

RØDE KORS HAUGLAND REHABILITERINGSSENTER AND UNITED WORLD COLLEGE RED CROSS NORWAY

REPORT:

Preliminary study for a new zoning plan at Haugland





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Figure 1, 2, 3 and 4 (previous page) : Pictures from the location study
Figure 5 (This page): Picture from the location study

1.0 Introduction

1.1 Background

Norconsult has been engaged to do a preliminary study of the current and future needs for the two organizations Haugland Rehabiliteringssenter (RKHR) and United World College Red Cross Nordic (UWC RCN). They share the land of property owners Red Cross Sogn og Fjordane at Haugland, in Fjaler municipality. The land was bequeathed to Red Cross Sogn og Fjordane by Haugland farms previous property owner, Christian Bekker. In his will he set a condition that the property should be used for humanitarian and inspiring purposes.

The two organizations that share the land, both serve to maintain humanitarian and inspiring purposes, however their target groups are different, and they need to use the land in different ways. To uphold a sustainable growth at Haugland they now need a new zoning plan to maintain their humanitarian and inspirational purposes, but also allow for sustainable development as they have outgrown their current zoning plan. Through a preliminary study, Norconsult will present all the needs of the two different organizations to make sure this is being taken into consideration during the zoning plan process.

Red Cross Haugland Rehabilitation Center is a specialist institution in physical medicine and rehabilitation that focuses on values of respect and equality. They offer temporary stay for people undergoing rehabilitative treatment for both groups and individuals. Their age group span from children to adults form 6 and up. Each year they welcome about 1100 people at the center. They offer amongst other nice hiking trails and other outdoor activities. Inside they have a swimming pool, climbing wall and a gym. They have 74 fulltime positions and nearly 100 employees. The main building at Røde kors Haugland rehabiliteringssenter were finished in 1992.

UWC RCN is a school that strives to unite people, nations and cultures for peace and a sustainable future. Their schools offer an educational experience to a diverse group of students that is going to serve as an inspiration to work to uphold the schools’ values beyond the classroom. The branch at Haugland is one of eighteen Colleges in the world, and they work to serve their three pillars Humanitarian, Environmental and Nordic. United World College, UWCRKH, were in 1995 finished with its first construction step.

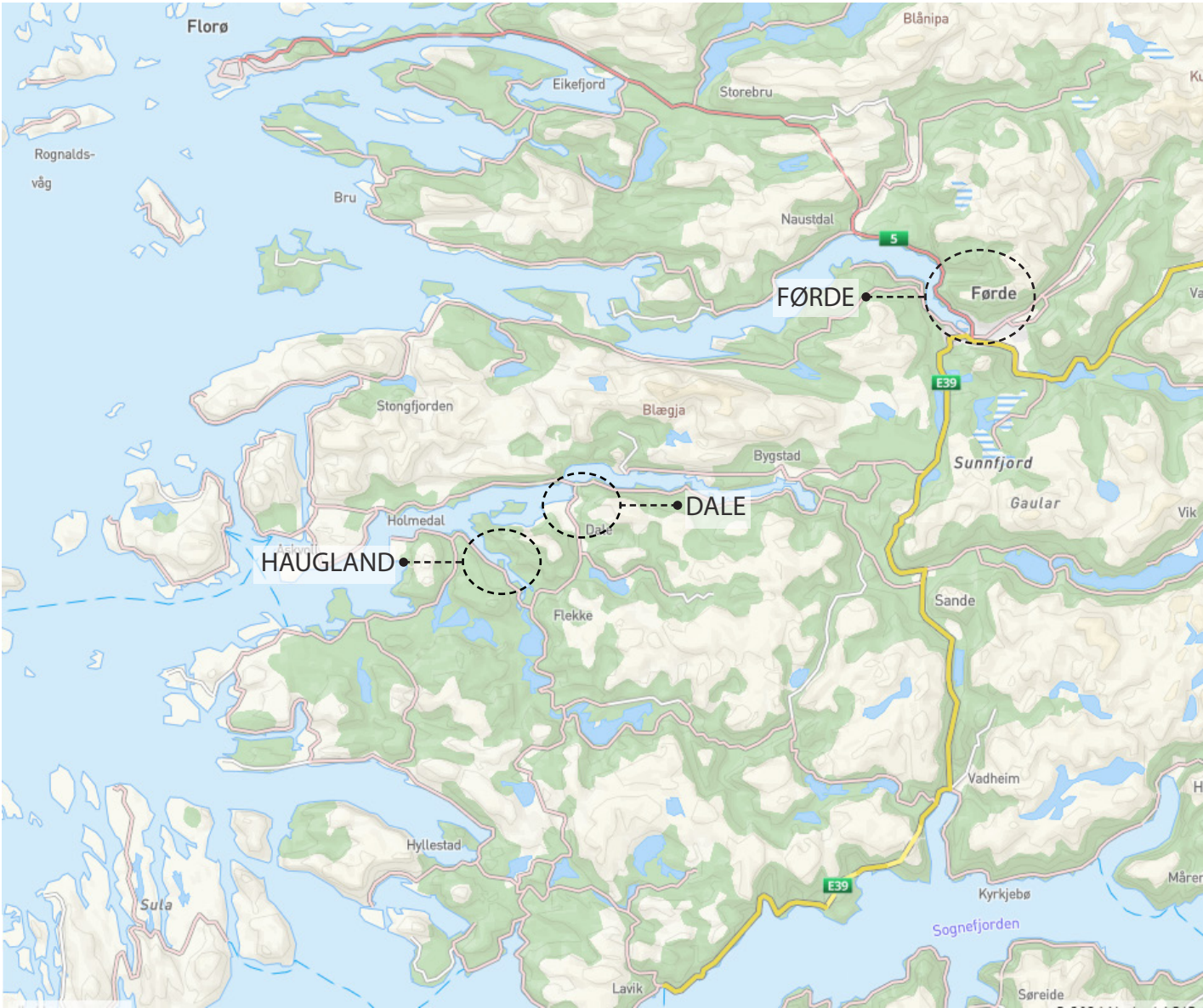


Figure 5: Map over the nearby area. Haugland is located about 13 km from the municipality center Dale and is a small community in a fjord called Flekkefjord at the vest coast of Norway. Source: kommunekart.com

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1.2 Main objectives

The objective of this preliminary study has been to make sure the development is sustainable and to identify possibilities and ideas that are based on the wishes and needs of every user in the area. Both RKHR and UWC RCN have made sure representatives of the organizations have been included in the process.

The aim of the work has been to:

1. consider all users of the area, without changing the place's character.
2. suggest and collect information about new measures for upgrades to the area.
3. consider the existing situation, in consideration with architecture, buildings and the areas outside.
4. keep the development sustainable by having a mindful view of the use of area
5. make the area accessible for everyone
6. figure out what new measures need a zoning plan.

1.3 Process

This report is the result of a process that was divided into several phases in which Norconsult after each phase came together with RKHR and UWC RCN to receive feedback for our work moving further. The process surrounding the preliminary study started with a participation workshop at Haugland following a location study of the land. In this phase we clearly saw the two organizations common goals. The work following the participation workshop consisted of sorting through the input and the existing work available from different processes and present it in a way so that it could be used to develop sketches. These sketches in phase two were used to sort out the most important and pressing matters to focus on in the work leading up to a zoning plan. In this stage we understood more about the two organizations different needs and what priorities were the focus for them. We identified what areas needed to be developed and if we needed any other feedback from other fields of study.

We concluded that UWC RCN needed to look closer at the issues surrounding housing as this was still unclear. This resulted in another phase of volume studies conducted by Norconsult. In this phase we reached a decision about the placement of a new community center. All these phases were used to achieve the goals of sustainable development at Haugland. The conclusion of this process will be presented in this report as an overall plan that consider all common and differentiating interest. But first we will have a closer look at the framework for the plan presented at the end of this report.



Figure 5: From the location study, the place where we suggest moving the existing floating docs to.



Figure 6: From the participation workshop. One of the groups are presenting their solution.



Figure 7: From the participation workshop. One of the groups maps over the area with their suggestions and wishes. Their slogan is "A meeting place of diversity in the outdoors".

2.0 Framework for future land use

2.1 Current situation and analysis

Today the two organizations have outgrown their facilities. There is limited space left for development and some restrictions due to areas for special considerations when it comes to avalanches, flooding and generally difficult topography to develop new areas. As the climate change so does the frequency and extent of surface water, floods and landslides. Planning for future development is therefore difficult. We want to avoid hazardous areas, however future climate change could change the prerequisite of the current situations. Therefore, there might be a need to look further at this in later phases in the process of development. We have used what is currently available for us to assess what areas to build today.

Topography

The terrain at Haugland is steep. There are steep mountainsides that slope down towards the fjord. Closer to the water, it flattens out. These steep mountains create a wall on one side, while Hesteneset and the Haugland islets are landscape elements that enclose the landscape room around the main buildings at Haugland. Northwards towards Trulsneset it is more open. The fjord contains landscape rooms of different scales but are in general enclosed. The terrain makes it difficult to develop new areas, because it will entail a lot of terrain work to build new areas.

Avalanches

There has been done some mapping of the current avalanche issues around the main building at RKHR and UWC RCN. This mapping was done by Sunnfjord Geo Center. They have looked at which areas are danger zones for avalanches and therefore we can look at this when it comes to determining where to build. But as they point out in the report, the hazard zone that is the basis of this report may not apply if logging is done on the mountainside. Our suggestion is based on the hazard zone that is pictured. In the zoning plan, it must be coordinated with the municipality if it is planned to include protective forest measures in the area above where assessments have been made; this is a prerequisite for the measures to be implemented as shown in the report. Such prerequisites must also be included in the planning of other areas. At Miklagard, there is a small area that is not within a consideration zone. This, however, is an uncertain assessment of landslides, and we must be completely sure that this applies within the correct area.



Figure 8: Picture from the location study showing the steep terrain at Haugland.

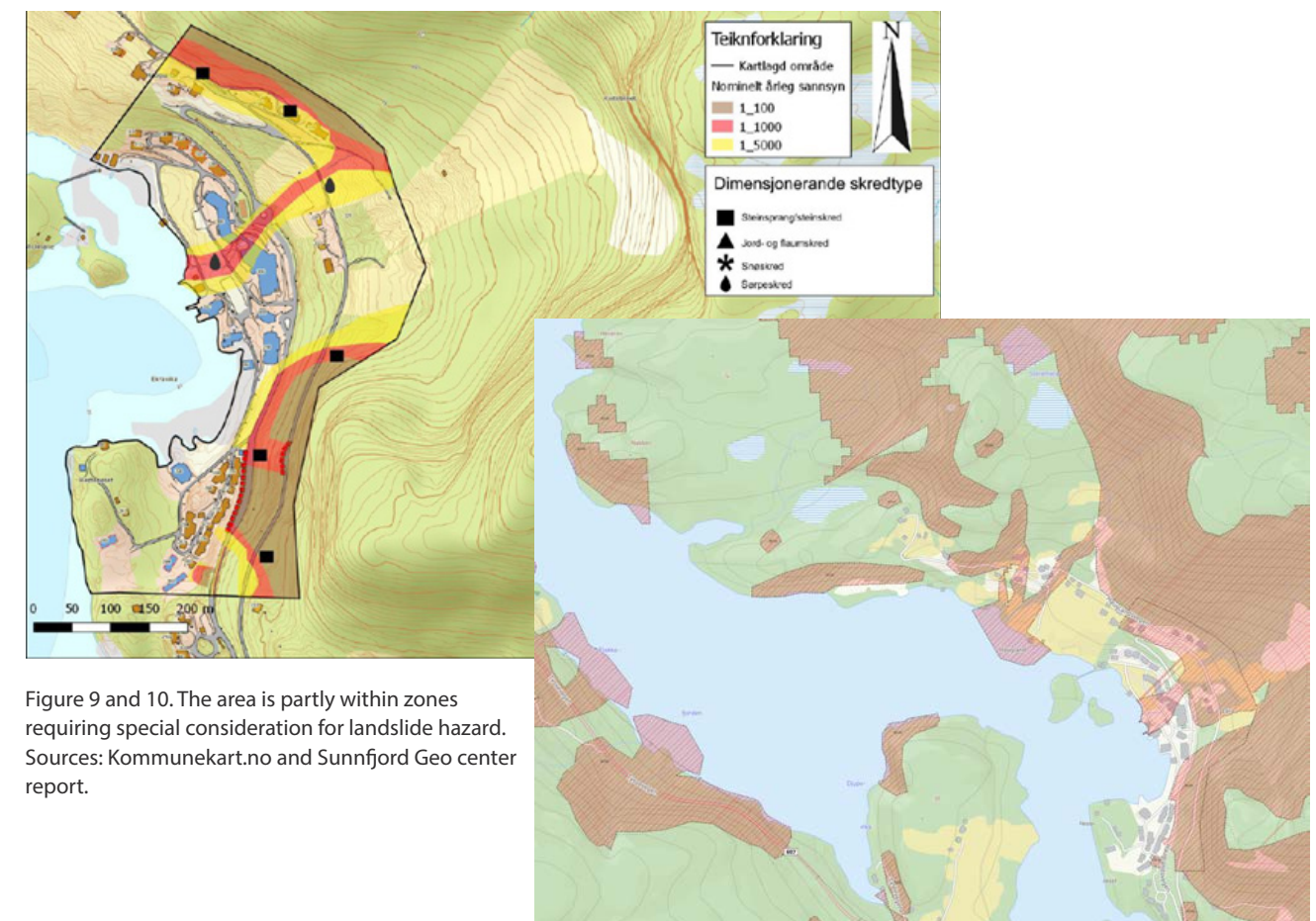


Figure 9 and 10. The area is partly within zones requiring special consideration for landslide hazard. Sources: Kommunekart.no and Sunnfjord Geo center report.

Flooding

Since the terrain flattens out closer to the fjord, we see the possibility of flooding issues here as the water might rise above the current coastline, therefore flooding some of the houses by the shore. This will make it difficult building close to the sea. It is also important to keep in mind current law restrictions of building close to the coastline. In addition to this most of the area also lies within the marine boundary, and some of the areas are within areas with possible marine clay.

Nature considerations

Consideration zones for open air recreation have also been shown in a consideration analysis of the area. Here we see that most of the fjord, Haugland islets and Hesteneset is a consideration for open air recreations. In addition to this we see that just next to the bridge connection over to Haugland islets there is a zone where we must consider eelgrass, an important nature type in the ocean and a spawning ground for fish.



Figure 11. The area lies below the marine boundary and in an area with possible marine clay. Source: Fylkesatlas.no



Figure 12. Parts of the area are below sea level during storm surges. The illustration shows storm surge 2090 with a 1000-year interval. Source: Fylkesatlas.no

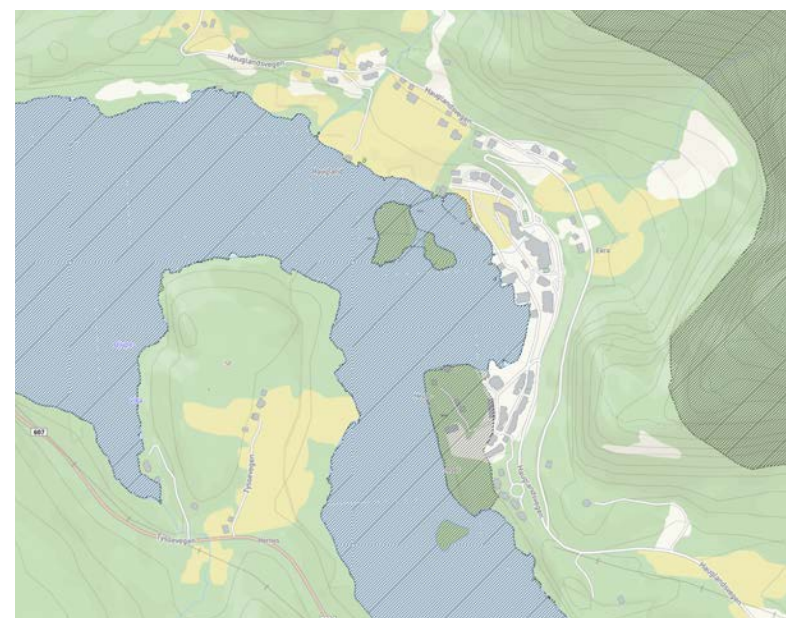


Figure 13. There has been a mapping of the existing areas for open-air recreation around Hauglandssenteret and UWC. These are important areas for recreation with a high number of visitors. Sources: Kommunekart.no

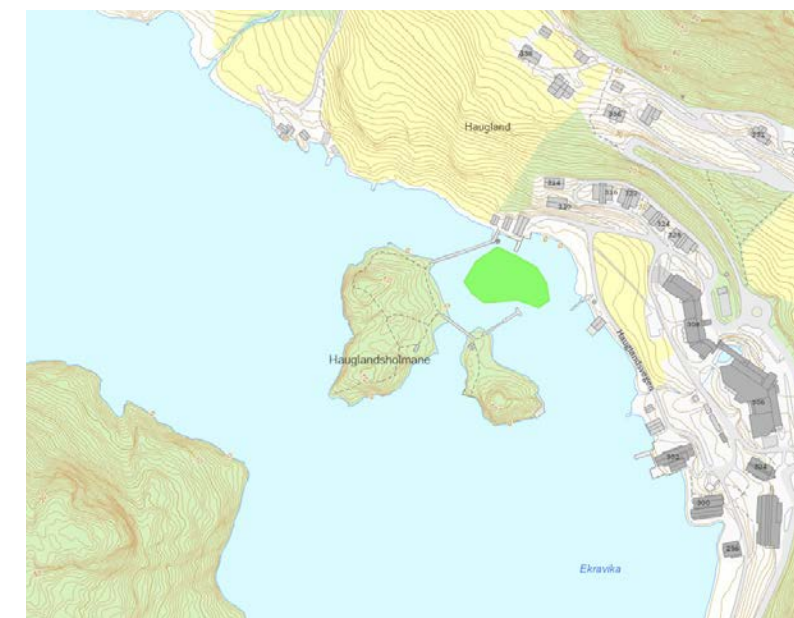


Figure 14. There is an eelgrass bed in the marine area of local importance. The fjord is also a spawning ground for cod and a national fjord for salmon. Source: Fylkesatlas.no

2.2 Previous work done in the area

There has been done some work previously, connected to developing the land at Haugland. The rehabilitation center has amongst other made an overall plan for developing their area and UWC RCN has done some work with their canteen building. Their current zoning plan is outdated and does not open for all the needs the two organizations have and the municipality can't accept applications for an exemption from the zoning plan, they need a new zoning plan. Although we are unable to use some of the work made available for us due to previous decisions made, we can use some of the elements from the previous work, in addition to the feedback we have gotten from the participation workshop and from the two organizations throughout the process, to make an overall plan that can be used as a guiding line for the new zoning plan.

A list of previous work made available for Norconsult:

- Miklagard mulighetsstudie by Arkitektgruppen CUBUS.
- Reguleringsplan for miljøgrenda Miklagard, notat til oppstartsmøte med Fjaler kommune by Arkitektgruppen CUBUS
- Fjord/ Fjære aktivitets- og ressurs-senter by Sivilarkitekt MNAL Olav M. Hovland.
- Plan for universal design by Arkitektgruppen CUBUS.
- GPS tracking of hiking trails provided by RKHR.
- Skredfarevurdering ved Hauglandsenteret og UWC på Haugland i Fjaler kommune by Sunnfjord Geo Center
- Skredfarevurdering for deler av eiendom med gbnr. 41/4 på Haugland, Fjaler commune by Sunnfjord Geo Center
- UWC – New Canteen Building with outdoor area – Feasibility study 13.05.2020 by Arkitektgruppen CUBUS.
- 20-11056 møte om anleggsutvikling REHAB og SFR ES 12.11.20
- Aktivitetsområde L40-8 delplan 8 by Arkitektgruppen CUBUS
- Hauglandsenteret heilskapsplan 1-750 (A1) 02.07.2020 by Flataker Landskap i samarbeid med ARKI AS
- Innspel til heilskapsplan
- Red cross Haugland rehabilitation center and united world college red cross Nordic. Traffick assessment April 23, 2015 by Sweco

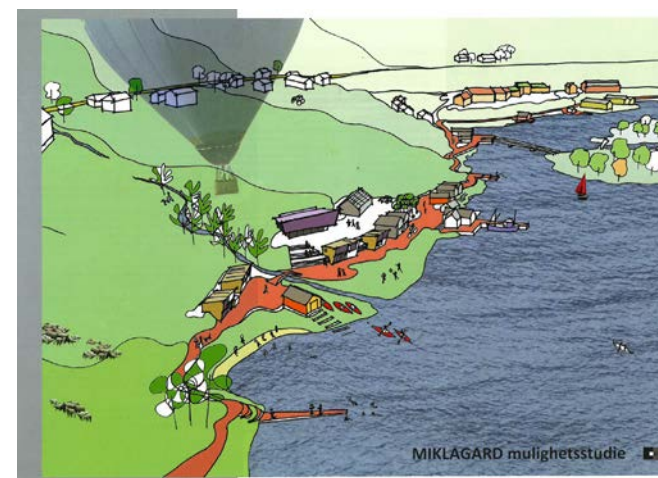


Figure 15. Miklagard mulighetsstudie by Arkitektgruppen CUBUS.

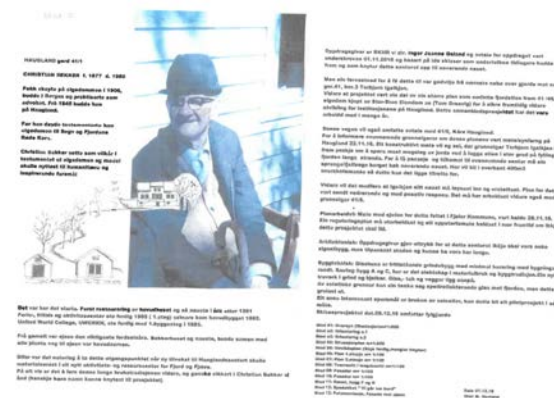


Figure 16. Fjord/ Fjære aktivitets- og ressurs-senter by Sivilarkitekt MNAL Olav M. Hovland.



Figure 17. UWC – New Canteen Building with outdoor area – Feasibility study 13.05.2020 by Arkitektgruppen CUBUS.



Figure 18. Hauglandsenteret heilskapsplan 1-750 (A1) 02.07.2020 by Flataker Landskap i samarbeid med ARKI AS

2.3 Findings from phase 1 and 2

During the process we have had different phases and received feedback from each one. The discussions we've had with the two organizations have been very valuable in the development of the final overall plan. The first phase was the participation workshop. During this phase people could be as creative as they wanted, and they had the possibility to suggest anything they wanted or needed. After this we made a list over the common feedback, and we found 8 points that were important for almost everyone. You can see the list below. We took this information and made some sketches. From the process following the sketches we were able to shorten the list and find our focus points for the overall plan. This was 4 points that made it possible to make an overall plan with the most important aspects that needed to be considered in the zoning plan.

Findings from phase one

Collaboration: Good opportunity for collaboration

Surroundings: Although beautiful, there is a need to create more areas for open-air recreation, both informal meeting places and organized sports.

Maintenance: Bridges and docks in bad condition, buildings need maintenance

Public: Want to keep area open for public, community café.

Nature and accessibility: Need more accessibility and universally designed areas so that everyone can experience the beautiful surroundings. Need paths and parking.

Equipment: storage is a problem, however the access to equipment is good.

Buildings and indoor spaces: Shortages in housing, need community hall, new canteen, gym, office and storage space. Positive with short distances.

Development: there is limited space left for development and some restrictions that need to be accounted for. Need a clear plan and prioritizing.

Findings from phase two:

Buildings:

expand indoor areas, primarily new admin buildings and gym for RKHR and expanded areas of the existing buildings, and new canteen, new study area for the students, indoor space for large gatherings like sports events and graduation for UWC.

Open-air recreation, sports, activities and informal meeting places and nature:

New areas in the forest for playground, activities and areas to learn about the outdoors.

Improve the outdoor activities, sports and informal hangouts.

Improve outdoor opportunities to meet up, some of those areas should have a roof or gapahuk.

Universal access:

Hiking trails: Universally accessible as far as possible.

Fjord path: Universally accessible.

Fjord: Universally accessible at docks and the two different swimming areas.

Access to important meeting places, on land and by boat.

Parking:

Parking is needed, but we need to estimate how much. Is it possible to do so without too much encroachment on terrain?

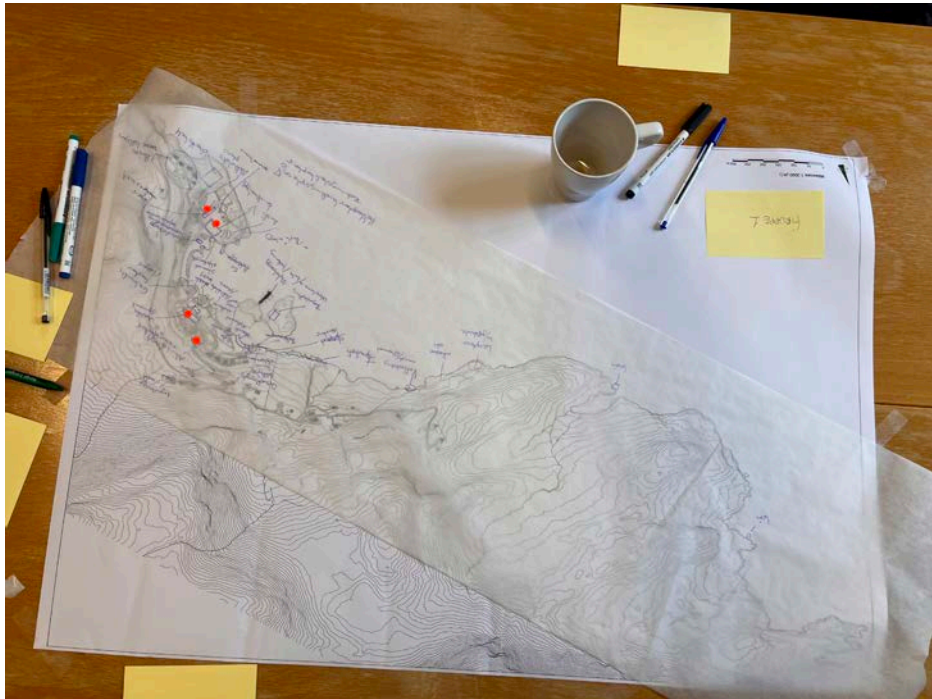


Figure 19. From the participation workshop - Group 1

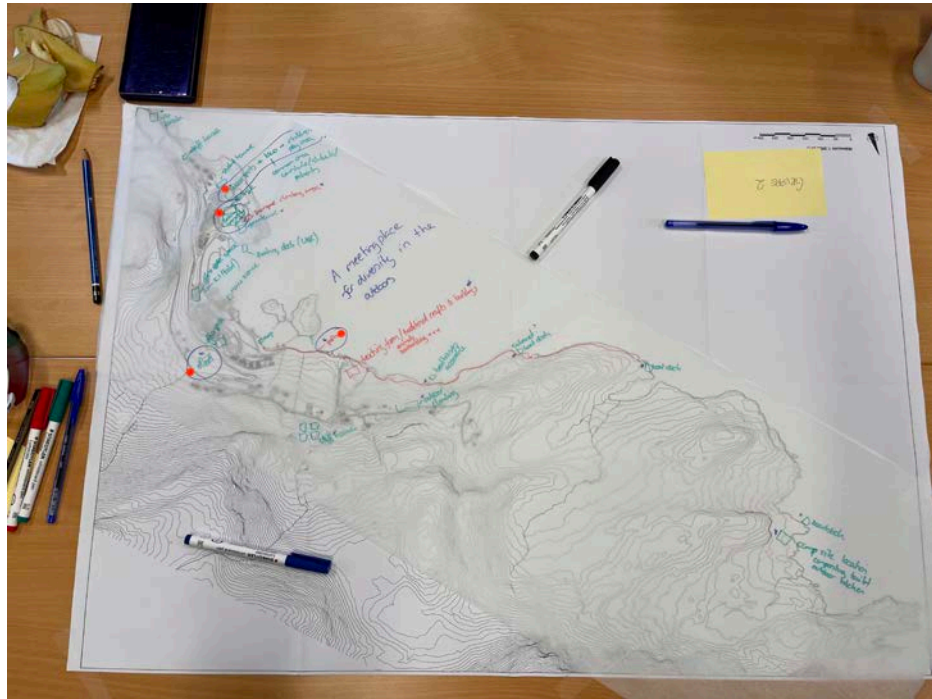


Figure 20. From the participation workshop - Group 2

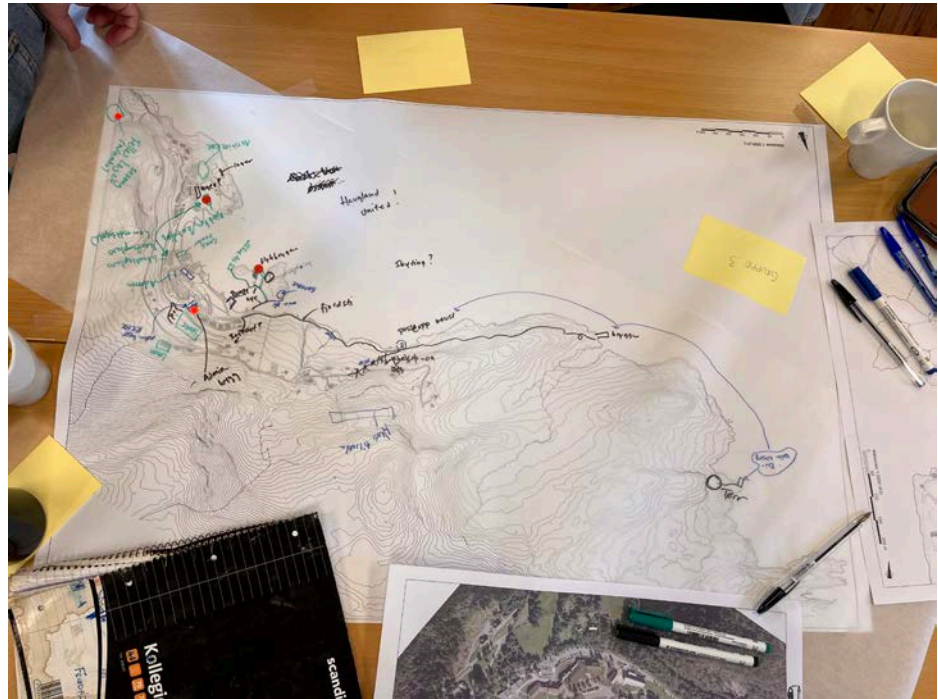


Figure 21. From the participation workshop - Group 3

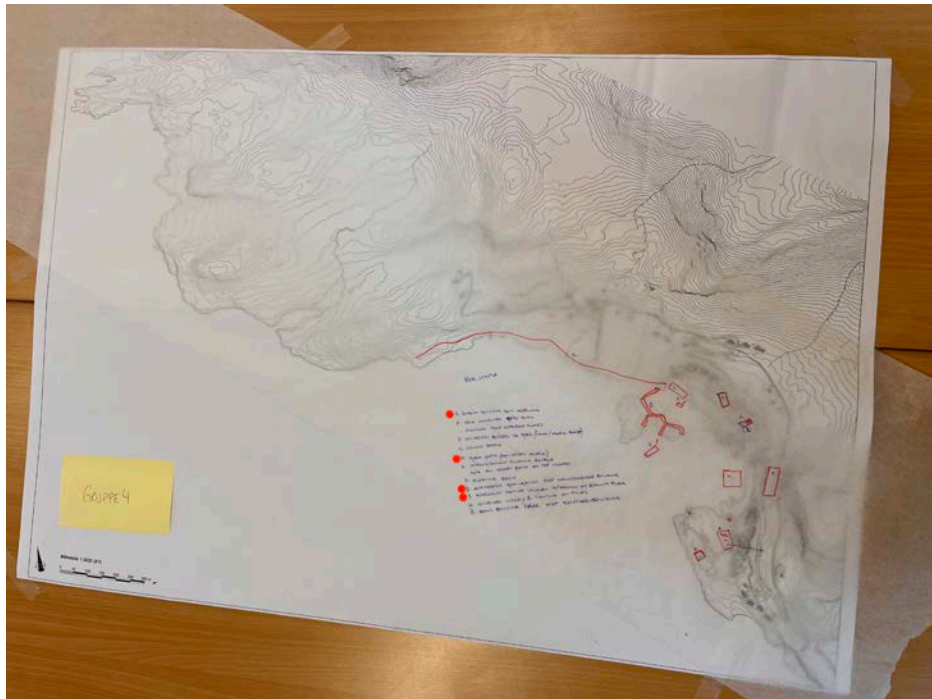


Figure 22. From the participation workshop - Group 4

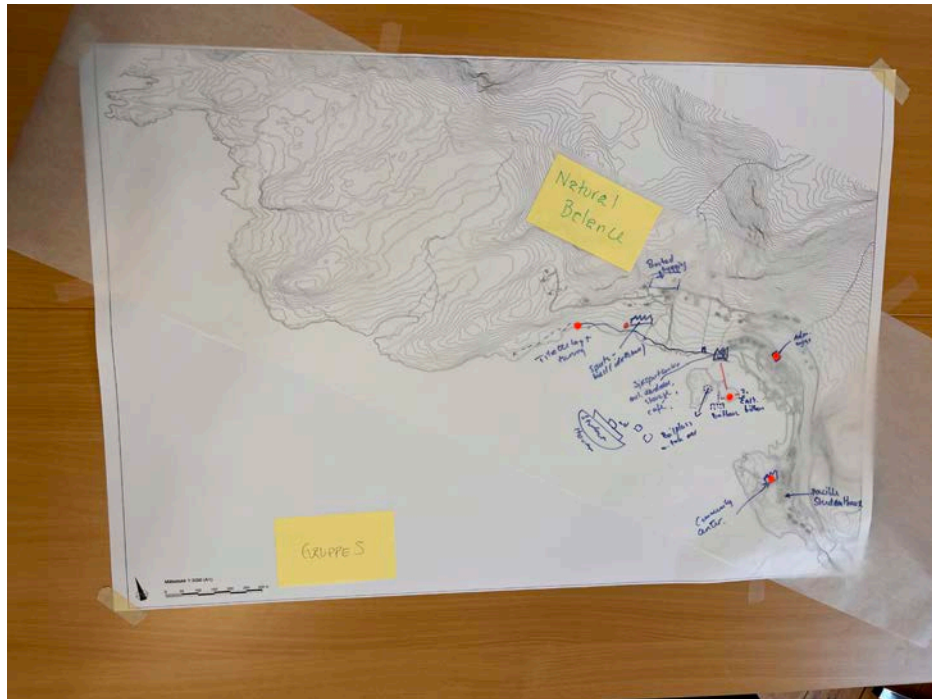


Figure 23. From the participation workshop - Group 5

2.4 Volume study UWC

During the second phase of the work, it became clear that UWC RCN needed to look closer at the building structure and need for more housing. Norconsult therefore suggested to engage an architect. We looked at different suggestions for location for the buildings and at pros and cons of the different suggestions. The buildings that were considered were a community center with a canteen, a new student house and an extension to the camp house. In addition to this we had to look at placement of a houseparent house and some additional extension to some buildings. The suggestions Norconsult made were presented to the board and property owners before summer of 2024, and a decision was made to have the new community building placed where the current football field is located. There has been a previous process with a new canteen building. This building was fragmenting nature and was therefore not accepted as a possibility due to the need to keep the nature area at Hesteneset intact.

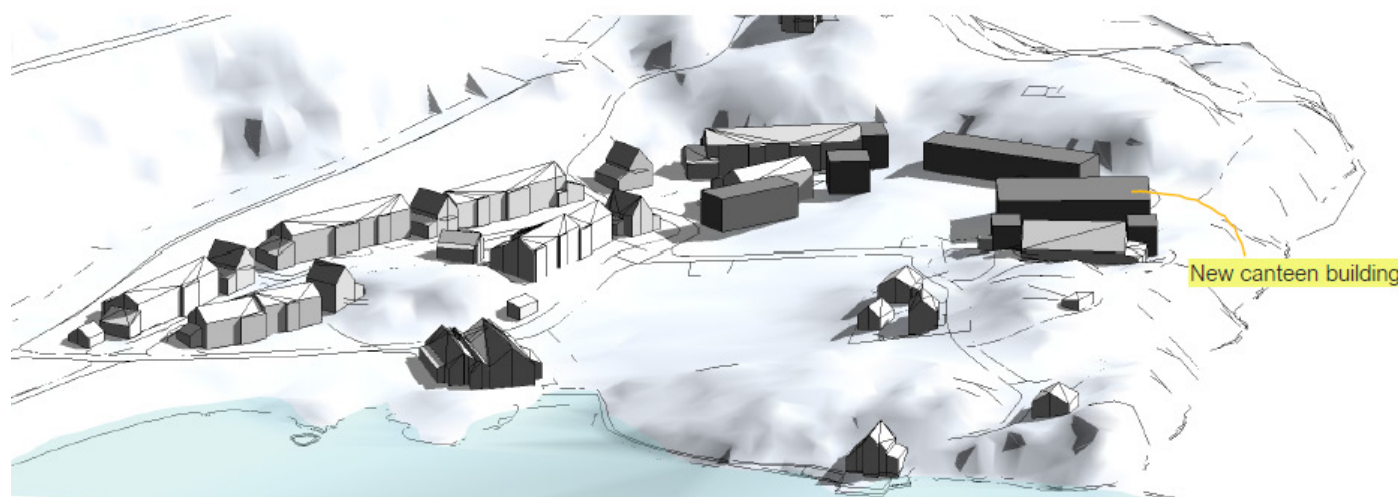


Figure 24. UWC – Volume study 3D prespective.

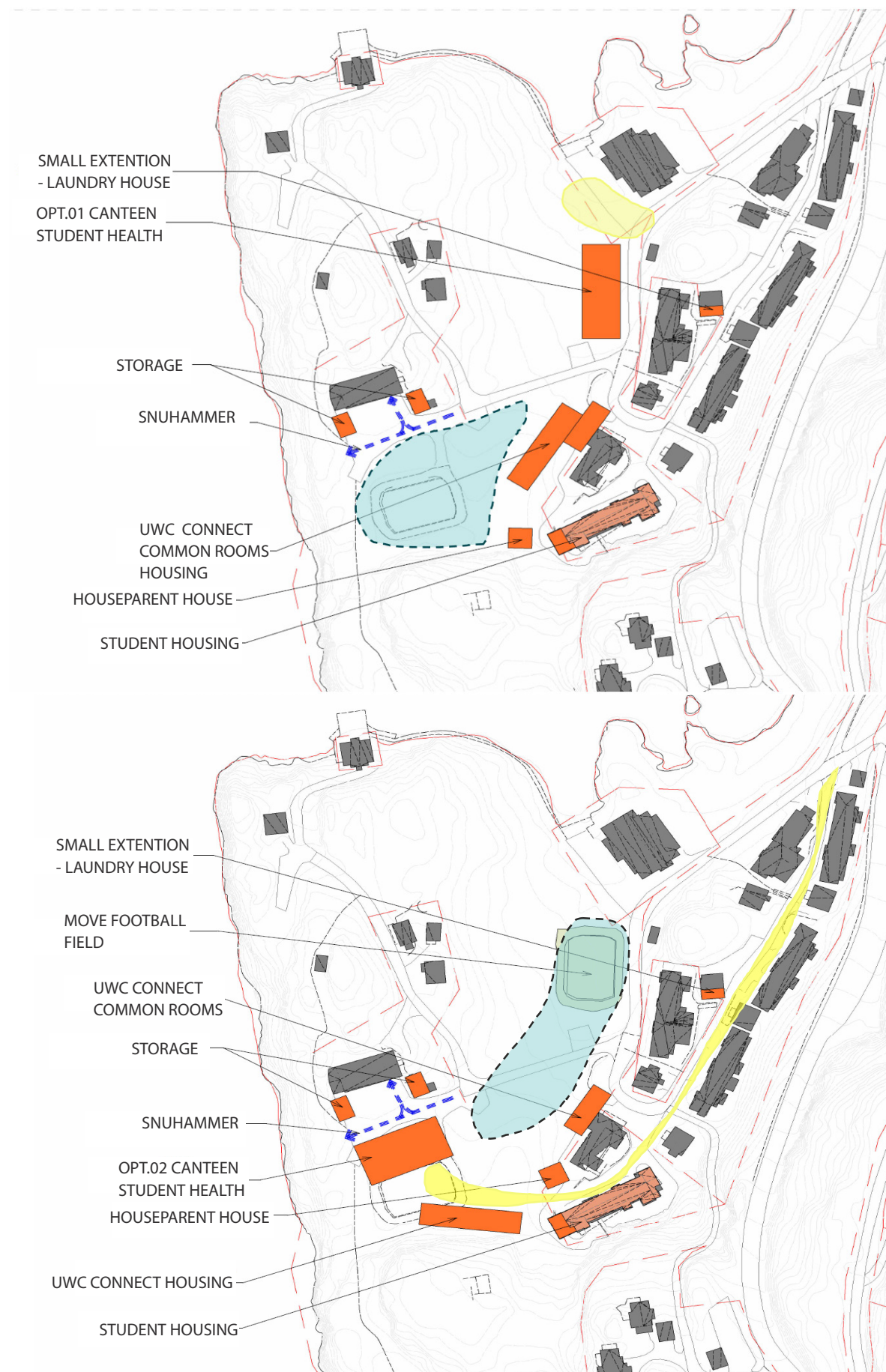


Figure 25. UWC – Volume study - diagrams of two different options

3.0 Overall plan and recommendation

3.1 Recommendation and main design strategies

How do we avoid building in hazardous areas and avoid fragmenting nature structures while still making sure we develop the land in a sustainable way?

When developing land, the main issue that always comes to mind is the balance between use and conservation. The two aren't mutually exclusive, which means we don't have to choose one over the other. We could use some design strategies to make the footprint as small as possible. These include recycle, reuse and avoiding fragmentation to keep nature structures intact. However, to make areas universally accessible it will demand some more encroachment on nature than this. When following sustainable development as a goal we should also be designing with social sustainability in mind. This means making sure everyone is included. This is also one of the main values of both organizations and property owner's red cross. With this in mind, we have four design principles we could follow at Haugland to make sure the development is sustainable.

Strategy 1:

Restore/ upgrade buildings and outdoor areas, such as restoring kassafabrikken, restoring playgrounds and restoring bridges.

Strategy 2:

Repurpose areas that already have been built on. We suggest placing the new community center on already processed land or we repurpose processed land to make new playground or outdoor meeting places.

Strategy 3

If building something new, we avoid fragmenting the landscape and gather the new elements close to other built areas/paths. When building new meeting places, we keep them close to the paths or buildings to avoid fragmentation. We build extensions and build new parking spots along the road.

Strategy 4

If we must build something new, it's due to accessibility and social sustainability. Such as building a new universally accessible fjord path, or we move the gapahuk area at Hesteneset to a more accessible location.

Throughout the process everyone has been quite clear that it is important to keep the existing nature structures. However due to difficulties of the terrain and considerations for avalanche, flooding and so on, we have to build down nature some places as this is the only place it might be safe to build a new building. Safety should be an underlying aspect of all the strategies at all points.

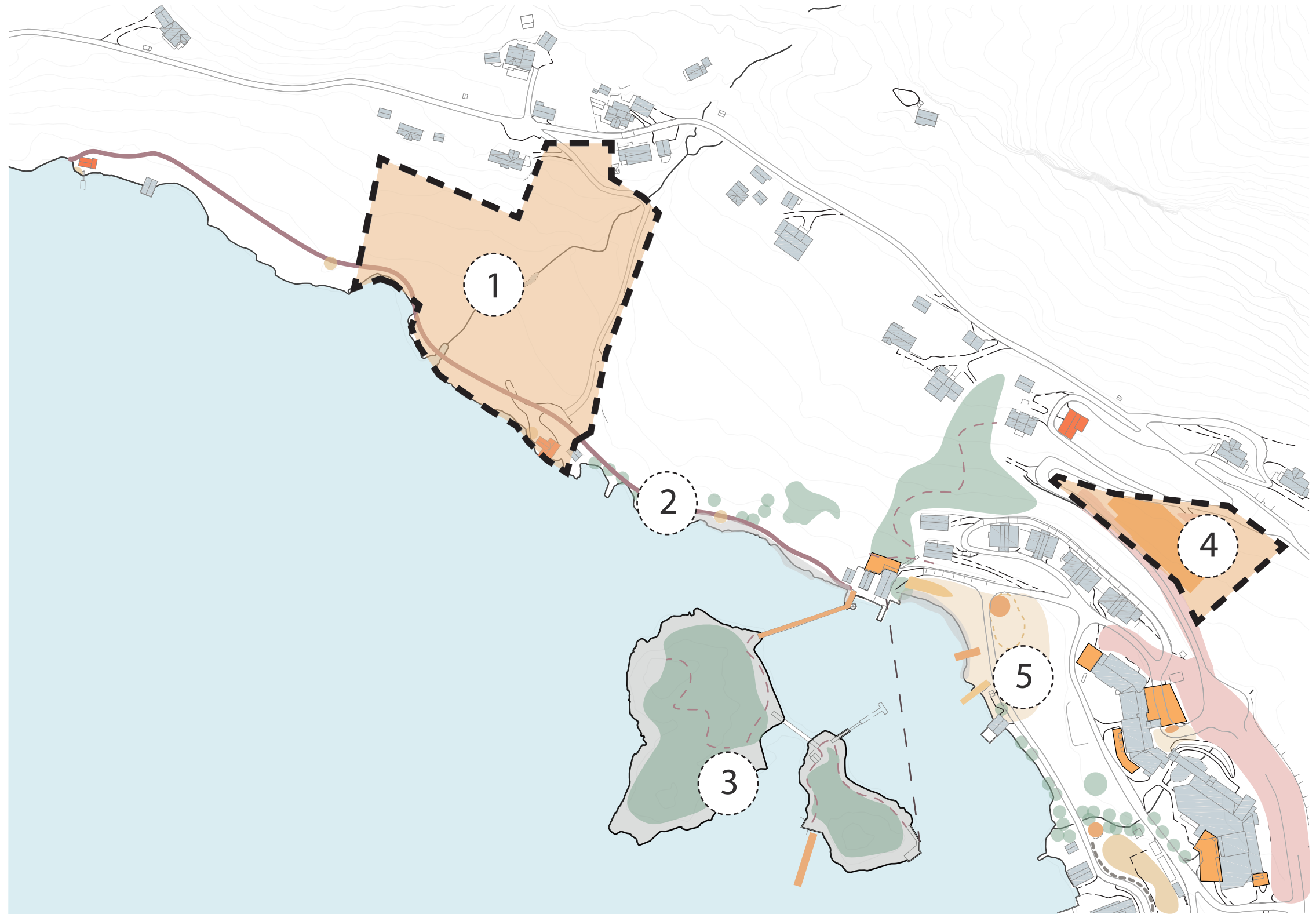


Figure 26. From location study - Haugland gård

3.2 Overall plan - By the new costal path and Haugland rehabiliteringssenter

Figure 27. The combined illustration of the northern part of Haugland

1. We zone the area at Miklagard for future teacher housing, and possibly a black box for UWC RCN in kassafabrikken when this is rehabilitated.
2. We make a universally accessible coastal path, with rest stops along the coast.
3. We move RKHRs archery field closer to UWC RCN and make Hauglandsholmen more accessible with larger gapahuk area
4. We set aside area in the hill behind the main house of RKHR to build a new sports hall.
5. At the lawn in front of RKHR we activate the lawn for universally accessible activities close to the path that moves along the coastal line.



3.2.1 Costal path near Miklagard

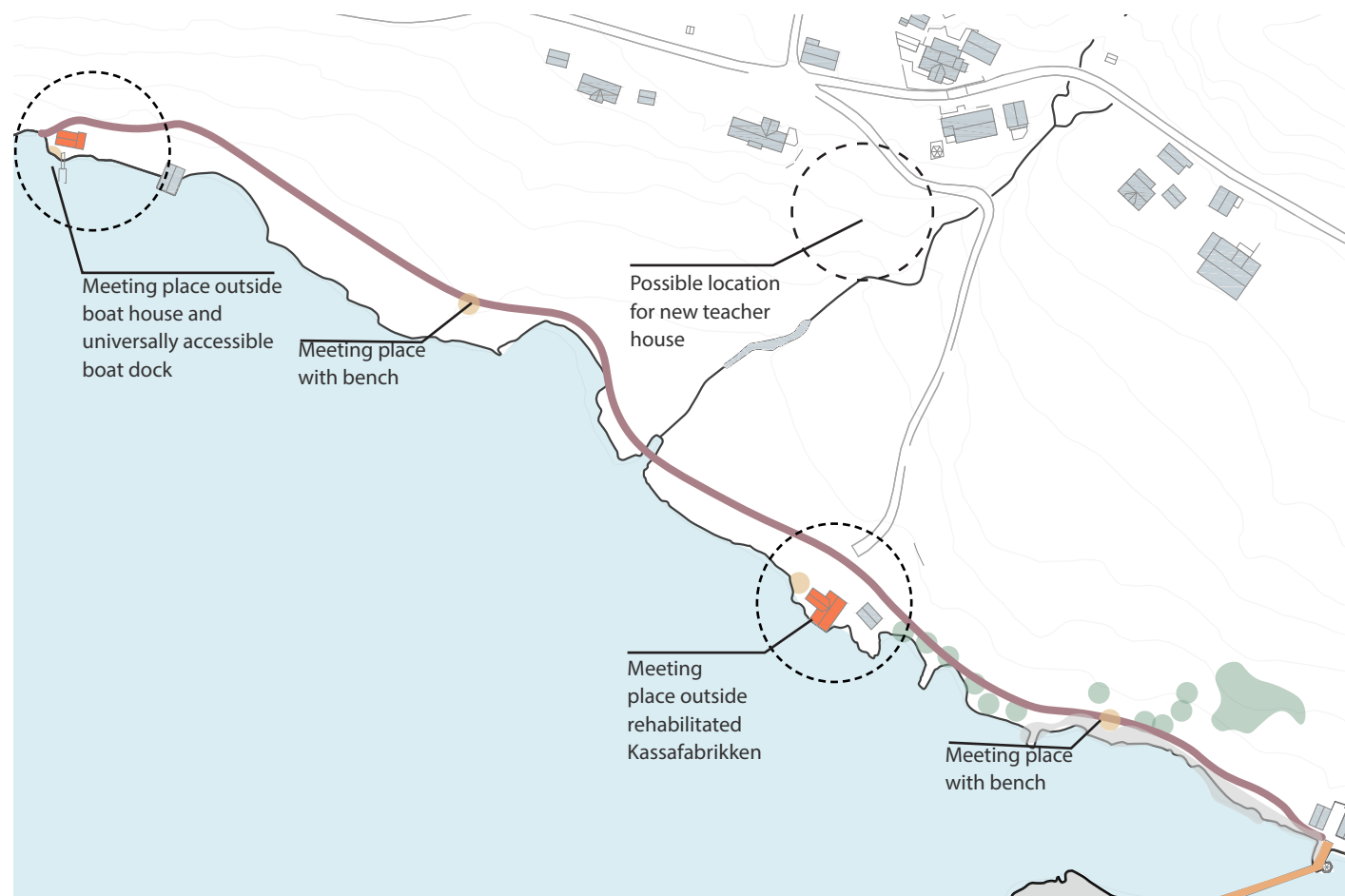


Figure 28. Overall plan - description of fjord path area

Exisisting situation and new measures



Figure 29. Boathouse at the far end of the new proposed fjord path



Figure 30. Kassafabrikken is old and worn down as you can see in the photo, this needs to be rehabilitated. In the back of the photo is the suggested area for new teacher housing.



Figure 31. The coastline is quite steep and winding. We want to make sure the path is universal with maximum cross slope according to universal design. This will entail building structures or encroaching the landscape.

Description of overall plan

A lot of the area close to Micklagard is not built today, however there are some boat houses that needs rehabilitation and better access, both from land and from the ocean. If we follow the strategies, we will here focus on rehabilitating existing building mass.

We also need to use strategy 4 here as universal access to the coast is a priority for both organizations. As the terrain is quite steep at Haugland we see a need to make it universal where we can. If we do this close to the ocean, we can make a path that is mindful to the nature, like what is pictured in the Micklagard preliminary study. Along this path we want to create meeting places so people could rest during their walk or just enjoy the view. This can be done in the areas proposed in the drawing as these areas will give people different experiences throughout their walk. As it is pointed out in the Micklagard study, making a traditional "road" style path that follows the terrain and conditions of the coastline, meeting places will appear naturally when following the twists and turns of the coastline. Here we need to keep in mind that some retaining walls might be necessary.

We also want to make sure the area at Micklagard have room for new teacher houses. The proposed placement of the house is according to strategy 3 where we build close to other structures to avoid fragmenting the nature too much.

Where do the suggested placement of measures come from?

- The suggested fjord path has been a wish for a few years and was suggested in both the Micklagard preliminary study. It also came up during the participation workshop.
- During the same workshop and location study we were also made aware of the wish to rehabilitate and to provide universal access to the boat building and Kassafabrikken.
- During the volume study for UWC RCN we were made aware that they needed more housing for teachers, therefore we suggested a placement at the Micklagard property.



Figure 32. Illustration of the fjord path from the Micklagard preliminary study



Figure 33. Overall plan - description of Hauglandsholmane and the land between the boathouses and Bekkerhuset

Description of overall plan

At Hauglandsholmane we want to keep it similar to how it is today. However, to make the archery field more updated we move it to UWC RCN. Here we utilize strategy two, where we build on already built areas. This will make it possible to make the existing archery field into a larger outdoor gathering place, so we repurpose this area, therefore utilizing strategy two. In addition to this we also want to establish a universal trail to the other side of the island.

We also want to move the floating docs to the other side of Hauglandsholmane, this will protect the eelgrass community in the bay from too much interruption, and we could therefore make a cable car for wakeboarding over to the island. Connecting the boathouses and Bekkerhuset is also something that we propose, however it will not be possible to make a universal path. The barn by bekkerhuset needs rehabilitation. At the back of the existing boat houses, we want to add a building, but higher up in the terrain due to flooding issues. We also suggest rehabilitating the boat on land and to focus on making it a meeting place. This boat creates identity to the area and is a good start to the new extension of the fjord path. The biggest priority, however, is to rehabilitate the bridge. It is currently impossible to use, and therefore prioritizing this will be key because it is cutting people off from being able to use Hauglandsholmane in the first place.

Exisisting situation and new measures



Figure 34. This is the existing archery field at Hauglandsholmane which RKHR want to make into a larger gathering area with roof.



Figure 35. It is suggested to build a new building behind the existing boat buildings.



Figure 36. The boat is in need of rehabilitation, and should be made into a place.

Where do the suggested placement of measures come from?

- Moving docks were first suggested by the overall plan made in 2020 of RKHR.
- Moving the archery field was suggested during the process with this preliminary study. Two locations were proposed, however they are not going to be used as we make a larger archery field at Hesteneset.
- A new building behind the existing boat buildings was suggested in the overall plan made in 2020 of RKHR and came up during the work with this preliminary study as we had to avoid the flooding issues at hand.
- Wakeboarding was suggested in the overall plan made in 2020 of RKHR.

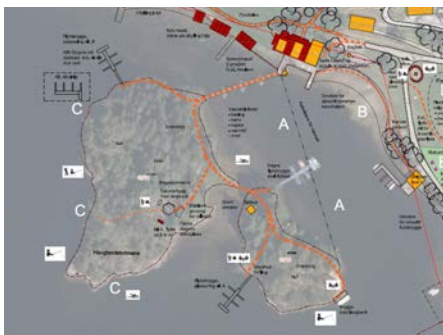


Figure 37. The overall plan made in 2020 of RKHR.

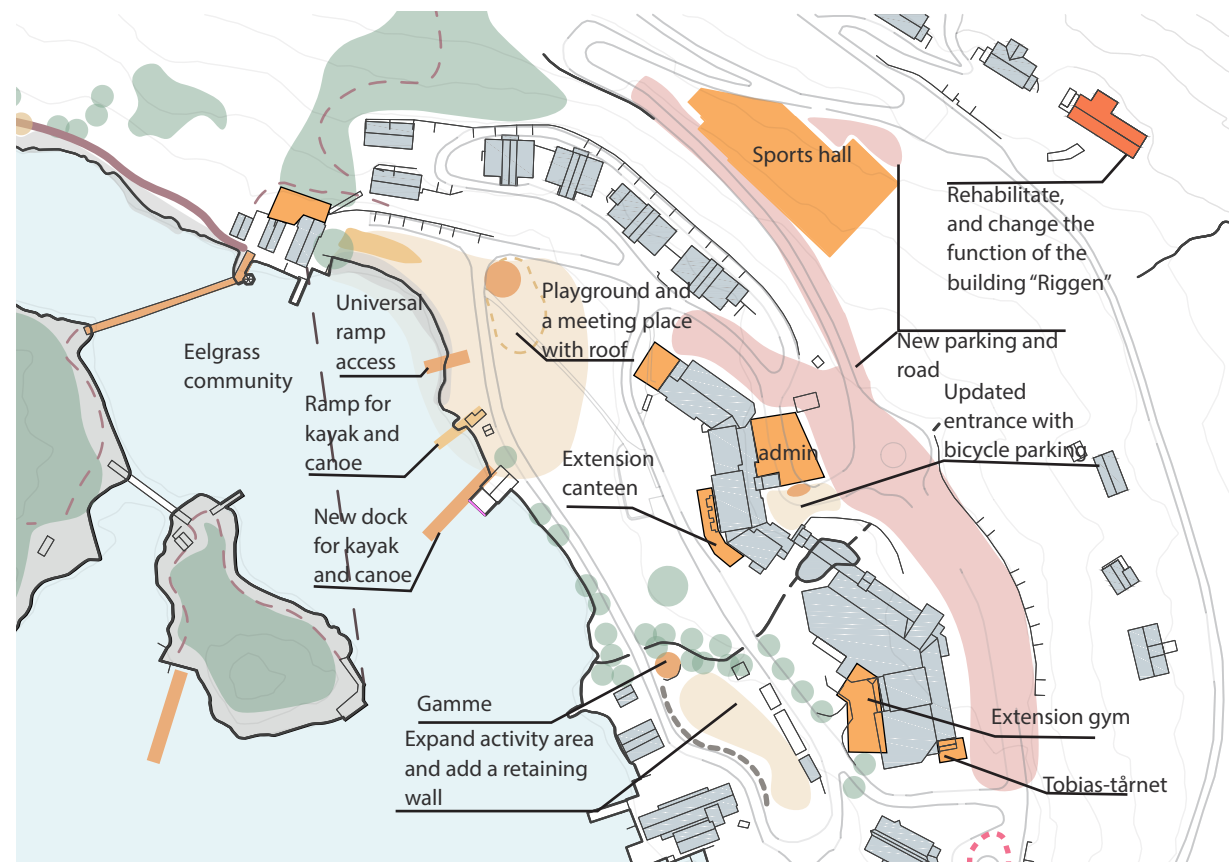


Figure 38. Overall plan - description of the area around RKHR

Description of overall plan

Around RKHR we want to make sure the water is universally accessible, and that it is accessible to launch and tie up canoes and kayaks in a dock. However, we also need to avoid building close to the eelgrass community in the bay. We therefore gather the different structures closer to Snikkerbua. We want to make sure there are more updated activities along the beach area, and having an outdoor meeting place under a roof is a priority. In this area we also suggest rehabilitating the playground, so that the playground is universally accessible. The area between UWC RCN and RKHR must be expanded. A retaining wall needs to be zoned in this area. Having open relatively flat areas such as this one is important because it will be a flexible area to use for different activities. Also, the grass area between the small river and the playground area could be kept relatively open, as an open field of grass is also quite flexible, although steep. In this area we utilize several of the strategies, but mainly we base it on reestablishing existing structures, and making it more universally accessible.

The building in the hill called Rikken will be rezoned and used for storage. The need is to change the facade and possibly to store a tractor. The area below Rikken is going to be set aside for a sports hall. The building will be of a size that will make it possible to apply for funding from "spillemiddel". Along the road up towards Haugland Gård we will have parking. There might also be some parking in connection with the building, at the top, depending on how much terrain work we see is necessary. Due to restrictions when it comes to building in areas with avalanche problems we must place this building in an intact nature area. Utilizing the strategies is quite difficult in this instance, however we are centralizing the larger buildings near each other and avoiding fragmenting important nature structures for outdoor recreation at other more vulnerable areas.

In and around the main building of RKHR there will be some changes due to extension to the buildings. The extensions of RKHR are a new admin building, an extension to the canteen, an extension to the gym and an extension at Tobias tårnet in the south wall. The new patient wing in the north wall is already built. The extension in the back towards the parking will steal allot of space for parking and access for cars down towards the ocean. Therefore, the pink area suggests new parking and road access. The entrance of RKHR is marked orange and need to be equipped with necessities such as adequate parking for bicycles under a roof. Also, we do not look at charging for vehicles in this phase, this will be looked closer at when starting the zoning process.

Where do the suggested placement of measures come from?

- Facilitating universal design by the sea was proposed during the participation workshop and a matter that was prioritized during the whole process with the preliminary study
- Extensions to buildings at RKHR was first introduced in the overall plan made in 2020 of RKHR
- Also, the placement of the sports hall was suggested placed at the same location in the overall plan made in 2020, however during this preliminary study we looked at one other alternative to be sure this was the right one.
- The parking need to be detailed later however some of the placement is from the overall plan of 2020.



Figure 42. The suggested placement of a new sports hall at Haugland from the overall plan from 2020.

Existing situation and new measures



Figure 39. The area in front of the houses need to be updated and made universally accessible.



Figure 40. The forest area in the picture is where there is room for a new sports hall.

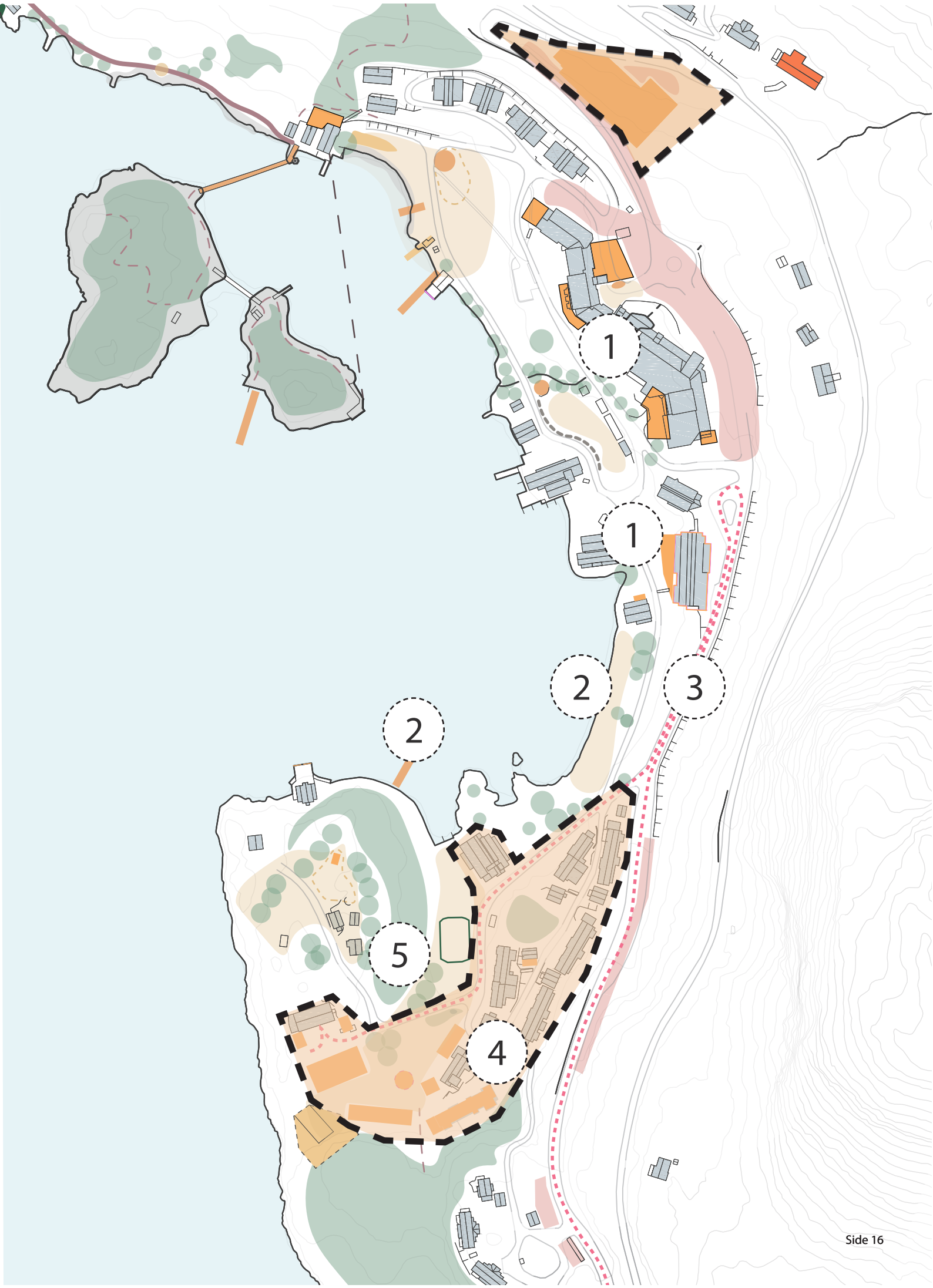


Figure 41. The open gravel area should be expanded and a retaining wall established.

3.2 By United World College and Hesteneset

Figure 43. The combined illustration of the southern part of Haugland

- 1. We want to make sure all the extensions are included in the zoning plan.
- 2. There is a need to activate the sea front and adding a floating dock
- 3. Traffick in and out of the area at UWC RCN need to be led to the roundabout at the UWC admin building because the turn into the area is to steep. The delivery and renovation vehicles will be able to turn by the barn.
- 4. We aim to keep all the built areas within the stippled line. Our goal is to preserve Hesteneset by preventing additional buildings taking up valuable activity areas and nature structures.
- 5. We want to make sure Hesteneset is a well-planned area for open-air recreation and outdoor activities.



3.2.1 By the Education building at UWC RCN

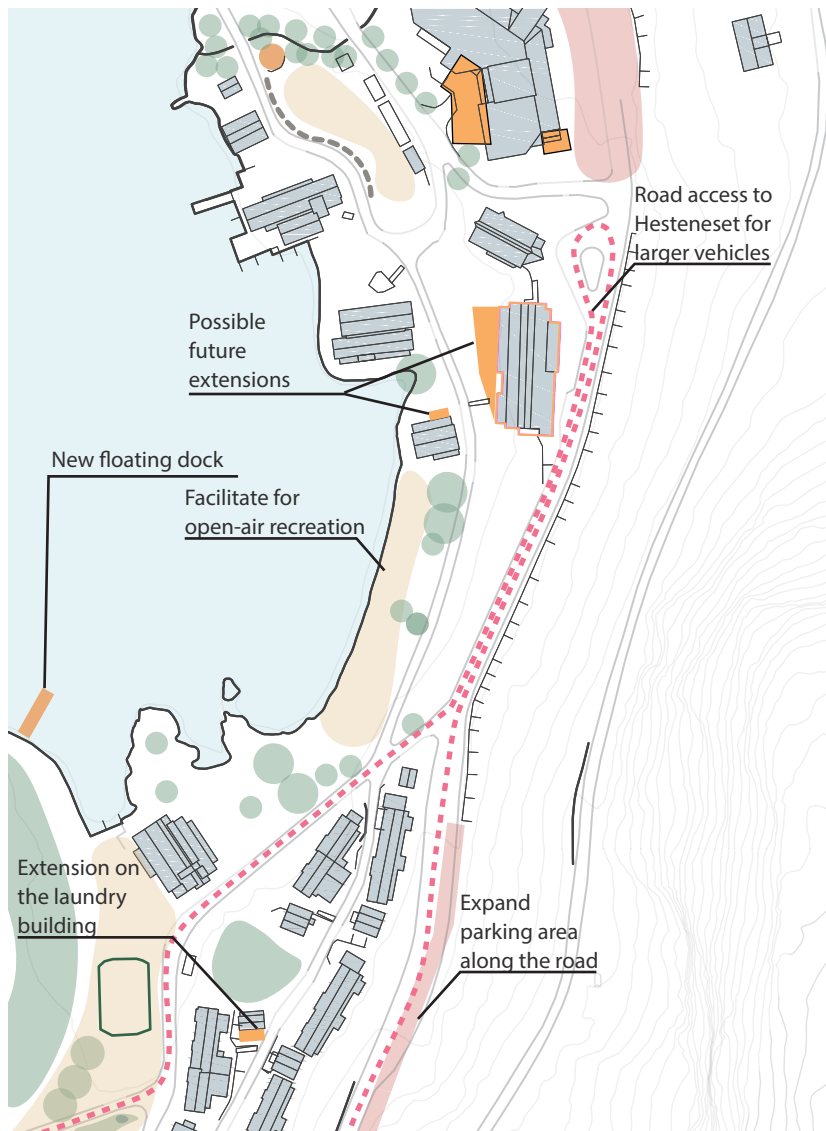


Figure 44. Overall plan - description of the area between the teaching facilities and student housing.

Description of overall plan

The main measure that needs to be done in the area around the education buildings at UWC RCN is to build an extension for an elevator and adding a possibility for an extension on the existing canteen building. The main issue at hand in this area is the problems with avalanches. Therefore, there is some restrictions as to which way the extension can be built. The existing canteen building will be repurposed as a new education facility. In the student village there is also a need for a new extension on the laundry house. In this instance we utilize strategy three where we utilize what we have and avoid fragmenting by making new buildings.

The round about outside of the admin building at UWC RCN is going to be utilized as a turning point for larger vehicles that need to get into the area at Hesteneset. This is because the turn into the area at Hesteneset is too steep for larger vehicles such as renovation and delivery trucks. Along the road the other way, we want to look at possibilities of more parking.

In the area between the education buildings and the student housing there is an open field by the water. At this field we want to facilitate for open-air recreation. This could mean some benches or maybe a volleyball field. Or just an open lawn to rest on during the summer. We must keep in mind that the area should be universally accessible. The area as it is today can not be used as the grass is quite wet, so it would have to be drained to be used. Also we suggest placing a new floating dock closer to Leif Høeg.

Exisisting situation and new measures



Figure 45. The location of the suggested new floating dock.



Figure 46. The existing canteen building where we will be adding possibilities for expansion.



Figure 47. The ocean front where we want to facilitate for open-air recreation.

Where do the suggested placement of measures come from?

- UWC RCN expressed a wish to add the extension of the existing canteen building to the preliminary study during the volume study, so that it will be added in the zoning plan.
- The areas suggested utilized by the sea was suggested during the participation workshop, as shown in the drawing, both facilitating for open-air recreation and a new floating dock.
- Expanding parking has also been a need that has been expressed throughout the process with the preliminary study.

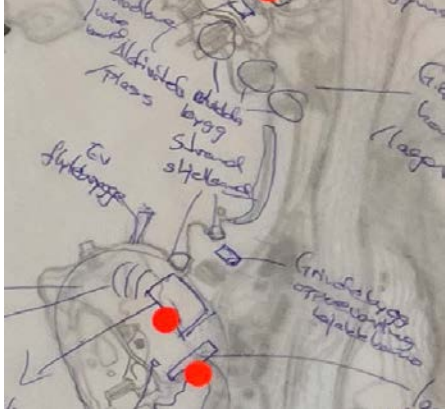


Figure 49. One of the groups suggestions of land use at Haugland during the participation workshop.

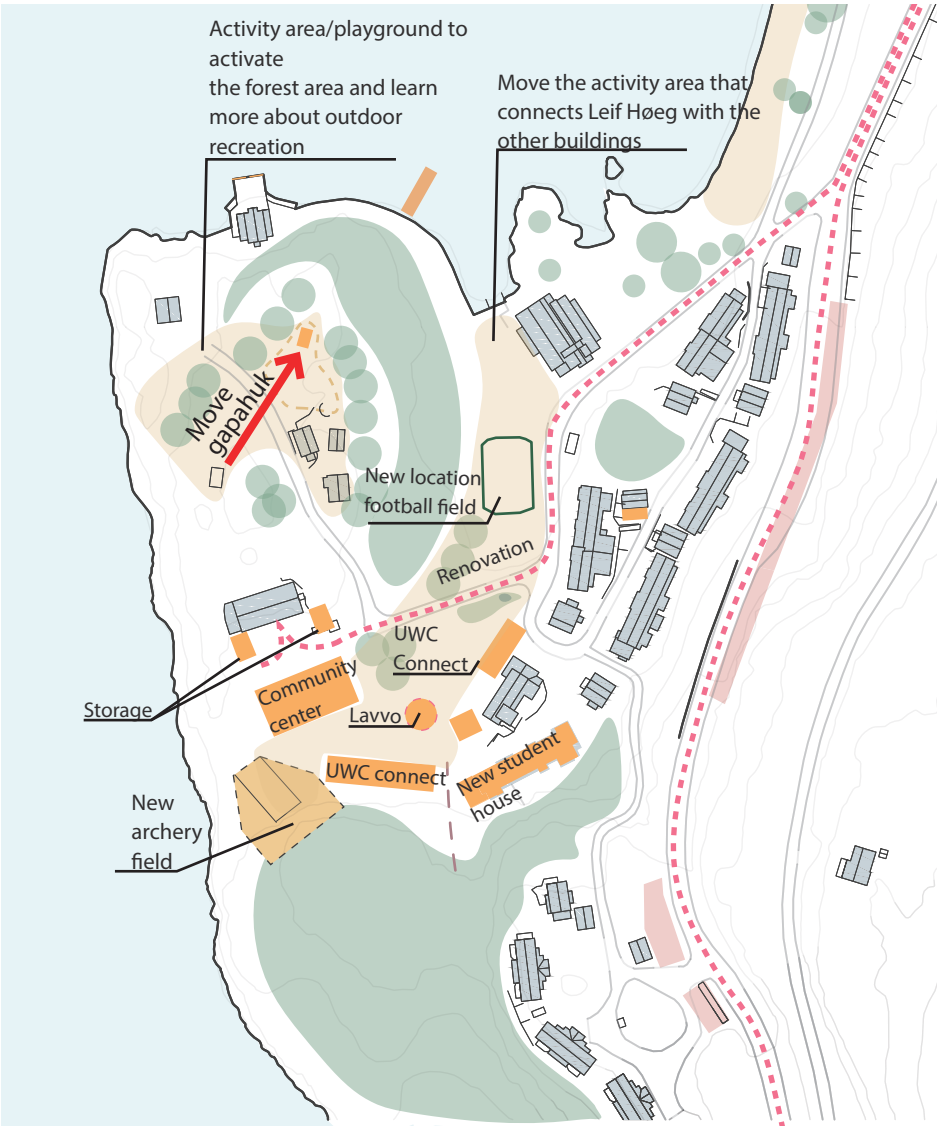


Figure 50. Overall plan - description of Hesteneset.

Description of overall plan

The area in and around Hesteneset is today a mixed-use area. We need to add more buildings at Hesteneset as UWC RCN has outgrown its current housing. The area must cover a lot of needs and therefore we've had some rounds on how to develop this area in the best way. In the main developed area, we will implement the second strategy since this land is already processed. We propose an extension to the UWC Connect building and repurposing the existing UWC Connect to serve as a new student house, complete with a houseparent house. Additionally, we plan to place a new community center at Hesteneset, add more storage, and construct a new house for UWC Connect. Maintaining the village structure in the new housing will be critical to preserving the existing ambience. The design should reflect the traditional "rekketun" structure. All new buildings will be located on the area formerly known as "the activity field." Consequently, we propose relocating the activity field where it stretches from the community center to Leif Høeg. The road crossing through the activity field will be an ideal location for a renovation area.

Due to the new buildings at the old activity field, we must move the football field to another location. This is a large construction, and we therefore propose a new placement at the gravel area next to Leif Høeg. This area is already processed, and by following strategy two, we aim to avoid disrupting existing natural structures when we have a pre-processed area available for development. The archery field must also be moved. The current archery fields are no more than 15 meters. As this is not a professional field that is going to be used in competitions, we have used one of the smaller distances recommended by "kunnskapsportalen for idretts- og nærmiljøanlegg" to calculate the area needed for the field. We need a total width of 10 meters and length of 20 meters for the main field, and another 10 on each side for safety reasons and 10 in the back of the target. Having a steep mountain in the back of the area will be positive here, and we can use this to our advantage when we plan the safety areas. The archery field could be larger, if there is a need for that further down the line. This must be considered when deciding the final placement of the buildings. The lavvo suggested in the drawing will have nine edges, and a diameter of 10.30m. This is something especially UWC connect has expressed a wish for as they need larger outdoor gathering areas under roof. We utilize the same strategy as with the buildings.

At Hesteneset there are some buildings that need zoning. In the area around the buildings, we want to create a more accessible outdoor experience. We will amongst other move the gapahuk to a more universally accessible area. We also want to make room for some outdoor open spaces for learning about open-air recreation and make a forest activity/playground area. We utilize strategy four, making the measures universally accessible.

Where do the suggested placement of measures come from?

- From the previous work done in the area we knew UWC RCN wanted a new community building, however it was unclear where the location of the new building should be. The new location suggested is from the volume study done by Norconsult.
- We wanted to keep the forest area at Hesteneset quite similar to how it is today, but got feedback that the gapahuk needed to be more universally accessible, and there was a need for more forest activities during the preliminary study.
- Due to the decisions made in the volume study some of the current activities at the "activity field" need to be moved.

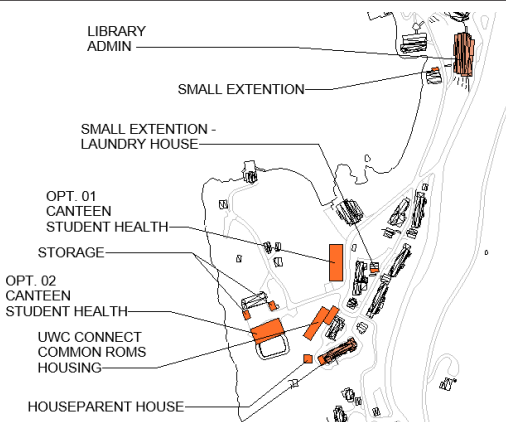


Figure 54. The figure from the process with the volume study, and the different possible locations we examined.

Exisisting situation and new measures



Figure 51. The exiting gapahuk we want to move to a more universally accessible spot.



Figure 52. The gravel field that is the current location of the renovation station where we want to move the football field.



Figure 53. View over the current student housing. We want to keep the village atmosphere intact in the new parts of the student area.

4.0 Conclusion and further work

This report is a summary of the needs of the people that are connected to the two organizations at Haugland. They work, live, go to school and people receive rehabilitative treatment here. It is a summary of the different feedback we have gotten through the process and is supposed to give an overall view of the needs and considerations that must be made in the zoning plan process. Through this process we have thoroughly looked at the needs both current and future to make a preliminary overall plan that will be sustainable in the long run and protect the community values. We have filtered out what we think will be the most necessary points to take with us into a zoning plan where we can detail the different measures at a more thorough level. At a later point it will be necessary to do more analyses to make sure the area is suited for building on. We have however highlighted throughout the report the main issues at hand that need to be considered in the zoning plan, and tried to avoid areas of special consideration when it comes to hazards and nature considerations.

As the population at Haugland grows bigger there is more need for housing and other accommodations. This could have a negative impact on the surroundings. Closeness to nature, quiet surroundings and possibilities for outdoor activities are the main sources that attract people to this place, apart from their function as a school and rehabilitation center. For both the school and rehabilitation center, the surroundings are key qualities they actively use in their day-to-day situations. Therefore a key component of this process has been to look at how we can keep the impact of the new measures low while still developing the land. This preliminary report is going to be the basis of the zoning process which will be the next phase in creating a new and sustainable zoning plan for future development at Haugland.



Figure 55. View over the area from Haugland Gård

Om Norconsult



Norconsult er Norges største og en av de ledende tverrfaglige rådgiverbedriftene i Norden, med virksomhet som spenner over flere verdensdeler. Våre tjenester er rettet mot samfunnsplanlegging, prosjektering og arkitektur. Norconsult er engasjert i prosjekter innen bygg og eiendom, samferdsel, energi, industri, vann og avløp, olje og gass, miljø, plan, arkitektur, sikkerhet og IT. Hovedkontoret ligger i Sandvika utenfor Oslo. Selskapet er eid av medarbeiderne.