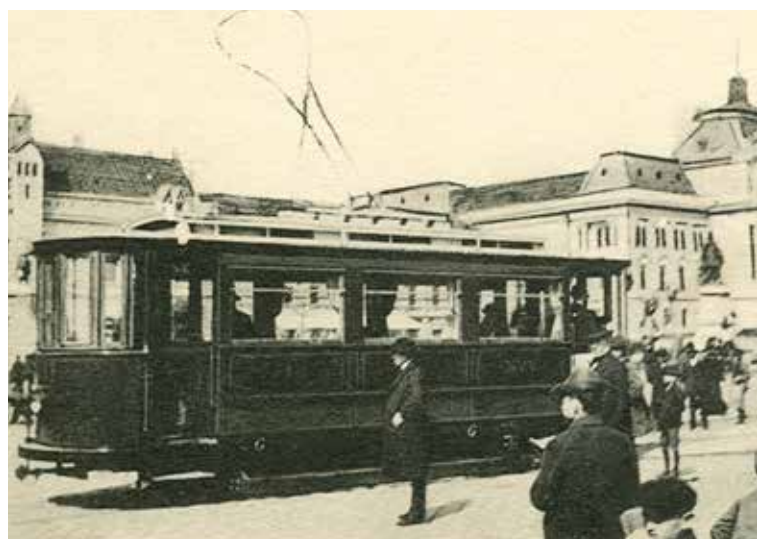


ORADEA LOCAL TRANSPORT
ORADEA CITY HALL



RIDING THE TRAM IN ORADEA. PAST, PRESENT, FUTURE





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Dear readers

I am greeting the efforts of the authors of this work, for not letting the treacherous curtain of oblivion fall over the history of public transport in Oradea, a consistent history that demonstrates the importance of this development factor in establishing the identity of the city on the banks of Crișul Repede river.

The tram represented, and still represents, an essential feature of the city and the daily life of the people living in Oradea. The two elements cannot be separated, you cannot talk about Oradea without talking about the tram too, which has been a witness and a direct participant in every major event of the city's existence in the last over a hundred years. Over a century of presence, influence and utility. Why not, and special charm! Because the tram is already part of the Oradea family.

You will discover in this work, (behind which hides an intense process of documentation interwoven with a lot of passion), the beginnings and the evolution over time of the public transport network, that boosted and determined the economy and trade, as well as the lives of the inhabitants. You will discover the challenges that had to be faced, the parents and successors of this project over time, and also the major achievements, that really deserve to be preserved in the collective memory.

A real history lesson, exposed differently than in traditional textbooks. And because the tram history in Oradea city is a twin sister to that of the city, you will have the opportunity to learn true history, new details of the city's existence. Basically and after all, a true story. Both for adults, and especially for children - our future. In the end, our story - everyone's !

I recommend it to parents, children and even grandparents, so they can tell it to their grandchildren. Because it is a fascinating, exciting and above all, a true story.

*Adrian REVNIC
General Manager OTL*







Introduction

Public transport in Oradea, especially by electric tram, has been an important factor in the economic and social development of the city since its beginning, effectively influencing the ultimate appearance of the historic centre and beyond (Fig. 1). For the inhabitants of previous generations, the tram, with its fairy-tale-like jingling, meant more than just a means of transport, it was a source of pride. At cultural and scientific events of local and regional interest, organised by civil society, many of them nostalgically recall the effervescence of the yesteryear city, with the red, yellow or blue trams, with their characteristic clattering, running almost at a walking pace through the narrow streets of the centre and outskirts.

Initially seen with scepticism, pretty soon the tram became loved by the population of the city which, around 1910, was to become the Little Vienna on the Crişul Repede River.



Fig. 1. Piața Unirii - Unification Square (Szent László), known under the name of Piața Mică (Little Square), animated by a Siemens motor wagon, by horse-drawn carriages and by craftsmen who came from surrounding villages of Oradea City (1907-1910)

The premises for establishing rail transport in the city perimeter

In the period after the end of the Dualist Pact, the economy and trade recorded a boom and there was a growing need to establish conditions for organised public transport. As early as 1868, the local press published a project for a horse-drawn railway, but it was never accomplished. It is important to note that in 1870, a horse-drawn stagecoach, a kind of omnibus, ran between *Piața Regele Ferdinand - King Ferdinand Square (Bémer)* and the central railway station.

The enclosed public carriage transported between eight and ten people and served only accommodation units in the historic city centre, but we have no information on the regularity of the trips.

¹ *The guide uses the names of streets, squares, civic buildings, places and public venues common in 2023. In parenthesis are mentioned their previous names, attributed during the period of different state structures, to which Oradea City has belonged over time.*

The first application for the construction of a horse-drawn railway dates from September 30th, 1872. It stipulated that the concessionaires Eisner Jakab and Hoitsy Gyula would perform both passengers and goods transportation. As the project was not completed within the time limits set out in the authorisation, that was by March 25th, 1877, the construction rights were withdrawn. Not a single metre of the main line was built and the side lines were built only partially and according to other designs, depending on the interests of the commercial and industrial aristocracy. On August 5th, 1879, the investors Schlesinger Mór and Csizmadia Géza submitted an application (the second application) at the City Council, in which they requested a building authorisation for a horse-drawn railway, intended for the transport of goods - preferred to that of people - to run from the Central (Great) Railway Station to the factories located in Subcetate and along the Peța stream, which encompassed the industrial area of the city at that time. Similar to the first case, this project also failed. In 1880, the Hungarian General Land Credit Institute also came with an offer (third application). Its project envisaged the construction of a railway line starting at Velența railway station and continuing along *Calea Clujului* to *Piața Tineretului - Youth Square (Templom)*. From here, the track would run to Târgul de Porcine - Pigs Fair. The line continued along *Str. Evreilor Deportati - Deported Jews Street (Vámház)* to the terminal next to the “*Brüll Lipót*” Factory for medicinal alcohol. The project was approved, after which the expropriation procedure was started. An investment of 275,000 Florins was made to build the line. The inauguration of the intra-urban railway took place on August 28th, 1882. In the beginning, the service focused exclusively on transport of goods and was provided by two steam locomotives, Krauss brand, by the company *Calea Ferată Rutieră, cu locomotive cu aburi, Oradea Mare S.A - CEFROM (En. Road Railway with steam locomotives, Oradea Stock Company)*. (Fig. 2).

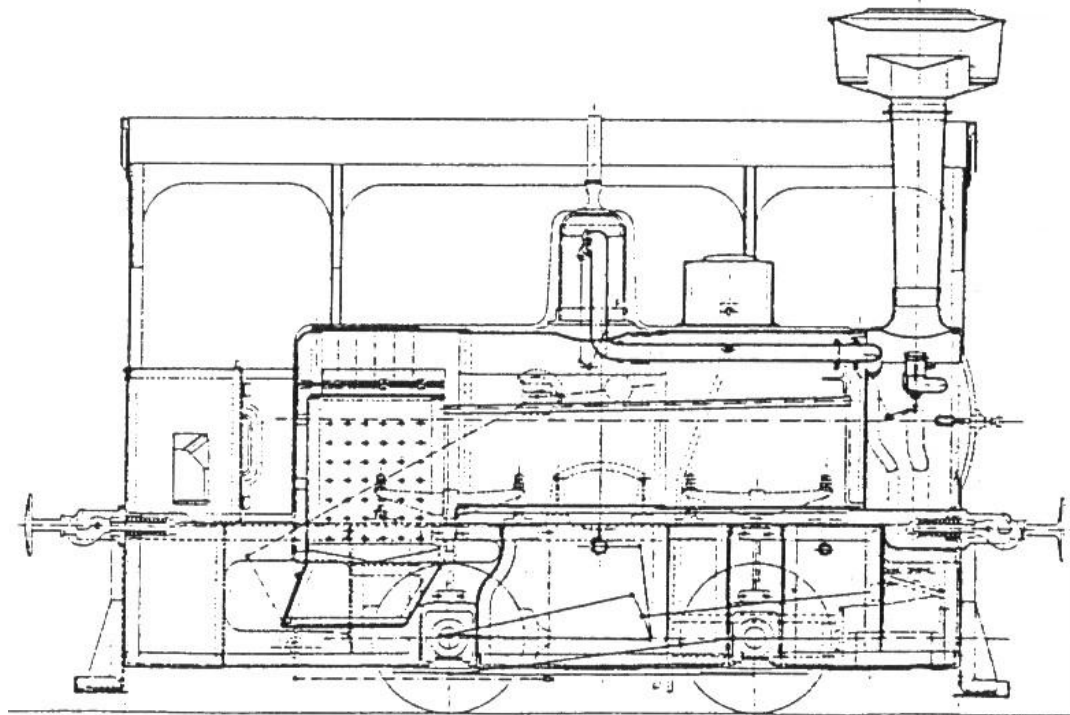


Fig. 2. Steam locomotive, Krauss brand & Comp. Overall drawing

Once established, although apparently incompatible with the urban crowding, the network was exploited for the benefit of the main consumers in the industrial areas of the city. Among them we mention, perhaps, the most important: the „Moskovits Mór and Son” Factory for medicinal alcohol and yeast, the “*Léderer and Kálmán*” Factory for refined medicinal alcohol, the “*Berger Dániel*” Factory for medicinal alcohol and yeast, the “*László*” Steam Mill, the “*Moskovits Adolf and Sons*” Factory for medicinal alcohol and yeast, the Factory for aerial medicinal alcohol. At the turn of the 19th and 20th centuries, the total length of the iron road built, including the lines inside the industrial platforms, measured 6.7 kilometres and the average monthly quantity of goods transported was 33.300 tonnes. Similar networks existed in other cities of the Dualist Empire, of which Oradea was part at that time. Only the networks in Budapest and Szeged were older and had a greater length than the one in Oradea.

The first urban passenger transport service

In 1884, the construction works began on the first railway line of local interest in Bihor County, on the route *Oradea-Beiuș-Vaşcău* (Fig. 3). The section between *Velența-Rontău-Băile Felix* railway stations was inaugurated on May 14th, 1885. In order to support the citizens of Oradea and tourists, the city's freight transport service provider introduced passenger transport to the balneotherapeutic resorts of *Băile 1 Mai (Episcopale)* or *Cele Bune* and *Băile Felix* or *Cele Rele*, exclusively during the summer, on the route from *Târgul de Porcine-Pigs Fair* to *Velența* railway station and from there onwards on the nearby railway line. According to the special contract concluded for this purpose between CFROM, namely between *Calea Ferată de Interes Local Oradea-Beiuș-Vaşcău* (En. *Oradea-Beiuș-Vaşcău Local Interest Railway*) and *Căile Ferate Crăiești Maghiare* (En. *Hungarian Royal Railway*), the service was put into use on June 28th, 1896, being provided, in shifts, by one of the two Krauss brand steam locomotives mentioned above. In 1904, for example, 12 round trips ran on the route in one day. Until this date, no electrified line had been built directly to the two resorts - in 1913 one of the opponents of such a project was the City Council itself.



Fig. 3. Ordinary share in amount of 100 de Guldens issued by Societatea de Cale Ferată Oradea-Beiuș-Vaşcău (Railway Company Oradea-Beiuș-Vaşcău) (1884)

Electrification of urban transport railways. The introduction of electric tram on the city streets

The idea of electrification of intra-urban railways became a matter of concern for the city councillors since the late 19th century. The new owner of the service, namely *Căile Ferate de Transport Maghiare S.A. (CFTM) - Hungarian Transport Railways Stock Company*, was also interested in this concept and took over the management of freight and passenger railway transport in Oradea from the *Lindheim and Rappaport Company*; a contract for electrified transport was concluded on February 8th, 1900. The use of electric current, which was environmentally friendly compared to steam, but also cheaper, was originally intended to serve only the freight sector. Therefore, one of the company's projects aimed to gradually replace the environmentally polluting steam locomotives with modern electric locomotives, thus comforting that part of the population who opposed to the use of steam locomotives in the city. In time, however, having as example cities in the Dualist

Empire such as Bratislava, Budapest, Miskolc, Timișoara, Sopron and Nyíregyháza, which had already introduced public transport with electric trams, it turned its attention to such a goal.

The building authorisation for the electrification of the lines was issued on February 14th, 1905 by the Royal Hungarian Ministry of Commerce. The validity of the document extended to July 31st, 1966, inclusive, when the freight and passenger transport service was to be taken over by the city administration. This did not happen because a series of historical events intervened, among which we only mention here the repeated regime changes! 2.1 million Kroner were allocated for the investment. The first dig with the pick occurred in the summer of 1905, on *Calea Clujului*, as a sign of the start of work.

With the electrification of the lines, the company changed its name to *Calea Ferată Orășenească Oradea Mare S.A. (CFOM) - (City Railway of Oradea Mare, Stock Company)*, together with the company's articles of association. CFTM was responsible for the construction of the company's buildings and for the logistics. On account of the liquidity, 500 shares were issued with a nominal value of 100,000 Kroner per share. One of *Nagyvárad's*² reporters regarded the investment as follows: "... the furore surrounding the construction and electrification of the lines is becoming more and more intense by the day. After the lines have been placed, the centre of gravity of the work has moved to the depot, where the workers are busy making the connections". In fact, according to the project, the architectural ensemble of the tram depot consisted of a six-line shed, a two-line locomotive shed, an office building and a living space for the company's director (Fig. 4, Fig. 5). It also had workshops and material warehouses.

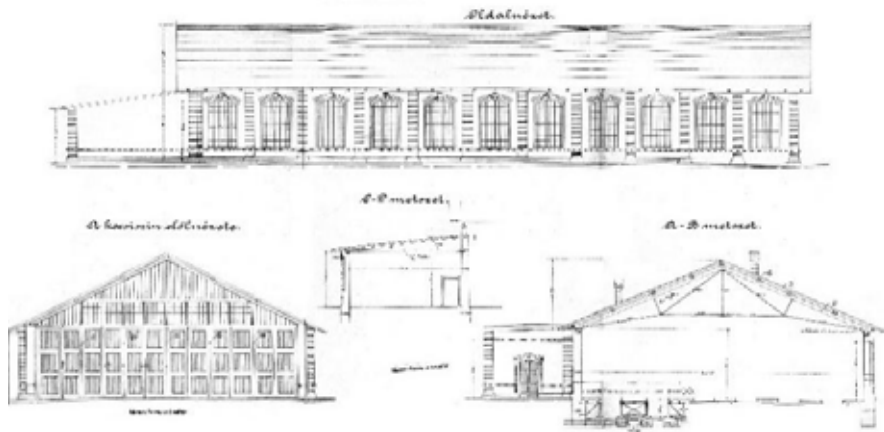


Fig. 4. Overall drawing of the tram depot. After the 1989 Revolution it hosted the „Cetate” Food Market until it perished into a fire, in the summer of 2020.



Fig. 5. Tram depot complex (around 1970s). The shed has been extended several times over time.

For the purchase of vehicles 428,000 Kroner were allocated. Therefore, the initial fleet of vehicles consisted of: 14 motor wagons, each equipped with two 35 horsepower engines; 2 electric freight locomotives, each equipped with two 40 horsepower engines; 4 utility vehicles with brake; 1 utility vehicle with man lift; 1 extension ladder utility vehicle.

The motor wagons were purchased from the Győr unit of “*Siemens and Schuckert*” Company (Fig. 6). For the purpose of grid supply, the nearby Power Plant undertook the purchase, operation and maintenance

² Translator's note: Oradea in Hungarian.

of the constant current generating equipment, while CFOM was commissioned with the construction of an accumulator station (Fig. 7).

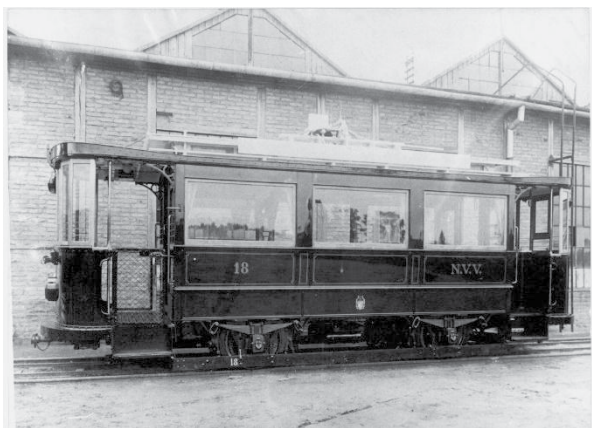


Fig. 6. The self-propelled motor wagon with number 18, in the company's yard in Győr (1909)



Fig. 7. Overview of the Power Plant (around 1910)

As the newspapers of the time reported, the staff, ticket inspectors, tram drivers were employed amongst the majority population of the time. The company employed exclusively local people of Oradea and devoted itself to training them, rather than entering into contractual relations with foreigners or with villagers. The chief engineer of the investment, Henrik Reichel, was himself delegated with training. In mid-February 1906, the trams were scheduled to start trial runs on *Str. Republicii (Fő utca)*, but due to the lack of operating regulations they didn't leave the depot until the first days of March. At first, the chief engineer Henrik Reichel personally drove one of the wagons. On the route between the Bazaar building and the railway station at the bottom of *Dealul Viilor - Vineyard Hill*, in the presence of a large audience, *“the three pompous, shiny, blue and yellow coloured motor wagons rumbled, meaning they only glided, with terrible clatter and immense dignity”*. The curious crowd boasted, being seized with wonder and admiration. Among them, a few assumptions quickly arose as to what the three letters - NVV (the abbreviation of the Hungarian name of the CFOM) - inscribed on the sides of the vehicles might mean. The amusing interpretations soon started: *“the great danger of the railway”*, *“the destiny of Oradea Mare City”*, *“I am not dangerous”*.

The inauguration of the *“tram of Oradea”*, initially scheduled for 20th of March and later for April 1st, 1906, was postponed until 24th of April of the same year, due to the controversy surrounding ticket prices. The great day was preceded by a general test on all lines, with trams running from morning to evening according to the future schedule. The event was covered by all the local newspapers: *“What a miracle! Trams are running on the streets of Oradea Mare. The shiny vehicles are still empty. Their only passengers are the tram drivers and ticket inspectors, in civilian clothes, without uniforms. Around the ticket inspector's neck swings the ticket collection bag and ticket holder, copying the American system.”* After the official handover procedures, the CFOM leaders hosted a festive meal at the *“Queen Mary” Restaurant (“Pannónia”)*, to which representatives of the relevant ministry, local authorities and public figures were invited. The Mayor Rimler Károly addressed the audience during champagne serving and insisted on emphasizing out loud that: *“Oradea Mare is celebrating; the city has implemented the latest breakthrough of modern culture, a progress for its citizens. It has also been enriched by the introduction of an important service which is commissioned to encourage the financial development and prosperity of its inhabitants.”* and at the end of his speech he gave a toast in the honour of Emperor Franz Joseph I. The guests partied until late afternoon.

The next morning, the public tram service started, much to the disappointment of the coachmen who viewed this modern means of transport with hostility. All over the city, journalists were quick to appear and wrote, in sensational style, this important event: *“In another provincial town, such an event is perhaps the wonder of wonders, but in our town, where development suddenly takes a few miles, such an event is natural, an adventure for which every local had been prepared for a long time. Now, as the charming motor wagons whirl through*

the city streets, the question arises: how could Oradea, this powerful cultural city, be imagined without a network of electrified railway lines?... The wagons decorated with branches rattled merrily through the streets until about 10 p.m., and at the end of it all, the last tram set off for the depot.”

The motor wagons, which had become part of everyday life, had the following technical characteristics: wooden frame mounted on two axles, two engines of 35 horsepower each, maximum service speed of 10-12 km/h. For the purpose of their “continuous coming and going” movement, they were provided with a double control service, the same as those in Budapest, but they proved to be much more comfortable thanks to the endowment. They had twenty seats on wooden benches, eight seats on platforms, three sliding windows on the right and left sides and two doors - folding grilles. In order to prevent passengers from being injured, the left-sided railings on the running direction were blocked along the double track sections. In fact, there was a warning on the platforms in this sense: “During the journey it is forbidden to get on and off. CFOM assumes no responsibility for accidents resulting from failure to comply with this measure”. By design, the starting rheostats were located at the bottom of the chic cabins. Ventilation of the wagons was provided by portholes in the ceiling. At the ends of the line, the tram driver repositioned the trolleybus, then uncoupled the movement regulator arm and moved to the other driving cabin to start a new run.

At the beginning, only three routes were introduced, which were numbered and all passed through the historic centre: *Gara Centrală (Mare) - Central Railway Station or Central Station (Great) - Velența Railway Station* (the frequency of the wagons was every five minutes, every second one passed through Velența); *Piața Unirii - Unification Square (Szent László) - Primăriei Str. (Teleky) - the frequency of wagons was every ten minutes, starting from Central Railway Station*; *Piața Unirii - Nicolae Bălcescu Park (Rhédey Garden) - one wagon passed every ten minutes (Fig. 8)*. Sometime later, the route numbering was replaced by letters.

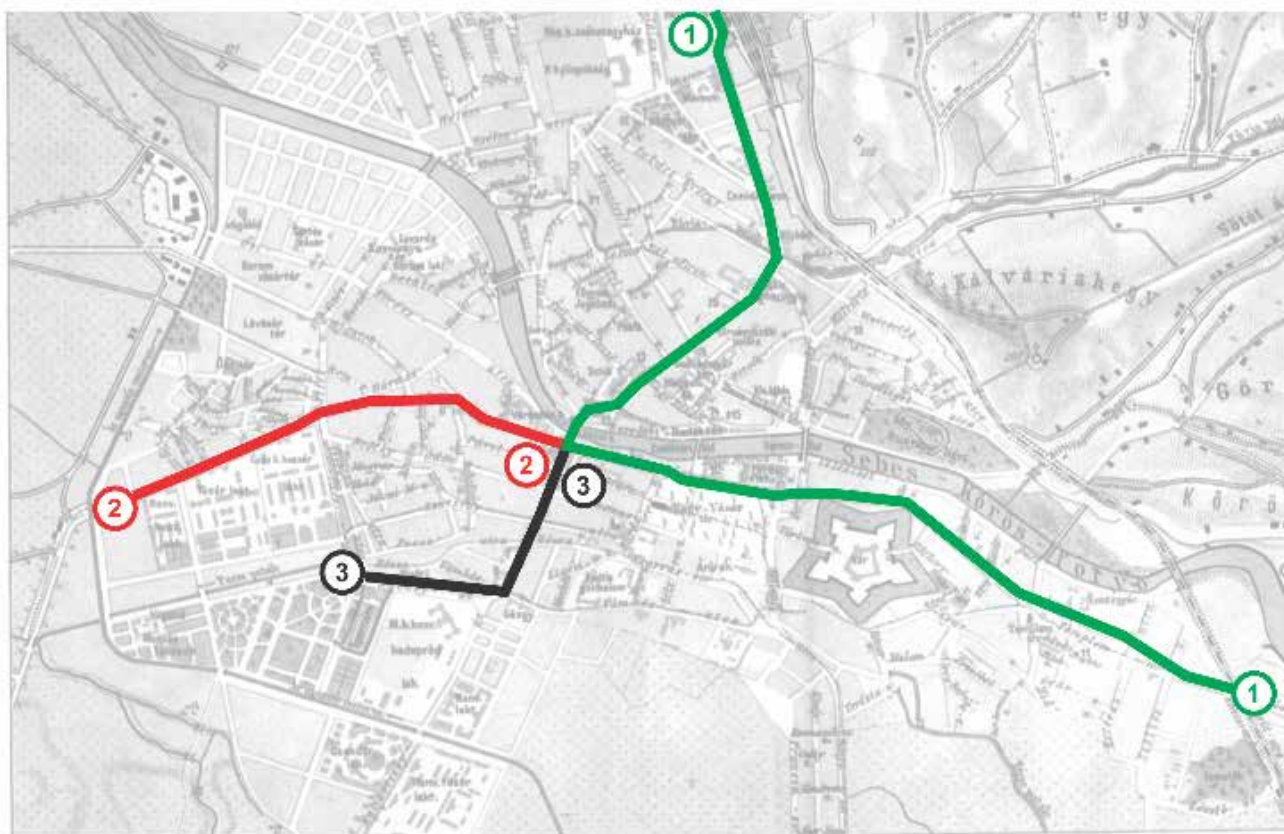


Fig. 8. Lines network (1906)

On the route between *Piața Tineretului - Youth Square (Templom)* and *Velența Railway Station*, the passenger transport was carried out on the old freight line with steam locomotives, where there was heavy specific activity. In this way, the two types of transport had to coexist until after the Revolution in 1989. (Fig. 9).



Fig. 9. Transport of goods and passengers in tandem, on Calea Clujului (<1966, 1991>)

The success of the tram - the dynamic development of the service despite all difficulties

The intra-urban railway network had developed rapidly because, unexpectedly, the newly introduced service had proved to be successful. The number of vehicles in the fleet had also increased. Little by little, the depot space proved too small. Therefore, the company built a garage and also a warehouse for material for the utility vehicle with man lift and the extension ladder utility vehicle. By 1909, the fleet was supplemented with 8 motor wagons purchased from the *Győr Factory* and, by 1911, it expanded with 6 more trailers. In addition, the company bought two more open trailers, intended to run during the summer. The latter were originally destined for horse-drawn transport of passengers from Timișoara (**Fig. 10**).



Fig. 10. Tram ensemble with open trailer on Republicii Str. (Rákóczy), today Corso (1941)



Fig. 11. One of the last Siemens ensembles turning to Cuza Vodă Str. (1974)

A first extension of the network was made to the southern part of the city. The new line started from *Piața Unirii - Unification Square (Szent László)*, passed through *Avram Iancu Street (Kert)*, turned left on *Cuza Vodă Street (Szacs vay)*, continued on *Mihail Kogălniceanu Street (Szarvas Line)* and exited on *Dimitrie Cantemir Street (Gillányi)* to the end of the line at its extension (*Bánya Line*) - **Fig. 11**. Based on the archive documents studied, we conclude that this route was built in several stages during 1909-1911. We mention that across the “*Emilia*” *Mixing Mill* - demolished in spring of 2014 - a loading ramp was built. Therefore, on a section of the new line on *Mihail Kogălniceanu Street (Szarvas Street)*, trams passed in tandem with the freight trains.

From another point of view, we consider relevant the initiative of the City Council to introduce night trips on the route leading to the central railway station. Among the arguments put forward to this end, we mention the service to the public that departs and arrives by night trains, but also the fact that it's impossible for public transport to operate only until 10 p.m. in such a large city like Oradea. However, the CFOM management remained intransigent, as it considered that the revenue from any service provided would be smaller compared to the investment costs.

The relatively dynamic development of passenger and freight transport was halted by the outbreak of the *World War I*. At that time, the company was operating twenty-two motor wagons, six closed trailers, two open trailers, two electric freight locomotives - as mentioned before - six locomotives and the associated freight wagons. Due to the lack of spare parts, but also due to scarce maintenance personnel, who were gone at the front, those means of transport were significantly damaged. At the end of the armed conflict, twelve engine wagons were still in working condition, while the others had only their frames.

One regime falls, another one rises!

During the interwar period there was a shortage of spare parts and other materials, so CFOM had to finance itself. With hard work and sacrifices, not necessarily in a professional way, the company's workers managed to recondition all the rolling vehicles, and moreover, they undertook the construction of new vehicles! At first, they only made tram boxes and later on, electric equipment based on the existing models. By 1940, the company's workshop had built seven motor wagons and an electric locomotive for freight service (**Fig. 12, Fig. 13**). Unfortunately, it was necessary to quash two engine wagons.



Fig. 12. Self-built motor wagon, together with company's workers (1930)



Fig. 13. Electrical locomotive built in Oradea, on service on Calea Clujului (around 1974)

New routes were also planned, but the Great Depression intervened; therefore, ideas planned could only partially be materialised. One of the proposals concerned the construction of the line between the "Pankolits" swimming pool in Brătianu Park (Alba Iulia) and the end of Menumorut Street (General Holban) across Episcop Roman Ciorogariu Street (Gheorghe Lazăr). The track was supposed to pass through Parcul Traian and Mihai Eminescu Street (I.C. Brătianu) up to the terminus point, intersecting the line on Republicii Str. (B-dul. Regele Ferdinand), but the management of Ministry of Communications only approved a length of 1200 m of the route, up to the last-mentioned street. The tracks were laid in 1926, the technical inspection of the investment was performed in 1927. The other proposal was to build a tram line from the vicinity of the Central Railway Station to Episcopia-Bihor. Although this idea emerged as early as 1911, the approval to start the investment was delayed until 1929, when the construction of a 1450 m long section was approved. In the first stage, 1370 m of single line were built from the railway station to Pasajul „Theodor Neș” - Theodor Neș Passage (Füstös Bridge) and put into operation in 1930 (**Fig. 14**). In the second stage, the line was extended to Moara Dóczi - Dóczi Mill, but only after the end of *World War II*. Tramway traffic to the *Rulikowski Cemetery* became possible towards the end of the *Great Depression* period, by extending the *Avram Iancu Street (General Moșoiu) - Nicolae Bălcescu Park (Rhédey Garden)* connection - **Fig. 15**. In fact, work on this extension began in 1929. From the same connection, another line to the slaughterhouse was to be derived, but despite the

fact all permits were obtained, the plan was doomed to failure.

A fundamental modernization at that time was considered the aluminothermic welding of all the rails in the city, which began in 1927 and lasted for several years. During the same period, the line was doubled on some sections, if only to facilitate shorter tracking times between trams.



Fig. 14. Siemens motor wagon leaves station at Central Railway Station, 1940-1944



Fig. 15. Tram in service to Rulikowski Cemetery (1940-1944)

Following the second arbitrage

At the outbreak of the *World War II*, the vehicle fleet consisted of twenty-seven self-propelled wagons, six enclosed trailers, two summer trailers and four electric freight locomotives. Of the latter, the cutely named one “*Negresa din Bingen*” - “*Black of Bingen*”, thanks to the colour it wore on arrival, was purchased from *Germany (Weimar Republic)* in the interwar period, in 1924 to be precise. (Fig. 16, Fig. 17).



Fig. 16. Electrical locomotive bought from Bingen (1906)



Fig. 17. Structurally modified and taken out of service in 1994, the locomotive is part of the National Cultural Heritage Treasure category. It is on display in Centrul Civic - Civic Centre, inside the triangle where the tramway lines meet in the area.

Immediately after the surrender of Northern Transylvania to Hungary in 1940, the town disposed over eight routes. The length of the public transport network was 19.338 km and the entire network, together with the freight network, 41.2 km (**Fig. 18**).



Fig. 18. Lines network (1941)

The appearance of the motor trams built during that period began to differ more and more from that of the earlier self-made vehicles; the “Oradea subtype” was created, as the inhabitants of Debrecen called the *CFOM* wagons that came to serve the population there. In 1942, *CFTM* ordered three such motor wagons, each with four windows on each side and with some modernisation. Three new additional vehicles were produced in 1943. Furthermore, several electric motors and one or two quashed trailers were purchased from *Compania de Transport Budapesta S.A. - Budapest Transport Stock Company*. Some of these went into reconstruction and the rest were used as spare parts. In 1944, the longest and most modern motor wagon ever built locally, equipped with pneumatic parking brakes, was a great success amongst passengers (**Fig. 19**). The success was also soon defined, in more or less contradictory ways, by the newspapers of the time: “*The new tram became the favourite amongst inhabitants. On Wednesday morning, an unusual clattering caught the attention of passers-by on the central street. The present crowd quickly turned their eyes in the direction of the sound, wondering: what kind of creature could it be that instead of the usual clatter it produces a high-pitched growl? Just then the city’s newest model of tram turned onto Piața Bémer - Bémer Square: an exquisite motor wagon, comparable in length and width to previous models, equipped with air brakes. The greased wheels of the bulky fix-up didn’t produce the turning bumps of older trams, but rolled smoothly towards the station - Look at that!*” exclaimed one of the townspeople. - *Tram equipped with air brakes! Small groups formed at the unexpected appearance at the station, staring at it bedazzled. - It’s completely different from the rest!*”. The other two modern trams under construction were not completed until after the war.

During this period the idea of railway transport to the two balneotherapeutic resorts was reiterated! The establishment of an independent local interest line was envisioned. In the end, only the line from *Dimitrie*

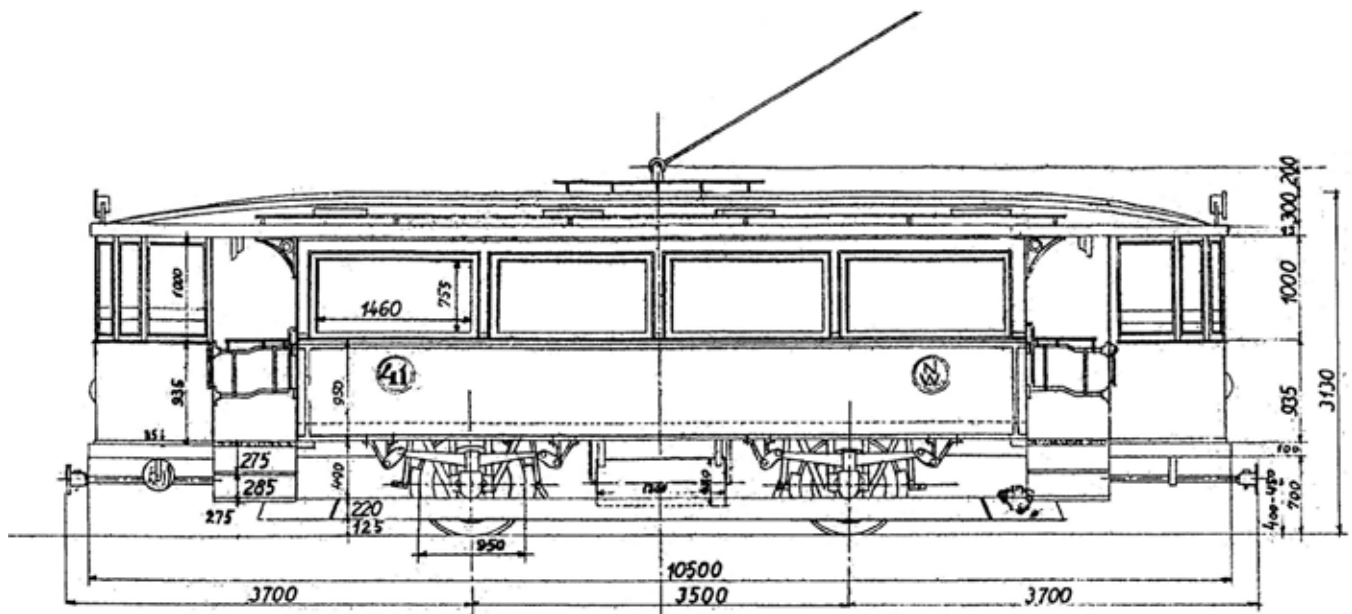


Fig. 19. The most modern tram built in Oradea. Overview drawing.

Cantemir Street (Gillányi) to Lotus Center (site of the “Dreher-Haggenmacher” Brewery) in Nufărul (Seleuş) district was extended.

According to statistical data, in 1944 the city’s rolling stock consisted of thirty-three motor wagons, ten trailers, four electric locomotives used for freight transport, forty-five closed and five open railway wagons. The two Allied air raids on the site and the passage of Romanian-Soviet troops caused little damage to public transport vehicles. However, the roads suffered, especially on Ștefan cel Mare Street (Árpád vezér) and Clujului Street. Moreover, retreating German-Hungarian troops blew up the bridge over *Crișul Repede* River, right in the historic centre, where trams were running. The tram link to the *Olosig* district was thus affected. *The Dacia Bridge (Baross)*, which had no railway line, was also seriously damaged. An ingenious solution was found to ensure public transport in this part of the city: a number of trams were hauled to the main railway station, by using the freight line, meanwhile the railway bridge over the *Crișul Repede* River to *Ioșia* was repaired. An optional line was built to connect with the A line, which ended at the railway station. In *Parcul Traian - Traian Park (Széchenyi)*, an uncovered mini-depot was built to park the wagons overnight.

The situation was much worse in Debrecen, where the air raid on the city transporter’s headquarters on June 2nd, 1944 caused serious damage to rolling stock. Several trams and other types of track vehicles were sent to Oradea and repaired in the *CFOM* workshops. In addition to this aid, *CFOM* transferred three motor wagons, two trailers and an electric freight locomotive to Debrecen at the order of *CFTM*.

Nationalisation was around the corner!

Even before the transfer of the property from private sector to state ownership, local Romanian-language newspapers reported that, despite the damage caused by the World War II, Oradea found itself in the best situation at national level in terms of public passenger transport: “... *the railway has been repaired with hard work and dedication, trams run on all routes without interruption. Not even the harsh winter has caused any traffic problems! Only to a small extent have power cuts caused delays on the routes, for which the transport company can in no way be held responsible.*”

Several things have changed, including marking routes with letters, which has been replaced with numbers.

That period of the company is characterised by the build of two completely new lines with the purpose of connecting to the city’s meadow or Rogerius (North-West) district. The first became known in the Romanian public consciousness as “*23 August*” - “*23rd of August*” - a national day until the 1989 Revolution. Its route started from *Piața Regele Ferdinand - King Ferdinand Square (Stalin)*, continued behind the theatre on *Str. Moscovei - Moscow Street (Sindicatelor)* to *Str. Sf. Apostol Andrei - St. Apostle Andrew Street (Török Ignác)*. It was built in a relatively short time of only a few months, thanks to the fact that, although few in number, the

workers involved in the project worked in three shifts.

On the day of the investment inauguration, three newly built trams, one blue, one yellow and one red - alluding to the national flag - raced loudly between the city centre and the city outskirts, to the cheers of the curious people (**Fig. 20**). The message delivered to the population by the incumbent mayor, Ványai Károly, underlined the fact that the new achievement was made under the token of the country's reconstruction and monetary stabilisation. The second track ended at the intersection of *Str. Decebal (Vitéz)* and *Aradului*, it

Fig. 20. The inauguration festivity of "23 August" - "23rd of August" section (1947)



passed in the direction of the metal bridge in the meadow, *Str. Menumorut (Karl Marx)*, *Str. Eroul Necunoscut (Temető)* with the terminal point at *Central Railway Station (Mare)* - **Fig. 21, Fig. 22**. Initially, local newspaper articles headlined that the line would reach the *Central Railway Station* along *Str. Menumorut* and *Muzeului (Museum Str.)* on a much shorter route. We don't know if this option was even viable, because at the current



Fig. 21. End of the line, *Str. Decebal* (1972). A section of the line supported even freight transport to *Ioşia* railway station, in the Western part of the city.



Fig. 22. End of the line, *Piaţa Bucureşti - Bucharest Square* (1969)

stage of research we haven't found any documents to support it! However, what is known for sure is that in the beginning, traffic on the built route was provided by self-built and self-propelled wagons.

Shortly after nationalisation, the transport company became part of the *Întreprinderea Comunală "12 octombrie" (ICO) - "12th of October" Communal Enterprise*. With this annexation, it lost its administrative independence for a longer period.

In the period between 1950 and 1960, the public transport network had a total length of 27.285 km, considered to be the longest since its foundation and eleven routes (**Fig. 23**). On a 6 km stretch thereof, prefabricated and finished goods were also transported from the industrial units near the medieval fortress to *Velența Railway Station*.



Fig. 23. Lines network (1957)

In the same period, in Nicolae Bălcescu Park (Rhédey Garden) a “children play park” was established, around which a narrow-gauge railway line was built. This line was served by a tram with a total capacity of 40 seats, built by the company’s employees from their own resources (Fig. 24).

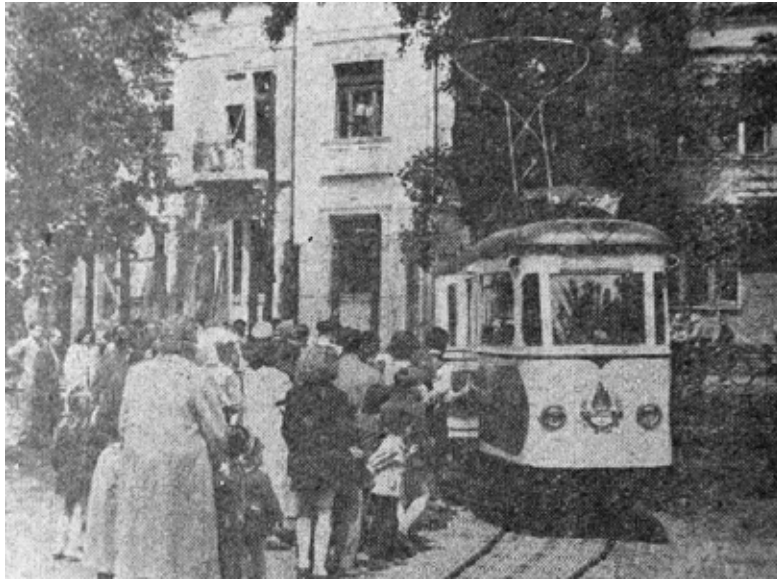


Fig. 24. Please step in the wagon! „Surprise for the little ones”. Leaves the station soon (1957)

Among the measures adopted in the referred decade, it was considered essential to supplement the fleet of trams, because the thirty-six self-propelled wagons of the fleet were hardly coping with the demands of the ever-increasing travelling public! It was decided to purchase high-capacity EP-V54 (V56) four-axle wagons from the “*Electroputere*” Craiova Locomotives Factory. Taking into account their modern suspension system, probably also their sleeping car appearance, the inhabitants nicknamed them “Pullmann” (Fig. 25). At the beginning of the 1960s, tram ensembles consisting of a self-propelled wagon and a trailer, were purchased from *Întreprinderea de Transporturi București (ITB) - Bucharest Transport Company* - Fig. 26. The production of this type of trams started in 1956 by modernising the old “*Thomas-Houston*” trams, after which the factory in Bucharest produced new trams and named them Vo58. Following this investment, the fleet consisted of sixty-three self-propelled wagons, twenty-six trailers, five electrical locomotives and one diesel locomotive for freight transport.



Fig. 25. Tram ensemble, consisting of self-propelled EP-V54-type wagon- previously known by the citizens of Oradea under the name of “red arrow” - leaving Piața București station - Bucharest Square (1972)



Fig. 26. ITB tram ensemble pictured on Str. Primăriei (Leontin Sălăjan), running towards Ioșia district (1972)

..., as well as the period of major changes!

The city's restructuring plan, launched in 1965, left no room for tram lines on the narrow and more or less winding streets of the city centre. Looking into perspective, it became necessary to refresh the fleet by procuring larger, more economical trams. The aim was to provide "efficient" public transport to serve the western residential and business areas of the city and the emerging Nufărul district from Seleuş area. While the major construction works were launched, which led to a forced and aggressive change in the appearance of the city, the old lines in the centre and its surroundings were successively closed down: the one leading to the public swimming pool, the one to the cemetery and Episcopia-Bihor, the one in *Str. Cuza Vodă* and *Str. Menumorut (Karl Marx)*, and finally the one in *Str. Republicii* - on today's Corso section. At the beginning of the 1970s, the line leading to *Ioşia Railway Station* was diverted to *Str. Aviatorilor*. Although passenger transport to the cemetery and *Episcopia-Bihor* was taken over by buses, tram transport in the central areas disappeared for good. In 1975, the old single line on *Str. Dimitrie Cantemir* was also closed. In its place a double line was built - at first to the *Peţa* stream and until 1979 to the end of *Nufărului Street*.

The first high-capacity tram ensemble, more silent and economical than the previous ones, was purchased in 1975 from *Fabrica de Tramvaie „Electrometal” din Timișoara* - "Electrometal" Tramway Factory in Timișoara (Fig. 27). In that year, five other similar tram ensembles arrived in Oradea, to modernize the city's transport. Little by little, the entire fleet was replaced by this model, which was named Timiș 2 by its constructor, provided that the boarding would be done through the middle doors and the exit through the front and back doors (Fig. 28). As a first step, the old trams, those with wooden frames, were taken out of service, some of which had been used as trailers. In the mid-1980s, the ITBs also disappeared from the cityscape. Their trailers were coupled to the "red arrows" which were gradually withdrawn from circulation until 1990.



Fig. 27. First Timiș 2 tram ensemble from Oradea's fleet, at the end of the line station near the former Children's Hospital (1973)



Fig. 28. Tram from Timișoara on *Str. Primăriei (Leontin Sălăjan)*, running to Rogerius district (Western area) - via *Str. Sf. Apostol Andrei (Progresului)* - 1984

In parallel with the demolition of some older routes, new ones were built. In 1972, the line from *Str. Corneliu Coposu (Ostașilor)* to the "Dr. Gavril Curteanu" Municipal Clinical Hospital (Children's Hospital) was put into service about two months earlier than planned. Later on, it was extended up to the CFR Bridge, and until 1982 also up to Întreprinderea chimică "Sinteza" - "Sinteza" Chemical Company.

The private houses in the meadows of the town were demolished and replaced by blocks of flats. As an extension to *Decebal Bridge*, the boulevard bearing the same name was opened in the direction of *Str. Ostașilor (Corneliu Coposu)* and *Str. Olimpiadei*, with a new section (Fig. 29). At its construction, the panel line assembly technology was used for the first time in the city. Its commissioning involved a number of changes to the existing tracks. Thus, in the second half of 1986, the circuit routes were reorganised. As a result, the city

centre could be passed by tram in both directions. Trams which covered the two connections marked in black followed their routes clockwise and those marked in red counter-clockwise, each with a single end of line (Fig. 30). In addition to these two, the city had two other routes, which were covered by trams in a round trip, on the same route between the ends of the lines.



Fig. 29. Timiș 2 tram ensemble passing Decebal Boulevard (1991)

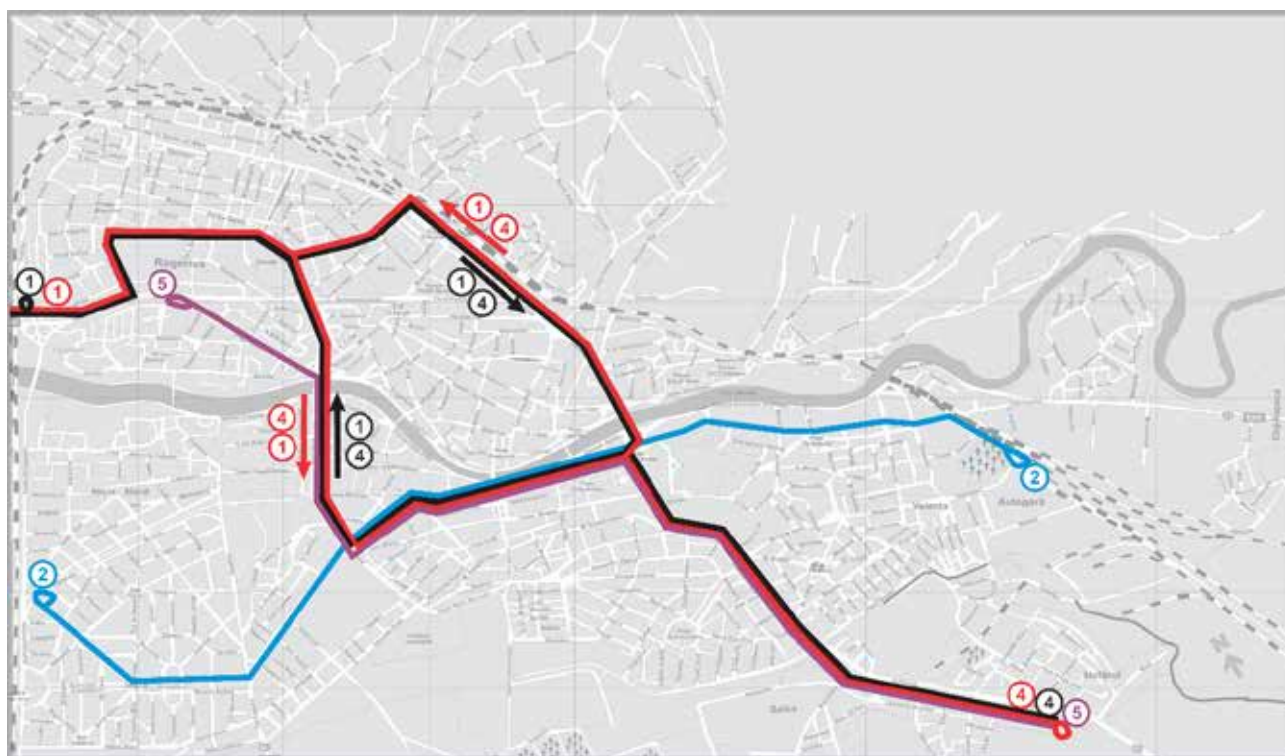


Fig. 30. Lines network (1990)

Thanks to the existence of industrial plants working at full capacity and the reduced number of personal cars, trams transported a large number of passengers at that time, their tracking time being more acceptable compared to buses. Overcrowded trams, with people perched on the stairs were something common, especially during rush hour; they often travelled with their doors open. This style of travel sometimes led to serious accidents, to which the poor technical condition of the vehicles contributed greatly. Track maintenance was also increasingly neglected, especially towards the end of the 1980s, which also led to numerous derailments, accidents and failure to comply with the schedule.

At the beginning of the 1990s the name of the public passenger transport changed to *Oradea Transport*

Local (OTL) - Oradea Local Transport. At that time, the line on *Str. Sf. Apostol Andrei (Progresului)* was dismantled and the tracks there were dismantled. Sometime later, the line on *Calea Clujului*, one of the oldest in the city, was also decommissioned. The fate of the electric locomotive freight service was also sealed, in other words a system that had been operating since 1882 was destroyed once and for all.

20th century trams for public transport in the 21st century

Following the closure of the main workshop in Timișoara, the supply of spare parts for the Timiș 2 ensembles was affected. Improper maintenance, as well as an acute lack of repair funds led to advanced wear of the vehicles. The last Timiș 2 ensemble was withdrawn from service in 1998. The tracks were still in poor technical condition!

The spring of 1994 marked a new beginning in the history of OTL: the first second-hand Tatra-type trams with T4D-B4D trailer were purchased from Germany. Sometime later, the new fleet was supplemented with the articulated Tatra KT4 trams, also by acquisition. (Fig. 31, Fig. 32).



Fig. 31. Purchased from Magdeburg, the Tatra-type T4D-B4D ensemble arriving in Piața Unirii - Unification Square (2001)



Fig. 32. After years of serving the people of Berlin, the articulated Tatra KT4 trams running on Str. Olimpiadei near the football stadium (2000)

Having a considerable age of about 20-30 years, they have proved to be suitable in all aspects for civilised local transport, in much better comfort and safety conditions than those offered by the Timișuri. Over the years more such trams arrived from Magdeburg, Dresden and Berlin, until the fleet was once again complete. We mention that over time, Tatra-type vehicles with trailers or articulated vehicles were periodically substituted (Fig. 33, Fig. 34).



Fig. 33. Unmodernised Tatra T4D-B4D-type ensemble, in Nufărul end of the line station (2012)



Fig. 34. Examples of the second generation of Berlin's Tatra KT4-type articulated trams, captured in a common pose with the "Negreasa din Bingen" - "Black of Bingen" (2021)

... and new trams, in premiere at national level!

At the beginning of 2007, the city councillors decided to purchase ten brand new low-floor trams (Fig. 35). The investment in the Siemens ULF 151 Viennese trams was an enormous financial effort for the city, involved special tasks and a lot of extra work. The tracks were adapted along entire length, whereas were created conditions for the maintenance of the more demanding and constructively complex vehicles (Fig. 36).



Fig. 35. First Siemens ULF 151 tram of the fleet, in Oradea, Piața Unirii - Unification Square (2008).

The inscription on its bodywork refers to it as follows: „I am the most modern tram in the world and I'm happy to run for the first time in Romania, in Oradea. I am not the only one, other trams will come soon”.



Fig. 36. Siemens ULF 151 captured on Str. Dimitrie Cantemir (2008)

Just as almost one hundred and twenty years ago, passengers gazed with admiration at the new modern means of transport that quickly became part of the landscape and inhabitants' favourites; they are not currently in service, for objective reasons. Under European projects, a mechatronics laboratory has been set up in the tram depot, laying the foundations for a modern maintenance system. At the same time, a measuring wagon and an intervention machine with a tower were purchased. The track has been almost completely rebuilt, and new, aesthetically pleasing, grassy tracks have appeared in the *Centrul Civic - Civic Centre* area, which is very fashionable in the West. The electronic devices on the track diverters have also been replaced, as before they were mostly faulty. Therefore, this led to the elimination of the manual lever-operated changing of the moving rails, practised for many years by the tram drivers themselves. GPS vehicle tracking system was introduced, stations were equipped with electronic displays showing tracks and tracking times. A new feature is the implementation of e-ticketing, electronic travel tickets.

Completed projects in the recent past

On October 19th, 2018, the Oradea City Hall signs a contract for the supply of twenty new trams with the company *Astra Vagoane Călători S.A. - Astra Passengers Wagons Stock Company*, through a project financed by European funds. On May 5th, 2020, the first *Astra Imperio BH* tram arrives in Oradea, also with a low floor like the Viennese models, the last of the batch being delivered a year later (Fig. 37). In the meantime, three new tram lines are established: one connecting *Ioșia* district to *CFR Bridge*, on the same route, without transfer (8) and two in a single-ended circuit in *Ioșia* district (9 and 10).

Almost 40 years after the inauguration of the section from *Decebal Bridge* to *Str. Corneliu Coposu*, in December 2021 a new section - the first to be built after the 1989 Revolution - was opened along the *Peța* stream, linking *Nufărul* district to *Calea Aradului*, with an interconnection to the *University of Oradea* area

(Fig. 38). At the same time, two other routes will be created, also in circuit, with end of the line in the *Nufărul* district (5 and 7).



Fig. 37. „Steaua arădeană” – “Star of Arad” near the tram depot in Salca (2022)



Fig. 38. ... and another one in service on the newest section (2022)

... and other to succeed

Due to large investments in Centrul Civic - Civic Centre of the city, the tram lines routes have been adapted to the situation, so that nowadays the service is provided on three routes (1NS, 4 and 8). On the sections marked on the map with a dotted line, the tram circulation is suspended and the service is provided by two bus lines (T3 and T7) almost throughout the entire reference interval (Fig. 39). Future plans include the construction of a line to the International Airport, the establishment of a covered tram platform in the proximity of the Industrial Park in the west of the city and the extension of the line from that area to Borș commune.

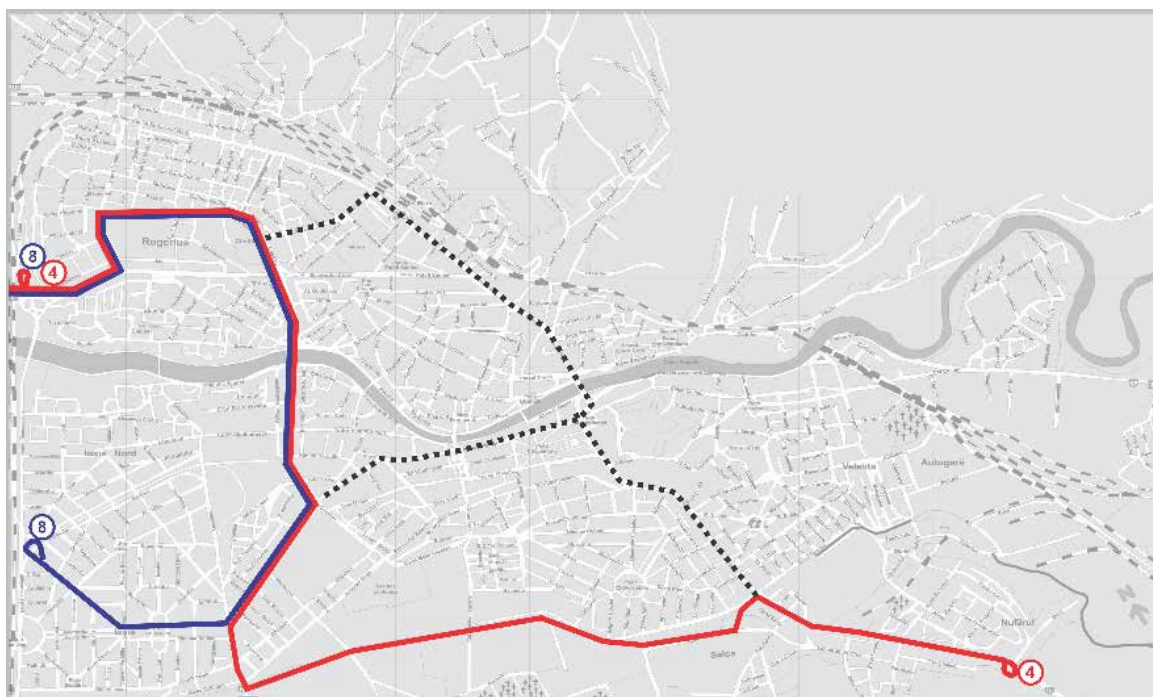


Fig. 39. Lines network (2023)

A closing thought

Since its beginning, the service of electric tram public transport in Oradea has been an integral part of the city's 910-year history. We must also praise here the diligent work, sometimes to the point of sacrifice, of all those who, in one way or another, have contributed to the introduction of public transport by tram, to its maintenance and evolution. The progress achieved, sometimes even periods of decline in the history of the transporter, have to a large extent defined the image of the multi-ethnic, multi-cultural and multi-confessional city for many centuries and have also been a key-factor in the daily life of its inhabitants.





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