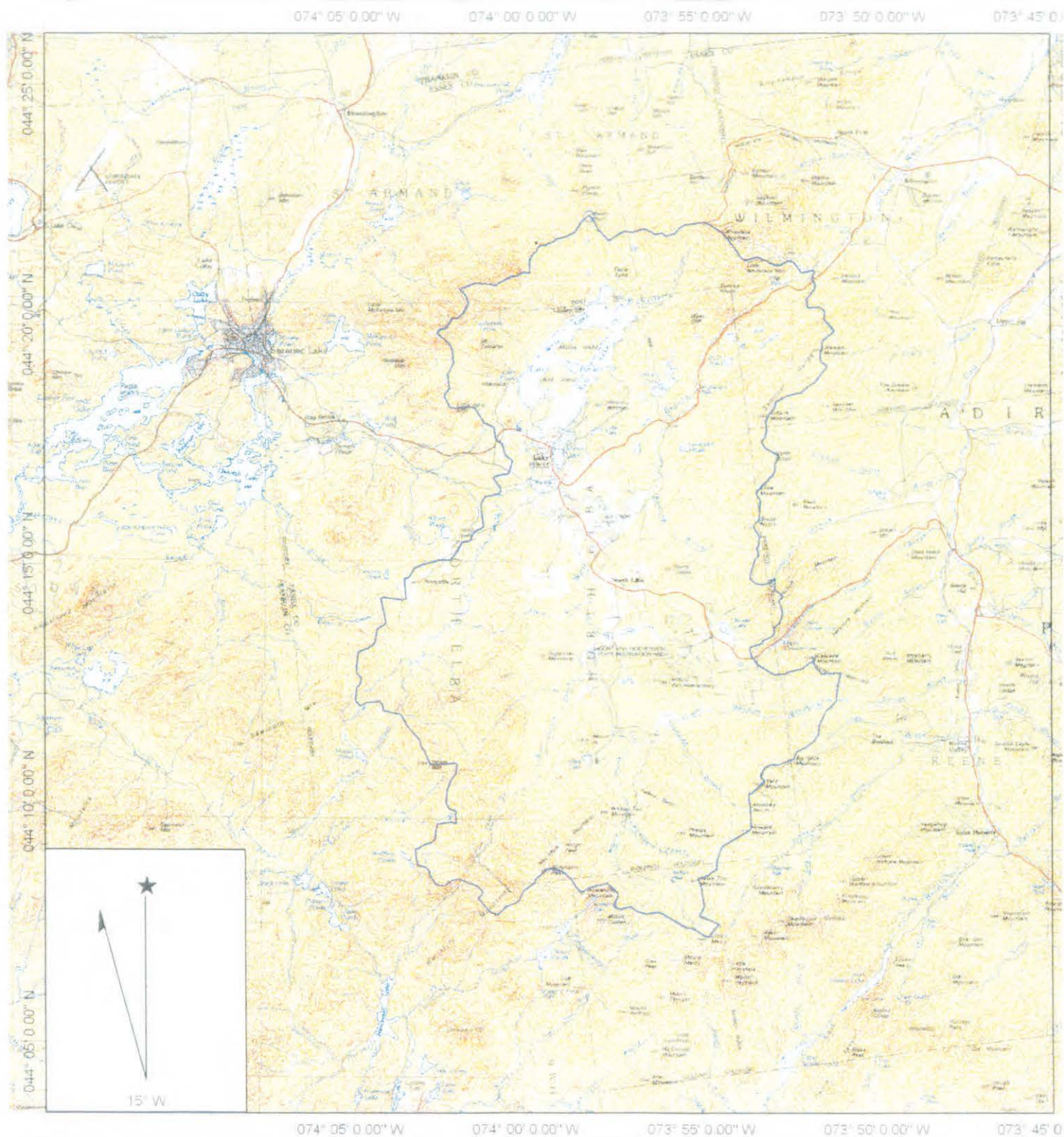
**TABLE IV-17
WEEKLY WATER DEMAND (MG) AT BUILD OUT**

	Weekly Demand/Supply⁵ (MG)	Cumulative Deficit (MG)
11/1 - 11/7	22	0.0
11/8 - 11/14	22	0.0
11/15 - 11/21	15	0.0
11/22 - 11/28	9	0.0
11/29 - 12/5	7	0.0
12/6 - 12/12	5	0.0
12/13 - 12/19	1	0.0
12/20 - 12/26	0	0.0
12/27 - 1/2	-4	3.8
1/3 - 1/9	6	0.0
1/10 - 1/16	-5	4.8
1/17 - 1/23	-2	7.2
1/24 - 1/30	3	4.7

Source: Sno.matic Controls & Engineering Inc., Whiteface

These figures indicate that a storage capacity of 5 MG to 8 MG would be necessary at build out to fully provide water for snowmaking during a dry year. This storage would provide the snowmaking system with water for 14 to 22 hours of continuous snowmaking at full pumping capacity without recharge. The recommended storage would also balance the conditions encountered during frazil (slush ice) production and low water flows, as well as reducing the impact of high sediment loads in the river.

⁵ Maximum weekly demand for 90th percentile year snowmaking demand and 99th river waterflow exceedance probability.



Name LAKE CHAMPLAIN SOUTH
Date: 9/26/2001
Scale: 1 inch equals 3.156 miles

Location: 044° 14' 49.7" N 073° 59' 15.9" W
Caption: WHITEFACE SNOWMAKING WATERSHED
(+/-130 SQ. MILES)

f) Water System Improvements

To achieve the production capacity defined in Section IV.7.d, Whiteface should expand the pumping capacity at facilities P2, P3, and P4 as follows⁶:

River Withdrawal (P1)	6,000 gpm
Lower Mountain System (P2)	6,000 gpm
Mid Mountain System (P3)	5,800 gpm
Upper Mountain System (P4)	2,850 gpm (existing capacity)

The increased water capacity would increase production rates and improve snowmaking efficiency during colder temperatures. This reduces overall production hours and reduces operating costs because more snow can be made during optimal conditions.

Intake System

In order to achieve these pumping rates, Whiteface must first resolve restrictions at the existing intake that limit withdrawals to approximately 3,000 gpm. This restriction is the result of high velocity entering the pump well, relatively low depths over the suction bells of the pump, and plugging through debris or frazil ice. Options include:

Water enters the existing structure through a serpentine channel installed to deposit sediment. After flowing into an external basin, the water runs through a relatively small opening into the main pump chamber. The high velocity through this chamber creates vortexing issues with the first pump and level constraints on the last pump. To reduce this velocity to below 2 feet/second while pumping 6,000 gpm, the entrance area for the water will need to be increased to at least 7 square feet. This can be done by removing the plywood baffle boards in front of the pumps (thereby eliminating the serpentine channel) or by cutting holes in the concrete behind the pumps (chamber behind the pumps is connected to side channel).

During cold nights at the beginning of the season (before an ice cover has developed on the river), water withdrawals are hampered by frazil or “slush” ice. Frazil ice is formed when turbulent sections of the stream generate ice crystals

⁶ Pumping capacity breakdown is based on approximate acreage percentage serviced by each pump station

that run suspended in the river and coat any surface they hit. Once the stream is frozen over, the ice cover provides an insulating blanket, which eliminates frazil. With a deep intake above the flume, frazil impacts would be significantly reduced, especially since the backwater of the flume helps promote the development of an ice cover.

For the existing intake structure, several other options are available:

Sugarloaf in Maine has successfully eliminated frazil by installing a water manifold with orifices at the edge of the intake screen. This creates a continual jet of water running over the surface of the screen.

Install a warm water return from the water-cooling system for the compressed air system and dump that water into the intake pit. This would utilize the existing abandoned 12" supply line adjacent to the Mixing Bowl Lift, and would only be used during frazil conditions and would not elevate stream temperatures.

If water storage is constructed, the impact of frazil is lessened since water can be withdrawn from storage during periods of frazil.

A solution to the frazil ice problem is currently being explored.

PH 1

Aside from the withdrawal issues, PH 1 already has a capacity of 6,000 gpm. However, the suction pressure entering all of the upper pumphouses, as well as at critical trail junctures (VH at top of Northway, VH on Upper McKenzie) is less than 150 psi (often close to 100 psi). This pressure is too low for efficient snowmaking on these sections, especially with tower based technology which typically requires 300 psi minimum. It is recommended that additional stages be added to the PH 1 pumps to bring the discharge pressure from 240 feet TDH (approx. 100 psi) to 350 feet TDH (approx 50 psi). This will require increasing the motor size to 250 HP, and changing out the existing starters. However, the additional 50 psi of pressure will significantly improve system pressures throughout the system, and will not exceed the suction rating of existing pumps or valving.

PH 2

The existing capacity of PH 2 is 4,200 gpm, so that two additional 900-gpm pumps are required. Installation of these pumps will require the existing aftercooler to be moved. The pumps will match the existing 350 HP vertical turbine units. Electrical support will be simplified if these pumps are installed at the same time that a centrifugal compressor is installed to replace 3 rotary screws (see air section).

PH 3

To increase the water capacity at PH 3 to 5,800 gpm will require the addition of two 1000 gpm pumps in conjunction with the existing snowmaking pumps. These pumps can be installed in the unfinished “cutout” area of the structure. One pump can be installed without changing out the existing 2,000 KVA transformer; the second pump will likely require a larger transformer.

PH 4

Proposed piping modifications will decrease the terrain serviced by PH 4; therefore, the pumping capacity at this location can remain at the existing 2,850 gpm⁷.

TREE ISLAND POD

Snowmaking coverage of the Tree Island Pod would require the installation of a new pump house at the base of this pod. The capacity required to cover this snowmaking pod is 2,100 gpm. Based on the existing snowmaking pumping heads the discharge head of the new pumps is 1,185'. The power requirements for this pump house are approximately 900 Hp (671 kW).

g) Air System Improvements

The 1996 UMP analyzed the proposed plan to replace the existing rotary screw compressors, which are nearing the end of their life span. To date Whiteface has replaced two of the old rotary screw compressors with new 800 Hp centrifugal compressors. It is recommended that Whiteface continue replacing the existing rotary screw compressors, based on the payback analysis as outlined in Table IV-18.

⁷ Lower Northway and Excelsior as well as Upper Empire to be covered with PH 3 pressures.

If and when Whiteface expands to cover the Tree Island Pod terrain with snowmaking the plant air capacity would need to be expanded from 29,500 cfm to 34,500 cfm. It is recommended that Whiteface install a single 5,000 cfm centrifugal compressor to increase the snowmaking air plant capacity. Installation of this compressor would require the expansion of the existing closed loop water-cooling system.

The existing air-to-air aftercooler for the existing diesel air compressor has a damaged core. As part of its ongoing maintenance program Whiteface plans to repair the core. This is a common occurrence in many air-to-air aftercoolers throughout North America. Analysis of the cause of the damage appears to be due to the expansion/contraction of the supply/discharge piping in/out of the air-to-air aftercooler. Based on an assumed length of 100' between the compressor and the air-to-air aftercooler the pipe expansion is approximately 1.13". A 12" diameter braided steel connector has a lateral deflection length of 3/8" (0.375") with 100 psi of air pressure. This results in 22,620 psi of stress placed on the end connections when rigidly attached to end components. This stress is probably causing the damage to the air-to-air aftercooler core units. To eliminate this it is recommended that a stainless steel expansion joint be installed inline. These provide up to 1 1/4" of longitudinal axial expansion. It is also recommended to install a braided wire connector on the inlet and outlets of the air-to-air aftercoolers.

TABLE IV-18
WHITEFACE SCREW VS. CENTRIFUGAL COMPRESSOR PAYBACK ANALYSIS

Typical Screw Compressor		CFM	BHP	
	IR SSR 1500 H	1500	393	3.8 CFM/HP
	Motor Efficiency	93.2%		
	Assumed Transformer	95.0%		
	KW (ignoring power factor)	331	KW	4.53 CFM/KW
Add 800 HP Centac	IR Centac	4075	885	4.6 CFM/HP
	Motor Efficiency	95.3%		
	Assumed Transformer	95.0%		
	KW (ignoring power factor)	729	KW	5.59 CFM/KW
Efficiency Improvement				23%
Operating Hours (typical)		1800 hours		
Electrical Cost	Demand	9.19\$/KW-month		

	Inter. Credit	3 \$/KW-month
	Net	6.19 \$/KW-month
	On Peak	7.87 cents/KW-hr
	Off Peak	5.51 cents/KW-hr
months of operation	4	
Demand Charge--Screw	\$8,199	
Energy Charge--Screw	\$39,874	
Annual Electric Cost--Screw	\$48,073	
Annual Cost per cfm--Screw	\$32.05	
months of operation	4	
Demand Charge--Centac	\$18,056	
Energy Charge--Centac	\$87,814	
Annual Operating Cost--Centac	\$105,870	
Annual Cost per cfm--Centac	\$25.98	
Capital Cost --Centac	\$150,000	
Capital Cost--MCC	\$35,000	
Install. Cost	\$50,000	
Total Cost	\$235,000	
Cost/CFM	\$57.67	
Annual Payback	9.50	years
Approximate Separator Cost--Screw	\$18,000	
Repair cost per cfm	\$12.00	
Payback for screw needing separator	7.53	years

h) Mountain Infrastructure

Expansion of the snowmaking system proposed in this UMP will require an increase in the mountain distribution capacity. Also, much of the older pipe installed prior to the 1980 Olympics are reaching the end of their life expectancy. Installation of new pipe and snowmaking hydrants should take place at any time trail improvements occur. Exhibit IV-3 shows two distribution plans illustrating the water and compressed air piping for both the existing conditions and proposed upgraded pipe.

The goal of the compressed air mountain distribution system is to provide an even balance of 36,000 cfm of compressed air capacity to the primary nodes of the distribution system.

Since the water distribution system is above ground, the piping system is designed to provide a continuous flow of water to the summit of each zone in an energy efficient manner. The downhill pipelines are designed to provide even pressure loss in accordance with the slope pitch. The discharge points have also been centralized to minimize the drain losses.

As the system capacity increases and the existing guns and hoses become worn from normal wear and tear, it is important to replace and expand the inventory to minimize movement of equipment and maximize operational efficiency.

This UMP proposes that Whiteface significantly increase the number of external mix air/water snowmaking guns to at least 300 at build-out. This will allow Whiteface to maximize water throughput at colder, more efficient snowmaking temperatures and meet the snowmaking objectives. This minimizes the capital and operational expenses, while reducing the number of snowmaking operation hours.

On steeper terrain, traditional internal mix guns should be increasingly mounted on fixed towers. This substantially reduces the time and effort required to get a gun on-line, and improves the productivity of the gun as well. This type of investment in fixed towers on difficult terrain has provided a substantial boost to operations at similar resorts.

As noted in the snowmaking technology section of this UMP, fan technology provides an effective method of producing snow on novice/beginner terrain. The technological advances by manufacturers have increased the reliability and temperature production ranges of fan snowmaking. Therefore, it is proposed that Whiteface install fan technology snowmaking in the Easy Acres learning terrain. This terrain is identified in Exhibit IV-3.

i) Process Control

It is important to accurately monitor and control snowmaking equipment to ensure efficient and cost-effective operations, as well as to avoid damage to machinery. At present, Whiteface controls snowmaking operations at PH2, using a large analog control panel that monitors conditions in that building as well as providing start/stop capability for PH-1. PH 3 and PH 4 are operated locally, without

relaying any information to the main control facility. Records on operating values are kept diligently by hand on daily record sheets.

In the last few years, expansions at PH 3 and 4 have included the addition of pneumatically operated control valves to maintain constant water discharge pressures. The control of these valves is done through local PLC's (programmable logical controllers) in each building. Neither PH 2 nor PH 1 presently have any pressure control or PLC's.

The focus of future process control enhancements at Whiteface should be as follows:

1. Install PLC-based control provisions at each equipment site to allow remote operations.
2. Improve instrumentation to measure critical snowmaking parameters including ambient wet-bulb temperature (temp and %RH), water flow and energy consumption.
3. Incorporate a computer based monitoring/data acquisition system to collect system data and provide real time reports to management on production rates, equipment status, and cost of operations.
4. Invest in hydrant automation as technology continues to develop.

These enhancements are further described below:

(i) *Remote Operations via PLC*

All types of PLC's can communicate to remote locations using control wiring, phone pairs, fiber optic cable, or radio modem. This sets up a data network making it possible to access information and control devices from any location on the network. Most data networks utilize send and receive channels, which require 2 pair of phone wiring, fiber optic, etc. between each station. Properly installed, PLC's are very robust devices, but the weakest link is typically the communication system. Therefore, it is very important that each location have provisions to safely operate equipment locally as well as via the network.

Since Whiteface already has two Allen Bradley PLC's (PH3 and PH4), the logical alternative is to install additional Allen Bradley PLC's at PH2 and the compressor station. Depending on the existing communication cable running

between PH1 and PH2, it may be more economical to run PH1 through the PH2 PLC (each signal then requires it's own pair of wires, so approximately 12-20 pairs would be needed).

Some minor modifications at PH 3 and PH 4 will be required to allow for remote operation of equipment. Starters must be equipped with HAND/OFF/AUTO provisions, amperage CT's installed, and additional instrumentation as described in the following section.

To allow the operator to interface with the network, a simple touch screen panel and/or a computer monitoring system can be installed. The touch screen system is simple and economical, but limits the amount of information available at one time. It is recommended that each new PLC panel be equipped with graphical touch screens, and a central computer be installed running "SCADA" software (supervisory control and data acquisition). This computer can present information on all facilities in a graphical and informative format, as well as collecting and distributing data to a variety of locations.

(ii) Instrumentation Enhancements

There are critical items of instrumentation which are missing from the present system at Whiteface, making it difficult to effectively manage system operations. First and foremost is a water flowmeter at any of the pumphouses. Without accurate flow information, it is impossible to know if the system is operating up to potential, how much water is being lost through drains at the end of the piping, whether pumps are operating efficiently, etc. The most important location for a flowmeter is PH 2, since all water for snowmaking stems from this building.

A second critical requirement is ambient temperature and %RH sensors at various locations on the mountain. At the outset, PH 2, PH 3, and PH 4 represent good locations for weather sensors since these are close to PLC's. In lightning prone environments, weather instrumentation often gets damaged, so these units should incorporate transient surge protection, as well as the ability to change out the electronics unit in an economical manner.

A third critical requirement is power consumption at each facility. For most pump houses, monitoring amperage of motors is typically adequate. At larger locations, such as PH 2, it is useful to monitor the utility meter (or meters) to be able to determine power consumption. This can be done for the resort as a whole to provide a means for controlling demand charges, calculating daily energy expenses, and checking utility billings.

(iii) Control Enhancements

From a control standpoint, it is desirable to ensure that pumps are controlled to maintain constant pressure in the system. This is typically done using a throttling control valve (PH 3 and PH 4), or a variable frequency drive (VFD). A VFD is more efficient than a control valve, but does not permit operation of the pump system at varying pressures. In addition, the high static pressure requirements of snowmaking limits the range of speed adjustment, and therefore, the amount of power that is saved. It is not cost-effective to replace existing control valves with VFD's unless this conversion is highly subsidized by the utility. However, as the water capacity of the system is expanded, VFD's represent an excellent choice in lieu of additional constant speed starters.

A VFD is highly recommended for PH 1, since this location has large volume pumps (2,000 gpm each), which will benefit from the ability to operate at reduced flow levels. PH 2 will also benefit from VFD's in order to maintain constant water system pressures.

The existing IR centrifugal compressors utilize on-board control panels that are no longer supported by Ingersoll Rand, therefore, putting the operation of the compressor at risk in the event of a board failure. These boards can be upgraded with PLC based units that will communicate with other PLC's on the network, though the cost is fairly high. It is recommended that at least one compressor board be upgraded so that Whiteface can retain one of the old boards in inventory⁸.

⁸ Ingersoll Rand no longer stocks the original compressor control panels.

(iv) Supervisory Computer

A supervisory computer provides a graphic window on snowmaking operations, and accumulates operating records in a database. This information is used to develop daily, weekly, and monthly reports on snowmaking operations, including production volumes, energy expenditures, temperature variation, cost per gallon, etc. In addition, relationships can be explored such as typical flow rates at varying temperatures, so that projections can be made from weather forecasts on what snowmaking coverage is possible prior to an important weekend or event.

One benefit of this type of supervisory system is that information can be distributed in a number of ways. Initially, reports can be distributed via networked printers, fax machines, email, etc. In addition, it is not difficult to provide a number of view stations (including phone dial-up linkages) so that managers can view all information in real time from remote locations. This is often handy for snowmaking supervisors to review alarms/make adjustments from home, rather than having to travel into the plant during off hours. Finally, it is also possible to transmit selected operating graphics to a password accessed web page, allowing anyone with proper clearance to review current or historical operating parameters.

This type of supervisory system has become fairly common in snowmaking operations. It is important to bear in mind that this type of system specializes in the collection, distribution, and analysis of real-time data, and is therefore not limited to snowmaking operations. Resort wide power usage is another parameter that is often brought into these systems to provide better energy management and cost control. Other useful operating data that is often incorporated includes features such as:

- Stream flow and reservoir level measurements.
- Lift Operating status.
- Snow reporting on locations that snow has been made in the last 24 hours.
- Grooming reports/Trails Open and Closed.
- Weather information for snow reports.

This type of system could coordinate the accumulation and reporting of data from other ORDA facilities as well, but that is outside the scope of this analysis.

(v) ***Hydrant/Gun Automation***

Automated hydrants and snowguns provide benefits in production, labor reduction, and snow quality control. Typical improvements in production rates vary from 25 to 50%, depending on the experience of the operators of a manual system.

This improvement comes at a significant cost due to the expense of communication and power wiring, vaults, actuators, and controls. A typical snowmaking hydrant will produce 1 to 1.5 acre-ft of snow (1/2 acre x 2 to 3' depth) at an annual energy expense of \$300 to \$500 per acre-ft. With a 50% productivity gain, the energy savings is only \$150 to \$250 per acre-ft (in reality less than this since only the compressed air portion of energy is reduced by automation). This makes it difficult to cost justify fixed automated hydrants on an energy basis which typically cost more than \$5,000 each.

On the other hand, hydrants in high profile areas (high traffic areas, competition slopes) or steep, remote areas requiring labor consuming operations may represent good choices for automation. It is anticipated that the cost of automation will decrease over time, making this alternative increasingly attractive.

In the mean time, other automation elements should be investigated. One opportunity exists in fan guns, which will self-regulate based on the ambient temperatures. Since the automation portion travels with the gun, the cost of automation is amortized over the entire operating hours of the gun. Automated fan guns represent an excellent opportunity for energy savings, especially in the lower, gradual trail areas.

External mix towers are operated by simple on/off valving, drastically reducing the time required to set-up and adjust the guns. This equipment can be automated at a lower cost through a variety of alternatives including:

- Manually charging an entire line and thereby starting all the guns that have been connected. This requires special equipment in the valving areas supporting the line to be charged. This is the least expensive, but least desirable form of automating since it impacts distribution of air and water, and can create more labor issues (if a hose blows, gun isn't connected correctly, wind varies along the trail, etc) than it saves.
- Automatically charging an entire line via automating the valve house. This is worth investigating in a new installation where gun placement, hoses, etc. can be carefully controlled.
- Automatically operating each gun with an on/off mechanism. This is generally less expensive than implementing internal mix automation, which requires the ability to adjust the water hydrant based on temperature.

While automation provides a lot of potential for higher production rates, it is recommended that Whiteface first implement features allowing plant equipment to be operated from one location and system performance to be monitored and managed. This will provide better data tools to assess the benefits of automation, and a stable platform from which to integrate automated trails.

8. Visitor Services and Ski Center Operations

a) Facilities Overview

Main Base Area

The main base area will be upgraded to alleviate five primary concerns:

the arrangement of key skier arrival functions,
the sense of entry to the lodge at the drop off area,
bus drop-off and parking,
provision of upgraded facilities for the New York Ski Education Foundation
office and conference space for marketing staff and
the amount of maintenance and storage space.

Improvements to the Base Lodge will focus on completing the Phase II improvements to enhance customer service and the general appeal of the building. These improvements include:

- a larger reception and ticket area for the purpose of a one-stop shopping area for all lift ticket, rentals and ski school packages (4,000sf additional space),
- a second retail shop adjacent to the new reception and ticket area (replacing 860sf administration space),
- the relocation of the ski school operations and desk from the second level to the first floor of the Base Lodge near the present ticket sales location (replacing 880sf of locker and ticketing space and adding 770sf),
- a VIP room (700sf) and coffee shop (700sf) to be established in the relocated ski school space,
- additional rest rooms created at the rear of the existing retail shop (utilizing 750sf of the retail shop space),
- an expansion of the ski patrol/first aid space (680sf),
- additional offices, storage and conference space for administration 350sf),
- the relocation of employee lockers/lounge space to the breezeway storage space (950sf) and
- an update of the computer ticketing system, creating more efficient sales points.

These improvements to the Base Lodge will greatly expedite the arrival process – tickets, rentals, ski school – promoting greater customer satisfaction prior to beginning the day on the slopes.

The arrival area will be enlivened through this re-arrangement of key skier arrival functions at the edge of the drop-off area. The long term parking in the drop off area should be deleted to allow adequate space for the drop-off requirements of both shuttle buses and cars for the increased mountain capacity. A larger pedestrian arrival plaza should be developed adjacent to the northeast corner of the building in front of the drop-off area to accommodate milling, ski/board storage and drop-off/pick-up functions.

Charter bus drop-off would be relocated to a roadside area on the way up to Easy Acres. A safe pedestrian route between this area and the Base Lodge would be

established. Parking for buses would be in the new Lot #5. This would help to alleviate the congestion at the Base Lodge drop-off area.

NYSEF Training Center Building

This project involves construction of a two-story log building which will function as the administrative and training center for the NYSEF operation at the Whiteface Ski Center.

The Olympic Region in the Adirondack Mountains of Upstate New York offers one of the best opportunities for winter sports training in the United States. The New York Ski Educational Foundation (NYSEF) – founded in 1973 – is the region's non-profit organization whose primary function is to offer athletic training in snow sports to the youth of the Olympic Region, the State of New York and the nation. Through a cooperative working relationship with the Olympic Regional Development Authority (ORDA), NYSEF is able to provide training utilizing world-class facilities to athletes from youth to young adults.

To accomplish its mission, NYSEF operations at the Whiteface Ski Center needs a new training and administrative facility which will adequately service athletes, coaches and administrative requirements of the NYSEF operation at the Whiteface Ski Center. See Exhibits IV-8A through IV-8H.

- The proposed building will be a log construction with outside dimensions of 80 x 45 feet. Ten (10) foot wide roof covered deck will be adjacent to the buildings first floor along its southerly and easterly elevation.
- The building will consist of three floor levels – basement, first floor and mezzanine.
- The basement floor will contain lockers, storage, coach's office, restrooms and mechanical and has direct access (walkout basement) to the outside from the building's east side. The remainder of the basement floor will be below grade along south, north and west side of the building.

- The first floor area will contain administrative offices, conference room and large, open meeting area. The main access point to the first floor will be on the south side of the building.
- A 45 x 30 feet mezzanine will be located on the second floor. This area will be used for storage.

The site for the proposed building is located approximately seventy (70) feet northwesterly from the ski center base lodge building's west end. Existing improvements on the site and its immediate vicinity include the following:

- Existing 15' x 20' storage building
- Existing overhead electric lines to the west and north
- Existing Boreen ski trail to the south
- Existing asphalt drive to the east
- Existing gravel road access from the asphalt drive to the ski trail

The site is cleared with exception of approximately 3,300 SF of wooded area located to the north and west of the existing shed. The wooded area contains seventeen (17) trees greater than 3" dbh.

The site is sloping generally in the easterly direction with slopes ranging from 10 to 20 percent.

Alpine Training Center (Former NYSEF Building)

Improvements to the Alpine Training Center building will focus on the following (See Exhibits IV-9 through IV-12):

- Improvements to first floor level without increasing floor space (see Fig. IV-9).
- Addition of approximately 960 SF to second floor plan (see Fig. IV-10).
- Addition of approximately 940 SF conference space to the upper level floor plan (see Fig. IV-11).

- Improvement to the façade of the existing building (see Fig. IV-12).
- Providing water and sewer service to the building (see Fig. IV-16 and IV-17). This building does not currently have toilet facilities; occupants are using the facilities in the Base Lodge building.

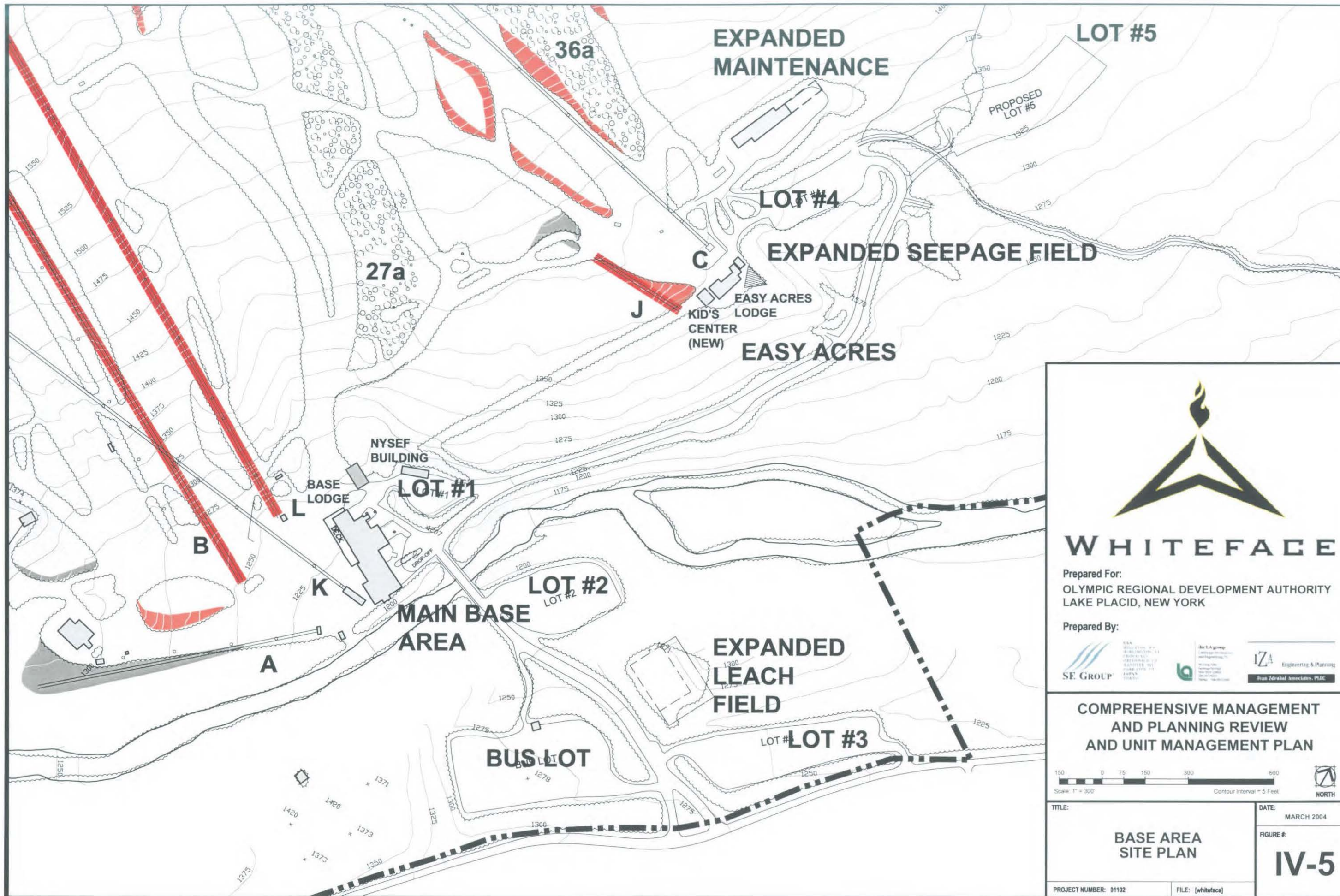
No expansion of existing parking facilities (Lot#1) is proposed.

Mid-station Lodge

The Mid-station Lodge will be relocated approximately 150 feet to the south of its current position to improve skier circulation in this area and particularly on the Lower Valley trail.

Easy Acres Lodge

An additional 5,000 square feet building (Kid's Center) should be constructed adjacent to the existing lodge. All Ski Wee/Drop-In Center functions will be located in this new building. The existing lodge should be renovated to alleviate the current congestion and accommodate the skier capacity in the Easy Acres lift/trail system. A snow play area for young children should be created adjacent to the new building. A magic carpet should be installed to provide a special learning environment for young children.



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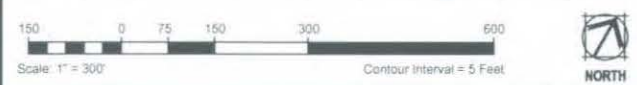


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COMPREHENSIVE MANAGEMENT AND PLANNING REVIEW AND UNIT MANAGEMENT PLAN



<p>TITLE:</p> <p>BASE AREA SITE PLAN</p> <p>PROJECT NUMBER: 01102</p>	<p>DATE:</p> <p>MARCH 2004</p> <p>FIGURE #:</p> <p>IV-5</p> <p>FILE: [whiteface]</p>
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Little Whiteface Cloudsplitter Lodge

The Little Whiteface Cloudsplitter Lodge is not proposed for construction as part of this UMP/GEIS. Plans for this lodge are only conceptual at this time. Construction of this lodge will require a future update to this UMP with an associated SEQRA review.

The new Cloudsplitter Lodge would be located at the summit of Little Whiteface, adjacent to the upper terminal of the Cloudsplitter Gondola. This lodge, in connection with the gondola, would become a desirable year-round destination for the resort. The lodge would be approximately 13,500 square feet and would include:

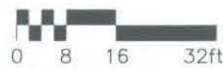
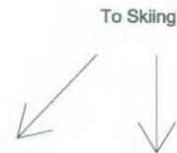
- restaurant/cafeteria,
- bar/lounge,
- kitchen/scramble,
- restrooms and
- ski patrol/first aid.

The building would be operated year-round, with guest services provided during daytime operating hours. It would also offer an opportunity to provide services for special functions (weddings, conferences, etc.). The convertibility of the interior space for such functions will be an important design factor that will need to be addressed in the final design phase.

The building orientation and its design elements would maximize views and convenience of access to all functional elements. Outside decks would be in areas for maximum enjoyment of views and sun and sited in such a way as to prevent areas where wind would deposit excessive drifts. The roof top observation deck would offer a 360° panoramic view of the surrounding mountains.

LEGEND

- Food and Beverage
- Customer Service
- Restrooms
- Operations
- Circulation, Storage, Mechanical



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COMPREHENSIVE MANAGEMENT AND PLANNING REVIEW AND UNIT MANAGEMENT PLAN

TITLE:
**MAIN LODGE PROPOSED
SPACE-USE SCHEMATIC**
PROPOSED GROUND FLOOR

PROJECT NUMBER: 01102

FILE: [whiteface]

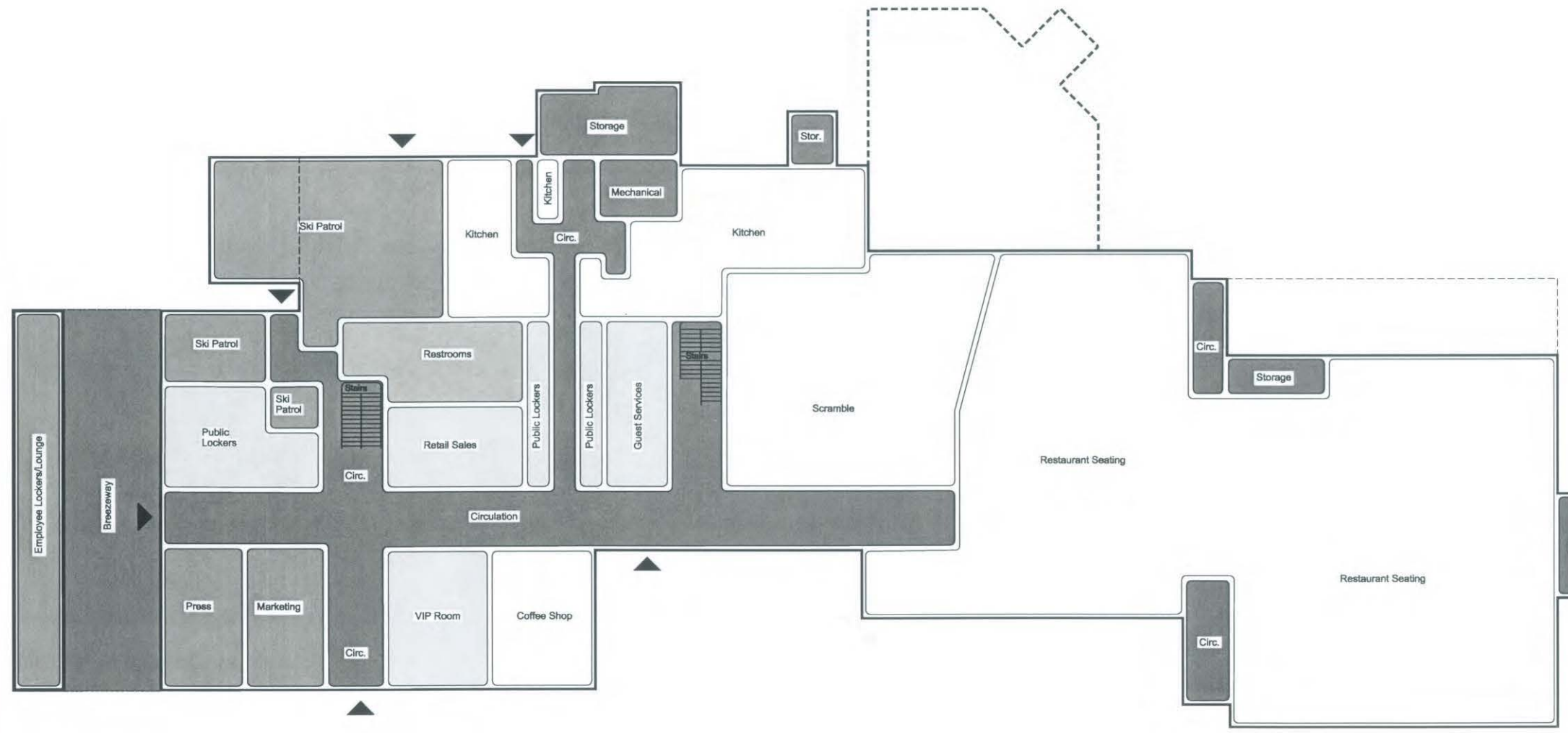
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FIGURE #:

IV-6

LEGEND

- Food and Beverage
- Customer Service
- Restrooms
- Operations
- Circulation, Storage, Mechanical



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COMPREHENSIVE MANAGEMENT
AND PLANNING REVIEW
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TITLE:
**MAIN LODGE PROPOSED
SPACE-USE SCHEMATIC**
PROPOSED SECOND FLOOR


PROJECT NUMBER: 01102 FILE: [whiteface]

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FIGURE #:

IV-7







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COMPREHENSIVE MANAGEMENT AND PLANNING REVIEW AND UNIT MANAGEMENT PLAN

TITLE:

GENERAL LOCATION MAP

**PROPOSED NYSEF BUILDING
 AT WHITEFACE SKI CENTER**

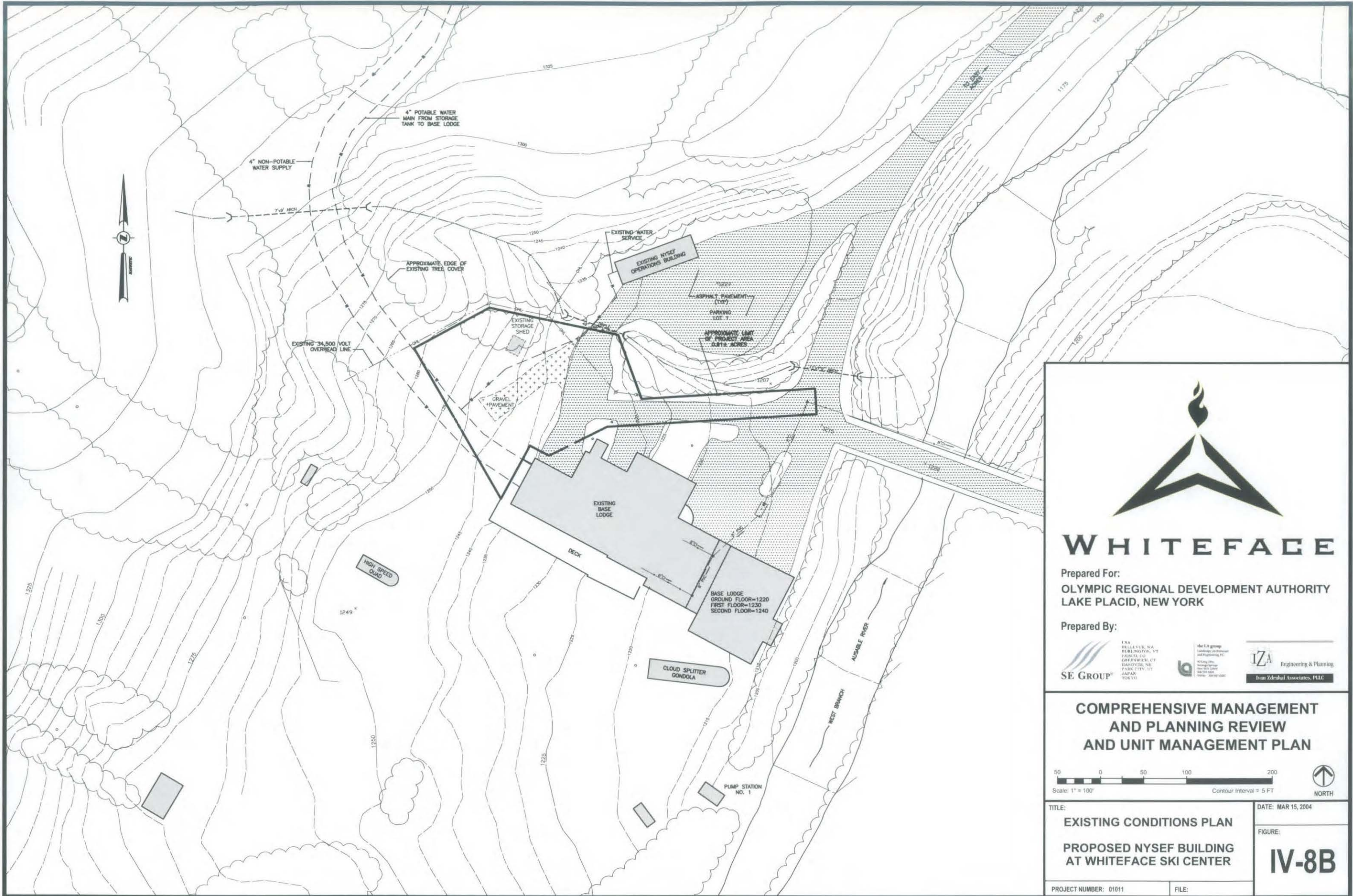
DATE: MAR 15, 2004

FIGURE:

IV-8A

PROJECT NUMBER: 01011

FILE:



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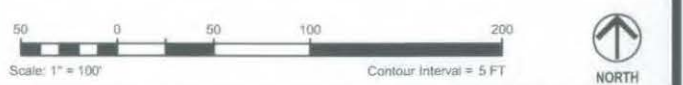
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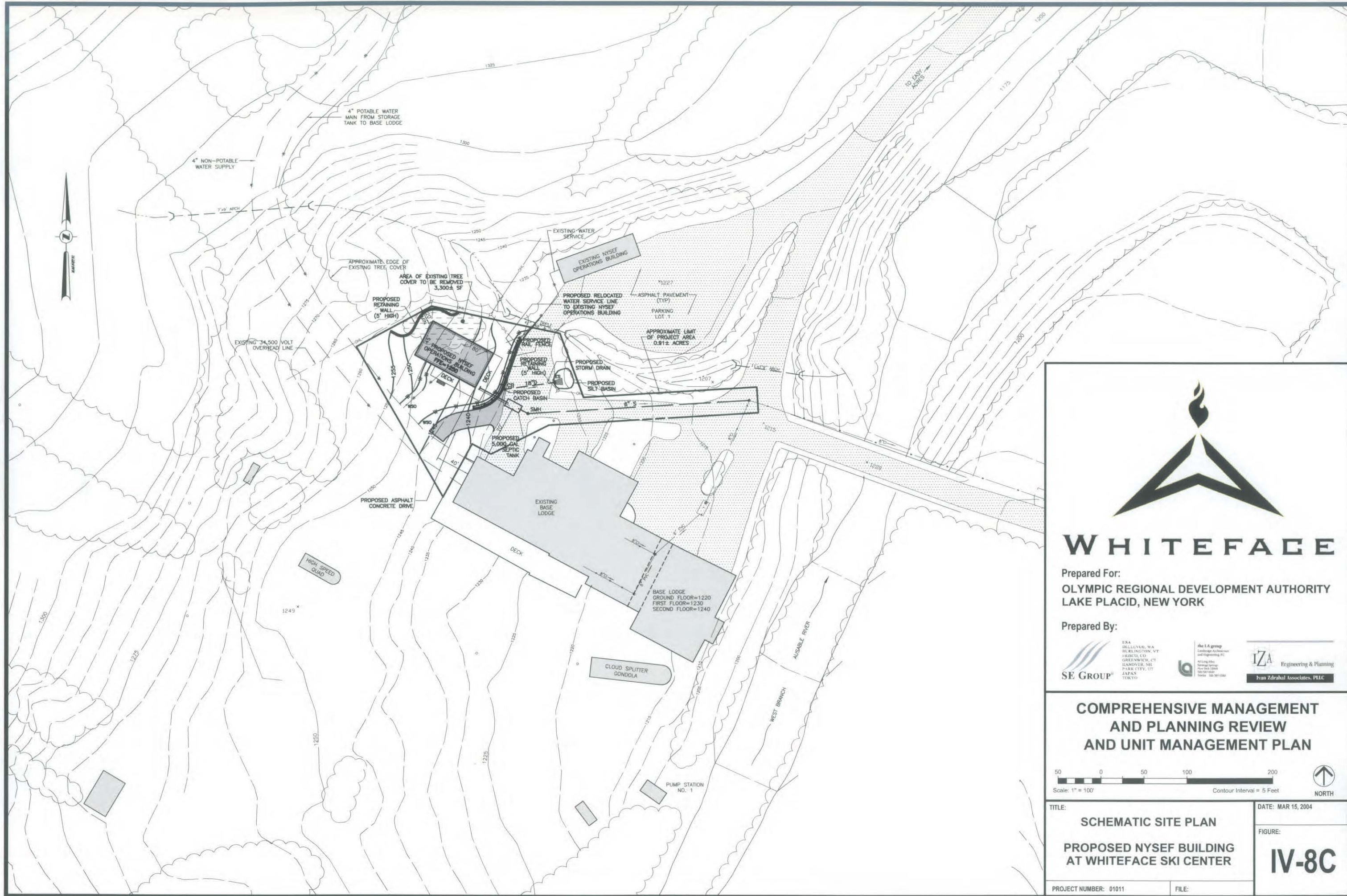
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COMPREHENSIVE MANAGEMENT AND PLANNING REVIEW AND UNIT MANAGEMENT PLAN



TITLE: EXISTING CONDITIONS PLAN PROPOSED NYSEF BUILDING AT WHITEFACE SKI CENTER	DATE: MAR 15, 2004 FIGURE: IV-8B
PROJECT NUMBER: 01011	FILE:



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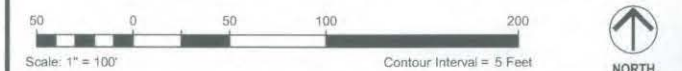
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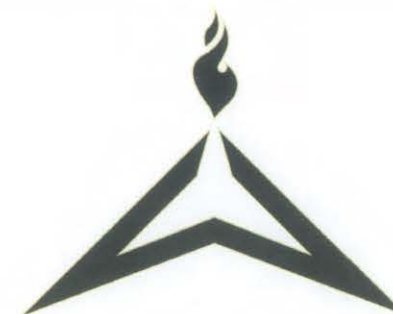


**COMPREHENSIVE MANAGEMENT
AND PLANNING REVIEW
AND UNIT MANAGEMENT PLAN**



TITLE: SCHEMATIC SITE PLAN PROPOSED NYSEF BUILDING AT WHITEFACE SKI CENTER	DATE: MAR 15, 2004 FIGURE: IV-8C
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PROJECT NUMBER: 01011	FILE:
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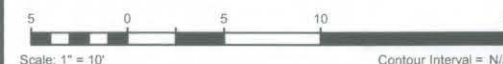
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**COMPREHENSIVE MANAGEMENT
AND PLANNING REVIEW
AND UNIT MANAGEMENT PLAN**



TITLE:
ELEVATION 1
**PROPOSED NYSEF BUILDING
AT WHITEFACE SKI CENTER**

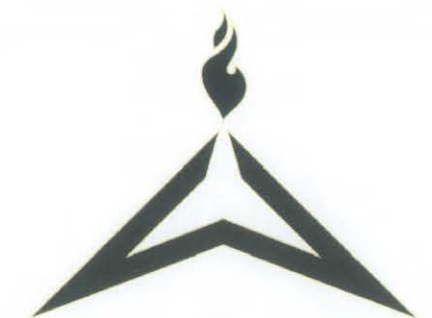
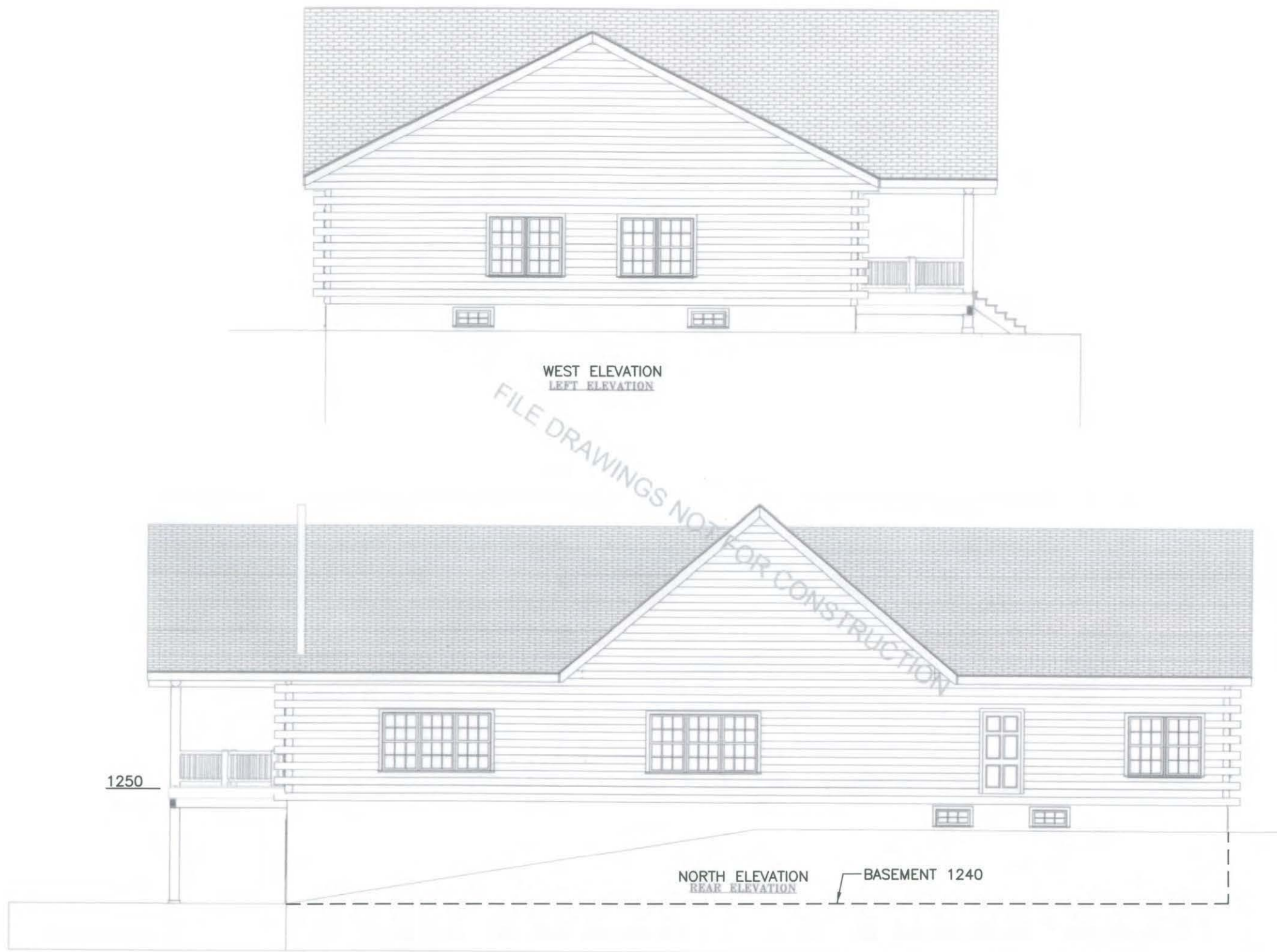
DATE: MAR 15, 2004

FIGURE:

IV-8D

PROJECT NUMBER: 01011

FILE:



WHITEFACE

Prepared For:
OLYMPIC REGIONAL DEVELOPMENT AUTHORITY
LAKE PLACID, NEW YORK

Prepared By:

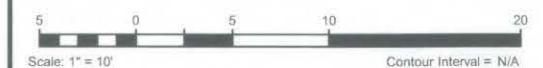
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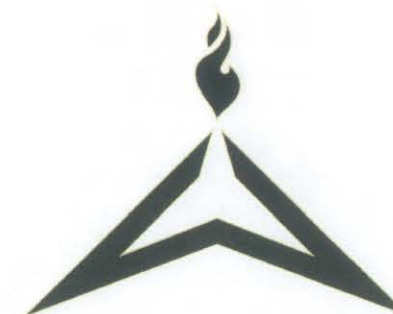
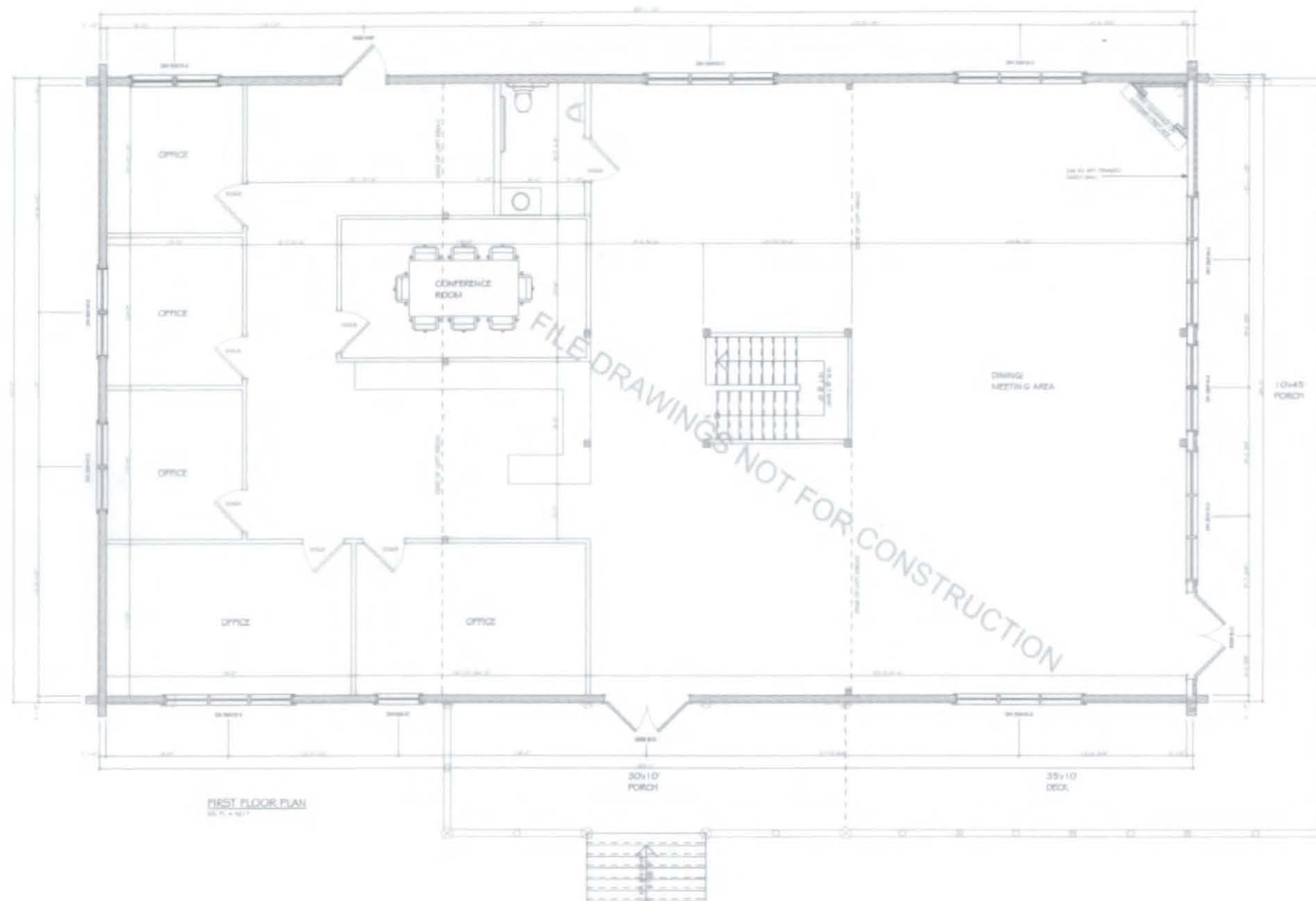
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**COMPREHENSIVE MANAGEMENT
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AND UNIT MANAGEMENT PLAN**



TITLE: ELEVATION 2	DATE: MAR 15, 2004
PROPOSED NYSEF BUILDING AT WHITEFACE SKI CENTER	FIGURE: IV-8E
PROJECT NUMBER: 01011	FILE:



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**COMPREHENSIVE MANAGEMENT
AND PLANNING REVIEW
AND UNIT MANAGEMENT PLAN**



TITLE:
FLOOR PLAN 1
**PROPOSED NYSEF BUILDING
AT WHITEFACE SKI CENTER**

DATE: MAR 15, 2004

FIGURE:

IV-8F

PROJECT NUMBER: 01011

FILE:



WHITEFACE

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OLYMPIC REGIONAL DEVELOPMENT AUTHORITY
LAKE PLACID, NEW YORK

Prepared By:

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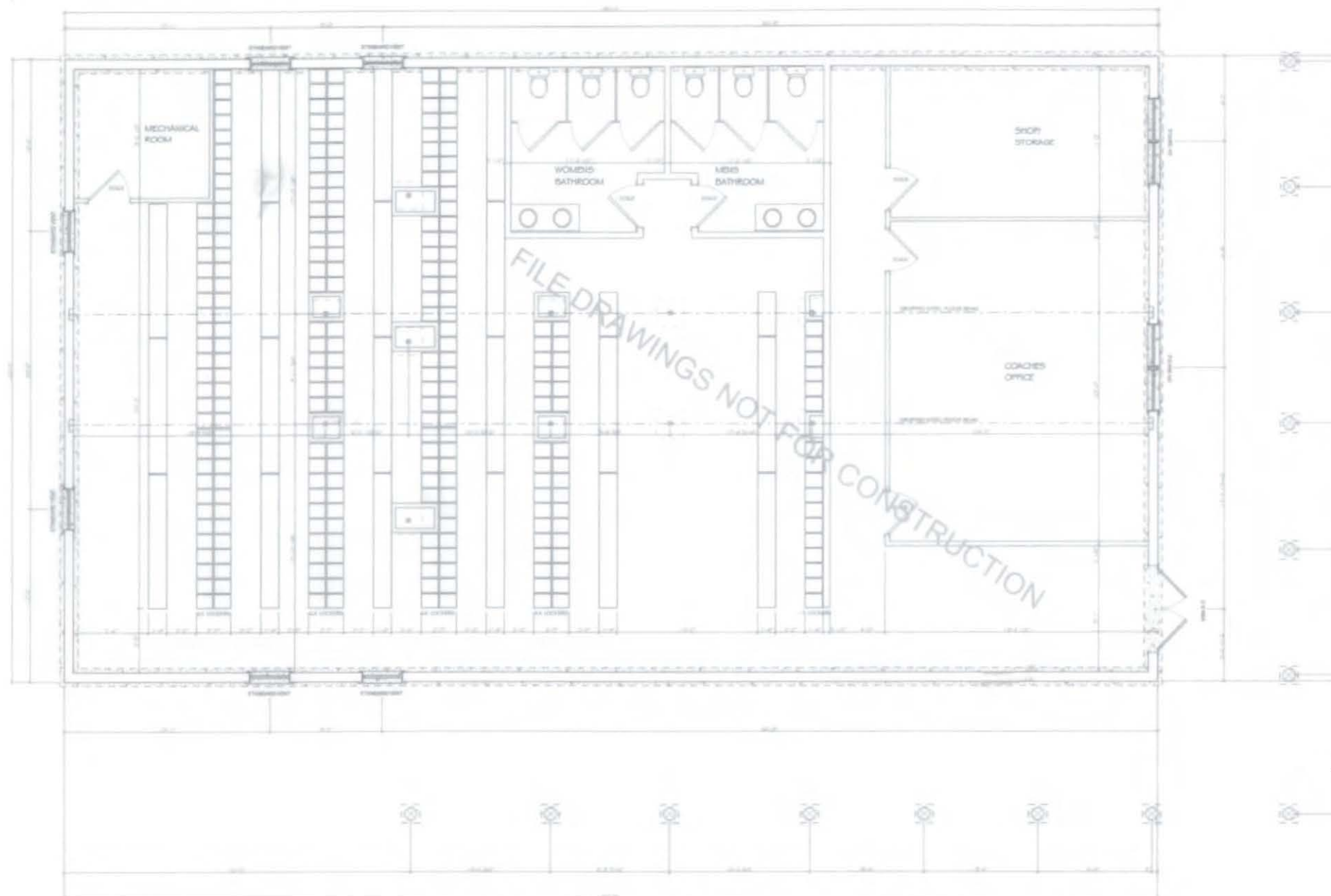
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**COMPREHENSIVE MANAGEMENT
AND PLANNING REVIEW
AND UNIT MANAGEMENT PLAN**

Scale: 1" = 10'
Contour Interval = N/A

TITLE: FLOOR PLAN 2	DATE: MAR 15, 2004
FIGURE: PROPOSED NYSEF BUILDING AT WHITEFACE SKI CENTER	IV-8G
PROJECT NUMBER: 01011	FILE:



WHITEFACE

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**COMPREHENSIVE MANAGEMENT
AND PLANNING REVIEW
AND UNIT MANAGEMENT PLAN**

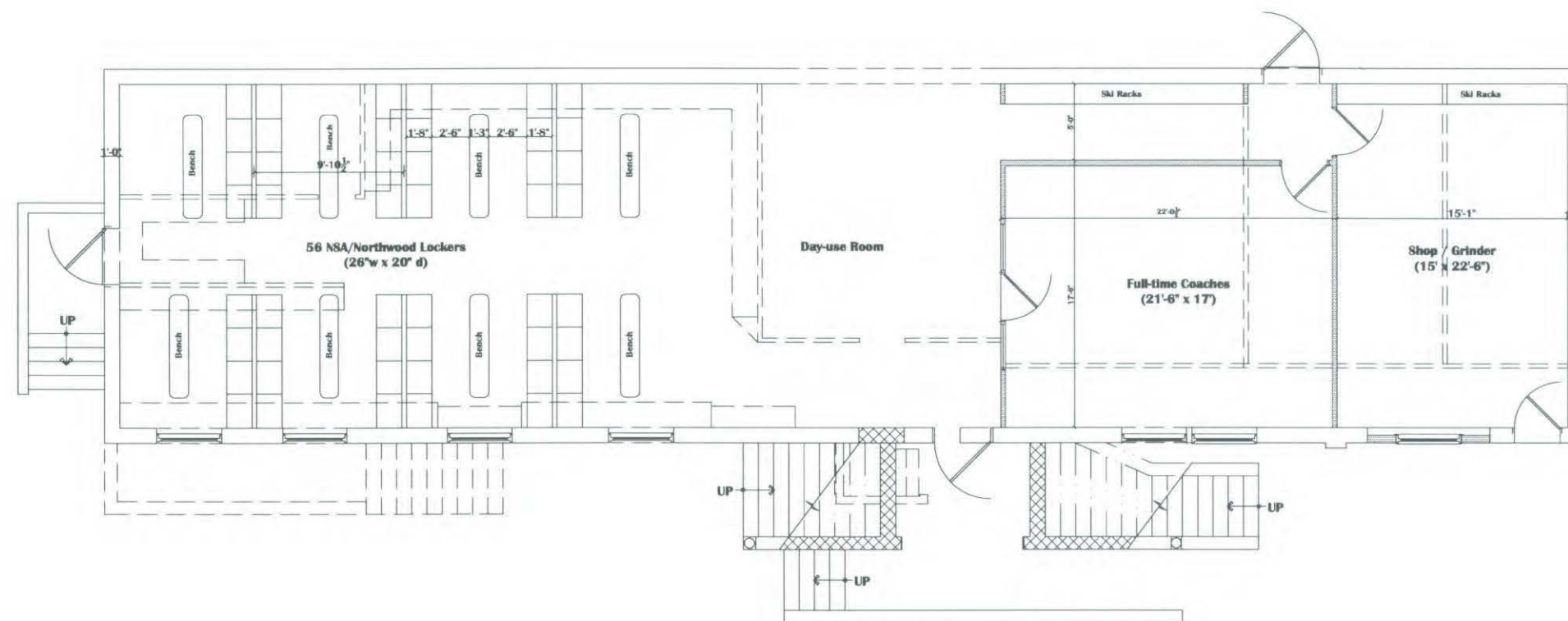


TITLE: FOUNDATION PLAN	DATE: MAR 15, 2004
FIGURE: PROPOSED NYSEF BUILDING AT WHITEFACE SKI CENTER	FIGURE: IV-8H

PROJECT NUMBER: 01011

FILE:

ARCHITECTURAL PLAN
PREPARED BY:
DAVE TERWILLIGER, A.I.A.
ARCHITECT
UPPER JAY, NY
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Lower Level Floor Plan

720 SF Proposed Addition
2,374 SF Existing
3,094 SF Total Proposed this Floor

1" = 10'



WHITEFACE

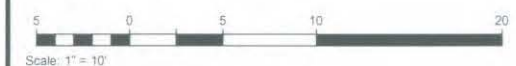
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Prepared By:

[illegible]

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COMPREHENSIVE MANAGEMENT AND PLANNING REVIEW AND UNIT MANAGEMENT PLAN



TITLE:
ALPINE TRAINING CENTER
FIRST FLOOR PLAN

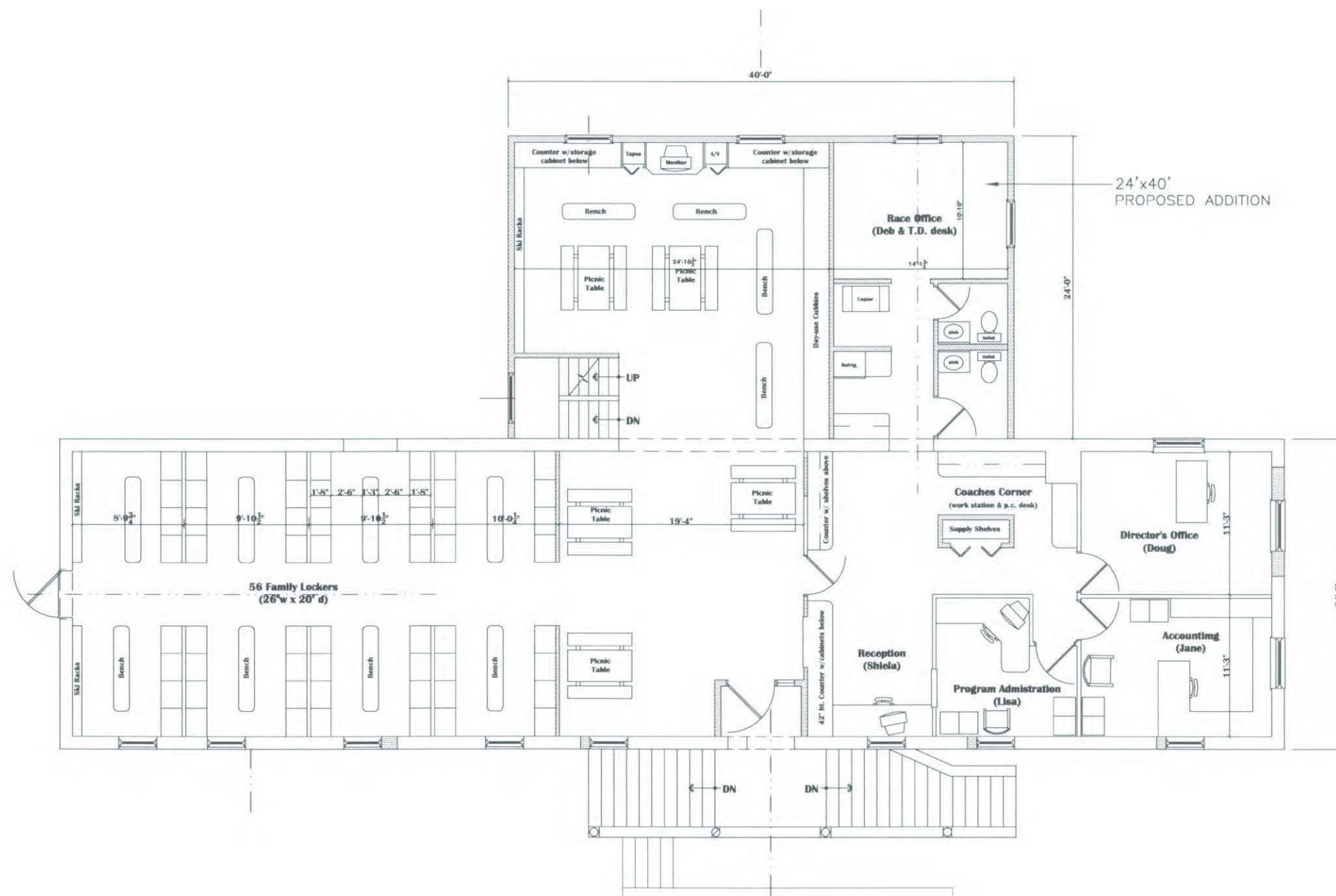
DATE: JAN 27, 2003

FIGURE:

IV-9

PROJECT NUMBER: 01102

FILE:	
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Main Level Floor Plan

1" = 10'

ARCHITECTURAL PLAN
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WHITEFACE

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**COMPREHENSIVE MANAGEMENT
AND PLANNING REVIEW
AND UNIT MANAGEMENT PLAN**



TITLE:
**ALPINE TRAINING CENTER
MAIN LEVEL FLOOR PLAN**

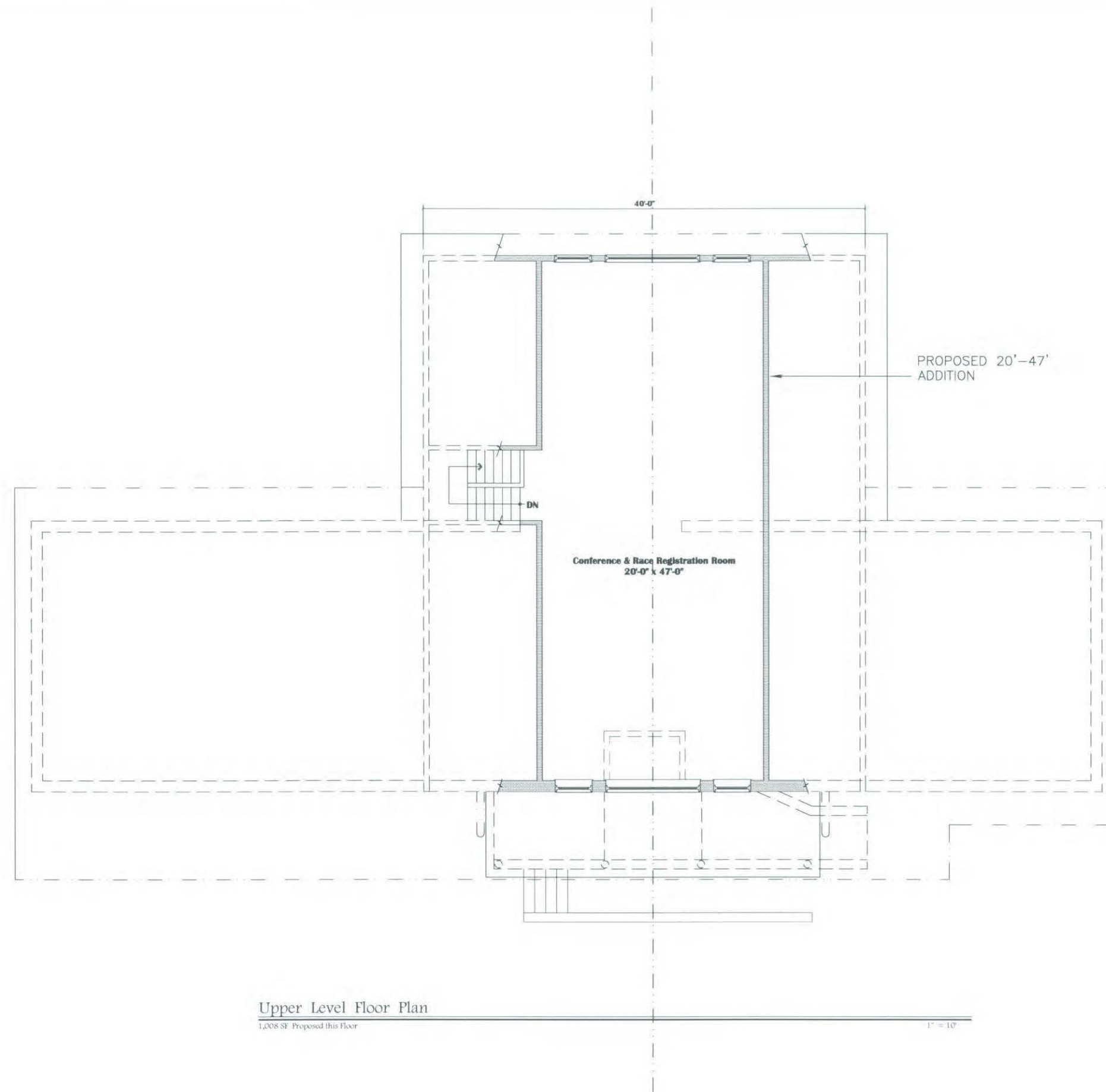
DATE: JAN 27, 2003

FIGURE:

IV-10

PROJECT NUMBER: 01011

FILE:



Upper Level Floor Plan
1,008 SF Proposed this floor

1" = 10'

ARCHITECTURAL PLAN
PREPARED BY:
DAVE TERWILLIGER, A.I.A.
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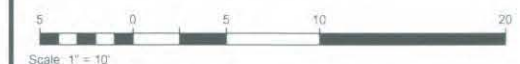


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**COMPREHENSIVE MANAGEMENT
AND PLANNING REVIEW
AND UNIT MANAGEMENT PLAN**



TITLE:
**ALPINE TRAINING CENTER
UPPER LEVEL FLOOR PLAN**

DATE: JAN 27, 2003

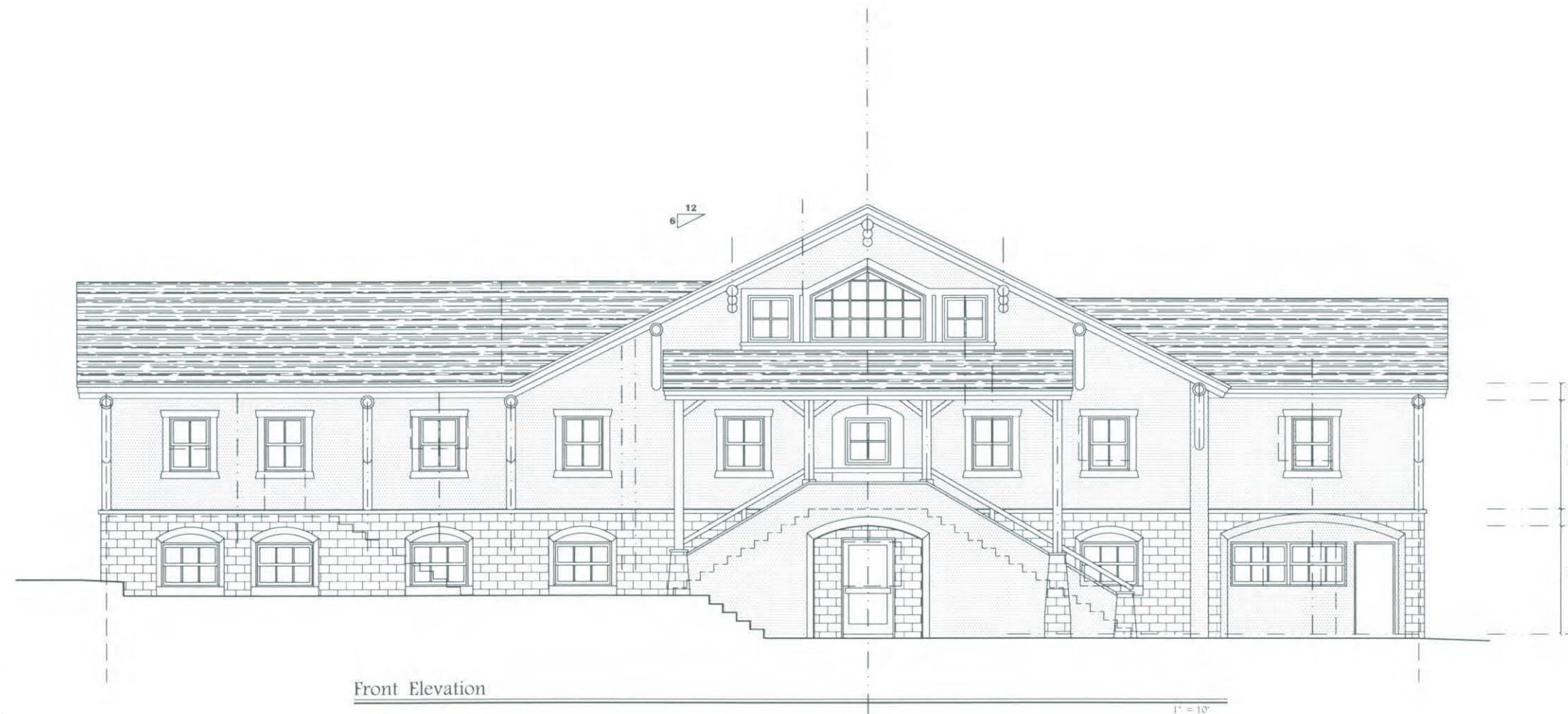
FIGURE:

IV-11

PROJECT NUMBER: 01011

FILE:

ARCHITECTURAL PLAN
PREPARED BY:
DAVE TERWILLIGER, A.I.A.
ARCHITECT
UPPER JAY, NY
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Front Elevation

1" = 10'



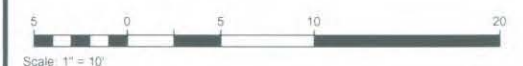
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**COMPREHENSIVE MANAGEMENT
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AND UNIT MANAGEMENT PLAN**



TITLE:
**ALPINE TRAINING CENTER
PROPOSED ELEVATION**

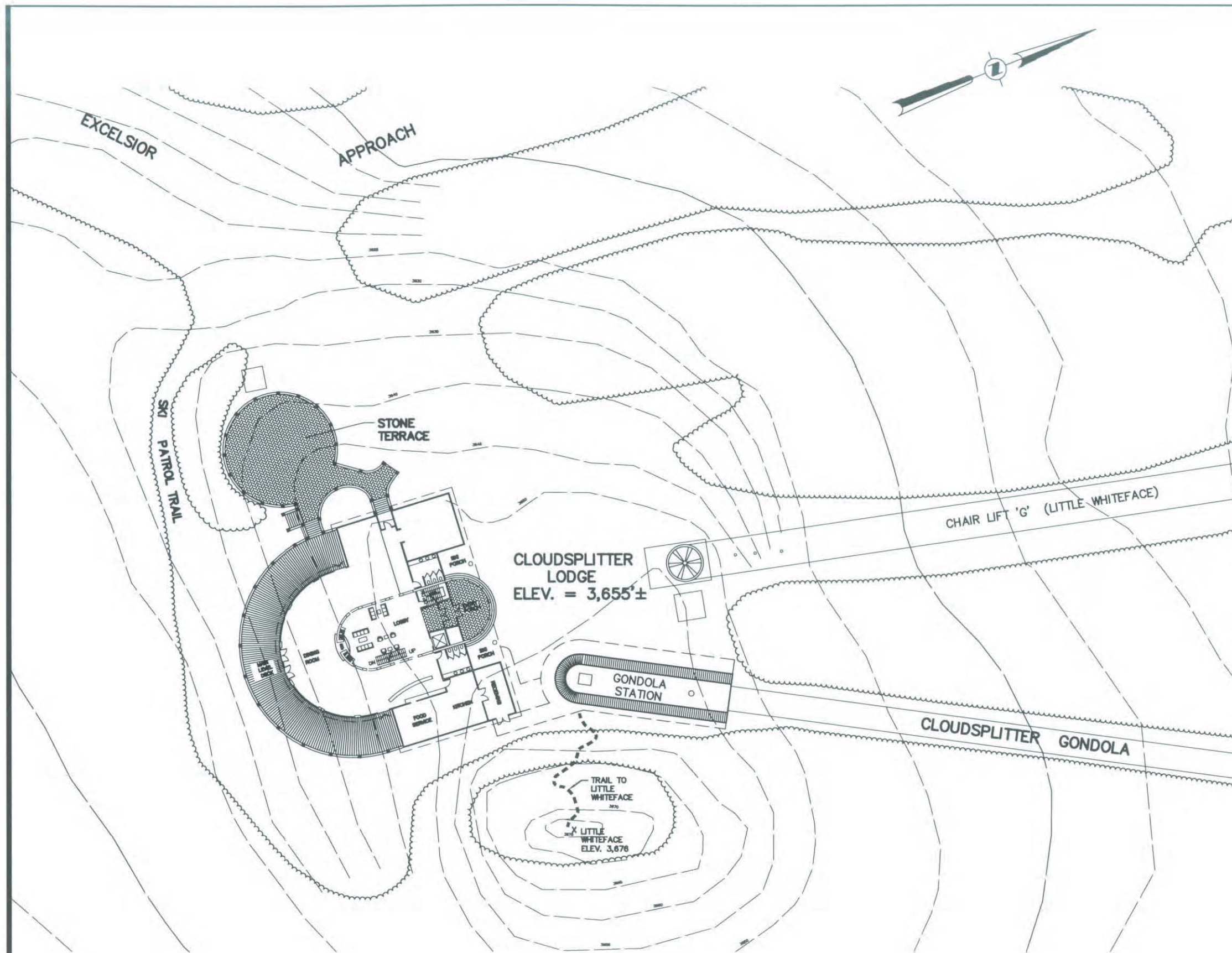
DATE: JAN 27, 2003

FIGURE:

IV-12

PROJECT NUMBER: 01011

FILE:



WHITEFACE

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COMPREHENSIVE MANAGEMENT AND PLANNING REVIEW AND UNIT MANAGEMENT PLAN



LITTLE WHITEFACE
CLOUDSPLITTER LODGE

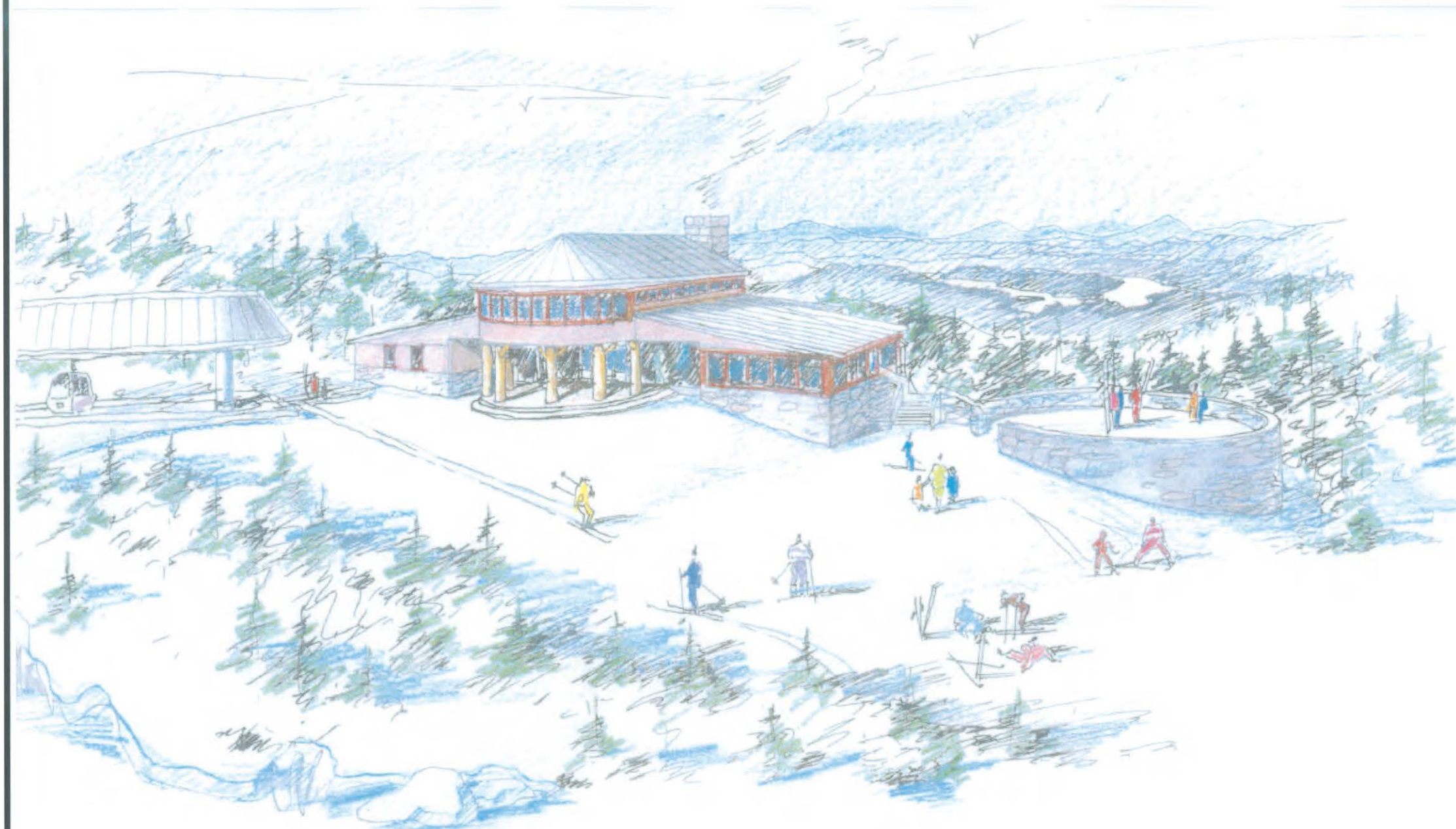
DATE: MARCH 2002

EXHIBIT:

IV-13

PROJECT NUMBER: 01102

FILE: WHITEFACE



PERSPECTIVE

LITTLE WHITEFACE CLOUDSPLITTER LODGE

WILMINGTON

OLYMPIC REGIONAL DEVELOPMENT AUTHORITY

NEW YORK
FEBRUARY 4, 2000

IVAN ZDRAHAL ASSOCIATES
TRUEX CULLINS & PARTNERS ARCHITECTS



WHITEFACE

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**COMPREHENSIVE MANAGEMENT
AND PLANNING REVIEW
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TITLE:

PERSPECTIVE 1

DATE:

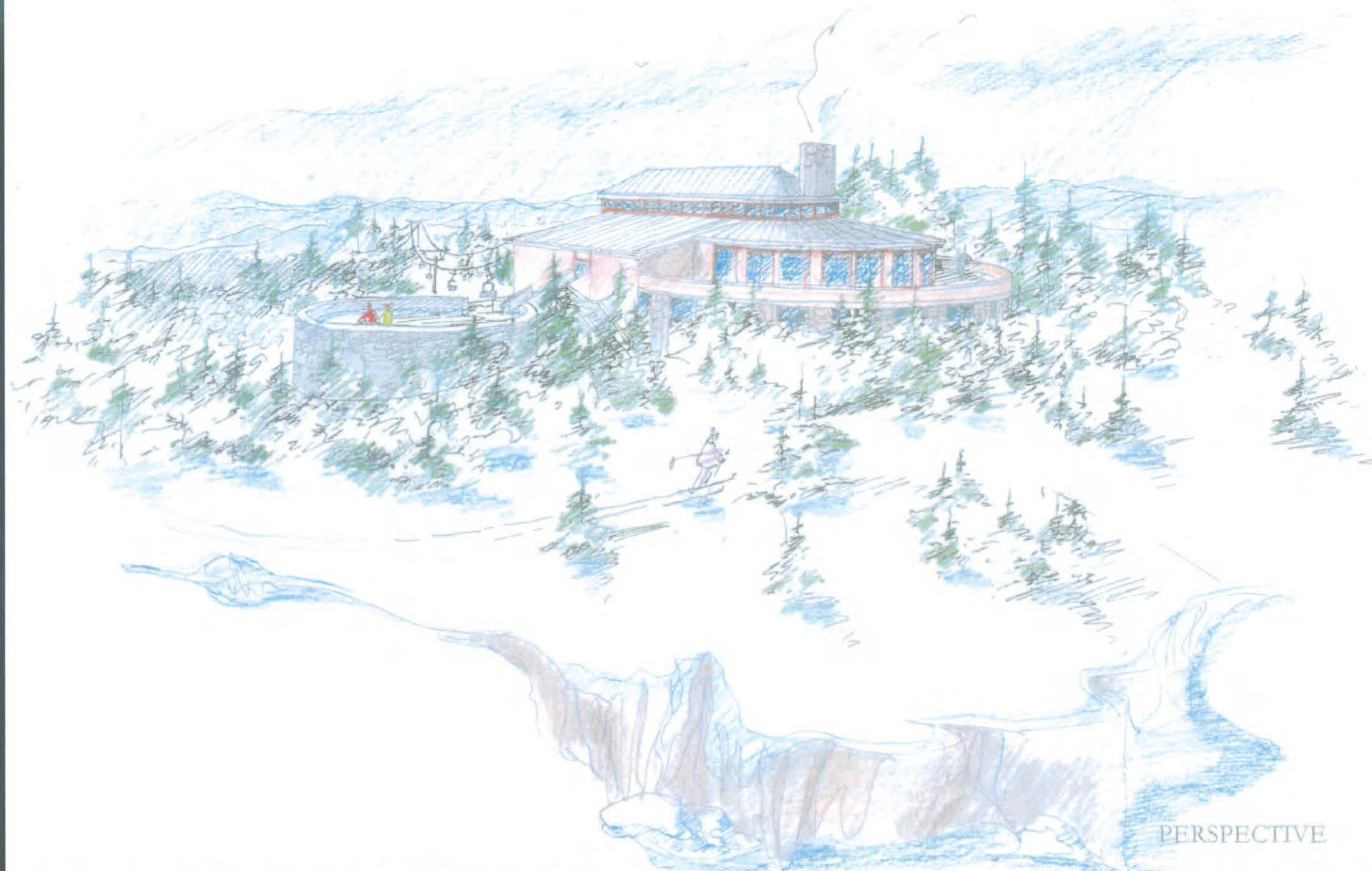
MARCH 2002

FIGURE #:

IV-14

PROJECT NUMBER: 01102

FILE: [whiteface]



PERSPECTIVE

LITTLE WHITEFACE CLOUDSPLITTER LODGE

WILMINGTON

OLYMPIC REGIONAL DEVELOPMENT AUTHORITY

NEW YORK
FEBRUARY 4, 2000

IVAN ZDRAHAL ASSOCIATES
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WHITEFACE

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COMPREHENSIVE MANAGEMENT AND PLANNING REVIEW AND UNIT MANAGEMENT PLAN

TITLE:

PERSPECTIVE 2

DATE:

MARCH 2002

FIGURE #:

IV-15

PROJECT NUMBER: 01102

FILE: [whiteface]

b) Location and Size of Functions

Industry space use allocation standards have been applied along with a consideration of the feasibility of building alterations to arrive at the total spatial requirement for each facility. The recommended size of all upgraded visitor services and operations functions for Whiteface, based on the upgraded mountain capacity of 5,640, is shown in Table IV-19.

TABLE IV-19
TOTAL SPACE USE REQUIREMENTS (SQ.FT.) CCC = 5,640

Space Use Functions	Existing	Industry Average - Low	Industry Average - High	Difference - Low	Difference - High
Restaurant Seating	21,063	25,380	31,020	-4,317	-9,957
Kitchen/Scramble	6,452	6,091	7,445	361	-993
Bar/Lounge	5,504	3,553	4,343	1,951	1,161
Restrooms	2,064	3,299	4,033	-1,235	-1,969
Retail Sales	1,280	1,777	2,171	-497	-891
Rental/Repair Shop ⁹	4,570	4,500	6,500	70	-1,930
Ski School	1,814	4,061	4,963	-2,247	-3,149
SkiWee/Drop-in Center	3,684	4,568	5,584	-884	-1,900
Public Lockers	4,468	1,015	1,241	3,453	3,227
Ticket Sales/Guest Services	3,550	4,061	4,963	-511	-1,413
Ski Patrol/First Aid	1,803	2,030	2,482	-227	-679
Administration	2,731	2,538	3,102	193	-371
Employee Lockers	1,050	1,523	1,861	-473	-811
Storage/Mechanical	2,536	1,269	1,551	1,267	985
Circulation/Waste	10,788	7,106	8,686	3,682	2,102
TOTAL SQ. FT.	73,357	78,610	97,078	-5,253	-23,721

Source: SE GROUP, Whiteface

⁹Approximately 5% of rental/repair space should be allocated to the repair shop.

The space use functions are then distributed to the appropriate facility locations to accommodate the various user requirements and patterns throughout the day.

Table IV-20 shows the recommended size, in square feet, of all upgraded Visitor Services and Ski Center Operations functions for the Base Lodge.

**TABLE IV-20
UPGRADED SPACE USE REQUIREMENTS
BASE LODGE (SQ.FT.)**

Space Use Functions	Existing	Space to be allocated to another function	Reallocated Space (from another function)	Additional Space Proposed	Total Recommended Space
Restaurant Seating	12,792	0	700	0	13,492
Kitchen/Scramble	5,312	0	0	0	5,312
Bar/Lounge	5,304	0	0	0	5,304
Restrooms	1,408	0	750	0	2,158
Retail Sales	1,280	750	860	0	1,390
Rental/Repair Shop	3,770	0	0	0	3,770
Ski School	1,408	1,408	875	770	1,645
SkiWee/Drop-in Center	0	0	0	0	0
Public Lockers	4,318	635	0	0	3,683
Ticket Sales	2,686	240	0	4,000	6,446
Ski Patrol/First Aid	1,488	0	0	680	2,168
Administration	2,731	0	708	350	3,789
Employee Lockers/Lounge	1,050	860	950	666	1,806
Storage/Mechanical	1,659	950	0	150	859
Circulation	7,642	0	0	0	7,642
TOTAL SQ. FT.	52,848	4,843	4,843	6,616	59,464

Source: SE GROUP, Whiteface

The following table shows the recommended size, in square feet, of all upgraded Visitor Services and Ski Center Operations functions for the Easy Acres guest service facilities.

**TABLE IV-21
UPGRADED SPACE USE REQUIREMENTS
EASY ACRES (SQ.FT.)**

Space Use Functions	Existing	Recommended
Restaurant Seating	1,638	3,000
Kitchen/Scramble	260	730
Bar/Lounge	0	0
Restrooms	296	520
Retail Sales	0	200
Rental/Repair Shop	800	1,500
Ski School	406	450
SkiWee/Drop-in Center	3,684	6,000
Public Lockers	0	100
Ticket Sales	864	1,200
Ski Patrol/First Aid	0	0
Administration	0	300
Employee Lockers/Lounge	0	200
Storage/Mechanical	400	800
Circulation	1,391	740
TOTAL SQ. FT.	9,739	15,740

Source: SE GROUP, Whiteface

Table IV-22 shows the existing size, in square feet, of all Visitor Services and Ski Center Operations functions for the Mid-station Lodge.

**TABLE IV-22
UPGRADED SPACE USE REQUIREMENTS
MID-STATION LODGE (SQ.FT.)**

Space Use Functions	Existing
Restaurant Seating	6,633
Kitchen/Scramble	880
Bar/Lounge	200
Restrooms	360
Retail Sales	0
Rental/Repair Shop	0
Ski School	0
SkiWee/Drop-in Center	0
Public Lockers	150
Ticket Sales	0
Ski Patrol/First Aid	315
Administration	0
Employee Lockers/Lounge	0
Storage/Mechanical	477
Circulation	1,755
TOTAL SQ. FT.	10,770

Source: SE GROUP, Whiteface

Table IV-23 shows the recommended size, in square feet, of all Visitor Services and Ski Center Operations functions for the Cloudsplitter Lodge.

**TABLE IV-23
UPGRADED SPACE USE REQUIREMENTS
CLOUDSPLITTER LODGE (SQ.FT.)**

Space Use Functions	Proposed
Restaurant Seating	4,300
Kitchen/Scramble	2,000
Bar/Lounge	1,900
Rest Rooms	500
Retail Sales	0
Rental/Repair Shop	0
Ski School	0
SkiWee/Daycare	0
Public Lockers	0
Ticket Sales	0
Ski Patrol/First Aid	800
Administration	0
Employee Lockers/Lounge	0
Storage/Mechanical	2,000
Circulation/Waste	2,000
TOTAL SQ. FT.	13,500

Source: Whiteface

c) Description of Functions

Restaurant Seating

Table IV-24 shows the distribution of restaurant seating by lodge based on the capacity of the mountain. The existing 1, 059 seats in the Base Lodge would be retained, and 30 additional seats would be provided in the new coffee shop. The

mountain capacity for the upgraded Easy Acres lift/trail system is 504¹⁰, and based on the seating turnover rate of 3, the number of seats required for the lodge is 170. The new Cloudsplitter Lodge would have 355 seats. The seating and capacity of the Mid-station Lodge would remain 333. The total number of seats at the Ski Center would be 1,917. At a turnover rate of 3, this would more than accommodate the upgraded CCC of 5,640 guests.

**TABLE IV-24
UPGRADED RESTAURANT SEATING**

Location	Facility	Existing	Upgraded
Base Lodge	Cafeteria	368	
	Ausable Room	362	
	Cloudspin Lounge	299	
	Coffee Shop		30
	Total Base Lodge	1029	1059
Easy Acres	Cafeteria	94	170
Mid-station Lodge	Cafeteria	238	
	Bistro Restaurant	95	
	Total Mid-station	333	333
Cloudsplitter Lodge	Cafeteria/Bar		355
	TOTALS	1,456	1,917

Source: SE GROUP, Whiteface

Kitchen and Scramble

Kitchen space and food serving (scramble) areas would remain the same in the Base Lodge, and be expanded to correspond to the increase in restaurant seating for the Easy Acres Lodge. Kitchen and scramble facilities would also be provided in the new Cloudsplitter Lodge.

¹⁰ The mountain capacity for the Easy Acres lift/trail system is 420. This number has been increased by 20% to accommodate non-skiing guests who will spend time in the lodge.

Bar/Lounge

No expansion of the Base Lodge bar/lounge is recommended, and no bar/lounge is recommended for the Easy Acres Lodge. The new Cloudsplitter Lodge would have bar/lounge facilities.

Rest Rooms

The number and distribution of rest rooms has been derived by distributing the capacity for the mountain to the appropriate lodges and applying industry standards. Table IV-25 shows the required rest room facilities. The existing facilities are shown in brackets.

**TABLE IV-25
REQUIRED REST ROOM FACILITIES**

Facility	Men			Women	
	Urinals	Toilets	Sinks	Toilets	Sinks
Base Lodge	12 (9)	10 (7)	8 (6)	25 (12)	15 (8)
Easy Acres Lodge	2 (2)	2 (4)	2 (3)	5 (6)	3 (3)
Mid-station Lodge	7 (3)	6 (4)	4 (4)	15 (8)	9 (4)
TOTAL	21 (14)	18 (15)	14 (13)	45 (26)	27 (15)

Source: SE GROUP, Whiteface

Additional rest rooms will be created in the current retail shop location, on the first floor of the Base Lodge, and in the Easy Acres Lodge. The new Cloudsplitter Lodge would have rest room facilities.

Retail Sales

The primary retail shop will be relocated to the ground floor of the Base Lodge. This location will be adjacent to the new ticketing/guest services area adjacent to the main entrance to the lodge. A secondary retail shop will be located in the current shop location on the first floor of the Base Lodge. A small retail shop will be created in the expanded Easy Acres facilities.

Rental/Repair Shop

A new rental area, in the new enclosure directly beneath the cafeteria, is in the final stages of completion. Consisting of 3,770 square feet, this facility will be adjacent to the Phase II 'one-stop shopping' area, which is conveniently adjacent to the main entrance to the lodge from the drop-off area.

The new location of the rental facility within the Base Lodge has greatly improved guest service, especially for beginners and first time guests. The rental shop is now conveniently located adjacent to the main ticketing area. There will be ample room for filling out forms and purchasing equipment within this ticketing area. The shop is laid out to expedite the rental process, both at the beginning and end of the day. The rental shop exits directly onto the slopes, close to the gondola terminal. The repair shop is also located adjacent to the slopes.

The number of rental units should be increased to 1,200 skis, 200 snowblades and 200 snowboards, in response to the proposed increase in mountain capacity.

Ski School

Phase II of the Base Lodge renovations include moving the ski school to the first level of the Base Lodge, near the present ticket sales area. This ground level area faces the Mixing Bowl and the lesson reservations window will be very visible to customers going to, or coming from, the slopes. Access from the ski school staff space into the Base Lodge will provide a convenient connection with the new ticket sales area where ski school personnel plan to meet, greet and educate potential customers.

The vacated space on the first floor will be transformed into a VIP space and coffee shop/lounge area. This area has windows that face the slopes, making it an ideal location for these uses.

SkiWee/Drop-in Center

The SkiWee and Drop-in Center facilities are critical components for accommodating families. The operations for both will continue to be located at

Easy Acres. A new building, located on the south side of the existing lodge, should be created to house the SkiWee/drop-in center facility.

Public Lockers

Public lockers will be provided in the Base Lodge with a small number available in the Mid-station Lodge. The spatial requirement includes an area for bench space and changing rooms. Lockers will be easily accessible to the relocated rental shop in the Base Lodge.

The majority of public lockers (membership and public) are located on the ground and first levels of the Base Lodge. There are a small number of public lockers in the Mid-station Lodge. An additional locker and changing area has recently been created in the old rental shop location. The number of lockers and amount of floor space allocated to them is adequate for the proposed mountain capacity.

Ticket Sales

Phase II improvements will include the development of a larger reception and ticket area adjacent to the drop-off area of the Base Lodge, for the purpose of a one-stop shopping area for all lift ticket, rentals and ski school packages. Additional tickets will be available at automated ticket machines located in the pedestrian tunnel (between the drop-off area and slope side) and at a small kiosk located on the north side of the Cloudsplitter Gondola terminal.

The Guest Services desk will continue to be located on the second level of the Base Lodge, adjacent to the cafeteria. This is a highly visible location.

An expansion to the Easy Acres Lodge ticket area is also recommended to accommodate the increase in capacity of this area.

Ski Patrol/First Aid

Ski Patrol has been expanded in the northwest corner of the Base Lodge. This location is convenient to the ski slopes as well as to ambulance access.

Administration

Administrative offices will be maintained in the upper floor of the Base Lodge. This area will be expanded to accommodate two additional offices and a small conference room. The marketing and sales functions of administration will continue to be located on the second floor. Centerplate administrative space will continue to be located on the ground floor of the Base Lodge.

Employee Lockers/Lounge

Employee lockers/lounge will be relocated to the south side of the breezeway that is on the south side of the second floor of the Base Lodge. This space was formerly utilized for storage. Additional space will be created on the east side of the lodge, adjacent to operations. Space for ski school employees will be located within the ski school space on the ground floor.

Storage/Mechanical

Adequate storage and mechanical space should be provided in all buildings, including the expanded Easy Acres Lodge and the conceptual Cloudsplitter Lodge.

Circulation/Mechanical

Adequate circulation space for each building has been identified in the preceding tables.

d) Maintenance Buildings

The maintenance buildings include the maintenance garage, the Don Straight building, and two pole barns. The maintenance garage and the Don Straight building contain a total of 9,660 square feet and 360 square feet, respectively. The two pole barns contain a total of 2,900 square feet with 1,700 square feet located near the Fox Trail (Fox Pole Barn) and 1,200 square feet at the bottom of parking lot #4 (Pole Barn Lot 5).

The breakdown of this available space and a comparison with what is required is shown in Table IV-26 below.

**TABLE IV-26
MAINTENANCE FACILITIES**

Use	Available Square Feet	Required Square Feet
Major maintenance, repair and vehicle storage – 4 vehicles	5,940 ¹¹	4,800
Parts, supplies, storage, office, toilets, etc.	0 ¹²	800
Other vehicle repair and storage	0 ¹¹	2,200
Shop space - lifts, carpentry, electrical, etc.	4,080	3,000
TOTAL	10,020	10,800

Source: SE GROUP, Whiteface

Storage space is needed for many items including race supplies that were purchased for the Goodwill Games. Over 4.5 miles of B netting and thousands of fiberglass net poles, 4-5 meter wide A nets, safety pads, etc., are all currently jammed into shipping containers which makes it difficult to access and inventory. In addition, not all of the items fit into these containers.

The current location of the Fox Pole Barn is in the middle of the proposed 31a trail. When this trail is built the Fox Pole Barn should be relocated into the 'pit' area and doubled in size (to 3,400 square feet). The Lot 5 Pole Barn and the Don Straight building should also be doubled in size (to 2,400 square feet and 720 square feet respectively). When the proposed parking area (#5) is constructed the Lot 5 Pole Barn should be relocated to the maintenance facility.

An additional two bays for vehicle and Snow Cat maintenance bays are needed to accommodate the existing fleet. An additional 60 foot by 20 foot maintenance building would provide for equipment storage and increase the length of Snow Cat and equipment life spans.

¹¹Includes 5,580 square feet in the garage and 360 square feet in the Don Straight building.

¹²Included in the 5,940 square feet.

9. Roads and Parking

a) Roads

Currently, the entrance to the Whiteface Ski mountain area operates at good levels of service during the AM and PM peak hours. With the increase in traffic volumes as a result of the expansion, skiers will experience longer delays during the PM peak hour. Several circulation conflicts exist between Route 86 and the base lodge. Most significant is the merge of the main entrances and the main access road and the loading area at the base lodge.

Several alternatives are described in the Traffic Assessment (see Appendix I) which will improve circulation, and may be implemented in combination with others or as stand-alone projects. These include:

1. Provide proper signing and pavement markings at the two separate entrance points to the ski area. This will channelize traffic flow and improve operations to and from Route 86.
2. Add signing and intersection control to the merge point of the two entrances. Stop sign control should be installed on the westbound approach to this intersection from the north entrance due the lower traffic volumes on this leg.
3. Reconfigure the main entrance by reducing the median width between the north and south entrance, and create a standard entrance with one lane entering and two exit lanes on the eastbound approach to Route 86.
4. Provide means to allow buses (shuttle and coach) to turn around without turning out onto Route 86 and back into the site. This can be accomplished by installing a mini-roundabout at the entrance merge and parking lot intersections, or by some other means. This will improve the circulation on the main access road at the entrance and parking lot intersections.
5. Remove pedestrian conflicts along the main access road by providing a 10-foot wide sidewalk along one or both sides of the road.

6. Widen the access road (on the downhill side) from the base lodge to Easy Acres to provide approximately 30 feet from the edge of pavement and allow perpendicular parking on this side rather than parallel parking. This will increase the parking capacity along this access road and provide enough shoulder to allow pedestrians to walk and an area for vehicles to back out of a parking space without backing into the roadway completely.
7. Create a bus loading area and/or move the bus parking to lot #2. This will remove the need for buses to access the existing loading area next to the lodge but will require pedestrians to cross the bridge and will displace some vehicles currently using lot #2.
8. Minimize parking in the loading area to handicap vehicles only. This will create additional space for loading but will displace some employee vehicles.
9. Remove parking between the base lodge and the NYSEF building and modify the area to increase the size and performance of the current loading area. This will displace vehicles but could triple the loading area and improve traffic flow significantly.

These alternatives are not proposed for construction as part of this UMP/GEIS. Construction of any one of the alternatives will require a future update to this UMP with an associated SEQRA review.

It is recommended that the configuration of the entrance to the mountain be modified to provide a single access point with separate left and right turn lanes exiting onto Route 86. Additionally, it may not be feasible to increase the available sight distance looking right from the site driveway. Therefore adding a supplemental distance sign is recommended to supplement existing warning of the conflict area ahead for approaching drivers.

b) Parking

The skier parking requirements are directly related to the upgraded ski area CCC of 5,640 skiers. To prevent parking restrictions when peak day crowds exceed the CCC by up to 10%, or 6,204 skiers, Whiteface needs to provide adequate parking to accommodate this demand. Unlike many resorts of its size, Whiteface has no

on-mountain accommodations. On-site accommodations typically reduce day-use parking requirements, since parking is provided for at accommodation units and guests can walk to the on-mountain facilities. Because Whiteface has no overnight accommodations it needs to provide day-use parking for the total peak day capacity, or 110% of the upgraded CCC.

In addition to day-use parking requirements, parking must also be provided for employees. Employees typically represent about 8% of ski area capacity.

Based on an average of three people per car and an average of 25% of all skiers arriving by bus, the total parking requirements for skiers and employees at full upgraded CCC would be 1,700 cars and 35 buses.

In summary, the following calculations have been used to derive the ski area related parking requirements.

Daily Capacity (CCC)	5,640 Skiers
Peak-Day Capacity (1.10 x CCC)	6,204 Skiers
Car Parking Requirements for Skiers on Peak-Days (75% of Skiers Arriving by Car @ 3 skiers per car)	1,550 Cars
Car Parking Requirements for Employees	150 Cars
Bus Parking Requirements for Skiers on Peak-Days (25% of Skiers Arriving by Bus at 44 skiers per bus)	35

The upgraded parking requirements for Whiteface are noted below in Table IV-27. A new parking area (Lot #5) will be constructed beyond the existing Easy Acres parking area. This parking area will accommodate an additional 350 cars, and is approximately 2.7 acres in size. The total land disturbance due to grading outside the parking surface, including a proposed stormwater basin is estimated at four (4) acres. The parking surface will be gravel.

TABLE IV-27
UPGRADED PARKING¹³

Total skier capacity arriving by auto (75% of the 6,204 peak capacity)	4,653
Number of skiers per auto	3
Total auto parking spaces required	1,550
Plus: employee parking (8% of 5,640 @ 3 per car)	150
Total auto parking spaces required (skiers and employees)	1,700
Autos per acre	133
Total acres required for autos	12.8
Total skier capacity arriving by bus (25% of the 6,204 peak capacity)	1,550
Number of skiers per bus	44
Total buses	35 (20) ¹⁴
Buses per acre	35
Total acres required for buses	1.0
<i>Total acres required for cars and buses</i>	<i>13.8</i>
Total acres available (existing)	11.2
Total acres available (proposed)	2.7
<i>Total acres available (existing and proposed)</i>	<i>13.9</i>

Source: SE GROUP, Whiteface

Any overflow parking required for special events will be accommodated in the Fox Farm lots. In addition, guests staying in Lake Placid will be encouraged to use the public transportation shuttles to get to and from the mountain.

An additional bus staging area will be designated in a location prior to the bridge along the existing access road. Lot #2 may be utilized as a bus lot, allowing busses to park, unload and pick-up guests from this accessible location.

10. Potable Water

a) Base Lodge/Easy Acres/Maintenance Building/Alpine Training Center (former NYSEF Building)/New NYSEF Building

It is recommended that the present potable water system which serves the Base Lodge, Easy Acres and the Maintenance area be completely evaluated for its

¹³Figures rounded to the nearest 10.

¹⁴Historically only up to 20 buses remain parked at the resort, while the rest go to Lake Placid. The number of 20 has been used for calculations.

present water demand and projections made for future needs with respect to existing water source improvements.

To determine present demands during a typical season, a water meter should be installed for the above referenced uses and water consumption accurately documented. The following actions should be undertaken:

Safe yield of the existing drilled well should be established.

Use of non-potable water for flushing of toilets should be maximized. A water consumption savings program should be developed and implemented. Future source expansion alternatives should be evaluated. This includes utilization of existing drilled well No. 2, treatment of surface water, and potential utilization of shallow groundwater sources.

The proposed construction of water service of the Alpine Training Center (former NYSEF) building will not increase daily consumption of potable water in this system. There is no potable water currently in this building; the occupants of this building utilize the Base Lodge for all potable water needs. The proposed construction will alter the location of use, but not the demand.

The new NYSEF Training Center building will be served from existing 4" diameter potable and non-potable water mains located to the south of the proposed building. Non-potable water will be used for flushing of toilets. Since the existing NYSEF operation is using existing water facilities at the Ski Center, there will be no additional demand on water supply systems above the present demand levels.

b) Mid-station Lodge

It is anticipated that the present water source is adequate for the present and future needs of this facility.

c) Cloudsplitter Lodge

The Little Whiteface Cloudsplitter Lodge is not proposed for construction as part of this UMP/GEIS. Plans for this lodge are only conceptual at this time. Construction of this lodge will require a future update to this UMP with an associated SEQRA review.

This conceptual on-the-mountain facility would be located at the gondola station on top of Little Whiteface and would be a 355 seat facility for providing guest services. Using Department of Environmental Conservation design standards of flow at 35 GPD/seat the projected daily water demand of this building is estimated at 12,425 gallons.

Two alternatives are available for providing a source of water supply for the lodge.

Alternative A – Ground Water Source

This alternative would involve undertaking a hydrogeological study to establish potential sites for drilling. After a development of a well with adequate yield, a piping system will need to be constructed from the well to a storage tank at the lodge site. The minimum safe yield of such a well will need to be 13 GPM (50% more than minimum requirement).

Alternative B – Filtration of Water from the West Branch of the Ausable River

Water from the West Branch of the Ausable River could possibly be pumped through the existing snowmaking lines to a storage tank near or within the day lodge building. Filtration equipment would be installed to produce potable water of acceptable quality as approved by the New York State Department of Health. Before this alternative is given serious consideration, a determination would need to be made that the river water is treatable as it leaves the snowmaking line at the top of Whiteface.

A water storage facility which provides one-day storage of projected potable water daily demand together with fire flow storage volume would be required to be constructed for this project. This facility would be incorporated into and camouflaged with the building or site development features. There would be no freestanding water storage tank, which would be visible.

11. Sanitary Wastewater

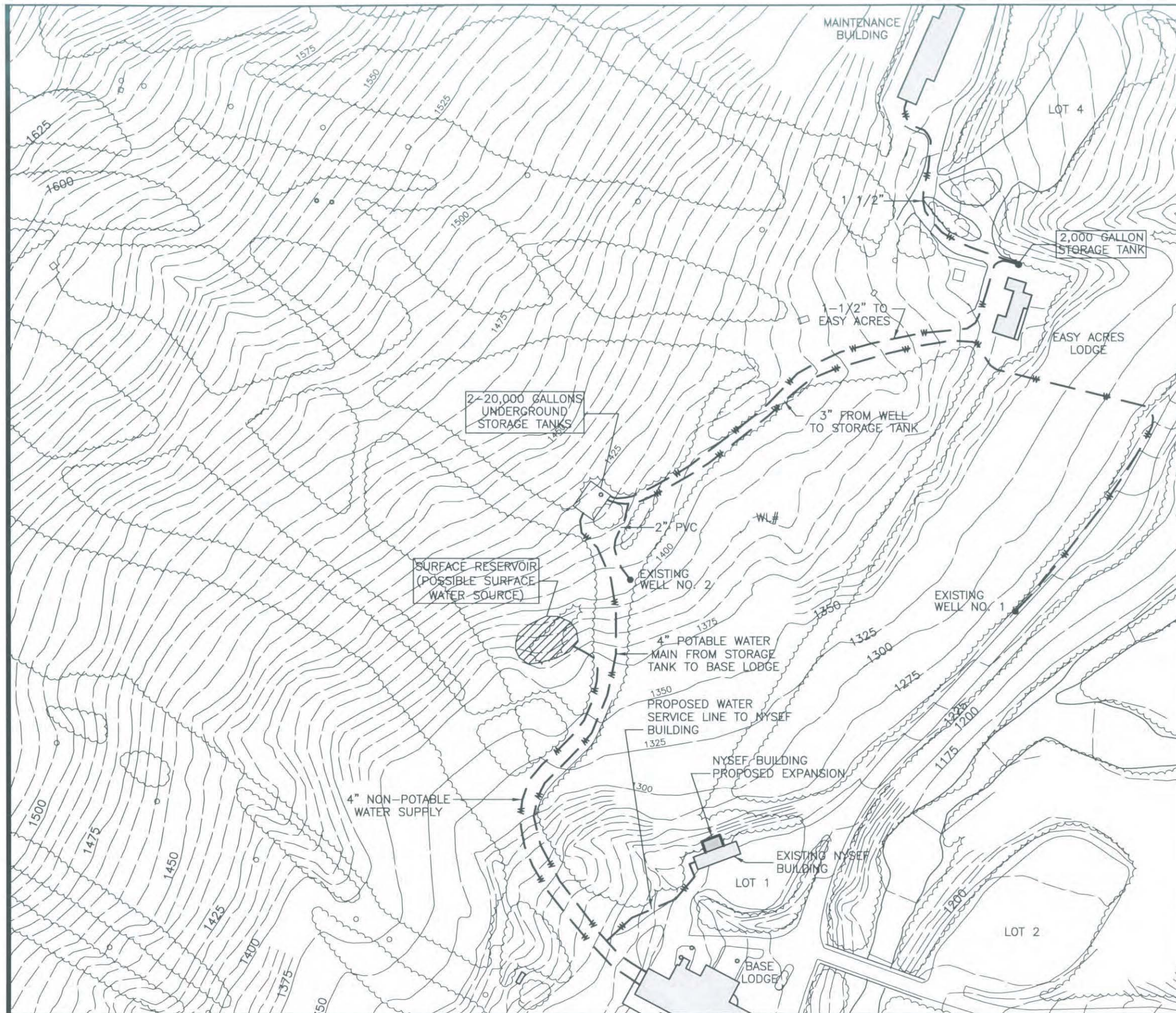
a) Base Lodge/Alpine Training Center/NYSEF Training Center

The present wastewater disposal system is functioning adequately. At the present time no accurate data is available on the volume of flows which are entering the system. It is recommended that the present discharge into the disposal system be monitored.

At the site of the present disposal field an adequate space is available for possible system expansion.

Addition of a sanitary sewer service connection to the Alpine Training Center (former NYSEF building) will not increase the load on this system. This building does not have toilet facilities at the present time, and occupants of this facility are using the facilities in the Base Lodge building. The proposed connection will change the location of use, but not the load.

The NYSEF Training Center building wastewater disposal system will be connected to the existing ski center base lodge system. A septic tank will be installed to provide pre-treatment prior to connection to the existing sewer line. Since the existing NYSEF operation is using existing sewer facilities at the Ski Center, there will be no additional demand on wastewater disposal systems above the present demand levels.



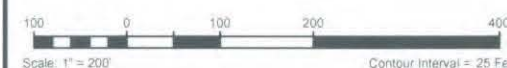
WHITEFACE

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OLYMPIC REGIONAL DEVELOPMENT AUTHORITY
LAKE PLACID, NEW YORK

Prepared By:



COMPREHENSIVE MANAGEMENT AND PLANNING REVIEW AND UNIT MANAGEMENT PLAN



TITLE: **POTABLE WATER
SUPPLY SYSTEM**
 • BASE LODGE
 • NYSEF BUILDING
 • EASY ACRES
 • MAINTENANCE BUILDING

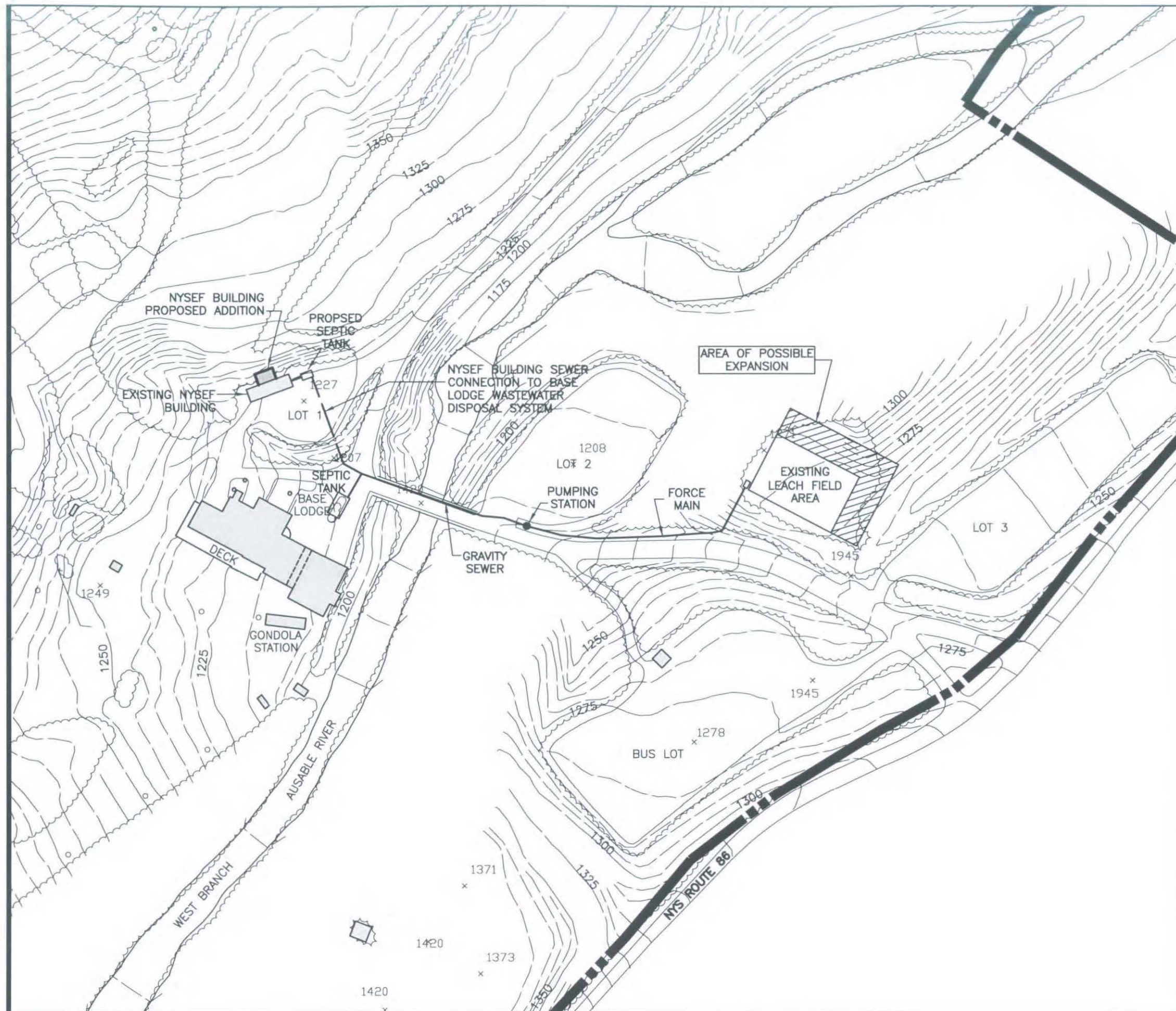
DATE: NOV 6, 2001

FIGURE:

IV-16

PROJECT NUMBER: 01011

FILE:



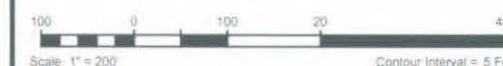
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**COMPREHENSIVE MANAGEMENT
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AND UNIT MANAGEMENT PLAN**



TITLE:
**WASTEWATER DISPOSAL
SYSTEM BASE LODGE
& NYSEF BUILDING**

DATE: NOV 6, 2001

FIGURE:

IV-17

PROJECT NUMBER: 01011

FILE:

b) Easy Acres

The projected expansion to 170 seats at the restaurant facility would require a system which will accommodate daily flows of 5,950 gallons. The present permit is for 2,000 GPD.

System improvements in 2000 upgraded pumping capacity in such a manner that the above referenced future flows can be accommodated. More capacity will need to be provided in the septic tank and in the absorption capacity of the present seepage pit system to accommodate the projected increase of daily flow from 2,000 to 5,950 gallons. Adequate area exists in the vicinity of the present disposal area to accommodate additional septic tank and seepage pits.

Modification of the existing SPDES permit will be required from the New York State Department of Environmental Conservation to allow expansion of the system.

c) Mid-Station Lodge

The present system is adequate to accommodate present and future needs of this facility. A meter should be considered to measure flows into the lodge to determine the loading volume on the present system. After additional consultation between ORDA and NYSDEC it was agreed that metering the water flow into the building is preferred as the method to confirm loading volume to the present system.

d) Cloudsplitter Lodge

The Little Whiteface Cloudsplitter Lodge is not proposed for construction as part of this UMP/GEIS. Plans for this lodge are only conceptual at this time. Construction of this lodge will require a future update to this UMP with an associated SEQRA review.

Providing a safe, reliable and environmentally safe wastewater disposal system would be a considerable challenge. A soil investigation was conducted and revealed a suitable site location in the existing gravel pit near Lift 7.

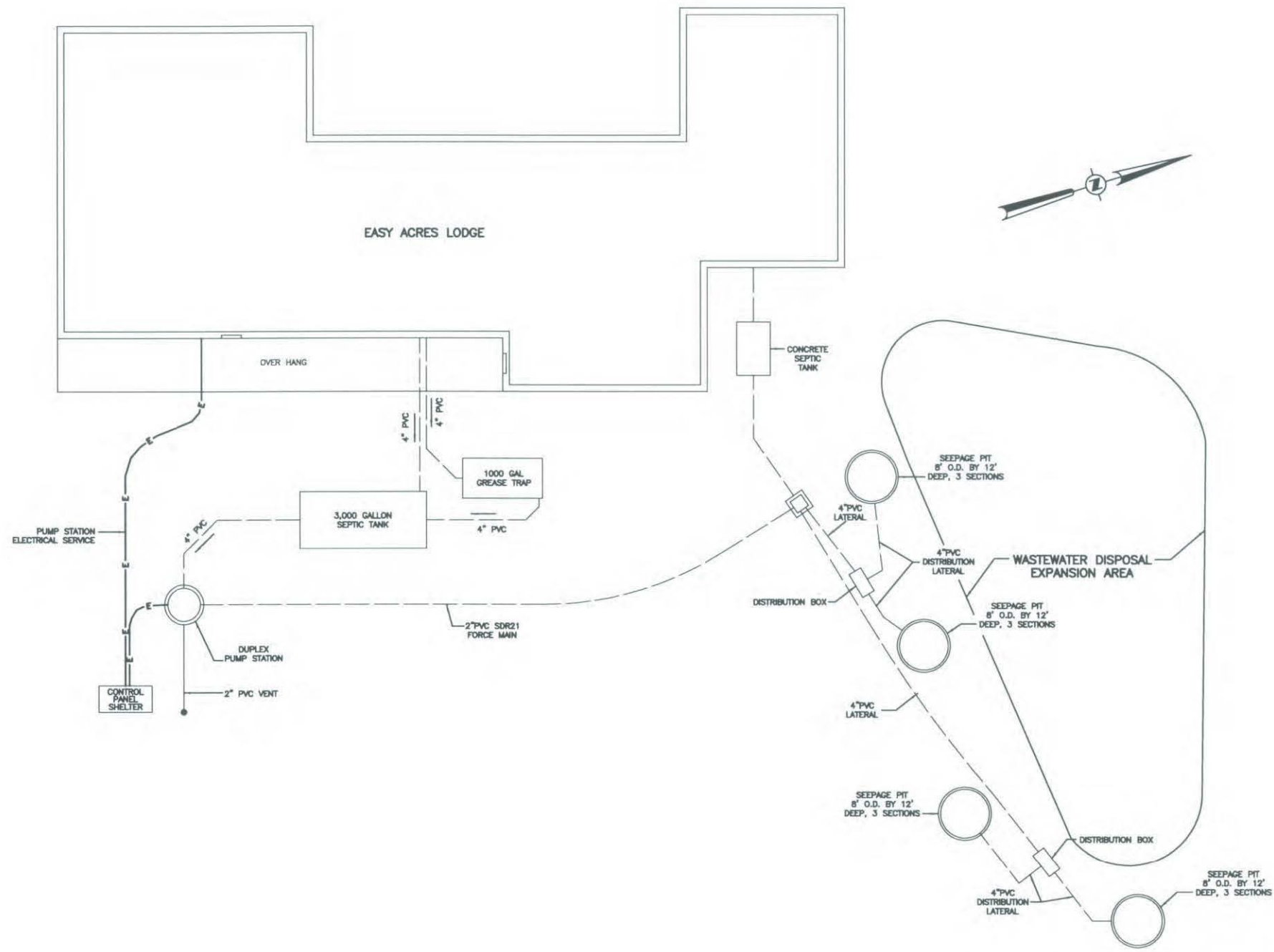
It is suggested that a grinder pump may be used to convey wastewater from the lodge through a steel pipe to this disposal area. Where pipe cannot be buried below frost level due to rock conditions, an above-ground insulated pipe with a heat tracer wire will be required.

The wastewater disposal system would need to satisfy design criteria of the New York State Department of Environmental Conservation and its operation will require a SPDES permit. Every effort will need to be made to minimize water consumption at the Lodge to control the size of this wastewater disposal system. Potential alternate technologies for wastewater treatment and disposal should be considered and evaluated during the project schematic design phase.

12. Drainage

The following actions are planned for the present system:

- Culvert No. 1 should be extended to provide additional roadway space for the proposed bus drop-off area.
 - Culvert No. 2 should be replaced with a single large diameter culvert.
- Culverts should be protected to prevent clogging with debris during major storms.



WHITEFACE

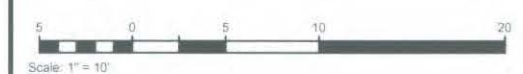
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TITLE:
**WASTEWATER DISPOSAL
EASY ACRES LODGE**

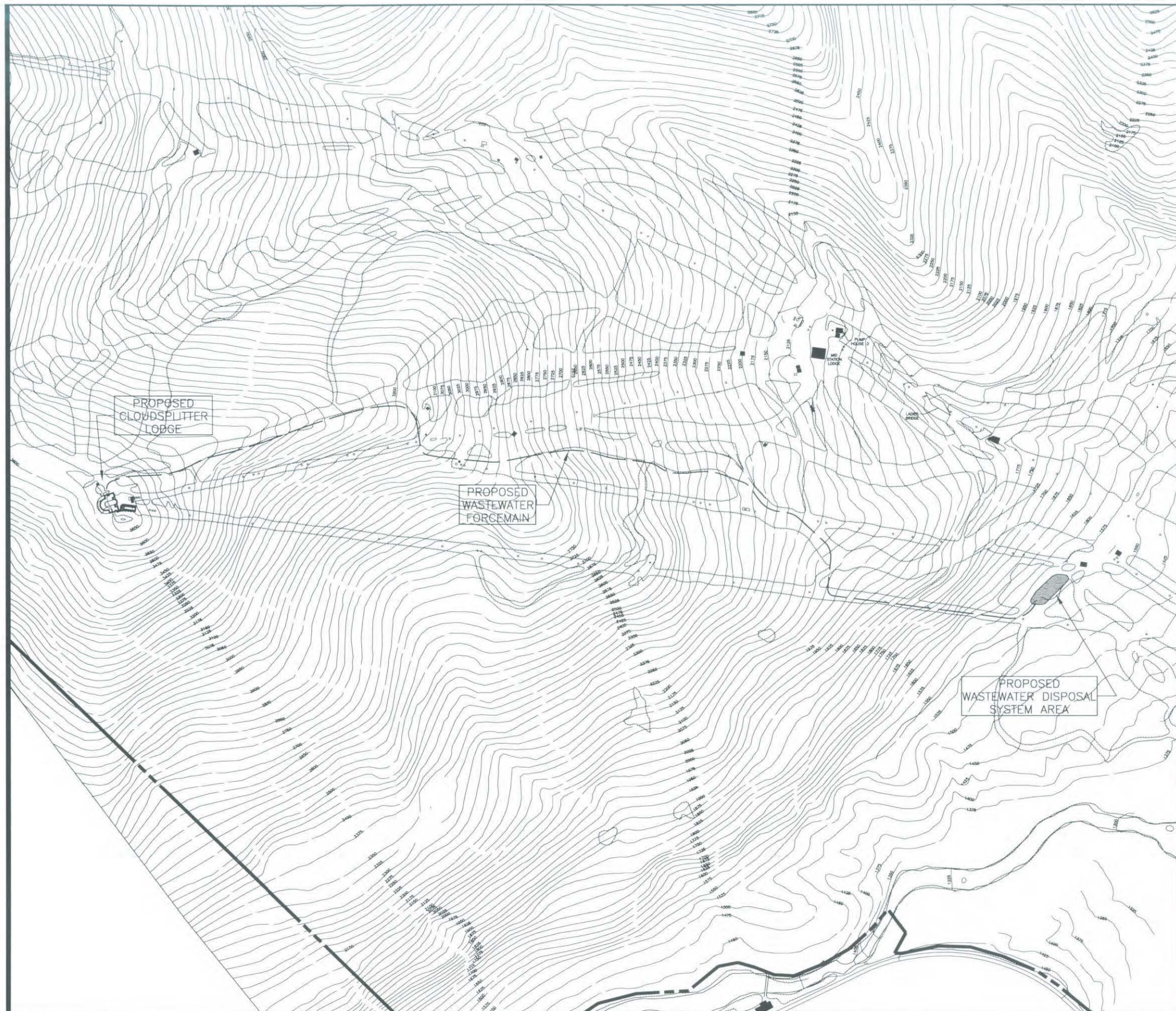
PROJECT NUMBER: 01102

FILE:

DATE: MARCH 2002

FIGURE:

IV-18



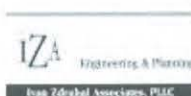
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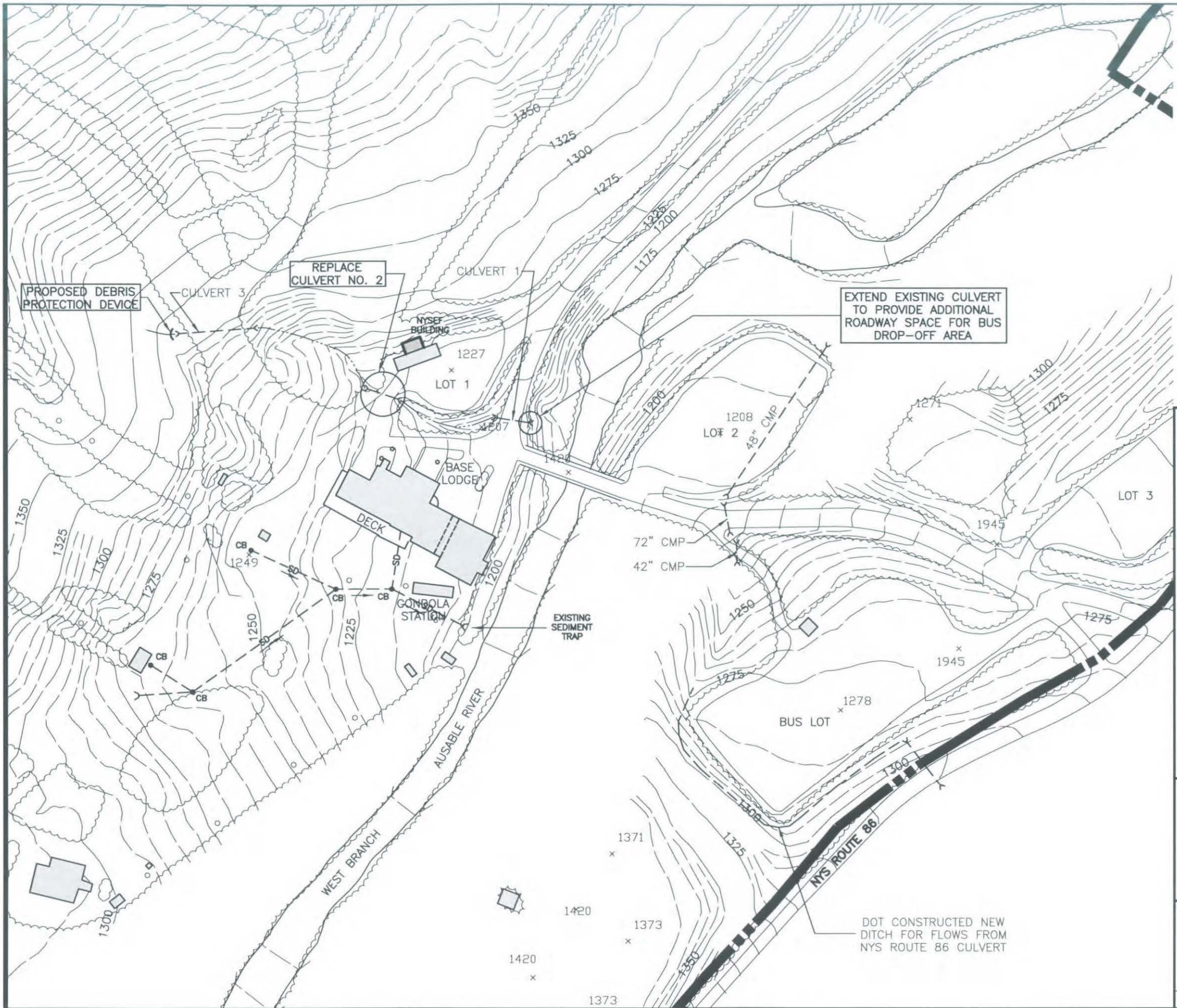
TITLE:
**WASTEWATER DISPOSAL
CLOUDSPLITTER LODGE**

DATE: MARCH 2002

FIGURE:
IV-19

PROJECT NUMBER: 01102

FILE:



NOTES:

CULVERT 1:

7'x9' CMP ARCH PIPE

CULVERT 2:

TRIPLE - 42", 48" & 72" CMP (42" & 48" PARTIALLY CLOGGED WITH STONES). CULVERT IS IN BAD SHAPE, CAN'T TAKE HIGH FLOWS, WATER RISES TO A POINT THAT IT OVERTOPS ROAD.

CULVERT 3:

11'x7'9" CMP ARCH PIPE

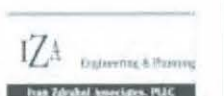


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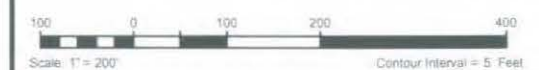
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**COMPREHENSIVE MANAGEMENT
AND PLANNING REVIEW
AND UNIT MANAGEMENT PLAN**



TITLE:

**DRAINAGE SYSTEM
BASE LODGE**

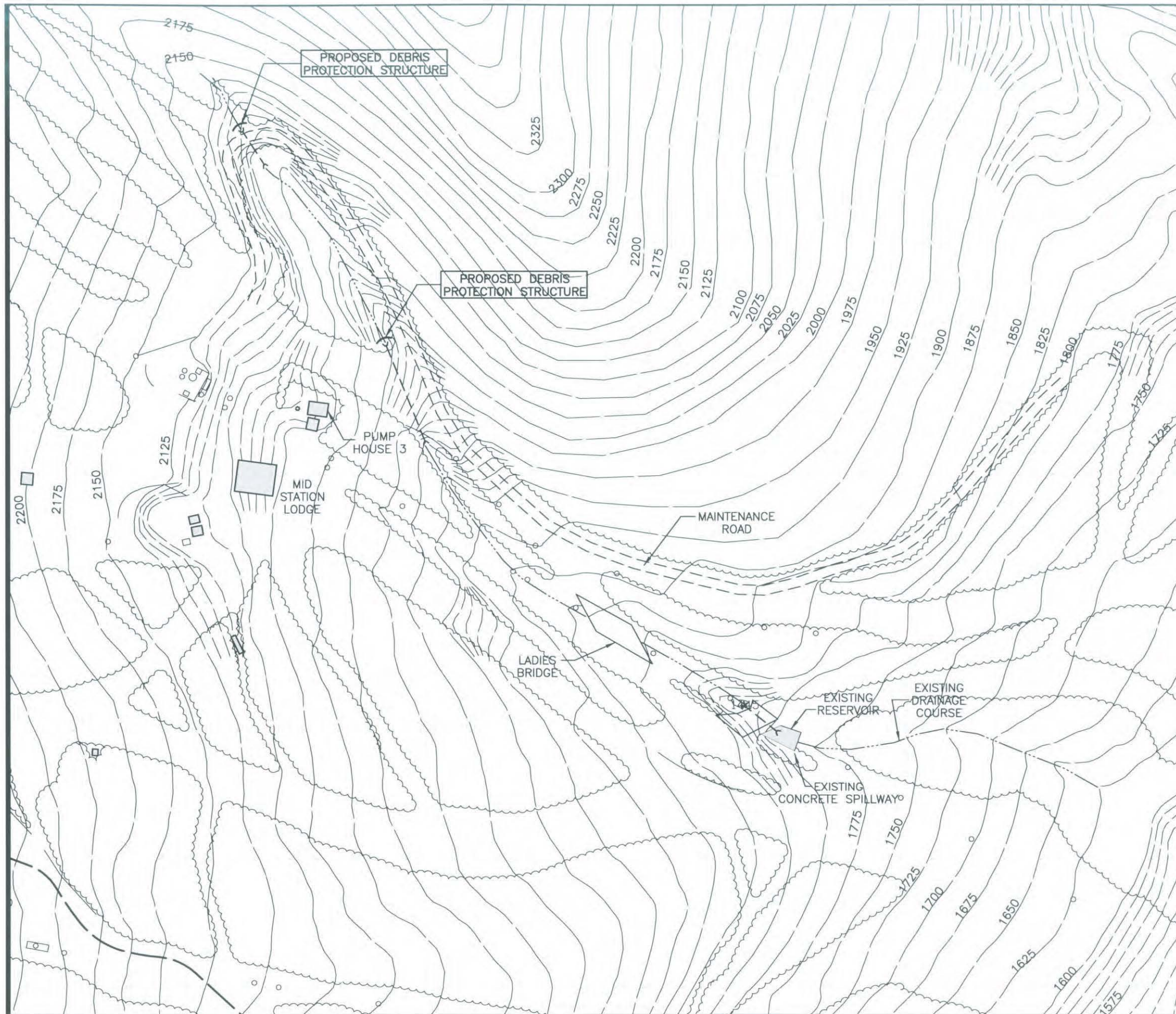
PROJECT NUMBER: 01102

FILE:

DATE: MARCH 2002

FIGURE:

IV-20



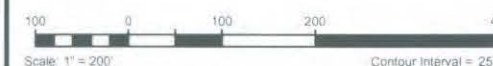
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**COMPREHENSIVE MANAGEMENT
AND PLANNING REVIEW
AND UNIT MANAGEMENT PLAN**



TITLE:
**DRAINAGE SYSTEM
MID-STATION LODGE**

PROJECT NUMBER: 01102

FILE:

DATE:
MARCH 2002

FIGURE:
IV-21

13. Electrical Distribution

The following actions are identified to be implemented to upgrade the present distribution system:

- Isolation switches should be installed for each circuit in the distribution system to prevent complete mountain shutdowns.
- Isolation switches should be installed in the pump house No. 1 for transformer and the main line.
- “Kamlock” switches in pump houses 1 and 3 should be replaced.
- Repair and replace switch gear units A and B.

For future expansion there is space capacity at the service entrance equipment.

Testing should be undertaken to determine exactly how such space capacity exists.

14. Alternative Recreation

A number of mountain resorts throughout the U.S. and Canada have implemented alternative recreation venues, including mountain biking, hiking, fly fishing, cross country skiing and snowshoeing. These alternative sports allow the resorts to diversify within the recreation market, as well as become more of a four-season attraction.

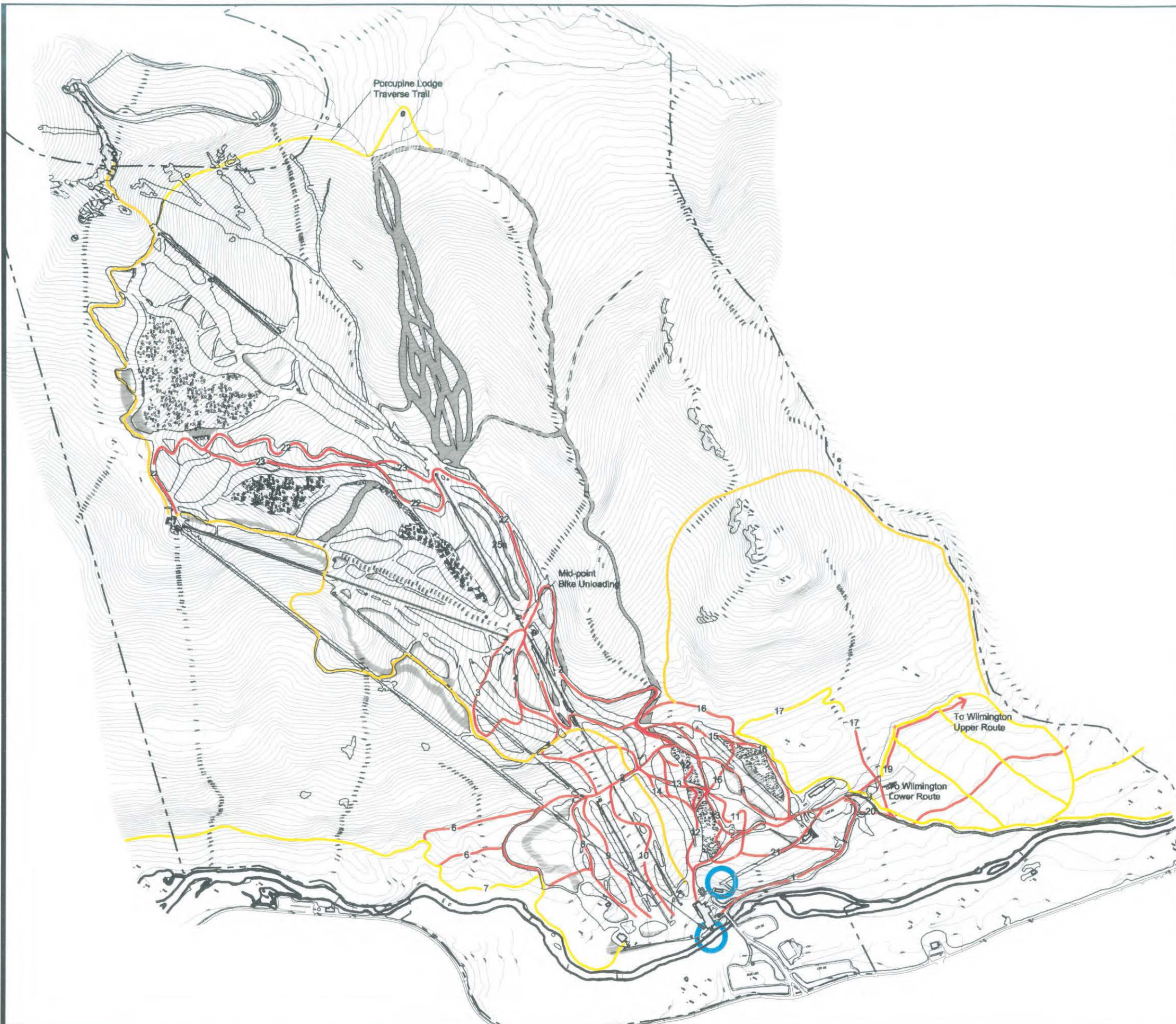
The following exhibit illustrates the trail networks and locations of alternative recreation at Whiteface. The trail network at Whiteface will, for the most part, use a combination of existing ski trails, work roads, abandoned logging roads and other single-track paths. Hiking trails may include interpretive signage, maps, benches, etc. Trail use will vary depending on season, hiking and mountain biking in summer, and snowshoeing and cross country skiing in the winter.






The new reception/ticketing area and rental shop in the Base Lodge will be utilized during the summer months as a staging area for summertime activities.


Mountain biking on terrain in and around Whiteface is an existing conforming use at Whiteface Mountain Ski Center. Mountain biking is regulated in the Adirondack Park and the Whiteface Intensive Use Area is currently zoned for such activity.

ORDA will pursue a mountain biking venue at Whiteface. Furthermore, detailed planning will be necessary to develop the specific program and trail routes.

ORDA also intends to take the opportunity to provide interpretive signage and displays to its patrons, as part of the adoption of the NSAA Sustainable Slopes Charter. Refer to FGEIS Appendix T. Also, the use of educational displays for the public was identified in the 1996 UMP and this action will be continued in the 2004 UMP. One of the important aspects of the Ski Center is the connection to the area via existing hiking trails. There are hiking trails from Whiteface Landing and Connery Pond from the west, through McKenzie Mountain Wild Forest, to the summit of Whiteface Mountain, and from the base of the former Marble Mountain Ski Center through the Wilmington Wild Forest from the east.




-  Mountain Biking Trails
-  Hiking Trails - NO BIKES
-  Multi-Use Trails
-  Recreation Area
 - Rock Climbing
 - Fly Fishing
 - Kayaking
-  Proposed Ski Trails




WHITEFACE

Prepared For:
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LAKE PLACID, NEW YORK


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**COMPREHENSIVE MANAGEMENT
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Scale: 1" = 1200'



Contour Interval = 5 Feet



NORTH

TITLE: <div style="text-align: center; font-weight: bold; font-size: 1.2em;">PROPOSED ALTERNATIVE RECREATION PLAN</div>	DATE: JUNE 2004 FIGURE #: <div style="font-size: 2em; font-weight: bold;">IV-22</div>
PROJECT NUMBER: 01102	FILE: [whiteface]

D. Priorities Phasing

The Whiteface Unit Management Plan Update outlines 5 phases that makes up an overall direction for the resort to become more competitive in an increasingly competitive market. The following recommended management actions will provide better balance between uphill capacity and downhill acreage, and improved circulation and safety for vehicles, pedestrians and skiers on the mountain. The plan is to be implemented as capital becomes available. The following pages outline the 5 phase program and describe each activity in each phase.

Naturally, these recommendations have flexibility built in so that management has the option of stretching out a phase or delaying the implementation of later phases. Management of Whiteface and ORDA may also wish to overlap certain items from one phase to another. In this context, SE GROUP's suggestions should be viewed as a set of guidelines that outline a logical, sequential approach to upgrading, but in no way can they be interpreted as a rigid process. The most critical concern though is that balance among all the components of the resort is achieved and maintained throughout the upgrading program.

As a result of the phased upgrading program the Comfortable Carrying Capacity (CCC) of the Ski Center would increase from the current 5,070 skiers at one time to 5,640.

1. Phase 1 - Immediate Improvements

a. Improvements of Ski Lifts

Lifts D and E – The existing Mid-Station Shuttle double chair and the Valley triple chair should be replaced with a high-speed detachable quad (L). The mid-station should be eliminated.

This action was proposed in the 1996 UMP. (The new lift was installed summer 2002.)

Lift J – The beginner Handle Tow should be replaced with a surface conveyor lift, realigned with the bottom terminal extended to a point where it is more easily accessible (in terms of elevation) to the first day skier.

This action was proposed in the 1996 UMP.

Estimated Capital Costs

Lifts D, E (replace with detachable quad) - \$3,044,550

Lift J (realign and extend bottom terminal) - \$100,000

Total (+ 15% contingency) – \$3,616,233

b. Improvements of Ski Trails

Upper Mountain: The upgrading to occur on the Upper Mountain focuses on the Downhill/FIS trail homologation standards. Trail 3a (conceptual), Niagara, would be used to connect Upper Skyward to Upper Cloudspin. A new 9.8-acre expert glade, Trail 5a (conceptual), would be constructed in the forest between Paron's Run, Excelsior, Connector and Upper Cloudspin.

Little Whiteface: One of the high priority goals of the upgrading program for Little Whiteface is the addition of an intermediate trail from the summit. This will start from the top terminal of Cloudsplitter Gondola and run parallel to the upper section of Approach. The new trail will cross Approach twice as it descends the ridge to the previous top terminal of the Freeway double chair, which will be lowered ~500 feet to accommodate the new traffic flow. The trail will continue towards the gondola lift line and then return to join Lower Parkway.

This improvement will not only *directly* add nearly 5 acres of intermediate skiing on Little Whiteface, but it will effectively lower the ability level of Approach to an intermediate rating, as users of Approach will now have an intermediate option. As such, this single new trail construction will effectively add *two* intermediate runs from Little Whiteface, bringing the total to three (including Excelsior). This much-needed improvement should significantly improve the intermediate skiing experience for round-trip Gondola passengers, and all skiers on Little Whiteface.

A new glade, Trail 36a, should be constructed in the area between Gold and Bronze. This 3.8-acre low-intermediate glade will provide a very exciting skiing experience that low ability level skiers rarely have the opportunity to enjoy.

It is also recommended that a children's snow play area be constructed on the south side of the lodge. This area should be fenced off and it should be set up with learning and play stations for children 3-6 years old. A "magic carpet" type of surface conveyor should be installed.

Estimated Capital Costs

Upper Mountain - \$82,600

Little Whiteface - \$103,600

Easy Acres - \$9,500

Total (+ 15% contingency) – \$225,055

c. Snowmaking System Improvements

Water System Improvements

Reconfigure PH1 Intake

Increase System Pumping Capacity

PH 2 Water, Electrical Revisions to achieve 6000 gpm

Monitoring and Control Revisions

Air System Improvements

Replace Existing Rotary Screw Compressors

Air-to-Air Aftercooler Repair

Mountain Infrastructure

Piping

VH

Fan Support

Snowguns and Hose

Fan Guns

Tower Guns

Hose

Estimated Capital Costs

Total (+5% engineering and design fees and 15% contingency) – \$1,433,293

d. Base Area/On-mountain Guest Services Improvements

Easy Acres Lodge – The Easy Acres Lodge should be renovated to increase the size of the restaurant facility, kitchen/scramble, restrooms, rentals, ticket sales, storage and administration. An additional building (6,000sf. total) should be constructed to accommodate SkiWee/Drop-in Center functions.

The 1996 UMP indicated that the Kid's Kampus Lodge (recently renamed the Easy Acres Lodge) should be expanded to 10,500sf.

- **Alpine Training Center (former NYSEF Building)** – Improvements to the Alpine Training Center building will focus on the following:
 - Improvements to first floor level without increasing floor space;
 - Addition of approximately 960 SF to the second floor plan;
 - Addition of an approximately 940 SF conference space to the upper level floor;
 - Improvement to the façade of the existing building;
 - Providing water and sewer service to the building. This building does not have toilet facilities; occupants are currently using the facilities in the Base Lodge building.

All improvements will be funded by NYSEF.

Parking – An additional parking facility (350 cars) is proposed near the Easy Acres base area. A bus drop-off area is proposed along the existing access road to the right after the bridge.

Maintenance – Improvements to the maintenance facilities include:

- The relocation of the Fox Pole Barn. Double the size of the barn to 3,400sf.

- Relocate the Lot 5 Pole Barn to the maintenance facility. Double the size of the barn to 2,400sf.
- Double the size of Don Straight's building to 720sf. This action was proposed in the 1996 UMP.
- Create an additional maintenance building (1,200sf.) to accommodate two vehicle bays for equipment storage.

Alternative Recreation – Additional recreation trails include:

- A 0.7-mile hiking/cross country skiing/snowshoeing trail along the Ausable River on the south side of the base area.
- 0.5 miles of hiking trails on the north side of the Easy Acres base area.

Estimated Capital Costs

Easy Acres Lodge - \$876,510

Easy Acres – Kids Center Lodge (new) - \$800,000

Alpine Training Center (NYSEF) – n/a

Parking - \$500,000

Maintenance - \$401,400

Trail development - \$19,020

Total (+5% engineering and design fees and 15% contingency) – \$3,116,316

e. Utilities

Potable Water – An additional source of water should be developed for the Base Lodge area. The most likely solution will involve utilization of surface water with filtration as approved by the New York State Department of Health.

A new source of water would need to be developed for Cloudsplitter Lodge. The Lodge was proposed under the 1996 UMP.

Drainage – Culvert No. 2 should be replaced with a single large diameter pipe.

Debris control structures will need to be installed upstream from large culverts to prevent potential clogging with debris during flood conditions.

Estimated Capital Costs

Potable Water - \$90,000

Drainage - \$30,000

Total (+5% engineering and design fees and 15% contingency) – \$144,000

2. Phase 2 - Immediate Improvements

a. Improvements of Ski Lifts

Lifts G and H - The removal of the Mountain Run lift (H) double chair and the replacement of the Little Whiteface (G) double chair with an 1800 per hour fixed grip quad is recommended. This will balance uphill and downhill capacities and still provide acceptable service to the Little Whiteface ski terrain. As a means of making the popular lower portion of Little Whiteface directly accessible to skiers using Lift G, the mid-station unload should be retained and redesigned to accommodate the four passenger chairs.

This action was proposed in the 1996 UMP.

Lift I – The top terminal of the Freeway double chair should be lowered approximately 60 vertical feet and the lift should be shortened approximately 500 feet. This will help accommodate the intermediate skiers on the new trail from Little Whiteface (Trail 73), and allow smooth access from the Freeway chair to Parkway, Thruway, Draper's Drop, and associated terrain.

This action was proposed in the 1996 UMP.

Lift M - The former Mid-Station Shuttle double chair would be relocated to service a new "Tree Island" pod of expert terrain north of the Summit Quad. The bottom terminal will be situated in the vicinity of the bottom terminal of the Summit Quad and the top terminal of the new detachable quad.

Estimated Capital Costs

Lifts G, H (replace with quad) - \$1,454,165

Lift I (lower top terminal and shorten +/- 500 ft) - \$75,000

Lift M (relocate mid-station double to service Tree Island pod) - \$449,204

Total (+ 15% contingency) – \$1,978,369

b. Improvements of Ski Trails

Little Whiteface: An additional intermediate trail, 12a (conceptual), would be added, beginning at Approach near the top of Upper Mackenzie.

Lower Mountain: Selective widening on the Lower Mountain terrain should include Broadway, Upper Valley and Lower Valley A, Lower Thruway, Danny's Bridge and Mixing Bowl. A new trail – Fox – will be built between Wolf and Wolf Run. A new 5.7-acre intermediate glade will be built along the northern edge of Boreen. This area will span the entire area between Boreen and Medalist, providing a unique and exciting glade-skiing experience for many intermediate skiers and riders.

Tree Island pod: This conceptual new pod would be established north of the Summit Quad pod. Situated around a double chair, the trail network would consist of several weaving, intertwined, and interconnected narrow (40 – 80 foot wide) expert trails, utilizing the natural terrain and tree cover as much as possible. The trails would incorporate tree islands, traditional glades, and open, narrow trails to create a unique skiing experience unlike anything in the northeast. There would also be a long, scenic intermediate run following the primary ridge down towards Easy Acres. Snowmaking would be installed on this pod to allow consistent conditions for the entire season.

Estimated Capital Costs

Little Whiteface - \$21,600

Lower Mountain - \$102,850

Tree Island Pod - \$398,500

Total (+ 15% contingency) – \$1,666,293

c. Snowmaking System Improvements

Water System Improvements

Increase System Pumping Capacity

PH 1 Water Pressure Increase

PH 3 Water, Electrical Revisions to achieve 6000 gpm

Air System Improvements

Install New Centrifugal Compressor

Install Additional Cooling Water System

Mountain Infrastructure

Piping

VH

Fan Support

Snowguns and Hose

Fan Guns

Tower Guns

Hose

Estimated Capital Costs

Total (+5% engineering and design fees and 15% contingency) – \$1,322,893

d. Base Area/On-mountain Guest Services Improvements

Base Lodge – Improvements to the Base Lodge will include:

- a larger reception and ticket area for the purpose of a one-stop shopping area for all lift ticket, rentals and ski school packages (4,000sf. additional space);
- a second retail shop adjacent to the new reception and ticket area (replacing 860sf. administration space);
- the relocation of the ski school operations and desk from the second level to the first floor of the Base Lodge near the present ticket sales location (replacing 880sf. of locker and ticketing space and adding 770sf.);
- a VIP room (700sf.) and coffee shop (700sf.) to be established in the relocated ski school space;
- additional rest rooms created at the rear of the existing retail shop (utilizing 750sf. of the retail shop space);
- an expansion of the ski patrol/first aid space (680sf.);

- additional offices, storage and conference space for administration 350sf.);
- the relocation of employee lockers/lounge space to the breezeway storage space (950sf.);
- an expansion of employee lockers/lounge space, located on the north side of the lodge adjacent to the operations space (336sf.);
- updating the computer ticketing system, creating more efficient sales points.
- Updating the drop-off area to reflect the reception/ticketing area addition.

The 1996 UMP indicated that several changes should be made to the Base Lodge to improve space use and internal circulation.

Cloudsplitter Lodge (conceptual) – A new on-mountain restaurant with 355 seats (13,500 sf) would be built at the summit of Little Whiteface.

Alternative Recreation – Additional recreation trails will include:

- A 2.5-mile hiking loop trail to Bear Den Mountain.

Estimated Capital Costs

Base Lodge - \$1,441,630

Cloudsplitter Lodge - \$2,970,000

Trail development - \$39,600

Total (+5% engineering and design fees and 15% contingency) – \$5,341,476

e. Utilities

Sanitary Wastewater

A new wastewater disposal system will need to be constructed for the proposed Cloudsplitter Lodge.

Estimated Capital Costs Sanitary Wastewater - \$1,205,000

Total (+5% engineering and design fees and 15% contingency) – \$1,446,000

3. Phase 3 - Immediate Improvements

a. Improvements of Ski Lifts

Lift A – It is recommended that the existing Mixing Bowl lift be upgraded from a double chair to a triple chair.

This action was proposed in the 1996 UMP.

The lift will be lengthened 200' and the top station will be re-aligned towards the southeast to allow for more beginner terrain and better unloading capability.

Estimated Capital Costs

Lift A (upgrade double to triple) - \$266,100

Total (+ 15% contingency) – \$266,100

b. Improvements of Ski Trails

Little Whiteface: Selective widening to Empire, Upper Mackenzie, Upper Wilderness, Upper and Lower Parkway and Upper Thruway.

Estimated Capital Costs

Little Whiteface - \$28,800

Total (+ 15% contingency) – \$33,120

c. Snowmaking System Improvements

Water System Improvements

New Tree Island Pod Pump House (Conceptual Action)

New Water Storage Reservoir (Conceptual Action)

Mountain Infrastructure

Piping

VH

Snowguns and Hose

Tower Guns

Hose

Estimated Capital Costs

Total (+5% engineering and design fees and 15% contingency) – \$2,180,003

d. Base Area/On-mountain Guest Services Improvements

No proposed actions.

e. Utilities

No proposed actions

4. Phase 4 - Immediate Improvements

a. Improvements of Ski Lifts

Lift B – The existing Bear double chair lift should be replaced with a fixed grip quad chair, and the bottom terminal should be relocated as shown on the drawings to make it more easily accessible to the novice and low intermediate skiers.

This action was proposed in the 1996 UMP.

Estimated Capital Costs

Lift B (replace double with quad) - \$719,040

Total (+ 15% contingency) – \$826,896

b. Improvements of Ski Trails

Lower Mountain: The improvements on the lower mountain consist mainly of the widening of certain low intermediate, and intermediate trails in order to satisfy FIS requirements for Downhill homologation. A minimum 40 meter-wide route must be established through the mid-mountain area. Routing the Downhill course down Broadway, Ladies Bridge, and Lower Gap,

circumventing the mid-station/ mid-mountain lodge intersection is also recommended. Each of these trails will be widened to a minimum of 40 meters. This solution will allow downhill races to occur without disturbing the traffic patterns on Lower Valley, allowing intermediate skiers to descend Little Whiteface and upper mountain areas without interfering with race events.

Estimated Capital Costs

Lower Mountain - \$50,400

Total (+ 15% contingency) – \$57,960

c. Base Area/On-mountain Guest Services Improvements

No proposed actions.

d. Utilities

No proposed actions.

5. Phase 5 - Immediate Improvements

a. Improvements of Ski Lifts

No proposed actions.

b. Improvements of Ski Trails

Easy Acres pod (formerly Kid's Kampus): Selective widening of Bronze, Gold, Silver, and Silver Shoot in order to lower the effective ability levels of these trails and improve traffic flow patterns in this designated novice learning pod is recommended. These suggestions were approved in the 1996 UMP, however most but not all improvements have been implemented.

Estimated Capital Costs

Easy Acres - \$16,500

Total (+ 15% contingency) – \$18,975

c. Base Area/On-mountain Guest Services Improvements

Mid-station Lodge – The Mid-station Lodge will be relocated approximately 150 feet to the south of its current position to improve skier circulation in this area and particularly on the Lower Valley trail.

This action was proposed in the 1996 UMP.

Estimated Capital Costs

Mid-Station Lodge relocation - \$385,000

Total (+5% engineering and design fees and 15% contingency) – \$462,000

d. Utilities

No proposed actions.

E. Future Planning

Although the content of any UMP is dictated by the Adirondack Park State Land Master Plan, and it is not required to identify future projects and activities that are conceptual in nature, in a effort to forecast future projects, information concerning a number of projects that are conceptual in nature has been included in the GEIS.

The inclusion and discussion of these conceptual actions, such as the snowmaking reservoir, the Cloudsplitter Lodge, and the Tree Island Pod, in this GEIS as potential future actions to be covered by separate UMP amendments and accompanying SEQRA reviews, demonstrates ORDA's commitment to long range future planning.

The 1996 UMP for Whiteface called for creation of additional downhill trails. As can be seen in Section I.E., Table I-1, "Status of 1996 UMP Update and Amendment," much of this work remains to be completed and is incorporated into the 2004-2009 management actions. Similarly, the improvements proposed within the 2004 UMP will be realized over time, as time and budget constraints are prioritized.

Whiteface staff work hard to maintain the Ski Center and to provide some of the best ski terrain in the country, for recreational and ski racing teams, serving beginning through expert skiers and snowboarders. The economic benefits realized by the community as a result of patronage at

Whiteface is due in large part to the quality experience enjoyed by skiers at Whiteface, and is based on much hard work and skilled management by ORDA's staff.

With regard to future planning, there are no plans to increase the constitutional limit on the total length of ski trails allowed at Whiteface. The long term goal is to improve the skier experience while not expanding the ski slopes beyond the allowable limit. Whiteface is unique in the northeast as the former site of two Olympics. The available terrain has challenged the best skiers in the world, and modifications since 1980 have made the mountain skiable for the recreational skier. Recent improvements to lifts, including the installation of the gondola, improve the capacity of the mountain while simultaneously improving the skier experience. These types of upgrades have been and will continue to be the focus of mountainside improvements.

This UMP represents the continuation of a planning process for Whiteface that takes into account the Adirondack Park State Land Master Plan and Article XIV of the NYS Constitution, including the special provisions of Article XIV that authorize the construction and operation of ski facilities on Whiteface Mountain. Whiteface is quite unique because it is a designated Intensive Use Area within the Forest Preserve. As an Intensive Use Area, Whiteface's basic management guidelines include providing facilities for intensive forms of outdoor recreation by the public. At the same time, Whiteface is still required to blend with the Adirondack environment and have minimum adverse impacts on surrounding State lands.

The project has not been segmented since the known or likely programs and construction projects have been disclosed in the UMP/DGEIS. Therefore, SEQRA has not been avoided by dividing the UMP into smaller segments not subject to SEQRA. Further, the UMP/DGEIS recognizes that further management actions will be subject to either a UMP update or a site specific EIS as may be required to adequately evaluate the potential environmental impacts. Critical to the success of an EIS is the availability of adequate factual information, plans, and reports in order to make as full as possible an evaluation of impacts. At this time that level of documentation is not available for substantive discussion of the Cloudsplitter Lodge, the snowmaking reservoir or the Tree Island pod, therefore, future analyses of these currently conceptual actions will be required. Refer to GEIS Section V for the discussion of the potential environmental impacts and mitigation measures and alternatives.

V. POTENTIAL IMPACTS AND MITIGATION MEASURES

This section discusses potential impacts from the proposed 2004 management plan actions. In some instances, potential impacts from Conceptual Actions are also preliminarily discussed. Where significant impacts are identified, mitigation measures are accordingly proposed. Site-specific impacts generally relate to natural resource features such as vegetation, soils or visual characteristics. The specific number of trees, type of soil, or extent of viewshed affected is presented for such impacts. Lastly, traffic impacts have been assessed based on peak use characteristics, including Conceptual Actions, since such occasions have the greatest potential to impact traffic.

There are no other projects of significance in the study area which affect the calculations in this section; hence a separate discussion of cumulative impacts is not warranted.

A. Physical Resources

1. Topography, Geology and Soils

Impacts

Impacts to soils and slopes associated with the proposed improvements are most likely to occur in areas of construction of new ski trails and widening of existing trails. For non-trail areas, slopes in the area of the new NYSEF building are in the range of 15% to 20%. Mitigation measures are provided.

Trees and other woody vegetation will be removed over a total area of about 16.35 acres. In some places, it may be necessary to remove boulders and to grade, which will involve cutting and/or filling. These activities will result in exposure of soils, which will then be susceptible to erosion.

Most of the soils mapped on the mountain and observed during numerous visits to the site are shallow to very deep, coarse textured glacial till soils. Organic soils (Folists) on steep uplands are generally in a complex pattern with the local deep or shallow glacial till soil. There will not be any extensive areas of folist soils that will be impacted by this project.

Mitigation Measures

The following measures will be employed to mitigate the potential impacts on soils and topography during construction:

1. Construction Pollution Prevention Plans and Best Management Practices

Erosion control measures, including such best management practices (BMPs) as filter fabric fences, erosion-control blankets, water bars and staked straw bale filters will be used downslope from all areas where soils will be disturbed by excavation, grading, or deposition of fill. These BMPs are specified in the Draft Construction Pollution Prevention Plan in Appendix U.

- Whiteface personnel are experienced in ski trail and lift construction, including erosion control techniques. In June of 2003 Whiteface hosted an erosion and sediment control workshop that was taught by one of the region's leading experts on this subject. Personnel from Whiteface as well as the APA and DEC participated in this workshop that combined teaching sessions and on-mountain examinations of past and on-going erosion control measures at Whiteface.
- A revised draft Construction Pollution Prevention Plan (CPPP) has been prepared and the draft CPPP identifies specific best management stabilization and erosion control measures to be taken during construction. See Appendix U. The CPPP includes details of specific best management practices produced by the USDA – Natural Resources Conservation Service, as well as other practices and materials that have proven to be effective in controlling erosion, particularly on steeper slopes. A discussion of specific erosion control products recently developed for the purpose of establishing vegetation on steep slopes is provided, as are specifications for their use. The Construction Pollution Prevention Plan (CPPP) presented in Appendix U is a draft and not intended to satisfy all of the requirements of either the old NYSDEC General Permit (GP-93-06) or the current version (GP-02-01) for stormwater discharges from construction activities. However, this draft version of the CPPP was prepared and included in this GEIS to provide information on the practices that will be implemented on a site-wide basis during individual construction projects.

- Specifics of the CPPP such as the “site specific plans” and “future schematic design phases” are required to be prepared and submitted to NYSDEC under their General Permit GP-02-01, “SPDES General Permit for Stormwater Discharges from Construction Activity” (January 8, 2003). In accordance with GP-02-01, these materials will be prepared by a licensed/certified professional and submitted to NYSDEC for review and approval prior to beginning construction of the pertinent management activity. As required, this submission will contain stormwater quantity analyses, detailed plans, BMP installation details, as well as construction specifications. Prior to beginning construction, project-specific CPPPs will also be provided to the Adirondack Park Agency for review and appropriate determination to ensure compliance with applicable regulations and Agency guidelines.
- For example, Appendix P contains the CPPP prepared specifically for the construction of Lot #5 which is a proposed action in this UMP. This CPPP contains sufficient construction details and specifications necessary to ensure proper BMP implementation during construction of Lot 5 and has been submitted for agency review prior to construction.
- As proposed in the Lot 5 CPPP, it is best to limit the areal exposure of soils as much as possible through proper project phasing, and to install filter fabric fences, water bars and erosion control blankets and other best management practices as needed in order to minimize or eliminate the potential for erosion of exposed soils.
- It is recommended that the construction manager for all construction projects be equipped with a copy of “New York Contractors Erosion and Sediment Control Field Notebook” prepared by NYSDEC and the USDA-NRCS. This is a pocket-sized document that provides contractors a quick handy guide for the installation and maintenance of erosion control practices as well as guidance for field-adjustment procedures to be implemented during construction on an as-needed basis.

2. Seed Mix for Slope Stabilization

Stabilizing newly constructed ski slopes with vegetation was closely examined to determine what products and practices could be effectively implemented to

provide rapid vegetation establishment and long term sediment and erosion control.

The seed mix proposed for stabilizing the majority of the constructed ski trails at Whiteface Mountain is known as an “Adirondack Mix” that is commercially available from local seed suppliers. The composition of this mix from one such supplier (components are the same, proportions may vary slightly) is as follows:

43.65% Boreal creeping red fescue
34.3% Perennial ryegrass
17% Kentucky bluegrass

The boreal red fescue is well suited to the climatic conditions on Whiteface Mountain while the perennial ryegrass will provide rapid germination (as soon as seven days). Kentucky bluegrass is a good general use low growing species that is capable of spreading in open areas via its rhizomes.

The Adirondack seed mix that is recommended in the draft CPPP for Whiteface has proven to be very effective when used to stabilize soils as part of ski slope construction in the Adirondacks. Recent trail construction at Gore Mountain for the Bear Mountain Pod utilized the Adirondack seed mix. Gore Mountain reported that the Adirondack Mix performed very well with good germination and good coverage providing effective post-construction stabilization on their new ski slopes. The advanced trails at Gore Mountain on which the Adirondack Mix was used consisted of many areas where slopes were 40% or slightly steeper. The slopes, soil types and elevations where the Adirondack Mix was successfully used at Gore are similar to the conditions at Whiteface. The seed mix has also proven to be tolerant of the different microclimate conditions created on ski trails caused by a deeper and longer lasting snow pack due to snowmaking operations.

A seed mix devised by NYSDOT for use on road construction projects involving steep slopes was considered as an alternative to the Adirondack Mix. This seed mix contains a number of wildflowers as well as sheep fescue and annual ryegrass. Components of this mix were chosen by NYSDOT because of their ability to produce a root system of varying root types, including fibrous shallower roots and deep tap roots.

Given the fact that the Adirondack Mix has proven to be effective for stabilizing ski trails constructed in the Adirondacks that are as steep, and even steeper, than those proposed at Whiteface Mountain, and given the fact that the Adirondack Seed Mix is more economical (some 30 times less expensive than the alternative NYSDOT mix) the Adirondack Seed Mix will be used to stabilize the majority of the trails constructed as part of the current UMP for Whiteface Mountain. The alternative NYSDOT seed mix will be used under those special conditions that may be most suitable, including steeper slopes (i.e. > 25%), or wherever the Adirondack Mix does not become effectively established. Appendix U contains the Draft Construction Pollution Prevention Plan. This plan states that, including Conceptual Actions, approximately 29.8 acres would be affected by ski trail construction and identifies the vegetation practices used for erosion and sediment control.

3. Other BMPs

Other BMPs proposed to control erosion during construction of ski trails on Whiteface Mountain, including mulches, tackifiers, water bars, silt fences, etc. are discussed in detail in FGEIS Appendix U, Draft Construction Pollution Prevention Plan.

- Seeded areas will be mulched with straw that will be secured in place physically or with a non-asphaltic tackifier. Alternatively, seeded areas may be hydromulched with wood cellulose mulch that may also include a non-asphaltic tackifier.
- Water bars will be used extensively during construction to prevent erosion. This BMP has proven to be effective on sloped areas such as ski trails and has been found to be effective when constructing other ski trails at Whiteface in the past. The spacing interval between water bars will depend on the slope on which they are installed as per specifications included in the CPPP.
- Silt fences will be installed to protect surface water resources that are in the vicinity of construction. Silt fences will be installed in accordance with the

details included with the CPPP and will be inspected on a regular basis to make sure that they are functioning properly.

4. Inspections

Because the proposed construction activities are located within the Champlain watershed, which is a TMDL (total maximum daily load) watershed for phosphorus, site assessments and inspections during construction will be carried out by a qualified professional in accordance with the requirements of NYSDEC's General Permit GP-02-01. This qualified professional will be responsible for conducting site inspections prior to construction and then during construction once every seven (7) calendar days and within 24 hours of the end of a storm event of 0.5 inches or greater. Inspections will track the construction process and document the effectiveness of the appropriate erosion and sediment control practices. The qualified professional will also perform a site inspection following completion of construction to certify that the site has undergone final stabilization in accordance with the best management practices specified in the CPPP.

5. NYSEF Training Center Building

- Due to the existing slope of the site, grades are in the 15 to 20% range. Siting of the proposed building is such that it allows for a walk out basement along its east end. To avoid steep grade between the east end of the building and the edge of asphalt driveway, a five (5) foot high retaining wall will be built along the road pavement edge. An additional five (5) foot high retaining wall will be built in the rear of the building to avoid steep grades there. Using the two retaining walls the proposed the elevation drop from the west end of the building to the east will be approximately eight (8) feet. The design of the site by placing the proposed building "into" the existing grade and by construction of retaining walls will allow the final grades around the building to be constructed in the 8 to 15 percent range. This will allow grading of the site to finish grades which will be easy to stabilize by topsoil, seeding and mulching.
- During construction, erosion from the site will be prevented by BMPs described in the CPPP (Appendix U), including a properly constructed silt fence barrier which will totally encircle the building construction site. This barrier will prevent soil erosion from the site into site into downstream areas.

Also, a siltation basin will be constructed at the proposed storm drain pipe outlet to provide pre-treatment for runoff before discharge to existing drainage channel. The silt fence will remain in place until all disturbed areas are completely stabilized by lawn and erosion resistant ground cover.

- At its closest point, Stag Brook is 50 feet from the corner of the proposed NYSEF building. Due to its steep streambed, the brook suffers bank erosion. To stabilize banks, slow the flow of water in the brook, and protect the foundation of the NYSEF building for the long term, native rock revetment will be placed along the streambed between the culvert crossing the Boreen/Home Run trails and the NYSEF parking lot. This stabilization will be implemented with the storm water control system related to the new building.
- All disturbed areas around the building will be topsoiled and mulched. Stone ground cover will be constructed along the building walls below roof drip edge to prevent erosion of soil.
- The site will be graded to drain as sheet flow. One catch basin with a 12" diameter pipe will be constructed at the edge of the existing asphalt to drain a low area. A silt basin will be constructed at the pipe outlet to provide pre-treatment before discharging into the existing drainage channel.

2. Visual Resources

Impacts

A. Base Area

The low elevation of proposed Parking Lot #5 and the maintenance building relocations preclude them from being visible from locations removed from the immediate vicinity of the Mountain. Views into Parking Lot #5 from Route 86 will be blocked by the landform (hills) and vegetation that exist on both sides of the entrance road to Whiteface. Placement of the NYSEF Training Center in close proximity to the base lodge and in an area of other existing improvements consolidates building mass and does not increase visibility of this portion of the Ski Center from locations removed from the immediate vicinity of the mountain.

B. General

Development of the improvements in the Five-Year Plan will have minimal visual impact since the ski center already consists of cleared terrain along ski trails, and all new trails are proposed to be located in the vicinity of existing trails.

Two actions from the DGEIS, the Tree Island Pod and the Cloudsplitter Lodge, had potential for producing some visual impact. However, these two actions are no longer proposed, and are only Conceptual Actions at this time. Nonetheless, preliminary evaluation of potential visual impacts of these actions are included this section, and may be used as a starting point for any future UMP amendment/SEQRA review that may include either, or both of these actions.

The Ski Center is only minimally visible from area roadways. As indicated by the viewshed analysis, roadway views of ski trails on Whiteface Mountain are available only from locations that vary from northeast to east-southeast of the mountain. Apart from the conceptual Tree Island Pod and conceptual trails 82 and 83, most of the new trails will be created among existing trails, and will not stand out significantly. Similarly, the visibility of places where trail widening occurs will not increase significantly, since most areas of widening will be less than 100 feet wide. The conceptual Tree Island Pod would constitute a relatively large area of disturbance, its position would be such that it would be visible only from a narrow sector lying due east of the Ski Center. Conceptual trails 82 and 83, which would run mainly along the crest of a ridge, would be visible from a larger part of the mountain's viewshed, but they would be only 50 feet wide for most of their length, and would be less noticeable than the existing trails.

C. Conceptual Tree Island Pod

The potential visual impact of the conceptual Tree Island Pod was preliminarily evaluated as part of this FGEIS. Appendix W contains three Exhibits that are updated versions of UMP/DGEIS Exhibits II-5, II-6, and II-7. The original DGEIS Exhibits illustrated views of Whiteface Mountain from various locations in the vicinity of the mountain. In Appendix W the original Exhibits have been annotated and for each photograph it is noted whether or not the conceptual Tree Island Pod would be visible from each location (see new Exhibits V-1, V-2 and V-3 in Appendix W of this FGEIS). These Exhibits contain nine views of Whiteface Mountain. The ski trails in the conceptual Tree Island Pod would not be visible from six of the nine locations. For the three photographs where a view of the ski trails would be possible, the approximate location of the conceptual Tree Island Pod has been indicated on the photograph. For all three views, the conceptual new trails would be visible adjacent to the existing ski trails and would not result in a significant visual impact.

In addition to the new information provided in the revised graphics discussed above, more detailed preliminary visibility assessments were performed for the surrounding area.

Using USGS topography, a digital elevation model (DEM) was constructed using the conceptual Tree Island Pod as the target location. The USGS Land Cover Classification was then overlaid on the topography to account for vegetation (forest cover) view attenuation affects. A conservative tree height of 40 feet was assumed for areas of forest cover throughout the study area. The DEM confirmed the local limits of visibility determined previously from the windshield survey conducted from local roadways and other public places. Within five miles, views into the site are generally limited to the Fox Farm/Hardy Kilburn Road area and along NY Route 86 in the immediate vicinity of the ski area. These areas already have views of the existing trail system.

Based on the limits of visibility mapping produced with the DEM and land cover classification, and assuming a driving speed of 45 MPH, the duration of views are estimated to be relatively short and include existing features already on Whiteface Mountain. On Hardy Kilburn Road the view is to the west when traveling southwest and the view duration is approximately 85 seconds. When traveling west on Fox Farm Road views are somewhat more in line with the travel direction, which is to the northwest. The view duration is approximately 160 seconds and the direction of the view is approximately 30 degrees to the west of the direction of travel. Views from Route 86 are nearly perpendicular to the direction of travel and the durations for the views traveling northeast and southwest are approximately 40 seconds and 60

seconds respectively. All of the aforementioned views would also include existing ski trails and most of the duration of the views would also include the Slides area and/or the observatory on top of Whiteface Mountain. Examples of the landscape positioning and approximate extent were illustrated in the figures referenced in the previous paragraph (exhibits V-1, V-2, and V-3 in Appendix W).

Additionally, potential views of the conceptual Tree Island Pod ski trails were evaluated for nearby hiking trails in the Forest Preserve. The digital elevation model constructed for the area within five miles of the new proposed ski trails included a viewshed analysis for hiking trails. The viewshed analysis demonstrated that potential views into the conceptual Tree Island Pod from the trails around Owen Pond, Copperas Pond and Winch Pond would be blocked by topography.

The DEM viewshed analysis described above indicated that potential views into conceptual Tree Island Pod could be possible from the area around Lookout Mountain to the north. Lookout Mountain is within the same Intensive Use Area that contains the Ski Center. Field work was conducted in this area to investigate potential views. Views from the summit of Lookout include the Memorial Highway, the observatory, the upper portion of the Slides area, and the uppermost reaches of the existing ski trails. Views into the location of the proposed conceptual Tree Island Pod are mostly blocked by vegetation and intervening topography, particularly a southeast sweeping ridgeline that obscures the potential view to the conceptual ski trails. (See Exhibit V-4 in Appendix W). Based on topographic cross sections between the summit of Lookout Mountain and the conceptual Tree Island Pod, it is estimated that, at most, the upper 1/6th of the new pod might be visible in a view that currently contains the other features listed above, including existing ski trails on Whiteface Mountain.

Views towards the mountain are also available from the Wilmington trail east of the summit of Lookout Mountain before the trail drops down a steep slope on the way to Marble Mountain (See Exhibits V-5 and V-6 in Appendix W). However, due to intervening topography and vegetation, the conceptual Tree Island Pod would not be visible from these locations.

Views into the conceptual Tree Island Pod would be possible from the summit of Whiteface Mountain itself. This view also encompasses the existing ski trails on the mountain in this Intensive Use Area.

D. Conceptual Cloudsplitter Lodge

Even though not proposed at this time, the potential impact of the Cloudsplitter Lodge on visual resources has been assessed. As envisioned, the lodge would be constructed of wood and would be located in proximity to the Cloudsplitter Gondola lift terminal. This represents a consolidation of visual elements. The structure would be approximately 39 feet in height. The lodge would not typically be lit at night because only very limited nighttime use of the facilities is anticipated. No significant adverse visual impact is anticipated as a result of the future construction of the new lodge.

The potential visual impact of the lodge envisioned to replace the existing Ski Patrol building on Little Whiteface is discussed in the 2002 DGEIS in Section V.A.2, as well as in the 1996 UMP. Refer to pages 289 through 293 of the 1996 UMP and to pages IV-66, Figures IV-9, IV-10, IV-11, and pages V-1 and V-2 of the 2002 UMP. Additional discussion is provided below.

The Little Whiteface Cloudsplitter Lodge is envisioned as a 13,500 square foot two-story structure. Overall building height is not anticipated to exceed 35 feet. The perspective sketches provided in 2002 DGEIS Figures IV-10 and IV-11 show a conceptual view of the lodge. Building colors would be earth tones with matte/non-reflective finishes. Natural building materials of stone and wood would be used in the construction of the lodge. Based upon a visual assessment of the anticipated structure utilizing massing dimensions and existing facilities which are currently visible from several vantage points, a visual assessment was completed. Refer to the Cloudsplitter Lodge Cross-Section, provided in Appendix S of this FGEIS. The location of the existing Ski Patrol building and the existing unloading stations for the two lifts are identified.

The potential visibility of the Cloudsplitter Lodge can be best described from two major vantage points, those areas of visibility from the east in the vicinity of the Hamlet of Wilmington, and those areas of visibility from the west in the Lake Placid vicinity. From the east the entire Ski Center is currently visible from several areas of public use such as NY Route 86, as shown in Exhibits II-4 through II-6. These vantage points to the east reveal the array of existing lift lines, lift towers, ASRC building and ski trails. The new lodge would not be visible, similar to the existing Ski Patrol building and the Little Whiteface Quad lift towers and the Quad and Gondola unloading stations. If visible at all, it would appear as another element in the consolidation of structures on Little Whiteface. Note that the Cloudsplitter Gondola lift towers are relatively more visible than the other existing structures and the envisioned lodge. As shown in the Cloudsplitter Lodge cross section, provided in

Appendix S, the new lodge is set back from the topographic edge of the summit, unlike the Cloudsplitter Gondola lift, which must by necessity cross the edge of the summit in order to access it. See Lodge Site Photographs 1 through 5 and Cloudsplitter Gondola Towers Photographs 6 and 7, provided in Appendix S of this FGEIS. The new lodge would be located to the west of the existing structures, away from the topographic edge.

Several existing facilities on the mountain such as the Memorial Highway and ASRC summit facilities are currently highly visible and are silhouetted against the horizon. From vantage points from the east, the ski trails are currently visible. The visibility extends for approximately 4.2 miles on NY Route 86 in the Town of Wilmington and the Town of Jay, and 0.3 miles on the Haselton Road in the Town of Wilmington. The areas east of the Hamlet of Wilmington are greater than five miles from the project site. The visual impact from vantage points to the west would be minimal, as shown in 2002 DGEIS Figures II-4 and II-7. Areas on NY Route 73 near the North Elba Horse Show Grounds and the ski jumps, and NY Route 86 west of Lake Placid are all greater than seven miles away. At distances greater than five miles, structures and lift lines are difficult to discern. The dominant visible structures on the mountain from the west are the Memorial Highway and ASRC summit facilities on Whiteface Mountain. When interpreted with the existing facilities on the mountain from the vantage points, the replacement of the Ski Patrol building with a lodge on Little Whiteface would not result in any significant increase in visibility as compared to the visibility of the Memorial Highway and Ski Center facilities.

E. Additional Studies

If and when the conceptual Tree Island Pod or the conceptual Cloudsplitter Lodge are proposed as New Actions, they will require UMP amendments and SEQRA reviews. These SEQRA reviews would include a complete visual impact assessment, including view simulations, should it be determined they may be visible from sensitive receptor locations.

Mitigation Measures

1. The improvements in the Whiteface UMP represent a consolidation of visual impacts, as they occur in an area historically, and currently, used for alpine skiing and other winter sports.

2. At this time, it is envisioned that the conceptual Cloudsplitter Lodge would be constructed of materials designed to minimize the contrast with the surrounding forested environment. The lodge would be rustic in character utilizing stone and timber building materials. Windows would be tinted, non-reflective glass and all surface materials would be finished with either their natural color or earth tone coloration. The roof would be a natural color to match the other structures and the wooded environment. Further mitigation would be provided by locating the proposed lodge adjacent to the gondola terminal, and the lodge would complement use of the new gondola. The structures would be consolidated in a single developed area, in the designated Whiteface Mountain Ski Center Intensive Use Area.

B. Biological Resources

1. Freshwater Wetlands and Surface Water Resources

Impacts

A. Wetlands

To the greatest extent possible, impacts to wetlands in the Whiteface Mountain Ski Center Intensive Use Area have been avoided in the planning and design of the proposed additions and expansion of facilities. There will be no impacts to the West Branch of the Ausable River and the wetlands that lie adjacent to it. The entrance and exit roadways that will serve parking lot #5 will cross a small seepy area with an intermittent stream. It will be necessary to deposit some fill and install culverts to carry drainage under the access to this parking area. The area of wetland impact is likely to be between 500 and 1000 square feet (0.01 to 0.02 acre).

Prior to beginning any construction it will be necessary to have qualified scientists examine the areas to be affected to determine whether wetlands are present, and to precisely delineate any wetland boundaries and stream channels. A licensed land surveyor will locate and map the delineated wetland boundaries and stream channels. Maps of the wetlands and streams will then be provided to the Adirondack Park Agency, the New York State Department of Environmental Conservation, and US

Army Corps of Engineers for the purposes of determining whether those agencies have jurisdiction over the proposed activities.

It appears that the proposed activities may require permits from the APA under Environmental Conservation Law Article 24 regulations governing activities within wetlands, and NYSDEC permits under Article 15 regulations governing disturbance of stream banks and beds

Also, the USACOE administers federal regulations under Section 404 of the Clean Water Act that govern the deposition of fill and placement of structures in wetlands and streams. The proposed projects are likely to involve impacts to less than 0.1 acre of wetlands and/or less than 300 linear feet of stream, which are the upper thresholds for the application of the nationwide permits. The nationwide permits are general permits that simplify the process of obtaining permission for impacts to wetlands.

B. Snowmaking Water

No new or increased water withdrawal beyond what was approved in the 1996 UMP is proposed in this 2004 UMP. Upgrades to the snowmaking system to increase Whiteface's ability to pump water within the system to various parts of the Mountain are proposed, but these upgrades do not affect snowmaking water withdrawal from the West Branch.

The withdrawal of water from the West Branch AuSable River was one of the management actions approved in the 1996 UMP process. Note that the withdrawal of water from the river for snowmaking has been ongoing since the 1962-1963 ski season. A Cooperative Agreement between DEC and ORDA is in place for the protection of the surface water resource of the West Branch of the AuSable River in relation to the water to be withdrawn for snowmaking operations at Whiteface. Minimum flow conditions to be maintained to protect aquatic life were decided during the preparation of the 1996 UMP. After construction of the stream flow monitoring device, river flow data was available and was used to verify the parameters for snowmaking water withdrawal established by the NYSDEC. A copy of the current Cooperative Agreement between NYSDEC and ORDA is provided in Appendix V.

Like the Cloudsplitter Lodge on Little Whiteface and the Tree Island Pod, a conceptual snowmaking reservoir is not proposed for construction as part of this UMP/GEIS. Plans for the reservoir are only conceptual at this time. Construction of the reservoir will first require a future update to this UMP, an associated SEQRA review, and necessary permitting from regulatory agencies such as NYSDEC (dam safety) and the US Army Corps of Engineers (waters of the United States, including wetlands), and potentially the APA (NYS freshwater wetlands).

The Snowmaking Water Analysis provided in the 2002 in Section IV stated that a reservoir with a capacity of 5 to 8 million gallons would be necessary at build-out to fully provide water for snowmaking during a dry year. This storage would provide the snowmaking system with water for 14 to 22 hours of continuous snowmaking at full pumping capacity without recharge. The recommended storage will also balance the conditions encountered during frazil ice (slush ice) production and low water flows.

Mitigation Measures

1. Construction Phase

The following measures will be employed to mitigate the potential impacts on streams and wetlands during construction of the improvements and operation of the ski center (See Section V.A for additional details):

1. Filter fabric fences and straw bale dikes will be installed in places where vegetation clearing is proposed to occur adjacent to wetlands and streams.
2. Soils disturbed by construction will be mulched and seeded with grasses as soon as practicable in order to minimize potential for erosion.
3. The measures outlined in the current Construction Pollution Prevention Plan (CPPP) for the Ski Center lands will be followed. The Construction Pollution Prevention Plan is appended to the existing SPDES general permit for work associated with construction activity.
4. After construction of the activities is complete the project will comply with NYSDEC's recently updated stormwater management design standards, including not increasing the rate of stormwater runoff (stormwater quantity) and, where necessary, providing stormwater treatment to improve stormwater quality.

2. Operational Phase

The effects of stormwater that may be expected as a result of the actions put forth in this GEIS for Whiteface Mountain have been assessed by use of the Simple Method and HydroCAD.

A. Ski Trails

The effects of runoff, as a result of ski trail construction, has been determined by the Simple Method, also known as the SCS Runoff Curve Number (CN) Method. The most important factors that determine CN are the hydrologic soil group (HSG), cover type, treatment, hydrologic condition, and antecedent runoff condition (ARC). In the area of ski trails, the predominant soil type is Typic Cryohumods (extremely bouldery). The general hydrologic soils group is considered C/D for this area and has subsequently been used to determine the pre and post Curve Numbers. Comparing the pre (“Woods”) and post (“Meadow”) CN for the proposed ski trail construction, as put forth in the SCS TR-55 Manual, there is no significant change in the amount of runoff from any subcatchments where ski trails will be constructed. Considering a C soil type and a “good” woods ecosystem as the existing condition, the CN may increase from 70 to 71 with the proposed ski slopes. Evaluating a D soil type and “good” wood cover, indicates a change in the CN from 77 to 78. Current assessment methodologies available for stormwater analyses cannot accurately differentiate changes in runoff with a CN change of one (1). Hence there is no expected change in runoff quantity, and operational phase stormwater quantity controls are not necessary.

B. Parking Lot #5

The proposed Parking Lot #5 will be constructed beyond the Easy Acres parking lot. The parking area will be approximately 2.7 acres in size. The parking surface will be gravel and the total land disturbance, including necessary grading outside the parking surface proper is estimated at four (4) acres.

Appendix P includes the Stormwater Management Report for Parking Lot #5. Stormwater computations for Parking Lot #5 were conducted using the USDA Soil Conservation Service Technical Release No. 20. The program used was the HydroCAD Stormwater Modeling System produced by Applied Microcomputer

Systems of Chocurua, New Hampshire. The design storms studied were the one (1) year event (Channel Protection, CP_v), ten (10) year event (Overbank Flood Control, QP), and one hundred (100) year event (Extreme Flood Control, QF). The 24 hour Type II storms produce a total rainfall of 2.1, 3.5 and 4.8 inches, respectively. Calculations were also completed for the treatment of the required Water Quality Volume (90% rainfall event, WQ_v) measuring 0.8 inches in northern Essex County.

The design intent of limiting the proposed runoff rate to a level less than the existing runoff rate has been met by directing stormwater into a detention basin and controlling the rate of release. The quality of the runoff is improved by allowing sediments to settle out in the stormwater management area before releasing it. The table below summarizes the results of the full study detailed in Appendix P

	<i>Runoff For Storm Events</i>			
	<i>Pre-Construction</i>	<i>Post-Construction</i>	<i>Difference</i>	
1-Year	1.46 cfs	1.48 cfs	+0.02 cfs	
10-Year	7.61 cfs	7.50 cfs	-0.01 cfs	
100-Year	15.38 cfs	15.16 cfs	-0.22 cfs	

In addition to attenuating these storms, the outlet of the detention basin has been set at an elevation so that the runoff from the water quality volume storm is captured and infiltrated.

Appendix P includes a grading plan for Parking Lot #5 and the proposed detention basin. The grading plan illustrates how runoff from undisturbed lands above the parking lot will be captured and routed around the parking lot where it will be dispersed into undisturbed areas using level spreaders. Similarly, treated water that is released from the detention basin will be directed to a wide level spreader that will disperse the water across the undisturbed slope some 1,100 feet uphill of the West Branch AuSable River.

2. Vegetation

Impacts

Impacts to vegetation at the Ski Center will result mainly from the expansion of existing ski trails and construction of new trails. In order to estimate these impacts, biologists of the LA Group, P.C. collected data on tree density in those places where work is proposed. Belt transects measuring 100 feet long by 10 feet wide were sampled at seventeen locations representative of the vegetation covertypes in which clearing would take place. In each transect, counts were made of all trees within two categories: (1) trees measuring 3 to 4 inches dbh¹ and (2) trees greater than 4 inches dbh. The tree counts are provided in Appendix K. If more than one transect came from a given vegetation covertype, the counts from all those transects were added together. These counts were then used to calculate the tree density in terms of number of trees per acre for each species encountered.

Estimates for the number of trees of each species to be cut during the construction or widening of each ski trail or other improvement were made by multiplying the acreage of proposed clearing by the measured tree density of the appropriate covertype. These estimates are listed in Table V-1.

The amount of tree clearing required for the actions proposed in this UMP has been reduced substantially due to the fact the Tree Island Pod and the snowmaking reservoir are now conceptual actions only, and not proposed as part of this UMP. The number of trees 3 inches dbh or larger to be cut for proposed actions has been reduced over 90% from 54,951 listed in the DGEIS to approximately 4,200. Table V-1, provides the revised tree clearing tally data for the actions proposed in this UMP, and some information about the size ranges of trees that are proposed for cutting.

Furthermore, as illustrated on Exhibit II-8, "Vegetation Covertype Map", and Exhibit IV-1, "Proposed Ski Center", none of the cutting for New 2004 UMP Actions, or even 2004 UMP Conceptual Actions would involve Alpine Krummholz, and no cutting would take place within 2,000 feet of the area mapped as Krummholz.

All tree cutting at Whiteface Mountain Ski Center will be in compliance with the DEC tree cutting policy. Trees lawfully cut cannot be removed from the premises in any manner but can be chipped or used on site by ORDA so long as such method is consistent with the guidelines of the State Land Master Plan, this UMP, and Article 8

¹ dbh = "diameter at breast height," which was measured on the tree trunk at a point 5 feet above the ground using a dbh tape, which is calibrated to convert circumference into diameter.

of the Environmental Conservation Law. Virtually all trees that are cut for ski trail construction and widening, and construction of lifts and other amenities will be chipped and used on-site for construction and erosion control projects. Access for the wood chipper on steeper terrain is limited, so some trees are buried for use as fill and erosion control.

Impacts to rare, threatened or endangered species of plants are extremely unlikely to occur as a result of the proposed actions. Information provided by the New York Natural Heritage Program indicates that only one species occurs at low elevations on the Ski Center, but it is found along the West Branch of the Ausable River, remote from any proposed action. All of the other known occurrences of such species on the Ski Center are limited to the uppermost parts of Whiteface Mountain, at elevations above the locations where trail construction and other projects will take place. No other action is as close, or closer, than 1,000 feet to the location of any of the rare, threatened, or endangered species.

Less than 1% of the mountain spruce-fir forest would be impacted. However, over 630 acres of this coevertype would remain undisturbed within the Intensive Use area alone at Whiteface. This impact to the coevertype will not be significant (99+% will remain undisturbed). An even smaller percentage of this coevertype would be disturbed in relation to the whole mountain.

The new lodge being considered for some future time at the top of Little Whiteface would replace the existing Ski Patrol building and would be located in the existing clearing immediately adjacent to the existing Cloudsplitter Gondola and Little Whiteface Quad (Lift G) unloading stations. If and when the new lodge is proposed as part of a future UMP update, some very limited vegetation clearing may be necessary in order to construct the new lodge. Refer to Lodge Site Photographs 1, 2, 3, 4 and 5, provided in Appendix S.

Mitigation Measures

The following measures will be employed to mitigate the potential impacts on vegetation during construction:

1. Only areas absolutely necessary for construction of ski trails, ski lifts, and other proposed improvements will be cleared of vegetation. All other areas will be maintained in a natural state.
2. Erosion control measures (see Section V.A.) will be used on cleared areas with disturbed soils to avoid affecting adjacent vegetation by erosion or siltation. Erosion-control devices to be used will include filter fabric fences and staked straw bale filters.
3. Upon the completion of clearing of new ski trails and ski lift corridors, they will be seeded and mulched to promote rapid revegetation. Areas disturbed for any other improvements will also be landscaped and revegetated as soon as practicable.
4. Plants used to revegetate disturbed areas and planted as part of landscaping will be species which are indigenous to the region.
5. No clear-cutting of trees to develop panoramic views is proposed. Views will be framed or filtered by existing vegetation.
6. To some extent, vegetation losses due to new clearing will be compensated by the abandonment and revegetation of trail 52 and a section of trail 5. This will result in revegetation of approximately 0.96 acre within the area occupied by the spruce-fir vegetation coertype.

Table V-1
SUMMARY OF VEGETATION IMPACTS
2004 Tree Cutting Estimates for Proposed Trails and Trail Widening
at Whiteface Mountain Ski Center

Tree Species	Trail 2		Trail 3 (conceptual)		Trail 6a (conceptual)		Trail 12a (conceptual)		Trail 17	
	3-4" dbh	>4" dbh	3-4" dbh	>4" dbh	3-4" dbh	>4" dbh	3-4" dbh	>4" dbh	3-4" dbh	>4" dbh
Balsam Fir	25	-	-	-	-	-	-	-	26	39
Striped Maple	51	76	-	-	-	-	-	-	-	-
Red Maple					-	-				
Sugar Maple	5	17	-	-	-	-	-	-	-	-
Yellow Birch	-	2	-	-	-	-	-	-	-	-
Mountain Paper Birch	-	76	-	-	-	-	-	-	8	40
Paper Birch	-	2	-	-	-	-	-	-	-	-
Beech	5	13	-	-	-	-	-	-	-	-
White Ash	-	1	-	-	-	-	-	-	-	-
Ironwood	1	-	-	-	-	-	-	-	-	-
Red Spruce	-	-	-	-	-	-	-	-	-	6
Red Pine	-	-	-	-	-	-	-	-	-	-
White Pine	-	-	-	-	-	-	-	-	-	-
Bigtooth Aspen	-	4	-	-	-	-	-	-	-	-
Pin Cherry	-	-	-	-	-	-	-	-	2	-
Mountain Ash	-	-	-	-	-	-	-	-	3	5
Northern White Cedar	-	-	-	-	-	-	-	-	-	-
Hemlock	-	2	-	-	-	-	-	-	-	-
Tree Clearing Totals	88	193	-	-	-	-	-	-	39	90
Clearing Acreage	0.70		0.00		0.00		0.00		0.11	

Table V-1
SUMMARY OF VEGETATION IMPACTS
2004 Tree Cutting Estimates for Proposed Trails and Trail Widening
at Whiteface Mountain Ski Center

	Trail 25		Trails 29 & 49		Trail 31a		Trail 34		Trail 35	
Tree Species	3-4" dbh	>4" dbh	3-4" dbh	>4" dbh	3-4" dbh	>4" dbh	3-4" dbh	>4" dbh	3-4" dbh	>4" dbh
Balsam Fir	16	32	-	-	-	-	-	-	-	-
Striped Maple	-	-	-	-	-	-	-	-	-	-
Red Maple										
Sugar Maple	83	264	18	57	16	50	18	59	19	61
Yellow Birch	-	33	-	7	-	6	-	7	-	8
Mountain Paper Birch	-	-	-	-	-	-	-	-	-	-
Paper Birch	-	33	-	7	-	6	-	7	-	8
Beech	83	198	18	43	16	37	18	44	19	46
White Ash	-	17	-	4	-	3	-	4	-	4
Ironwood	17	-	4	-	3	-	4	-	4	-
Red Spruce	80	48	-	-	-	-	-	-	-	-
Red Pine	-	16	-	-	-	-	-	-	-	-
White Pine	-	48	-	-	-	-	-	-	-	-
Bigtooth Aspen	-	66	-	14	-	12	-	15	-	15
Pin Cherry	-	-	-	-	-	-	-	-	-	-
Mountain Ash	-	-	-	-	-	-	-	-	-	-
Northern White Cedar	-	64	-	-	-	-	-	-	-	-
Hemlock	-	49	-	7	-	6	-	7	-	8
Tree Clearing Totals	277	867	39	140	34	122	40	143	42	148
Clearing Acreage	2.63		0.41		0.36		0.42		0.44	

Table V-1
SUMMARY OF VEGETATION IMPACTS
2004 Tree Cutting Estimates for Proposed Trails and Trail Widening
at Whiteface Mountain Ski Center

Tree Species	Trail 37		Trail 73a		Conceptual Tree Island Pod (Trails 74 through 83)		Lift A Extension		New Snowmaking Reservoir (conceptual)	
	3-4" dbh	>4" dbh	3-4" dbh	>4" dbh	3-4" dbh	>4" dbh	3-4" dbh	>4" dbh	3-4" dbh	>4" dbh
Balsam Fir	-	-	-	-	-	-	0	0	-	-
Striped Maple	-	-	-	-	-	-	-	-	-	-
Red Maple							-	76	-	-
Sugar Maple	10	32	94	300	-	-	4	12	-	-
Yellow Birch	-	4	-	37	-	-	-	78	-	-
Mountain Paper Birch	-	-	-	-	-	-	-	-	-	-
Paper Birch	-	4	-	37	-	-	-	1	-	-
Beech	10	24	94	225	-	-	4	9	-	-
White Ash	-	2	-	19	-	-	-	1	-	-
Ironwood	2	-	19	-	-	-	1	-	-	-
Red Spruce	-	-	-	-	-	-	-	-	-	-
Red Pine	-	-	-	-	-	-	-	-	-	-
White Pine	-	-	-	-	-	-	-	-	-	-
Bigtooth Aspen	-	8	-	75	-	-	-	3	-	-
Pin Cherry	-	-	-	-	-	-	-	-	-	-
Mountain Ash	-	-	-	-	-	-	-	-	-	-
Northern White Cedar	-	-	-	-	-	-	-	-	-	-
Hemlock	-	4	-	37	-	-	229	384	-	-
Tree Clearing Totals	22	77	206	730	-	-	238	564	-	-
Clearing Acreage	0.23		2.15		0.00		1.84		0.00	

Table V-1
SUMMARY OF VEGETATION IMPACTS
2004 Tree Cutting Estimates for Proposed Trails and Trail Widening
at Whiteface Mountain Ski Center

Tree Species	New NYSEF Building	Parking Lot 5	Expanded Maint.	TOTALS OF TREE CUTS FOR ALL AREAS		
	>3" dbh	>3" dbh	>3" dbh	3-4" dbh	>4" dbh	All trees ≥ 3"
Balsam Fir	-		-	67	70	137
Striped Maple	-		-	51	76	126
Red Maple	7	21	-	-	76	104
Sugar Maple	-		-	266	851	1,117
Yellow Birch	-	8	-	-	183	191
Mountain Paper Birch	-		-	8	116	124
Paper Birch	3	12	-	-	106	121
Beech	10	9	-	266	638	923
White Ash	-	19	-	-	53	72
Ironwood	1		-	53	-	54
Red Spruce	-		-	80	54	134
Red Pine	-		-	-	16	16
White Pine	-	4	-	-	48	52
Bigtooth Aspen	-		-	-	213	213
Pin Cherry	-		-	2	-	2
Mountain Ash	-		-	3	5	8
Northern White Cedar	1		-	-	64	65
Hemlock	-		-	229	505	734
Tree Clearing Totals	22	73	0	1,025	3,075	4,194
Clearing Acreage	1.07	5.85	0.15	16.35		

3. Fish and Wildlife

Impacts

Activities proposed to occur at Whiteface Mountain Ski Center that are anticipated to have the greatest impact on resident and migratory wildlife that use the site include the construction of new trails through currently wooded areas and expansion of new trails. Construction of new trails and expansion of existing trails will remove portions of forest communities and replace them with communities dominated by grasses and broadleaved herbs. Localized habitat fragmentation and creation of habitat edge will occur where new trails are created.

Creation of new trails has the greatest potential for impacting wildlife populations. Opening the forest by trail construction will favor wildlife adapted to forest edges at the expense of forest interior species. The forest interior species most likely will emigrate to nearby suitable habitats. Depending on the population level and carrying capacity of those nearby habitats, individuals of the immigrant species will be subject to increased competition and selective compensatory mortality. Conversely, the newly created forest edge habitat will enable existing populations of forest-edge species and species of open fields to expand with the potential for a localized increase in biodiversity.

The 2004-2009 UMP identifies the potential for the presence of the Bicknell's Thrush on the Ski Center property. Bicknell's Thrush is not identified as an endangered or threatened species; however it is listed by the NYSDEC as a species of special concern.

The American Ornithologists Union officially recognized the Bicknell's Thrush in 1995 based on the 1993 work of Henri Ouellet. Until 1995, Bicknell's Thrush was listed as a subspecies of the Gray-cheeked Thrush, which is listed in Appendix L. The copy of Appendix L provided in the August 2002 DGEIS was inadvertently miscopied. A complete copy of Appendix L is provided in this FGEIS.

Undertaking construction of the new trails proposed over an elevation of 2,800 feet under an amendment to the Whiteface Mountain UMP could potentially affect the

Bicknell's thrush if proper mitigation measures are not employed. The following is a detailed description of the extensive efforts that have been made by ORDA to avoid and minimize potential impacts to Bicknell's thrush.

Mitigation Measures

1. The timing of vegetation management already approved in the 1996 UMP Update, but not yet completed in areas of Bicknell's Thrush breeding habitat is important and will be delayed until after August 1st, when the majority of nesting activities are complete. Timing of cutting activities will be addressed in The VINS Study.
2. During the preparation of this FGEIS, and in response comments made on the August 2002 DGEIS, ORDA has made significant efforts to address concerns regarding the Bicknell's Thrush. These efforts included making the Tree Island Pod and other new projects requiring tree clearing above 2800 feet in elevation Conceptual Actions and not Proposed Actions, as well as postponing projects previously approved in the 1996 UMP update which involve tree clearing above 2800 feet until after more information on habitat use by Bicknell's Thrush is obtained, funding a Bicknell's Thrush study by the Vermont Institute of Natural Science, and agreeing to implement a multi-year field study of the Bicknell's Thrush on and around Whiteface Mountain through, at least, the year 2009.

The following is a description of the comprehensive assessment of the Bicknell's thrush that ORDA has committed to implementing before proposing construction of new ski trails above an elevation of 2,800 feet. On the following page is Exhibit V-1 "Timeline for Additional Assessment of Bicknell's Thrush", that outlines the various mitigation measure tasks and their time sequence.

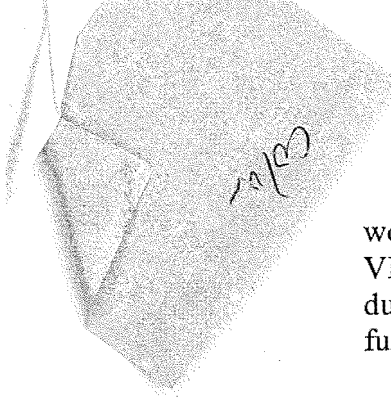
1. The VINS Study

Whiteface management has entered into an agreement with the Vermont Institute of Natural Science (VINS), the northeast region's leading authority on Bicknell's thrush, to use its extensive data on Bicknell's thrush and their habitat to develop recommendations for design, mitigation, and management measures that will minimize both short- and long-term potential project impacts to Bicknell's thrush. The following describes in more detail the study being performed by VINS.

VINS has spearheaded ecological studies of Bicknell's Thrush in the Northeast since 1992. A key component of VINS' research has been focused investigations of the use

Exhibit V-1, Timeline for Additional Assessment of Bicknell's Thrush

TASKS	Jan. 2004	Feb. 2004	March 2004	Apr. 2004	May 2004	June 2004	July 2004	Aug. 2004	Sept. 2004	Oct. 2004	Nov. 2004	Dec. 2004	Jan. 2005	Feb. 2005	March 2005	Apr. 2005	May 2005	June 2005	July 2005	Aug. 2005	Sept. 2005	Oct. 2005	Nov. 2005	Win. 2006	Spr. 2006	Sum. 2006	Fall 2006	Spr. 2007	Sum. 2007	Fall 2007	Spr. 2008	Sum. 2008	Fall 2008	Spr. 2009	Sum. 2009	Fall 2009									
1. VINS Completes Study/Report																																													
2. VINS Develops Field Study/Monitoring Protocols																																													
3. On-site Field Study Data Collection																																													
4. Analysis of On-site Data																																													
5. UMP Amendment Process																																													
6. On-site Field Monitoring Data Collection																																													
7. UMP Amendment Construction Below 2,800 Feet																																													
8. UMP Amendment Construction Above 2,800 Feet																																													
9. Previously Approved Actions Construction Below 2800 Feet																																													
10. Previously Approved Actions Construction Above 2800 Feet																																													



would be to confirm the effectiveness of the mitigation measures derived from The VINS Study and the on-site field studies. These studies would be underway before, during and after construction of the conceptual Tree Island Pod if approved through a future UMP amendment in accordance with the timeline in Figure XI-1.

3. Whiteface management has already implemented its “Whiteface Wildlife ” interpretive program to increase awareness among users of Whiteface facilities of the values and benefits of the New York State Forest Preserve, including the State-designated Bird Conservation Area above 2,800 feet, and the wildlife at Whiteface Mountain. Components of the Whiteface Wildlife program include providing summertime lift riders with binoculars for use when riding the gondola. The gondola cars will also be equipped with literature and photographs to help identify wildlife, including Bicknell’s thrush, while riders make their ascent and descent. Riders will then be able to record their observations on a checklist of observed wildlife that will be available in the lodge. So far, this program focuses on summertime, but it is likely that the Whiteface Wildlife program will be expanded to include additional wintertime activities to foster appreciation of the Forest Preserve and its wildlife inhabitants at Whiteface by skiers and non-skiers alike. Appendix R contains a copy of a brochure produced by ORDA in conjunction with NYSDEC and the APA entitled “Whiteface Wildlife, Nature and Animal Guide to Whiteface Mountain”, that provides additional information on this program.

C. Human Resources

1. Transportation

Impacts

Future traffic volumes were estimated by Creighton-Manning Engineering (the UMP traffic consultant) by increasing the background traffic volumes on Route 86 and projecting future traffic growth from the mountain expansion. The Traffic Assessment is provided in Appendix I. It was assumed that the project can be completed in 2003. Therefore, a 1% growth rate was added to the existing traffic volumes observed at the entrance to the ski mountain. As a result of the management actions proposed in the DGEIS, the comfortable carrying capacity (CCC, the number of skiers that can be accommodated at any given time) was expected to increase from 5,070 to 5,640, an 11% increase. This increase was also applied to the traffic

by Bicknell's Thrush of two established Vermont ski areas - Stowe Mountain Resort (Mt. Mansfield) and Stratton Mountain. From 1995-2001, VINS conducted studies on three 10-20 hectare plots on Mt. Mansfield. One of these was in an area developed for skiing around the Octagon; the other two in areas are relatively undisturbed habitat on the Mansfield ridgeline and Ranch Brook watershed. On Stratton, VINS established two study plots in 1997 and has since then collected field data on each plot annually. One plot is on the developed north peak; the other plot is on the undeveloped south peak.

Field methods on both mountains have been standardized from year to year and have included: (1) constant-effort mist-netting and banding (including unique color banding of each individual thrush); (2) intensive resighting of color-marked individuals; (3) radio telemetry of adult males and females, and in 2001 on Mansfield of fledged juveniles; (4) videography at nests; (5) monitoring of nests and reproductive success; and (6) detailed characterization of vegetation and macrohabitat variables around nests. Each mountain thus provides a 7-year data base that can be used to examine within- and between-year variation in Bicknell's Thrush life history parameters on habitat blocks that are developed for skiing and on similar, undeveloped blocks. These data afford a valuable opportunity to address important questions, such as those posed by the conceptual Tree Island Pod project, relating to the potential impacts of ski area development on this species, including the potentially beneficial impacts associated with the creation of habitat that is favorable to nesting.

VINS is undertaking a detailed analysis of its 1995-2003 field data from Mt. Mansfield and Stratton Mountain. They will report their findings in a summary document that will specifically relate them, to the extent possible, to the conceptual Tree Island Pod project on Whiteface Mountain. VINS' analysis and evaluation will combine (1) site-specific information collected during a field visit by VINS Conservation Biology staff to the project area in the fall of 2003, (2) examination of GIS and other existing data from the proposed project, and (3) VINS' ecological and behavioral field data from Mt. Mansfield and Stratton Mountain. This approach will enable the generation of predictions about likely short-term (1-2 years post-construction) and medium-term (3-5 years) impacts of the Tree Island Pod project on breeding Bicknell's Thrushes. More importantly, VINS will use their data to construct a generally applicable model of how Bicknell's Thrushes use habitat within developed ski areas, and how new construction and ongoing management can minimize impacts to, and in some cases enhance breeding habitat for, Bicknell's Thrush on Whiteface Mountain.

VINS' analysis will consist of three primary components:

1. Analyze nest site selection by Bicknell's Thrush. VINS has monitored over 150 active nests on both mountains since 1995 on ski-area and non-ski area plots. At each nest, VINS has collected a detailed series of data on nest location, vegetation, landform characteristics, and other site-specific variables. Comparable data at randomly selected "non-use" sites at a distance of 30 meters from each nest for > 50% of the nests has also been collected. These data will be used to develop a model of Bicknell's Thrush nest site selection in ski-developed areas versus undeveloped habitats. Using GIS plotted vegetation data from Whiteface Mountain, this model will be applied to the conceptual Tree Island Pod project to generate predictions about the viability of the project area for Bicknell's Thrush nesting, both in its current condition and after the proposed development. Results are expected to yield insights about measures that can be adopted to mitigate proposed habitat alterations, and, ultimately, to enhance Bicknell's Thrush habitat on Whiteface, including in the conceptual Tree Island Pod area. More generally, a model of nest site selection relative to ski area development should help guide future planning and conservation efforts at Whiteface Mountain and throughout the Northeast. It will also help to establish a mechanism to inventory beneficial measures that are implemented to offset potentially adverse impacts associated with the other ski area development and activities.
2. Analyze movements and behavioral ecology of Bicknell's Thrush. VINS has an extensive data set on movements of adult male and female Bicknell's Thrushes in both ski area and undeveloped habitats. Using radio telemetry, VINS has recorded daily movements and locations of approximately 50 individual adults for 4-6 week periods. In 2000, VINS also monitored post-breeding movements and habitat use of adults and juveniles on Mt. Mansfield. Telemetry data will be plotted and analyzed on GIS maps of Mt. Mansfield and Stratton Mountain study areas, and related to various vegetation and terrain characteristics. Results will enable documentation of movements and home range characteristics relative to physical variables such as ski trail width, size and configuration of habitat islands, spacing and density of trails per unit area, and extent of gladed versus open trails. These results should provide valuable information about exactly how Bicknell's Thrushes use (or avoid) specific areas within ski areas. Findings from undeveloped habitats will provide a contextual baseline.

As a complement to telemetry data on movements and habitat use, videographic data on adult thrushes are available to examine behavioral attributes of birds on ski areas versus natural forest habitats. From 1998-2000 on Mt. Mansfield and 1998-2002 on Stratton Mountain, VINS videotaped all known nests during the chick-feeding stage. Because nearly all adult Bicknell's Thrushes were uniquely color-banded on each study plot, VINS has a large data set on the behavioral ecology of individual birds

and nests. VINS' preliminary analysis of these data has shown that Bicknell's Thrush has a very unusual and complex mating system. Remarkably, most nests are attended by 2-4 males, and paternity is almost invariably mixed in such nests. An important and unanswered question relates to the role of habitat and landscape features in shaping this complex, variable system. VINS will analyze their videotape data to examine behavioral differences among breeding thrushes on ski area versus undeveloped habitats. This will enable documentation of factors such as nest attentiveness of females, numbers of male feeders, quantity and types of food delivered to nestlings, and reaction to auditory or visual disturbance. Results could indicate whether and how ski area fragmentation and activity influence adult behavior, and what variables may be most crucial determinants of any differences that exist. Again, findings could help mitigate proposed construction activities and suggest maintenance protocols that enhance habitat and/or minimize adverse impacts of nesting thrushes.

3. Analyze multi-year demographic data on Bicknell's Thrush. VINS has amassed an extensive data set on known-identity Bicknell's Thrushes, based on banding of adults and nestlings on Mansfield since 1995 and on Stratton since 1997. Using mark-recapture software, and incorporating data from original banding captures, within- and between-year recaptures, and resighting of color-banded individuals, VINS will construct a detailed species demographic profile. On both ski area and natural forest study plots, VINS will examine age- and sex-specific survivorship, reproductive success, site fidelity, population turnover, recruitment, and other key life history variables. Indices of individual health such as subcutaneous body fat, weight, feather wear, and mercury levels between the two habitat types will also be examined. Mark-recapture analyses will further yield statistically robust estimates of population density, which are otherwise difficult to obtain. Results will provide a powerful tool to evaluate the population viability of Bicknell's Thrushes on existing ski areas compared to nearby relatively undisturbed montane forest. Documenting habitat features that influence nest success may provide important insights into designing the Tree Island Pod project so as to minimize potentially adverse impacts and/or enhance habitat suitability for successful breeding.

Using these analyses VINS will produce a detailed final report outlining its findings. This report is scheduled to be completed in April 2004. A key element of the VINS final report will be a section that presents specific recommendations for designing and implementing the conceptual Tree Island Pod project so as to minimize potential short- and long-term impacts to Bicknell's Thrush and, to the extent feasible, develop ski trails in a manner that actually benefits the species' habitat. Included will be guidelines for trail design and construction, the retention or creation of features that may enhance habitat or mitigate habitat loss/alteration elsewhere, the daily and seasonal timing of construction activities, post-construction habitat maintenance, opportunities for conservation education of visitors to Whiteface Mountain throughout the year, and general operational procedures. Where possible, VINS will reference specific sites within the conceptual Tree Island Pod project area, but many

of the recommendations are likely to apply more generally to the entire project area rather than to discrete locations within it. If it is determined that mitigation measures can be incorporated to benefit the species' habitat, the report will develop a mechanism to inventory improved habitat as a means to both document the benefits to the species and as a means to help assess the overall impact of other aspects of ski area development and management at elevations above 2,800 feet that may adversely affect the species.

2. On-site Field Studies

In addition to preparing the report described above, VINS is developing a study protocol for Bicknell's Thrush field work that will take place on and around Whiteface Mountain. This purpose of this multi-year field study is to apply the findings of the VINS Study analysis of data collected at Vermont ski areas directly to the Whiteface area. The study will collect data on the numbers of Bicknell's thrush on and around Whiteface Mountain, their distribution in relation to existing ski trails, overall habitat preferences, etc. The field study protocol being developed by VINS will be available so that collection of field data can begin in the spring of 2004.

Data collected in the Spring of 2004 will be analyzed in the Summer of 2004. Results of on-site data analysis will be combined with the earlier findings of The VINS Study, to develop measures to avoid and mitigate potential impacts to Bicknell's thrush as a result of construction of the conceptual Tree Island Pod or any other possible future work above 2,800 feet.

1. Integrate Mitigation Measures Into UMP Amendment for the Tree Island Pod

It is the intent of the management of Whiteface to prepare a future UMP Amendment proposing the development of the Tree Island Pod that would incorporate the mitigation measures that are developed from The VINS Study and the on-site field studies. This intent is based on an assumption that The VINS Study and the field study find that ski trail development can occur without unmitigated impacts to Bicknell's Thrush.

According to the timeline in the accompanying Figure XI-1, "Timeline for Additional Assessment of Bicknell's Thrush", this UMP Amendment could occur in the fall of 2004. This UMP Amendment would be subject to a separate SEQRA review, including opportunity for public comment on the proposed amendment.

2. Perform Additional Field Studies

Additional field studies would be performed in the spring of 2005, 2006, 2007, 2008 and 2009. The protocol for these studies will be included in the original study protocol developed by VINS in the spring of 2004. The purpose of these studies

volumes observed at the entrance to the ski mountain. The resulting future traffic forecasts represent an increase of approximately 12% in the traffic volumes observed on February 16, 2002. This 12% increase from the DGEIS will not occur because the projected CCC will not be realized due to a number of factors, foremost the Tree Island Pod no longer being proposed at this time.

Currently, the entrance to the Whiteface Ski mountain area operates at good levels of service during the AM and PM peak hours. With the increase in traffic volumes evaluated in the DGEIS, , skiers could experience longer delays during the PM peak hour. Several circulation conflicts exist between Route 86 and the base lodge. Most significant is the merge of the main entrances and the main access road and the loading area at the base lodge.

Mitigation Measures

Several alternatives are described in the Traffic Assessment (see Appendix I) which will improve circulation, and may be implemented in combination with others or as stand-alone projects. These include:

1. Provide proper signing and pavement markings at the two separate entrance points to the ski area. This will channelize traffic flow and improve operations to and from Route 86.
2. Add signing and intersection control to the merge point of the two entrances. Stop sign control should be installed on the westbound approach to this intersection from the north entrance due the lower traffic volumes on this leg.
3. Reconfigure the main entrance by reducing the median width between the north and south entrance, and create a standard entrance with one lane entering and two exit lanes on the eastbound approach to Route 86.
4. Provide means to allow buses (shuttle and coach) to turn around without turning out onto Route 86 and back into the site. This can be accomplished by installing a mini-roundabout at the entrance merge and parking lot intersections, or by some other means. This will improve the circulation on the main access road at the entrance and parking lot intersections.

5. Remove pedestrian conflicts along the main access road by providing a 10-foot wide sidewalk along one or both sides of the road.
6. Widen the access road (on the downhill side) from the base lodge to Easy Acres to provide approximately 30 feet from the edge of pavement and allow perpendicular parking on this side rather than parallel parking. This will increase the parking capacity along this access road and provide enough shoulder to allow pedestrians to walk and an area for vehicles to back out of a parking space without backing into the roadway completely.
7. Create a bus loading area and/or move the bus parking to lot #2. This will remove the need for buses to access the existing loading area next to the lodge but will require pedestrians to cross the bridge and will displace some vehicles currently using lot #2.
8. Minimize parking in the loading area to handicap vehicles only. This will create additional space for loading but will displace some employee vehicles.
9. Remove parking between the base lodge and the NYSEF building and modify the area to increase the size and performance of the current loading area. This will displace vehicles but could triple the loading area and improve traffic flow significantly.

It is recommended that when improvements occur to produce the CCC evaluated in the DGEIS, the configuration of the entrance to the mountain be modified to provide a single access point with separate left and right turn lanes exiting onto Route 86. Additionally, it may not be feasible to increase the available sight distance looking right from the site driveway. Therefore adding a supplemental distance sign is recommended to supplement existing warning of the conflict area ahead for approaching drivers.

Alternatives for bus access are being evaluated (none requiring new construction are proposed at this time) and include: designation of an area in Parking Lot #2 for buses (this would displace some private vehicles to other parking areas but would eliminate the need for buses to cross the bridge and access the existing unloading area) and/or

remove parking between the Base Lodge and the NYSEF building and modify the area to increase the size and performance of the current loading area (this would displace vehicles but could triple the loading area and improve traffic flow significantly). Under this alternative, buses could access the improved loading area and then park in the proposed Parking Lot #5 or in the designated Bus Lot located south of the main access road, adjacent to Route 86.

Additional alternatives to be considered are described in DGEIS Section IV.C.9, Section V.C.1, and Section VI.D, “Alternative Parking/Circulation Improvements.” Creation of additional parking spaces along the access road between the Base Lodge and Easy Acres and creation of Parking Lot #5 would provide space for the displaced vehicles. A ski trail connection between Easy Acres and the Base Lodge would enable skiers to ski to the Base Lodge from the existing and proposed parking areas up in the Easy Acres vicinity. Providing a ten-foot wide sidewalk along one or both sides of the main access road would help remove pedestrian/vehicle conflicts.

Improvements to the loading area will have minimal environmental impacts when these improvements involve conversion of existing parking areas or roads to improve circulation and limited rock removal outside of the shoreline setback. For instance, rock removal will be necessary to reconfigure the NYSEF parking area for improved circulation and loading of buses and other vehicles. The alternatives discussed in the DGEIS of construction of a second bridge over the river or of creating a bus drop-off area on the right hand side of the access road ascending between the Base Lodge and Easy Acres will need additional analysis before implementation. This alternative was examined in the DGEIS but is not being proposed.

2. Economics

Impacts

There are several economic impacts that are directly related to the UMP. These include pre-construction spending for professional services such as planning, architectural, permitting, environmental and legal fees; construction spending related to labor and supplies for trail development, snowmaking installation and the building of lodges; spending by new skiers for lift tickets, ski lessons, equipment rental and meal purchases both on and off the mountain, lodging and entertainment; and payroll spending for new operations employees.

Construction materials will be sent out for bid and, whenever possible, will be purchased locally.

Most of the trail work and snowmaking elements will be handled by ORDA workers whereas lift installations and the construction of the lodge will be contracted to outside contractors.

The annual operating payroll is expected to increase proportionately due to the anticipated hiring of additional ski patrollers, ski school instructors, trail groomers, building maintenance personnel and service workers at the Base, Easy Acres and Cloudsplitter lodges. The new payroll will in turn generate new spending for rent, mortgages, groceries, gasoline, personal services, retail and recreation by new workers and their families throughout the primary and secondary area of impact.

Additional direct and long-term spending will come from the skiers themselves for ticket purchases, equipment rentals, ski lessons and on-site food purchases. The National Ski Areas Association reports that the average ski dollar buys the following goods and services: 54% on ski lift tickets; 7% on ski lessons; 13% on food and beverage; 5% on equipment and clothing; 4% on equipment rentals; 6% on summer services; 2% on real estate; and 9% on miscellaneous items (NSAA, 1993). Based upon an average of 1,525 potential new skiers per day, projected as a result of UMP actions, including conceptual actions, a season length of 135 days and an on-site spending per person average of \$59, this new spending is projected at \$13.16 million per year which represents an increase of about \$4 million over existing skier spending. These revenues will primarily be used to improve overall economic conditions at Whiteface and ORDA plus support the new payroll requirements for the ski area. Some money may be contributed to fund continued completion of the UMP actions.

A multiplier effect will occur for revenues that are produced on the mountain and later spent off the mountain. This traditionally includes short-term (5 years) construction spending and long-term operational spending as well. Multipliers have been developed for all industries by the US Department of Commerce. They are used to predict the direct and indirect economic impacts generated by each spending sector. Direct economic impacts refer to additional revenues received from the ski area for construction and from the skiers themselves. Indirect impacts include the

additional purchases made by the ski industry from other businesses to satisfy the additional demand, and induced impacts are produced from the new spending of persons employed in the ski industry. Each new dollar that is spent actually “turns over” causing additional dollars to be spent to satisfy a new demand. Each category of industry (construction, recreation, lodging) has separate and unique impacts associated with its own business operation and production.

Generally, each dollar spent in the construction and operational phase generates an additional dollar of spending thereby effectively doubling the total economic impact.

Substantial direct off-site economic benefits will also occur as a result of the project. These include the spending that skiers do off the mountain for goods and services such as food and lodging along the way. It has been estimated through the user survey that \$1.5 million is currently spent by skiers annually on lodging accommodations plus approximately \$0.7 million on food purchases. A multiplier of approximately 6 can be applied to these figures resulting in a total of \$13.2 million in total economic impact from off-site skier spending.

Off-season revenue sources are not considered significant and were not included in this analysis.

Mitigation Measures

No mitigation measures are required since the impacts on the economy are entirely positive.

3. Local Land-Use Plans

Impacts

The actions proposed in this UMP are compatible with the Adirondack Park State Land Master Plan (SLMP), particularly in that they involve the rehabilitation, modernization, and expansion of facilities within an existing Intensive Use Area. Directives of the SLMP include avoiding alteration of wetlands, minimizing topographic alterations, and limiting clearing of vegetation. As described above, creation of new ski trails, widening of existing trails and other proposed management actions will require a minimal amount of wetland disturbance, approximately 0.01 to

0.02 acre of wetland disturbance and 16.4 acres of vegetation clearing, which cannot be avoided and still accomplish the goal of ski area modernization.

Mitigation Measures

Mitigation measures for impacts to wetlands and vegetation are discussed in subsections above. All other aspects of the proposed actions are compatible with the Adirondack Park State Land Master Plan, and no additional mitigation measures are proposed.

VI. ALTERNATIVES

A. Alternative Lift Configurations

With only minor exceptions, the proposed lift configurations in this UMP Update are the same as the approved actions found in the 1996 UMP. The lift layout on Whiteface and Little Whiteface Mountains has evolved over a number of years whereby the lift terminals, loading areas, and uphill capacities follow the logic of good ski area design. Any alternatives for lift configurations would involve only minor fine-tuning of terminal placement which typically occurs during detailed lift design.

B. Alternative Trail Improvements

The trail improvements proposed in this UMP Update were selected due to the fact that the resultant skiable terrain will conform to the shape of the mountain and the breakdown of ability levels will be better balanced in terms of meeting current industry demand. As appropriate, trail designs were altered during the planning process as the environmental analysis for this UMP Update progressed.

The most significant of these alterations was the change in the status of the Tree Island Pod and new trails at elevations over 2,800 feet from New Actions originally proposed as part of this UMP update, to Conceptual Actions requiring future UMP amendment(s) and SEQRA review(s) if and when they are pursued following the extensive Bicknell's thrush study work being performed.

Furthermore, even within these currently conceptual areas, Trail 83 was originally designed as an extension of Trail 82, running along the crest of a ridge to the north and east of the conceptual Tree Island Pod. In its initial configuration, Trail 83 would have run through the center of a stand of red pine, rocky summit forest, which is a relatively unusual ecological community in the region. Impacts would have involved the clearing of approximately 20% of the 6.6-acre stand, including cutting of approximately 1100 trees at least 3 inches in diameter. In order to preserve the red pine forest community, the route of this conceptual trail was modified to swing northward to avoid it. This method of trail planning is an integral part of the UMP process. As much as possible, the natural contours of the terrain are preserved and terrain modification is minimized. Some of the

fine-tuning of trail design occurs during the field layout that is undertaken prior to construction.

C. Alternative Lodge Improvements

The 2002 UMP update proposes to renovate the existing Easy Acres Lodge (formerly Kid's Kampus Lodge) and construct a new facility adjacent to the lodge. Alternatives to this are:

1. Renovate and expand the existing lodge to accommodate all future spatial needs.
2. Demolish the existing lodge and construct a new, larger lodge to accommodate all future spatial needs.

At this time, renovation of the existing lodge facilities at Easy Acres, along with the construction of an additional facility, is the preferred alternative as it is the most cost effective.

D. Alternative Parking/Circulation Improvements

The following table summarizes the alternatives for parking/circulation improvements at Whiteface.

VI. OPTIONS	PROS	CONS
1. Funicular	<ul style="list-style-type: none">• No buses in entry area• No buses on bridge• No using log footpath	<ul style="list-style-type: none">• \$-Construct• \$-Operate• \$-Maintain• Further crowding at base area
2. Bus drop-off by river	<ul style="list-style-type: none">• Short walk to lodge	<ul style="list-style-type: none">• Very steep• \$-Construct• \$-Maintain• Buses cross bridge• Buses in entry area• How do buses pick up?• Buses park in Lot 5?
3. Half ± of Lot 2 as bus lot	<ul style="list-style-type: none">• No buses on bridge• No buses in entry area• Low cost-need flagman end of day to enable left turn out• Buses stay put for the day	<ul style="list-style-type: none">• Relocation of car parking

4. 2 nd Bridge over W. Branch	<ul style="list-style-type: none"> • 2nd way out 	<ul style="list-style-type: none"> • Permitting difficult • Expensive to construct • Expensive to maintain
5. Passenger conveyor from existing bus lot to bridge (may be covered)	<ul style="list-style-type: none"> • No long walk 	<ul style="list-style-type: none"> • Expensive

The above alternatives are among the measures under consideration for improving the traffic/pedestrian circulation at the entry and base area. The management at the Ski Center will be examining the above alternatives in more detail. The above alternatives will be considered in conjunction with the circulation improvement measures suggested by the traffic engineer. See Section IV.C.9. These alternatives are only being given consideration at this time and are not scheduled improvements at this time. If and when any of these alternatives become scheduled improvements they will be subject to future UMP/SEQRA review.

E. Alternative Building Locations

Alternative locations were considered for the relocation of the Lot 5 Pole Barn and for the relocation of the Don Straight Building. These facilities will be located adjacent to the existing vehicle maintenance garage and the new maintenance building expansion. These buildings can be accommodated within an existing cleared area. Alternative locations would involve additional clearing and disturbance, and would not provide for the beneficial consolidation of these maintenance and storage facilities, and are therefore not preferable.

NYSEF is working cooperatively with ORDA facilities to implement its training program at the ski center. There is no other alternative site within the ski center that is better suited for integration of the NYSEF programs with the ORDA as the one selected for the new NYSEF Training Center Building. The building is located in proximity to base lodge facilities and infrastructure and in an area of already existing disturbance. Based on power company requirements, the proposed building will be located a minimum of twenty (20) feet from the existing overhead electric lines.

F. The No-Action Alternative

If no action is taken and no improvements are made to the ski center, many skiers will continue to choose to ski at better maintained facilities which provide desired amenities. Equipment will continue to break down and further deter the skiing population. As the number of skier visits declines, revenue will be lost which could result in personnel layoffs and a continuing down spiral of the ski center until it becomes uneconomical for the facility to remain in operation.

The “No Action” alternative also implies that no “new” actions are taken (or approved) in the 2004 UMP. The 1996 UMP is approved and remains in effect and can continue to be implemented.

VII. SUMMARY OF UNAVOIDABLE ADVERSE ENVIRONMENTAL IMPACTS

Some environmental impacts of the proposed action can neither be prevented nor reasonably avoided. This section will describe the unavoidable impacts which may occur due to construction and implementation of the Whiteface Mountain Five-Year Plan.

Construction activities will result in dust, odors, fumes, noise and vibration. A small amount of traffic will be generated. Removal of vegetation, excavation and grading will be required to improve ski trail areas, and construct chair lift support structures and new chair lifts. Implementing sediment and erosion control Best Management Practices during construction and following construction will greatly reduce the possibility of any serious erosion problems. Final vegetative growth and grades will blend with the existing environmental setting.

Increased noise levels during construction of improved facilities cannot be avoided. The possibility exists for interference with wildlife breeding and nesting seasons, however, implementation of the recommendations of the VINS Study and other mitigation measures will ensure that the Bicknell's Thrush will not be negatively impacted. Related noise will have a significant short-term impact, but little long-term permanent impact is expected.

Operational activities will cause a minor increase in peak hour traffic and solid waste disposal needs.

There will be minimal demands on local government offices such as the assessor, tax collector, and building inspector. The need for fire, police and rescue services will continue. Medical emergencies will continue to occur, requiring service.

Minor amounts of air pollution and noise will be generated. Fuel will be used.

There will be an increase in surface water runoff due to increased impervious areas. Stormwater management practices designed in accordance with recently adopted Phase II regulations have been proposed to mitigate potential impacts as much as practicable.

All of these impacts are relatively minor and local in nature. Most do not require mitigation measures. Section V of this DEIS describes those mitigation measures which are required.

VIII. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

Expansion of recreational use of the land at Whiteface Mountain does not represent a significant or irretrievable commitment of resources. Should intensive use recreational facilities and programs ever be abandoned, the area would revert to natural vegetation and habitat characteristics which are representative of those in the Forest Preserve in the Adirondack Park.

Construction of the Whiteface Mountain Five-Year Plan will result in the permanent commitment of raw materials including concrete, steel, gravel, and wood for construction of the permanent structures, in addition to energy resources required to construct, operate and maintain the recreation area.

Site preparation for the proposed project will remove approximately 16.4 acres of existing vegetation and disturb soils on the site. Since no rare, threatened or endangered species are known to inhabit the site, the removal of this habitat is not viewed as significant. Measures are proposed to mitigate potential impacts to the Bicknell's thrush, a Special Concern species in New York State.

Operation of the proposed project will result in the permanent, irretrievable commitment of resources such as energy for heating, lighting and equipment operations, however, such commitment will be extremely minimal. Adverse impacts on air, water and socioeconomic resources will not be irreversible or significant.

IX. GROWTH INDUCING, SECONDARY AND CUMULATIVE IMPACTS

This section identifies the potential off-site impacts that may occur following improvements to the Whiteface Mountain facility. Growth inducing and secondary impacts relate to changes in population, land use patterns, and the creation of new businesses. Cumulative impacts relate to changes from the project plus changes from other projects in the region.

A review of the period since the 1996 UMP gives an excellent idea of what kind of economic impacts have occurred in the local region as a result of the recent improvements at Whiteface Mountain. As can be seen in Table 9-1, "Whiteface Mountain Ski Center Use Data," the total number of visitors per year has increased, as has the number of season passes sold each year. The increase has had an entirely positive impact on the local business community and outlying communities.

Table 9-1
Whiteface Mountain Ski Center Use Data

	Season Pass Sales	Total Annual Visitors
1996-97	489	132,052
1997-98	903	119,411
1998-99	3,888	128,305
1999-2000	2,366	111,746
2000-01	3,439	154,128
2001-02	4,049	231,357 *
2002-03	4,368	258,265 **

* includes 48,154 gondola riders in summer 2002

** includes 52,168 gondola riders in summer 2003

The additional business realized from more skiers translates into jobs for residents and compounds its value as it moves through the local economy. The salaries from this employment help stabilize the local economy by offsetting the summer seasonal employment then layoff syndrome that dominates the service industry in the North Country area.

Cumulative impacts are also considered a positive factor for the economy. Several new housing developments are under construction to meet the demand for second homes. Much of the demand for new housing can be attributed to new people being exposed to the area through skiing at Whiteface Mountain. The impacts from residential growth versus tourism growth tend to be more subjective in that they can be perceived as positive changes for some and negative changes from other points of view. For example, an overall increase in downtown business revenue most likely also means more traffic on local roads. Most roads in the North Country, however, are designed to handle the level generated by the high volume summer seasonal traffic. Winter business is always welcome and the increased traffic is generally accepted as a necessary side effect.

Whiteface Mountain has not reached all the goals set in the 1996 UMP document but is on its way there. The planned improvements set forth in this document will help the ski area attain the stated goal but will not necessarily cause there to be substantially more skiers, nor a significantly higher amount of impacts.

X. EFFECTS ON THE USE AND CONSERVATION OF ENERGY

The proposed actions will not cause a major increase in the use of energy, although the consumption of fossil fuels and power will be required by the project both during its construction and operational phases.

During construction, the primary expenditure of energy will be the consumption of fossil fuels to operate construction equipment and to transport construction workers and materials to the site. This activity will cause a temporary and unavoidable increase in energy use. Some of the activities involving fuel consumption during the various construction phases include clearing and grubbing, excavation, grading, and lift and building construction.

The operation of the facility will also require the consumption of fossil fuels and power. The use of electric and fossil fuels for improved chair lifts and snowmaking equipment cannot be avoided. Additionally, new and expanded lodge facilities and services will necessitate the use of more fuel for heating.

Various chair lifts will be replaced, upgraded or in some cases eliminated and other lifts will be added resulting in only nominal new chair lift energy requirements. In order to improve the snowmaking process and to conserve energy, an analysis of the options available and the system that makes the most sense for Whiteface, from an energy conservation and manpower utilization standpoint, was studied. This analysis is provided in Appendix K. The basic recommendations of the analysis are that Whiteface should invest in low energy technology where it applies, while focusing on diversity of technology that provides for rapid production rates and premium snow quality. The long-term development of a 5 to 8 million gallon storage reservoir is recommended in case of a dry winter. This recommendation is being given further consideration at this time, but is not a New Action proposed in this UMP update. At such time that a snowmaking reservoir becomes a scheduled improvement, it will be the subject of future UMP/SEQRA review. The pumping capacity at the on-mountain pumping facilities should be expanded to achieve production goals. The increased water capacity will increase production rates and improve snowmaking efficiency during colder temperatures. This reduces overall production hours and reduces operating costs because more snow can be made during optimal conditions.

At the Whiteface Mountain Ski Center, there is evidence of an exceptional valley wind resource, which may be suitable for a wind energy application. A preliminary assessment of the feasibility of a wind energy project appears favorable, therefore, an on-site wind measurement program is proposed to be instituted and operated for a minimum period of 6 months. The objective of this measurement program would be to verify the wind resource with the objective being possible development of an alternative energy source at the ski center which would result in a reduced need for conventional electric power consumption.

The improvements proposed for the Whiteface Mountain Ski Center are expected to result in an increase in the number of skiers traveling to the area. The resultant automobile traffic could contribute to the consumption of fossil fuels. Shuttle buses from local communities, overnight accommodations and schools are proposed to be included. Shuttles will serve to diminish parking and traffic congestion and will reduce the consumption of fossil fuels.

Normal day-to-day operation will contribute to increased power consumption on a long-term basis. This consumption, however, will predominantly be seasonal in nature.

Outside of the structures some outdoor lighting is expected, but will not result in a substantial use of electricity.

XI. RESPONSES TO COMMENTS

This section presents responses to comments made on the August 2002 DGEIS. Comments have been summarized from the original comment source listed with each comment. Copies of comment letters are included in Appendix AA.

A. Constitutional Limits

Comment 1 (by David H. Gibson, The Association for the Protection of the Adirondacks, letter dated September 16, 2002).

The Commentor states that page v of the DGEIS Executive Summary states that the proposed management actions will bring the total miles of downhill ski trails at Whiteface to 25.51, and that DGEIS page I-10 states this figure is 24.45 miles. The Commentor asks which figure is accurate, and says that it is important to be accurate because the constitutional limit for the length of downhill ski trails at Whiteface is 25 miles.

Response 1

Page v of the DGEIS Executive Summary states (incorrectly) that the proposed improvements will bring the total mileage of ski trails at Whiteface to 24.51 miles, not the 25.51 miles claimed by the Commentor. The figure of 24.45 miles provided on DGEIS page I-10 and Table IV-2 was the correct figure. Page v of the DGEIS Executive Summary should have read 24.45 miles and not 24.51 miles.

Because the status of the Tree Island Pod and other trails over 2,800 feet have been changed from Proposed Actions to Conceptual Actions, trails totaling 4.43 miles are no longer proposed as New Actions, and the total mileage of ski trails will be amended to be 20.02 miles.

Comment 2 (by David H. Gibson, The Association for the Protection of the Adirondacks, letter dated September 16, 2002).

The Commentor would like to know what the expansion plans are for the ski center for the next 10, 15, 25 or more years. The Commentor would like to see a UMP section entitled "Future Planning."

Response 2

Section IV.E, “Future Planning”, has been added.

Although the content of any UMP is dictated by the Adirondack Park State Land Master Plan and it is not required to identify future projects and activities that are conceptual in nature, in a effort to forecast future projects, information concerning a number of projects that are conceptual in nature has been included in this UMP Update.

The inclusion and discussion of these conceptual actions, such as the snowmaking reservoir, the Cloudsplitter Lodge, and the Tree Island Pod as potential future actions to be covered by separate UMP amendments and accompanying SEQRA reviews, demonstrates ORDA’s commitment to long range future planning.

As noted by the Commentor, the 1996 UMP for Whiteface called for creation of additional downhill trails. As can be seen in Section I.E., Table I-1, “Status of 1996 UMP Update and Amendment,” much of this work remains to be completed and is incorporated into the 2004-2009 management actions. Similarly, the improvements proposed within the 2004 UMP will be realized over time, as time and budget constraints are prioritized.

Whiteface staff work hard to maintain the Ski Center and to provide some of the best ski terrain in the country, for recreational and ski racing teams, serving beginning through expert skiers and snowboarders. The economic benefits realized by the community as a result of patronage at Whiteface is due in large part to the quality experience enjoyed by skiers at Whiteface, and is based on much hard work and skilled management by ORDA’s staff.

With regard to future planning, there are no plans to increase the constitutional limit on the total length of ski trails allowed at Whiteface. The long term goal is to improve the skier experience while not expanding the ski slopes beyond the allowable limit.

Whiteface is unique in the northeast as the former site of two Olympics. The available terrain has challenged the best skiers in the world, and modifications since 1980 have made the mountain skiable for the recreational skier. Recent improvements to lifts, including the installation of the gondola, improve the capacity of the mountain while simultaneously improving the skier experience. These types of upgrades have been and will continue to be the focus of mountainside improvements.

This UMP represents the continuation of a planning process for Whiteface that takes into account the Adirondack Park State Land Master Plan and Article XIV of the NYS

Constitution, including the special provisions of Article XIV that authorize the construction and operation of ski facilities on Whiteface Mountain. Whiteface is quite unique because it is a designated Intensive Use Area within the Forest Preserve. As an Intensive Use Area, Whiteface's basic management guidelines include providing facilities for intensive forms of outdoor recreation by the public. At the same time, Whiteface is still required to blend with the Adirondack environment and have minimum adverse impacts on surrounding State lands.

Comment 3 (by John Caffry and Neil Woodworth, Adirondack Mountain Club, letter dated September 23, 2002)

The Commentors ask if all trails have been measured to ensure that they adhere to the constitutional limits on their width.

Response 3

Yes. As noted in Section II.B.2, 1.3 miles of existing trails exceed the 120 foot width, this is 3.7 miles less than the 5 mile maximum allowed in Article XIV of the NYS Constitution.

B. Tree Cutting

Comment 1 (by David H. Gibson, The Association for the Protection of the Adirondacks, letter dated September 16, 2002). Related comments, requesting clarification that no Krummholz would be cut and for age-class information regarding trees too be cut were made later by Peter Bauer, Residents Committee to Protect the Adirondacks, letter dated December 6, 2002

The Commentor feels that the vegetation cutting noted in the DGEIS is remarkable, even if done over a period of years, and feels that ORDA and DEC should conduct additional field work to verify that the tree cutting described is the minimum necessary to complete the management actions.

Similar Comment by Jaime Ethier, the Adirondack Council, letter dated September 23, 2002, and in newspaper articles dated September 23, 2002 and October 10, 2002.

Response 1

The amount of tree clearing required for the actions proposed in this UMP has been reduced substantially due primarily to the fact the Tree Island Pod and the snowmaking reservoir are now conceptual actions only, and not proposed as part of this UMP. The number of trees 3 inches dbh or larger to be cut for proposed actions has been reduced over 90% from 54,951 listed in the DGEIS to approximately 4,200. FGEIS Table V-1, "2004 Tree Cutting Estimates for Proposed Trails and Trail Widening at Whiteface Mountain Ski Center", provides the revised tree clearing tally data for the actions proposed in this UMP, and some information about the size ranges of trees that are proposed for cutting. Further, as illustrated on Exhibit II-8, "Vegetation Covertypes Map", and Exhibit IV-1, "Proposed Ski Center", none of the cutting for New 2004 UMP Actions, or even 2004 UMP Conceptual Actions, would involve Alpine Krummholz and no cutting would take place within 2,000 feet of the area mapped as Krummholz.

The Adirondack Park State Land Master Plan designates Whiteface Mountain Ski Center as an Intensive Use Area. Article XIV of the New York State Constitution states that Whiteface can develop up to 25 miles in total length of ski trails. In order to construct ski trails it is necessary to cut trees on the designated Intensive Use Area that is Whiteface. The proposed ski trail work occurs contiguous to the existing ski trail network and complements the existing trails.

In order to identify the vegetation impacts, LA Group biologists collected data on tree density in those places where work is proposed. The methodology is fully described in Section V.B.2. and the vegetation sampling data is provided in Appendix J.

The Commentor is correct in noting that trail construction takes place over a period of many years. The current operating master plan for Whiteface Mountain Ski Center, the 1996 UMP, called for creation of additional downhill trails. The 2004-2009 UMP identifies the status of the 1996 UMP management actions. Much of this work remains to be completed and is incorporated into the 2004-2009 management actions. Similarly, the improvements proposed within the 2004 UMP will be realized over time, as time and budget constraints are prioritized. Refer to Section I.E., Table I-1, for tracking of 1996 UMP management actions that are still pending construction. Many of these actions have not been built to date and the same delay is likely to occur with the new proposed actions.

The new lodge being considered for some future time at the top of Little Whiteface would replace the existing Ski Patrol building and would be located in the existing clearing immediately adjacent to the existing Cloudsplitter Gondola and Little Whiteface Quad (Lift G) unloading stations. If and when the new lodge is proposed as part of a

future UMP update some very limited vegetation clearing may be necessary in order to construct the new lodge. Refer to Lodge Site Photographs 1, 2, 3, 4 and 5, provided in Appendix S.

C. Erosion Control

Comment 1 (by David H. Gibson, The Association for the Protection of the Adirondacks, letter dated September 16, 2002). A similar comment was made later by Peter Bauer, Residents Committee to Protect the Adirondacks, letter dated December 6, 2002

The Commentor asks if the proposed erosion control measures are the best possible available practices to avoid soil erosion.

Response 1

Whiteface personnel are experienced in ski trail and lift construction, including erosion control techniques. In June of 2003 Whiteface hosted an erosion and sediment control workshop that was taught by one of the region's leading experts. Personnel from Whiteface as well as the APA and DEC participated in this workshop that combined teaching sessions and on-mountain examinations of past and on-going erosion control measures at Whiteface.

As proposed, it is best to limit the areal exposure of soils as much as possible, and to install filter fabric fences, water bars and erosion control blankets and other best management practices as needed in order to minimize or eliminate the potential for erosion of exposed soils.

As noted in Section III.A., Whiteface has recently participated in the creation of the National Ski Areas Association Sustainable Slopes Charter, which outlines a series of best management practices related to the implementation of pro-active environmentally-friendly management actions. A copy of the Sustainable Slopes Charter is provided in Appendix T of this document.

A revised draft Construction Pollution Prevention Plan (CPPP) has been prepared and the draft CPPP identifies specific best management stabilization and erosion control measures to be taken during construction. See Appendix U. The CPPP includes details of specific best management practices produced by the USDA – Natural Resources Conservation Service as well as other practices and materials that have proven to be

effective in controlling erosion, particularly on steeper slopes. A discussion of specific erosion control products recently developed for the purpose of establishing vegetation on steep slopes is provided, as well as the specifications for their use.

In addition to the revised draft CPPP included in this FGEIS, expanded CPPPs for specific construction activities will be prepared in accordance with NYSDEC's Phase II stormwater requirements and will be reviewed by NYSDEC prior to being implemented during construction. The CPPP to be implemented during construction will also be submitted to the APA for review prior to the initiation of construction activities. As an example, this FGEIS (Appendix P) contains the CPPP prepared specifically for the construction of Lot #5 which is a proposed action in this UMP. This CPPP contains sufficient construction details and specifications necessary to ensure proper BMP implementation. It is also recommended that the construction manager for the project be equipped with a copy of "New York Contractors Erosion and Sediment Control Field Notebook" prepared by NYSDEC and the USDA-NRCS. This is a pocket sized document that provides contractors a quick handy guide for the installation and maintenance of erosion control practices.

Seed Mix for Slope Stabilization

Stabilizing the newly constructed ski slopes with vegetation was closely examined to determine what products and practices could be effectively implemented to provide rapid vegetation establishment and long term sediment and erosion control.

The seed mix proposed for stabilizing the majority of the constructed ski trails at Whiteface Mountain is known as an "Adirondack Mix" that is commercially available from local seed suppliers. The composition of this mix from one such supplier (components are the same, proportions may vary slightly) is as follows:

43.65% Boreal creeping red fescue
34.3% Perennial ryegrass
17% Kentucky bluegrass

The boreal red fescue is well suited to the climatic conditions on Whiteface Mountain while the perennial ryegrass will provide rapid germination (as soon as seven days). Kentucky bluegrass is a good general use low growing species that is capable of spreading in open areas via its rhizomes.

The Adirondack seed mix that is recommended in the draft CPPP for Whiteface has proven to be very effective when used to stabilize soils as part of ski slope construction in the Adirondacks. Recent trail construction at Gore Mountain for the Bear Mountain Pod utilized the Adirondack seed mix. Gore Mountain reported that the Adirondack Mix performed very well with good germination and good coverage providing effective post-

construction stabilization on their new ski slopes. The advanced trails at Gore Mountain on which the Adirondack Mix was used consisted of many areas where slopes were 40% or slightly steeper. The slopes, soil types and elevations where the Adirondack Mix was successfully used at Gore are similar to the conditions at Whiteface. The seed mix has also proven to be tolerant of the different microclimate created on ski trails caused by a deeper and longer lasting snow pack due to snowmaking operations.

A seed mix devised by NYSDOT for use on road construction projects involving steep slopes was considered as an alternative to the Adirondack Mix. This seed mix contains a number of wildflowers as well as sheep fescue and annual ryegrass. Components of this mix were chosen by NYSDOT because of their ability to produce a root system of varying root types, including fibrous shallower roots and deep tap roots.

Given the fact that the Adirondack Mix has proven to be effective for stabilizing ski trails constructed in the Adirondacks that are as steep and even steeper than those proposed at Whiteface Mountain, and given the fact that the Adirondack Seed Mix is more economical (some 30 times less expensive than the alternative NYSDOT mix) the Adirondack Seed Mix will be used to stabilize the majority of the trails constructed as part of the current UMP for Whiteface Mountain. The alternative NYSDOT seed mix will be used under those special conditions that may be most suitable, including steeper slopes (i.e. >15 to 20%), or wherever the Adirondack Mix does not become effectively established. Appendix U contains the Draft Construction Pollution Prevention Plan. This plan states that, including Conceptual Actions, approximately 29.8 acres would be affected by ski trail construction and identifies the vegetation practices used for erosion and sediment control.

Other BMPs

Other BMPs proposed to control erosion during construction of ski trails on Whiteface Mountain, including mulches, tackifiers, water bars, silt fences, etc. are discussed in detail in FGEIS Appendix U, Draft Construction Pollution Prevention Plan.

Seeded areas will be mulched with straw that will be secured in place physically or with a non-asphaltic tackifier. Alternatively, seeded areas may be hydromulched with wood cellulose mulch that may also include a non-asphaltic tackifier.

Water bars will be used extensively during construction to prevent erosion. This BMP has proven to be effective on sloped areas such as ski trails and has been found to be effective when constructing other ski trails at Whiteface in the past. The spacing interval between water bars will depend on the slope on which they are installed as per specifications included in the CPPP.

Silt fences will be installed to protect surface water resources that are in the vicinity of construction. Silt fences will be installed in accordance with the details included with the CPPP and will be inspected on a regular basis to make sure that they are functioning properly.

Inspections

Because the proposed construction activities are located within the Champlain watershed, which is a TMDL (total maximum daily load) watershed for phosphorus, site assessments and inspections during construction will be carried out by a qualified professional in accordance with the requirements of NYSDEC's General Permit GP-02-01. This qualified professional will be responsible for conducting site inspections prior to construction and then during construction once every 7 calendar days and within 24 hours of the end of a storm event of 0.5 inches or greater. Inspections will track the construction process and document the effectiveness of the appropriate erosion and sediment control practices. The qualified professional will also perform a site inspection following completion of construction to certify that the site has undergone final stabilization in accordance with the best management practices specified in the CPPP.

Comment 2 (by Kevin Prickett, The Association for the Protection of the Adirondacks, letter dated September 23, 2002) A similar comment was made later by Peter Bauer, Residents Committee to Protect the Adirondacks, letter dated December 6, 2002

The Commentor is concerned about siltation at the mountain and provides photographs of erosion at the mountain. The UMP needs to provide more detail on proposed erosion control measures.

Response 2

Construction Phase

Additional detail on the proposed erosion control measures for construction is provided in Appendix U, Draft Construction Pollution Prevention Plan. The use of various best management practices is specified.. Refer to Response 1 above. Additional information regarding ski trail construction process, construction sequencing, and erosion control ("Detail of Proposed Erosion and Sediment Control Plan") has been added to supplement the information included in the draft CPPP.

The Construction Pollution Prevention Plan (CPPP) presented in Appendix U is a draft and not intended to satisfy all of the requirements of either the old NYSDEC General Permit (GP-93-06) or the current version (GP-02-01) for stormwater discharges from construction activities. This draft version of the CPPP was prepared and included in the FGEIS to provide more general information on the practices that will be implemented on a site-wide basis during construction.

Specifics of the CPPP such as the “site specific plans” and “future schematic design phases” are required to be prepared and submitted to NYSDEC under their General Permit GP-02-01, “SPDES General Permit for Stormwater Discharges from Construction Activity” (January 8, 2003). In accordance with GP-02-01, these materials will be prepared by a licensed/certified professional and submitted to NYSDEC for review and approval prior to beginning construction. As required, this submission will contain stormwater quantity analyses, detailed plans, BMP installation details as well as construction specifications. Prior to beginning construction additional information, including any revisions and additions to the Draft CPPP in this EIS will also be provided to the Adirondack Park Agency for review and appropriate determination to ensure compliance with applicable regulations and Agency guidelines. As an example, this FGEIS (Appendix P) contains the CPPP prepared specifically for the construction of Lot #5 which is a proposed action in this UMP. This CPPP contains sufficient construction details and specifications necessary to ensure proper BMP implementation.

Operational Phase Stormwater

After construction of the activities is complete the project will comply with NYSDEC’s recently updated stormwater management design standards, including not increasing the rate of stormwater runoff (stormwater quantity) and, where necessary, providing stormwater treatment to improve stormwater quality.

The effects of stormwater that may be expected as a result of the actions in this UMP update have been assessed by the use of the Simple Method and with the use of HydroCAD stormwater modeling.

Ski Trails

The effects of runoff, as a result of ski trail construction, has been determined by the Simple Method, also known as the SCS Runoff Curve Number (CN) Method. The most important factors that determine CN are the hydrologic soil group (HSG), cover type, treatment, hydrologic condition, and antecedent runoff condition (ARC). In the area of ski trails, the predominant soil type is Typic Cryohumods (extremely bouldery). The general hydrologic soils group is considered C/D for this area and has subsequently been used to determine the pre and post Curve Numbers. Comparing the pre (“Woods”) and post (“Meadow”) CN for the proposed ski trail construction, as put forth in the SCS TR-55 Manual, there is no significant change in the amount of runoff from any subcatchments where ski trails will be constructed. Considering a C soil type and a “good” woods ecosystem as the existing condition, the CN may increase from 70 to 71 with the proposed ski slopes. Evaluating a D soil type and “good” wood cover, indicates a change in the CN from 77 to 78. Current assessment methodologies available for stormwater analyses cannot accurately differentiate changes in runoff with a CN change of 1. Hence there is no expected change in runoff quantity and stormwater quantity controls are not necessary.

Parking Lot #5

The proposed Parking Lot #5 will be constructed beyond the Easy Acres parking lot. The parking area will be approximately 2.7 acres in size. The parking surface will be gravel and the total land disturbance due to grading outside the parking surface is estimated at four (4) acres.

Appendix P includes the Stormwater Management Report for Parking Lot #5. Stormwater computations for Parking Lot #5 were conducted using the USDA Soil Conservation Service Technical Release No. 20. The program used was the HydroCAD Stormwater Modeling System produced by Applied Microcomputer Systems of Chocurua, New Hampshire. The design storms studied were the one (1) year event (Channel Protection, CP_v), ten (10) year event (Overbank Flood Control, QP), and one hundred (100) year event (Extreme Flood Control, QF). The 24-hour Type II storms produce a total rainfall of 2.1, 3.5 and 4.8 inches respectively. Calculations were also completed for the treatment of the required Water Quality Volume (90% rainfall event, WQ_v) measuring 0.8 inches in northern Essex County.

The design intent of limiting the proposed runoff rate to a level less than the existing runoff rate has been met by directing stormwater into a detention basin and controlling the rate of release. The quality of the runoff is improved by allowing sediments to settle out in the stormwater management area before releasing it. The table below summarizes the results of the full study detailed in Appendix P

	Runoff For Storm Events			
	<i>Pre-Construction</i>	<i>Post-Construction</i>	<i>Difference</i>	
1-Year	1.46 cfs	1.48 cfs	+0.02 cfs	
10-Year	7.61 cfs	7.50 cfs	-0.01 cfs	
100-Year	15.38 cfs	15.16 cfs	-0.22 cfs	

In addition to attenuating these storms, the outlet of the detention basin has been set at an elevation so that the runoff from the water quality volume storm is captured and infiltrated.

Appendix P includes a grading plan for Parking Lot #5 and the proposed detention basin. The grading plan illustrates how runoff from undisturbed lands above the parking lot will be captured and routed around the parking lot where it will be dispersed into undisturbed areas using level spreaders. Similarly, water that is released from the detention basin will be directed to a wide level spreader that will disperse the water across the undisturbed slope some 1,100 feet uphill of the AuSable River.

D. Fish and Wildlife

Comment 1 (by David H. Gibson, The Association for the Protection of the Adirondacks, letter dated September 16, 2002). A similar comment was made later by Peter Bauer, Residents Committee to Protect the Adirondacks, letter dated December 6, 2002

The Commentor appreciates the attention paid to the discussion of the habitat of Bicknell's Thrush in the DGEIS on page V-14. The Commentor asks why this species is not listed in Appendix L. The Commentor feels that research on this species should be conducted at Whiteface.

Response 1

The American Ornithologists Union officially recognized the Bicknell's Thrush in 1995 based on the 1993 work of Henri Ouellet. Until 1995, Bicknell's Thrush was listed as a subspecies of the Gray-cheeked Thrush, which is listed in Appendix L. A complete copy of Appendix L is provided in this FGEIS. The copy of Appendix L provided in the August 2002 DGEIS was inadvertently miscopied.

During the preparation of this FGEIS, and in response comments made on the August 2002 DGEIS, ORDA has made significant efforts to address concerns regarding the Bicknell's Thrush. These efforts included making the Tree Island Pod and other new projects requiring tree clearing above 2800 feet in elevation conceptual actions and not proposed actions, postponing projects previously approved in the 1996 UMP update which involve tree clearing above 2800 feet until after more information on habitat use by Bicknell's Thrush is obtained, funding a Bicknell's Thrush study by the Vermont Institute of Natural Science, and agreeing to implement a multi-year field study of the Bicknell's Thrush on and around Whiteface Mountain through, at least, the year 2009.

The following is a description of the comprehensive assessment of the Bicknell's thrush that the management of ORDA has committed to implementing before proposing construction of new ski trails above an elevation of 2,800 feet. Exhibit V-I, "Timeline for Additional Assessment of Bicknell's Thrush", outlines the various tasks and their sequence.

1. The VINS Study

Whiteface management has entered into an agreement with the Vermont Institute of Natural Science (VINS), the northeast region's leading authority on Bicknell's thrush, to use its extensive data on Bicknell's thrush and their habitat to develop recommendations for design, mitigation, and management measures that will minimize both short- and long-term potential project impacts to Bicknell's thrush. The following describes in more detail the study being performed by VINS.

VINS has spearheaded ecological studies of Bicknell's Thrush in the Northeast since 1992. A key component of VINS' research has been focused investigations of the use by Bicknell's Thrush of two established Vermont ski areas - Stowe Mountain Resort (Mt. Mansfield) and Stratton Mountain. From 1995-2001, VINS conducted studies on three 10-20 hectare plots on Mt. Mansfield. One of these was in an area developed for skiing around the Octagon; the other two in areas are relatively undisturbed habitat on the Mansfield ridgeline and Ranch Brook watershed. On Stratton, VINS established two study plots in 1997 and has since then collected field data on each plot annually. One plot is on the developed north peak; the other plot is on the undeveloped south peak.

Field methods on both mountains have been standardized from year to year and have included: (1) constant-effort mist-netting and banding (including unique color banding of each individual thrush); (2) intensive resighting of color-marked individuals; (3) radio telemetry of adult males and females, and in 2001 on Mansfield of fledged juveniles; (4) videography at nests; (5) monitoring of nests and reproductive success; and (6) detailed characterization of vegetation and macrohabitat variables around nests. Each mountain thus provides a 7-year data base that can be used to examine within- and between-year variation in Bicknell's Thrush life history parameters on habitat blocks that are developed for skiing and on similar, undeveloped blocks. These data afford a valuable opportunity to address important questions, such as those posed by the conceptual Tree Island Pod project, relating to the potential impacts of ski area development on this species, including the potentially beneficial impacts associated with the creation of habitat that is favorable to nesting.

VINS is undertaking a detailed analysis of its 1995-2003 field data from Mt. Mansfield and Stratton Mountain. They will report their findings in a summary document that will specifically relate them, to the extent possible, to the conceptual Tree Island Pod project on Whiteface Mountain. VINS' analysis and evaluation will combine (1) site-specific information collected during a field visit by VINS Conservation Biology staff to the project area in the fall of 2003, (2) examination of GIS and other existing data from the proposed project, and (3) VINS' ecological and behavioral field data from Mt. Mansfield

and Stratton Mountain. This approach will enable the generation of predictions about likely short-term (1-2 years post-construction) and medium-term (3-5 years) impacts of the Tree Island Pod project on breeding Bicknell's Thrushes. More importantly, VINS will use their data to construct a generally applicable model of how Bicknell's Thrushes use habitat within developed ski areas, and how new construction and ongoing management can minimize impacts to, and in some cases enhance breeding habitat for, Bicknell's Thrush on Whiteface Mountain.

VINS' analysis will consist of three primary components:

1. Analyze nest site selection by Bicknell's Thrush. VINS has monitored over 150 active nests on both mountains since 1995 on ski-area and non-ski area plots. At each nest, VINS has collected a detailed series of data on nest location, vegetation, landform characteristics, and other site-specific variables. Comparable data at randomly selected "non-use" sites at a distance of 30 meters from each nest for > 50% of the nests has also been collected. These data will be used to develop a model of Bicknell's Thrush nest site selection in ski-developed areas versus undeveloped habitats. Using GIS plotted vegetation data from Whiteface Mountain, this model will be applied to the conceptual Tree Island Pod project to generate predictions about the viability of the project area for Bicknell's Thrush nesting, both in its current condition and after the proposed development. Results are expected to yield insights about measures that can be adopted to mitigate proposed habitat alterations, and, ultimately, to enhance Bicknell's Thrush habitat on Whiteface, including in the conceptual Tree Island Pod area. More generally, a model of nest site selection relative to ski area development should help guide future planning and conservation efforts at Whiteface Mountain and throughout the Northeast. It will also help to establish a mechanism to inventory beneficial measures that are implemented to offset potentially adverse impacts associated with the other ski area development and activities.
2. Analyze movements and behavioral ecology of Bicknell's Thrush. VINS has an extensive data set on movements of adult male and female Bicknell's Thrushes in both ski area and undeveloped habitats. Using radio telemetry, VINS has recorded daily movements and locations of approximately 50 individual adults for 4-6 week periods. In 2000, VINS also monitored post-breeding movements and habitat use of adults and juveniles on Mt. Mansfield. Telemetry data will be plotted and analyzed on GIS maps of Mt. Mansfield and Stratton Mountain study areas, and related to various vegetation and terrain characteristics. Results will enable documentation of movements and home range characteristics relative to physical variables such as ski trail width, size and configuration of habitat islands, spacing and density of trails per unit area, and extent of gladed versus open trails. These results should provide valuable information about exactly how Bicknell's Thrushes use (or avoid) specific areas within ski areas. Findings from undeveloped habitats will provide a contextual baseline.

As a complement to telemetry data on movements and habitat use, videographic data on adult thrushes are available to examine behavioral attributes of birds on ski areas versus natural forest habitats. From 1998-2000 on Mt. Mansfield and 1998-2002 on Stratton Mountain, VINS videotaped all known nests during the chick-feeding stage. Because nearly all adult Bicknell's Thrushes were uniquely color-banded on each study plot, VINS has a large data set on the behavioral ecology of individual birds and nests. VINS' preliminary analysis of these data has shown that Bicknell's Thrush has a very unusual and complex mating system. Remarkably, most nests are attended by 2-4 males, and paternity is almost invariably mixed in such nests. An important and unanswered question relates to the role of habitat and landscape features in shaping this complex, variable system. VINS will analyze their videotape data to examine behavioral differences among breeding thrushes on ski area versus undeveloped habitats. This will enable documentation of factors such as nest attentiveness of females, numbers of male feeders, quantity and types of food delivered to nestlings, and reaction to auditory or visual disturbance. Results could indicate whether and how ski area fragmentation and activity influence adult behavior, and what variables may be most crucial determinants of any differences that exist. Again, findings could help mitigate proposed construction activities and suggest maintenance protocols that enhance habitat and/or minimize adverse impacts of nesting thrushes.

3. Analyze multi-year demographic data on Bicknell's Thrush. VINS has amassed an extensive data set on known-identity Bicknell's Thrushes, based on banding of adults and nestlings on Mansfield since 1995 and on Stratton since 1997. Using mark-recapture software, and incorporating data from original banding captures, within- and between-year recaptures, and resighting of color-banded individuals, VINS will construct a detailed species demographic profile. On both ski area and natural forest study plots, VINS will examine age- and sex-specific survivorship, reproductive success, site fidelity, population turnover, recruitment, and other key life history variables. Indices of individual health such as subcutaneous body fat, weight, feather wear, and mercury levels between the two habitat types will also be examined. Mark-recapture analyses will further yield statistically robust estimates of population density, which are otherwise difficult to obtain. Results will provide a powerful tool to evaluate the population viability of Bicknell's Thrushes on existing ski areas compared to nearby relatively undisturbed montane forest. Documenting habitat features that influence nest success may provide important insights into designing the Tree Island Pod project so as to minimize potentially adverse impacts and/or enhance habitat suitability for successful breeding.

Using these analyses VINS will produce a detailed final report outlining its findings. This report is scheduled to be completed in April 2004. A key element of the VINS final report will be a section that presents specific recommendations for designing and implementing the conceptual Tree Island Pod project so as to minimize potential short- and long-term impacts to Bicknell's Thrush and, to the extent feasible, develop ski trails

in a manner that actually benefits the species' habitat. Included will be guidelines for trail design and construction, the retention or creation of features that may enhance habitat or mitigate habitat loss/alteration elsewhere, the daily and seasonal timing of construction activities, post-construction habitat maintenance, opportunities for conservation education of visitors to Whiteface Mountain throughout the year, and general operational procedures. Where possible, VINS will reference specific sites within the conceptual Tree Island Pod project area, but many of the recommendations are likely to apply more generally to the entire project area rather than to discrete locations within it. If it is determined that mitigation measures can be incorporated to benefit the species' habitat, the report will develop a mechanism to inventory improved habitat as a means to both document the benefits to the species and as a means to help assess the overall impact of other aspects of ski area development and management at elevations above 2,800 feet that may adversely affect the species.

1. On-site Field Studies

In addition to preparing the report described above, VINS is developing a study protocol for Bicknell's Thrush field work that will take place on and around Whiteface Mountain. This purpose of this multi-year field study is to apply the findings of the VINS Study analysis of data collected at Vermont ski areas directly to the Whiteface area. The study will collect data on the numbers of Bicknell's thrush on and around Whiteface Mountain, their distribution in relation to existing ski trails, overall habitat preferences, etc. The field study protocol being developed by VINS will be available so that collection of field data can begin in the spring of 2004.

Data collected in the Spring of 2004 will be analyzed in the Summer of 2004. Results of on-site data analysis will be combined with the earlier findings of The VINS Study, to develop measures to avoid and mitigate potential impacts to Bicknell's thrush as a result of construction of the conceptual Tree Island Pod or any other possible future work above 2,800 feet.

2. Integrate Mitigation Measures Into UMP Amendment for the Tree Island Pod

It is the intent of the management of Whiteface to prepare a future UMP Amendment proposing the development of the Tree Island Pod that would incorporate the mitigation measures that are developed from The VINS Study and the on-site field studies. This intent is based on an assumption that The VINS Study and the field study find that ski trail development can occur without unmitigated impacts to Bicknell's Thrush.

According to the timeline in the accompanying Figure V-1, "Timeline for Additional Assessment of Bicknell's Thrush", this UMP Amendment could occur in the fall of 2004. This UMP Amendment would be subject to a separate SEQRA review, including opportunity for public comment on the proposed amendment.

3. Perform Additional Field Studies

Additional field studies would be performed in the spring of 2005, 2006, 2007, 2008 and 2009. The protocol for these studies will be included in the original study protocol developed by VINS in the spring of 2004. The purpose of these studies would be to confirm the effectiveness of the mitigation measures derived from The VINS Study and the on-site field studies. These studies would be underway before, during and after construction of the conceptual Tree Island Pod if approved through a future UMP amendment in accordance with the timeline in Figure V-1.

Comment 2 (by David H. Gibson, The Association for the Protection of the Adirondacks, letter dated September 16, 2002).

The Commentor feels that the list of small mammals in DGEIS Appendix L should include the yellow-nosed (rock) vole.

Response 2

The Appendix L provided in the August 2002 DGEIS was not a complete copy of the Wildlife Resource Description. It was copied incorrectly because it is a two-sided report. The yellow-nosed (rock) vole is included on the list. A complete copy of Appendix L is provided in this FGEIS.

Comment 3 (by Heidi Kretser, Wildlife Conservation Society, letter dated September 23, 2002)

The Commentor asks that Bicknell's Thrush be recognized in Section II and in Appendix L in the DGEIS. The Commentor asks that Whiteface management adopt some specific verbiage from "the Vermont draft" (Vermont Fish and Wildlife Department Draft Management Recommendations for Vermont Ski Areas, Bicknell's Thrush Vegetation Management Plan) regarding management of trees along ski trails and on islands. This draft was an attachment at the end of the letter that was submitted.

The Commentor supports the proposal within the 2002 UMP to work on trail construction which requires clear-cutting at and above 3,000 feet above mean sea level after August 1st

in order to protect young birds. The Commentor asks that Whiteface also propose to construct the Little Whiteface Lodge and the Tree Island Pod, and to perform any trail maintenance, only after August 1st.

Response 3

Section II and Appendix L have been revised to include a more thorough recognition of the presence of Bicknell's Thrush.

See Response 1 above that describes the significant measures ORDA has implemented to avoid impacting the Bicknell's Thrush.

VINS will very likely take into consideration the measures described in the Vegetation Management text appended to the Commentor's letter when preparing The VINS Study. Also, see response to Comment 1 that details those mitigation measures committed to by Whiteface management to avoid impacts to Bicknell's Thrush.

Note that the Little Whiteface Cloudsplitter Lodge, if and when proposed, would replace the existing Ski Patrol building and would be located in the existing clearing immediately adjacent to the existing Cloudsplitter Gondola and Little Whiteface Quad (Lift G) unloading stations and would, therefore, have little likelihood of impacting any nesting sites. Very limited clearing of vegetation may be necessary in order to construct the lodge. Given the existing exposed nature of the lodge site, the presence of the existing Ski Patrol building and the two lift unloading stations, there is a lack of vegetative cover which would provide nesting habitat. Refer to Lodge Site Photographs 1, 2, 3, 4 and 5, provided in Appendix S. This topic and others will be addressed in a future UMP update that includes the Cloudsplitter Lodge on Little Whiteface. At this time, Whiteface management is not proposing to schedule construction of the Cloudsplitter Lodge during the time period covered by this UMP. That project will not be pursued until a future UMP update is proposed and an amendment is approved by the reviewing agencies.

Whiteface management will continue their ongoing cooperative efforts with the Wildlife Conservation Society and with other similar groups interested in the Bicknell's thrush on Whiteface Mountain. As noted by the Commentor, the group she represents conducts surveys for the Bicknell's Thrush on the Whiteface Mountain Ski Center property and on the Whiteface Mountain Veterans Memorial Highway property. ORDA cooperates with the Wildlife Conservation Society and other bird groups to support the on-going surveys. As noted by the Commentor, the easy access to Whiteface Mountain via the toll road, chair lifts, and ski trails, is a prime location that birders visit for a chance to hear or see Bicknell's Thrush in their natural habitat.

Whiteface management has already implemented its “Whiteface Wildlife ” interpretive program to increase awareness among users of Whiteface facilities of the values and benefits of the New York State Forest Preserve, including the State-designated Bird Conservation Area above 2,800 feet, and the wildlife at Whiteface Mountain.

Components of the Whiteface Wildlife program include providing summertime lift riders with binoculars for use when riding the gondola. Over 50,000 people took this ride in the summer of 2003. The gondola cars will also be equipped with literature and photographs to help identify wildlife, including Bicknell’s thrush, while riders make their ascent and descent. Riders will then be able to record their observations on a checklist of observed wildlife that will be available in the lodge. So far, this program focuses on summertime, but it is likely that the Whiteface Wildlife program will be expanded to include additional wintertime activities to foster appreciation of the Forest Preserve and its wildlife inhabitants at Whiteface by skiers and non-skiers alike. Appendix R contains a copy of a brochure produced by ORDA in conjunction with NYSDEC and the APA entitled “Whiteface Wildlife, Nature and Animal Guide to Whiteface Mountain”, that provides additional information on this program

Comment 4 (by John Caffry and Neil Woodworth, Adirondack Mountain Club, letter dated September 23, 2002)

The Commentors feel that the proposed management actions will destroy habitat for the Bicknell’s Thrush and could reduce the number of nesting pairs and young that are able to survive on the mountain in the future.

Similar comment in newspaper articles dated September 23, 2002 and October 10, 2002.

Response 4

See response to substantively similar Comment 1 above that describes the significant efforts being made by ORDA to avoid impacts to the Bicknell’s Thrush.

The 2004-2009 UMP identifies the potential for the presence of the Bicknell’s Thrush on the Ski Center property. Bicknell’s Thrush is not identified as an endangered or threatened species; however it is listed by the NYSDEC as a species of special concern.

The timing of vegetation management already approved in the 1996 UMP Update, but not yet completed in areas of Bicknell’s Thrush breeding habitat is important and will be delayed until after August 1st, when the majority of nesting activities are complete. Timing of cutting activities will be addressed in The VINS Study..

Also, the compatibility of gladed ski trails and tree islands with Bicknell Thrush habitat will also be addressed in the VINS study.

Comment 5 (made later by Peter Bauer, Residents Committee to Protect the Adirondacks, letter dated December 6, 2002)

The Commentor asks why the quality of the West Branch Ausable fishery is lower than might be expected as stated in the DEIS, and asks if ski operations or stocking may be responsible for the low abundance of wild fish.

Response 5

The West Branch Ausable is an extremely popular trout fishing river. Angling in the Ausable River system generates an estimated \$3.7 million in at-location expenditures annually; and in the DEC 1996 Statewide Angler Survey, the Ausable system received the highest satisfaction rating of waters in the state.

DEC staff electrofished stations upstream of the Whiteface Ski Center on the West Branch Ausable River during the week of July 21, 2003. The study was not designed to assess the impacts of Whiteface water withdrawals or compare fish population parameters above and below Whiteface. Instead, the objectives of the electrofishing survey were to evaluate the current status of the fish resources in the river and to evaluate the biological effects of the catch-and-release regulations affecting that stretch of river from the mouth of Holcomb Pond outlet downstream to the marked boundary 2.2 miles downstream of Monument Falls. The river had last been surveyed in the early 1990s prior to enacting the catch-and-release regulations. It is possible that results of the surveys in the 1990s led to the Commentor's statement that the fishery quality may be lower than expected.

Brown trout in the 2003 sample averaged substantially larger than the early 1990's. Considering yearling and larger trout, 41 percent were longer than 12 inches in 2003 compared to only 4 percent in the earlier period. The increased average size was observed in both the catch-and-release section and the areas where harvest is allowed. The largest brown trout collected was 19 inches long.

Overall, 23 percent of the yearling and older brown trout were wild, which was very similar to the 22 percent wild observed in the early 1990's. However, wild fingerling trout (young-of-the-year trout) were several times more abundant in 2003 than previously, which indicates increased natural reproduction. The increased abundance of wild

fingerlings occurred in both the catch-and-release and in the harvest allowed sections. Qualitative observations indicated that the abundance of fines (sand) in the substrate had decreased substantially since the early 1990's, which could explain the increased natural reproduction. Also, ice conditions on the river last winter were favorable for over winter survival of trout.

The overall abundance of trout longer than 12 inches, indicate a very desirable fishery resource (from Region 5 Inland Fisheries August 2003 Monthly Highlights).

E. Traffic

Comment 1 (by Douglas Wolfe, SEQRA Public Hearing dated September 12, 2002)

The Commentor feels that traffic wasn't addressed, particularly the conflict between pedestrians and vehicles.

Response 1

The Commentor is referred to Section II.D.3, "Roads and Parking," which states that bus access into the Base Lodge is a problem due to the limited maneuvering space. Bus traffic creates unsafe conditions in the existing drop-off area, especially for pedestrians.

Alternatives for bus access are being evaluated (none requiring new construction are proposed at this time) and include: designation of an area in Parking Lot #2 for buses (this would displace some private vehicles to other parking areas but would eliminate the need for buses to cross the bridge and access the existing unloading area) and/or remove parking between the Base Lodge and the NYSEF building and modify the area to increase the size and performance of the current loading area (this would displace vehicles but could triple the loading area and improve traffic flow significantly). Under this alternative, buses could access the improved loading area and then park in the proposed Parking Lot #5 or in the designated Bus Lot located south of the main access road, adjacent to Route 86.

Additional alternatives to be considered are described in Section IV.C.9, Section V.C.1, and Section VI.D, "Alternative Parking/Circulation Improvements." Creation of additional parking spaces along the access road between the Base Lodge and Easy Acres and creation of Parking Lot #5 would provide space for the displaced vehicles. A ski trail connection between Easy Acres and the Base Lodge would enable skiers to ski to the Base Lodge from the existing and proposed parking areas up in the Easy Acres vicinity.

Providing a ten-foot wide sidewalk along one or both sides of the main access road would help remove pedestrian/vehicle conflicts.

Improvements to the loading area will have minimal environmental impacts when these improvements involve conversion of existing parking areas or roads to improve circulation and limited rock removal outside of the shoreline setback. For instance, rock removal will be necessary to reconfigure the NYSEF parking area for improved circulation and loading of buses and other vehicles. The alternatives discussed in the DGEIS of construction of a second bridge over the river or of creating a bus drop-off area on the right hand side of the access road ascending between the Base Lodge and Easy Acres will need additional analysis before implementation. This alternative was examined in the DGEIS but is not being proposed.

F. Little Whiteface Cloudsplitter Lodge

Comment 1 (by Douglas Wolfe, SEQRA Public Hearing dated September 12, 2002)

The Commentor would like to see the new lodge incorporate a passive solar design, use energy efficient and water efficient fixtures, and utilize features such as orientation to the wind like the Mt. Washington observatory does.

Response 1

The Little Whiteface Cloudsplitter Lodge is not proposed for construction as part of this UMP/GEIS. Plans for this lodge are only conceptual at this time. Evaluation of this lodge will require a future amendment to this UMP with an associated SEQRA review.

Whiteface management concurs with the above building considerations. Given the location, exposure to elements, usage, durability and maintenance factors, it is envisioned that the structure will consist of cast-in-place footings and foundations with a steel structure and appropriate wood and native stone finishes for aesthetic purposes with extensive use of triple pane, low-e glass. Whiteface management anticipates building a low-maintenance, energy and water efficient structure. The structure would be oriented to take advantage of available solar energy and to prevent areas where wind would deposit excessive drifts.

Comment 2 (by Jaime Ethier, The Adirondack Council, letter dated September 23, 2002) A similar comment was made later by Peter Bauer, Residents Committee to Protect the Adirondacks, letter dated December 6, 2002

The Commentor feels that the new lodge will be a “light emitting beacon” and this will have a negative visual impact.

The Commentor asks what the source of water is for this lodge.

Response 2

Cloudsplitter Lodge Visual Assessment

The Little Whiteface Cloudsplitter Lodge is not proposed for construction as part of this UMP/GEIS. Plans for this lodge are only conceptual at this time. Evaluation of this lodge will require a future amendment to this UMP with an associated SEQRA review.

The analysis that has been conducted to date is contained in Section V, where it is stated that the lodge would not typically be lit at night because the nighttime use of this lodge is anticipated to be very limited. (The Commentor may be misinterpreting the “light-filled lodge” reference, which is meant to emphasize the use of natural light in the building.) While it is possible that the lodge could be used occasionally for special events, any use beyond the Ski Center usual closing time will utilize low level lighting for patrons. Because the lodge would not have a significant visual impact as described in Response C below, such use would not represent a significant adverse effect on visual resources. This analysis will be revisited when the lodge is actually proposed and a UMP amendment is processed relative to that action.

Cloudsplitter Lodge Water

Two alternative potential water sources for the conceptual Cloudsplitter Lodge are examined in Section IV.C.10., “Potable Water.” The first is a drilled well, the second is treated surface water. Also refer to Appendix S, “Little Whiteface Cloudsplitter Lodge.” These potential sources will be revisited when the lodge is actually proposed and a UMP amendment is processed relative to that action.

Comment 3 (by John Caffry and Neil Woodworth, Adirondack Mountain Club, letter dated September 23, 2002)

The Commentors are concerned about the potential visual impact of the lodge and want to see a complete visual impact assessment including a simulation of the proposed lodge. Sensitive receptors should be identified.

Response 3

The Little Whiteface Cloudsplitter Lodge is not proposed for construction as part of this UMP/GEIS. Plans for this lodge are only conceptual at this time. Construction of this lodge will require a future update to this UMP with an associated SEQRA review. This SEQRA review would include a complete visual impact assessment including view simulations of the lodge structure should it be determined it may be visible from sensitive receptor locations.

The potential visual impact of the lodge envisioned to replace the existing Ski Patrol building on Little Whiteface is discussed in the in Section V.A.2, as well as in the 1996 UMP. Refer to pages 289 through 293 of the 1996 UMP and to pages IV-78, Figures IV-13, IV-14, IV-15, and pages V-1 and V-2 of the 2004 UMP. Additional discussion is provided below.

The Little Whiteface Cloudsplitter Lodge is anticipated as a 13,500 square foot two-story structure. Overall building height is not anticipated to exceed 35 feet. The perspective sketches provided in Exhibits IV-14 and IV-15 show a conceptual view of the lodge. Building colors would be earth tones with matte/non-reflective finishes. Natural building materials of stone and wood would be used in the construction of the lodge. Based upon a visual assessment of the anticipated structure utilizing massing dimensions and existing facilities which are currently visible from several vantage points a visual assessment was completed. Refer to the Cloudsplitter Lodge Cross-Section, provided in Appendix S. The location of the existing Ski Patrol building and the existing unloading stations for the two lifts are identified.

The potential visibility of the Cloudsplitter Lodge can be best described from two major vantage points, those areas of visibility from the east in the vicinity of the Hamlet of Wilmington, and those areas of visibility from the west in the Lake Placid vicinity. From the east the entire Ski Center is currently visible from several areas of public use such as NY Route 86, as shown in the Exhibits II-4 through II-7. These vantage points to the east reveal the array of existing lift lines, lift towers, ASRC building and ski trails. The new lodge would not be visible, similar to the existing Ski Patrol building and the Little

Whiteface Quad lift towers and the Quad and Gondola unloading stations. If visible at all, it would appear as another element in the consolidation of structures on Little Whiteface. Note that the Cloudsplitter Gondola lift towers are relatively more visible than the other existing structures and the envisioned lodge. As shown in the Cloudsplitter Lodge Cross-Section, provided in Appendix S, the new lodge is set back from the topographic edge of the summit, unlike the Cloudsplitter Gondola lift, which must by necessity cross the edge of the summit in order to access it. See Lodge Site Photographs 1 through 5 and Cloudsplitter Gondola Towers Photographs 6 and 7, provided in Appendix S. The new lodge would be located to the west of the existing structures, away from the topographic edge.

Several existing facilities on the mountain such as the Memorial Highway and ASRC summit facilities are currently highly visible and are silhouetted against the horizon. From vantage points from the east, the ski trails are currently visible. The visibility extends for approximately 4.2 miles on NY Route 86 in the Town of Wilmington and the Town of Jay, and 0.3 miles on the Haselton Road in the Town of Wilmington. The areas east of the Hamlet of Wilmington are greater than five miles from the project site. The visual impact from vantage points to the west would be minimal, as shown in Exhibits II-4 and II-7. Areas on NY Route 73 near the North Elba Horse Show Grounds and the ski jumps, and NY Route 86 west of Lake Placid are all greater than seven miles away. At distances greater than five miles, structures and lift lines are difficult to discern. The dominant visible structures on the mountain from the west are the Memorial Highway and ASRC summit facilities on Whiteface Mountain. When interpreted with the existing facilities on the mountain from the vantage points, the replacement of the Ski Patrol building with a lodge on Little Whiteface would not result in any significant increase in visibility as compared to the visibility of the Memorial Highway and Ski Center facilities.

This analysis will be revisited when the lodge is actually proposed and a UMP amendment is processed relative to that action.

G. Surface Water Resources

Comment 1 (by Richard Roos-Collins, Natural Heritage Institute, letter dated September 25, 2002) Similar comments were made later by Peter Bauer, Residents Committee to Protect the Adirondacks, letter dated December 6, 2002

The Commentor believes that the 2002 UMP is proposing to increase the amount of water withdrawn from the West Branch of the AuSable River for the purposes of snowmaking.

Similar comment by Dan Kwasnowski, New York Rivers United, letter dated September 23, 2002, and John Caffry and Neil Woodworth, Adirondack Mountain Club, letter dated September 23, 2002.

Response 1

No new or increased water withdrawal beyond what was approved in the 1996 UMP is proposed in the 2004 UMP. Upgrades to the snowmaking system to increase Whiteface's ability to pump water within the system to various parts of the Mountain are proposed, but these upgrades do not affect snowmaking water withdrawal from the AuSable River.

The withdrawal of water from the West Branch of the AuSable River was one of the management actions approved in the 1996 UMP process. Note that the withdrawal of water from the river for snowmaking has been on-going since the 1962-1963 ski season. A Cooperative Agreement between DEC and ORDA is in place for the protection of the surface water resource of the West Branch of the AuSable River in relation to the water to be withdrawn for snowmaking operations at Whiteface. Minimum flow conditions to be maintained were decided during the preparation of the 1996 UMP. After construction of the stream flow monitoring device, river flow data was available and was used to verify the parameters for snowmaking water withdrawal established by the NYSDEC. A copy of the current Cooperative Agreement between NYSDEC and ORDA is provided in Appendix V.

Comment 2 (by Dan Kwasnowski, New York Rivers United, letter dated September 23, 2002)

The Commentor asks if there is technical data provided in the 2002 UMP/DGEIS for the proposed management actions, including the stream monitoring data.

Similar comment in newspaper articles dated September 23, 2002 and October 10, 2002.

Response 2

Refer to Comment and Response 1 above.

Also, the snowmaking system consulting engineer detailed the snowmaking water analysis in Section IV.C.7, "Snowmaking System Upgrading Plan." The analysis is used to size the possible future snowmaking reservoir, and to examine the electrical, air and water pump use at Whiteface in order to identify the most efficient and cost-effective

manner to meet snowmaking requirements. Section IV contains a discussion of water flows relative to the snowmaking water analysis.

There are several other examples of technical data collected and used in the UMP/DGEIS analysis and in the formulation of the proposed management actions, including vegetation sampling data (Appendix J) and the Whiteface Mountain Traffic Assessment (Appendix I), just to name a couple of other examples.

With regard to the existing lodge wastewater treatment systems, refer to Section II for a summary of the status of each of the four existing systems located at the Base Lodge, Mid-Station Lodge, Easy Acres and Maintenance Garage. A single current SPDES permit from the NYSDEC is in place for the Base Lodge, Mid-Station Lodge and Easy Acres. Details on the systems and their recent upgrades are provided. Refer to Exhibits II-19, II-20 and II-21. The total flow into the Maintenance Garage system is so low (less than 1,000 gallons per day) that a permit is not required. No violations of the permit have been reported by NYSDEC. As such, the existing systems are adequately treating the permitted daily flow rates of each facility. Upgrades required for expansion of the Easy Acres lodge are identified in Section IV. Also, refer to Exhibits IV-13 and IV-14. A management action proposed in Section IV of the UMP is the flow monitoring of the Base Lodge and Mid-Station Lodge wastewater treatment systems in order to determine their current loading volumes. For the Mid-Station Lodge an elapsed time meter for the present pumping units is recommended in the DGEIS to determine loading volume to the present system. After additional consultation between ORDA and NYSDEC it was agreed that metering the water flow into the building is preferred as the method to confirm loading volume to the present system.

With regard to the envisioned wastewater system for the Little Whiteface Cloudsplitter Lodge, refer to Section IV, as well as Exhibit IV-15, "Wastewater Disposal Cloudsplitter Lodge." Also refer to FGEIS Appendix S for soil test information for a potential wastewater treatment system location for the new lodge.

Comment 3 (by Dan Kwasnowski, New York Rivers United, letter dated September 23, 2002)

The Commentor believes that because the MOU between the DEC and ORDA is not provided in the DGEIS, that the MOU does not exist.

Response 3

A copy of the Cooperative Agreement between NYSDEC and ORDA, specifically written for the purpose of protecting the surface water resource of the West Branch of the AuSable River, is provided in Appendix V of this document.

Comment 4 (by Dan Kwasnowski, New York Rivers United, letter dated September 23, 2002)

The Commentor is concerned that the snowmaking reservoir proposed in the 2002 UMP was not included in the 1996 UMP.

The Commentor notes that a dam safety permit will be needed.

Response 4

Like the Cloudsplitter Lodge on Little Whiteface and the Tree Island Pod, the proposed snowmaking reservoir is not proposed for construction as part of this UMP/GEIS. Plans for the reservoir are only conceptual at this time. Construction of the reservoir will first require a future update to this UMP, an associated SEQRA review, and necessary permitting from regulatory agencies such as NYSDEC (dam safety) and the US Army Corps of Engineers (waters of the United States, including wetlands), and potentially the APA (NYS freshwater wetlands).

The concept of constructing a water storage pond was discussed briefly in the 1996 UMP, in Section IV.C.5, "Snowmaking System Upgrading Plan." The 1996 FGEIS also provided responses to comments received about the water storage reservoir. Refer to 1996 FGEIS Section 1.0, C. The 2004 UMP is consistent with the 1996 UMP because it complements the earlier plan, and builds on the 1996 actions. Note for the record that management actions proposed in the 2004 UMP are not required to be included in an earlier UMP.

Refer to Section V.B.1, where it is stated that when the specific location of the reservoir has been determined, further field work and mapping will occur. The text notes the potential need to obtain several permits, among these is listed the possible jurisdiction of regulations governing creation of impoundments.

Comment 5 (by John Caffry and Neil Woodworth, Adirondack Mountain Club, letter dated September 23, 2002)

The Commentors ask that ORDA consider the alternative of constructing a storage reservoir large enough to supply all of its snowmaking needs, and not just to meet peak demand. The reservoir could capture runoff on the mountain and potentially reduce or eliminate the need to withdraw water from the river.

The Commentors feel that the snowmaking analysis should also consider differences in water use and conservation among the various types.

Response 5

Like the Cloudsplitter Lodge on Little Whiteface and the Tree Island Pod, the proposed snowmaking reservoir is not proposed for construction as part of this UMP/GEIS. Plans for the reservoir are only conceptual at this time. Construction of the reservoir will first require a future update to this UMP, an associated SEQRA review, and necessary permitting from regulatory agencies such as NYSDEC and the US Army Corps of Engineers.

The Snowmaking Water Analysis provided in the in Section IV states that a reservoir with a capacity of 5 to 8 million gallons will be necessary at build-out to fully provide water for snowmaking during a dry year. This storage will provide the snowmaking system with water for 14 to 22 hours of continuous snowmaking at full pumping capacity without recharge. The recommended storage will also balance the conditions encountered during frazil ice (slush ice) production and low water flows.

Comment 6 (by Kevin Prickett, The Association for the Protection of the Adirondacks, letter dated September 23, 2002)

The Commentor asks for more detail on the proposed snowmaking reservoir.

Response 6

Like the Cloudsplitter Lodge on Little Whiteface and the Tree Island Pod, the proposed snowmaking reservoir is not proposed for construction as part of this UMP/GEIS. Plans for the reservoir are only conceptual at this time. Construction of the reservoir will first require a future update to this UMP, an associated SEQRA review, and necessary permitting from regulatory agencies such as NYSDEC and the US Army Corps of Engineers.

Refer to Responses 4 and 5 above. In the event that approval of a reservoir is sought, more detailed plans will be prepared.

Comment 7 (by Kevin Prickett, The Association for the Protection of the Adirondacks, letter dated September 23, 2002)

The Commentor asks for more detail on the new feed line from the river to pump house #1 discussed on page IV-48 of the August 2002 draft UMP.

Response 7

The feed line specified by the Commentor is part of a discussion of alternative ways to allow Whiteface to withdraw the 6,000 gpm from the river, as permitted. This discussion is conceptual at this point; no further detail is available. No permit for this feed line is being requested at this time.

Comment 8 (made later by Peter Bauer, Residents' Committee to Protect the Adirondacks, letter dated December 6, 2002)

The Commentor encourages ORDA to undertake a water quality analysis on the West Branch Ausable River to assess potential impacts from run-off and sedimentation from construction of new ski slopes as well as those from construction and operation of new parking lots.

Response 8

Compliance with the Draft Construction Pollution Prevention Plan (CPPP) prepared in accordance with DEC's State Pollution Discharge Elimination System general permit for storm water discharges from construction activities alleviates the need for such a study. A copy of the Draft CPPP is contained in Appendix U. A copy of the CPPP prepared specifically for Parking Lot 5 is contained in Appendix P.

H. Miscellaneous

Comment 1 (by Douglas Wolfe, SEQRA Public Hearing dated September 12, 2002)
A similar comment was made later by Peter Bauer, Residents Committee to Protect the Adirondacks, letter dated December 6, 2002

The Commentor feels that public awareness of the educational aspect of the mountain should be one of the management objectives.

Response 1

During the time when this UMP was being prepared, Whiteface management has already implemented its "Whiteface Wildlife " interpretive program to increase awareness among users of Whiteface facilities of the values and benefits of the New York State Forest Preserve, including the State-designated Bird Conservation Area above 2,800 feet, and of the wildlife at Whiteface Mountain. Components of the Whiteface Wildlife program include providing summertime lift riders with binoculars for use when riding the gondola. The gondola cars will also be equipped with literature and photographs to help identify wildlife, including Bicknell's thrush, while riders make their ascent and descent. Riders will then be able to record their observations on a checklist of observed wildlife that will be available in the lodge. So far, this program focuses on summertime, but it is likely that the Wildlife at Whiteface program will be expanded to include additional wintertime activities to foster appreciation of the Forest Preserve and the wildlife at Whiteface by skiers and non-skiers alike. A brochure describing this program is included in Appendix R of this FGEIS.

ORDA also intends to take the opportunity to provide interpretive signage and displays to its patrons, as part of the adoption of the NSAA Sustainable Slopes Charter. Refer to FGEIS Appendix T. Also, the use of educational displays for the public was identified in the 1996 UMP and this action will be continued in the 2004 UMP. One of the important aspects of the Ski Center is the connection to the area via existing hiking trails. There are hiking trails from Whiteface Landing and Connery Pond from the west, through McKenzie Mountain Wild Forest, to the summit of Whiteface Mountain, and from the base of the former Marble Mountain Ski Center through the Wilmington Wild Forest from the east.

Comment 2 (by Douglas Wolfe, SEQRA Public Hearing dated September 12, 2002)

The Commentor feels that all facilities should be handicap accessible.

Response 2

The comment is noted. Whiteface staff concur, and note that the goal is to make all Whiteface facilities handicap accessible.

Comment 3 (by Jaime Ethier, The Adirondack Council, letter dated September 23, 2002)

The Commentor feels that the periodic UMP's completed for Whiteface "may well constitute segmentation of a larger project." The Commentor says the 2002 UMP "should disclose the full set of development proposals envisioned for the Whiteface Mountain site over the long term" The Commentor says that the DGEIS lacks discussion of the environmental impacts, mitigation measures and alternatives of and to the project.

Response 3

The project has not been segmented since the known or likely programs and construction projects have been disclosed in the UMP/GEIS. Therefore, SEQRA has not been avoided by dividing the UMP into smaller segments not subject to SEQRA. Further, the UMP/GEIS recognizes that further management actions will be subject to either a UMP update or a site specific EIS as may be required to adequately evaluate the potential environmental impacts. Critical to the success of an EIS is the availability of adequate factual information, plans, and reports in order to make as full as possible an evaluation of impacts. At this time that level of documentation is not available for substantive discussion of the Cloudsplitter Lodge, the snowmaking reservoir or the Tree Island pod, therefore, future analyses of these currently conceptual actions will be required. Refer to GEIS Section V for the discussion of the potential environmental impacts and mitigation measures and alternatives.

Comment 4 (by John Caffry and Neil Woodworth, Adirondack Mountain Club, letter dated September 23, 2002)

The Commentors ask about the "Slides Extreme Skiing Area" shown in Figure IV-1 and mentioned briefly on page iv of the Executive Summary. They ask how skiers will access this area, how many skiers in this area are anticipated, and if an assessment of potential impacts to alpine vegetation or krummholz vegetation has been completed.

Response 4

The “Slides” can be accessed via Lift F, the Summit Quad. The area is not groomed nor is snowmaking provided. As shown in Exhibit II-8, the alpine krummholz vegetation is located at elevations that are higher than the “Slides.” Therefore, there is no impact on this vegetation from skiers at the “Slides.” Note that the Slides are only open when ski conditions are absolutely perfect. The Slides are open about 7 to 12 days per season, depending on snow conditions. Similar to other trails, the entrance to the Slides is roped off when the Slides are closed. On the occasions when the Slides are open, the ski patrol sweep the trails (i.e., the patrol is the last to ski down the trail to make sure that there are no skiers left on the trail) prior to closing for the day.

Comment 5 (by Kevin Prickett, The Association for the Protection of the Adirondacks, letter dated September 23, 2002)

The UMP should describe the Porcupine Lodge structure.

Response 5

The Porcupine Lodge structure was built in 1933± and is not utilized currently. This lodge is not shown on the Whiteface ski trail map, the lodge is closed and in need of repair. No skier services are available here. Nothing is proposed here at this time. Any potential future actions relating to the Porcupine Lodge would be the subject of a future UMP update and SEQRA review.

Comment 6 (by Kevin Prickett, The Association for the Protection of the Adirondacks, letter dated September 23, 2002) . A similar comment was made later by Peter Bauer, Residents Committee to Protect the Adirondacks, letter dated December 6, 2002

The Commentor is concerned with the justification stated in the UMP for the Cloudsplitter Lodge and the Tree Island Pod. One cannot compare Whiteface, located in the constitutionally protected “forever wild” forest preserve, to competitive resorts such as Killington, Mont Tremblant, and big resorts in Colorado and Utah.

Response 6

This UMP represents the continuation of a planning process for Whiteface that takes into account the Adirondack Park State Land Master Plan and Article XIV of the NYS Constitution. Whiteface is very unique because it is a designated Intensive Use Area

within the Forest Preserve. As an Intensive Use Area, Whiteface's basic management guidelines include providing facilities for intensive forms of outdoor recreation by the public. At the same time, Whiteface is still required to blend with the Adirondack environment and have minimum adverse impacts on surrounding State lands

The 1996 UMP contained a discussion of the eventual construction of a lodge at the top of Little Whiteface in conjunction with the operation of the new gondola. The 2004 UMP update also discusses the Cloudsplitter Lodge, but the design for the lodge is only conceptual at this time and construction of the lodge is not proposed as part of this UMP. The new gondola has been constructed and has been well received by the patrons of Whiteface. It is logical to locate a lodge near the gondola unloading station in order to provide a pleasant, protective accommodation where skiers and snowboarders can get out of the wind, warm up and enjoy a meal, thus relieving some use at the Base Lodge.

The goal of planning for a ski center is to balance all of the components of the facility (including parking, ski terrain type and amount, lift capacity, lodge capacity and sewer and water services) in order to have a well run ski center that is easily accessed, that is utilized by its patrons comfortably and safely, and is able to be managed and maintained efficiently and cost-effectively. Most importantly at Whiteface these considerations must be developed with great sensitivity for the Forest Preserve. Planning for Whiteface will be consistent with the Adirondack Park State Land Master Plan and Article XIV of the NYS Constitution. As stated earlier in this document, a careful approach to enhancements at Whiteface will provide continued opportunity for the public to enjoy a unique experience, gain an appreciation for sensitive development, and expose large numbers of people to the special lands that comprise the Forest Preserve.

The background planning analysis for each component of the ski center, which is located in a designated Intensive Use Area, is described in detail in the Section IV.C., "Proposed Ski Center Upgrading Plan." With specific regard to the Little Whiteface Cloudsplitter Lodge, also Section IV.C. The 2002 UMP text specifically related to the Tree Island Pod is provided in Section IV.C.2.

Additional detail pertaining to the proposed Little Whiteface Cloudsplitter Lodge envisioned to be located immediately adjacent to the existing Cloudsplitter Gondola and Little Whiteface Quad (Lift G) unloading stations, is provided in Appendix S of this FGEIS. The existing Ski Patrol building on Little Whiteface would be removed. Construction of the Cloudsplitter Lodge will be the subject of a future UMP update and SEQRA review.

In order to remain competitive in the ski industry, and even to maintain its existing level of patronage, Whiteface needs to not only maintain current levels of service and product offerings, but also needs to invest in improvements on a level that corresponds with competing ski areas. Section IV.B., “Justification for Proposed Upgrading of Whiteface,” provides a more detailed discussion of this topic.

The long term goal is to improve the skier experience. Whiteface is unique in the northeast as the former site of two Olympics. The available terrain has challenged the best skiers in the world, and modifications since 1980 have made the mountain skiable for the recreational skier. Recent improvements to lifts, including the installation of the gondola, improve the capacity of the mountain while simultaneously improving the skier experience. These types of upgrades have been and will continue to be the focus of mountainside improvements.

Comment 7 (by Dan Kwasnowski, New York Rivers United, letter dated September 23, 2002)

The Commentor says that he did not receive a copy of the UMP/DGEIS in time to review the document.

Response 7

All required SEQRA timeframes, public comment period requirements, and public noticing procedures detailed in 6NYCRR Part 617 have been very carefully followed. Copies of the document were made available for public review at nine locations around New York State. The Commentor’s request for a personal copy of the document was received on September 19, 2002.

Comment 8 (made later by Peter Bauer, Residents Committee to Protect the Adirondacks, letter dated December 6, 2002)

The Commentor asks for more information about wetlands impacts from submergence, fill or other disturbances.

Response 8

As a GEIS, this document takes a hard look at all of the projects and activities contemplated by this GEIS. However, as individual actions are implemented, if permits or approvals are required, additional environmental review will occur to determine if any environmental impacts exist that have not been evaluated in this GEIS. A separate determination under SEQRA will be made for each such project or activity that requires a

permit or approval. In this matter any impacts to wetlands will be mitigated through consultation with APA staff.

XII. ERRATA

A. Corrections

This section summarizes the corrections made to the DGEIS and additional information provided in the FGEIS.

1. Executive Summary

Page i should read: “Generally, no additional SEQRA analyses are anticipated to be required for proposed new actions in this UMP, provided that such actions are carried out in accordance with the recommendations of this document. As a GEIS, the document takes a hard look at all of the projects and activities contemplated by this GEIS. However, as individual actions are implemented, if permits or approvals are required, additional environmental review will occur to determine if any environmental impacts exist that have not been evaluated in this GEIS. A separate determination under SEQRA will be made for each such project or activity that requires a permit or approval.”

Page ii should read: “In addition to providing specific information on the proposed actions in this UMP, the UMP also discusses and provides information regarding actions that are being contemplated, but are not proposed at this time. These actions are considered “conceptual actions” for the purpose of this UMP. Conceptual actions will require separate SEQRA analyses as part of a UMP amendment or a UMP update. The purpose of including conceptual actions in this UMP is to provide insight into longer range planning and vision for Whiteface and to get preliminary public input which will assure adequate assessment if and when they are eventually proposed.”

Page v of the DGEIS Executive Summary stated (incorrectly) that the proposed improvements will bring the total mileage of ski trails at Whiteface to 24.51 miles. The figure of 24.45 miles provided on DGEIS page I-10 and Table IV-2 was the correct figure. Page v of the DGEIS Executive Summary should have read 24.45 miles and not 24.51 miles. Because the status of the Tree Island Pod and other trails have been changed from proposed actions to conceptual actions, these trails including the Tree Island Pod, totaling 4.43 miles, are no longer proposed and the total mileage of ski trails will be amended to be 20.02 miles.

DGEIS page v of the Executive Summary should read “The above improvements will increase the amount of downhill ski trails on the mountain from approximately 18.06

miles of alpine ski trails to 20.02 miles, or a 1.96 mile increase (below the 25 miles as authorized by the New York State Constitution)."

DGEIS page viii should read: "...and sports-oriented destination resort."

2. Section 1

DGEIS page I-9 should read: "These areas provide...day use facilities for a significant number of visitors to the Park and often function as a base for use of wild forest, wilderness, primitive and canoe areas."

DGEIS page I-10 should read: "Under this plan, ski trail miles will be increased to 20.02 miles."

3. Section 2

DGEIS page II-2 should read: "Immediate mulching and seeding of exposed soil will therefore be necessary during the development of these areas as will implementation of other best management practices to control erosion, prevent sedimentation and control runoff. "

DGEIS page II-19 should be revised to state that Whiteface Mountain Ski Area (the Intensive Use Area) consists of 2,910 acres, and that approximately 7 % or 211.4 acres of this has been developed as the ski center proper.

DGEIS page II-25 should state "Included in Appendix L is a description of wildlife habitat types and additional information regarding the wildlife at Whiteface."

4. Section 4

DGEIS page IV-6 should read: "In addition, all of the aerial lifts should be equipped with restraining bars and all but the shortest lifts should also be equipped with foot rests."

DGEIS page IV-11 should read: "It is recommended that all of the new trail acreage be shaped to a fall line configuration and that it be graded to a smooth surface."

DGEIS page IV-12 should read: "...and the use of lime, fertilizer, suitable native seed mixture, and straw mulch to aid in the control of erosion."

DGEIS page IV-49 should read: *revised discussion of frazil ice.*

5. Section 5

Section V.C.1 will be amended to clarify that, with the exception of Parking Lot #5, other transportation mitigation measures are only conceptual at this time and that no new construction for transportation improvements are being proposed.

6. Appendices

DGEIS Appendix L needs to be reproduced correctly in order to show the complete list. A complete copy of Appendix L, reproduced from the 1996 UMP, is attached included in this FGEIS.

B. Additions

This section summarizes additional information contained in the FEIS.

1. Executive Summary

Page ii will include the following additional language, “The snowmaking reservoir, Cloudsplitter Lodge and the Tree Island pod are discussed in this GEIS because they are future actions being contemplated by ORDA, but are only conceptual in their design at this time. These actions are not proposed for SEQRA approval at this time, but will be addressed in more detail in future UMP updates which will require similar future compliance with SEQRA.”

Table 1: Proposed Actions of the UMP will be added to the Executive Summary.

The Executive Summary under the heading “Vegetation” will clarify and quantify the very limited area of disturbance proposed for the Spruce-fir vegetation community (99%+ to remain undisturbed).

The Executive Summary under the heading “Water and Wetlands” will provide additional information regarding no new proposed snowmaking water withdrawals, the use of bridges as alternatives to culverts, maintaining vegetated buffers along streams, and monitoring wastewater loading at the Mid-Station Lodge.

use of bridges as alternatives to culverts, maintaining vegetated buffers along streams, and monitoring wastewater loading at the Mid-Station Lodge.

The Executive Summary under the heading “Soils” will provide additional information relating to the draft Construction Pollution Prevention Plan, including best management practices and construction inspections.

The Executive Summary under the heading “Visual Resources” will provide additional information regarding the lack of visual impacts on nearby State hiking trails.

The Executive Summary under the heading “Fish and Wildlife” will provide additional information regarding mitigating potential impacts to Bicknell’s thrush.

2. Section 1

DGEIS Section I-9 should include a footnote following “Two types of intensive use areas are defined by this plan: campground and day use areas. The footnote should read: “Whiteface Mountain Ski Area is a day use area.”

3. Section 2

Starting on page II-9 additional information is provided describing the visibility of the ski area from hiking trails on Forest Preserve lands within five miles of Whiteface Mountain.

DGEIS page II-22 includes additional information describing how the limits of the krummholz community was mapped using previous mapping, information from the New York Natural Heritage Program, aerial photograph interpretation and field inspections.

On page II-24 of the DGEIS Bicknell’s thrush has been added to the northern raven and the Cooper’s Hawk as special concern species that are probable breeders in the area that includes Whiteface Mountain.

4. Section 4

DGEIS Section IV.A.2 should include the following information about the preliminary visual impact assessment that was performed for the conceptual Tree Island Pod.

The potential visual impact of the conceptual Tree Island Pod was also preliminarily evaluated as part of this FGEIS. Appendix W contains three Exhibits that are updated

versions of UMP/DGEIS Exhibits II-5, II-6, and II-7. The original DGEIS Exhibits illustrated views of Whiteface Mountain from various locations in the vicinity of the mountain. In Appendix W the original Exhibits have been annotated and for each photograph it is noted whether or not the conceptual Tree Island Pod would be visible from each location (see new Exhibits V-1, V-2 and V-3 in Appendix W of this FGEIS). These Exhibits contain nine views of Whiteface Mountain. The ski trails in the conceptual Tree Island Pod will not be visible from six of the nine locations. For the three photographs where a view of the ski trails would be possible, the approximate location of the conceptual Tree Island Pod has been indicated on the photograph. For all three views, the conceptual new trails would be visible adjacent to the existing ski trails and would not result in a significant visual impact.

In addition to the new information provided in the revised graphics discussed above, more detailed preliminary visibility assessments were performed for the surrounding area. Using USGS topography a digital elevation model (DEM) was constructed using the conceptual Tree Island Pod as the target location. The USGS Land Cover Classification was then overlain on the topography to account for vegetation (forest cover) view attenuation affects. A conservative tree height of 40 feet was assumed for areas of forest cover throughout the study area. The DEM confirmed the local limits of visibility determined previously from the windshield survey conducted from local roadways and other public places. Within five miles, views into the site are generally limited to the Fox Farm/Hardy Kilburn Road area and along NY Route 86 in the immediate vicinity of the ski area. These areas already have views of the existing trail system.

Based on the limits of visibility mapping produced with the DEM and land cover classification, and assuming a driving speed of 45 MPH, the duration of views are estimated to be relatively short and include existing features already on Whiteface Mountain. On Hardy Kilburn Road the view is to the west when traveling southwest and the view duration is approximately 85 seconds. When traveling west on Fox Farm Road views are somewhat more in line with the travel direction, which is to the northwest. The view duration is approximately 160 seconds and the direction of the view is approximately 30 degrees to the west of the direction of travel. Views from Route 86 are nearly perpendicular to the direction of travel and the durations for the views traveling northeast and southwest are approximately 40 seconds and 60 seconds respectively. All of the aforementioned views will also include existing ski trails and most of the duration of the views will also include the Slides area and/or the observatory on top of Whiteface Mountain. Examples of the landscape positioning and approximate extent were

illustrated in the figures referenced in the previous paragraph (exhibits V-1, V-2, and V-3 in Appendix W).

Additionally, potential views of the conceptual Tree Island Pod ski trails were evaluated for nearby hiking trails in the Forest Preserve. The digital elevation model constructed for the area within five miles of the new proposed ski trails included a viewshed analysis for hiking trails. The viewshed analysis demonstrated that potential views into the conceptual Tree Island Pod from the trails around Owen Pond, Copperas Pond and Winch Pond would be blocked by topography.

The DEM viewshed analysis described above indicated that potential views into conceptual Tree Island Pod be could possible from the area around Lookout Mountain to the north. Lookout Mountain is within the same Intensive Use Area that contains the Ski Center. Field work was conducted in this area to investigate potential views. Views from the summit of Lookout include the Memorial Highway, the observatory, the upper portion of the Slides area, and the uppermost reaches of the existing ski trails. Views into the location of the proposed conceptual Tree Island Pod are mostly blocked by vegetation and intervening topography, a southeast sweeping ridgeline that obscures the potential view to the conceptual ski trails. (See Exhibit V-4 in Appendix W). Based on topographic cross sections between the Summit of Lookout Mountain and the conceptual Tree Island Pod, it is estimated that, at most the upper 1/6th of the new pod might be visible in a view that currently contains the other features listed above, including existing ski trails on Whiteface Mountain.

Views towards the mountain are also available from the Wilmington trail east of the summit of Lookout Mountain before the trail drops down a steep slope on the way to Marble Mountain (See Exhibits V-5 and V-6 in Appendix W). However, due to intervening topography and vegetation, the conceptual Tree Island Pod would not be visible from these locations.

Views into the conceptual Tree Island Pod would be possible from the summit of Whiteface Mountain itself. This view also encompasses the existing ski trails on the mountain in this Intensive Use Area.

DGEIS page IV-66. The discussion about the Little Whiteface Cloudsplitter Lodge should begin: "The Little Whiteface Cloudsplitter Lodge is not proposed for construction as part of this UMP/GEIS. Plans for this lodge are only conceptual at this time. Construction of this lodge will require a future update to this UMP with an associated SEQRA review."

DGEIS page IV-82 should include: “These alternatives are not proposed for construction as part of this UMP/GEIS. Construction of any one of the alternatives will require a future update to this UMP with an associated SEQRA review.”

DGEIS page IV-85 – The discussion of the Cloudsplitter Gondola should begin: “The Little Whiteface Cloudsplitter Lodge is not proposed for construction as part of this UMP/GEIS. Plans for this lodge are only conceptual at this time. Construction of this lodge will require a future update to this UMP with an associated SEQRA review.”

In Section IV.C.8.a additional language is provided describing the proposed improvements to the existing Alpine Training Center (New York Ski Education Foundation (NYSEF) building).

In Section IV.C.10.a additional language is provided describing the potable water needs of the existing Alpine Training Center (NYSEF building).

In Section IV.C.11.a additional language is provided describing the sanitary wastewater needs of the existing Alpine Training Center (NYSEF building).

In Section IV.D.1.d additional language is provided describing the priorities phasing of the proposed improvements to the existing Alpine Training Center (NYSEF building).

In Section IV, Exhibit IV-1 (Proposed Ski Center) has been modified to include the proposed improvements of the existing Alpine Training Center (NYSEF building).

In Section IV, Exhibit IV-5 (Base Area Site Plan) has been modified to include the proposed improvements of the existing Alpine Training Center (NYSEF building).

In Section IV, Exhibit IV-9 (NYSEF Building; First Floor Plan) has been modified to include the proposed improvements of the existing Alpine Training Center (NYSEF building).

In Section IV, Exhibit IV-10 (NYSEF Building; Main Level Floor Plan) has been modified to include the proposed improvements of the existing Alpine Training Center (NYSEF building).

In Section IV, Exhibit IV-11 (NYSEF Building; Upper Level Floor Plan) has been modified to include the proposed improvements of the existing Alpine Training Center (NYSEF building).

In Section IV, Exhibit IV-12 (NYSEF Building; Proposed Elevation) has been modified to include the proposed improvements of the existing Alpine Training Center (NYSEF building).

In Section IV, Exhibit IV-16 (Potable Water Supply System: Base Lodge, Easy Acres, Maintenance Building) has been modified to include the proposed improvements of the existing Alpine Training Center (NYSEF building).

In Section IV, Exhibit IV-17 (Wastewater Disposal: Base Lodge and NYSEF Building) has been modified to include the proposed improvements of the existing Alpine Training Center (NYSEF building).

In Section IV, Exhibit IV-20 (Drainage System: Base Lodge) has been modified to include the proposed improvements of the existing Alpine Training Center (NYSEF building).

5. Section 5

In Section V.A.1 (pages V-2 through V-4) additional information is provided regarding proposed erosion control measures, including best management practices such as water bars, silt fences, seeding and mulching as well as erosion control inspection procedures.

In Section V.B additional information is provided regarding measures proposed to mitigate potential operational phase stormwater impacts from Parking Lot #5 and Tree Island Pod.

In Section V (pages V-8 and V-9) additional information is provided describing how once construction is complete, the new activities proposed as part of the UMP will conform with NYSDEC's stormwater management design requirements.

Three Exhibits have been added to Section V, Exhibits V-1 through V-3. These exhibits use the Viewshed photos in Exhibits II-5 through II-7 as the base information.

Additional information is provided for each photo that includes if the new Tree Island Pod would be visible from the vantage point in the photo, and if the Tree Island Pod will be visible in a particular photo, then the location and approximate extent is illustrated on the photo.

Three additional exhibits have been added to Section V, Exhibits V-4 through V-6. These exhibits illustrate how the proposed Tree Island Pod will not be visible from the section of the Wilmington Trail on and around the summit of Lookout Mountain.

Section V.A.2 will contain additional language regarding the visibility (or lack thereof) of the proposed Tree Island Pod and Parking Lot #5 from State hiking trails and roadways.

Appendix O, Sketch plans FPB-1 and MS-1, showing the Fox Pole Barn Relocation and the Maintenance Area Expansion, has been added.

Appendix P, Stormwater Management Report Whiteface Mountain Parking Lot #5, has been added.

Appendix Q, VINS Study Work Scope, has been added.

Appendix R, Whiteface Wildlife Brochure, has been added.

Appendix S, Little Whiteface Cloudsplitter Lodge, has been added.

Appendix T, Sustainable Slopes Charter, has been added.

Appendix U, Draft Construction Stormwater Pollution Prevention Plan has been added.

Appendix V, Snowmaking Withdrawal Cooperative Agreement, contains a copy of the current agreement between NYSDEC and ORDA for snowmaking water withdrawals from the West Branch AuSable River.

Appendix W, Visual Impact Assessment Figures, containing additional visual assessment information for the Tree Island Pod has been added.

Appendix X, Ammonium Nitrate MSDS, has been added.

Appendix Z, NYSEF Building EAF, has been added.

Appendix AA, Comment Letters, containing comments received on the DGEIS has been added.