

## DELIVERABLE D.T4.2.2

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Setting up of emergency plans for the target  
heritage sites - Austria

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# I. DESCRIPTIVE PART

## I.1 General information

**Plan name:** Evacuation plan for historic city center of Krems-Stein

**Plan area:** regional

## I.2. Site description and hazard analysis

The historic city-center of Stein is located at the eastern entrance to the Danube valley and is the gateway to the valley of Wachau. Due to the small topography, the area of the old town is relatively narrow and oriented in a west-east direction. To the east, at the former Minoritenkloster, the old town widens and today connects seamlessly to the local area of Krems. In the east, outside the old town, the tributary rivulets of *Alauntalbach* and in the west of the urban area the *Reisperbach* flows into the Danube.

The main axis of the old city center of Stein is the main road, called *Steiner Landstrasse*. A northern minor axis forms the *Hintere Fahrstrasse* and *Kellergasse*, the southern minor axis follows the *Donaulände*.

The main axis *Steiner Landstrasse* connects five squares: (from west to east) *Ehmann-Platz*, *Schürer-Platz*, *Rathaus-Platz*, *Köchel-Platz* and *Minoriten-Platz*. The old town is crowned by the so-called *Frauenberg-Church*, which is connected to the parish church St. Nicholas by a stairway. The *Frauenberg-Church* is located on a rocky ridge and is therefore about 25-30 m higher than the Danube.

A cross-connection between the higher city areas and the main road is formed by individual alleys and stairways.

West of *Reisperbach*-valley the remains of the castle of Stein Castle dominates the old city center, which is now privately owned. The old city center is bordered in the east by the city gate *Kremsertor* and in the west by the *Linzertor*, in the north at the *Kellergasse* and in the south by the *Steiner Donaulände*. Formerly, the entire city area was boarded by a city wall - also on the Danube side - and formed a complex fortification. Remains of the city fortifications are preserved in the west at the *Kremsertor* and in the north at the *Minoritenkloster*, as well as on both sides of the *Reisperbach* valley and between the castle and the *Linzertor*. The *Fischerturm* and the round tower at *Rathausplatz* form the remains of the Danube-side city fortifications.

The aforementioned city wall defines a area of approximately 146,000 m<sup>2</sup> or 14.6 hectares. The last detailed demographic figures from 2005 indicate that Stein has a population of 2.332 Peoples.

The historic city center of Stein is mainly affected by flood from the Danube and tributary rivers and rivulets also from Fire due to drought. The hazard analysis will include all the hazards listed in the SiLK guidelines.

The plan is made for the medieval city centre of Stein, including the museums/exhibition centers on its eastern end (Niederösterreichische Landesgalerie [Arts Museum], Kunsthalle Krems [Exhibition Hall for Modern & Contemporary Arts] etc). The focus lies on the immovable monuments, movable heritage taken into account belongs mostly to the churches and the museums and exhibition centers.

### I. 3. List of historic buildings with instructions for their protection

In the following chapter there are all historical objects of the medieval city center of Stein listed, (especially all from the national monument list) including all religious buildings (Christian monuments, former churches and monasteries, consisting of places of worship like chapels and the Parish Church), also museums which containing movable Culture Property.

#### Immovable monuments:

The proposed method of Protection is mostly the fire fighting plan in place (plan Zulu, POC Gerhard Urschler) and the well established erecting of the mobile flood barrier by the fire brigades, helped by volunteers and if necessary the Austrian Armed Forces.

In the federal state of Lower Austria the job for the firefighters in a firefighting-operation is regulated by four alarm levels (B1 to B4). There are also alarm levels for technical support (T1 to T3) and chemical pollution support (S1 to S3). The three alarm levels in the event of a fire are explained below. The alarm level depends on the extent of the fire and the size of the object (see examples listed below). A regional alarm plan, which is prepared by the federal firefighting-department (Niederösterreichischer Landesfeuerwehrverband) and the district-command of the local firebrigade (Bezirksfeuerwehrkommando) in assistant of the local fire department, regulates which local fire department is used for which application and which fire department is for assistant. A local volunteer fire department (Freiwillige Feuerwehr) is divided in 1 or more Firefighter-unites (Löschzüge). A single Firefighting-unit has 1 Commander: 3 Persons as the Commanders squad (Zugtrupp): 2 Groups/9 Persons → 23 Persons(2x Löschruppen).

In the event of a fire of immovable monuments, the alarm levels take effect as with fire of other “normal” objects.

Alert Level - AL (Alarmstufe)	Examples (Beispiele)	Alerting (Alarmierung)
B1	Smaller operations such as garbage container fire, suspected fire, fire detection system alarm, and so on.	Local fire department (23 or more persons)
B2	Fires that require one firefighter-unit and the need of breathing-protection, such as Apartment- or basement fire.	Local fire department and neighboring fire departments according to the alarm plan, so that at least three firefighting-vehicles are in use. At least one of the three

		firefighting-vehicles must be a water tender and two vehicles must be equipped with breathing-protection. (3 x 9 or more persons)
B3	Fires that require more than one firefighter-unit like fire in one house, small and medium-sized firms, fire in one house, fire on a roof;	Local fire department and neighboring fire departments according to the alarm plan, so that at least six firefighting-vehicles are in use. At least two of the six fire engines must be a water tender, and four vehicles must be equipped with breathing-protection. (6 x 9 or more persons)
B4	Fires that require more than two firefighter-units, e.g. Fire of an agricultural object, fire of an industrial object, Churches, Museums etc.	Local fire department and neighboring fire departments according to the alarm plan, so that at least six firefighting-vehicles are in use. At least three of the nine firefighting-vehicles must be a water tender, and six vehicles must be equipped with breathing protection. (6 x 9 or more persons)

No.	Characteristics of the historic object: - name - location / address - short description with the specification of the most valuable elements	Proposed method of protection (Divided into threats if there are differences in proceedings)	Necessary forces: 1. number of people: what services, volunteers, who else? 2. equipment: belonging to whom / stored where?	Estimated time needed for protection
1	historical towncenter of Stein; Part of the UNESCO-World Heritage Wachau includes the historical houses (bourgher houses) from the 12th century to modern period under National Monument Protection: Anton-Ebentheuer-Gasse Nr.7, Eduard-Summer-Gasse Nr. 1, 2 Hintere Fahrstraße Nr. 2, 11, 22 (Kleiner Passauerhof) Johann-Michael-Ehmann-Platz Nr. 2 (ehem. Donaudapfschifffahrtsagentur), 4, Ludwig-von-Köchel-Platz Nr. 2, Minoritenplatz Nr. 1, Schürerplatz Nr. 2, 6, 7, 8 (Mazzettihaus), 10, 11,	<b>In case of a flood</b> - the medieval city center of Stein is in a first phase protected by a flood protection wall made of concrete. This wall can be topped up with mobile flood protection barriers if the danube river reaches a critical level - this mobile flood protection barriers/panels are stored in a local storehouse which can be never reached by any known flood - in case, the mobile flood protection will be installed by the local volunteer fire brigade.	<b>In case of a flood</b> 1. Volunteer Fire Brigade in Stein and Krems with the Help of local volunteer Fire Departements from Neighbor-Communitys - 25-50 persons; in case of a heavy flood with rapidly raising Danube-Level assistend Help by the Austrian Armed Forces - 50 persons; 2. in case of a flood, mobile flood protection barriers/panels owned by	120 min-240 min (depends on situation and avaibal man-power)

	<p>Steiner Donaulände Nr. 48, 56 (former Ship-landing-station), Steiner Landstraße Nr. 14 (Gleinker Hof), 16, 19, 21, 22 (kleiner Passauerhof) 23, 25 (Melkerhof), 26, 27-27a (Salzstadl), 30, 36, 41, 42, 45 (Kremsmünster Hof), 50, 52, 58 (Grashof), 59, 60, 63, 66, 68, 72 (Eitzingerhof), 74, 75, 76 (großer Passauerhof), 78, 80 (Apothekerhof), 81, 82 (Eizingerhaus), 83, 84 (ehem. Landesfürstliches Mauthaus), 85, 86, 87, 88 (Holzingerhof), 90 (Holzingerhaus), 92 (Karlingerhof), 94, 100, 102, 105, 106, 108, 122 (residential house of painter Martin J. Schmidt), 124 (Danube Private University), Wassergasse 1; also including the remains for the medieval town wall with the gatetower in the east (Kremsertor) and west (Linzertor)</p>	<p>- in case of a flood, the tributary rivulet <i>Reisperbach</i> in the middle of the historic city center of Stein is secured and controlled by a security gate/lock - From the experience of the last flood in Stein in 1991, the old town center is protected by a comprehensive flood protection wall, but no protective measures have been taken in the individual houses in the event of rising groundwater. - mobile flood protection and waterpumps for the historical houses at risk (along the mainroad <i>Steiner Landstraße</i>) should be arranged to prevent rising groundwater during floods. - These measures should be taken by the owners themselves and supported financially by the community <b>in case of a fire</b> - it is necessary to use for example heavy foam (Kompaktschaum) as a soft method to fight fire instead of water. For the protection of cultural heritage there have to be a way of a „gentle“ fire-fighting method for easier damage elimination. Foam contains less water and is easier to remove later.</p>	<p>the municipality of Krems - Sandbags are included - stored in the Municipal Flood Warehouse;  <b>in case of a fire</b> 1. If a single object is burning, an AL B3 takes effect, in case of more than one object AL B4 takes effect; 2. in case of a fire AL B3 to AL B4, the equipment is kept ready by the fire departments that deploy to the site. To avoid serious damage to the building structure caused by extinguishing water it is necessary to use heavy foam (Kompaktschaum).</p>	
2	<p><b>Former Workers Appartements of the Tobacco Factory I - Wohnhäuser der Tabakregie</b> Address: Dr.-Karl-Dorrek-Straße Nr. 20-26 The former Workers Appartements is a three-story, complex from the period of the Heimatstil that was built from 1914 till 1919. It consists of two wings with trickle-plaster-facades. The fronts are dominated by stair-turrets and risalites with crooked gables.</p>	<p><b>In case of a flood</b> - in case of a Danube flood in a safe location/position because of the groundlevel - the area could be affected in case of a rapidly rising of the tributary rivulet <i>Reisperbach</i> or Alauntalbach in case of heavy rainfalls - in case of entering water in these areas, sandbags should divert the water in a different direction</p>	<p><b>In case of a flood</b> 1. Teams of volunteer fire fighters from Krems-Stein (depending on the situation) - 10 persons or more; 2. Sacks, sand, water pumps and other stuff are in the equipment of fire brigades and in the Municipal Flood Warehouse</p>	30 min
3	<p><b>Danube Univerity - Donau-Universität Krems former Tobacco Factory</b> The complex is located on the eastern periphery of the historic old town. Address: Dr.-Karl-Dorrek-Straße Nr. 30 Part of the university is housed in the former tobacco factory, a characteristic industrial building of the early 20th century. The three-storey reinforced concrete skeleton building in the design of the so called "third baroque" was built between 1919 and 1922 according to plans by the architect Paul Hoppe and redesigned by the Austrian architect Manfred Wehdorn in the early 1990s with the greatest possible protection of the historical structure.</p>	<p><b>in case of a fire</b> - it is necessary to use for example heavy foam (Kompaktschaum) as a soft method to fight fire instead of water. For the protection of cultural heritage there have to be a way of a „gentle“ fire-fighting method for easier damage elimination. Foam contains less water and is easier to remove later.</p>	<p><b>in case of a fire</b> 1. If the object is burning, an AL B3 takes effect; 2. in an AL B3, the equipment is kept ready by the fire departments that deploy to the site. To avoid serious damage to the building structure caused by extinguishing water it is necessary to use heavy foam (Kompaktschaum).</p>	
4	<p><b>Railway line of the Wachau Bahn and railway station Stein-Mautern and Freight magazine with loading ramp</b> Address: Förthhofstraße Nr. 2-4 The railroad on the north-side of valley Wachau, along the Danube river, the so called Donauuferbahn, was built in 1909. When it was built, the focus was placed on protecting the landscape and for this purpose the painter and monument conservationist Rudolf</p>			

	Matthias Pichler was involved. The 34-kilometer route between Krems and Emmersdorf, which is part of the Wachau UNESCO World Cultural and Natural Heritage, is particularly protected. The freight magazine with loading ramp is part of the railway station, which opened in 1909.			
5	<b>Förthof</b> Address: Förthofstraße Nr. 15, 15a, 17; The Förthof is an extensive, four-wing complex around a trapezoidal courtyard. The core of today's complex dates from the second half of the 16th century. The property was first mentioned in the year 1220. From the year 1530 it was owned by the Aspern-von-Haag-family and was subsequently extensively rebuilt. The three-storey and six-axis west shows remains of ornamental paintings from the late 16th century. On the courtyard side there are ground floor arcades in the west. Individual rooms have cross-ridges-vaults.	<b>In case of a flood</b>  - this area is outside of the flood protection wall and can be not safed by this measures - in case of a Danube floode the ground level of these building will be affected - there sholud be no permanent use for living of the ground floor, otherwise the owner sould do some measures for themselfe (mobile barriers in the area of door and windows, waterpumps).  <b>in case of a fire</b>  - it is necessary to use for example heavy foam (Kompaktschaum) as a soft methode to fight fire instead of water. For the protection of cultural heritage there have to be a way of a „gentle“ fire-fighting methode for easier damage elimination. Foam contains less water and is easier to remove later.	<b>in case of a fire</b>  1. if the object is burning, a AL B3 take effect; 2. in a AL B3, the equipment is kept ready by the fire departments that deploy to the site. To avoid serious damage to the building structure caused by extinguishing water it is necessary to use heavy foam (Kompaktschaum).	
6	<b>Mariensäule</b> Address: Johann-Michael-Ehmann-Platz The monument in honor of Virgin Marie at the Johann-Michael-Ehmann-Square was built in 1744. It has a relief-base which shows St. Rosalia and Florian, flanked by figures from St. Rochus and Sebastian and a crowning figure Maria Immaculata on clouds.	<b>In case of a flood</b>  - in case of a Danube flood this area will be protected by the flood protection wall. - in case of rising groundwater these monument could be safed by a surrounding mobile barrier.	<b>In case of a fire</b>  1. AL B1 in a event of a neighboring AL B2 to B4. 2. A shild made of spray-jeting water can prevent the monuments from the effect of heat. The equipment is kept ready by the fire departments that deploy to the site.	15 min
7	<b>Johannes Nepomuk Monument</b> Address: Rathausplatz The Baroque monument to Johannes Nepomuk on Rathausplatz (townhall square) was built in 1715. The figure of the saint stands under an openwork, three-sided canopy that rests on composite pillars.	<b>In case of a fire</b>  The two objects cannot burn. However, if a neighboring object burns, the monuments made of sandstone must be protected from the effects of heat.		
9	<b>Town Hall - Rathaus</b> Address: Rathausplatz Nr. 2 The town hall moved here in 1701. It ist a two-storey building. The facade design with pilaster strips and with plate style and braid decor dates back to a renovation in 1779 under master builder Johann Michael Ehmann. On the main front there is a three-axis, triangular-paneled central risalit with upper floor pilasters above consoles, cord cornices and plastic window roofs. The ballroom has a rich stucco ceiling from around 1740/1750, which was probably made by famous Johann Michael Flor. A	<b>In case of a flood</b>  - in case of a Danube flood this area will be protected by the flood protection wall - in case of rising groundwater the building sholud be safed by sandbags, mobile barriers, waterpups - critical stuff should not be stored permanent on the ground floor.  <b>in case of a fire</b>	<b>In case of a flood</b>  1. Teams of volunteer fire fighters from Krems-Stein (depending on the situation) - 10 persons or more; 2. Sacks, sand, water pumps and other stuff are in the equipment of fire brigades and in the Municipal Flood Warehouse.	15-20 min

	baroque tiled stove with reliefs of King David and the judgment of Solomon is also included.	<p><b>In case of a fire</b></p> <p>- it is necessary to use for example heavy foam (Kompaktschaum) as a soft methode to fight fire instead of water. For the protection of cultural heritage there have to be a way of a „gentle“ fire-fighting methode for easier damage elimination. Foam contains less water and is easier to remove later.</p>	<p><b>in case of a fire</b></p> <p>1. if the object is burning, a AL B3 take effect;  2. in a AL B3, the equipment is kept ready by the fire departments that deploy to the site.  To avoid serious damage to the building structure caused by extinguishing water it is necessary to use heavy foam (Kompaktschaum).</p>	
10	<p><b>Former Brückenmeister-house</b>  Address: Steiner Landstraße Nr. 128  The former Brückenmeister-house at Steiner Landstrasse 128 is a two-storey residential building from the early 19th century with gabled central axes and single-storey wings.  It is a former administration building at the location of the older bridge.</p>	<p><b>In case of a flood</b></p> <p>- this area is outside of the flood protection wall but safe because of the level high above the Danube.  - this building can be used as a temoral emergency storehouse for cultural property.</p> <p><b>In case of a fire</b></p> <p>- it is necessary to use for example heavy foam (Kompaktschaum) as a soft methode to fight fire instead of water. For the protection of cultural heritage there have to be a way of a „gentle“ fire-fighting methode for easier damage elimination. Foam contains less water and is easier to remove later.</p>	<p><b>in case of a fire</b></p> <p>1. if the object is burning, a AL B3 take effect;  2. in a AL B3, the equipment is kept ready by the fire departments that deploy to the site.  To avoid serious damage to the building structure caused by extinguishing water it is necessary to use heavy foam (Kompaktschaum).</p>	
11	<p><b>Parochial house - Pfarrhof</b>  Address: Steiner Landstraße Nr. 55  The Parochial house was built by Simon Manzinger between 1743 and 1745. The facade have stucco and ornamental frames. There are reliefs by famous plaster Johann Michael Flor, shows angel heads, the four church fathers, the four evangelists, St. Peter and Paul. There are simple stucco ceilings on the ground floor and on the first floor. The second floor has a rich stucco ceiling with emblematic reliefs. In the staircase there are baroque wall paintings from the middle of the 18th century framed in stucco moldings. A marble relief from the first half of the 17th century depicts Jonah and the whale.</p>	<p><b>In case of a flood</b></p> <p>- in case of a Danube flood this area will be protected by the flood protection wall.  - in case of rising groundwater the building sholud be safed by sandbags, mobile barriers, waterpups - critical stuff should not be stored permanent on the ground floor.</p> <p><b>In case of a fire</b></p> <p>- it is necessary to use for example heavy foam (Kompaktschaum) as a soft methode to fight fire instead of water. For the protection of cultural heritage there have to be a way of a „gentle“ fire-fighting methode for easier damage elimination. Foam contains less water and is easier to remove later.</p>	<p><b>In case of a flood</b></p> <p>1. Teams of volunteer fire fighters from Krems-Stein (depending on the situation) - 10 persons or more;  2. Sacks, sand, water pumps and other stuff are in the equipment of fire brigades and in the Municipal Flood Warehouse.</p> <p><b>in case of a fire</b></p> <p>1. if the object is burning, a AL B3 take effect;  2. in a AL B3, the equipment is kept ready by the fire departments that deploy to the site.  To avoid serious damage to the building structure caused by extinguishing water it is necessary</p>	10-20 min

			to use heavy foam (Kompaktschaum).	
12	<b>Historic bridge over the Danube river - Mauterner Bridge/Mauterner Brücke</b> The Mauterner Bridge is a early steel construction built in 1895. It connects the two cities of Mautern and Krems-Stein.	<b>In case of a flood</b> - this area is outside of the flood protection wall but safe because of the level high above the Danube - it has a weight restriction (9 t limit) for heavy vehicles so it cant be used for heavy transporters during rescue missions (fire brigade, austrian armed forces)		
13	<b>Rowing club house Haus des Steiner Ruderclubs</b> Sepp-Puchinger-Promenade The club house of the Steiner rowing club was built in 1926.	<b>In case of a flood</b> - this area is totally affected by Danube flood because it is located right away the flood protection wall - this building has to be evacuated in time.  <b>In case of a fire</b> - it is necessary to use for example heavy foam (Kompaktschaum) as a soft methode to fight fire instead of water. For the protection of cultural heritage there have to be a way of a „gentle“ fire-fighting methode for easier damage elimination. Foam contains less water and is easier to remove later.	<b>In case of a flood</b> 1. this building should be evacuated by members of the Rowing club in time. <b>in case of a fire</b> 1. if the object is burning, a AL B3 take effect; 2. in a AL B3, the equipment is kept ready by the fire departments that deploy to the site. To avoid serious damage to the building structure caused by extinguishing water it is necessary.	

### Movable monuments:

The focus will be on the churches and also on the museums and exhibition-centers in the area - following the approach of the local fire brigades that the churches need more protection, especially from fire.

No.	Artifact characteristics: - name / type - short description - location - quantity, size, weight	Monument protection: Hazard analysis/measures 1. proposed method of protection 2. quantity and type of packaging	Necessary forces: 1. Number of people: what services, volunteers, who? 2. Equipment: belonging to whom / stored where? 3. Transport to a safe place/storage - how?	Estimated time needed for protection	A safe place to which artifacts will be evacuated
1	<b>Kunsthalle Krems</b> , former Tobacco factory - now museum with temporary exhibition of modern art Address: Dr.-Karl-Dorrek-Straße Nr. 2 With Wolfgang Denk, the first director of the art gallery, an exhibition hall for art was	- The character of this exhibition house lies in the temporarily changing exhibitions with their changing exhibits. Only the Kunsthalle and Forum Froner have a few pieces that are included in a permanent exhibition.	1. packaging, labeling and preperation for transports should be done by staff/employees of the museum/exhibition hall; the evakuuation and the transport can be done by an assistant-unit from the austrian armed forces (CPP Unit) with also support from volunteers and fire departments	120-240min (depends on Hazard type, available manpower, pieces to	If there is no emergency storage out of the exhibition hall there should be used a big storage as an emergency

	created from 1992 to 1995 based on the plans of the architect Adolf Krischanitz.	- There should be emergency plans with permanent evacuation routes and emergency storage rooms for the permanent exhibition and a temporary storehouse.	- est. 25-50 Persons - The transport should be accompanied by the local police.	evacuate)	storage house not far from the primary location; so if there is not one of the great churches affected they can be used as an emergency store house; the church benches can be used as a classification and storage system for e.g. B. framed Paintings, sculptures, etc.
2	<b>former Minorites Church</b> part of Kunsthalle Krems, Klangraum Krems www.klangraum.at Address: Minoritenplatz Nr. 5 The former Minorites Church is a late Romanesque/early Gothic basilica with a Gothic long choir and a south tower. The church, consecrated in 1264, connects to the south side of the former monastery. With the abolition of the monastery in 1796, the church was also profaned. It has been used as an exhibition space since a restoration in the early 1950s. Now it is part of Kunsthalle Krems with temporarily changing exhibitions and exhibits (mostly contemporary arts). The church is also in use for concerts and festivals.	- These measures should be taken by the management of the respective exhibition houses.  - In all three exhibition halls there are technical measures against flooding (Danube flood, rising groundwater).	2. emergency packaging material like Bubble-wrap and other light transport stuff (wooden pallets, lashing straps, etc.) also labeling material should come from the museum/exhibition hall. Emergency boxes with the required materials should already be prepared.  3. In the case of an evacuation of movable cultural property to the emergency store house they will be moved by fireman or soldiers manually or by transportation-vehicles. Monuments due to their size and weight are to be protected on their site.		
3	<b>former Minorites Monastery</b> Forum Frohner (Frohner Museum) www.forum-frohner.at Address: Minoritenplatz Nr. 4 The two-storey, four-winged monastery is built around an almost square courtyard and annexed to the Minorite Church in the north. Components from the late Middle Ages and early 17th centuries were used in the construction in the first half of the 18th century. The Forum Frohner, dedicated to Adolf Frohner, is an exhibition platform that follows the artist's wish to create a meeting place here. The focus is on the discourse between artistic positions and the debate on current social issues. The layout of the building realized in 2007, which opens as a white cube to the architectural ensemble of the historic Minorite monastery, refers to this content-related accent of the Forum Frohner. In Forum Frohner, Adolf Frohner's impulsive thematic areas and relate them in changing presentations to national and international positions of the same time as well as aspects of contemporary art.				
4	<b>Statue of Johannes-Nepomuk I</b> Address: Förthofer Donaulände 14 The statue of Johannes Nepomuk standing in a	1. Secured in a wooden pallet and moved to the emergency store house 2. wooden pallet, lashing straps;	1. Team of volunteer fire fighters 2-5 Persons	15-30 min	fixed emergency storehouse

	niche in the facade dates from the middle of the 18th century		2. wooden pallet, lashing straps provides by the local fire department 3. transport by the fire fighters to the emergency store house.		
5	<b>Statue of St. Sebastian</b> Address: Förthofstraße 7 The life-size statue of St. Sebastian dates from the second half of the 18th century.	1. Secured in a wooden pallet and moved to the emergency store house 2. wooden pallet, lashing straps;	1. Team of volunteer fire fighters 2-5 Persons 2. wooden pallet, lashing straps provides by the local fire department 3. transport by the fire fighters to the emergency store house.	15-30 min	fixed emergency storehouse
6	<b>Statue of Johannes Nepomuk II</b> Address: across from Steiner Landstraße Nr. 128 Near the Danube bridge Stein-Mautern stands the painted figure of St. Johannes Nepomuk, it probably dates from the end of the 19th century. The enclosure has a mosaic that is reminiscent of the wooden bridge that crossed the Danube here from 1463-1895.	1. Secured on a wooden pallet and moved to the emergency store house 2. wooden pallet, lashing straps;	1. Team of volunteer fire fighters 2-5 Persons 2. wooden pallet, lashing straps provides by the local fire department 3. transport by the fire fighters to the emergency store house.	15-30 min	fixed emergency storehouse
7	<b>Förthofkapelle - Förthof Chapell</b> St. Matthias Address: Förthofstraße across Förthofstraße Nr. 15 The branch church of St. Matthias, located in Förthof outside the city walls, is an early Gothic hall building with a small bell-tower. It was first mentioned in 1280 as a foundation by Rapoto von Urvar.	- there are fixed element of movable cultural property wich first has to be removed from the walls and thair fixing (altair, framed Paintings) - there is on framed painting from baroque painter Martin J. Schmidt above the altair wich can be quickly removed and transported by local fire fighters	1. Team of volunteer fire fighters 2-5 Persons 2. wooden distancing-material, lashing straps, bubble wrap provides by the local fire department 3. transport by the fire fighters to the emergency store house	15-30 min	
80	<b>Göttweigerhofkapelle</b> Address: Göttweigerhofgasse Nr. 7 The Göttweigerhof is a multi-wing complex with a chapel. The chapel in the upper level oft he building ist early Gothic with rich wallpaintings inside.	- there is no movabel cultur property in this chapel			
9	<b>Frauenbergkirche (Assumption Day-church)</b> Address: Frauenberg Nr. 23 The Frauenbergkirche is a Gothic building from the 14th century, which after its restoration in 1963-1965 is dedicated as a memorial to the fallen of the two World Wars.	- there ist only on framed painting from baroque painter Martin J. Schmidt on the westgallery wich can transport by local fire fighters		15-30 min	Depot of the local museum (Museum der Stadt Krems)
10	<b>Parish church St. Nicholas</b> <b>Pfarrkirche Hl. Nikolaus</b> Address: across Steiner Landstraße Nr. 55 The parish church in the middle of the city in an extension of the Steiner Landstraße at the entrance to the Frauenbergkirche. St. Nicholas is a late Gothic hall from the second	see listing below	see listing below	see listing below	see listing below

	<p>half of the 15th century, the Gothic choir from the second half of the 14th century and a late Gothic west tower. The church has been documented since the 12th century. It was baroque in the 18th century and regotized around 1900.</p> <ul style="list-style-type: none"> <li>- wooden, richly decorated, baroque altars from the late 18th century with paintings from Martin J. Schmidt</li> <li>- baroque benches from the late 18th century</li> <li>- chapel on the north of the coir with plaster-decoration from the mid. 18th century</li> </ul>				
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### Movable monuments (parish church St. Nicholas):

There will be more detailed focus on the parish church St. Nicholas in the center of the medieval city center of Stein:

No.	Artifact characteristics:			Monument protection:	Necessary forces:	Estimated time needed for protection	A safe place to which artifacts will be evacuated
	Name / Type:	Quantity/ Pieces:	Weight in kg (approx.)				
1	Main altar	1	2000	<p>1. proposed method of protection</p> <p>2. quantity and type of packaging</p> <p>1. In the event of a crisis, this havey movable monuments will be secured in place.</p> <p>In case of fire on the roof, measures must be taken to prevent water from the firefighting to affect interior of the church by pumping it out.</p>	<p><b>Necessary forces:</b></p> <p>1. Number of people: what services, volunteers, who?</p> <p>2. equipment: belonging to whom / stored where?</p> <p>3. transport to a safe place/storage - how ?</p>	120 min or more	Monuments due to their size and weight cant be removed and must be portected on site.
2	Right side altar	1	500				
2	Left side altar	1	500				
3	Wooden pulpit	1	200				
4	Baptismal font	1	100				
5	Chruch Organ	1	500				
6	Confessionals	2	500				
7	Sculptures	8	50	1. Secured by local Firefighters in platic	1. Teams of volunteer fire fighters from the local	60 min or less	Emergency store

8	Reliquars	2	2	cases and moved to collecting/take-over desk outside of building 2. plastic cases with handle 15-20 pcs.	fire brigade 10-20 people  2. plastic cases with handle provided in the local Commune Flood Storage or by Cultural Heritage Rescue Team (CHRT)  3. transport by fire brigade to the Emergency store house		house
9	Late baroque wardrobe	5	2,5				
10	Framed Paintings	10	15				
11	Procession Float	1	10				
12	Monstrance and Crosses	3	10				

#### I. 4. Materials and equipment necessary for protection

In case of flood and heavy rain the needed material (protection barriers for Danube flood, sandbags etc.) stored by the local fire brigade in the Municipal Flood Warehouse.

In case of a fire the needed equipment will be provided by the local volunteer fire brigade, especially the heavy extinguishing foam for a soft firefighting.

The fire alarm systems and fire protection devices of the exhibition halls and museums are included in the building facilities. Their maintenance and servicing is the responsibility of the owners / operators and is monitored annually by the fire brigade.

#### I. 5. List of the evacuation / protection order

- Following the description in D.T4.1.2 for the flooding of the Danube, which states that in case of a very heavy flood the first line of defense which is aimed at Stein might not hold, and the second level is built behind it, so it does not protect Stein anymore.

#### I. 6. List of rescue units, institutions and organizations that are intended to provide assistance

- Fire brigades - 144
- Police forces - 133
- Austrian Armed Forces - GarnOvT Mautern, MiKdo NÖ

#### I. 7. Diagram of the alarm / notification system

The central point is the fire brigade; the municipality / county can call in assistance if needed (e.g. Austrian Armed Forces).

#### I. 8. Operational Instructions

A scheme will be drafted including the fire brigades, the municipality, the county and forces that can be called in for assistance via the municipality / the county, following the catastrophic management system of the province of Lower Austria / the SKKM of Austria as a whole.

Since there is no legal obligation in Austria to draw up emergency plans and evacuation plans for cultural property, this task is the responsibility of the single institutions.

Therefore, prioritization and creation of alarm plans must be carried out for each museum, exhibition hall etc. with movable cultural property. This task is as individual as the individual objects themselves. The cultural properties, especially the movable cultural heritage, must be

identified first. It must be clear that not everything can be saved, so prioritization must take place.

The evacuation measures for movable cultural property in the event of fire and flood are the same.

### **Cultural Heritage Rescue Team (CHRT)**

Building a permanent local Cultural Heritage Rescue Team with permanent staff and a commander/teamleader. The team could be staffed by e.g. experts from the Danube University, the fire brigade and the museums/exhibition halls themselves. Ideally, the team needs their own vehicle and basic equipment to support evacuation.

The tasks of the CHRT-Teamleader are:

- identify the mission
- Assessment of the situation
- planning the mission
- placing the orders
- distributes responsibilities to the evacuation forces (fire brigade, museum staff, Austrian Armed Forces)
- Coordinates with the responsible operational forces, the implementation of the emergency evacuation of movable cultural property, which was inventoried and prioritized for rescue;
- Determine the threat status of the unreported / unlisted / intended for evacuation cultural property
- Monitoring and Control of the emergency evacuation and emergency inventorying and the transport to the emergency storehouse

### **Museums and Exhibition Halls**

In all three exhibition halls there are technical measures against flooding (Danube flood, rising groundwater) and fire. Mobile flood protection measures should be available in every exhibition house/museum (e.g. sandbags, mobile barriers) in order to take immediate measures until the emergency services arrive (volunteer fire brigade, Austrian Armed Forces). There should be emergency plans with permanent evacuation routes and emergency storage rooms/emergency storehouse for the permanent exhibition and the temporary exhibition. The emergency storehouse should be a safe place and reachable by heavy vehicles such as trucks. These measures should be taken by the management of the exhibition houses/museums, with the support of a permanent and local Cultural Heritage Rescue Team (CHRT).

On site there should be a **cultural property manager (CPM)** → e.g. manager of the museum/exhibition hall or special employee:

- identifies endangered cultural property
- alerting
- Instruction to the CHRT on site
- participates in decision-making on further activities
- Record damage and endangered property after evacuation,

## Churches

The main focus is on the parish church of St. Nicholas, as it has the most movable cultural property. Because of a higher level of the ground floor the church is relatively safe during the first phase of a flood. That time period can be used for a quick and safe emergency evacuation. In case of fire on the roof, measures must be taken to prevent water or foam from the firefighting to affect interior of the church by pumping it out - when it enters the rescue-zone. Sandbags, pumps, and other equipment are primary equipment of the local volunteer fire brigade, but there should be small amount of stuff (emergency packaging material etc.) in order to take immediate measures until the emergency services arrive (volunteer fire brigade, Austrian Armed Forces).

Monuments due to their size and weight can't be removed and must be protected on site. On site there should be a **cultural property manager (CPM)** → e.g. member of the parish council or the Pastor himself:

- identifies endangered cultural property
- alerting
- Instruction to the CHRT on site
- participates in decision-making on further activities
- Record damage and endangered property after evacuation

## I. 9. Organization of exercises and training in the field of cultural heritage protection.

In cooperation with the fire brigades, the focus is on fire (due to drought) which is much more dangerous (since happening much faster) than the Danube floods, which have a specific warning time. A Cultural Property Protection (CPP) exercise with an emergency evacuation of immovable cultural heritage should be included in the exercise plan of the local fire

departments every year. Each time another site should function as practice object, in order to learn the difficulties of every single museum, exhibition center/hall, church etc.

Regular exercises with the forces of the volunteer fire brigade also help to raise awareness and sensitize the population for the protection of the cultural heritage. The members of the volunteer fire brigade themselves act as multipliers and opinion leaders.

### **First draft of a Cultural Property Protection (CPP) Training Exercise in April 2020**

Fire Brigade Krems, 3th Infantry Brigade of the Austrian Armed Forces, Danube-University Krems/ProteCHt2save

Date: 23th April 2020

Time: 18:30 or 19:00

Object: Parish church St. Vitus, Krems

#### **1. Church Interior**

- Fire Brigade Command HASE
- Evacuation of movable Cultural Property
  - Stations of the cross
  - Candle holder
  - Paraments
  - Chalices
  - Statues

to organize / to get

- Dummy objects for evacuation
- Route cards for objects (route/object-specification-cards)
- Training in handling cultural property / Material Handling

#### **2. Takeover Evacuated Cultural Property**

- Cultural Heritage Rescue Team (CHRT) of Danube University Krems / ProteCHt2save
- Takeover of evacuated by the forces of the fire brigade
- Quick-Inventory ("Crash-Inventory")
- Prepare for secure transport

to organize / to get:

- Material for Quick-Inventory ("Crash-Inventory")

- Packaging material
- Tent for Inventory / otherwise a building where the inventory-job can be handled.

### 3. Secured Transport

- Austrian Armed Forces / 3th Inf. Brigade
- Loading of the cultural property and ready to transport
- with help and support of CHRT
- secured transport to a safe emergency store house/depot (local police are busy with real security during the exercise)

to organize / to get:

- Transport vehicles
- Securing
- Crash-briefing in handling Cultural Property by the CHRT Experts

#### **Other things to do:**

- Fire brigade has two additional tasks:  
Removing of parking cars in front of the church  
Building a extinguishing line
- Filming and taking photos for documentation

## II. GRAPHIC PART

### II.1 Organizational Map

A map including:

- immovable monuments,
- places with movable monuments (mainly churches and exhibition centers/museums)
- potential threats that can be shown on the map, e.g. rivers, tributary rivulets.



- ① Niederösterreichische Landesgalerie (Arts Museum)
- ② Kunsthalle Krems (Exhibitionhall for Modern & Contemporary Arts)
- ③ Karikaturmuseum Krems (Cartoon Museum)
- ④ Göttweigerhofkapelle
- ⑤ Minoritenkirche (Klangraum und Forum Frohner)
- ⑥ Parish Church St. Nicholas
- ⑦ Assumption-Day Church (Frauenbergkirche)
- Ⓣ Town Hall

 Area of the historic city center of Stein

 Direction of the tributary rivulet Reisperbach