



# **LJUBLJANA CATHEDRAL ORGAN**

## Restoration of the Milavec organ in Ljubljana Cathedral

Invitation to submit an initial tender

Type of procedure: Competitive procedure with negotiations

Date: 1st OCTOBER 2025

Initial tender closing date: 31th DECEMBER 2025

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## 1. CONTRACTING AUTHORITY

1	Name	Cathedral Parish of Ljubljana - St. Nicholas
2	Address	Dolničarjeva ulica 1, SI 1000 Ljubljana, Slovenija
4	Slovenian Business Register Nr.	5962218000
5	Tax Nr.	92580009
6	Bank account	SI56 0214 0025 6658 409
7	Representative	mag. Roman STARC
8	Contact person of the Commission for the Restoration of the Milavec Organ	Luka POSAVEC +386 41 989 991 ljubljanacathedralorgan@rkc.si
9	Electronic access to tender documents and materials	Available on request
10	Clarifications	Available on request

Ljubljana, 1. October 2025

Legal representative - mag. Roman STARC  
Parish Priest of Cathedral Parish of Ljubljana - St. Nicholas

## 2. INSTRUCTIONS TO TENDERERS

### 2.1. GENERAL INFORMATION

This is a tender for the restoration and partial reconstruction of the Milavec pipe organ in St. Nicholas' Cathedral in Ljubljana, as well as for its subsequent maintenance over a period of ten years following the acceptance of the organ.

The long-term goal of the Cathedral Parish of Ljubljana - St. Nicholas is to establish a recognised centre of organ music and to raise the standard of church music in the cathedral to a consistently high level. As part of the project, the Cathedral Parish of Ljubljana - St. Nicholas has established a professional commission, which has prepared the following documentation:

- Tehnična dokumentacija orgel v stolnici sv. Nikolaja v Ljubljani [Technical documentation of the organ] (Ivan Milavec, Op. 26, 1911), Luka Posavec, Aleš Razpotnik, Ljubljana, November 2024.
- Ohranjenost in predelave omar prvotnih Janečkovih orgel v ljubljanski stolnici sv. Nikolaja [Preservation and modifications of the cases of the original Janeček organ in St. Nicholas Cathedral in Ljubljana] [Ptuj-Ormož Regional Museum, Department of Conservation-Restoration], Dr. Boštjan Roškar, Pokrajinski muzej Ptuj-Ormož, konservatorsko-restavratorski oddelek, št. 97-2023, 11. September 2023.
- Stanje in predlog obnove Milavčevih orgel v ljubljanski stolnici [Condition and proposal for the restoration of Milavec's organ in St. Nicholas Cathedral in Ljubljana] (Ivan Milavec, Op. 26, 1911), Luka Posavec, Aleš Razpotnik, Ljubljana, March 2025.
- Photographic documentation, Luka Posavec, Aleš Razpotnik.
- Cultural heritage protection conditions issued by ZVKDS Slovenia.

When submitting a tender, the bidder must fully accept the contents of the tender documentation, including any subsequent clarifications issued by the Cathedral Parish of Ljubljana - St. Nicholas.

Tenderers must carefully examine and comply with all instructions, forms, provisions, and specifications included in the tender documentation.

Tenderers may address any questions regarding the tender procedure to the Commission for the Restoration of the Milavec Pipe Organ by email to the contact person at [ljubljanacathedralorgan@rkc.si](mailto:ljubljanacathedralorgan@rkc.si), no later than seven calendar days prior to the tender submission deadline. All questions, answers, clarifications, and amendments to the tender documentation will be duly published on the official parish website of the Milavec Pipe Organ restoration project at the Ljubljana Cathedral.

All communication related to the tender procedure must be directed to the contact person of the Commission for the Restoration of the Milavec Pipe Organ. Under no

circumstances may representatives of the Ljubljana Cathedral Parish – St. Nicholas or external consultants be contacted directly.

## 2.2. GUIDELINES

The Ljubljana Cathedral Parish – St. Nicholas expects that tenderers take into account and follow the following principles and guidelines in the restoration of the organ:

- Appropriate management of the entire project in collaboration with the professional commission and the Institute for the Protection of Cultural Heritage of Slovenia (ZVKDS).
- Preparation of proper documentation, including a list of potential modifications and improvements that would represent a technical upgrade within the framework of the original organ design.
- Preservation, to the greatest extent possible, of the original acoustic and technical concept/design of the organ.
- Restoration of outdated or worn components, elements, and systems of the organ.
- Optimisation of maintenance aimed at achieving minimal costs.

## 2.3. ELIGIBILITY

All natural and legal persons may submit a tender under the same conditions. If the bidder's workshop is located more than 250 km from Ljubljana Cathedral, the bidder must have a partner or subcontractor whose workshop is located within this distance.

The Ljubljana Cathedral Parish – St. Nicholas will invite a limited number of tenderers.

Tenders submitted by companies forming a consortium must also meet the following requirements:

- One partner must be designated as the lead partner. This designation must be confirmed by submitting a power of attorney signed by the legally authorised signatory representing each partner. The final tender must include an agreement that all partners assume joint and full responsibility for the execution of the contract.
- All partners in the consortium are required to remain in the consortium until the contract is concluded. The consortium awarded the contract must include the same partners throughout the entire duration of the contract.
- Submission or participation of a bidder in multiple tenders for the same contract may lead to the exclusion of all such tenders in which that party is involved. A company may not submit a tender independently while simultaneously participating as a partner in a consortium. A company may not submit a tender

either independently or as a partner in a consortium while also being designated as a subcontractor by any other bidder or consortium.

If the Ljubljana Cathedral Parish – St. Nicholas obtains any information during the tendering process indicating possible grounds for excluding a tenderer (e.g., misrepresentation of factual information, fraud, fraudulent intent, corruption, violation of social obligations, breach of labour laws, insolvency, conflict of interest, responsibility for serious professional misconduct, etc.), the tenderer will be given the opportunity to explain the circumstances before being excluded from the procedure. Any appeals against exclusion from the procedure will not be considered by the commission.

## 2.4. ECONOMICAL AND TECHNICAL CAPACITY

In order for tenderers to be eligible for the award of the contract, they must submit evidence that they meet or exceed the minimum qualification requirements described below. In the case of a consortium, the consortium as a whole (or together with subcontractors) must meet the minimum qualifications set out below. Evidence of economic and financial capacity does not need to be submitted at the time of tender submission.

During negotiations, upon the explicit request of the Ljubljana Cathedral Parish – St. Nicholas, the bidder must submit a copy of the audited accounts for the last two years, the profit and loss statement, income and expenditure accounts, balance sheet, statement of financial position, and cash flow statement for the last financial year, a cash flow forecast for the current year, or a bank letter summarising the current cash and credit position.

Tenderers submitting a bid must be professionally established and specialised in the field of organ construction and restoration and must have successfully completed a minimum number of projects of similar scope and nature. The personnel designated by the bidder for this project must be qualified in the art of organ building and restoration. This information must be provided in Forms 2 and 3, and must meet the following requirements:

- The minimum number of reference projects (restorations and reconstructions) of similar scope and nature completed in the last 20 years must be at least three. The bidder gives consent to the Ljubljana Cathedral Parish – St. Nicholas to, if deemed necessary, contact representatives of the clients of the reference projects to obtain their opinion on the work performed by the bidder.
- They must be capable of communication in written and spoken English, German, or Slovenian.
- They must have the academic or professional background required to carry out the assignment, as well as specialisation in organ construction and restoration.
- They must have a properly equipped organ-building workshop.
- They must have a Restoration department, or specific provisions for restoration work.

The largest share of subcontractors must not exceed 50% of the total contract value.

## 2.5. RIGHT TO ACCEPT OR REJECT ANY TENDER

The Ljubljana Cathedral Parish – St. Nicholas reserves the right to accept or reject any tender and/or to terminate the entire tender procedure and reject all tenders. The Ljubljana Cathedral Parish – St. Nicholas also reserves the right to issue a new invitation to tender.

The Ljubljana Cathedral Parish – St. Nicholas reserves the right to conclude a contract with the successful tenderer within the framework of available funds.

If the lowest technically compliant tender exceeds the available budget, the Ljubljana Cathedral Parish – St. Nicholas has the right to consult with the relevant tenderer with the aim of reducing the scope of work or revising other tender requirements or contract provisions in order to lower the tender price to a level acceptable to the Ljubljana Cathedral Parish – St. Nicholas.

Under no circumstances shall the Ljubljana Cathedral Parish – St. Nicholas be liable for any damages (in particular, loss of profit) in connection with any termination of the tender procedure, even if the Ljubljana Cathedral Parish – St. Nicholas was informed of the possibility of such damages.

The tenderer shall bear all costs related to the preparation and submission of tenders, as well as any costs incurred during negotiations. The Ljubljana Cathedral Parish – St. Nicholas shall not be responsible for any costs or losses incurred by the tenderer due to site inspections or any other aspect of this tender, nor shall it reimburse such costs. Under no circumstances shall the Ljubljana Cathedral Parish – St. Nicholas be liable or obligated for such costs, regardless of the course or outcome of the procedure.

## 2.6. SELECTION CRITERIA

1. Quality of reference projects

2. Completion schedule

3. Technical capacity:

- Experience as a contractor,
- Selected personnel with academic background and specialisation in organ construction and restoration,
- Ability to communicate and respond to the requirements of the Ljubljana Cathedral Parish – St. Nicholas,
- Appropriate organ workshop infrastructure,
- Restoration department.

4. Ability to meet technical specifications:

- Technical proposals of the tenderer in response to specifications and guidelines,

- Maintenance and support after the acceptance of the organ.
- Price
- Warranty period and reference conditions

### 3. PROCEDURE

#### 3.1. GENERAL

The public procurement legislation does not apply to this application procedure. The Ljubljana Cathedral Parish – St. Nicholas will employ an appropriate, specific, tailored, and flexible competitive dialogue procedure with negotiations, since the project's requirements cannot be fulfilled through straightforward solutions. Throughout the restoration project, original solutions and proposals are expected. This approach is also dictated by the particular circumstances arising from the type, complexity, and risks associated with the different options and approaches to the organ restoration.

The Ljubljana Cathedral Parish – St. Nicholas expects to receive proposals and solutions in accordance with contemporary standards of organ restoration and reconstruction, and that the final selection will be made in a manner that ultimately leads to the restoration of the organ while taking into account the established principles and guidelines on the one hand, and an acceptable cost-benefit balance on the other.

#### 3.2. INDICATIVE TIMETABLE

The execution of the works is expected to commence in the autumn of 2026, with the planned official completion in the autumn of 2027. The anticipated timeframe allows for the comprehensive implementation of all necessary activities, taking into account all relevant procedures and regulations. The precise project schedule will be determined in close cooperation with the professional commission and in consultation with the Institute for the Protection of Cultural Heritage of Slovenia. This will ensure that the project is carried out in accordance with legal requirements, professional guidelines, and best practices in the field of cultural heritage preservation. All key phases of the project will be carefully coordinated with all involved institutions to ensure high-quality and timely execution.

#### 3.3. ORGAN INSPECTION

The tenderer may visit the Milavec Pipe Organ in Ljubljana Cathedral in order to assess, at their own responsibility, cost, and risk, the facts necessary for preparing their tender and concluding the contract. The organ visit will only be possible by prior arrangement, during the period from 15. October 2025 to 15. December 2025. Please contact the designated contact person to schedule an appointment.



The tenderer is responsible for conducting the on-site inspection of the organ and any other investigations necessary to determine the current condition of the organ and the methodology for its restoration in accordance with the technical specifications.

### 3.4. PRESENTATION OF TENDERS

The tender must be submitted in English, German, or Slovenian in electronic format by 31 December 2025, either by email or via file transfer for larger documents using the service [wetransfer.com](https://wetransfer.com). Documents submitted in electronic format must be compatible with all Microsoft Office packages and PDF.

The tender shall remain valid for at least 150 days after the tender submission deadline. Tenderers will receive confirmation of receipt within 24 hours.

### 3.5. NEGOTIATIONS

The Ljubljana Cathedral Parish – St. Nicholas will, at its sole discretion, meet with each tenderer to discuss the tender and any further proposals. At each meeting, the tenderer must demonstrate how their solutions meet the requirements and fulfil any other reasonable and proportionate requests of the Ljubljana Cathedral Parish – St. Nicholas.

During the negotiations, the tenderer and the Ljubljana Cathedral Parish – St. Nicholas may discuss all aspects of the requirements and proposed solutions.

Tenderers may be invited during negotiations to supplement their proposals in order to improve the final tender with regard to the requirements and the technical proposals received. The Ljubljana Cathedral Parish – St. Nicholas reserves the right to conduct negotiations in sequential phases.

Once the Ljubljana Cathedral Parish – St. Nicholas is satisfied that it has received tenders and solutions that meet its needs, it will officially conclude the negotiation phase and invite the remaining tenderers to submit fully developed final tenders. The timing of the conclusion of negotiations shall be determined at the sole discretion of the Ljubljana Cathedral Parish – St. Nicholas.

### 3.6. EXTERNAL CONSULTANTS AND PARISH EVALUATION COMMITTEE

The technical elements of the initial tender may be submitted for evaluation to external advisors and experts. Compliance with the qualification and selection criteria will be verified by the evaluation committee of the Ljubljana Cathedral Parish – St. Nicholas.

### 3.7. CONFIDENTIALITY

After the opening of the initial tenders, during negotiations, and after the opening of the final tenders, no information regarding the review, clarification, evaluation, or comparison of tenders, or decisions on the award of the contract, may be disclosed before the notice of award is published.

Information concerning the verification, clarification, opinions, and comparison of tenders, as well as recommendations regarding the award, must not be disclosed to tenderers or any other person not officially involved in the procedure.

Any attempt by a tenderer to directly contact the designated external advisor or expert, a member of the evaluation committee, or a member of the organ commission of the Ljubljana Cathedral Parish – St. Nicholas, other than the contact person specified in paragraph 1 of this tender documentation, shall constitute sufficient grounds for exclusion of their tender.

## 4. TECHNICAL SPECIFICATIONS

### 4.1. MILAVEC ORGAN AND THE PROJECT FOR THE RESTORATION OF THE MILAVEC ORGAN IN LJUBLJANA CATHEDRAL

In 1911, Ivan Milavec installed, as his twenty-sixth and at the same time largest work, an organ with 52 stops on three manuals and a pedal in the Ljubljana cathedral.

He dealt quite successfully with humidity, the decay of the old Baroque cases, and the lack of space in the cathedral choir. The new organ was blessed on Sunday, 11 February 1912, and inaugurated on Wednesday, 14 February. From two official reports by Father Hugolin Sattner and Franjo Dugan, we learn of both praise and criticism received by the newly-built instrument. The intonation, pneumatic system, size of the wind channels, and the quietness of the new electric blower were particularly praised. Among the criticisms, the main comment was that the pedal was too quiet and that the side organ cases were too enclosed. The last written record of maintenance work on the cathedral organ is found in the magazine *Cerkveni glasbenik* in 1931. At that time, the organ was thoroughly inspected, cleaned, and tuned. The work was carried out by organ building master Franc Jenko.

The cathedral organ restoration project will be a journey into discovering the significance of our own organ culture. Remnants of the past often tell us more than new construction. The Milavec organ in Ljubljana Cathedral is an acoustical and technical jewel of the late Slovenian Romantic period, already significantly affected by the passage of time. Its proper restoration will represent a major gain, both for us and for the broader European context.

## 4.2. DISPOSITION

I. manual (C–g <sup>3</sup> )	II. manual (C–g <sup>3</sup> )	III. manual (C–g <sup>3</sup> )	Pedal (C–f <sup>1</sup> )
85 mm VS*	75 mm VS*	65 mm VS*	74 mm VS
Principal 16'	Burdon 16'	Violinski principal 8'	Kontravilon 32'
Burdon 16' <sup>1</sup>	Flavtni principal 8'	Burdonček 8'	Principalbas 16'
Principal 8'	Salicional 8'	Flauto amabile 8'	Subbas 16'
Burdon 8'	Dolce 8'	Eolina 8'	Violon 16' <sup>3</sup>
Rog 8'	Cevna flavta 8'	Vox coelestis 8'	Salicet 16' <sup>4</sup>
Gamba 8'	Dunajska flavta 8'	Dolce 4'	Ljubki bas 16'
Harmonična flavta 8'	Praestant 4'	Flavta 4'	Oktavbas 8'
Harmonika 8'	Viola 4'	Harm. aethera III–IV 2 2/3'	Cello 8'
Kvintaten 8'	Flauto traverso 4'	Oboa 8'	Burdon 8' <sup>5</sup>
Oktava 4'	Kvinta 2 2/3'		Flavta 4'
Salicet 4'	Flavtica 2'		Pozavna 16' <sup>6</sup>
Cevna flavta 4'	Terca 1 3/5'		Pozavna 8'
Kvinta 2 2/3'	Mikstura IV 2 2/3' <sup>2</sup>		
Superoktava 2'	Klarinet 8'		
Kornet IV–VI 8'			
Mikstura IV–VI 2 2/3'			
Trobenta 8'			
Coupler:			
II–I, III–I, III–II, Super II–I, Sub II–I <sup>7</sup> , Super III–II, Sub III–II <sup>8</sup> , Super I, Super II, Super III, I–Ped, II–Ped, III–Ped			
Fixed combinations:			
Piano, Mezzoforte, Forte, Tutti, Tutti I, Tutti II, Tutti III, Strings, Flutes, Reeds, Free combination, general crescendo, Pedal automat, I. manual off			
Tuning:			
a <sup>1</sup> = 435,5 Hz at 16,5 °C; Pneumatic key and stop action, windchests with cone valves.			

\* – original wind pressure, as recorded in the sources.

<sup>1</sup> Transmission from the II manual (Bourdon 16').

<sup>2</sup> Combination from the II Manual (Quinta 2 2/3', Flute 2', Tertia 1 3/5') and 1'.

<sup>3</sup> Extension from Contravilon 32'.

<sup>4</sup> Transmission with extension from the II manual (Salicional 8').

<sup>5</sup> Extension from Subbass 16'.

<sup>6</sup> Extension from Pozavna 8'.

<sup>7</sup> The great octave (C–B) of the first manual is coupled to the great octave (C–B) of the pedal stop Salicet 16'.

<sup>8</sup> The great octave (C–B) of the second manual is coupled to the great octave (C–B) of the pedal stop Ljubki bas 16'.

#### 4.3. DOCUMENTATION

Please contact the designated contact person to access the organ documentation listed below:

- Tehnična dokumentacija orgel v stolnici sv. Nikolaja v Ljubljani [Technical documentation of the organ] (Ivan Milavec, Op. 26, 1911), Luka Posavec, Aleš Razpotnik, Ljubljana, November 2024.
- Ohranjenost in predelave omar prvotnih Janečkovih orgel v ljubljanski stolnici sv. Nikolaja [Preservation and modifications of the cases of the original Janeček organ in St. Nicholas Cathedral in Ljubljana] [Ptuj-Ormož Regional Museum, Department of Conservation-Restoration], Dr. Boštjan Roškar, Pokrajinski muzej Ptuj-Ormož, konservatorsko-restavratorski oddelek, št. 97-2023, 11. September 2023.
- Stanje in predlog obnove Milavčevih orgel v ljubljanski stolnici [Condition and proposal for the restoration of Milavec's organ in St. Nicholas Cathedral in Ljubljana] (Ivan Milavec, Op. 26, 1911), Luka Posavec, Aleš Razpotnik, Ljubljana, March 2025.
- Photographic documentation: Luka Posavec, Aleš Razpotnik.

#### 4.4. SCOPE, OBJECTIVES AND RESULTS

The main objective is the comprehensive restoration of the organ, with the primary goal being the preservation of its existing – original – condition. The restoration work should ensure flawless operation and a more complete sound character of the instrument, while simultaneously extending the organ's lifespan.

The restoration of all elements of the monument-protected organ façade (with the exception of the prospect pipes), the exterior of organ cases, and the exterior of the organ console is not the subject of this tender and will be carried out, as planned, by the Restoration Centre of the Institute for the Protection of Cultural Heritage of Slovenia (ZVKDS) or a conservator-restorer. The subject of this tender is the restoration of all elements of the organ's technical system (pipes, console, windchests, bellows) and the internal structure of the organ cases.

The historical instrument must be protected from potential unprofessional interventions and careless repairs. This will be ensured in the following manner:

- After the initial inspection during the tender preparation phase and familiarisation with the documentation referred to in Chapter 4.3, as well as during the initial phase of the works, the contractor is expected to conduct a thorough assessment of the organ in order to determine its current condition and all restoration work required to ensure its functionality, and to prepare a more detailed proposal of the necessary restoration work for approval by the Ljubljana Cathedral Parish – St. Nicholas.

- Parts of the organ that need repair or reconstruction may be transported to the contractor's workshop. All work required for their repair shall be carried out to the highest possible standard in accordance with professional practice and approved methodologies for organ restoration and reconstruction.
- All other organ components requiring on-site repair must be restored and/or reconstructed to the highest possible standard, in accordance with professional practice and approved methodologies for organ restoration and reconstruction.
- Any replaced parts of the organ that are of historical value and relevance must, in consultation with the client, be prepared for long-term preservation within the premises of Ljubljana Cathedral.
- All organ components requiring complete replacement with newly reconstructed parts must be appropriately replaced.
- The contractor must fully assemble, restore, and reconstruct the organ in Ljubljana Cathedral. The contractor will be responsible for the intonation and tuning in accordance with the requirements of the Commission for the Restoration of the Milavec Organ of the Ljubljana Cathedral Parish – St. Nicholas.

Only materials and components of the highest quality shall be used in the renovation, repair, and restoration. The organ builder must obtain the approval of the supervisor, appointed by the Ljubljana Cathedral Parish – St. Nicholas, for the selection of materials and components. The source of all materials and components used must be properly documented and recorded. The contractor must ensure that all issues, risks, and/or impacts related to the organ restoration are properly investigated and must propose ways to address them. On behalf of the Ljubljana Cathedral Parish – St. Nicholas, the restoration supervisor will oversee and coordinate the restoration with the organ restoration contractor.

The contractor must provide all necessary work procedures for the restoration, reconstruction, assembly, intonation, and tuning of the organ. In performing the work, the contractor must fully cooperate with the contracting authority and any advisors or representatives appointed by the Ljubljana Cathedral Parish – St. Nicholas.

The contractor must comply with all reasonable instructions regarding restoration elements issued in writing by the officially designated supervisor of the Ljubljana Cathedral Parish – St. Nicholas.

The contractor must guarantee and undertake that all services will be carried out using appropriate experience, diligence, and conscientiousness, and at the level expected of a qualified and experienced organ builder or restorer performing services of similar scope

and nature. The services must be executed in accordance with all agreements, permits, conditions, legal requirements, licenses, and regulations.

#### 4.5. CONDITION AND PROPOSAL FOR THE RESTORATION OF THE MILAVEC ORGAN – COMMITTEE FOR THE RESTORATION OF THE MILAVEC ORGAN IN THE LJUBLJANA CATHEDRAL

The Ivan Milavec organ in Ljubljana Cathedral is one of the few preserved instruments from the Late Romantic period in Slovenia and the broader European region, making it an extremely important historical sound document. With 52 registers across three manuals and a pedal, it was built by Ivan Milavec in 1911. However, it has not undergone full and systematic maintenance since 1931, when master organ builder Franc Jenko (1894-1968) thoroughly cleaned, dusted, and tuned the instrument. After 90 years of only basic maintenance, a close inspection in the spring of 2021 revealed significant damage due to the passage of time and continuous use, rendering it unsuitable for modern use, particularly in liturgical and concert settings.

An expert inspection of the organ has identified several issues, including technical obsolescence, sound imbalance, and various faults resulting from previous interventions. Consequently, the restoration must be comprehensive, involving both restoration and organ-building work. The goal is to preserve the instrument's historical integrity, enhance its functionality, and ensure its enduring use in liturgical and concert activities.

#### Organ cases

For the restoration of the organ cases, it is essential to obtain the opinion of the Institute for the Protection of Cultural Heritage of Slovenia (IPCHS). Additionally, the opinions of the IPCHS, the organ restoration commission, and the selected organ builder must be coordinated before any interventions are made.

The following studies should also be considered while coordinating opinions and making decisions:

- Tehnična dokumentacija orgel v stolnici sv. Nikolaja v Ljubljani [Technical documentation of the organ] (Ivan Milavec, Op. 26, 1911), Luka Posavec, Aleš Razpotnik, Ljubljana, November 2024.
- Ohranjenost in predelave omar prvotnih Janečkovih orgel v ljubljanski stolnici sv. Nikolaja [Preservation and modifications of the cases of the original Janeček organ in St. Nicholas Cathedral in Ljubljana [Ptuj-Ormož Regional Museum, Department of Conservation-Restoration], Dr. Boštjan Roškar, Pokrajinski muzej Ptuj-Ormož, konservatorsko-restavratorski oddelek, št. 97-2023, 11. September 2023.

An inspection of the condition of the organ cases reveals that they require thorough cleaning and proper restoration, both inside and out. The findings are as follows:

- The organ cases show the effects of damp, especially on the floor, and woodworm. In particular, mould is present on the wooden parts (windchests, pipes and support structure), most of it on the lower parts of the cases. Mould problems should be addressed as comprehensively as possible. The affected parts should be cleaned with a suitable mould cleaner and then impregnated against further attack. Careful consideration should be given to long-term measures against mould, such as ensuring that organ cases are ventilated.
- The organ cases also exhibit damage to the exterior paint and the carved decorations. This damage needs to be analysed and assessed to ensure proper reconstruction during the restoration process. Cracked carved decorations above the construction joints, as well as gaps at some joints, are the result of past movement of the cases and require careful attention.
- All load-bearing structures should be checked for strength and proper orientation of the timber grain in the beams. When rebuilding, doors that open with a lock, hinge, or latch should be arranged correctly. Existing locks may not operate smoothly due to alterations or wear, so they should be inspected, lubricated, adjusted, and replaced if necessary.
- The inadequate electrification within the organ cases should be addressed during renovations. Before proceeding with re-electrification (including interior and exterior lighting and electrical sockets), a comprehensive electrification plan must be developed.
- It is also essential to ensure proper access to the cases and organ technology. Insufficient access has resulted in damage to both the cases and the organ technology, making maintenance nearly impossible. To achieve a long-term solution, a well-considered approach is necessary, drawing on established practices. This may include measures such as deepening or relocating the organ cases to allow for better maintenance access and pathways, creating a walkway to the roof of the organ cases, enabling access to the pipes by allowing the roof of the cases to open, and adding external access points, among others.

### Organ console

The organ console is positioned in front of the organ, allowing the organist to face the altar. The tilting register switches are located to the left and right of the manual keyboards.

An inspection of the console's condition has revealed the following necessary measures:

- The console should be thoroughly documented with a plan drawing during the restoration to facilitate future maintenance.

- When restoring or reconstructing the colour of the organ cases, it is essential to ensure that the colour of the console matches and is more resistant and durable for high-stress areas.
- During the renovation, any inadequate electrification in the console's case should be removed. Additionally, "permanent guests" of the organ console should be installed, which include a system for projecting songs, communication with the sacristy, an audio system for the organist, and a camera for monitoring liturgies or concerts.
- The buttons for fixed and free combinations need to be restored. The non-functioning on/off pedals (Mezzo – Forte, Forte, Tutti, Sup. Oct. coupler I, I. Manual away, Free combination) should also be repaired. Additionally, the Crescendo mechanism requires attention for restoration.
- All components inside the console must be cleaned. This includes the wires and their threads, which should be replaced or reconstructed as necessary for reliable operation and ease of maintenance (regulation).
- There are signs of active mould within the console, which must be addressed using appropriate methods during the restoration process.
- The pedal light should be replaced with a new one, and the electrical installation inside the console must be properly organized.
- A suitable solution for the lighting of the music desk needs to be agreed upon. The location and type of the old or new organ switch should also be discussed.
- We recommend making a copy of the original Milavec bench with an adjustable mechanism, similar to the one in the Ursuline Church in Ljubljana.
- Unoriginal or later-added inscription plates should be replaced with replicas of the originals. The labels with register numbers that are stuck above the original inscription plates on the console must be removed. A removable numbering system for the tilt register switches should be arranged.

#### Manual keyboards: 56 notes, C-g3

- The white covering on the keys of manual keyboards must be cleaned. If any coverings are badly damaged, they should be replaced with new ones after prior consultation.
- Worn leather in the guide grooves should be replaced, and the guide pins should be cleaned.



- All keys must be re-polished. Worn felt on the frames should be replaced, and the keyboards must be adjusted. The backing strips at the rear of the keyboards, where the keys rest, should be flattened and stiffened.

Pedal keyboard: 30 notes, C-f1

- The pedal keyboard needs to be cleaned, the felt and leather in the guides replaced. If necessary, the springs and the keyboard should be rebalanced.
- Pedals that are worm-eaten or badly damaged shall be replaced with new ones. To protect the pedals from dirt, they shall be coated with a resistant oil or a suitable product.

### Implementation of a registration combinations memory

The specifications and desired features for the registration combinations memory need to be clearly defined. A comprehensive survey of recognised manufacturers and suppliers, both domestically and internationally, is essential.

It is recommended that upon completing the organ upgrade, the contractor should conduct a demonstration on how to use the registration combinations memory. Additionally, the relevant operating instructions and documentation related to the upgrade should be provided.

Special attention is required for the following aspects:

- positioning the magnets in an easily accessible part of the organ
- installing the electrical wiring and ensuring its safety
- ensuring reliable operation
- implementing a multi-user system

### Wind system

The organ is equipped with an electric blower from H. Meidinger & Cie Basel (Schweiz), model NTK 71, serial number: 102082, operating at 950 rpm.

The necessary modifications to the wind system are as follows:

- The electric blower needs to be cleaned and refurbished.
- A new solid wooden protection chamber with additional internal sound insulation should be constructed for the electric blower. Adequate air filtration must be provided at the inlet flap of the chamber. When positioning the electric

blower at the bottom, a rubber pad (dampers) should be installed to minimise structural noise.

- The air inlet to the main double rise bellows should be rearranged to reduce the audibility of air noise. An internal stop valve with a roller may be installed within the main bellows to ensure effective damping. The foot-operated wind system should be preserved and appropriately renewed, including the refitting of the bellows and associated valves.
- All bellows in the organ should be opened, cleaned, and sealed. Depending on their condition, the worn leather (at the folds, especially on the inside) should be partially or completely replaced. Additionally, the blue paper on the outer visible surfaces of the bellows should be replaced.
- The windchest supply channels should be cleaned and inspected. If necessary, they should be resealed, replaced, or reconstructed (using cardboard conduits).
- When reconstructing the brick weights on the bellows, they should be wrapped in suitable paper to prevent disintegration.

## Pneumatics

The following treatments are required for the pneumatics:

- Replace all worn and damaged pneumatic purses. When ordering suitable pneumatic purses, it is important to pay close attention to the quality of the materials and workmanship. Additionally, ensure that the order includes extra stock for ongoing maintenance of the pneumatic purses.
- For better accessibility and easier maintenance, it is advisable to reroute the pneumatic lead pipes during reassembly. While the lead pipes can be preserved to some extent, any worn or damaged pipes should be replaced with new ones or reconstructed. In areas where the pipes are exposed, adequate protection must be provided to prevent damage.

## Windchests

To ensure the future maintenance of windchests, it is essential to document them when they are rebuilt, including detailed plan drawings.

The following measures should be taken for the windchests:

- All windchests should be carefully removed from the organ case and fully restored. This process must occur under suitable and stable climatic conditions, similar to those found in a church.
- After dismantling the pipes, the pipe boards must also be taken apart and cleaned. They should be properly sealed and protected against wood-boring pests. Additionally, any cracks or damage to the stop chambers must be repaired appropriately.
- Following the cleaning, the sealing on the cone valves should be inspected, and the leather replaced if necessary. The threads on the wires need to be cleaned, and all cone valves should be realigned.
- Damaged support pipe rack should be rehabilitated properly and finished suitably, if agreed upon.
- The register chambers and the undersides of the pipe boards should be checked for warping during disassembly, and any warped pipes must be straightened. All register valves should be renewed, and stiffened leather should be replaced. Furthermore, the register outlet valves on the register booths should be reconstructed.
- During restoration, it is necessary to ensure adequate access to the entire pipe division and pay special attention to the supporting structure of the windchests.

## Pipes

The following interventions are required for the pipes:

- All pipes must be dismantled, cleaned, and restored according to established procedures.
- Metal pipes must be straightened and repaired. Their feet, which may have collapsed under weight, need to be reinforced, and any damaged edges (regulating slots) should be soldered.
- Some metal pipes have been improperly replaced with pipes of incorrect dimensions during previous repairs. This includes replacements without regulating slots, conical pipes replaced by cylindrical pipes, and pipes with incorrect foot heights. These should be replaced with accurate replicas of the originals.
- Pipes on the façade should be polished to restore their original gloss, either by hand or using machinery, following an agreed-upon procedure.

- All cracks and loose glued joints in the wooden pipes must be repaired. Any wormholes that have developed should also be addressed with appropriate treatments. All tabs should be unscrewed and slots levelled. Rusted bolts need to be polished, while damaged bolts must be replaced. On covered pipes, the covers should be restored and adjusted, and the stiffened leather must be replaced (modifying the felt seal). Damaged handles on the covers that lack strength due to wormholes must be replaced with new replicas. Similarly, worn-out wormholes on the pipe legs should be replaced with replicas, and any wormholes present must also be addressed accordingly.

### Voicing

All registers will be voiced and tuned again, with special attention to preserving the original character of Milavec's voicing.

### Construction Work

The restoration of the organ in the Ljubljana Cathedral presents both an opportunity and a challenge that will require extensive construction work. This work will involve experts from various construction disciplines, from planning through to execution. Collaboration with the ZVKDS (Institute for the Protection of Cultural Heritage of Slovenia) will also be crucial during this process.

The construction plan primarily encompasses the restoration of the north and south bell towers, and the choir. Planned renovations include the flooring, fencing, windows, doors, walls, electrification, and ventilation systems. Security measures will be enhanced with the installation of access pathways, while a temperature and humidity control system will improve both the usability of the space and the proper maintenance of the equipment.

If time permits, the organ restoration contractor is required to provide recommendations for the optimisation of construction, and specific craftsmanship aspects, which could contribute to a better integration or improved functionality of the organ.

## 5. TENDER FORM

Tender forms and other tender documentation must be completed and submitted in English, German, or Slovenian. The tenderer may modify the format of the forms or submit the required information in a format different from the published forms.

List of Tender Forms:

1. 5.1 Tender form 1: Tenderer identification
2. 5.2 Tender form 2: Contractor's reference projects
3. 5.3 Tender form 3: Curriculum vitae
4. 5.4 Tender form 4: Technical proposals - construction and structures
5. 5.5 Tender form 5: Technical proposals - electronic systems
6. 5.6 Tender form 6: Technical proposals - acoustic and tonal considerations
7. 5.7 Tender form 7: Technical proposals - on site decisions
8. 5.8. Tender form 8: Guarantee
9. 5.9 Tender form 9: Maintenance
10. 5.10 Tender form 10: Financial quote
11. 5.11 Tender form 11: Checklist

## 5.1. TENDER FORM 1: TENDERER IDENTIFICATION

	Name(s)	Registered office address	
Tenderer			
Tenderer's Consortium partner			
Subcontractor			
Work intended to be performed by Consortium partner or subcontractor		Value as percentage of the total cost	Experience in similar works
1.			
2.			

### CONTACT PERSON

Name		Surname	
Telephone		Fax	
Address			
E-mail			

- If at any stage during the execution of the contract the above-mentioned circumstances change, we will immediately notify the Ljubljana Cathedral Parish – St. Nicholas. We also fully acknowledge and accept that any false, inaccurate, or incomplete information intentionally provided in the tender forms may result in our exclusion from this procedure.
- Our tender has been submitted in accordance with the provisions of the tender documentation, and in this regard, we confirm that we have included all required documents and information.

Name and Surname: \_\_\_\_\_

Signature of tenderer: \_\_\_\_\_

Place and date: \_\_\_\_\_

## 5.2. TENDER FORM 2: CONTRACTOR'S REFERENCE PROJECTS

In accordance with the requirement set out in Chapter 2.4 (Economic and Technical Capacity), the minimum number of projects of a similar scope/nature completed in the past 20 years must be at least three.

The bidder grants consent to the Parish of Ljubljana – St. Nicholas, allowing it, if deemed necessary, to contact the relevant parties to obtain their opinions on the works carried out by the bidder.

List of contracts of a similar nature and scope completed in the past 20 years:

Name of Project/ Kind of works	Total value of works	Period of Contract	Client name/phone	Contractor or Subcontractor

Name and Surname: \_\_\_\_\_

Signature of tenderer: \_\_\_\_\_

Place and date: \_\_\_\_\_

### 5.3. TENDER FORM 3: CURRICULUM VITAE

Submission of this form is mandatory for the person who will lead the restoration and for the person responsible for performing the intonation and tuning of the organ. Submission of the form along with a CV is optional for other members of the team of organ builders who will carry out the restoration (the form included in the tender documentation may be copied).

Name and Surname: \_\_\_\_\_

Date of birth: \_\_\_\_\_

#### EDUCATION

Institution [Date from - Date to]	Degree(s) or Diploma(s) obtained

Indicate if the team member has professional background necessary to carry out the job and specialisation in **field** of organ building:

\_\_\_\_\_

Capability of communicating in both written and spoken English, German or Slovenian (indicate the language the team member meets the requirement):

\_\_\_\_\_

Membership in professional organisations:

\_\_\_\_\_



Present position:

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Years within the **firm**:

---

Past experience in similar projects in previous employment:

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---

Other skills:

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Other key qualifications (relevant to the project):

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Name and Surname: \_\_\_\_\_

Signature of tenderer: \_\_\_\_\_

Place and date: \_\_\_\_\_

#### 5.4. TENDER FORM 4: TECHNICAL PROPOSALS - CONSTRUCTION AND STRUCTURES

The selected organ builder will prepare a plan documenting the modifications made during the organ construction, details of adjustments, specifications, front, side, and sectional elevations, as well as floor plans.

Project Documentation:

CAD drawings in accessible formats must be used for project plans, drawings, specifications, and project details. Calculations and material budgets must be prepared and updated throughout the restoration process. All documentation and versions/revisions of documents must be made available to the Parish of Ljubljana at all stages of preparation (including drafts).

*Please describe how the bidder intends to fulfil the requirements related to construction/structural work.*

## 5.5. TENDER FORM 5: TECHNICAL PROPOSALS - ELECTRONIC SYSTEMS

The selected organ builder will prepare a comprehensive plan documenting the organ electrification design.

Special attention must be given to the planning of:

- Installation of magnets in sufficiently accessible parts of the organ
- Installation and routing of wiring according to project plans, with proper labelling of electrical circuits and ensuring their safety (CAD)
- Reliable operation of the memory system (with multi-user capability)
- Final measurements of electrical current

The specifications and desired features of the memory system for registration combinations must be clearly defined. It is important to conduct a comprehensive review of recognised manufacturers and suppliers, both domestic and international.

The bidder may propose alternatives or variants and indicate the extent to which the planned installation should be described.

It is recommended that, upon completion of the organ upgrade, the contractor provide a demonstration of the use of the registration combination memory system. In addition, appropriate user instructions and documentation related to the upgrade must be provided.

*Please describe how the bidder intends to meet the requirements and address aspects related to electrical systems.*

## 5.6. TENDER FORM 6: TECHNICAL PROPOSALS - ACOUSTIC AND TONAL CONSIDERATIONS

Decisions regarding intonation will be made by the Milavec Organ Restoration Committee following acoustic tests of the organ in the cathedral, and under no circumstances beforehand. The guideline is that the mutual sound relationships between the stops must not be altered, and the original tonal concept must be preserved (preferred option).

Intonation will be carried out carefully, using techniques to achieve the desired/optimal tonal concept agreed upon with the Milavec Organ Restoration Committee. Multiple intonation sessions are planned over several months to achieve the best possible result for the Parish of Ljubljana – St. Nicholas.

It is essential that sufficient time under quiet conditions is available for intonation. Intonation is an artistic process and must not be performed under pressure in order to achieve the best possible result in terms of tonal perfection and spatial integration. During this final phase, the final intonation and tuning must also be completed.

*Please describe how the bidder intends to fulfil the requirements related to acoustic/tonal aspects, taking into account the preservation of the original sound concept.*

## 5.7. TENDER FORM 7: TECHNICAL PROPOSALS - ON SITE DECISIONS

The organ builder must specify a list of issues that cannot be addressed before the commencement of a particular phase of work, along with the associated possible solutions and recommendations.

*Please provide a list of issues that cannot be addressed before the commencement of work, along with possible solutions and recommendations.*

## 5.8. TENDER FORM 8: GUARANTEE

The organ builder must ensure:

- the quality and suitability of the materials used,
- the quality of workmanship and durability of the restored organ,
- ongoing compliance of the organ's construction with musical quality standards, and
- that the acceptance criteria remain valid for a period of 10 years from the date of issuance of the certificate of acceptance or handover of the organ.

If the cause of a malfunction is any of the reasons listed below, the organ builder shall not be held responsible to the extent that the malfunction results from:

- failure to perform regular tuning and maintenance by the Parish of Ljubljana – St. Nicholas,
- natural wear and tear, pests or rodents, or improper use,
- significant changes in site conditions of which the organ builder was not informed,
- organ parts or components made by the organ builder listed in the table below that have a shorter warranty period which has expired.

**Offered** guarantee period: \_\_\_\_\_

Parts excluded from the **off**ered general guarantee (with **diff**erent guarantee period):

	Part name and manufacturer	Guarantee period
1.		
2.		
3.		
4.		

*Please describe how the bidder intends to fulfil the requirements related to the warranty.*

## 5.9. TENDER FORM 9: MAINTENANCE

The bidder must provide specifications for organ maintenance or propose contractual provisions regarding maintenance, particularly for the required tuning and intonation of the instrument for at least seven years after the completion of the restoration.

- The first maintenance is scheduled one year after the issuance of the certificate of acceptance and includes an inspection of the organ, comprehensive tuning, correction of defects that were not visible or present at the time of acceptance, as well as defects that appeared between the handover and the first maintenance visit.

The following maintenance categories are offered upon request:

- General tuning and maintenance (not to be performed within one year after the issuance of the certificate of acceptance – first maintenance, working days to be scheduled), which includes:
  - Complete inspection of the organ,
  - Comprehensive tuning, verification of tuning, and adjustment to the required values,
  - Execution of minor intonation corrections,
  - Checking and adjusting the operation where necessary,
  - Regulation and functioning of electrical/electronic systems,
  - Elimination of vibrations in the organ case or internal components,
  - Inspection and repair of sealing of pipes/stop chests and wind channels/conduits,
  - Inspection and lubrication of the electric blower, monitoring of wind pressure on individual pipes/stop chests and wind channels/conduits, and other minor maintenance tasks.

*Please describe the bidder's proposals regarding maintenance.*



## 5.10. TENDER FORM 10: FINANCIAL QUOTE

### BREAKDOWN OF COSTS

Item Description	Price excluding VAT	Remarks
1. Technical restoration and cleaning of the instrument (including the restoration, modifications, adjustments, and repairs of all parts of the organ – bellows, windchests, supporting structures of the windchests, console, pipework, etc.)		
2. Installation of the electronic register combination system		
3. Repairs and modifications of the organ case		
4. Voicing and tuning		
TOTAL		

### MAINTENANCE

1. Reed pipe tuning maintenance visit/services		
2. General tuning and maintenance visit/services		

Bidders shall provide a single price valid for the entire duration of the contract. Prices are fixed and firm in euros (unless otherwise stated) and include all costs and charges, except for value-added tax (VAT).

The costs of transporting the organ (from the cathedral to the workshop/from the workshop to the cathedral) must not be included, as there is a possibility that a temporary storage facility may also be used as a workshop. Inclusion of these costs in the cost breakdown will be subject to agreement during negotiations.

The Parish of Ljubljana – St. Nicholas will provide accommodation and meals for the team installing the organ.

## 5.11. TENDER FORM 11: CHECKLIST

The table below has been prepared to assist bidders in preparing complete and consistent proposals. Use this checklist to ensure that all relevant information in each section is provided. Please note that this form must be attached to the bid.

Section	Form	Returned	
		Yes	No
5.1	Tender form 1: Tenderer identification		
5.2	Tender form 2: Contractor's reference projects		
5.3	Tender form 3: Curriculum vitae		
5.4	Tender form 4: Technical proposals - construction and structures		
5.5	Tender form 5: Technical proposals - electronic systems		
5.6	Tender form 6: Technical proposals - acoustic and tonal considerations		
5.7	Tender form 7: Technical proposals - on site decisions		
5.8.	Tender form 8: Guarantee		
5.9	Tender form 9: Maintenance		
5.10	Tender form 10: Financial quote		
5.11	Tender form 11: Checklist		