

IN THE 19TH CENTURY THE INDUSTRY PIONEER BELL – IN THE 20TH CENTURY THE GLOBAL PLAYER ANDRITZ HYDRO IN THE 21ST-CENTURY POST-INDUSTRIAL?

The town of Kriens is on its way to a post-industrial identity following its history with heavy industry and metal industry in the 19th and 20th centuries



BRIEF

The municipality of Kriens, the third largest municipality in the canton of Lucerne, is in the middle of a fundamental redevelopment process. Some of the abandoned Kriens factory sites are today being renovated and re-purposed.

The withdrawing industry leaves behind its industrial buildings that meet the new need for a livable municipality to be upgraded in quality. Kriens is already in the process of this renovation.

The **European competition** is intended to support this strategy. Location-specific qualities are to be emphasised and become part of the new identity. The Andritz area, part of which will be available, is to give an additional boost for the purpose of this strategic orientation and provide a necessary focus. Relevant projects are currently being implemented or have already been realised.



2016 –Andritz-Area

For the **Andritz-Area**, a mixed use programme that could equally incorporate living and working is to be considered. Whether mixed-use is possible in this location and could revive the area in an optimal manner

is to be considered. In what manner could the area act as an attraction point that has an effect beyond the borders of the municipality? Which small businesses should be particularly encouraged?

Even if the competition is primarily oriented towards sector 1, it should show compatibility with the further running of the company in sector 2, which is to be maintained for the time being.

The development horizon of the overall area (sectors 1 and 2) encourages building types that allow multiple uses and which enable later re-purposing for different activities.

In the final phase, the entire Andritz area still in existence is to follow the planned rebuilding of the centre of Kriens. The “Future Kriens – Life in the Centre” projects currently being realised shall be connected with the Andritz area and the other existing town-centre construction and use projects.

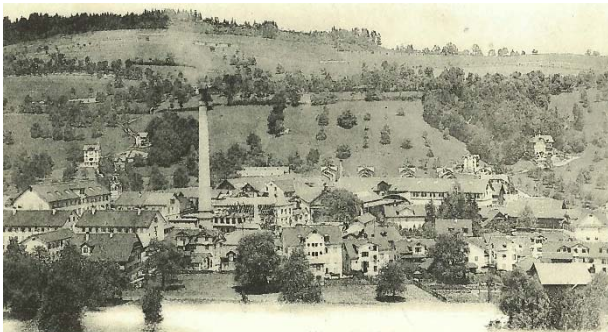
The design of a Kriens centre mile should be proposed in order to connect the different attraction areas with each other instead of a town centre.

The municipality has chosen not to provide guidelines and supports the creative process for anticipated new concepts. The teams are to connect the yellow perimeter to the red area under consideration and create meaningful relationships in terms of content.

We would like to thank all the teams for the interest on the site Kriens / LU

ABSTRACT

The municipality of Kriens with a population of around 27,000 is in the middle of a fundamental redevelopment process. Whereas from the 1840s the Sonnenberg and Pilatus mountains to either side of the valley were developed for convalescence and tourism, the Krienbach stream in particular drew a number of entrepreneurs from Lucerne and abroad into the valley, where they used the power of the Alpine stream and exploited it in a purely functional way primarily for the metal industry and heavy industry. As was the case in Europe as a whole, the environmental ideas that have now become mainstream did not exist in Kriens at that time. Some of the abandoned Kriens factory sites are today being renovated and re-purposed.



1901 - the most important industrial settlements in the village centre of the municipality – the Bell Company (today Andritz Areal) and Schappe. In the background you can see the factories and the mostly undeveloped Sonnenberg hill



2016 –Andritz-Areal. Today a shopping centre stands on the Schappe Areal.

Around half of the Andritz Hydro site in centre of Kriens is to be made available to the municipality. The concept to be developed for this is to explore and explain whether and how the halls of the former Bell machine factory that are to be made available can give the productive town of Kriens a viable boost: How and why would the industrial tradition be incorporated? (How) Is the perimeter suitable for mixed use combining living and working in small businesses? Which elements of the structural parts should (not) be adopted? Can a new local identity be derived through a possibly mid to high-price small business economy in connection with the original goldsmith's trade of the industry co-founder Bell, with heavy industry withdrawing again? How can the former water and canal network that is today no longer visible and runs below the asphalt be drawn on? Could this make the future Kriens the equal of the neighbouring cantonal capital of Lucerne, with its shores on the picturesque Lake Lucerne, the internationally oriented Kultur- und Kongresszentrum Luzern (KKL) and its wide-ranging entertainment and leisure options?



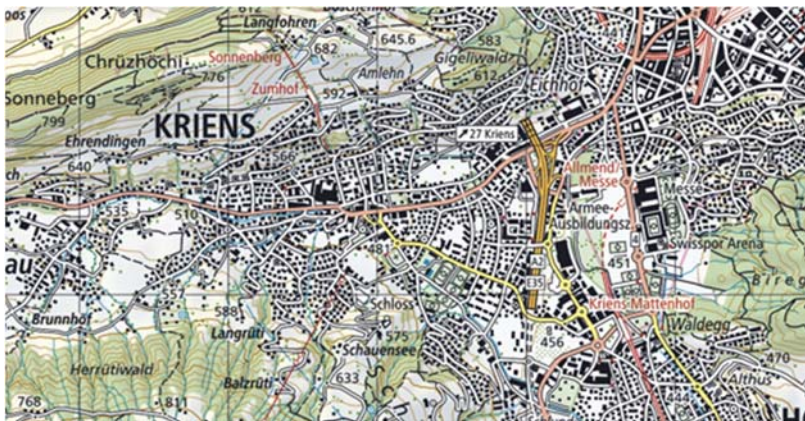
Andritz-Areal

GEOGRAPHY AND TOPOGRAPHY OF KRIENS

Kriens is the third largest municipality in the canton of Lucerne. It is located in the floor of the valley between the mountains of Pilatus and Sonnenberg. Kriens consists of various districts. Kriens includes Obernau, the hamlet of Hergiswald (5 km west of the centre, on the slopes of Pilatus at 790 metres above sea level) and numerous individual farmsteads on the slopes of Pilatus. The eastern part is in the floor of the valley with the Kuonimatt area. From the Kupferhammer area onwards, the terrain rises gently towards the west until past Obernau (the height difference between Kupferhammer and Obernau is around 90 metres; 468-554 m).

Highest point: 1,469.60 metres above sea level (Fräckmüntegg boundary stone)

Lowest point: 442.70 metres above sea level (Schlund)



Map of Kriens

Source: https://map.geo.admin.ch/?topic=ech&lang=en&bgLayer=ch.swisstopo.pixelkarte-farbe&layers=ch.swisstopo.zeitreihen.ch.bfs.gebaeude_wohnungs_register.ch.bav.haltstellen-oev.ch.swisstopo.swisstm3d-wanderwege&layers_visibility=false,false,false,false&layers_timestamp=18641231,,,&X=209710.00&Y=663959.75&zoom=8

The Kriens region is part of the highly varied pre-Alpine molasse landscape. Its most important characteristics were created during the second interglacial period, during which the valley was formed. The last ice age brought the crucial widening and deepening of the valley. The Engelberg glacier was located in the plain between Lucerne, Horw and Kriens. It dammed up the water of the Krienbach into a lake, which had its outflow at the height of Renggschlucht, where a waterfall flowed into the lower lying lake of Littauersee. The impact of various streams, particularly Krienbach, was important for shaping the landscape. This stream shaped the destiny not only of Kriens, but also of the nearby city of Lucerne. With its overflows and floods, it repeatedly cast doubt on the valley inhabitants' means of existence, tore away houses and barns and devastated meadows and fields.



The unspoilt Kriensbach stream at the level of the Kreuz bakery. In 1913 the step by step backfilling of the Kriensbach stream and its usage as a drainage strand (1949) started

THE MUNICIPALITY OF KRIENS: FACTS AND FIGURES

Municipality area

Total area of municipality	27,3 km ²
Residential areas	16,9%
Agricultural area	31,6%
Woods	50,5%
Unproductive area	1.0%
Construction zone	402ha
Residential areas	4,6km ²
Population density	982 inhabitants /km ²
Height above sea level	490 m (town centre)

Population statistics as at 1 January 2016

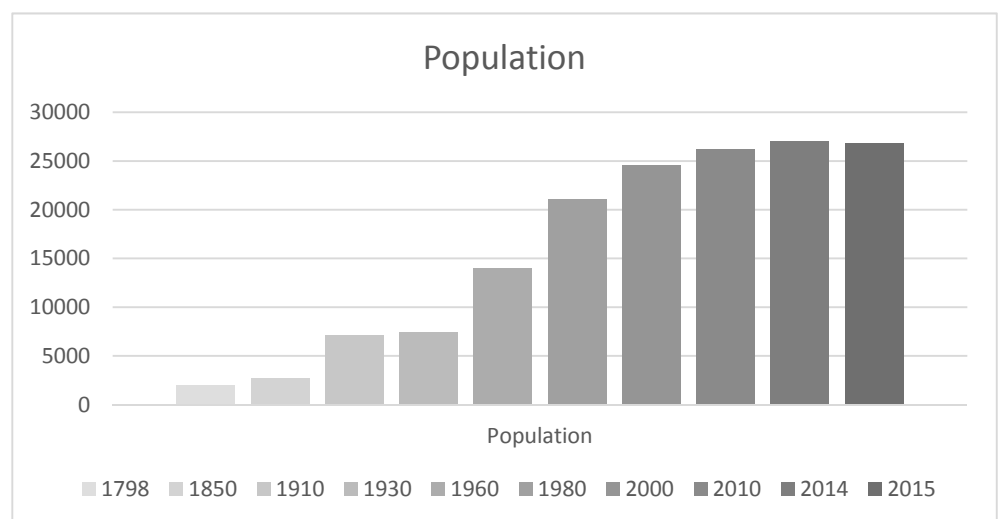
Permanent resident population	26'858
Population growth 2000–2014	11.0%
Male	13'106
Female	13'752
Swiss citizens	22'406
Foreigners (106 countries)	4'573
Proportion of foreigners	17.03%
Asylum seekers, temporary admission	151
Total (incl. all categories of foreigners)	27'009

Population

The population of Kriens has grown steadily since 1798. Growth was particularly strong between 1888 and 1910 and between 1930 and 1970. Kriens celebrated its 10,000th inhabitant in 1951 – and its 20,000th as early as 1970. Today, Kriens is the third largest municipality in the canton of Lucerne and the 25th largest of all Swiss towns, cities and municipalities.

Year Population

2015	26'858
2014	27'053
2010	26'238
2000	24'572
1980	21'097
1960	14'029
1930	7'424
1910	7'157
1850	2'693
1798	1'956



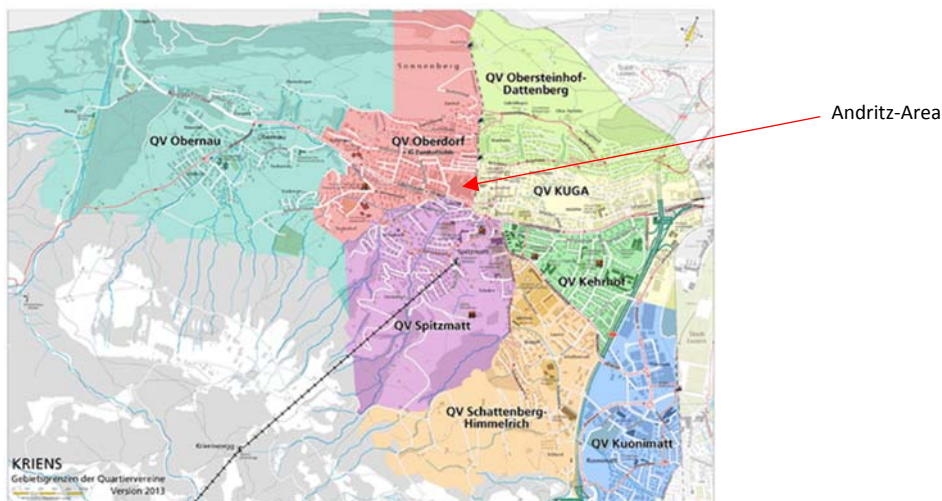
Social structure

At the end of 2015, the municipality of Kriens had a population of 26,858, 195 fewer than in the previous year. The municipality of Kriens is thus the 25th largest of Switzerland's towns, cities and municipalities. The population of 26,858 comprises 13,106 males and 13,752 females. The foreign resident population, who come from 106 different countries, comprises 4,573 people or 17.03% (previous year: 4,647 people or 17.18%). The Swiss-wide average is 24.3%. The number of Swiss citizens in the population was 22,285 at the end of 2015, representing an increase of 121 people compared to the previous year, whereas the foreign resident population decreased by 74 people. 5,916 people (22.03%) are aged 65 or older, comprising 2,620 men and 3,296 women. In the previous year it was 5,545 people or 20.5%. According to the records, there were 237 births, 244 deaths and 241 marriages.

Source: <https://www.gemeinde-kriens.ch/public/upload/assets/3210/Bevoelkerungsstatistik2015.pdf>

District structure

District life is organised via district associations. These act as a communication platform for all the population's concerns and are in regular communication with the Kriens municipal council.



District associations, Source: <https://www.gemeinde-kriens.ch/portraet/quartiere.page/555>

History of the area

The name

The origin and the significance of the place name of Kriens cannot be determined with certainty. It may trace back to the in the Germanic word (s)keri (separate, split). The name obtained its phonetic form in the Celtic period, i.e. from the 4th century BC onwards, then probably changed to the Gallo-Roman "Crientas" and to the Alemannic "Chrientes". This oldest surviving form of the name is found in a document from the 9th century.

Settlement by the Alemanni

The Kriens valley was quite inhospitable and was avoided by the Celts and Romans. Initially the Alemanni, who crossed the Rhine around the year 500 and reached Lake Lucerne about 200 years later, settled in Kriens around the year 750. Settlement and use of the land varied by location. The shadowy, in some places heavily waterlogged ground on Pilatus led to the lower slope being named Schattenberg, which means "shadow mountain". Between Schattenberg and Sonnenberg (which means "sun mountain"), a difference in the vegetation of around 14 days can still be seen today.

The Alemanni were Catholics, belonged to the Franconian Empire, and knew property ownership and a feudal social order. They had sophisticated experience in arable farming and animal husbandry and also brought a new language with them. They thus contributed significantly to giving the Romansh-German linguistic boundary its current course and giving the later village the German form of its name.

Manorial estates

The inhabitants of Kriens did not own the land they farmed in the full and direct sense, but were under the control of a manor as early as the 8th century. The “in Chrientes” area belonged to an aristocratic family whose last representatives, the sisters Ata and Chrimhild, donated it to the Lucerne monastery in the 880s. Ownership of the Lucerne monastery later passed to Murbach Abbey in Alsace and, as a consequence, it came under the influence of the Habsburgs. Rudolf I von Habsburg acquired the property of Murbach Abbey in and around Lucerne in 1291, the year the Swiss Confederation was founded.

Way into the Swiss Confederation

After the purchase, the town was increasingly restricted in its rights, especially by the Habsburg Vogt of Rothenburg. Lucerne's leading circles tried unsuccessfully to restore their acquired rights, which is why Lucerne together with the forest states of Uri, Schwyz and Unterwalden formed the Vierwaldstätterbund (Four Forest States Confederacy), also known as the Luzerner Bund (Lucerne Confederacy) on 7 November 1332.

After the Battle of Sempach in 1386, power over Kriens and other areas largely passed to the city of Lucerne. In 1416, the city acquired the feudal estate of Kriens and thus assumed full rule. The people of Kriens thus became “confederates”, although they had no say in it. Kriens was subordinate to a town governor and from 1421, together with Horw and Eigental, formed a Vogtei (protectorate) that lasted until the end of the 18th century.

From the 15th to the 19th century, natural resources were also mined in Kriens, such as iron ore from Pilatus and lignite from Sonnenberg. The Krienbach stream, whose water power drove the machines, was crucial for the development of trade and later industry. Numerous small businesses established themselves from Obernau down to Lucerne.

Collapse of the old order

As a result of the French Revolution of 1789, the canton of Lucerne lost its status as an independent state in the Helvetic Republic. It was divided into municipalities and districts. During this period, a dualism emerged within the municipality, through the creation of the Munizipalgemeinde (the municipal community) as the political municipality of all inhabitants and the Anteilhabergemeinde (ownership community) with the citizens of the Ancien Régime. The later Einwohnergemeinde (citizen's community) grew out of the Munizipalgemeinde, and the Ortsbürgergemeinde (residents' community) grew out of the Anteilhabergemeinde. The Ortsbürgergemeinde was only abolished and incorporated into Kriens Einwohnergemeinde in 1992. The Helvetic Republic collapsed in 1803. The patricians took back power and the unsettled period of mediation, in which the primacy of the patrician families was replaced by a representative democracy, followed in 1803.

Emergence into modern times

In 1848, the federal constitution was adopted with 40% yes votes to 15% no votes, changing the former confederacy of cantons into the federal state. The Krienser Fortschrittsverein (Kriens Progress Society), which was founded in 1873, had a great influence on the development of the municipality and acted as the voice of the people until well into the 20th century. It achieved the lighting of the streets with oil lamps in 1874 and electrification of the lighting in 1888.

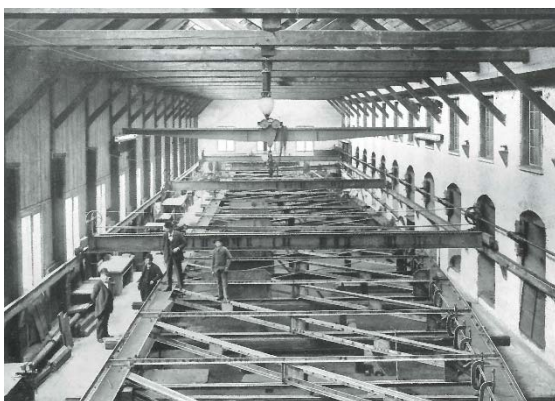
The municipality only survived the First World War with difficulty. It was hit hard by the subsequent crisis and had the highest unemployment rate in the canton of Lucerne in the 1930s.

Annexation to Lucerne?

Between the wars, municipal financing faced an emergency situation. Kriens tried to rely on the city of Lucerne and voted for incorporation into Lucerne in 1934 with 1,267 yes votes to 253 no votes. However, the negotiations with the city dragged on and came to nothing in the end. The request to incorporate Kriens into Lucerne was rejected after the war in 1946 by the Kriens electorate. A new process was only started in this century. The city of Lucerne and the municipalities of Kriens, Emmen, Ebikon and Adligenswil together launched the project of the strong city region, which included more in-depth clarifications regarding a merger of the five municipalities. In the municipal referendums in 2012, only the city of Lucerne voted in favour of further merger clarifications, the four other municipalities opted for independence. As a further step in the collaboration, the five largest municipalities in the region, having at least 10,000 inhabitants (the city of Lucerne, Emmen, Kriens, Horw and Ebikon), have now joined together in the K5 project, in which more in-depth collaboration in specific specialist areas is targeted.

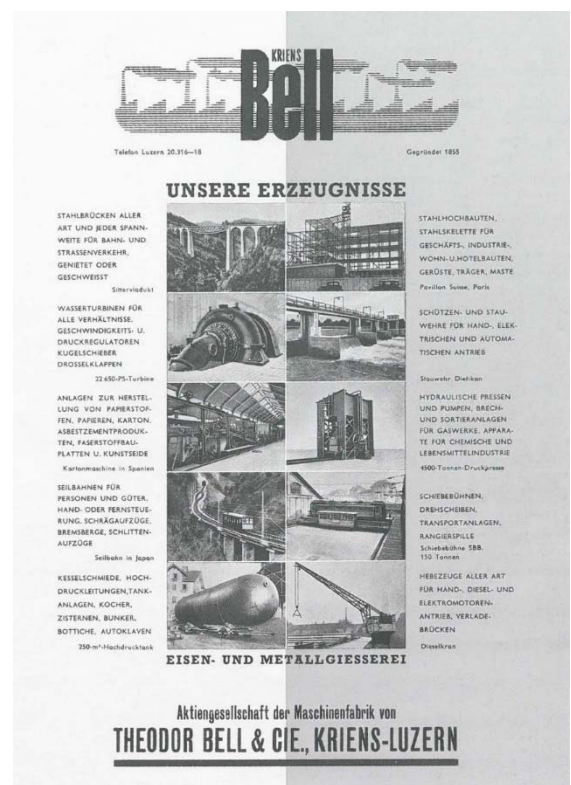
Growth of the municipality

At the start of the 19th century, Kriens had a population of around 2,000. Its industrial development began in 1845, when August Bell, a goldsmith from Lucerne, founded a horse hair weaving business in Kriens. Ten years later, he expanded its repair department for its own machines into a mechanical workshop for the manufacture of heavy machinery. This caused the municipality's population to grow to 5,949 in around 1900.



In the Kriens workshops more than 600 railway and road bridges were pre-installed, dismantled and then re-installed at the location once more – e.g. in 1909, the then longest 120 meter long steel framework support for the Bodensee-Toggenburg railway (photograph before 1909, coll. H. P.

"Bell Kriens", formerly Theodor Bell, later Bell-Escher Wyss – with its products the machine factory transported the town name across the world for 140 years. Advertising leaflet 1930's.



After undisturbed periods of war in the 19th century, Kriens fell back on the local lignite in Sonnenberg in the 19th century. This was followed by an economic boom with full employment and an influx of migrant workers, and consequently the population again increased significantly.

Following the Second World War, Kriens resolutely expanded its infrastructure, making it one of the most popular residential municipalities in the Lucerne agglomeration today. Around 1950, the municipality had a population of 9,705, the census of 1990 reported a population of 22,779, in 2010 it exceeded 26,000.

The municipality is currently experiencing another major growth spurt. More than 800 new homes are being built in the Kriens municipal area as of January 2017 and the plans for further major projects are at an advanced stage. The Kriens municipality expects the population to exceed 30,000 in the next four years. Development projects in the centre and in the LuzernSüd area are responsible for this.

In February 2014, the voters of the municipality of Kriens approved a gross loan of CHF 61 million for the development of the centre. Overall, this resulted in an investment volume of CHF 150 million in the centre. The “Future Kriens – Life in the Centre” project includes the new administration building Pilatus Centre (above Bellpark), the fire brigade/Werkhof building in Eichenspes, the Schappe Süd centre for culture, youth and industry (vis-a-vis the Andritz area) plus the housing in old age project (behind the old town hall) as public uses. In addition, the Teiggi area next to the old town hall was divested for a private building project with homes and small businesses.

The area of LuzernSüd extends from the Lucerne lake basin to the Horw lake basin, in the Kriens municipal area it is the areas extending from Eichhof through Mattenhof into Schlund. To this end, the city of Lucerne and the municipalities of Kriens and Horw have had a cross-municipality development concept and urban space guidelines drawn up. These have been and continue to be implemented with zoning and design plans in a manner that is binding for landowners. The LuzernSüd area is set to grow by 15,000 inhabitants and jobs in the next 20 years. In the municipal area of Kriens alone, 3,500 additional homes and 4,000 new jobs are expected by 2025. Modern, high-density urban building projects with high-rises up to 80 m tall will be carried out in this area.

KRIENS CRAFT, TRADE AND INDUSTRY SINCE THE 14TH CENTURY

Until the Middle Ages and beyond, the people of Kriens provided for themselves through farming and forestry. With the invention of the waterwheel, increasing numbers of small businesses such as mills and smiths established themselves along the Krienbach stream primarily due to the abundant mountain water. In the heyday of workshops driven by water power in the 15th and 16th centuries, 26 waterwheels ran simultaneously in Obernau and Kriens. The operation of these was reserved for Lucerne patricians. August Bell vigorously developed various production sectors, which is why Bell's companies ultimately became part of the identity of the inhabitants of Kriens. In its heyday, Bell produced paper machines, waterwheels, turbines, steam engines, boilers, transmissions of any size, machine tools, grain mills, sawmills and steam heaters. Bell and the other industrial companies changed the area's cultural self-understanding and social structures, which had been rural until this point..

Self-portrait of the company Bell with a Pelton runner



THE THREE LOCATION-SPECIFIC STRATEGIC CHALLENGES: TRAFFIC, MOUNTAIN WATER, INDUSTRY

Kriens faces three core challenges to overcome: the demolition of plants from the industrial period, the through-traffic sharing the area and the controlled flow of mountain water.

Traffic

The congested road from Lucerne via Kriens and Obernau to Malters and towards the north on the north side of Sonnenberg, to Littau and Emmen, which divides the town of Kriens shall considerably relieve pressure from and calm the Kriens town centre. A five-stage traffic project for the Lucerne agglomeration is planned: the north expansion Ausbau Nord, a tunnel bypass, an urban motorway, the Spange Nord road axis, an expansion of public transport and the south addition Ergänzung Süd.



Andritz-Areal

Source: Geomaps, URL:

https://map.geo.admin.ch/?topic=ech&lang=en&bgLayer=ch.swisstopo.pixelkarte-farbe&layers=ch.swisstopo.zeitreihen.ch.bfs.gebaeude_wohnungs_register.ch.bav.haltestellen-gev.ch.swisstopo.swisstim3d-wanderwege.ch.babs.kulturgueter&layers_visibility=false,false,false,false,false&layers_timestamp=18641231,,,,&X=209639.94&Y=664728.04&zoom=8&layers_opacity=1,1,1,0.75&catalogNodes=687,688

Lucerne agglomeration programme

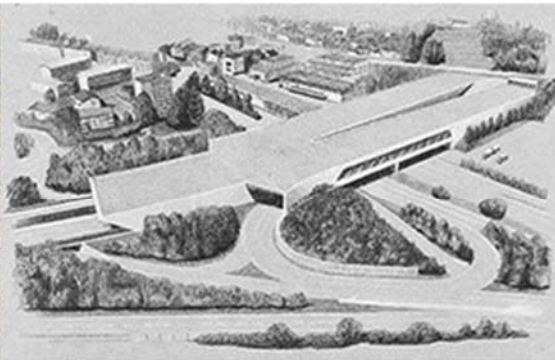
Kriens is taking part in the Lucerne agglomeration traffic programme, the Lucerne bypass overall system is a key project. The reduction of through traffic will somewhat relieve pressure on traffic towards the city of Lucerne, but the Eichhof – Kriens centre – Obernau – Malers through-road hardly benefits from this at all. A road project is therefore planned on this main axis with bus prioritisation by mitigating the flow of traffic on the access roads. In addition, the road project is intended to improve the quality of time spent in the centre.

Before Lucerne, the traffic flows of the national A2 north-south axis and the A14 from Zurich to Zug meet at the Rotsee motorway junction. These overlap with the regional and local destination and origin traffic on the route through the town. The traffic caused by this already leads to congestion today. This impedes both regional traffic and also national through traffic. The anticipated increase in traffic will further exacerbate the situation.

Source: Lucerne bypass overall project, URL: <http://www.bypasslu.ch/bylu/de/gesamtprojekt>



Projected traffic diversion with northern bypass



Left: Situation today / Right: Visualization of a possible variant of the redesign of the connection area Luzern-Kriens

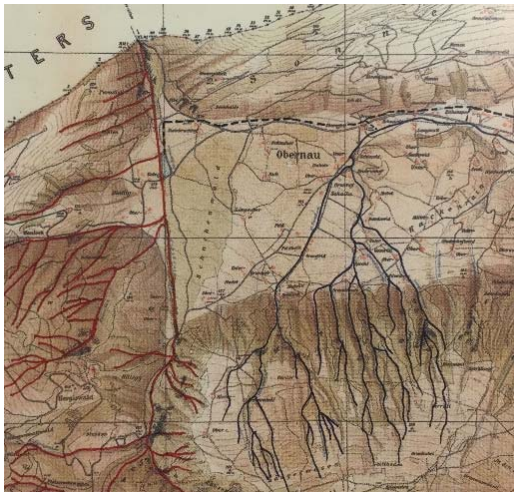
Project website. URL: <http://www.bypasslu.ch/>

The agglomeration programme with the planned improvement of the roadside environment will result in a new location quality for Kriens.

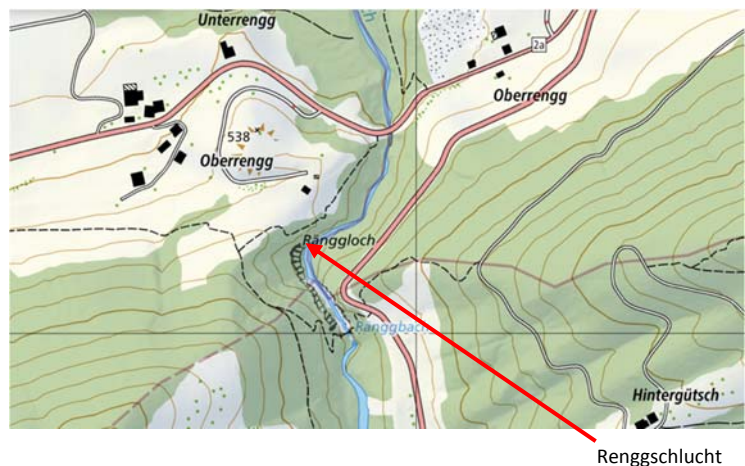
The mountain streams

Kriens is located along the Krienbach, a mountain stream which due to storms and melting snow “frequently brings so much water and bed load with it that major floods and disturbances have repeatedly occurred. Accordingly, the history of the Krienbach is marked by contradictory efforts to protect the municipality from floods, but supply enough water to the businesses.” (Bärtschi 1999, p. 8) The controlled water of the Rengbach and of the Krienbach continues to determine the tasks of the municipality of Kriens today.

The narrow Renggschlucht ravine impedes the run-off of the water in major storms because tree trunks and boulders carried along can get stuck in the Ränggloch.



Ground survey map of Kriens 1919, Alfred Farnet.
Source: Studer 2016, p. 85



Renggschlucht

The Renggbach stream has in the past often burst its banks at the level of Neue Hergiswald-Brücke bridge and flooded Obernau and Kriens. Around 700 dams now control the flow of the river, some 30 tributaries of the Renggbach are maintained by the Renggbach Association. The Krienbach also had to be considerably subdued. Today it runs below ground from the centre of Kriens to the mouth of the Reuss.

This geographically unique location is an intrinsic part of the history of Kriens and also still presents the municipality with serious challenges that need to be overcome by means of water technology. On the other hand, a new programme could emerge that not only increases recreational value but as “Little Venice by Lucerne” could lead to new facilities as a result of this unique situation.

Industry

The withdrawing industry leaves behind its industrial buildings that meet the new need for a livable municipality to be upgraded in quality. Kriens is already in the process of this renovation. The **European competition** is intended to support this strategy. Location-specific qualities are to be emphasised and become part of the new identity. The Andritz area, part of which will be available, is to give an additional boost for the purpose of this strategic orientation and provide a necessary focus. Relevant projects are currently being implemented or have already been realised (see: Kriens centre mile).

THE ANDRITZ AREA AND THE SCOPE OF TASKS IN THE EUROPAN COMPETITION

Competition description

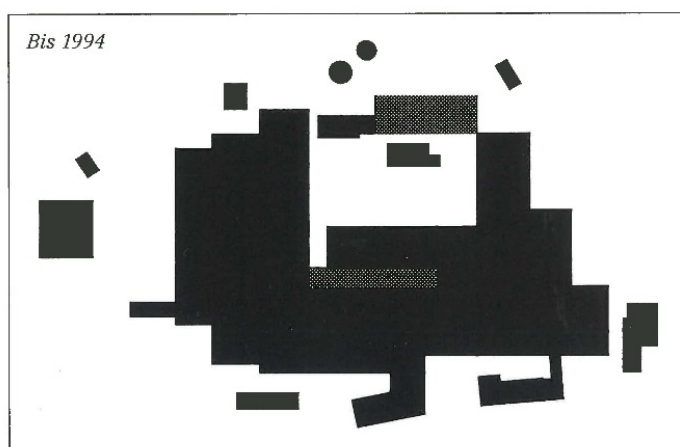
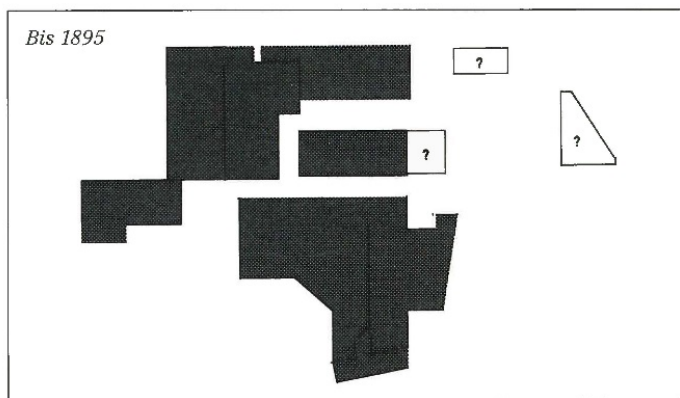
SCALE	Landscape / Architecture
TEAM REPRESENTATIVE	Architect
TEAM COMPOSITION	Architect / urbanist / landscape architect / other...
EXPECTED SKILLS	Architect / possibly the addition of a colleague urbanist and / or landscape architect
SITE FAMILY	From productive area to productive city
SITUATION	Andritz -Area, Kriens / LU, Schweiz
POPULATION	26'858 inhabitants
STRATEGIC SITE	22 ha
PROJECT SITE	3.5 ha (Sector 1: 1,5 ha / Sector 2: 2,0 ha)
SITE PROPOSED BY	District of Kriens
ACTORS INVOLVED	Municipal Council & Department of Construction and the Environment of Kriens, Hydro-Andritz Ltd.
OWNER(S) OF THE SITE	Hydro-Andritz Ltd.
COMMISSION	Communication after the competition (with the events dates when known)
JURY – 1ST EVALUATION*	with the participation of the site representatives
JURY – PRIZE SELECTION*	Ranked Selection: with Winner (€12,000), Runner-up (€6,000) and Special Mention (no reward) or Equal Selection: maximum 3 runners-up without any hierarchy of reward (equal rewards, specifying if will be used as payment for the work-shop/study to follow)
POST-COMPETITION	Recommendation of one winning team ex. documentation of neighborhood plan or Workshop onsite with the rewarded teams to choose a team for the implementation phase
MISSION GIVEN	Guarantor of the conceptual idea of the team of owners



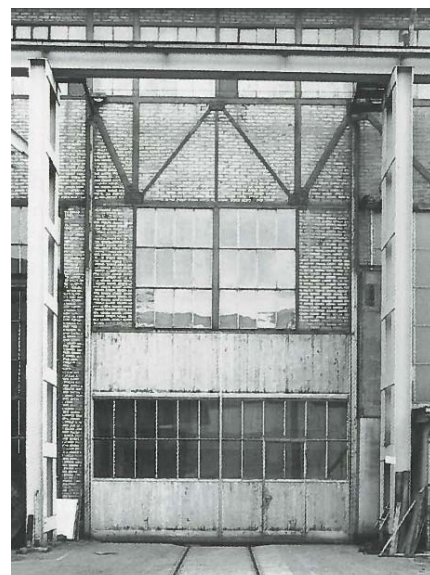
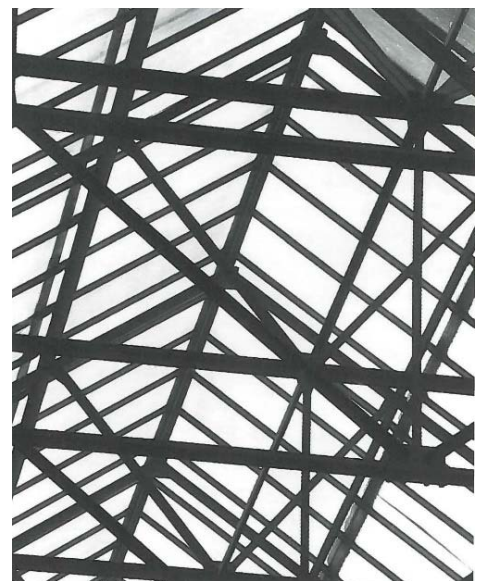
History: From Bell to Andritz AG

The Lucerne goldsmith August Bell (1814-1870) founded Bell Maschinenfabrik. Initially a repair and construction workshop, Bell added a mechanical horsehair weaver in 1855. After a number of crises, the company had its heyday between 1870 and 1930 under the management of August Bell's son Theodor (1840-1933). Starting from mechanical woven chairs and following considerable diversification, in its 1955 anniversary year it encompassed the main sectors of turbine construction, steel construction (including bridges and high-rise buildings), boiler and apparatus construction, cable car and crane construction, general mechanical engineering and paper machinery construction. Bell's machines were deemed innovative and excellent in Switzerland. The opening of the Kriens-Lucerne railway in 1886 meant simplified transport options for the factory as a result of connection to the railway network. After the crisis in the 1930s, another boom followed in the post-war years. Bell was sold to the Zurich engineering works Escher Wyss in 1959. Together with Escher Wyss, Bell was merged into the Winterthur-based Sulzer Group in 1967, and in 1996 Sulzer Hydro AG became a part of Andritz Hydro AG.

The changing fortunes of the company can also be seen in its building history. Most buildings were constructed pragmatically, economically and on a needs basis between 1885 and around 1910, there was no overarching architectural concept. Today's building stock dates back primarily to the second expansion phase between 1945 and 1970, in which the works premises underwent inward densification.



From the village building on Obernauerstrasse the machine factory developed into a strictly orthogonal facility

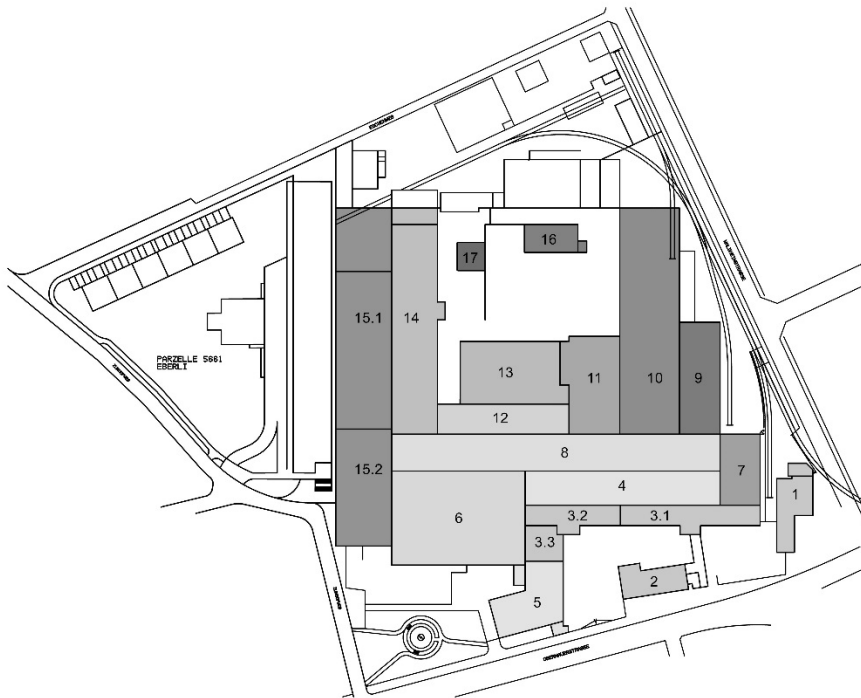


To the right: **Hall 7:** Minimised support structure for maximum incidence of light through the fanlight of hall 7 which was newly built after the fire in 1923
Steel frame façade with natural brick infill, transom windows and a crane track openly placed in the front at hall 7 which is used as a preparation area.
(Photos 1994 Arias I. Pfister)

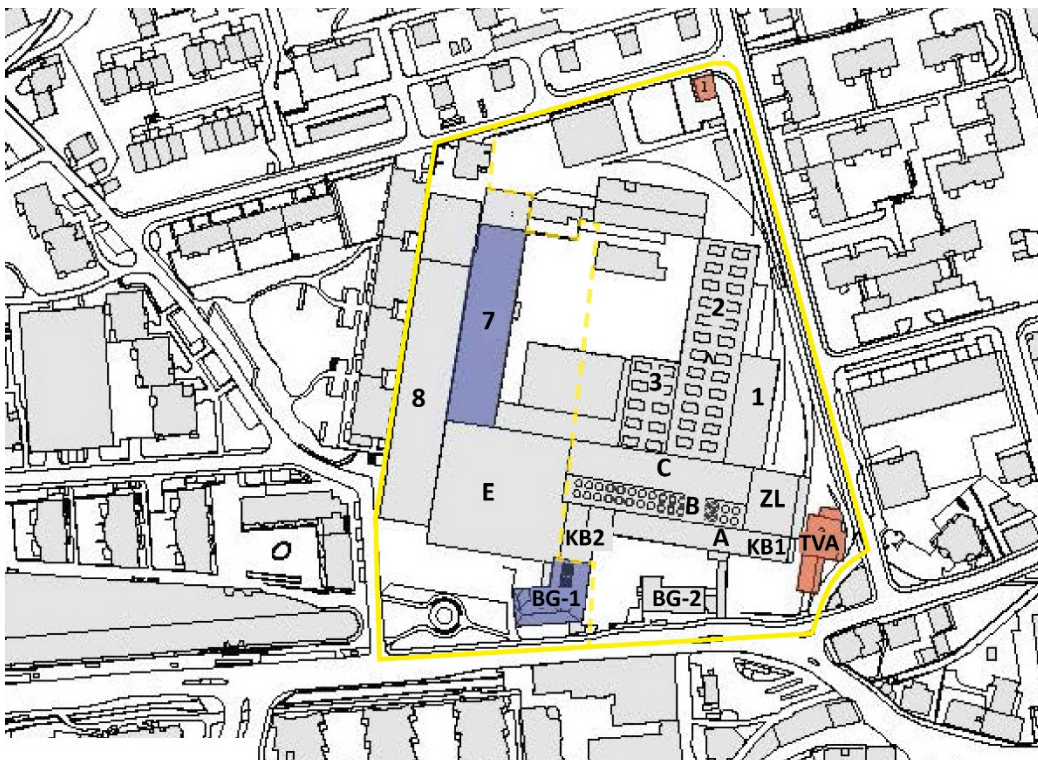
ANDRITZ AREA AND BUILDING INVENTORY

Building inventory

The present building inventory on the factory premises is arranged in individual buildings. If necessary, **Hall 7** with the number **14** could be given a new use in the first stage of the competition, provided that activities that are productive in terms of content are integrated. In the second phase, the overall design concept is to incorporate all other buildings for the purpose of the new use.



Inventory with inventory numbers, Andritz Hydro AG, Kriens



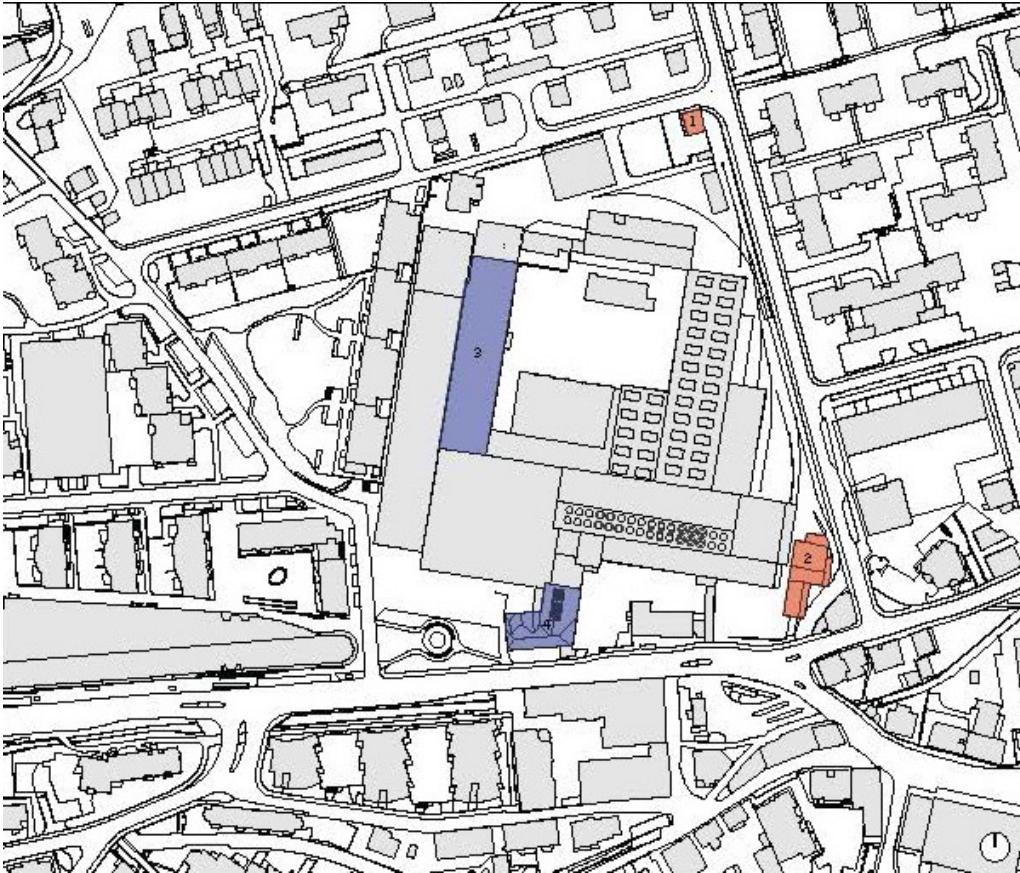
Halls Andritz-Area

Inventory.-Nr.	Name of the building		Classification	Sector
1.	TVA	Transformer station/hydraulic testing plant	Building inventory: worth protecting	2
2.	BG2	Sulzer infrastructure office building	Retained	2
3.	KB1/2	Head-end buildings „KB1 & KB2“ , hall A, Entresol	Renovated 2 years ago	2
4.	B	Hall B, Production	Retained	2
5.	BG1	Administration building, oldest building	Building inventory: Worth preserving	1
6.	E1-E4	Halls E1-E4 warehouse / test automation	Retained	1
7.	ZL	Hall D, central warehouse	Retained	2
8.	MH49	Hall C, assembly hall	Retained	1 / 2
9.	H1	Hall 1, haulage	Retained	2
10.	MH64	Hall 2, large processing / assembly	Retained	2
11.	H3	Hall 3, service point H / transformer station	Retained	2
12.	L	Roofing, warehouse	Retained	1 / 2
13.	ZB	Central building, warehouses	Retained	1 / 2
14.	H7	Hall 7, impeller - grinding shop	Building inventory: Worth preserving only with realistic new function content	1
15.	H8	Hall 8, assembly & „Beschichtung“	For disposal	1
16.	EW	Electrical workshop	For disposal	2
17.	GO	Annealing furnace	Will be postponed	

Source: Andritz AG 2016

Retained = as long as in use

Fundamentals of historical monument preservation



Worth protecting

From a perspective of historical monument preservation, two buildings in the area are classified as worth protecting: Emil Vogt's hydraulic testing plant (No 2) from 1916/17 and Emil Vogt's master house from 1894 (No 1).

Transformer station/hydraulic testing plant „TVA-Building“



Photo Lussi + Partner

One of the master houses



Worth preserving

Hall 7 from 1923 and the administration building from 1896 are classified as worth preserving. These buildings have the potential to be retained for the unused area as identity-establishing elements that represent history and to transport the industrial character into the new era.

Hall 7

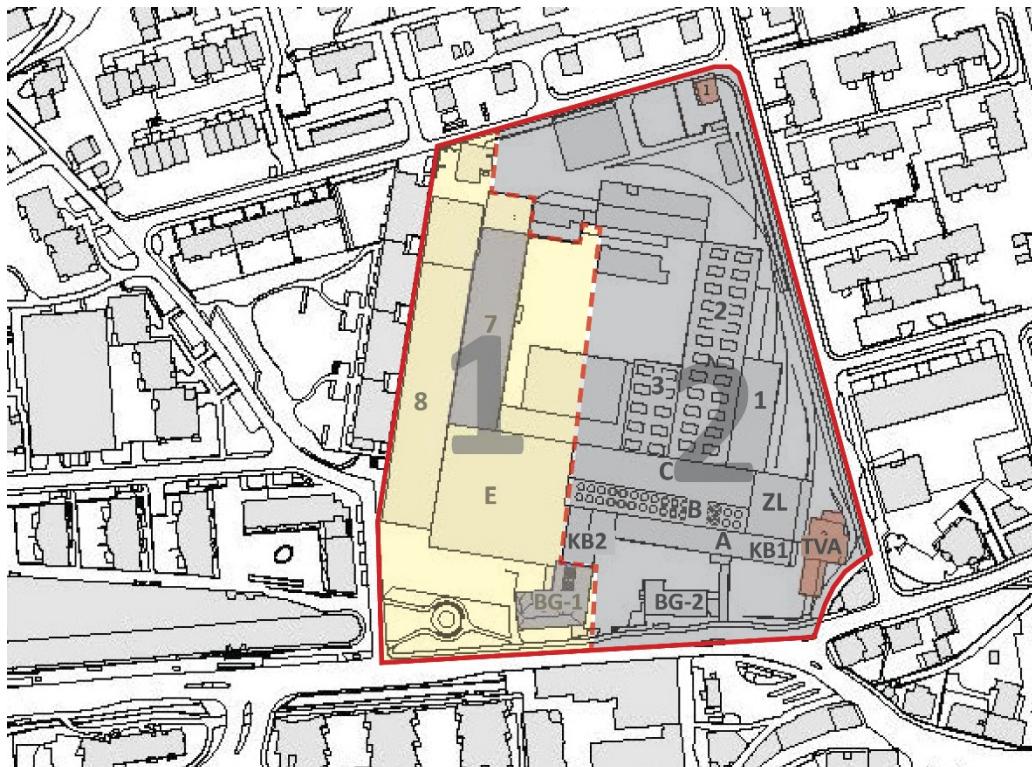
Hall 7 - Photos Lussi + Partner



Hall 8 - the right wall is the outer west facade of Hall 7

Administration building BG-1

ANDRITZ PREMISES: DIVISION OF THE PERIMETER



Sector 1

Near half of the Industrial Areal located in the centre of Kriens will be sold to an investor (Sector 1). The municipality can stipulate the possible uses with its town planning. There is no legal entitlement to rezoning.

In the first phase of the competition, the area of halls E, 8 and 9 and the northern additional area shall be converted to a new use. The municipality envisages small businesses and small handicraft businesses locating there and attracting not just corresponding workers, but possibly also attracting customers from outside of Kriens in a very much higher priced field. A mixed use programme that could equally incorporate living and working is to be considered. Whether mixed-use is possible in this location and could revive the area in an optimal manner is to be considered. In what manner could the area act as an attraction point that has an effect beyond the borders of the municipality? Which small businesses should be particularly encouraged?

The access roads, development opportunities and locally interconnected uses are to be taken into account here. Institutions such as the weekly market could be taken into account in the deliberations. Are additional leisure opportunities necessary for this? Would there be other options for improving quality? What critical mass needs to be achieved? What future problems are to be expected? How does the programme relate to the general Kriens culture programme? Can migration of young people away from Kriens be curbed and popularity with young people from outside the area be increased?

Consequences from the uses arising are also to be factored in. How are the periods of intermittent growth on work days and the area emptying out in the evening, at night, on weekends and on Sundays and public holidays to be factored in? What common facilities such as reception, coffee places and community rooms are needed?

Generally, the internal social revival and increased external incentives should heighten attractiveness and strengthen the internal social structure.

Sector 2

Even if the competition is primarily oriented towards sector 1, it should show compatibility with the further running of the company in sector 2, which is to be maintained for the time being.

The expected operating life of sector 2 is still undetermined. Therefore, the entire district, which continues to have an industrial spirit, should be factored in and thus the history of the area should continue to be written. The development horizon of the overall area (sectors 1 and 2) encourages building types that allow multiple uses and which enable later re-purposing for different activities.

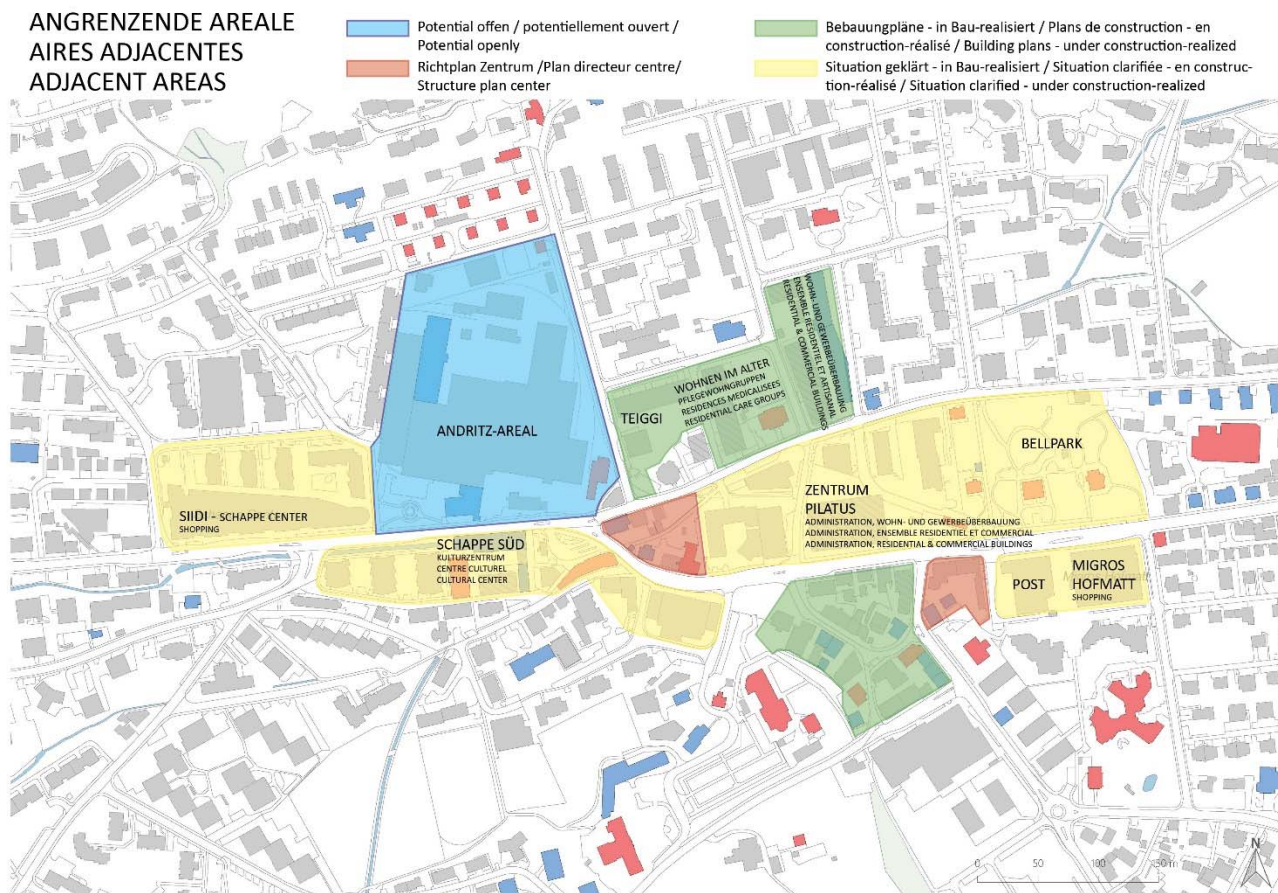
5 FUNDAMENTALS FOR SUBSEQUENT COMPETITION PROCEDURE

The following competition procedures are possible (in accordance with jury decision):

- Recommendation of one winning team ex. documentation of neighborhood plan
- Workshop onsite with the rewarded teams to choose a team for the implementation phase

KRIENS CENTRE MILE

In the final phase, the entire Andritz area still in existence is to follow the planned rebuilding of the centre of Kriens. The “Future Kriens – Life in the Centre” projects currently being realised shall be connected with the Andritz area and the other existing town-centre construction and use projects.



Kriens mile and neighbouring areas, 2016

The design of a Kriens centre mile should be proposed in order to connect the different attraction areas with each other instead of a town centre (from left to right on the plan):

1. **Siidi** (Schappe-Center), shopping and office, situation clarified / under construction (north of Luzernerstrasse, yellow);
2. **Andritz area**, potential open (north of Luzernerstrasse, blue);
3. **Schappe Süd (former spinning mill)**: Youth/culture and business centre, under construction, (south of Luzernerstrasse, yellow);
4. **Kriens centre**, structure plan (north of Luzernerstrasse, red);
5. **Teiggi (former pasta factory)**, Wohnwerk Genossenschaft, town hall area, housing in old age Lindenpark, private subprojects, development plans / realised (north, green);
6. **Pilatus Centre**, reconstruction 2016-18, residential and service building, community hall and central municipality administration with municipal office and
7. **Bell Park and Bell Museum** (former Villa Florida, 1911, architect Emil Vogt) with local history archive, situation clarified / under construction (north of Luzernerstrasse, yellow);
8. **Obernauerstrasse / Luzernerstrasse**, development concept with considerations regarding construction and roadside environment design, centre structure plan (south of Luzernerstrasse, red);
9. **Post and shopping**, replacement of the previous fragmented structure through new builds, situation clarified / (south of Luzernerstrasse, yellow).

The municipality has chosen not to provide guidelines and supports the creative process for anticipated new concepts. The teams are to connect the yellow perimeter to the red area under consideration and create meaningful relationships in terms of content. Politically, this topic needs to be approached carefully, initial situations on the personal level are also to be taken into account in the phase of reorienting the municipality

TRAFFIC

Rezoning requires a traffic concept.

Parking

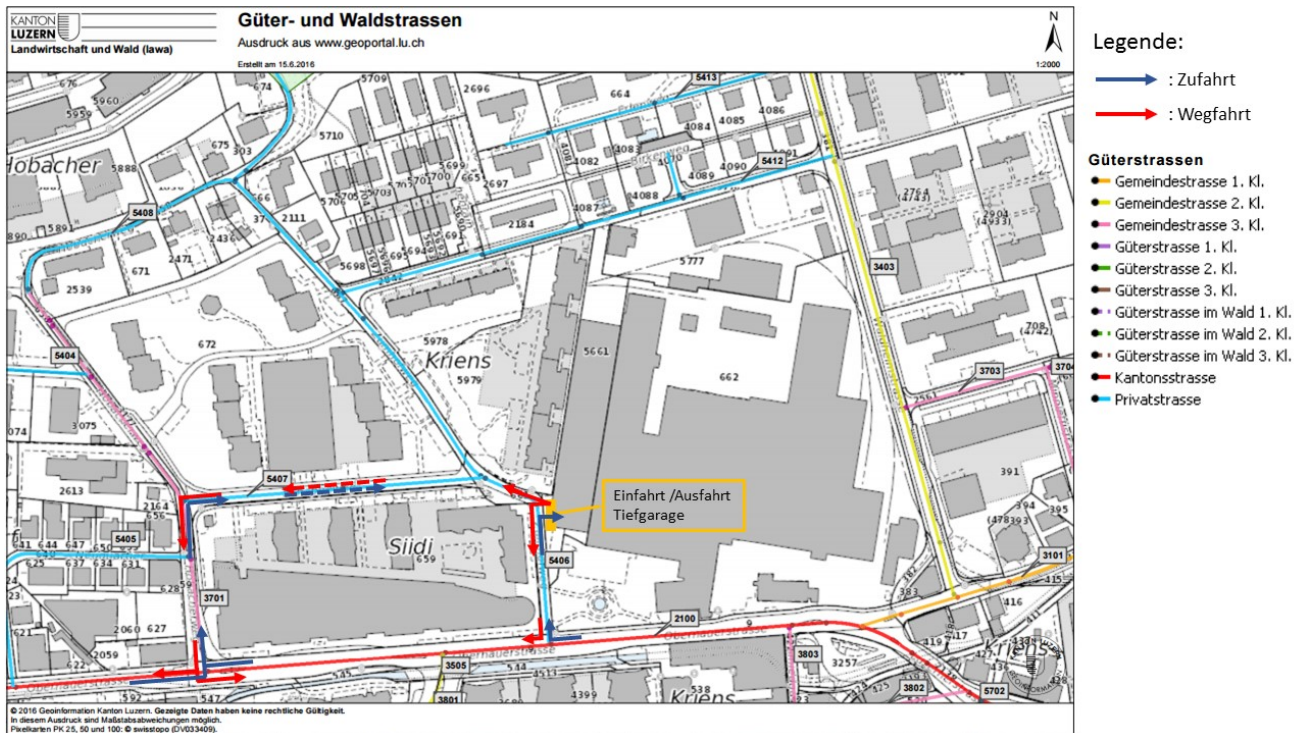
The calculation of the number of parking spaces will also be made after the municipality of Kriens new parking space regulations (referendum on 12 February 2016). A reduction factor of 10%-60% can be applied for residential use. It is calculated with a factor of 20% (only around one in five homes has a parking space). The regulations apply a higher factor for businesses. In line with the below calculation in accordance with the new parking space regulations, around 94 parking spaces are to be provided for the 1st stage and a total of 232 parking spaces when the project is finally completed.

Two-wheeled vehicles

The above calculation in accordance with the new parking space regulations thus results in around 444 parking spaces for the 1st stage and a total of 1,139 parking spaces when the project is finally completed. With a space requirement of around 2 m² per parking place (0.75 x 2.00, without any allotment for access roads and manoeuvring space), that would mean around 225 m² for the first stage and around 570 m² when the project is finally completed (without two storey bicycle/parking space facilities). The area needed for these parking spaces is relevant to the architectural considerations for the building project. These parking spaces are planned "to generally have roofs or to be integrated into the building and as far as possible to be created at ground level" (Art. 20 (1) of the new parking space regulations). NB: No differentiation between short-term and long-term parking places was made.

Traffic regime

At the Zumhofweg junction, the left turn lane on Obernauerstrasse means that only a right turn into or out of Zumhofweg is possible. Vehicles travelling from the direction of Obernau and towards Lucerne thus primarily have to travel via Hobacherweg. It is therefore proposed to open up the 2nd stage (east) via Waldheimstrasse: in particular vehicles travelling from the town towards Lucerne via Waldheimstrasse, Schachenstrasse, Gemeindehausstrasse on Kantonsstrasse.



Sources: Andritz area Kriens feasibility study, p. 27.

Fig.: Development concept diagram, stage 1 [www.geoportal.lu.ch]

NOISE PROTECTION

The Andritz area in Kriens (plot no. 662) today hosts various noise-producing industries and businesses. In addition, the plot is affected by road traffic noise from Obernauerstrasse.

In summary, it can be said that both traffic noise and the noise pollution from business and industry can be reduced down to the legal limits in the buildings with suitable noise protection measures.

CONCLUSION

The following points are important:

Vitalising and connecting the centre

Vitalise and thus strengthen the town centre with additional public-commercial uses. An opportunity to strengthen and connect the surrounding facilities, such as Schappe-Center and Schappe-Süd.

Urban identity, industrial history

The Andritz-Hydro AG industry area is part of the identity of the municipality of Kriens. It is therefore sensible to retain parts of the industrial building stock for the re-purposing of the area. For example, preserving Hall 7 may contribute to accommodating this aspect.

Diversity

The re-purposing of the area has the potential to create a mixed use area, enabling a communal and lively district life.

Identity of the overall area

Existing conglomeration: in accordance with the specification of industrial functions – new construction phases with new content have requirements concerning innovation for a new livable mixed residential district with compatible activities within it.

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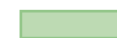

Studer, Jürg: Krienser Kulturzeugen. Geschichte und Ereignisse, Krienser Kulturzeugen 3, 2016.

PLANS ANDRITZ-AREA

- Plan adjacent Areas
- Plan halls & Project site
- Plan cranes 1980
- Plan machine installation 1980
- Plan transporting havy goods 1961
- Plans and sections Hall 7

ANGRENZENDE AREALE AIRES ADJACENTES ADJACENT AREAS

 Potential open / potentiellement ouvert / Potential openly
 Richtplan Zentrum / Plan directeur centre / Structure plan center

 Bebauungspläne - in Bau-realisiert / Plans de construction - en construction-réalisé / Building plans - under construction-realized
 Situation geklärt - in Bau-realisiert / Situation clarifiée - en construction-réalisé / Situation clarified - under construction-realized



SIIDI - SCHAPPE CENTER
SHOPPING



SCHAPPE SÜD
KULTURZENTRUM
CENTRE CULTUREL
CULTURAL CENTER



TEIGGI

WOHNEN IM ALTER
PFLERGEWOHNGRUPPEN
RESIDENCES MEDICALISEES
RESIDENTIAL CARE GROUPS

WOHN- UND GEMERBEÜBERBAUUNG
ENSEMBLE RESIDENTIEL ET ARTISANAL
RESIDENTIAL & COMMERCIAL BUILDINGS



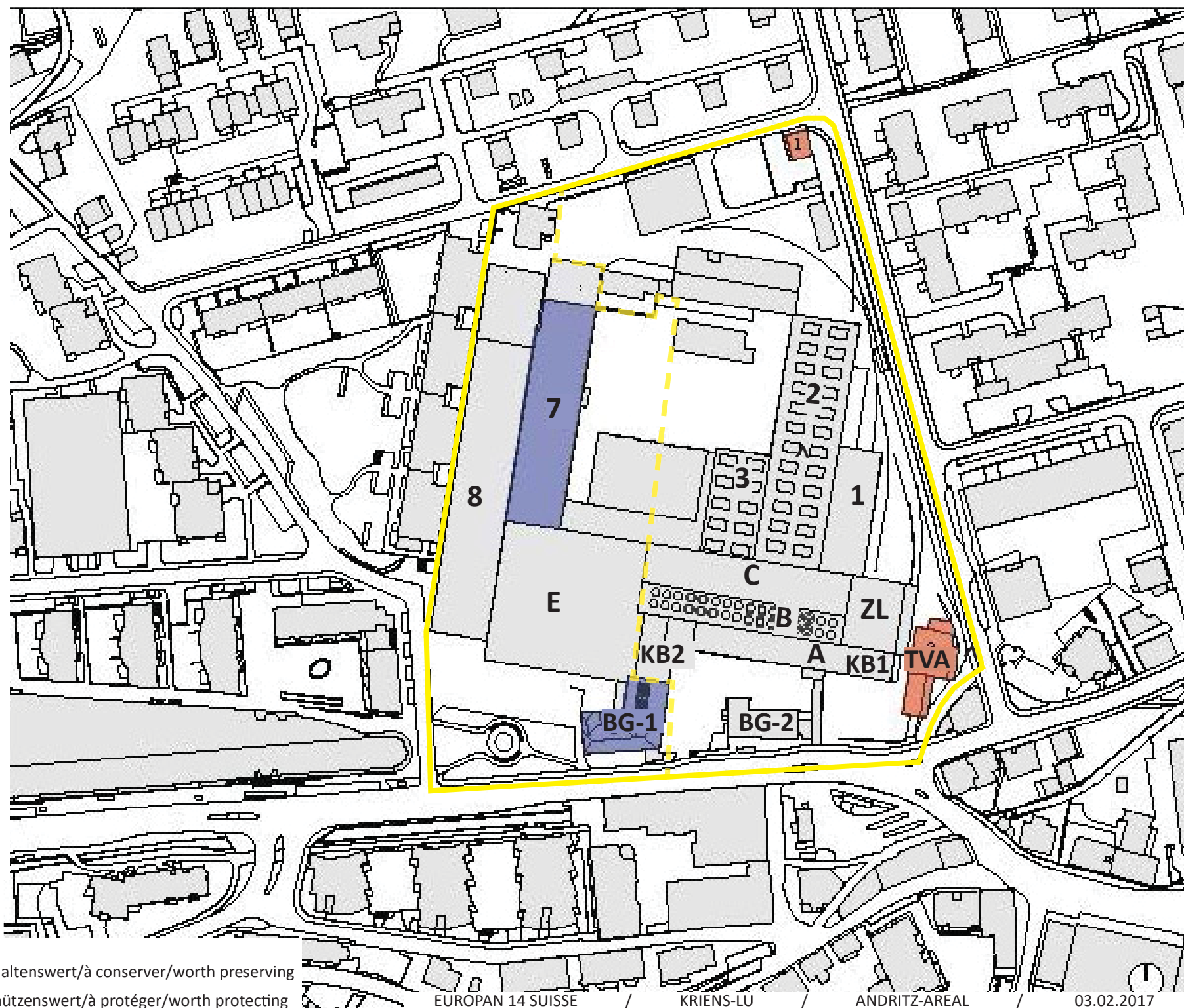
BELLPARK

ZENTRUM PILATUS
ADMINISTRATION, WOHN- UND GEMERBEÜBERBAUUNG
ADMINISTRATION, ENSEMBLE RESIDENTIEL ET COMMERCIAL
ADMINISTRATION, RESIDENTIAL & COMMERCIAL BUILDINGS

POST
MIGROS
HOFMATT
SHOPPING



PLAN HALLEN
PLAN HALLES
PLAN HALLS



Erhaltenswert/à conserver/worth preserving
Schützenswert/à protéger/worth protecting

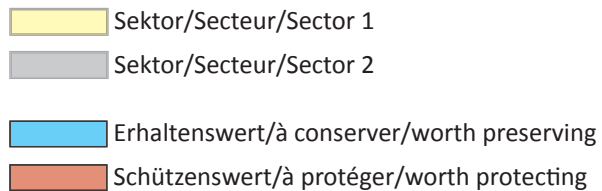
EUROPAN 14 SUISSE

KRIENS-LU

ANDRITZ-AREAL

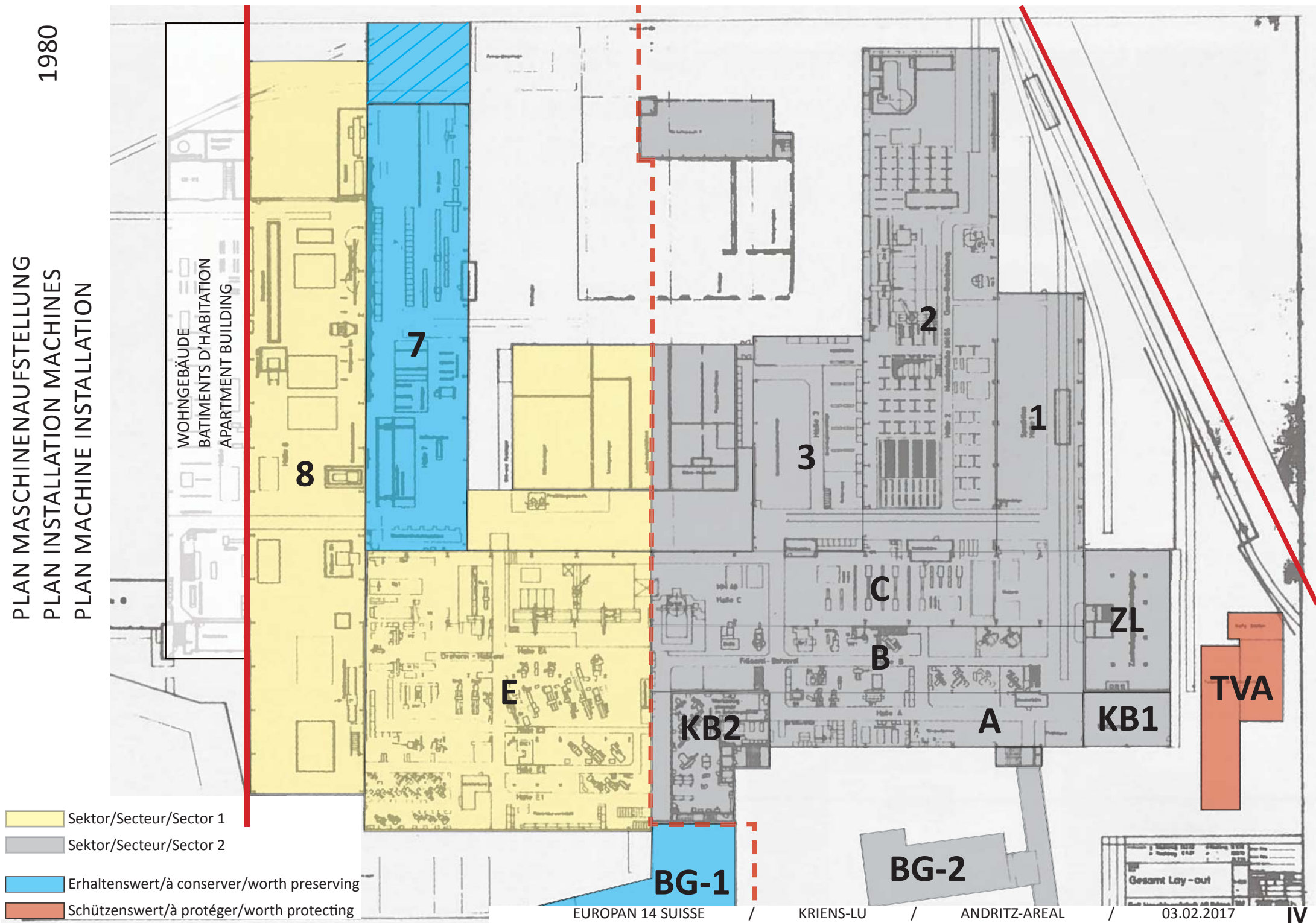
03.02.2017

II



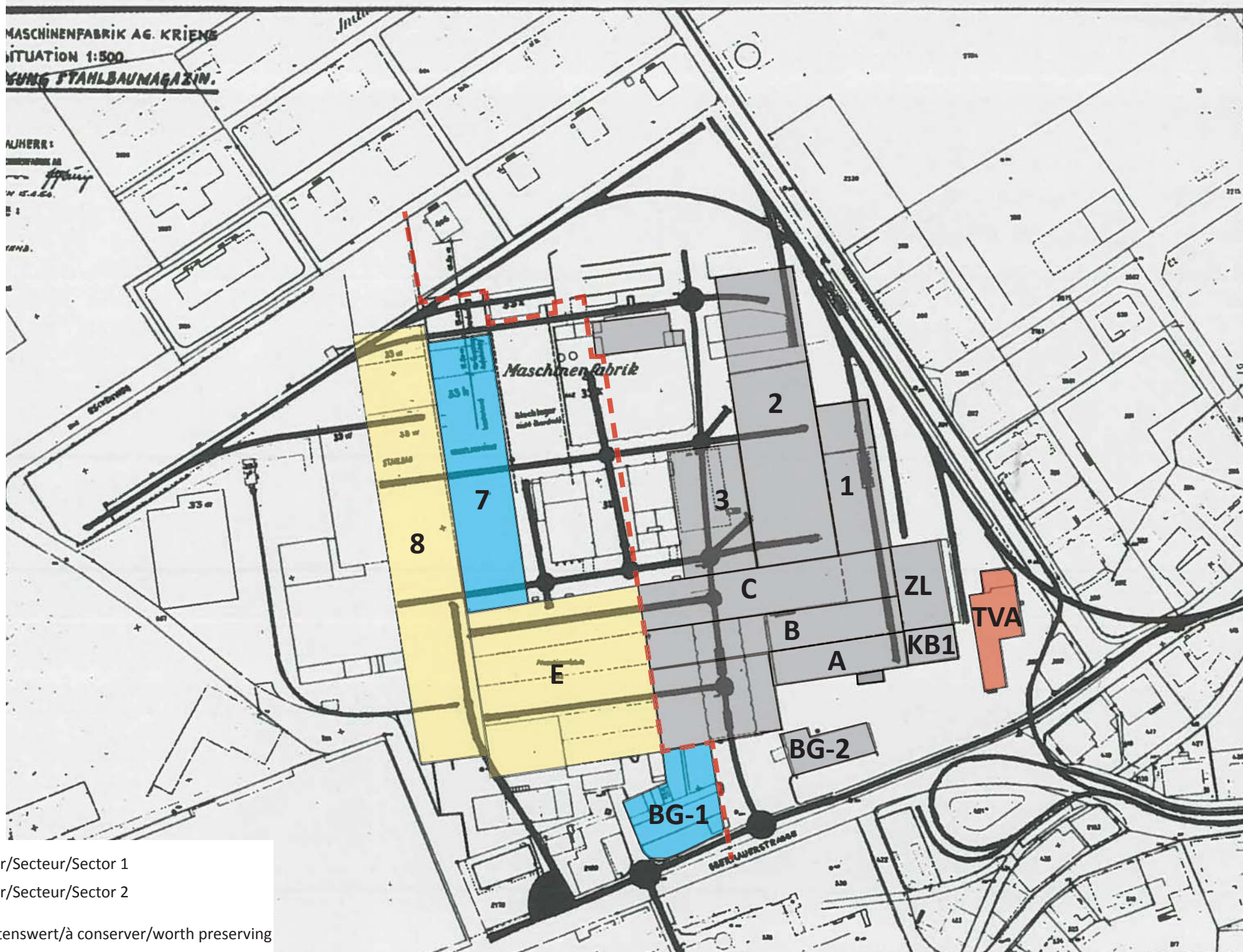
PLAN MASCHINENAUFSTELLUNG
PLAN INSTALLATION MACHINES
PLAN MACHINE INSTALLATION

1980

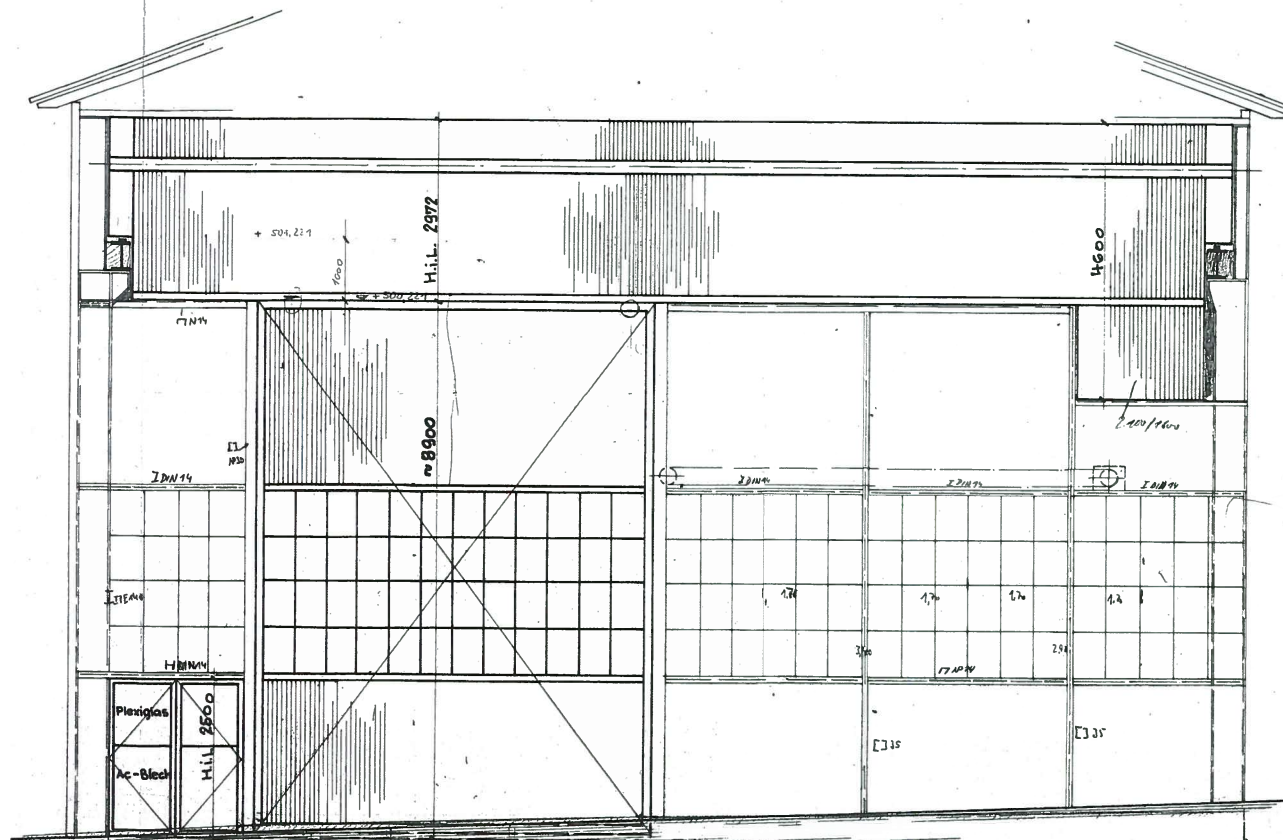


PLAN WEGTRANSPORT SCHWERER GÜTER
 PLAN TRANSPORT MARCHANDISES LOURDES
 PLAN TRANSPORTING HEAVY GOODS

1961

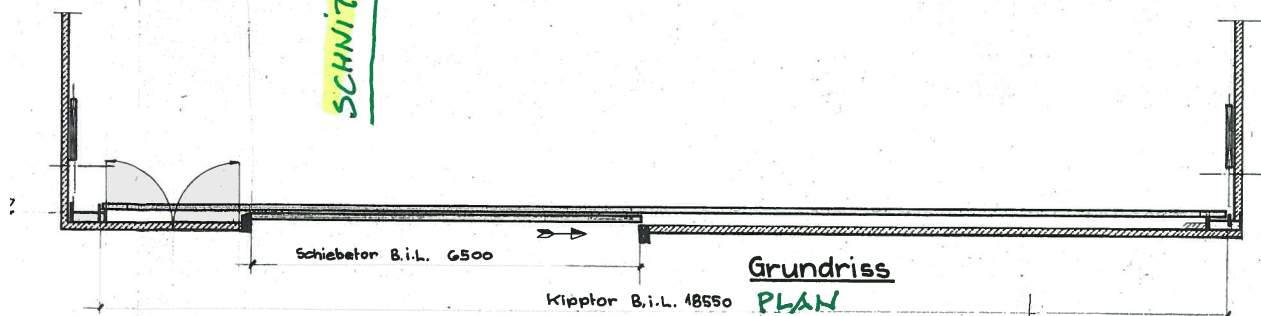


- Sektor/Secteur/Sector 1
- Sektor/Secteur/Sector 2
- Erhaltenswert/à conserver/worth preserving
- Schützenswert/à protéger/worth protecting

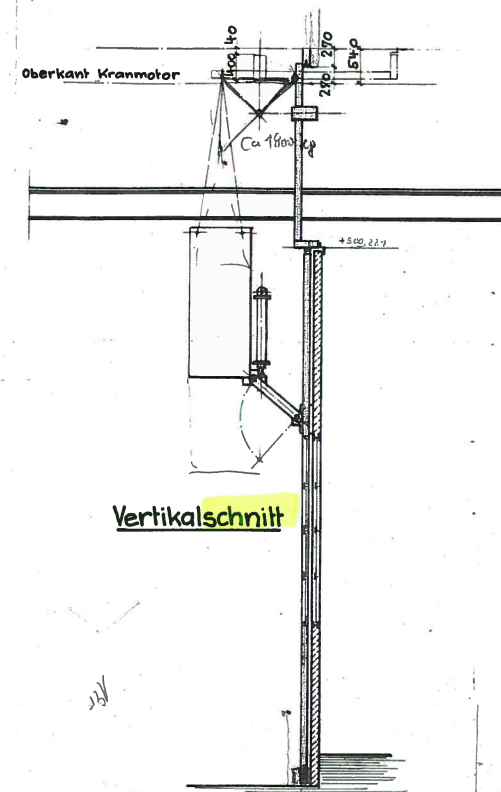


Ansicht von Aussen Mst. 1:50

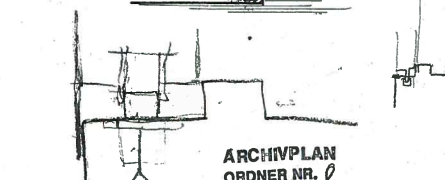
SCHNITT



Grundriss
PLAN



Vertikalschnitt



KESELSCHMIEDE HALLE 7

Dieser Plan bleibt unser Eigentum und darf ohne unsere schriftliche Einwilligung weder kopiert noch in andere Weise veröffentlicht werden.

Bauherr: Bell-Maschinenfabrik AG, Kriens	Kom. 1
Bauleitung: NORD-F, Nordfassade	
Objekt: Bell-Neubau	
Disposition	Masstab: 1:50
1 Drehkipptor 48550 x 2972, 1 Schiebetor 6500 x 8900, 1 Pendlertüre 2200 x 2500	Gezeichnet: Randerum
GAUGER & CO. AG, ZÜRICH 6/35 Niklausstr. 11 Tel. 051 2617 55	Plan 1

KEIPELSCHNITZ

Dachgrundriss
Brückenbauwerkstätte

Dachgrundriss. HALLE 7

