SKÍÐASVÆÐI
ÍSAFJARÐARBÆJAR

Master Plan Mountain Specifications

September 2020

appendix

1.0 Design Criteria

The upgrading and expansion of a ski area is influenced by a variety of facility design criteria that contribute to a quality ski experience.

1.1 TRAIL SYSTEM

Each trail must have a relatively consistent grade corresponding with the identified ability level to provide an interesting and challenging ski experience. Optimum trail widths vary depending upon the specific topography and the identified ability level of the trail. The trail network must minimize cross-traffic and provide ski terrain for every ability level consistent with market demand. Trails must be designed and constructed to minimize non-fall-line alignments, bottlenecks and convergence zones, which can produce skier congestion.

1.2 LIFT DESIGN

Ski lifts should be carefully located to serve the available terrain in the most efficient manner, while also considering many other factors such as wind conditions, round-trip skiing, access needs, skier connectivity between other lifts and trails, and the need for circulatory space at the lower and upper lift terminals. Additionally, it is important to note that the vertical rise and length of ski lifts are the primary measures of overall attractiveness and marketability of any ski area.

1.3 CAPACITY ANALYSIS AND DESIGN

Comfortable Carrying Capacity (CCC) is defined as the optimal level of utilization for a ski area (the number of visitors that can be accommodated at any given time), which guarantees a pleasant recreational experience and at the same time preserves the quality of the environment. The accurate estimation of a mountain's CCC is a complex calculation and is the single most important planning criterion for any ski area. CCC is calculated based on a balancing of the uphill hourly capacity of the lift system with the downhill capacity of the trail system and considers the typical amount of vertical terrain desired by skiers of varying ability levels. With accurate estimation of a mountain's CCC, all other ski area facilities can be planned around that figure, including base lodge seating, mountain restaurant requirements, sanitary facilities, parking, and other services.

1.4 BALANCE OF FACILITIES AND LIMITING FACTORS

The mountain master planning process emphasizes the importance of balancing recreational facility development. The quantity of skier services must correspond with the mountain's CCC. The limiting factor for a ski area's plan can be trail capacity, lift capacity, support facility capacity, and parking capacity. The true capacity of the overall ski area is determined by the most restrictive of these limiting factors.

The future development of a ski area should be designed and coordinated to maintain a balance between skier demand, lift and trail capacity, and supporting equipment and facilities (e.g., grooming machines, day lodge services and facilities, utility infrastructure, access, and parking).

2.0 Existing Ski Resort Facilities

The overall balance of the existing ski area is evaluated by calculating the skier capacities of Ísafjörður's existing facilities, and then comparing them to the ski area's CCC. This examination of existing facilities helps to identify the ski resort's strengths and weaknesses, surpluses, and deficiencies. The next step is to identify improvements that would help bring the existing ski area into better equilibrium and help the resort meet the ever-changing needs of their skier marketplace.

2.1 LIFTS

Three T-Bar surface lifts serve the existing terrain at Ísafjörður. While T-Bars have many benefits (e.g., better performance in windy condition; easier to evacuate), there are several drawbacks to them:

- Surface lifts are difficult to ride and can be tiring and/or uncomfortable. Ísafjörður's surface lifts are a contributing factor to the resort's low utilization rates—many skiers simply don't want to ride surface lifts.
- Surface lifts often delay or prevent the resort from opening, due to:
  - » Insufficient snow on the track beneath the lift;
  - » Time and effort required to clear out and groom the track before opening; and
  - » Periodic closures during the day for track grooming and maintenance.
- In short, the surface lift user experience is substandard, and they are operationally inefficient.

One of the most significant challenges facing skiers at Ísafjörður is that all skiers must ride the Sandfell lift to access the Midfell lift. The Sandfell lift is difficult to ride because it is very steep and narrow, and because the snow quality is often inadequate along the uphill track of the lift (as discussed above). Since most of the novice and intermediate ability level terrain is accessed by the Midfell lift, this circumstance presents an operational challenge.

Another problem is that snowfall below the 200-meter elevation line is unpredictable and limited. In warmer years, there is often no snow below this elevation. Since the base lodge and the bottom terminal of the Sandfell lift are below this elevation, access to much of the mountain is frequently impeded. Further, as surface lifts require sufficient snow cover to operate, the entire mountain's ski operation is dependent on sufficient snow cover at the lower elevations.

See Table 1 for specifications of the existing lifts.

TABLE 1. LIFT SPECIFICATIONS - EXISTING CONDITIONS

Lift Name	Top Elevation (m)	Bottom Elevation (m)	Vertical Rise (m)	Slope Length (m)	Average Grade (%)	Actual Capacity (pph)	Rope Speed (m/sec)	Carrier Spacing (m)
Midfell	480	269	212	960	23%	700	2.5	12.86
Sandfell	404	146	258	910	30%	700	2.5	12.86
Barnalyftan	160	117	43	354	12%	700	2.5	12.86

Top Elevation	The elevation of the lift's top terminal.
Bottom Elevation	The elevation of the lift's bottom terminal.
Vertical Rise	The difference in elevation between the top and bottom terminals.
Plan Length	The length of the lift from top terminal to bottom terminal, as measured on the mapping (i.e., a two-dimensional measurement).
Slope Length	The length of the lift, from top terminal to bottom terminal, as measured on the ground (i.e., a three-dimensional measurement).
Slope Area	The total hectares of terrain within a trail boundary. This may be determined by Geographic Information Systems (GIS) measurement, or by a calculation utilizing the slope length and average width.
Average Grade	The average slope gradient (in percent) of the terrain under the lift, from top terminal to bottom terminal.
Hourly Capacity	The number of guest trips per hour accommodated by a lift (one ride for one guest = one guest trip).
Rope Speed	The speed that a lift can transport guests, as expressed in feet per minute.
Carrier Spacing	The distance in feet between each guest carrier (chair, gondola cabin).

2.2 TERRAIN

Specifications for the existing terrain are provided in Table 2.

The ski terrain at Ísafjörður is good, with varied terrain for all ability levels:

- The intermediate terrain off Midfell is the best terrain for most skiers, with quality ski runs of consistent grade from top to bottom. However, as discussed, there is no way to get to this terrain other than riding and skiing the Sandfell lift and terrain, which is challenging.
- The terrain off Sandfell is difficult with inconsistent grades – it is steep at the top, very flat in the middle, and very steep at the bottom.
- The beginner terrain off Barnaliften is good, but too steep for first-time skiers. However, snow cover is often inconsistent due to the low elevation.
- The ski terrain is constrained by the unpredictable and limited snowfall below the 200-meter elevation line. In warmer years, early season, and late season, there is often no snow below this elevation. Since the base lodge and the bottom terminal of the Sandfell lift, and all the beginner terrain off Barnalyftn are below this elevation, access to much of the mountain is frequently impeded.

TABLE 1. TERRAIN SPECIFICATIONS - EXISTING CONDITIONS

Trail	Top Elevation (m)	Bottom Elevation (m)	Vertical Drop (m)	Slope Length (m)	Average Width (%)	Slope Area (ha)	Average Grade (%)	Max Grade (%)	Ability Level
1	427.1	268.8	158.2	543.6	41	2.2	31%	48%	Advanced
2	427.1	268.3	158.9	574.5	36	2.1	29%	50%	Advanced
3	417.9	269.8	148.1	625.9	31	1.9	24%	42%	Intermediate
4	483.3	290.1	193.2	882.1	30	4.2	23%	35%	Intermediate
6	484.0	269.0	215.0	1,458.1	21	3.0	15%	32%	Low Intermediate
7	483.9	418.0	66.0	422.7	30	1.3	16%	25%	Intermediate
10	400.3	270.5	129.8	1,030.6	29	1.5	13%	30%	Low Intermediate
11	263.4	116.6	146.9	964.9	33	2.1	15%	24%	Low Intermediate
12	139.1	119.8	19.3	165.1	35	1.6	12%	15%	Novice
14	349.7	179.9	169.8	484.7	39	1.9	38%	51%	Advanced
15	400.3	140.1	260.2	886.3	34	3.0	31%	57%	Expert
				8,039		24.9			

Top Elevation	The elevation at the beginning (top) of the trail.
Bottom Elevation	The elevation at the end (bottom) of the trail.
Vertical Drop	The difference in elevation between the beginning and end of the trail.
Slope Length	The three-dimensional length of the trail centerline, from beginning of the trail to the end, as measured on the ground or by use of 3D mapping technology.
Average Width	The average width of the entire trail, from top to bottom. This may be determined by field measurements, or by a calculation utilizing the given trail hectares and slope length.
Slope Area	The total number of hectares of terrain occurring within a trail boundary. This may be determined by GIS measurement, or by a calculation utilizing the slope length and average width.
Average Grade	The average slope gradient (in percent) of the trail's centerline, from the beginning of the trail to the end.
Maximum Grade	The maximum gradient (in percent) occurring anywhere on the trail.
Skier Ability Level	The following gradients were used to determine the skier ability level of the mountain terrain:

Beginner	8–12%
Novice	to 25% (short pitches to 30%)
Low Intermediate	to 35% (short pitches to 40%)
Intermediate	to 45% (short pitches to 50%)
Advanced Intermediate	to 55% (short pitches to 60%)
Expert	over 55% (maximum of 80%)

Exceptions to these standards occur when access to a trail is limited to a higher ability level. For example, if a novice trail can only be accessed by a low intermediate trail, then it will be designated as a low intermediate trail rather than novice because it would be not readily accessible to the novice skier. Alternatively, if an otherwise intermediate trail contains a substantial pitch of 55 percent terrain, then the trail will be designated expert because only expert skiers can easily navigate the entire trail.

2.3 SNOWMAKING

Snowfall below the 200-meter elevation line is unpredictable and limited, particularly during low snow years, early season, and late season. As a result, snowmaking is critical in this lower mountain area, below the bottom terminal of Midfell.

The existing snowmaking system consists of a single fan gun which is not effective at making enough snow to make a meaningful impact on the ski operations. The fan gun is attached to a pump that is drawing water from the adjacent stream. The water source is unreliable because the hose can get dislodged or blocked, resulting in the fan gun not receiving any water. Since the fan gun requires power its positioning, and usefulness in terrain coverage, is limited by the location of the only available power source at the bottom terminal of the Sandfell lift.

2.4 SKIER DISTRIBUTION

For the purposes of this analysis, the distribution of available ski terrain is evaluated based on the percentage of skiers on terrain of each ability level. This approach takes into account both the hectares of available terrain for each ability level, as well as the acceptable skier density on that terrain (as a general rule, higher ability level terrain supports a lower density of skiers), and thereby determines the capacity of each ability level of terrain.

Existing skier distribution specifications are shown in Table 3 and Illustration 1.

TABLE 3. SKIER DISTRIBUTION BY ABILITY LEVELS - EXISTING CONDITIONS

Ability Level	Trail Area (ha)	Skier Capacity (guests)	Skier Distribution (%)	Skier Market (%)
Beginner	0.0	0.0	0%	5%
Novice	1.6	72.5	12%	15%
Low Intermediate	6.6	232.6	37%	25%
Intermediate	7.4	186.1	30%	35%
Adv. Intermediate	6.2	105.0	17%	15%
Expert	3.0	24.4	4%	5%
Total	24.9	621	100%	100%

ILLUSTRATION 1. SKIER DISTRIBUTION BY ABILITY LEVELS - EXISTING CONDITIONS

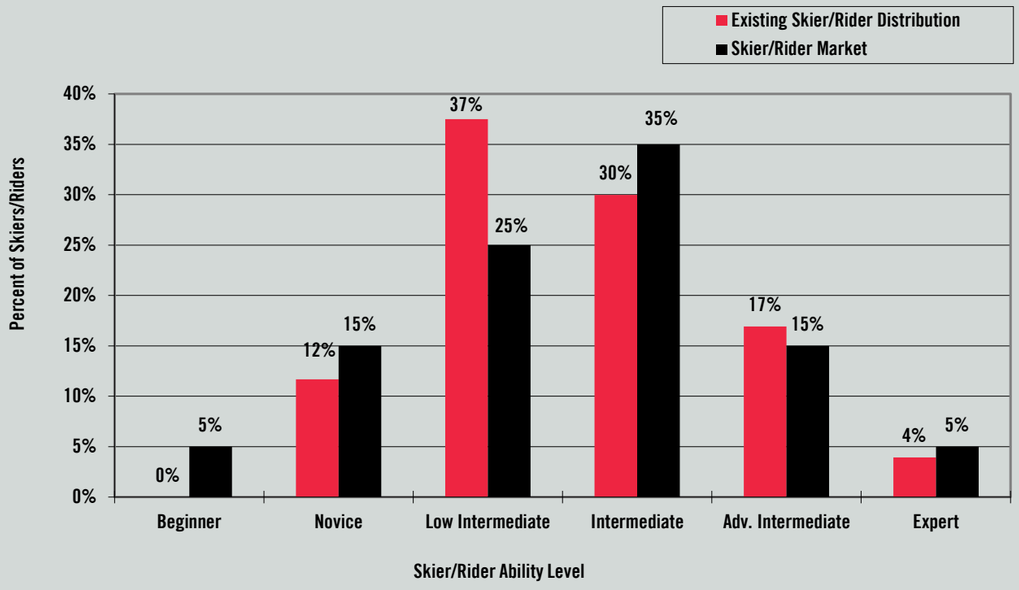


Table 3 and Illustration 1 compare Ísafjörður's skier distribution (expressed as percent of skiers) with the market demand for each ability level. Skier distribution is determined as follows:

- Each trail is designated by ability level, as listed in Table 2. Each ability level has a standard design density for the ideal number of skiers occupying each hectare of terrain at one time. The widely accepted density criteria for ski areas are as follows:

Beginner	60–90 skiers/ha
Novice	30–60 skiers/ha
Low Intermediate	20–50 skiers/ha
Intermediate	15–40 skiers/ha
Advanced Intermediate	10–25 skiers/ha
Expert	5–10 skiers/ha

- The number of hectares of terrain designated to each ability level is multiplied by the standard design density for each ability level.
- The total for each ability level is expressed as a percentage of the total number of skiers.
- This percentage (skier distribution) is then compared with the market demand for each ability level.

The available ski terrain should be capable of accommodating the full range of ability levels consistent with market demand. As shown in Illustration 1, the configuration of Ísafjörður currently provides a deficit of beginner and intermediate terrain, measured as a percentage of skiers at Ísafjörður.

- The lack of beginner terrain is a problem, as it makes teaching new skiers difficult.
- The shortage of Intermediate terrain is a problem, as the majority of skiers are Intermediate level skiers, so this restricts the largest group.

While the capacity of novice ski runs is only slightly below the recommended amount, only the terrain off of Barnalyftan is appropriate for this ability level, so there are limited options for novice level skiers. This is also a significant problem, as it severely impacts the novice experience.

There is also a deficit of expert terrain, making Ísafjörður a less attractive destination for expert level skiers.

2.5 COMFORTABLE CARRYING CAPACITY

CCC, defined in Section 1.3, is the single most important planning criterion for any ski resort. The calculation of Ísafjörður's current CCC is described in Table 4. The CCC of the existing lift and trail network at Ísafjörður is calculated at 480 guests per day. It is common for ski areas to experience peak days during which skier visitation exceeds the CCC by as much as 25 percent; however, ski areas should not consistently exceed their established CCC, as the quality of the recreational experience decreases considerably under this condition.

TABLE 4. CLASSIFICATION OF COMFORTABLE CARRYING CAPACITY - EXISTING CONDITIONS

Lift Name	Slope Length (m)	Vertical Rise (m)	Actual Capacity (pph)	Load Efficiency (%)	Adjusted Hourly Capacity (pph)	VTM/Day (000)	Vertical Demand (m/day)	Daily CCC (guests)
Midfell	960	212	700	10	630	933	4,600	200
Sandfell	910	258	700	10	630	1,138	7,539	150
Barnalyftan	354	43	700	10	630	192	1,506	130
Total	2,225		2,100		1,890	2,263		480

Operating Hours	The number of hours per day that the lift operates (not including night skiing).
Up-Mountain Access Role	The percentage of lift ridership used to access up-mountain facilities, as opposed to repeat-skiing the lift
Load Efficiency	The lift loading efficiency, for example, when lift has to stop due to a mis-load or unload.
Adjusted Hourly Capacity	The hourly capacity adjusted by reducing up-mountain access percentage and loading efficiency percentage.
Vertical Transport Feet per Day	The number of persons a lift can transport in a day. VTF/day is derived by multiplying a lift's uphill capacity (measured in persons per hour) by the lift's vertical rise (measured in feet), then by the number of hours the lift operates in a day.
Vertical Demand	The aggregate number of trails demanded on the resort's lifts multiplied by the vertical rise associated with those trails.
Comfortable Carrying Capacity	An optimal level of daily utilization for the ski area which guarantees a pleasant recreational experience, without overburdening the resort infrastructure.

2.6 DENSITY ANALYSIS

Specifications for the existing density analysis are shown in Table 5.

TABLE 5. SKI TRAIL DENSITY ANALYSIS - EXISTING CONDITIONS

Lift Name	Daily Lift CCC	Guest Dispersal				Density Analysis				Density Index (%)
		Support Facility/ Milling (guests)	Lift Lines (guests)	On Lift (guests)	On Trails (guests)	Terrain Area (ha)	Terrain Density (guests/ha)	Desired Trail Density (guests/ha)	Difference (+/-)	
Midfell	200	50	32	67	51	15.8	3	21	-18	14%
Sandfell	150	38	32	64	16	7.5	2	15	-13	13%
Barnalyftan	130	52	32	25	21	1.6	13	45	-32	29%
Total	480	140	96	156	88	24.9	5	26	-20	21%

Daily Lift CCC	An optimal level of utilization for the ski area (the number of visitors 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.
Support Facility/Milling	The number of aggregate skier population using guest facilities and milling areas.
Lift Lines	The number of aggregate skier population actively waiting in lift lines.
On Lift	The number of aggregate skier population actively riding a lift.
On Trails	The number of aggregate skier population actively skiing.
Trail Area	Hectares of trails servicing the referred lift.
Actual Trail Density	Calculated on-trail density; calculated by dividing the number of guests on the trails by the amount of trail area available.
Target Trail Density	The product of the target density and the lift's trail distribution by ability level.
Difference	Calculated trail density comparing actual trail density to target trail density. A negative number indicates an actual trail density lower than target density; a positive number indicates an actual trail density higher than target density.
Density Index	The density comparison stated as a percentage. 100 percent density represents a balance between actual density and target density, a percentage less than 100 indicates an actual trail density lower than target density, and a percentage higher than 100 indicates an actual trail density higher than target density.

The calculation of capacity for a ski area is based in part on the target number of skiers that can be accommodated on each hectare of ski terrain at any given time. The widely accepted density criteria for ski areas are listed in previous sections regarding terrain and skier distribution.

These criteria calculate the number of skiers in lift lines, riding the lifts, or utilizing skier support services. The remainder are therefore on the ski runs themselves. That number is then divided by the amount of terrain available to get the skiers per hectare density. The densities listed above have been used in the analysis of Ísafjörður's trail densities.

The density index is a percentage comparison of the actual trail density with the target trail density. A 100 percent index represents a balance between the actual and target trail density. An index under 100 percent indicates that the actual trail density would be lower than the target trail density (i.e., uncrowded). An index above 100 percent indicates that the actual trail density would be higher than the target trail density (i.e., crowded). Table 5 indicates that all Ísafjörður trails are at or below the target trail density. In fact, the two primary lifts have densities that are far lower than target. The overall density index score shows that, overall, Ísafjörður's trails are about a quarter of target densities. This is a desirable situation, indicating that none of Ísafjörður's trails are typically over-crowded. However, this is also an indication that lift capacity can be increased without the need to add additional ski runs.

2.7 GUEST SERVICES

Table 6 shows the existing total available guest use space at the base lodge building, as well as the recommended amount of space for the number of people at the ski area.

TABLE 6. SPACE USE ANALYSIS - EXISTING CONDITIONS (RESORT TOTAL)

Service Function	Existing Total	Recommended Range	
		Low	High
Ticket Sales/Guest Services	-	10	12
Public Lockers	-	30	36
Rentals/Repair	20	61	73
Retail Sales	-	21	25
Bar/lounge	-	32	38
Adult Ski School	20	20	24
Kid's Ski School	30	32	38
Restaurant Seating	125	150	180
Kitchen/Scramble	30	45	54
Rest rooms	20	27	32
Ski Patrol	-	17	20
Administration	30	21	25
Employee Lockers/Lounge	-	8	10
Storage	15	21	25
Circulation/Walls/Mechanical	25	64	77
TOTAL SQUARE METERS	315	559	671

2.8 FOOD SERVICE

The following table shows the existing number of restaurant seats at the base lodge building, as well as the recommended number of seats for the number of people at the ski area.

TABLE 7. RECOMMENDED RESTAURANT SEATS - EXISTING CONDITIONS

	Base Area	Top of Mountain	Total Resort
Lunchtime Capacity (CCC)	504	0	504
Average Seat Turnover	2.5	3	
Existing Seats	50		50
Required Seats	202	0	202
Difference	-152	0	-152
Existing Seating Capacity	125	0	125

2.9 PARKING

The following table shows the existing number of parking spaces at the base area, as well as the recommended number of parking spaces for the number of people at the ski area. Note that additional cars can park along the road to the base area and up to the tunnel entrance.

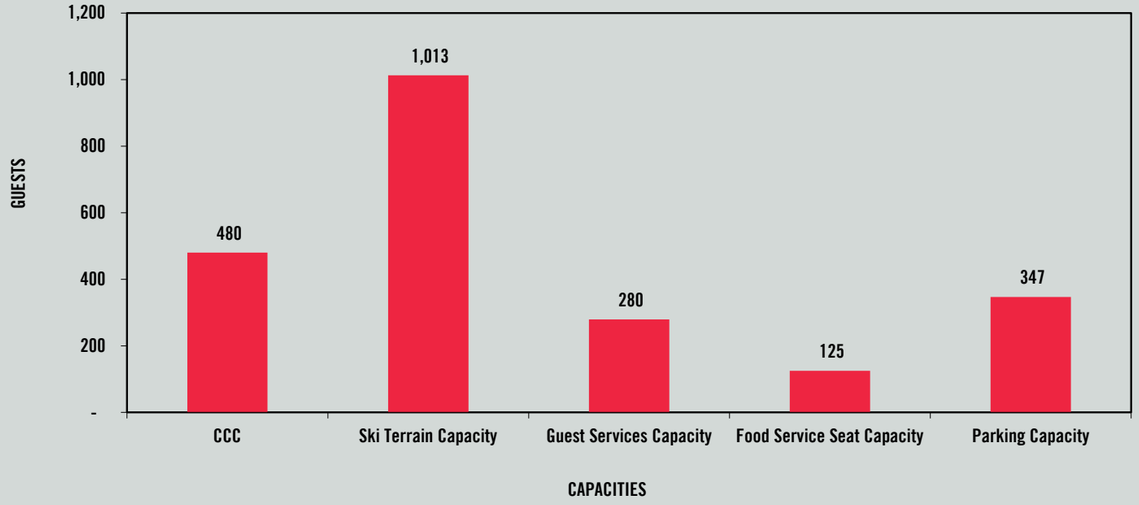
TABLE 8. RECOMMENDED PARKING - EXISTING CONDITIONS

	Multiplier	Total
CCC + other guests		504
Required car parking spaces	2.30	219
Required employee car parking spaces		19
Total required spaces		238
Existing parking spaces		170
surplus/deficit		-68
proposed total spaces		
Existing parking capacity (guests)		347

2.10 RESORT BALANCE AND LIMITING FACTORS

The overall balance of the existing ski area is evaluated by calculating the capacities of the resort's various facilities, as compared to the resort's CCC. The chart below shows that the ski area is not very well balanced. There is a large amount of ski terrain, and the parking capacity almost large enough for the number of skiers, but the guest services area is significantly too small, and the number of restaurant seats is far too low.

ILLUSTRATION 2. EXISTING RESORT CAPACITY



3.0 Upgrade Plan Full Build Out

3.1 SUMMARY

The upgrade plan will transform Ísafjörður into a much larger ski area, with a new, larger, consolidated base area that will bring the Alpine and Nordic ski centers together. A high-speed lift from the existing base are up to Sandfell summit, with a mid-station at the new base area, will provide year-round comfortable access between the most important parts of the resort. New lifts will provide more efficient access to not only the existing terrain, but also to expanded novice terrain, teaching terrain, expert terrain off Midfell Summit, and ski-racing runs. These new lifts and ski runs, along with the new base area, will address all of the existing deficiencies at Ísafjörður, making it a much improved ski area.

3.2 LIFTS

Ísafjörður would add three new chairlifts, one new (or re-purposed) surface lift, and three new teaching conveyors.

Lift 1 is a high-speed lift, which would provide the following benefits and functions:

- Out-of-base lift for both base areas, providing comfortable, fast access to the rest of the mountain for skiers of all ability levels.
- Solution to the problem of lower ability level skiers having to ride the Sandfell T-Bar to access the terrain off the Midfell lift.
- Access to the ski racing run to the east of Sandfell lift from the Sandfell Summit.
- With the mid-station, the lift could operate even when there is no snow at the existing base area. Skiers would just load the lift at the mid-station and ride to the top to access the rest of the ski area.
- The lift would also provide an excellent summer lift experience. Starting at the existing base area, visitors could ride the lift up to the Sandfell Summit, with beautiful views of the fjord, and access hiking and mountain biking trails at the top.

Lift 2 would be a fixed-grip chairlift, replacing the existing Midfell lift, and would provide the following benefits:

- Faster, easier, and more comfortable access to the most popular terrain on the mountain.
- Lowering the base terminal will provide access to significantly more ski terrain and improve skier circulation.
- Removing the T-Bar would also allow its existing track to be skied, providing an additional ski run.
- Removing the T-Bar would also allow Lift 2 to be operated more frequently and with higher assurance, as it wouldn't be dependent on sufficient snow on the up track.

Lift 3 would be a chairlift providing access to the new beginner and novice skiing terrain in that area.

Lift 4 would unload at the top of Midfell Summit, allowing advanced and expert skiers to access the steep terrain in that area.

Specifications for the proposed lifts are provided in Table 6.

TABLE 9. LIFT SPECIFICATIONS - UPGRADE PLAN

Lift Name	Top Elevation (m)	Bottom Elevation (m)	Vertical Rise (m)	Slope Length (m)	Average Grade (%)	Actual Capacity (pph)	Rope Speed (m/sec)	Carrier Spacing (m)
Lift 1/DC4	444	117	327	1,371	25%	2,000	5.0	36
Lift 2/C3	484	240	244	1,104	23%	1,800	2.5	15
Lift 3/C3	470	358	112	676	17%	1,800	2.5	15
Lift 4/Surface	594	485	109	427	27%	1,200	3	15
Conveyor 1	358	350	8	73	11%	600	0.6	3.6
Conveyor 2 New Base Area	346	342	4	67	6%	600	0.6	3.6
Conveyor 3 Barnalyftan	132	121	11	103	10%	600	0.6	3.6

3.3 TERRAIN

New ski runs would be developed in conjunction with the new lifts, particularly from the top of Sandfell Summit (the area around the new Lift 3) and off Midfell Summit.

Since the uphill lift capacity would increase significantly with these additions, a corresponding quantity of new ski runs would also have to be developed. The existing ski run capacity is higher than lift capacity, so the amount of new terrain doesn't have to be increased at the same percentage.

The increases in terrain are focused on the categories identified as having shortages – novice and expert terrain in particular.

- All ski runs off Lift 3 would be novice level, providing an excellent and extensive experience for novice skiers.
- All ski runs off Lift 4 are expert level, providing challenging and interesting terrain for expert level skiers.

As discussed, another racing run would be built off Lift 2.

Table 10 and the upgrade plan map detail the specifications of the planned ski runs.

TABLE 10. TERRAIN SPECIFICATIONS - UPGRADE PLAN

Trail	Top Elevation (m)	Bottom Elevation (m)	Vertical Drop (m)	Slope Length (m)	Average Width (%)	Slope Area (ha)	Average Grade (%)	Max Grade (%)	Ability Level
1	427.1	268.8	158.2	543.6	41	2.2	31%	48%	Advanced
2	427.1	268.3	158.9	574.5	36	2.1	29%	50%	Advanced
3	417.9	269.8	148.1	625.9	31	1.9	24%	42%	Intermediate
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14	349.7	179.9	169.8	484.7	39	1.9	38%	51%	Advanced
15	400.3	140.1	260.2	886.3	34	3.0	31%	57%	Expert
1_A	444.0	353.4	90.6	578.5	40	2.3	17%	40%	Intermediate
1_B	444.0	401.3	42.7	362.4	43	1.6	12%	26%	Low Intermediate
1_C	443.1	396.1	47.0	410.6	41	1.7	12%	28%	Low Intermediate

TABLE 10. TERRAIN SPECIFICATIONS - UPGRADE PLAN (CONT.)

Trail	Top Elevation (m)	Bottom Elevation (m)	Vertical Drop (m)	Slope Length (m)	Average Width (%)	Slope Area (ha)	Average Grade (%)	Max Grade (%)	Ability Level
1_D Lower	415.8	372.8	43.0	331.0	43	1.4	13%	25%	Novice
1_D Upper	444.0	419.6	24.4	271.6	49	1.3	9%	17%	Novice
1_E	352.7	118.4	234.3	1,179.9	45	5.3	32%	105%	Expert
1_F	383.1	360.0	23.0	120.8	43	0.5	19%	36%	Intermediate
2_A	484.0	406.3	77.7	694.9	32	2.2	12%	27%	Low Intermediate
2_B	424.7	247.7	176.9	767.8	44	3.4	28%	77%	Expert
2_C	417.9	338.1	79.8	642.1	34	2.2	13%	31%	Low Intermediate
2_D	300.7	240.9	59.8	195.6	48	0.9	45%	59%	Expert
3_A	470.0	375.9	94.1	738.9	25	1.9	13%	25%	Novice
3_B	448.8	355.7	93.1	970.0	20	1.9	10%	13%	Novice
3_C	392.9	358.8	34.1	298.2	38	1.1	12%	23%	Novice
3_D	356.6	343.8	12.9	144.5	27	0.4	9%	11%	Beginner
3_E	470.0	408.0	62.0	498.6	32	1.6	13%	22%	Novice
3_F	462.8	403.5	59.4	391.7	27	1.0	15%	22%	Novice
3_G	456.7	419.9	36.8	238.4	34	0.8	16%	19%	Novice
3_H	406.3	358.3	47.9	552.7	32	1.8	9%	16%	Novice
4_A	594.0	484.7	109.4	618.8	34	2.1	21%	82%	Expert
4_B	582.4	485.4	97.0	1,174.8	35	4.1	31%	105%	Expert
4_C	556.8	429.5	127.3	538.9	33	1.8	26%	56%	Expert
4_D	490.8	459.7	31.1	199.7	45	0.9	16%	21%	Novice
4_E	594.0	484.5	109.5	734.8	33	2.4	16%	64%	Expert
4_F	594.0	486.0	108.0	460.0	35	1.6	28%	71%	Expert
4_G	484.3	483.2	1.1	106.6	19	0.2	1%	2%	Beginner
Carpet 1 Terrain	357.7	349.9	7.9	72.5	35	0.3	6%	6%	Beginner
Carpet 2 Terrain	346.0	341.9	4.1	66.8	30	0.2	10%	10%	Beginner
Total				21,400		71.3			

3.4 SNOWMAKING

A robust snowmaking system is proposed for Isafjordur, to allow the ski area to open and operate reliably during low snow years, warm periods, and early and late season. This system will allow for terrain coverage below 200 meters in elevation, and on the key ski runs and circulation routes that will ensure the ski area can operate all primary lifts, top-to-bottom.

The total area of proposed snowmaking is 15.2 hectares.

A network of buried water pipes and power lines would be installed to distribute water and power to the areas of snowmaking coverage, allowing for the use of fan guns.

The water for the snowmaking would be supplied from the stream, with a holding pond to be created off the stream to address the existing limitation of pulling water directly from the stream flow.

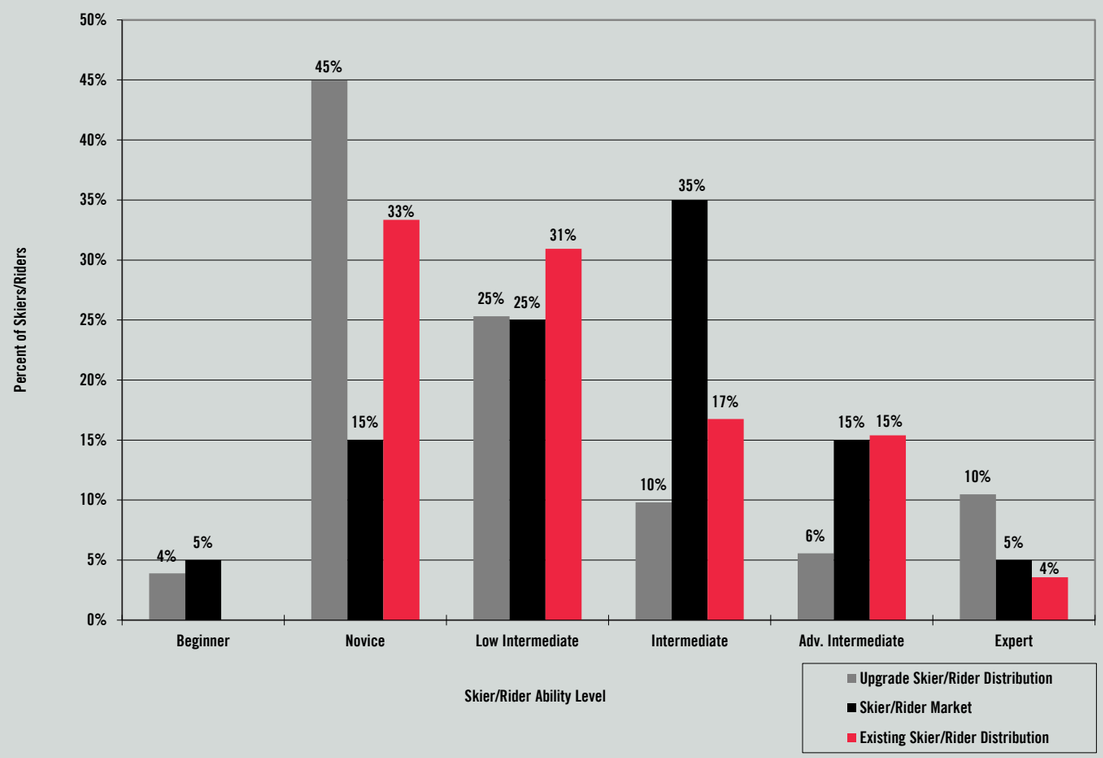
3.5 SKIER DISTRIBUTION

Specifications for the proposed skier distribution are shown in Table 11 and Illustration 3. As shown, the expanded trail network would provide more terrain of all ability levels, with an emphasis on novice and expert terrain. This mix provides a wide variety of terrain and ability levels, consistent with market demand.

TABLE 11. SKIER DISTRIBUTION BY ABILITY LEVELS - UPGRADE PLAN

Ability Level	Trail Area (ha)	Skier Capacity (guests)	Skier Distribution (%)	Skier Market (%)
Beginner	1.0	73.3	4%	5%
Novice	18.8	847.4	45%	15%
Low Intermediate	13.6	477.1	25%	25%
Intermediate	7.4	184.7	10%	35%
Adv. Intermediate	6.2	105.0	6%	15%
Expert	24.7	197.5	10%	5%
Total	71.8	1,885	100%	100%

ILLUSTRATION 3. SKIER DISTRIBUTION BY ABILITY LEVELS - UPGRADE PLAN



3.6 COMFORTABLE CARRYING CAPACITY

The calculation of Ísafjörður's CCC under the Upgrade Plan is described in Table 12. As illustrated, the planned expansion would increase the CCC of the lift and trail network at Ísafjörður to 2,830 guests per day. This is a large increase and would allow Ísafjörður to hold larger numbers of skiers and host races and events.

TABLE 12. CLASSIFICATION OF COMFORTABLE CARRYING CAPACITY - UPGRADE PLAN

Lift Name	Slope Length (m)	Vertical Rise (m)	Actual Capacity (pph)	Load Efficiency (%)	Adjusted Hourly Capacity (pph)	VTM/Day (000)	Vertical Demand (m/day)	Daily CCC (guests)
Lift 1/DC4	1,371	327	2,000	5	1,900	4,352	4,876	890
Lift 2/C3	1,104	244	1,800	10	1,620	2,767	3,574	770
Lift 3/C3	676	112	1,800	15	1,530	1,199	1,703	700
Lift 4/Surface	427	109	1,200	5	1,140	872	4,397	200
Conveyor 1	73	8	600	5	570	31	372	80
Conveyor 2 New Base Area	67	4	600	5	570	16	203	80
Conveyor 3 Barnalyftan	103	11	600	5	570	42	396	110
Total	3,820		8,600		7,900	9,279		2,830

3.7 DENSITY ANALYSIS

Density analysis specifications are described in Table 13. The significant increase in lift capacity would help balance more closely with the ski run capacity, as shown by the improved density of 73 percent.

TABLE 13. SKI TRAIL DENSITY ANALYSIS - UPGRADE PLAN

Lift Name	Daily Lift CCC	Guest Dispersal				Density Analysis				Density Index (%)
		Support Facility/ Milling (guests)	Lift Lines (guests)	On Lift (guests)	On Trails (guests)	Terrain Area (ha)	Terrain Density (guests/ha)	Desired Trail Density (guests/ha)	Difference (+/-)	
Lift 1/DC4	890	223	95	145	427	23.0	19	24	-5	79%
Lift 2/C3	770	193	81	199	297	23.4	13	26	-13	50%
Lift 3/C3	700	175	77	115	333	11.2	30	46	-16	65%
Lift 4/Surface	200	50	38	54	58	13.1	4	12	-8	35%
Conveyor 1	80	32	19	19	10	0.3	40	70	-30	57%
Conveyor 2 New Base Area	80	32	19	18	11	0.2	55	70	-15	79%
Conveyor 3 Barnalyftan	110	44	19	27	20	0.6	35	45	-10	78%
Total	2,830	749	348	577	1,156	71.8	21	33	-11	65%

3.8 GUEST SERVICES

The total amount of guest service facilities would be built based on the planned skier capacity. While no detailed design has been completed for the new mid-base area yet, it is anticipated that the facility would be within the recommended size range.

No changes are proposed for the existing base area. Its size and location would remain the same, and it would act as a secondary access and parking area.

TABLE 14. SPACE USE ANALYSIS - UPGRADE PLAN (NEW MID-MOUNTAIN BASE AREA)

Service Function	Existing Total	Recommended Range	
		Low	High
Ticket Sales/Guest Services	-	50	60
Public Lockers	-	150	180
Rentals/Repair	-	300	370
Retail Sales	-	90	110
Bar/lounge	-	150	190
Adult Ski School	-	80	90
Kid's Ski School	-	150	190
Restaurant Seating	-	730	900
Kitchen/Scramble	-	220	270
Rest rooms	-	130	160
Ski Patrol	-	80	100
Administration	-	110	130
Employee Lockers/Lounge	-	40	50
Storage	-	100	150
Circulation/Walls/Mechanical	-	310	460
TOTAL SQUARE METERS	-	2,690	3,410

TABLE 15. SPACE USE ANALYSIS - UPGRADE PLAN (RESORT TOTAL)

Service Function	Existing Total	Recommended Range	
		Low	High
Ticket Sales/Guest Services	-	59	71
Public Lockers	-	177	212
Rentals/Repair	20	354	435
Retail Sales	-	115	140
Bar/lounge	-	187	234
Adult Ski School	20	100	114
Kid's Ski School	30	188	236
Restaurant Seating	125	879	1,079
Kitchen/Scramble	30	265	324
Rest rooms	20	157	192
Ski Patrol	-	97	120
Administration	30	129	153
Employee Lockers/Lounge	-	47	58
Storage	15	121	175
Circulation/Walls/Mechanical	25	374	537
TOTAL SQUARE METERS	315	3,249	4,081

3.9 FOOD SERVICE

The new mid-base facility would need to have around 700 restaurant seats to meet the projected demand.

TABLE 16. RECOMMENDED RESTAURANT SEATS - UPGRADE PLAN

	Base Area	New Mid-Base	Total Resort
Lunchtime Capacity (CCC+5% additional guests)	501	2,470	2,972
Nordic Skiers		150	150
Total Guests	501	2,620	3,122
Average Seat Turnover	4.5	4.75	
Existing Seats	50		50
Required Seats	111	552	663
Difference	-61	-552	-613

3.10 PARKING

At full buildout of the Master Plan, 1,152 parking spaces will be required to accommodate the increased alpine capacity:

- 450 spaces in the main Mid-mountain parking lots, with a future expansion potential of an additional 300 spaces to be located between the new Mid-mountain base area and the old Nordic base area.
- 170 existing spaces in the lower alpine base area parking lots, with a future expansion potential of an additional 200 spaces.

It is anticipated that 20 percent of all guests will arrive at the ski area via a town shuttle bus. At the completed implementation of the Master Plan this number may need to be increased to offset any remaining deficit in parking at the ski area.

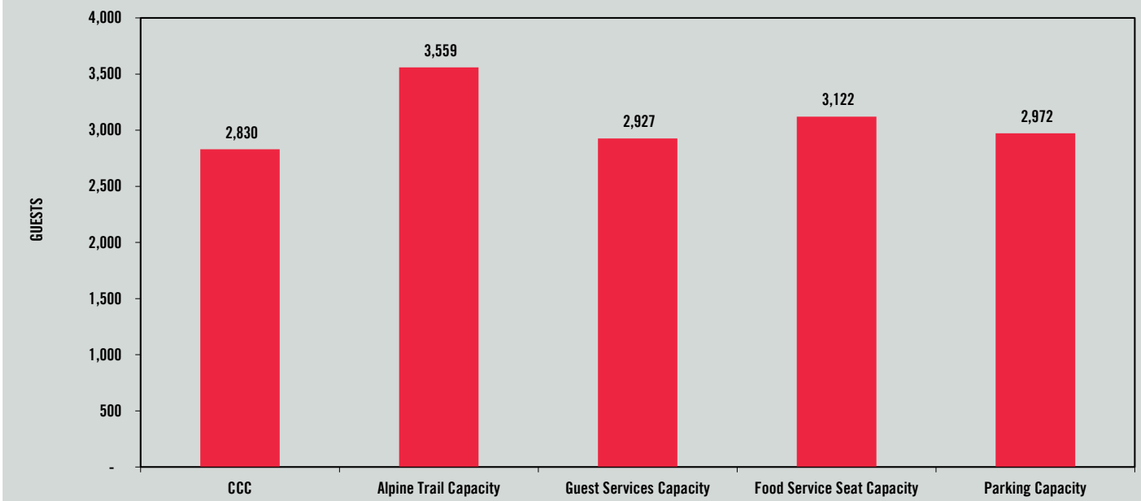
TABLE 17. RECOMMENDED PARKING - UPGRADE PLAN

	Multiplier	Existing Base	New Mid-Base	Total
CCC + Nordic guests				2,972
% parking at portal		15%	85%	
# parking at portal		446	2,526	2,972
net # requiring parking		446	2,526	2,972
# of guests arriving by car	80%	357	2,021	2,377
# of guests arriving by town shuttle bus	20%	89	505	594
Required car parking spaces	2.30	155	879	1,034
Required employee car parking spaces		18	101	119
Total required spaces		173	980	1,152
Existing parking spaces		170	450	620
surplus/deficit		-3	-530	-532
Existing parking capacity (guests)				2,972

3.11 RESORT BALANCE AND LIMITING FACTORS

As shown in Illustration 4, the capacities of the resort's various facilities would be aligned with each other, creating a well-balanced resort.

ILLUSTRATION 4. SKIER DISTRIBUTION BY ABILITY LEVELS - UPGRADE PLAN



4.0 Upgrade Plan Phase 1

4.1 SUMMARY

The plan, as described in the following section, is designed for phased construction. Phase 1 of the Upgrade Plan details an initial step in implementation of the ski area plan.

4.2 LIFTS

In Phase 1, Ísafjörður would:

- Construct Lift 1, providing the biggest positive impact of the plan.
- Move the existing Barnalyften to the Lift 3 location, providing inexpensive access to that novice and teaching terrain.
- Continue to use the existing Midfell T-Bar lift.
- Not implement Lift 4 to the top of Midfell Summit.

Specifications for the Phase 1 lifts are described in Table 18.

TABLE 18. LIFT SPECIFICATIONS - UPGRADE PLAN PHASE 1

Lift Name	Top Elevation (m)	Bottom Elevation (m)	Vertical Rise (m)	Slope Length (m)	Average Grade (%)	Actual Capacity (pph)	Rope Speed (m/sec)	Carrier Spacing (m)
Lift 1/DC4	444	117	327	1,371	25%	2,000	5.0	36
Lift 3/C3	470	358	112	676	17%	700	2.5	39
Lift 4/Surface	358	350	8	73	11%	600	0.6	3.6
Conveyor 1	346	342	4	67	6%	600	0.6	3.6
Conveyor 2 New Base Area	480	269	212	960	23%	700	2.5	26
Midfell/Surface	132	121	11	103	10%	600	0.6	3.6

4.3 TERRAIN

Specifications for the Phase 1 ski runs are described in Table 19.

TABLE 19. TERRAIN SPECIFICATIONS - UPGRADE PLAN PHASE 1

Trail	Top Elevation (m)	Bottom Elevation (m)	Vertical Drop (m)	Slope Length (m)	Average Width (%)	Slope Area (ha)	Average Grade (%)	Max Grade (%)	Ability Level
1	427.1	268.8	158.2	543.6	41	2.2	31%	48%	Advanced
2	427.1	268.3	158.9	574.5	36	2.1	29%	50%	Advanced
3	417.9	269.8	148.1	625.9	31	1.9	24%	42%	Intermediate
4	483.3	290.1	193.2	882.1	48	4.2	23%	35%	Intermediate
6	484.0	269.0	215.0	1,458.1	21	3.0	15%	32%	Low Intermediate
7	483.9	418.0	66.0	422.7	30	1.3	16%	25%	Intermediate
10	400.3	270.5	129.8	1,030.6	15	1.5	13%	30%	Low Intermediate
11	263.4	116.6	146.9	964.9	22	2.1	15%	24%	Low Intermediate
12	139.1	119.8	19.3	165.1	98	1.6	12%	15%	Novice
14	349.7	179.9	169.8	484.7	39	1.9	38%	51%	Advanced
15	400.3	140.1	260.2	886.3	34	3.0	31%	57%	Expert
1_A	444.0	353.4	90.6	578.5	40	2.3	17%	40%	Intermediate
1_B	444.0	401.3	42.7	362.4	43	1.6	12%	26%	Low Intermediate
1_C	443.1	396.1	47.0	410.6	41	1.7	12%	28%	Low Intermediate
1_D Lower	415.8	372.8	43.0	331.0	43	1.4	13%	25%	Novice
1_D Upper	444.0	419.6	24.4	271.6	49	1.3	9%	17%	Novice
1_E	352.7	118.4	234.3	1,179.9	45	5.3	32%	105%	Expert
1_F	383.1	360.0	23.0	120.8	43	0.5	19%	36%	Intermediate
2_A	484.0	406.3	77.7	694.9	32	2.2	12%	27%	Low Intermediate
2_B	424.7	247.7	176.9	767.8	44	3.4	28%	77%	Expert
2_C	417.9	338.1	79.8	642.1	34	2.2	13%	31%	Low Intermediate
2_D	300.7	240.9	59.8	195.6	48	0.9	45%	59%	Expert
3_A	470.0	375.9	94.1	738.9	25	1.9	13%	25%	Novice
3_B	448.8	355.7	93.1	970.0	20	1.9	10%	13%	Novice
3_C	392.9	358.8	34.1	298.2	38	1.1	12%	23%	Novice

TABLE 19. TERRAIN SPECIFICATIONS - UPGRADE PLAN PHASE 1 (CONT.)

Trail	Top Elevation (m)	Bottom Elevation (m)	Vertical Drop (m)	Slope Length (m)	Average Width (%)	Slope Area (ha)	Average Grade (%)	Max Grade (%)	Ability Level
3_D	356.6	343.8	12.9	144.5	27	0.4	9%	11%	Beginner
3_E	470.0	408.0	62.0	498.6	32	1.6	13%	22%	Novice
3_F	462.8	403.5	59.4	391.7	27	1.0	15%	22%	Novice
3_G	456.7	419.9	36.8	238.4	34	0.8	16%	19%	Novice
3_H	406.3	358.3	47.9	552.7	32	1.8	9%	16%	Novice
Carpet 1 Terrain	357.7	349.9	7.9	72.5	35	0.3	6%	6%	Beginner
Carpet 2 Terrain	346.0	341.9	4.1	66.8	30	0.2	0%	10%	Beginner
				17,566		58.7			

4.4 SNOWMAKING

A small, but modern and effective snowmaking system is proposed for Phase 1, to allow the ski area to open and operate reliably during low snow years, warm periods, and early and late season. This system will allow for coverage of all the area below 200 meters in elevation. While the new Mid-mountain Base Area makes the need for the system less critical than under existing conditions, it remains important for skiers to be able to access the existing Alpine base area, as well as the base of the new lift.

The total area of proposed Phase 1 snowmaking is 3.7 hectares.

A network of buried water pipes and power lines would be installed to distribute water and power to the areas of snowmaking coverage, allowing for the use of fan guns.

The water for the snowmaking would be supplied from the stream, with a holding pond to be created off the stream to address the existing limitation of pulling water directly from the stream flow.

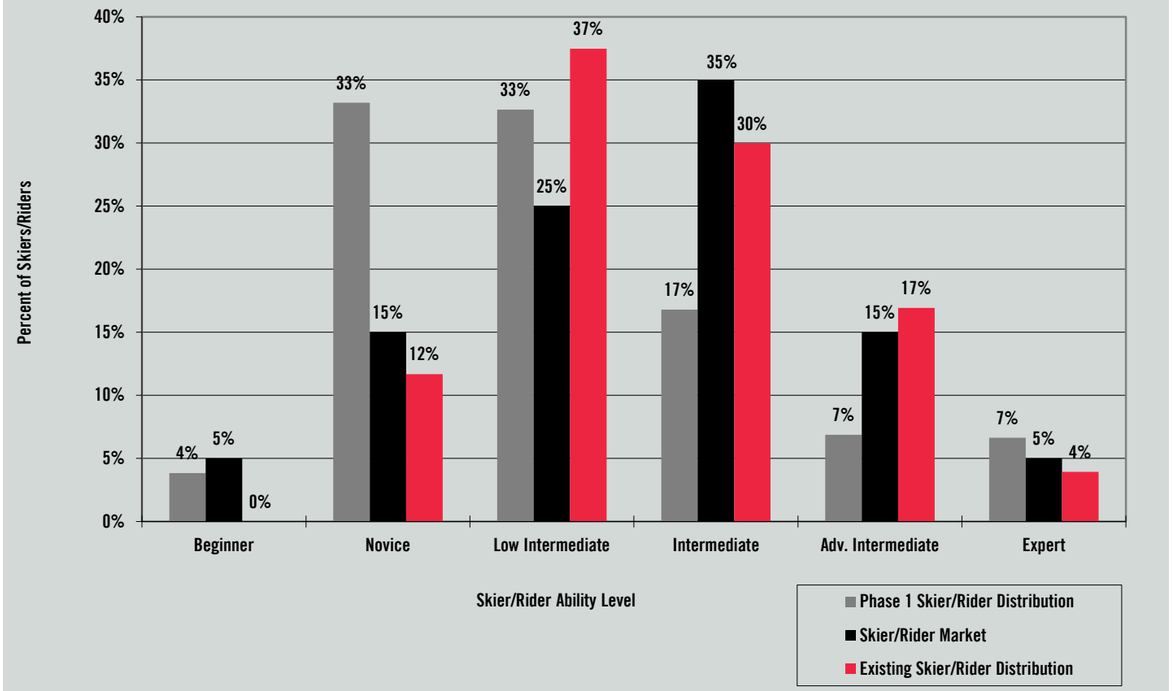
4.5 SKIER DISTRIBUTION

Specifications for the Phase 1 skier distribution are described in Table 20 and Illustration 5.

TABLE 20. SKIER DISTRIBUTION BY ABILITY LEVELS - UPGRADE PLAN PHASE 1

Ability Level	Trail Area (ha)	Skier Capacity (guests)	Skier Distribution (%)	Skier Market (%)
Beginner	0.8	58.8	4%	5%
Novice	14.5	506.9	33%	15%
Low Intermediate	14.2	498.7	33%	25%
Intermediate	10.3	256.6	17%	35%
Adv. Intermediate	6.2	105.0	7%	15%
Expert	12.7	101.5	7%	5%
Total	58.7	1,528	100%	100%

ILLUSTRATION 5. SKIER DISTRIBUTION BY ABILITY LEVELS - UPGRADE PLAN PHASE 1



4.6 COMFORTABLE CARRYING CAPACITY

The calculation of Ísafjörður's CCC under Phase 1 is described in Table 21. The planned Phase 1 expansion would increase the CCC of the lift and trail network at Ísafjörður to 1,520 guests per day.

TABLE 21. CLASSIFICATION OF COMFORTABLE CARRYING CAPACITY - UPGRADE PLAN PHASE 1

Lift Name	Slope Length (m)	Vertical Rise (m)	Actual Capacity (pph)	Load Efficiency (%)	Adjusted Hourly Capacity (pph)	VTM/Day (000)	Vertical Demand (m/day)	Daily CCC (guests)
Lift 1/DC4	1,371	327	2,000	5	1,900	4,352	4,876	890
Lift 3/C3	676	112	700	15	595	466	1,703	270
Conveyor 1	73	8	600	5	570	31	372	80
Conveyor 2 New Base Area	67	4	600	5	570	16	203	80
Midfell/Surface	960	212	700	10	630	933	4,600	200
Total	3,146		4,600		4,265	5,798		1,520

4.7 DENSITY ANALYSIS

Specifications for the Phase 1 density analysis are described in Table 22. This represents an improvement over the existing scenario, but not as good as the full plan.

TABLE 22. SKI TRAIL DENSITY ANALYSIS - UPGRADE PLAN PHASE 1

Lift Name	Daily Lift CCC	Guest Dispersal				Density Analysis				
		Support Facility/ Milling (guests)	Lift Lines (guests)	On Lift (guests)	On Trails (guests)	Terrain Area (ha)	Terrain Density (guests/ha)	Desired Trail Density (guests/ha)	Difference (+/-)	Density Index (%)
Lift 1/DC4	890	223	95	145	427	22.5	19	22	-3	86%
Lift 3/C3	270	68	30	45	127	11.2	11	36	-25	31%
Conveyor 1	80	32	19	19	10	0.3	40	70	-30	57%
Conveyor 2 New Base Area	80	32	19	18	11	0.2	55	70	-15	79%
Midfell/Surface	200	50	32	67	51	24.5	2	24	-22	8%
Total	1,520	405	195	294	626	58.7	18	30	-11	62%

4.8 GUEST SERVICES

In Phase 1, the new mid-base area would be built, but likely not to the capacity of the full plan. Specifications for Phase 1 guest services space usage are described in Tables 23 and 24.

TABLE 23. SPACE USE ANALYSIS - UPGRADE PLAN PHASE 1 (NEW MID-MOUNTAIN BASE AREA)

Service Function	Existing Total	Recommended Range	
		Low	High
Ticket Sales/Guest Services	-	30	30
Public Lockers	-	80	100
Rentals/Repair	-	160	200
Retail Sales	-	50	60
Bar/lounge	-	60	80
Adult Ski School	-	40	50
Kid's Ski School	-	80	100
Restaurant Seating	-	300	370
Kitchen/Scramble	-	90	110
Rest rooms	-	60	70
Ski Patrol	-	30	40
Administration	-	60	70
Employee Lockers/Lounge	-	20	30
Storage	-	50	70
Circulation/Walls/Mechanical	-	140	220
TOTAL SQUARE METERS	-	1,250	1,600

TABLE 24. SPACE USE ANALYSIS - UPGRADE PLAN PHASE 1 (RESORT TOTAL)

Service Function	Existing Total	Recommended Range	
		Low	High
Ticket Sales/Guest Services	-	35	36
Public Lockers	-	94	117
Rentals/Repair	20	189	235
Retail Sales	-	63	76
Bar/lounge	-	80	104
Adult Ski School	20	50	62
Kid's Ski School	30	100	124
Restaurant Seating	125	471	575
Kitchen/Scramble	30	142	172
Rest rooms	20	91	107
Ski Patrol	-	49	63
Administration	30	70	82
Employee Lockers/Lounge	-	24	35
Storage	15	68	92
Circulation/Walls/Mechanical	25	194	285
TOTAL SQUARE METERS	315	1,720	2,164

4.9 FOOD SERVICE

Specifications for the Phase 1 restaurant seating are set forth in Table 25.

TABLE 25. RECOMMENDED RESTAURANT SEATS - UPGRADE PLAN PHASE 1

	Base Area	New Mid-Base	Total Resort
Lunchtime Capacity (CCC+5% additional guests)	575	1,021	1,596
Nordic Skiers		150	150
Total Guests	575	1,171	1,746
Average Seat Turnover	4.5	4.75	
Existing Seats	50		50
Required Seats	128	215	343
Difference	-78	-215	-293
Upgrade Seating Capacity	575	1,021	1,596

4.10 PARKING

Specifications for Phase 1 parking requirements are described in Table 26.

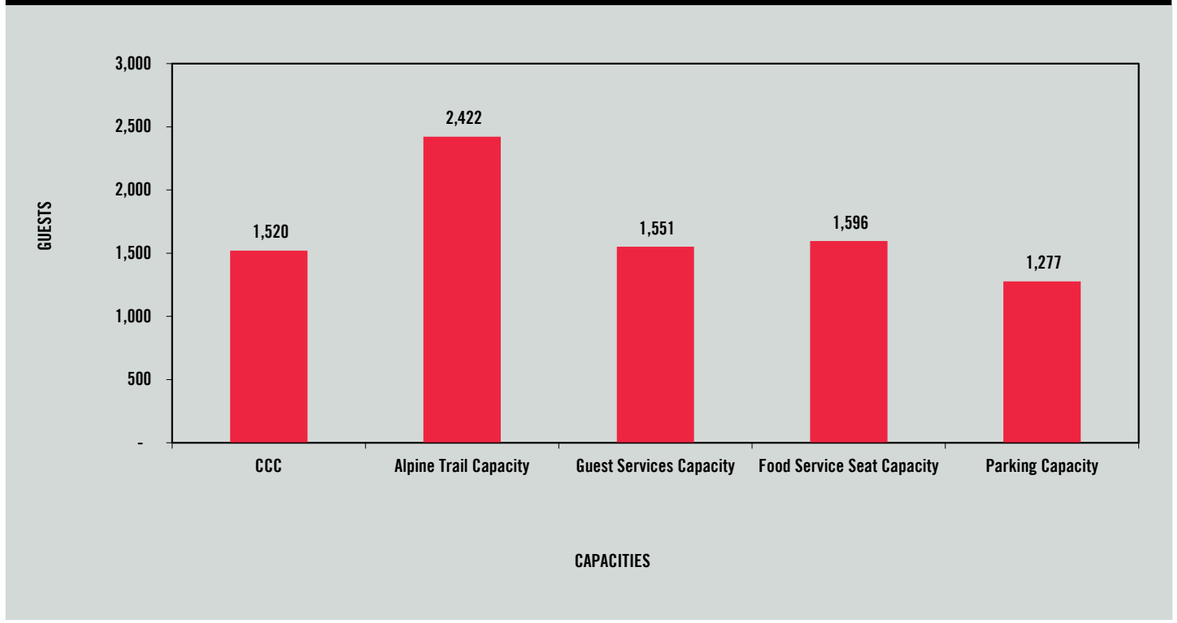
TABLE 26. RECOMMENDED PARKING - UPGRADE PLAN PHASE 1

	Multiplier	Existing Base	New Mid-Base	Total
CCC + Nordic guests				1,596
% parking at portal		20%	80%	
# parking at portal		319	1,277	1,596
net # requiring parking		319	1,277	1,596
# of guests arriving by car	80%	255	1,021	1,277
# of guests arriving by town shuttle bus	20%	64	255	319
Required car parking spaces	2.30	111	444	555
Required employee car parking spaces		51	13	64
Total required spaces		162	457	619
Existing parking spaces		170	450	620
surplus/deficit		8	-7	1
Existing parking capacity (guests)				1,277

4.11 RESORT BALANCE AND LIMITING FACTORS

By building much of the newly planned ski terrain, but not yet upgrading all the lifts, there would be a bit of an imbalance at the ski area, with a higher ski run capacity than CCC. Additionally, the guest services facilities would be built to scale of the planned Phase 1 CCC (1,520 guests per day).

ILLUSTRATION 6. SKIER DISTRIBUTION BY ABILITY LEVELS - UPGRADE PLAN PHASE 1



5.0 Future Expansion Potential

There is an opportunity to significantly expand Ísafjörður beyond the Master Plan. Adding an additional lift on the south side of the valley could make the ski area larger and more diverse. Envisioned as a high-speed lift, this lift could provide access to a large amount of additional ski terrain. A small café facility could be built at the top of the lift. This lift could be used year-round, providing spectacular views of the town and fjord.

While the capacity and size of this lift and associated facilities has not be determined as a part of this Master Plan, it could provide a large expansion if future skier visitation warrants additional lift and terrain capacity. The lift itself would be about 2,000 meters in length and would provide access to about 200 hectares of additional skiing, including a significant amount of “side-country” to add variety to the Alpine ski experience.

6.0 Figures

SKÍÐASVÆÐI ÍSAFJARÐARBÆJAR

EXISTING CONDITIONS PLAN

Legend

- Ski Lift
- Ski Trail
- Road
- Tunnel Road
- Nordic Ski Trail
- Hiking Trail
- Building

N

GRAPHIC SCALE (M)

0 100 200 400

Scale= 1:10,000

Prepared by:

SE GROUP

Búrfell Summit
Elev. 745m

Miðfell Summit
Elev. 607m

Miðfell Lift Top
Elev. 487m

Sandfell Lift Top
Elev. 413m

Nordic Base Area
Elev. 280m

Base Area
Skíðaskáli
Elev. 100m

MIÐFELL

SANDFELL

BARNALYFTAN

1 2 3 4 6 7 10 11 12 14 15

SKÍÐASVÆÐI ÍSAFJARÐARBÆJAR

SLOPE ANALYSIS

Legend

- Ski Lift
- Ski Run
- Road
- Tunnel Road
- Nordic Ski Trail
- HikingTrail
- Building

70% and Above	Expert Only
45 - 70%	Most Difficult
35 - 45%	Most Difficult
25 - 45%	More Difficult
8 - 25%	Easier
0 - 8%	Unsuitable for Skiing

N

GRAPHIC SCALE (M)

0 100 200 400

Scale= 1:10,000

Prepared by:

SE GROUP

Miðfell Summit
Elev. 607m

Búrfell Summit
Elev. 745m

Miðfell Lift Top
Elev. 487m

Sandfell Lift Top
Elev. 413m

Nordic Base Area
Elev. 280m

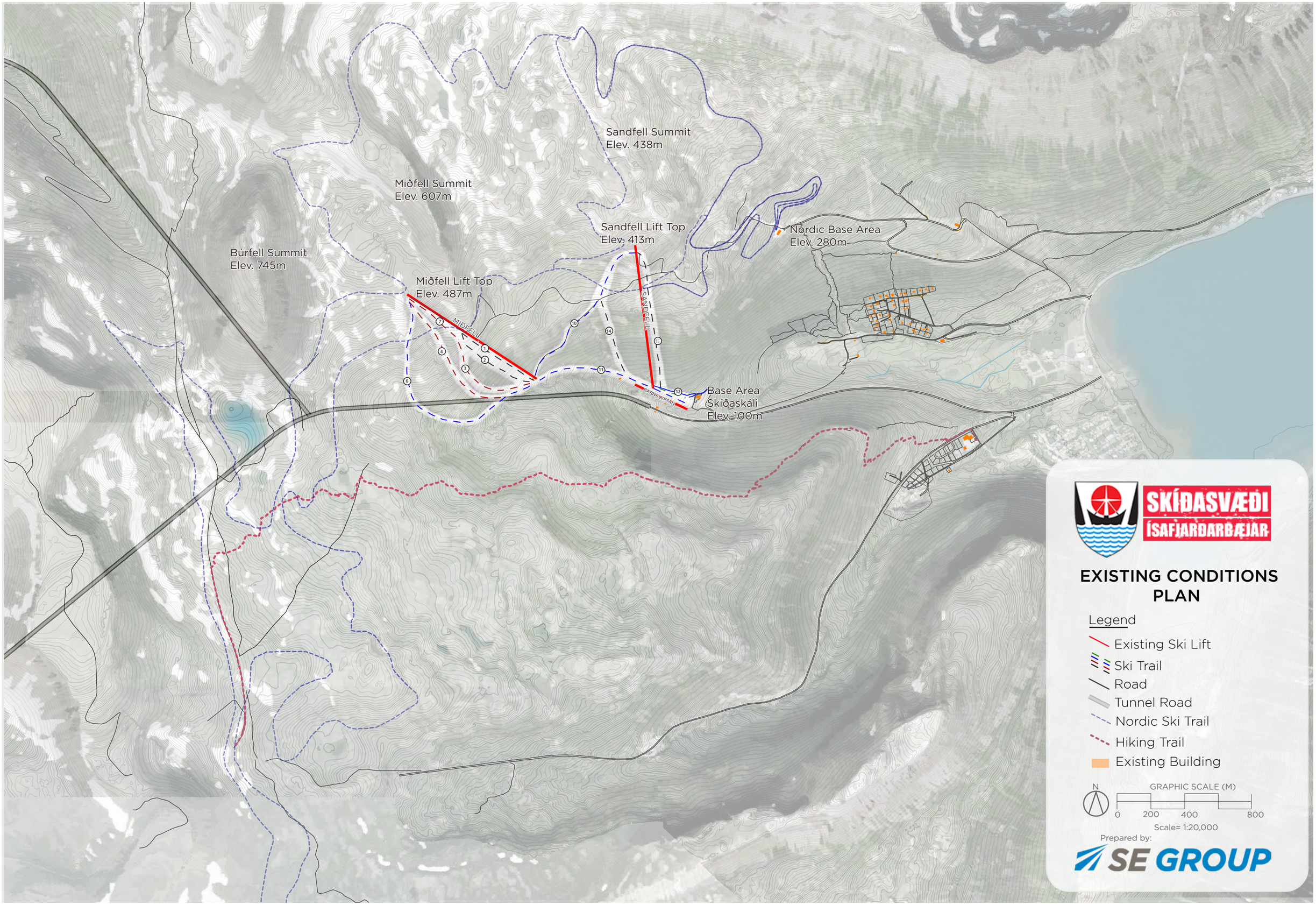
Base Area
Skíðaskáli
Elev. 100m

MIÐFELL

SANDFELL

BARNALYFTAN

1 2 3 4 5 6 7 10 11 12 14 15


Sandfell Summit
Elev. 438m
Miðfell Summit
Elev. 607m
Sandfell Lift Top
Elev. 413m
Nordic Base Area
Elev. 280m
Búrfell Summit
Elev. 745m
Miðfell Lift Top
Elev. 487m
MIÐFELL
SANDFELL
BARNALYFTAN
Base Area
Skíðaskáli
Elev. 100m
SKÍÐASVÆÐI
ÍSAFJARÐARBÆJAR
EXISTING CONDITIONS PLAN
Legend
Existing Ski Lift
Ski Trail
Road
Tunnel Road
Nordic Ski Trail
Hiking Trail
Existing Building
N
GRAPHIC SCALE (M)
0
200
400
800
Scale= 1:20,000
Prepared by:
SE GROUP

SKÍÐASVÆÐI ÍSAFJARÐARBÆJAR

MASTER PLAN

Legend

- Proposed New Ski Lift
- Ski Lift to be Removed
- Existing Ski Trail
- Nordic Ski Trail
- Proposed Nordic Ski Trail
- Proposed New Ski Trail
- Proposed Snowmaking
- Proposed New Ski Race Trail
- Proposed New Building
- Proposed New Road

N

GRAPHIC SCALE (M)

0 100 200 400

Scale= 1:10,000

Prepared by:

SE GROUP

SANDFELL SUMMIT
- Warming hut (alpine and Nordic)
- Restrooms

Miðfell Summit
Elev. 607 m

Sandfell Summit
Elev. 426 m

Existing Nordic
Base Area
Elev. 280 m

4E 4F 4B 4A 4G 4D 4C
PROPOSED LIFT 4
Miðfell Lift Top
Elev. 487 m

3B 3A 3G 3E 3F 3H 3C 3D
PROPOSED LIFT 3

1C 1B 1A 1D 1F 1E
PROPOSED LIFT 1 - HIGH SPEED LIFT

MID LOAD STATION

PROPOSED CARPET

2A 2C 2B 2D
PROPOSED LIFT 2

MIÐFELL

SANDFELL

BARNALYFTAN

PROPOSED CARPET

Tunnel

Low Snow Year Snow Line

MID MOUNTAIN
(REFER TO ENLARGEMENT PLAN)
- Primary community hub
- Alpine/ Nordic Lodge
  - Guest Services
  - Food and Beverage
  - Rentals/ Retail
  - Ski School
  - Restrooms
- Nordic Stadium
- Learning Conveyors
- Parking

EXISTING BASE AREA
- Maintenance
- Ticket kiosk
- Race facilities/ storage
- Restrooms
- Potential parking expansion
- Snowmaking infrastructure (pond

SKÍÐASVÆÐI ÍSAFJARÐARBÆJAR

MID MOUNTAIN ENLARGEMENT

Legend

- Proposed New Ski Lift
- Ski Lift to be Removed
- Existing Ski Trail
- Nordic Ski Trail
- Proposed Nordic Ski Trail
- Proposed New Ski Trail
- Proposed New Building
- Proposed New Road

N

GRAPHIC SCALE (M)

0 40 80 160

Scale= 1:4,000

Prepared by:

SE GROUP

Sandfell Summit
Elev. 426 m

Existing Nordic
Base Area
Elev. 280 m

EXISTING ROA

1A 1B 1C 1D 1E 1F

2B 2D

3A 3B 3C 3D 3H

PROPOSED LIFT 1 - HIGHSPEED LIFT

PROPOSED LIFT 2

PROPOSED LIFT 3

MID LOAD STATION

PROPOSED ROAD

NORDIC STADIUM

SNOW PLAY

LODGE

PARKING
~400 SPACES

PROPOSED CARPET

SANDFELL

10 14 15

SKÍÐASVÆÐI ÍSAFJARÐARBÆJAR

SUMMER PLAN

Legend

- Proposed New Ski Lift Summer Use
- Proposed New Ski Lift Winter Use
- Ski Lift to be Removed
- Existing Mountain Bike Trail
- Proposed Mountain Bike Area/ Trails
- Proposed Hiking Trail
- Proposed Zip line
- Proposed New Building
- Proposed New Road

N

GRAPHIC SCALE (M)

0 100 200 400

Scale= 1:10,000

Prepared by:

SE GROUP

HIKING
- Trail developed in high alpine zone
- Connection to Hnifsoalvik.

LIFT RIDES
Access to mid Mountain / top of mountain

SANDFELL SUMMIT
- Views of Town and Port
- Catered F & B
- Restrooms

MOUNTAIN BIKING
- Lift Served
- Flow trails for all ability levels
- E bikes

MID MOUNTAIN
- Tickets
- Lift Access
- F&B Events (larger groups)
- Restrooms

VIEW OPPORTUNITY
- Viewing Platform
- Interpretive Trail

EXISTING BASE AREA
- Tickets
- Lift access
- Restrooms

PROPOSED COMMUNITY TRAIL
System connect to the ski area

ZIP TOURS
2 Spans, could be more depending on capacity/ demand

HIKING
Trails to experience different landscape and end at prominent view areas

MOUNTAIN BIKING
- Trail connections to east network
- Return trail to base area

Sandfell Summit
Elev. 426 m

Miðfell Summit
Elev. 607m

Miðfell Lift Top
Elev. 487m

Existing Nordic Base Area
Elev. 280m

MID LOAD STATION

PROPOSED SURFACE LIFT 3

PROPOSED LIFT 1 HIGH SPEED LIFT

SANDFELL

MIÐFELL

SKÍÐASVÆÐI ÍSAFJARÐARBÆJAR

MASTER PLAN PHASE 1

Legend

- Existing Ski Lift
- Proposed New Ski Lift
- Ski Lift to be Removed
- Existing Ski Trail
- Nordic Ski Trail
- Proposed Nordic Ski Trail
- Proposed New Ski Trail
- Proposed Snowmaking
- Proposed New Ski Race Trail
- Proposed New Building
- Proposed New Road

N

GRAPHIC SCALE (M)

0 100 200 400

Scale= 1:10,000

Prepared by:

SE GROUP

Miðfell Summit
Elev. 607 m

Sandfell Summit
Elev. 426 m

Miðfell Lift Top
Elev. 487 m

PROPOSED SURFACE LIFT 3

PROPOSED LIFT 1 HIGH SPEED LIFT

MID LOAD STATION

PROPOSED CARPET

MIÐFELL

SANDFELL

BARNALYFTAN

Tunnel

Low Snow Year Snow Line

Existing Nordic Base Area
Elev. 280 m

SANDFELL SUMMIT

- Warming hut (alpine and Nordic)
- Restrooms

MID MOUNTAIN

(REFER TO ENLARGEMENT PLAN)

- Primary community hub
- Alpine/ Nordic Lodge
  - Guest Services
  - Food and Beverage
  - Rentals/ Retail
  - Ski School
  - Restrooms
- Nordic Stadium
- Learning Conveyors
- Parking

EXISTING BASE AREA

- Maintenance
- Ticket kiosk
- Race facilities/ storage
- Restrooms
- Potential parking expansion
- Snowmaking infrastructure (pond

SKÍÐASVÆÐI ÍSAFJARÐARBÆJAR

FUTURE EXPANSION OPPORTUNITY

Legend

- Proposed New Ski Lift
- Ski Lift to be Removed
- Existing Ski Trail
- Nordic Ski Trail
- Proposed Nordic Ski Trail
- Proposed New Ski Trail
- Proposed New Ski Race Trail
- Proposed New Building
- Proposed New Road

N

GRAPHIC SCALE (M)

0 100 200 400

Scale= 1:10,000

Prepared by:

SE GROUP

Miðfell Summit
Elev. 607 m

Sandfell Summit
Elev. 426 m

Miðfell Lift Top
Elev. 487m

PROPOSED LIFT 4

PROPOSED LIFT 3

PROPOSED LIFT 2

PROPOSED LIFT 1 - HIGH SPEED LIFT

PROPOSED LIFT 5

MID LOAD STATION

PROPOSED CARPET

PROPOSED CARPET

MIÐFELL

SANDFELL

BARNALYFTAN

Low Snow Year Snow Line

Existing Nordic Base Area
Elev. 280 m

SANDFELL SUMMIT

- Warming hut (alpine and Nordic)
- Restrooms

MID MOUNTAIN

(REFER TO ENLARGEMENT PLAN)

- Primary community hub
- Alpine/ Nordic Lodge
  - Guest Services
  - Food and Beverage
  - Rentals/ Retail
  - Ski School
  - Restrooms
- Nordic Stadium
- Learning Conveyors
- Parking

EXISTING BASE AREA

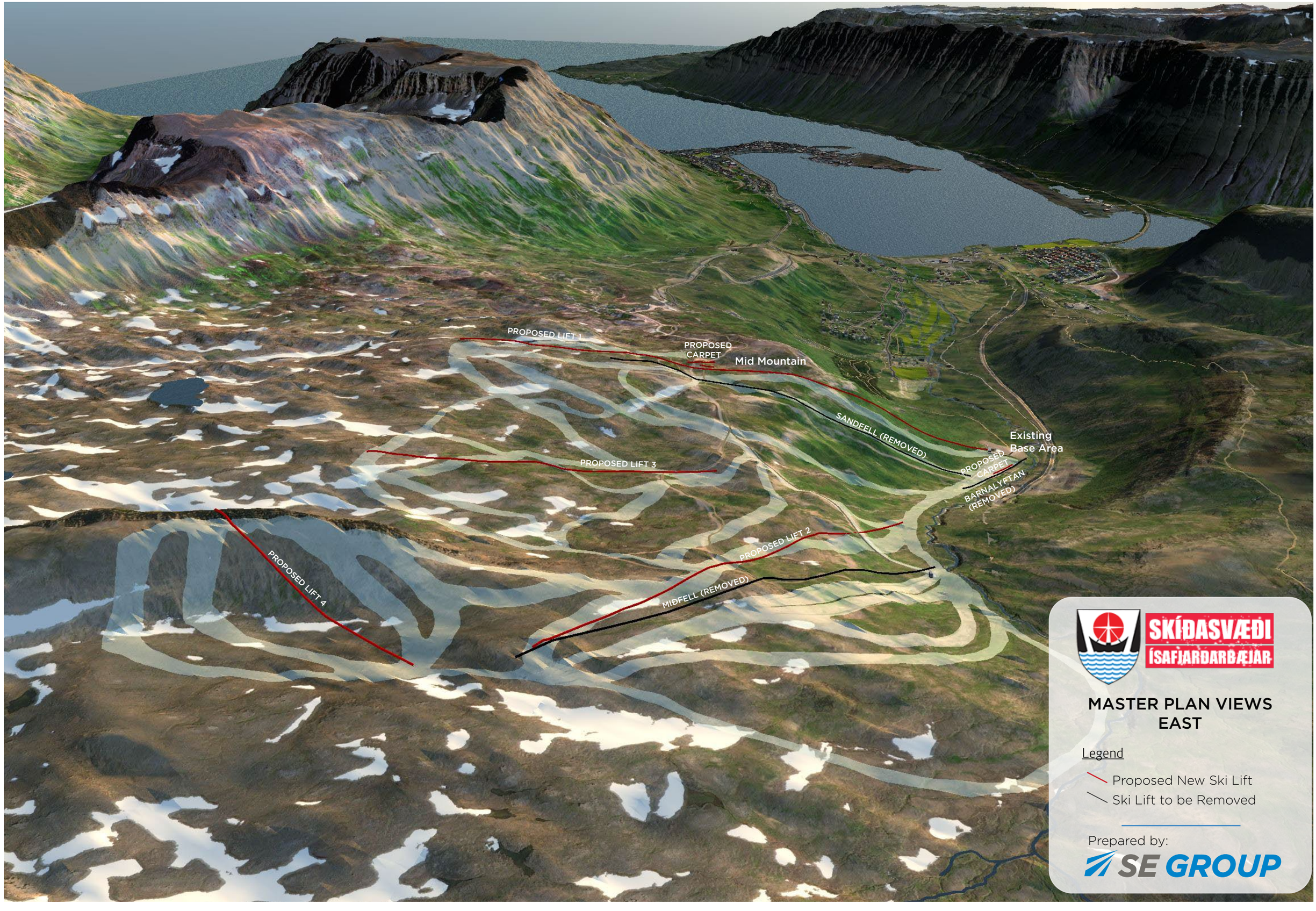
- Maintenance
- Ticket kiosk
- Race facilities/ storage
- Restrooms
- Potential parking expansion
- Snowmaking infrastructure (pond

POTENTIAL EXPANSION AREA

- Mountain top cafe
- Nordic and Alpine Trails
- Developed and undeveloped trails


PROPOSED LIFT 4
PROPOSED LIFT 3
PROPOSED LIFT 1
PROPOSED CARPET
Mid Mountain
MIÐFELL (REMOVED)
PROPOSED LIFT 2
SANDFELL (REMOVED)
BARNALYFTAN (REMOVED)
PROPOSED CARPET
Existing Base Area
SKÍÐASVÆÐI ÍSAFJARÐARBÆJAR
MASTER PLAN VIEWS OVERVIEW
Legend
Proposed New Ski Lift
Ski Lift to be Removed
Prepared by:
SE GROUP


PROPOSED LIFT 4
PROPOSED LIFT 3
PROPOSED LIFT 1
PROPOSED CARPET
Mid Mountain
PROPOSED LIFT 2
MIÐFELL (REMOVED)
SANDFELL (REMOVED)
BARNALYFTAN (REMOVED)
PROPOSED CARPET
Existing
Base Area
SKÍÐASVÆÐI
ÍSAFJARÐARBÆJAR
MASTER PLAN VIEWS
NORTH
Legend
Proposed New Ski Lift
Ski Lift to be Removed
Prepared by:
SE GROUP


PROPOSED LIFT 1
PROPOSED CARPET
Mid Mountain
SANDFELL (REMOVED)
Existing Base Area
PROPOSED CARPET
BARNALYFTAN (REMOVED)
PROPOSED LIFT 3
PROPOSED LIFT 4
PROPOSED LIFT 2
MIÐFELL (REMOVED)
SKÍÐASVÆÐI ÍSAFJARÐARBÆJAR
MASTER PLAN VIEWS EAST
Legend
Proposed New Ski Lift
Ski Lift to be Removed
Prepared by:
SE GROUP


PROPOSED LIFT 4
MIDFELL (REMOVED)
PROPOSED LIFT 2
PROPOSED LIFT 3
PROPOSED LIFT 1
SANDFELL (REMOVED)
PROPOSED CARPET
Mid Mountain
BARNALYFTAN (REMOVED)
PROPOSED CARPET
Existing
Base Area
SKÍÐASVÆÐI
ÍSAFJARÐARBÆJAR
MASTER PLAN VIEWS
WEST
Legend
Proposed New Ski Lift
Ski Lift to be Removed
Prepared by:
SE GROUP