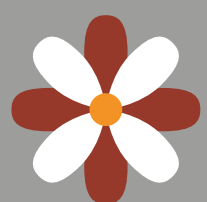
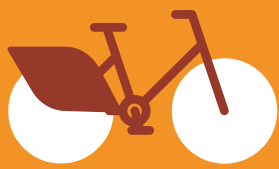
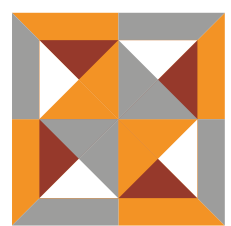


20 22



Public
Roads
Authority

ANNUAL REPORT
PUBLIC ROADS AUTHORITY
IN WARSAW 2022



20
22

ANNUAL REPORT
PUBLIC ROADS AUTHORITY
IN WARSAW **2022**

Prefaces

Dear All,

the year 2022 has changed a lot in the world and in Warsaw itself. The outbreak of war in Ukraine brought several hundred thousand people to our capital in a short period of time, for whom we immediately organized help. The generosity with which Varsovians opened their hearts to help refugees made a huge impression on the entire world. Some of our guests from Ukraine have remained in Warsaw and see their future here. In these uncertain times, this is not surprising, and I am proud that although such a rapid increase in population is a major challenge, our city was able to meet it. And for that, I am grateful to everyone – volunteers, residents and employees of Warsaw institutions and municipal units.

The war in Ukraine has negative effects in the economic area as well. Rising prices, an exodus of workers, difficulties with raw materials, and broken supply chains – all of these make it very difficult to carry out investments and renovations. And let's not forget about the skyrocketing costs. At the same time, we are trying to continue our ambitious investment program, with the New Center of Warsaw project at the forefront. Five Corners Sq. has completely changed – in fact, the square was constructed in place of the intersection. The residential zone with allowed bicycle traffic, which replaced the intersection of five streets blocked by cars for years, appealed to Varsovians. On the map of our city, a place has appeared which, especially in the evenings and on weekends, is full of people, attracts restaurateurs and constitutes a transformation appreciated in professional architectural competitions.



Mayor of Warsaw
Rafał Trzaskowski

The architectural competitions will also result in changes around the square – on Chmielna St. and in the area of Złota St. and Zgoda St. Under Powstańców Warszawy Square, an underground car park is being constructed, which will allow cars now parked above the surface to be “hidden”. Marszałkowska St. is being transformed – in successive stages, it is becoming a street where everyone, regardless of the means of transport, will feel safe and comfortable. The same is happening at Three Crosses Sq., which has not been changed for years. Thus, Warsaw gains a green and friendly center, which it did not have until now, and Varsovians will have a reason to come and spend some time here.

However, the changes do not affect only the very center. Visitors to the Vistula Boulevards and residents of Praga have been able to witness for many months the pedestrian and bike bridge under construction on the line of Okrzei St. and Karowa St., which will connect both banks of the Vistula. We have not had such a facility so far. It will make Powiśle and Stara Praga a unified urban space – it will take a few minutes to walk or to ride a bike between them.

In the year when we have all been hit hard by galloping inflation and rising electricity prices, Warsaw's „light bill” did not increase. This was due to an outstanding project to replace the luminaires on the streetlights. We are replacing the old sodium luminaries with new LED ones, designed specifically for Warsaw and branded „SAVA” by the manufacturer. Thanks to them, annual savings on electricity reach tens of millions of PLN. The task I have set for the Public Roads Authority is to install such luminaires along all Warsaw streets.

The Metered Parking Zone is being expanded. At the beginning of my term of office, I promised you that within a few years the zone, which allows residents to easily find a parking spot right in front of their homes, will double in size. In 2022, it extended to other areas of the city – northern Mokotów and the vicinity of Hallera Sq. The zone, which just a few years ago covered just over 30,000 parking spots, today has nearly 60,000 of them.

You can already see the changes we announced and are consistently implementing. We still have a lot of work ahead of us to make the vision, which for now the public can see only in fragments, come true in its entirety. I am satisfied that the city is becoming greener and more comfortable before our eyes, but above all, it is safer for pedestrians and cyclists, i.e. those unprotected road users who are most exposed to road accidents.

Dear All,

the primary task of the Public Roads Authority is to keep Warsaw's streets in proper order so that it is safe, comfortable and pleasant to use them. It is no accident that I listed these qualities in that order. Every year, the successive measures we take in the right of way are intended to make dangerous places disappear from the map of Warsaw. It's not just about eliminating those that somehow provide an easy way for the user to make a mistake, but mostly about creating a space where everyone will be safe enough so as not to even think of being afraid of something.

These changes are often small, but the benefit they bring can be huge. In 2022, another hundred crosswalks became safer thanks to sometimes minor changes. Providing zebra crossings with a refuge island, moving unauthorized parking away from them with bollards or greenery, changing the layout of the roadway or installing traffic lights are each time the result of a comprehensive audit of crosswalks. We had planned and have consistently implemented changes scheduled for many years.

Because it is not an ad hoc measure, it produces measurable results. In 2022, there were the fewest road accident victims in Warsaw (including victims among pedestrians) since we started measuring, i.e. for nearly 40 years. Each such accident is tragic and each one is one too many. However, whenever there are fewer of them than before, we know that what we do makes sense.

We do not forget about the other elements of the road system that our work is to ensure. We are not afraid to take on difficult challenges. We changed the course of the Starzyńskiego St. roadway to widen the narrow sidewalk and make space for bike infrastructure. We have started renovating the roadway surface of Three Crosses Sq., where – on this occasion – we will safeguard the crosswalk with traffic lights, create bike infrastructure, reorganize bus stops and introduce lots of new greenery. We are rebuilding the key sequence of Rudnickiego-Perzyński-Podczaszyński streets in Bielany. In each case, we solve communication problems that have been building up for years. It was symbolic to designate crosswalks and bike crossings around Dmowskiego Roundabout – in the very center of the city. Today, they are so natural that we forget about the decades when they were missing. And the trees planted nearby change the character of this previously concrete-covered place.

The Public Roads Authority is also a leader in introducing new technologies in city management. The e-inspection has revolutionized the management of the Metered Parking Zone. Today, other Polish cities follow us. We plan to equip our lighting network with a smart control system. In 2022, we tested the possibilities offered by the scanning of streets for maintenance work and detection of defects in the right of way. The electronic entry control system is also an essential element for the functioning of the New Center of Warsaw.

We know that our work is useful because we constantly talk to Varsovians, also as part of consulting our projects. I value their comments, because they are the recipients of our endeavors. I also enjoy the opportunity to work with people at the Public Roads Authority, whom I can undoubtedly call experts in their fields, often very specialized ones. With someone like that, it's worth changing the city.

And the effect of these changes is described in the report that you have before your eyes. I invite you to read on.

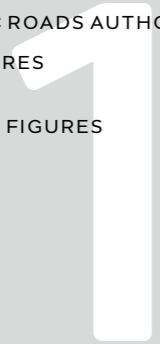


Director of the Public Roads Authority
Łukasz Puchalski

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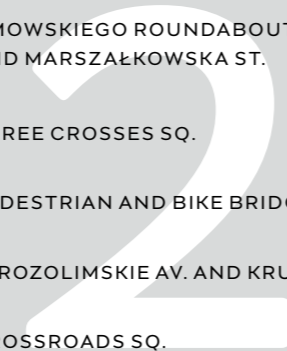
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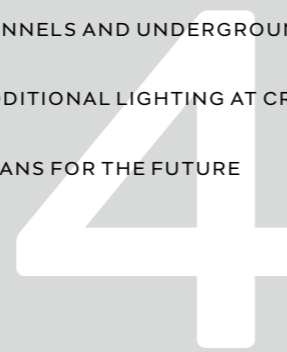
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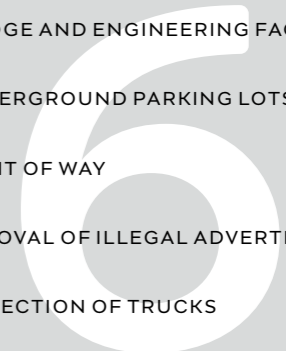
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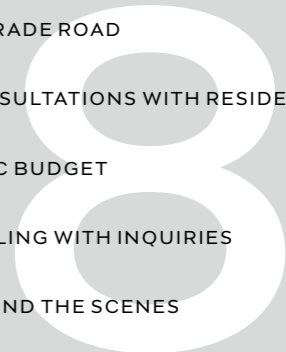
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Public Roads Authority in figures



881
INTERSECTIONS AND
CROSSWALKS WITH
TRAFFIC LIGHTS



117,435
STREETLIGHTS



735 km
OF BIKE ROUTES



51,600
PARKING SPOTS IN
THE METERED
PARKING ZONE



122,639
LUMINAIRES



534
BRIDGE
AND ENGINEERING
FACILITIES



96,000
SIGNPOSTS, BOARDS AND
MAPS OF THE MUNICIPAL
INFORMATION SYSTEM



1.1 M
ENERGY-SAVING
ECO-LED DIODES IN WINTER
ILLUMINATION



609
EMPLOYEES

Did you know that ...

the Public Roads Authority
[“Zarząd Dróg Miejskich”
- in Polish] manages
790 km of roads in Warsaw?

PLEASE NOTE:

those are not all roads in the city. A large part
of them are communal streets, which are the
responsibility of district offices. In turn, express
roads are managed by the General Directorate
for National Roads and Motorways.

IN 2021, WE STARTED TO MANAGE THE FOLLOWING:

- **A. Branickiego St.**
on the section from the premises
of GDDKiA to U. Ledóchowskiej St.
– 140 m
- **Batalionów Chłopskich St.**
on the section from Lazurowa St.
to gen. L. Rayskiego St. – 370 m
- **gen. L. Rayskiego St.**
on the section from Batalionów
Chłopskich St. to Szeligowskiej St.
– 530 m

2022 in figures



271,000 m²
OF RENOVATED
ROADWAYS



324
NEW
STREETLIGHTS



499
REMOVED FAILURES
DIRECTLY THREATENING
THE TRAFFIC SAFETY



87,300 m²
OF RENOVATED
SIDEWALKS



35
NEW OR RENOVATED
TRAFFIC LIGHTS



16,700
INSPECTIONS
OF THE RIGHT OF WAY



25 km
OF BUILT
AND RENOVATED
BIKE ROUTES



16
INTERSECTIONS
ADDED TO THE
INTEGRATED TRAFFIC
MANAGEMENT SYSTEM



613
REMOVED ILLEGAL
ADVERTISEMENTS



23,460
NEW LUMINAIRES
– on the streets,
road junctions, in tunnels
and underground passages



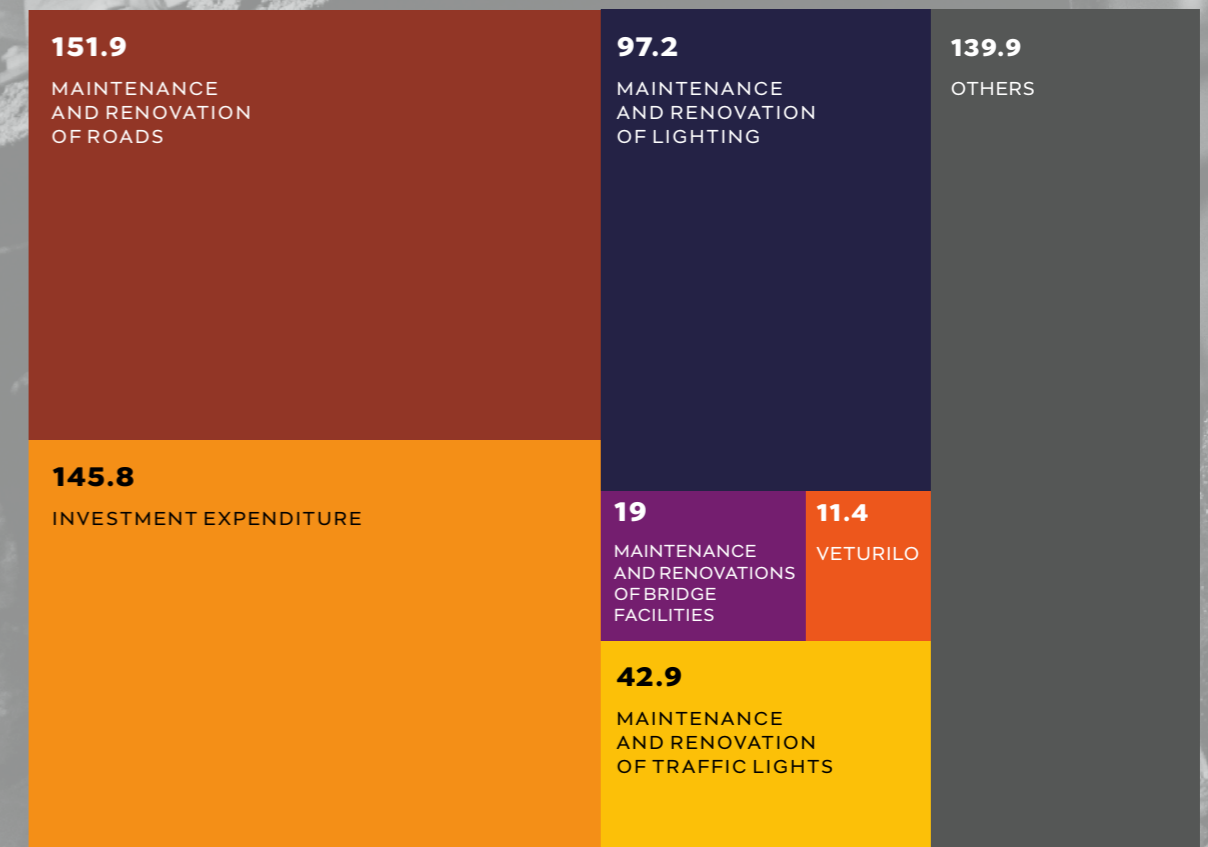
597
PLANTED
TREES



3.9 M
VETURILO
CITY BIKE
RENTALS

Total expenses in 2022

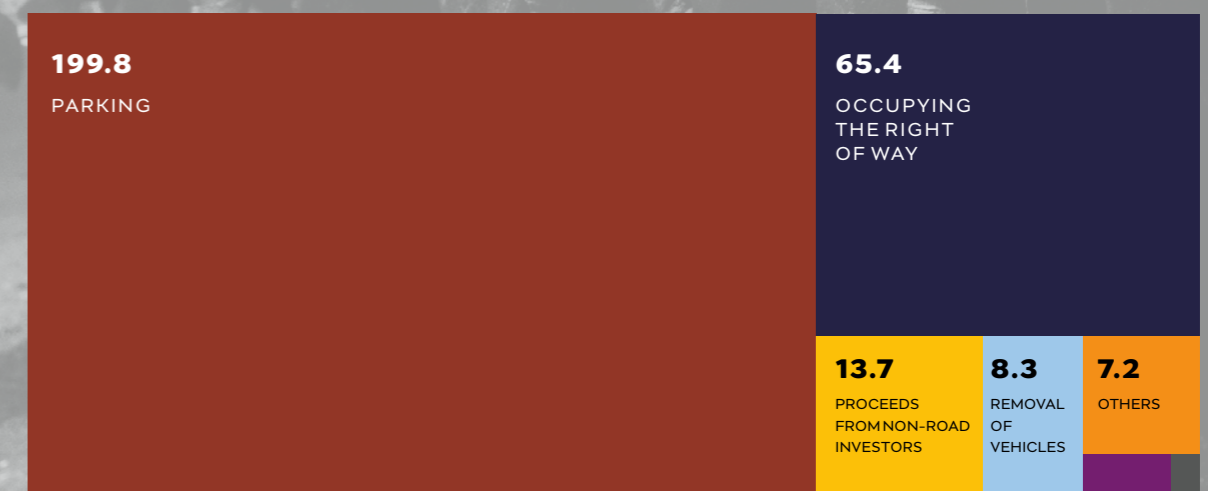
AMOUNTS IN PLN MILLIONS



608.1 TOTAL
EXPENSES

Total revenue in 2022

AMOUNTS IN PLN MILLIONS



296.8 TOTAL
EXPENSES

0.6
PAID
INFORMATION
POINTS

1.8
VETURILO

The New Center of Warsaw

As part of the New Center of Warsaw program, we are carrying out investments that organize and improve the functionality of this part of the city. They improve the quality of urban space and make the infrastructure friendly to pedestrians, cyclists and public transport passengers. In 2022, we reconstructed several important sites in Śródmieście and began to implement and prepare further investments.

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Five Corners Square

The intersection of Chmielna, Krucza, Zgoda, Bracka and Szpitalna St. has undergone a metamorphosis that Warsaw has never seen before. The place known as “Five Corners Sq.” [“Plac Pięciu Rogów”] has been transformed into a space befitting the New Center of Warsaw – open and tree-lined, with a fountain built into an elegant floor.



“Five Corners Sq.” is one of the most important public spaces in Śródmieście. Recognizing that its development was inadequate and did not realize the potential of the site, we decided to reconstruct it.

The reconstruction took 16 months. This longer lead time was related, among other things, to the fact that from time to time we came across objects of potential archaeological value – such as cobblestones and a cavalry saber from the early 1920s. Also, the scope of earthworks was extensive. We hauled away 8,000 cubic meters of soil and rubble before preparing the ground for the square to lay the floor made of architectural concrete and terrazzo. If the heap were to be transported by trains, 110 wagons would be needed.

The completely transformed square has become open and accessible to the public. **A shared space was created where two wide roadways intersected a popular walking route. The new traffic organization prioritized pedestrians and limited the speed of vehicles to 20 km/h.** Entry is allowed only for buses, services and residents. The square offers space for food gardens and outdoor events. You can also relax on a small garden square with a fountain and many benches.



KRUCZA AND SZPITALNA ST. AS GOOD AS NEW

On this occasion, we replaced the surface of Krucza St. from Jerozolimskie Av. to the square and at the intersection of K. Brokła and W. Górskiego St.

We also renovated Szpitalna St. from this intersection to the square – it has benefited from elegant slabs and has grown to resemble its immediate surroundings.

INVESTMENT IN NUMBERS

29 ROBUST FIELD MAPLES	1,000 CUSTOM-DESIGNED CONCRETE SLABS
20 ELEGANT STREETLIGHTS	45 BENCHES AND SEATS



Dmowskiego Roundabout and Marszałkowska St.

At the Dmowskiego Roundabout, we designated four ground crosswalks, lengthened tram stops and added greenery. These changes became part of the concept for reconstructing Marszałkowska St. to improve its functionality. The section from Królewska St. to Bankowy Sq. is planned to be reconstructed in 2023.



GREEN ROUNDABOUT

Greenery was an important component of the changes in and around the Dmowskiego Roundabout. The area occupied by new plants was 6,600 m² (2/3 of a hectare), which is almost equal to a football pitch. Along with over a dozen species of shrubs and perennials, we planted 32 plane trees and 22 oak trees. We placed the trees in the ground, yet at the same time with root ball covers. This will allow the trees to be taken out when the reconstruction of the cross-city railway line begins, and then planted back in once the construction work is completed.

We introduced the changes at Dmowskiego Roundabout to benefit non-motorized traffic participants. At the height of Poznańska, Widok, Parkingowa and Nowogrodzka streets, we have designated four crosswalks and three bike crossings. Thus, getting to the other side of the roadway now takes just a few moments.

Each of the new crossings leads to the lengthened and widened tram stops. Passengers can easily enter the platforms thanks to gentle ramps. Travelers are now more comfortable as they don't have to climb dozens of stairs once out of the metro elevator to reach, for example, Wiecha Passage. Likewise, they don't have to climb stairs to change from the underground railroad to a tram or bus or vice versa.

The reconstructed roundabout has turned green. **19,300 plants, including 54 trees**, were planted in and around the roundabout. It's getting greener along the entire Marszałkowska St., whose metamorphosis under the "Green Marszałkowska" concept is another step towards the New Center of Warsaw. One of the most important arteries of Śródmieście between Królewska St. and Bankowy Sq. and from Konstytucji St. to Nowogrodzka St. will gain bike paths, comfortable sidewalks and lines of trees.

The section from Królewska St. to Bankowy Sq. will be reconstructed first. In 2022, its designing was completed, which allowed us to announce a tender for a contractor for the works still in the fall. The second section is still being designed.



TRAFFIC MEASUREMENTS*

55,992
PEDESTRIANS USING
THE RECONSTRUCTED
ROUNDBOUT
IN ONE DAY

1,676 people/hour
MORNING PEAK
AVERAGE

3,998 people/hour
AFTERNOON PEAK
AVERAGE

THE MOST POPULAR CROSSING

**at the height
of Widok St.** **1,479 people/hour**
AFTERNOON
PEAK AVERAGE

For comparison – afternoon peak of car traffic amounts to slightly over **1,200 vehicles per hour** (on one roadway).

NEW GREEN MARSZAŁKOWSKA ST.

The current cross-section of the western roadway of Marszałkowska St. from Bankowy Sq. to Królewska St. consists of 3 lanes and a sidewalk, half of which (2.5 m) is allocated for parking. After the reconstruction, drivers will drive in two lanes, and the far right one will be used for parking. Parking spots separated from each other by 63 trees will be separated by a bike path from the sidewalk widened to 3 meters.



*Traffic was measured on Sept. 13, 2022 (weekday), in the morning (6:30-9:30 a.m.) and in the afternoon (3-6 p.m.) at 26 points – at entrances to underground passages, accesses to stops, ground crossings and bike crossings.

Three Crosses Square

We are reconstructing Three Crosses Sq. [“Plac Trzech Krzyży”]
 We are equipping the crossing in the middle of the square with traffic signals and refuge islands, designating bike lanes and replacing the surface. The works started in 2022 and will be completed in mid-2023.



MORE PLANTS IN THE SQUARE

Three Crosses Sq. will not only be functional and safe, but also green. Plants will return here after nearly a century, and in large numbers. Along the northern and eastern frontage we will plant 28 trees of about 6 meters in height with a minimum trunk circumference of 25 cm. The garden squares in the northern part of the square and the smaller islands on the northern and southern sides of St. Alexander's Church will be made greener. The triangular island between Książęca and Żurawia St., which was transformed into a parking lot during World War II, will regain its green character.

The investment covers the area from Smolna St. to Ujazdowskie Av. Therefore, we started the project by replacing the surface at de Gaulle'a Roundabout and at the mouth to Nowy Świat St. We then proceeded to the eastern part of the square next to the Institute for the Deaf.

The works there were preceded by dismantling the previous road infrastructure. After the old asphalt was removed, the historic tram tracks and cobblestones were exposed. We have agreed with the Mazowiecki Voivodship Conservator of Monuments that the cobblestones, which are well preserved having been hidden under the asphalt, will again – but after proper protection – be covered with it. We have planned, however, a small part of the cobblestones, beyond the main traffic routes, to be exposed. In the last days of 2022, we laid a new surface (but without the wearing course) on the eastern side of the square and concentrated the works in its northern area.

Pedestrians and cyclists in particular will benefit from the changes, which are expected to be completed in 2023. New bike lanes will be designated on the roadways to connect the existing infrastructure for cyclists on Ujazdowskie Av. up to Nowy Świat St., as well as the bike routes that cross the square.

The safety of pedestrians and the comfort of public transport passengers will also improve. **Traffic lights will control traffic on the crosswalk located in the middle of the square.** Refuge islands will also be created there. A new bus stop will be created at the height of the Institute for the Deaf to replace the existing ones, scattered on the eastern side of the square. This will allow passengers to depart from one common stop in the northbound direction.

INVESTMENT IN NUMBERS

28	2,720 m²
NEW TREES	OF GREEN AREAS – PRESERVATION OF EXISTING GREEN AREAS AND CREATION OF NEW ONES



Pedestrian and bike bridge to Praga

The pedestrian and bike bridge will change the urban layout of Warsaw, connecting Śródmieście with Praga via a walking route. In 2022, the investment entered its decisive phase – the contractor erected all eight supports and began preparations for the installation of the crossing’s structural elements.



SUPPORTS

- supports are an important element of bridges and viaducts because it is on them that the crossings rest,
- the pedestrian and bike bridge will be founded on eight supports – five on river and three on land,
- the height of the support is measured from the foundation – the highest two are 16.1 m, and the lowest are 4.3 m,
- to erect all the supports, 240 tons of steel needed for reinforcement and 2,000 m³ of concrete were used.

To get to Śródmiejskie Vistula Boulevards, which are a popular recreation spot in the city, Praga residents now have to make a detour. The new bridge will create a pedestrian route connecting Praga with the Boulevards. The structure is being built at the height of Karowa St. on the left bank and Okrzei St. on the right bank. It will allow those walking along the latter street from the east to reach the other side of the Vistula River in a few minutes, and those heading further west will quickly reach the area of Krakowskie Przedmieście St.

The main construction works began with the driving of piles in the places of the structure’s supports, needed to insert 584 steel sheet piles. Then they were plunged, which allowed the areas of supports to be separated from the water and made it possible to begin reinforced concrete works on them.

A total of eight supports – five on land and three on river – were constructed. At the one that connects the land to the bridge, the investment contractor concreted a 133-meter-long retaining wall. The supports were prepared for seating the steel crossing structure on them.

The works planned for 2023 will primarily involve installation of the structure, followed by finishing works. This includes laying the bridge’s surface-insulation and installing railings, benches and lights.

BRIDGE IN NUMBERS

16.3 m
WIDTH OF THE BRIDGE
AT THE WIDEST POINT

6.9 m
WIDTH OF THE BRIDGE
AT THE NARROWEST POINT

452 m
LENGTH
OF THE BRIDGE



Jerozolimskie Av. and Krucza St.

The two important streets in the center of Warsaw will be completely transformed. Jerozolimskie Av., on the occasion of the reconstruction of the cross-city railway line, will gain wide sidewalks, bike paths and greenery, and a pedestrian passage will be created on Krucza St. Design of both investments is currently underway.

JEROZOLIMSKIE AV.

Section to be reconstructed: **1,700 M**
(Powiśle Railway Station
– Czterdziestolatka Roundabout)

- wider sidewalks with space for catering gardens
- more greenery, trees planted in four rows will be back
- two lanes in each direction, including one for, i.a., buses and taxis
- parking bays for parallel parking
- 3 m wide bike paths

KRUCZA ST.

Section to be reconstructed: **800 M**

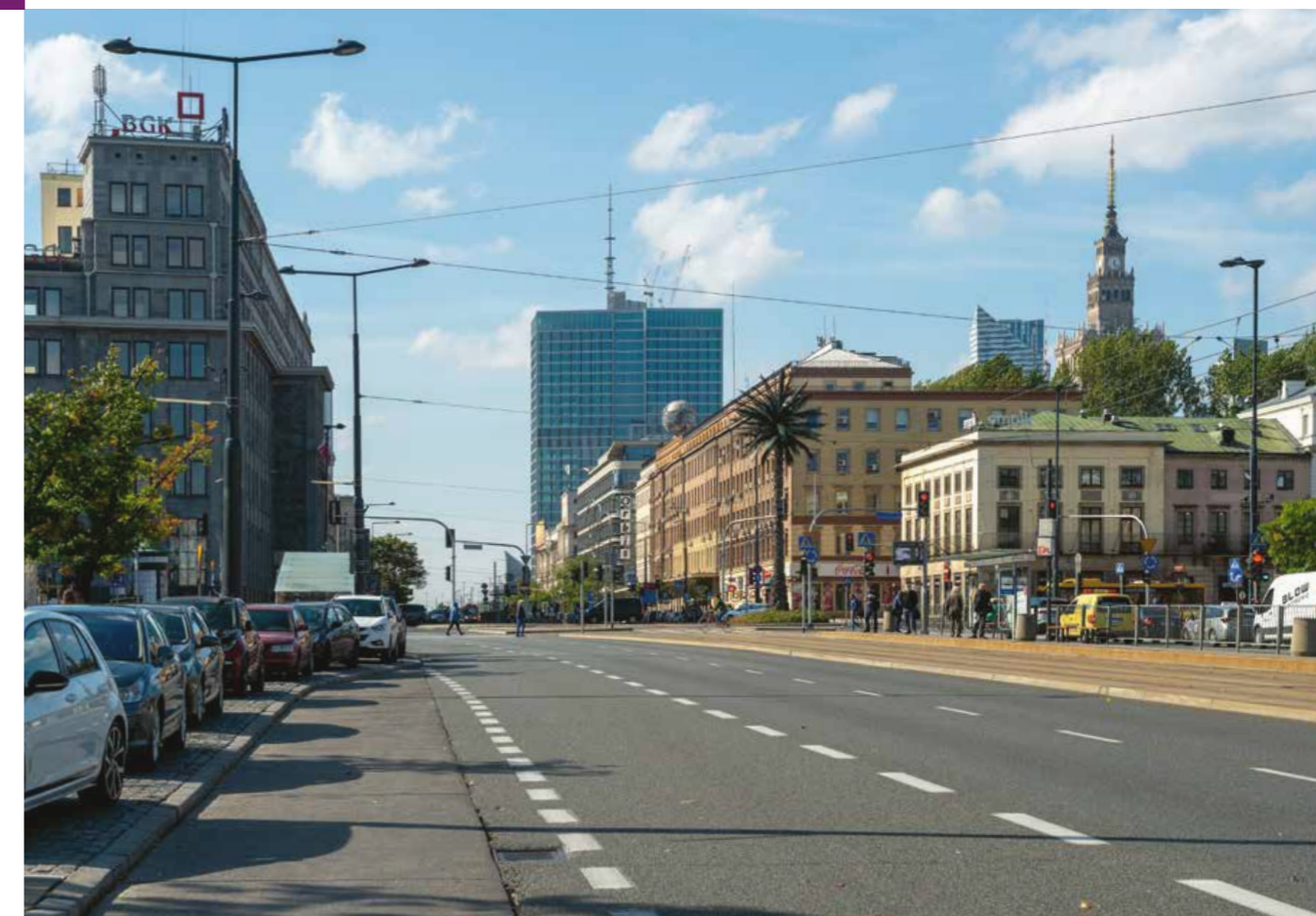
- the changes will cover the section between Jerozolimskie Av. and Piękna St.
- the center of the roadway will be occupied by a several-meter wide pedestrian passage, shaded by rows of tall trees
- car traffic will be eased; cars will take one-lane roadways on both sides of the passage
- intersections with transverse streets will not be passable, instead there will be U-turns on the section from Piękna St. to Jerozolimskie Av.
- missing crosswalks, small architecture and greenery will be created

Currently, Jerozolimskie Av. is not a friendly street befitting a city center – narrow tram stops, sidewalks occupied by parked cars and missing greenery, crosswalks and bike paths. With the New Center of Warsaw program, this will change. An opportunity for reconstruction will be a railway project involving the reconstruction of the cross-city railway tunnel, planned for the coming years and requiring the avenue to be virtually closed for several years.

The reconstruction, which is being prepared by City Hall in cooperation with PKP PLK, will cover the section between Czterdziestolatka Roundabout and the entry to the Poniatowskiego Bridge viaduct. The answer to the question of how the new avenue will look in detail will be provided by the detailed design. Its compilation began in the fall of 2021 and will take 30 months – except for the documentation for the section from Poznańska St. to de Gaulle Roundabout to be released in 2023. This is because the project is being developed in coordination with PKP PLK, which plans to reconstruct the cross-city tunnel using the cut-and-fill method and build a new station in the area of Nowy Świat St.

Krucza St. will also change. The current wide roadway became redundant after the reconstruction of “Five Corners Sq.”, and so we will endow it with a typical downtown character. In 2021, we conducted an area study of Krucza St. traffic to know how to organize traffic on it and its cross-streets. The next step is to design a new look for the street. In 2022, we selected a studio which is given 16 months to produce a detailed design for the reconstruction. The documentation should be ready at the end of 2023/beginning of 2024.

As part of the reconstruction, a walkway will be created in the middle of the roadway, and there will be more trees and greenery.



Crossroads Square

The long-awaited reconstruction of Crossroads Sq. [“Plac na Rozdrożu”] is getting closer. Thanks to the money allocated by the capital’s councilors to this purpose, we announced a tender for construction works at the end of 2022. They will primarily result in elevators for bus stops on Łazienkowska Route, as well as a number of facilities for pedestrians and cyclists.



THE BATTLE OF WARSAW 1920 MONUMENT

At the same time, in the area of Crossroads Sq., the announced Battle of Warsaw 1920 Monument is to be built, commemorating the victorious battle on the outskirts of the capital. The monument will be built under the government’s “Niepodległa” program.



PEDESTRIANS

It is also planned to designate a new crosswalk in the axis of Wyzwolenia Av.

This will mean the elimination of inconvenient underground crossings.

One of the priority activities of the Warsaw authorities is to remove architectural barriers. The planned changes to Crossroads Sq. will be part of this.

The reconstruction of the square is to include the construction of elevators for bus stops on Łazienkowska Route, and the reconstruction of the stairs and the stops themselves. The platforms will be widened, equipped with more seats and a higher, profiled curb to make it easier to board the bus.

The upper level of the popular interchange node will also undergo changes. **We will designate a missing crosswalk on the western side of Ujazdowskie Av., across the mouth of Koszykowa St.** We also plan to enlarge the space for pedestrians by eliminating areas excluded from traffic and to organize bike traffic on the square – a bike connector on the western side of the square and a bike path connecting the square with the viaducts over Agrykola Park will be created. The said viaducts will be rebuilt by the Capital City Development Board starting in spring 2022.

MUCH-AWAITED INVESTMENT

Back in 2019, we collected feedback from residents on the design of the new Crossroads Sq. The comments were straightforward – this place needs to change. Residents’ remarks were taken into account in the prepared reconstruction project, which received the necessary approvals. Once funding was secured at the end of 2022, we announced a tender. Hopefully, a contractor will be selected quickly, and works will begin as early as the first half of 2023. The selected company will have 12 months to carry out the investment.



Central Square

It's time to reconstruct the central part of Defilad Sq. In front of the Palace of Culture and Science, some of the concrete and asphalt will be removed, trees, shrubs and lawns, and a water area will appear – this is how the so-called Central Square will be created. This is another element of the changes under the New Center of Warsaw program.



INHERENT GREENERY

The square will feature lawns with a total area of several thousand square meters. The project also involves planting more than 40 species of bulbous plants and perennials. In addition, there will be 11 species of shrubs, as well as 70 trees such as black locust, honey locust, ash tree, dogwood, katsura, ginkgo and magnolia, to name just a few.

The concept for the reconstruction of Defilad Sq. along the axis of Złota St. envisages that in front of the Palace of Culture and Science, a place will be created for residents' daily meetings and cultural events. A more intimate square will be carved out of the vast unfriendly space, thereby making the city's strict center more attractive. It bears a working name of Central Sq.

The new development of this space between the Museum of Modern Art and the Palace of Culture and Science was prepared by the A-A Collective studio. The authors designed a space that will connect the central part of Defilad Sq. with the park in the area of Świętokrzyska St. The irregular layout of sidewalks and greenery mimics the network of former streets and the outline of buildings. The patterns are meant to resemble the places where tenements used to be. The remains of the old buildings were demolished after World War II to make way for the Palace of Culture and Science.

The surface of the square will be made of 6 different types of stone. The outlines of the former tenements will be made of large-format stone slabs in various colors: gray and red. The former courtyards will be re-paved with re-used granite blocks from Defilad Sq. and supplemented with granite slabs from around the parade stand. The street layout from 1939 will be reminded here by strips laid with granite blocks.

INVESTMENT IN DATES

FALL 2022

WE ANNOUNCED THE TENDER FOR THE RECONSTRUCTION OF THE CENTRAL PART OF DEFILAD SQ.

SPRING 2023

WE WANT TO SELECT A CONTRACTOR

15 MONTHS

ESTIMATED TIME TO COMPLETE THE WORKS, FROM THE MOMENT THE CONTRACT IS SIGNED



Renovations and reconstructions

The primary task of the Public Roads Authority is to maintain the road infrastructure at an appropriate level. This involves reconstruction, modernization and renovation of streets. In 2022, we carried out a number of investments that resulted in improved comfort, aesthetics and, above all, safety of traffic participants.

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Sokratesa St.

We modified Sokratesa St. in Bielany. We constructed two roundabouts, shortened and secured all crosswalks with a refuge island, and widened sidewalks. We also added a lot of greenery. The modifications made Sokrates St. safer.



MORE GREENERY

We planted shrubs and perennials between the bike path and the sidewalk and in the strip splitting the roadway. We created 7 rain gardens with a total area of 497 m². We also enriched the street with 31 trees – 19 swamp oaks and 12 Swedish rowans. The area of new greenery, together with rain gardens, was 2,187 m².

Over the last two decades, the surroundings of Sokratesa St. has changed a lot. At the end of the last century, it ran through the outskirts of Warsaw, today it traverses housing estates full of shops and service outlets. It became necessary to adapt it to its location.

Reconstruction of the street began in 2021. At first, the works, including asphaltting, were carried out on the southeast roadway, then – already in 2022 – moved to the northwest roadway. They involved the construction of roundabouts at the intersections of S. Petöfiego and Kaliszówka St., the laying of new curbs and edgings, asphaltting, and the renovation of sidewalks.

All existing crosswalks across Sokratesa St. were shortened and secured with a refuge island. **A new crossing was also created at the height of building no. 13.** On the north-western side, where all shops and service outlets are concentrated, residents have gained a wider sidewalk. The previous one was very narrow, and next to it, without any separation, there was an equally narrow bike path. After the modifications, the latter runs closer to the roadway, with a green belt separating it from pedestrians.

INVESTMENT IN NUMBERS

1,054 m
LENGTH
OF SOKRATESA ST.

11,191 m²
LAID ASPHALT
WEARING COURSE

3,100 m²
RENOVATED
AND CONSTRUCTED
SIDEWALKS

2
CONSTRUCTED
ROUNDBOUTS



“SOWA” ON SOKRATESA ST.

The modifications were complemented by the modernization of lighting. While still in 2021, we replaced the streetlights, removing the concrete ones and installing steel ones. We installed luminaires oriented to the roadway and sidewalk on most of the new poles, with a total of **140 LEDs**. The lighting modernization was carried out under the “SOWA – oświetlenie zewnętrzne” [OWL – external lighting system] program.



Kondratowicza St.

We are reconstructing L. Kondratowicza St. in Targówek. We are replacing its surface, renovating sidewalks, installing new traffic lights, and modernizing lighting. In 2022, we completed two-thirds of the works.



LIGHTING

After the reconstruction, L. Kondratowicza St. will be better illuminated. Once it gets dark, the road for drivers, cyclists and pedestrians will be brightened by Artera luminaires, which are the result of a separate tender for the street. They will hang on 282 streetlights – 90 that are 11 meters high by the roadways and 192 that are between 4.4 and 6 meters high by the sidewalks and bike paths.

L. Kondratowicza St. is being completely transformed on the key section between Rembielińska and św. Wincentego St. The makeover complements and culminates the construction of the second metro line in Bródno. The opening of the underground railway made it possible to redevelop the space above ground.

Road works began already in 2021. The first works were carried out by the metro contractor at the site of the Kondratowicza and Bródno stations, i.e. at the intersections of St. Vincent and Rembielinska St. In April, once the metro construction facilities were removed, the works we supervise began – on the section between the stations. The first to go were the roadways, which underwent a complete reconstruction. New bus bays and bike paths were also constructed, and the sidewalks were renovated.

We entered 2023 with two-thirds of the works behind us. **We reconstructed the section from św. Wincentego St. to Chodeckiej St. in its entirety and the southern roadway between the latter and Labiszynska St.,** so that direct access through L. Kondratowicza St. from Rembielinska St. towards the Mazovian Hospital Bródnowski is now possible. The northern roadway from Chodecka St. to Łabiszyńska St., where the final surface restoration works were concentrated, remains closed.

SURFACE AND SIDEWALKS

1,686 m
LENGTH
OF THE RECONSTRUCTED
SECTION

39,768 m²
AREA OF NEW
ROADWAY SURFACE

22,754 m²
AREA OF RENOVATED
SIDEWALK

The surface replacement and sidewalk renovation also covered the intersections of Rembielińska and św. Wincentego St., and the data refer to 2022.



GREENERY

L. Kondratowicza St. will become an avenue of a thousand trees. To the nearly 500 already growing trees, including 106 planted by Warsaw Metro, we began adding ours in the fall of 2022. By the end of the year, we planted 137 trees, with 354 remaining in reserve. In total, we will plant 491 trees. New plantings, located on both sides of the street and in the strip separating the roadways, will be enriched with shrubs, vines, lawns and flower meadows. There will also be 13 rain gardens.



Starzyńskiego St.

For the purposes of pedestrian and bike traffic, we shifted the southern roadway of S. Starzyńskiego St. from Namysłowska St. towards Żaba Roundabout. This made it possible to regain space for widening the sidewalk and creating a bike path. We also erected traffic lights for the crossing at the exit to Szwedzka St.



IMPORTANT GAP ELIMINATED

The construction of the missing section of the bike path allowed residents to ride on two wheels to Targówek from other districts and vice versa more smoothly and safely. In particular, the connector made it easier to reach the center. Now, cyclists from Żaba Roundabout reach Starzyńskiego Roundabout, where, turning left, they head to Praga, turning right – to Białołęka, and going straight ahead – to Śródmieście, from where they have convenient connections to the other districts of the left riverbank.

The main part of the reconstruction of S. Starzyńskiego St. was to shift the southern road towards the tram tracks. This made it possible to obtain additional space for the widening and renovation of the sidewalk next to the block of flats of the NCO Military Housing Fund. Until now, pedestrians had a little over 2 meters from the building wall to the curb there. The shifting of the roadway also made way for a bike path. The so-called teleport, i.e. a gap in the bike infrastructure, was eliminated. The “Namysłowska 02” bus stop also underwent renovation.

An important part of the investment was **the construction of traffic lights at the crosswalk across the exit of Starzyńskiego St. towards Szwedzka St.** The exit runs in a gentle curve, and although the class of the road changes from the trunk road to the collector road, until the traffic lights were installed, a large part of drivers did not reduce their speed sufficiently when leaving the section of Warsaw’s downtown ring road. As a result, four accidents occurred here between 2015 and 2020, including one death. Traffic lights have made non-motorized traffic participants better protected here, and no similar traffic incidents should occur.

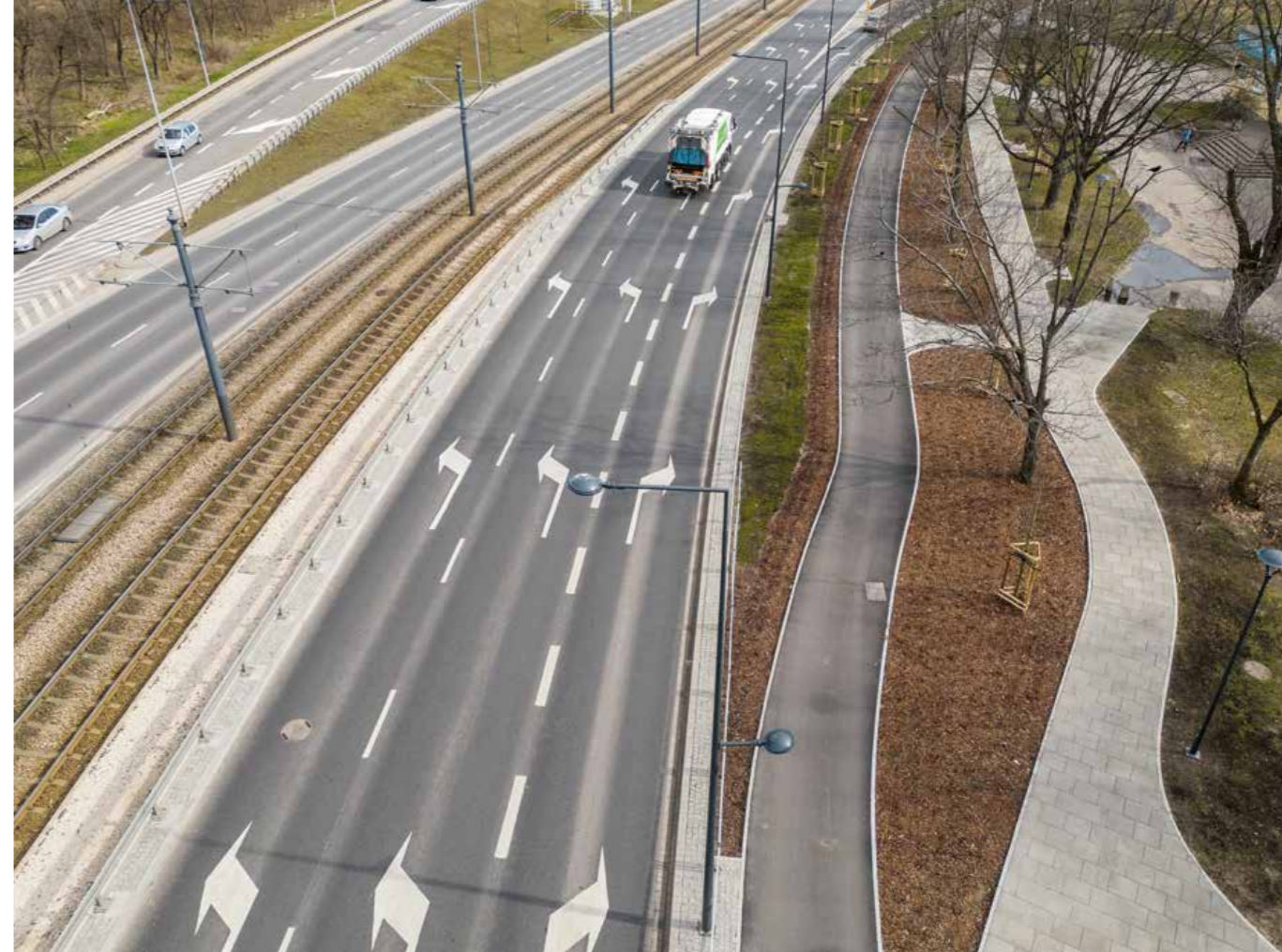
INVESTMENT IN NUMBERS

2,954 m²
OF REPLACED SURFACE ON THE SHIFTED ROADWAY

1,743 m²
OF RENOVATED SIDEWALK

460 m
OF MISSING BIKE PATH CONSTRUCTED

33
TREES PLANTED



J. Skrzyneckiego St. and I. Paderewskiego St.

It's important not only what's on the street, but also under it. Therefore, when necessary, we extend the scope of investment to include additional elements. This was the case in 2022 on J. Skrzyneckiego St. and I. Paderewskiego St., where a sewer system was constructed alongside the renovation of surfaces and sidewalks.



GOODBYE TO "TRYLINKA"

During the renovation of J. Skrzyneckiego St., we removed "trylinka" [hexagonal concrete slabs]. It had been there for decades and was a reminder of an era when it was the most popular material used as a road surface. Its name is derived from Władysław Tryliński. He invented it in 1932 while working in a porphyry mine. He proposed to produce hexagonal slabs with sides 15 or 20 cm long and 10 to 15 cm high from stone waste poured with concrete. "Trylinka" quickly became popular because it was cheaper than stone paving and could be produced and laid quickly and easily, and the surface made from it was usable right away.

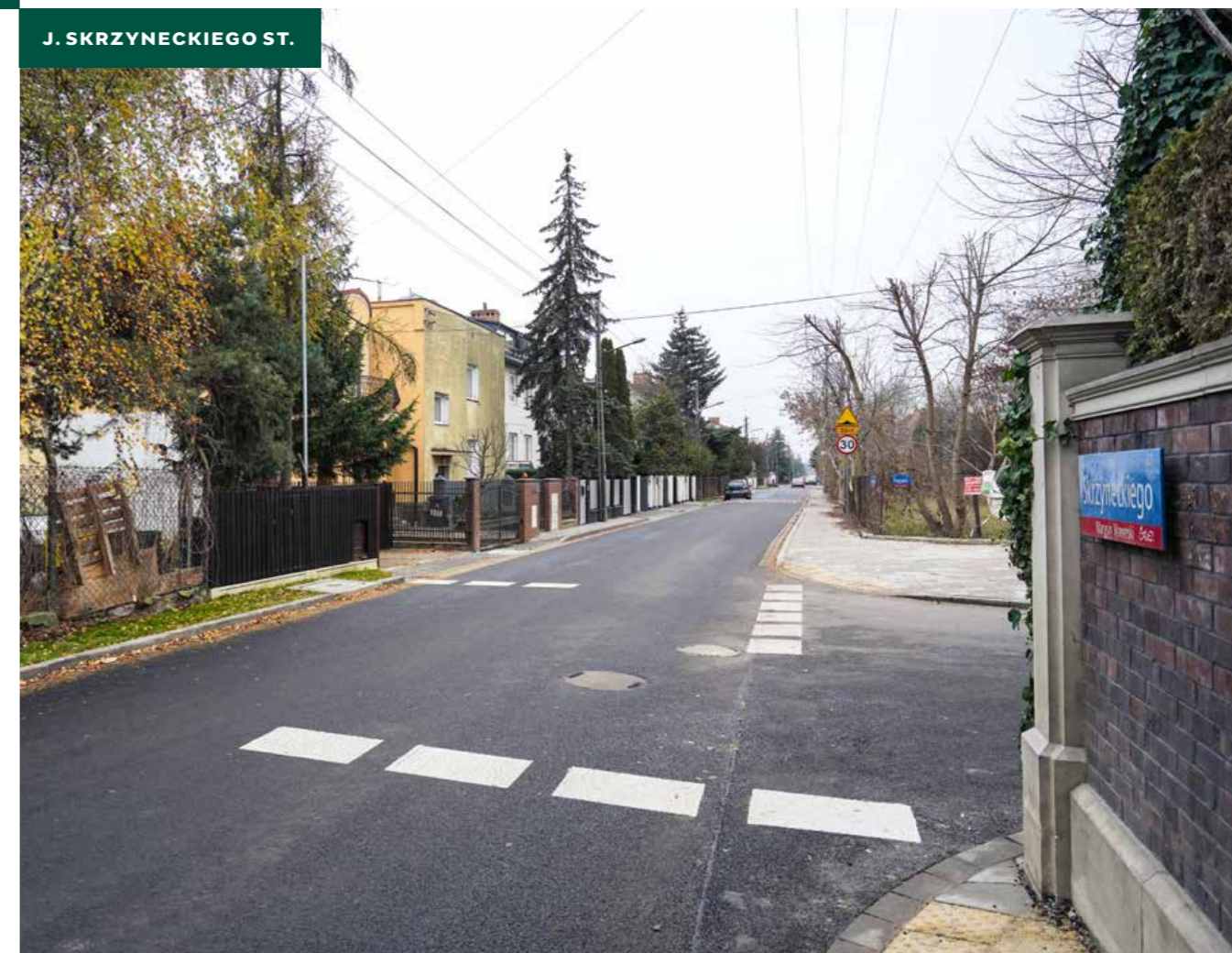
Typically, surface renovation involves redoing the roadway base course. Sometimes, these works are preceded by the renovation of the rainwater channel, if it is completely worn out. Occasionally, the sewer system has to be constructed from scratch. There are fewer and fewer such streets, and in 2022 the following disappeared from this list: J. Skrzyneckiego St. in Marysin Wawerski and I. Paderewskiego St. in Rembertów (on the section between Katuszy St. and Strycharska St.).

A comprehensive renovation of **J. Skrzyneckiego St.** was started by the Municipal Water Supply and Sewerage Company, by constructing a water supply network. The next step, already being carried out by us, was to lay the sewage network. Thus, there is no more flooding, which until recently was the norm after heavy rainfall. The street also gained new sidewalks and an asphalt surface.

The renovation of **I. Paderewskiego St.** was initiated by a project submitted and selected by residents as part of one of the previous editions of the civic budget. The initial plan was to construct a sidewalk on the east side of the street. As this entailed a change in drainage, we extended the scope of the investment. We constructed storm drains, and only then laid a new surface. We also renovated the sidewalk on the opposite side of the street, and the entire project was complemented by lawns and low greenery.



I. PADEREWSKIEGO ST.



J. SKRZYNECKIEGO ST.

Road Resurfacing+

ZDM's priority is to improve the technical condition of road infrastructure. Since streets are more than just asphalt, in 2022 we carried out a series of renovations under the name "Milling+" ["Frezowanie+"]. In addition to replacing the road surface, they also involved refurbishing the accompanying infrastructure.



One of the factors ensuring safety on roads is the proper state of infrastructure. Taking care of its high standard, every year we renovate the surface of dozens of kilometers of roadways. Some streets undergo quick weekend renovations, while others await major reconstructions.

In 2022, we selected seven streets where renovation was not limited to the roadway alone. We extended the works to include the replacement of sidewalks, curbs and edgings. At crosswalks, we fitted tactile paving slabs and guide lanes for the blind and visually impaired. The width of A. Jarzębskiego St. further allowed parallel parking spaces to be created, and A. E. Odyńca St. was enriched with greenery. In turn, on W. Sławka St., we renovated two parking lots.

The scope was also broader in terms of technology. Typically, the renovations involved stripping the binder and wearing courses of the old surface and replacing them with new ones. In the case of "Milling+," the works also included replacing the road's base course and asphalt base layer. On W. Sławka St., we even replaced the entire road structure. This was the result of the way this street was asphalted in the previous regime, as communist-era builders laid asphalt directly on "trylinka".

← A. E. ODYŃCA ST.

SECTION: **1,700 m** (Niepodległości Av. – Puławska St.)
 ROADWAY: **6,401 m²**
 SIDEWALKS: **4,284 m²**
 GREENERY: **396 m² of shrubs and perennials**



SEQUENCE OF SASKA ST. AND EGIPSKA ST.

SECTION: **650 m** (Stanów Zjednoczonych Av. – Afrykańska St.)
 ROADWAY: **8,430 m²**
 SIDEWALKS: **1,342 m²**



A. JARZĘBSKIEGO ST.

SECTION: **590 m** (entire street)
 ROADWAY: **6,267 m²**
 SIDEWALKS: **5,299 m²**
 NEW PARALLEL PARKING SPOTS: **45**



RYŻOWA ST.

SECTION: **490 m** (A. Prystora St. – city border)
 ROADWAY: **6,004 m²**
 SIDEWALKS: **575 m²**



RZĘZIŃSKA ST.

SECTION: **248 m** (Człuchowska St. – Strąkowa St.)
 ROADWAY: **1,737 m²**
 SIDEWALKS: **872 m²**



W. SŁAWKA ST.

SECTION: **637 m** (entire street)
 ROADWAY: **7,097 m²**
 SIDEWALKS: **1,588 m²**

Private developments

New housing estates or office buildings that are under construction increase traffic on neighboring roads. Therefore, the developers' duty is to introduce changes to the road system around their investment. The result of their works in 2022 included the reconstruction of Marywilka St. at two intersections.



Warsaw is growing dynamically, with new housing estates, office buildings or large-format stores being built. Investors must keep in mind that their investments affect the functioning of the city. Therefore, according to Article 16 of the Law on Public Roads, they are obliged to reconstruct the road system to accommodate the increased traffic caused by the new development. The more new residents, employees and parking spots, the greater that impact.

Private investors implement various solutions that improve mobility in the area of their investments. **This includes, e.g., extending streets, converting classic intersections into roundabouts and building traffic lights.** The modifications being made are consulted with us so that not only drivers, but also pedestrians and cyclists will be benefited. Therefore, the modifications involve improving traffic flow and, at the same time, safety – by building refuge islands at crosswalks or designating bike crossings next to zebra crossings.

The largest development investments were carried out at the intersections of Marywilka St. with Inowłodzka St. and Kupiecka St. as well as of Żupnicza St. and Chodakowska St. Those on Widoczna St. and Kłobucka St. were also important.

INTERSECTION OF MARYWILSKA ST. AND INOWŁODZKA ST.

The developer constructed sidewalks and bike paths on both sides of Marywilka St. Its side road was extended north to the existing entry. This entry was reconstructed so that, after widening, it became an intersection that gained traffic lights. At the intersection, three new crosswalks (including one across the road to the constructed housing estate) and a set of bike crossings were created.

INTERSECTION OF MARYWILSKA ST. AND KUPIECKA ST.

The developer equipped the intersection with traffic lights. Lights were also erected where one enters a side street from the main road of Marywilka St., as well as at the crosswalk located closer to Płochocińska St. The entry from this street to Marywilka was improved by constructing a slip road. In addition, the sidewalks were renovated and a bike path was constructed on the eastern side.



INTERSECTION OF ŻUPNICZA ST. AND CHODAKOWSKA ST.

The three-lane intersection was converted to a roundabout. The traffic increased after the opening of the grocery discount store built next to it became smoother. Safety also improved – it is easier for drivers to turn left. Pedestrians gained an additional crossing, which, like the two already existing ones, was equipped with a refuge island.



WIDOCZNA ST.

Traffic lights were erected at the intersection with the entry to the grocery discount store. At this location, i.e. near Gardenii St., the developer widened the roadway to include a left-turn lane. On the western side of the street, a sidewalk and a bike path were constructed on a more than half-kilometer section. A makeshift footbridge over the Wawerski Canal was replaced with a new bridge.



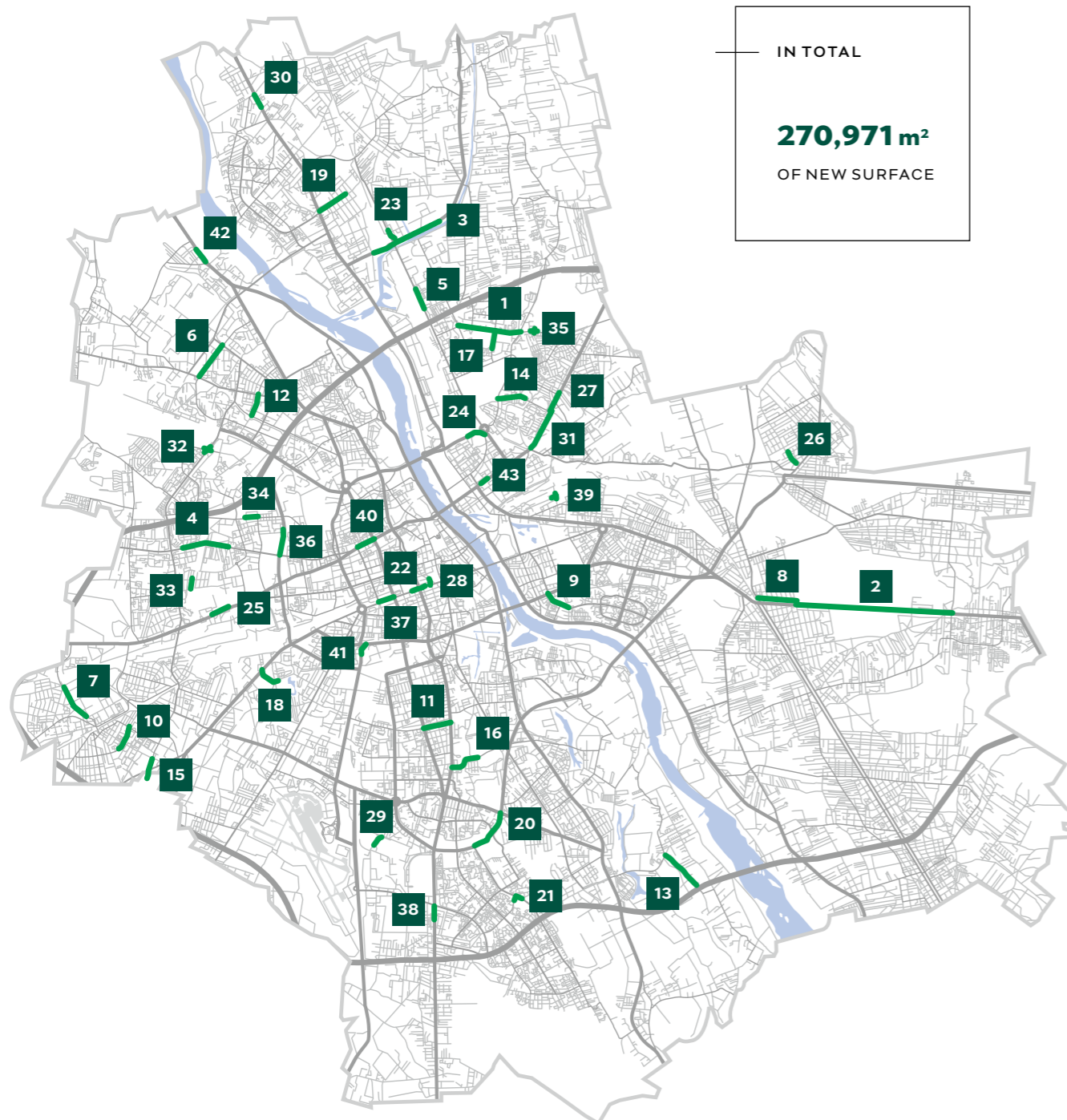
KŁOBUCKA ST.

A shared route for pedestrians and cyclists was created on the eastern side between Stamma Roundabout and the entry to the Kłobucka 18 building. It replaced a very narrow sidewalk. The developer also constructed refuge islands at two crosswalks.



Roadway renovations

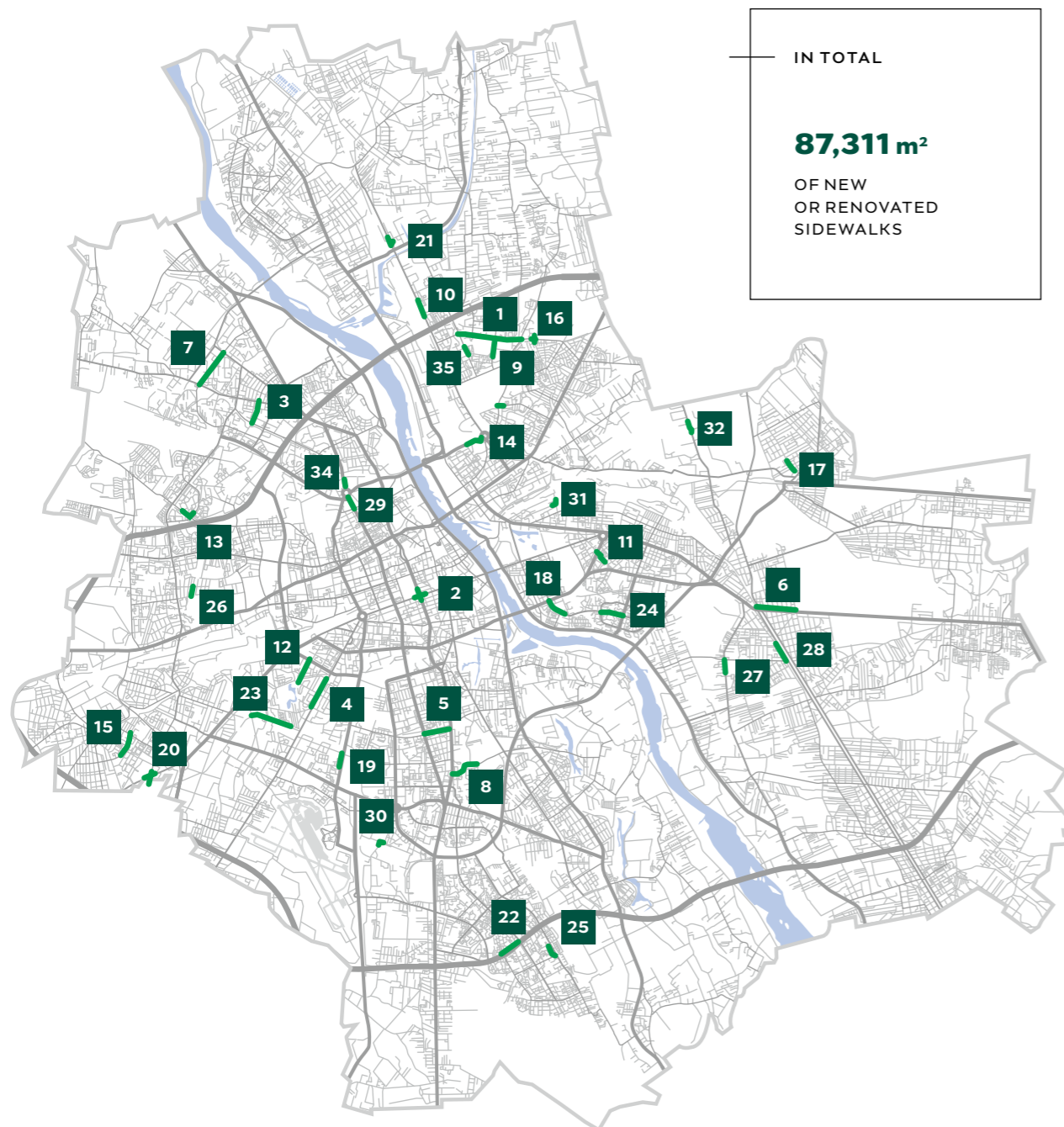
It is a priority to improve road infrastructure and keep it in good condition. So we renovate thousands of square meters of roadway surface every year. This includes not only large-scale modernizations and reconstructions, but above all routine repairs and maintenance.



1. **L. KONDRATOWICZA ST.**
from Rembielińska St. to św. Wincentego St. including the intersections
with these streets (excluding the northern roadway from Łabiszyńska St. to Chodecka St.) _____ **39,768 m²**
2. **SEQUENCE OF B. CZECHA ST. AND TRAKT BRZESKI ST.**
(northern roadway) between the intersections of Kościuszkowców St. and M. Kajki St. in Wawer
and of 1 Praskiego Pułku St. and Jana Pawła II St. in Wesoła _____ **34,427 m²**
3. **PŁOCHOCIŃSKA ST.** from the intersection of Spedycyjna St.
and Krzyżówki St. to the "Zaplecze 02" bus stop _____ **21,635 m²**
4. **GÓRCZEWSKA ST.** (both roadways) from S. Konarskiego St. to T. Krępowieckiego St. _____ **16,178 m²**
5. **MARYWILSKA ST.** in the area of the intersection with Inowłodzka St. _____ **11,301 m²**
6. **SOKRATESA ST.** _____ **11,191 m²**
7. **K. GIERDZIEJEWSKIEGO ST.** from S. Leszczyńskiego St. to Balicka St. _____ **10,091 m²**
8. **J. SKRZYŃECKIEGO ST.** from Kościuszkowców St. to Kaczeńca St. _____ **9,136 m²**
9. **SEQUENCE OF SASKA ST. AND EGIPSKA ST.**
from Stanów Zjednoczonych Av. to Afrykańska St. _____ **8,430 m²**
10. **W. SŁAWKA ST.** from K. Pużaka St. to Dzieci Warszawy St. _____ **7,097 m²**
11. **A. E. ODYŃCA ST.** from Niepodległości Av. to Puławska St. _____ **6,401 m²**
12. **A. JARZĘBSKIEGO ST.** _____ **6,267 m²**
13. **SYTA ST.** from Z. Vogla St. to the S2 expressway _____ **6,223 m²**
14. **- SEQUENCE OF TROCKA ST. AND BORZYMOWSKA ST.**
from the bus loop at the Trocka metro station to św. Wincentego St. _____ **6,200 m²**
15. **RYŻOWA ST.** from A. Prystora St. to the city border, including the intersection with Jerozolimskie Av. _____ **6,004 m²**
16. **L. IDZIKOWSKIEGO ST.** from Puławska St. to Imielińska St. _____ **5,888 m²**
17. **CHODECKA ST.** from Wyszogrodzka St. to L. Kondratowicza St. _____ **5,007 m²**
18. **ŚMIGŁOWCA ST.** from Jerozolimskie Av. To the intersection of Drawska St. and H. Mierzejewskiego St. _____ **4,876 m²**
19. **KOŁACIŃSKA ST.** from Modlińska St. to Wiklinowa St. _____ **4,608 m²**
20. **DOLINA SŁUŻEWIECKA ST.**
(northern roadway, right lane) between Wilanowska Av. and J. Rodowicza "Anody" Av. _____ **4,493 m²**
21. **INTERSECTION OF I. GANDHI ST. AND J. ROSOŁA ST.** _____ **4,125 m²**
22. **MOUTHS OF JEROZOLIMSKIE AV. TO DMOWSKIEGO ROUNDABOUT** _____ **4,100 m²**
23. **MARYWILSKA ST.** in the area of the intersection with Kupiecka St. _____ **3,865 m²**
24. **S. STARZYŃSKIEGO ST.** (southern roadway)
from Namysłowska St. to the end of the exit towards Szwedzka St. _____ **2,954 m²**
25. **WOLSKA ST.** (northern roadway, right lane) from J. Sowińskiego St. to Wola Fort _____ **2,860 m²**
26. **I. PADEREWSKIEGO ST.** from Katuszy St. to Strycharska St. _____ **2,537 m²**
27. **RADZYMIŃSKA ST.** (western roadway, right lane) from Z. Jórskiego St. to Trockiej St. _____ **2,457 m²**
28. **KRUCZA ST.** from Jerozolimskie Av. to Chmielna St. _____ **2,154 m²**
29. **KŁOBUCKA ST.** from the entry to the Kłobucka 18 building to the Stamma Roundabout _____ **1,916 m²**
30. **MODLIŃSKA ST.** (western roadway, right lane)
from number 345 to the "Dąbrówka Szlachecka 01" stop _____ **1,806 m²**
31. **RADZYMIŃSKA ST.** (eastern roadway, right lane) from Naczelnikowska St. to Trocka St. _____ **1,759 m²**
32. **INTERSECTION OF POWSTAŃCÓW ŚLĄSKICH ST. AND PIASTÓW ŚLĄSKICH ST.** _____ **1,745 m²**
33. **RZĘDZIŃSKA ST.** from Człuchowska St. to Strąkowa St. _____ **1,737 m²**
34. **OBOZOWA ST.** (northern roadway) from E. Dahlberga St. to Dalibora St. _____ **1,677 m²**
35. **INTERSECTION OF L. KONDRATOWICZA ST., BLOKOWA ST. AND PRZY GRODZISKU ST.** _____ **1,647 m²**
36. **SOLIDARNOŚCI AV.** (southern roadway, right lane) from Żelazna St. to Jana Pawła II Av. _____ **1,598 m²**
37. **JEROZOLIMSKIE AV.** (northern roadway, right lane) from Jana Pawła II Av. to Żelazna St. _____ **1,568 m²**
38. **PUŁAWSKA ST.** (western roadway, right lane) from Poleczki St. to Samsonowska St. _____ **1,397 m²**
39. **ROUNDABOUT** at the intersection of Żupnicza St. and Chodakowska St. _____ **1,386 m²**
40. **PRYMASA TYSIĄCLECIA AV.**
(western roadway, middle lane) from Czorszyńska St. to Górczewska St. _____ **804 m²**
41. **ŻWIRKI I WIGURY ST.** (western roadway, right lane) from Wawelska St. to I. Miecznikowa St. _____ **765 m²**
42. **PUŁKOWA ST.** (northern roadway, right lane) in two locations at the height of Trylogii St. _____ **612 m²**
43. **SOLIDARNOŚCI AV.** (northern roadway, right lane)
opposite Galeria Wileńska shopping mall and Warszawa Wileńska railway station _____ **281 m²**

Sidewalk renovations

We also take care of the quality of sidewalks for the convenience of pedestrians. We gradually modernize them, laying further kilometers of new, aesthetic and anti-smog slabs. As a result, we increase the comfort and safety of pedestrians, including those with disabilities – we removed many architectural barriers, using special warning and guide plates.



1. **L. KONDRATOWICZA ST.** from Rembielińska St. to św. Wincentego St. including the intersections with these streets (excluding the northern side from Łabiszyńska St. to Chodecka St.) _____ **22,754 m²**
2. **DMOWSKIEGO ROUNDABOUT** _____ **8,668 m²**
3. **A. JARZĘBSKIEGO ST.** _____ **5,299 m²**
4. **GRÓJECKA ST.** (western side) from the southern roadway of Opaczewska St. to W. Korotyńskiego St. _____ **4,533 m²**
5. **A. E. ODYŃCA ST.** from Puławska St. to Niepodległości Av.: on the northern side – in its entirety, on the southern side – excluding the section between the mouths of J. Czczota St. and the section from Tyniecka St. to Puławska St. _____ **4,284 m²**
6. **J. SKRZYNECKIEGO ST.** from Kościuszkowców St. to Kaczeńca St. _____ **3,369 m²**
7. **SOKRATESA ST.** _____ **3,100 m²**
8. **L. IDZIKOWSKIEGO ST.** from Puławska St. to Imielińska St. _____ **2,752 m²**
9. **CHODECKA ST.** from Wyszogrodzka St. to L. Kondratowicza St. _____ **2,483 m²**
10. **MARYWILSKA ST.** in the area of the intersection with Inowódzka St. _____ **2,303 m²**
11. **GRENADIERÓW ST.** (northeastern side) from Stanów Zjednoczonych Av. to the parking lot at Majdańska St., (southwestern side) in the area of the intersection with Majdańska St. _____ **2,129 m²**
12. **SZCZĘŚLIWICKA ST.** (western side) from Bitwy Warszawskiej 1920 r. St. to Drawska St. _____ **2,114 m²**
13. **RADIOWA ST.** (northern side) from ppłk. W. Szadkowskiego St. to Wrocławska St. _____ **1,910 m²**
14. **S. STARZYŃSKIEGO ST.** (southern side) from Namysłowska St. to Żaba Roundabout, together with a section of the exit towards Szwedzka St. _____ **1,743 m²**
15. **W. SŁAWKA ST.** (western side) from B. Wapowskiego St. to Bohaterów Warszawy St. and from the entry to Warus store to Dzieci Warszawy St. _____ **1,588 m²**
16. **INTERSECTION OF L. KONDRATOWICZA ST., BLOKOWA ST. AND PRZY GRODZISKU ST.** _____ **1,348 m²**
17. **I. PADEREWSKIEGO ST.** from Katuszy St. to Strycharska St. _____ **1,347 m²**
18. **SEQUENCE OF SASKA ST. AND EGIPSKA ST.** (northern side) from Stanów Zjednoczonych Av. to Afrykańska St. _____ **1,342 m²**
19. **ŻWIRKI I WIGURY ST.** (western side) from 1 Sierpnia St. to the entry to the housing development at 15 Żwirki i Wigury St. along with the renovation of the “Novotel 01” and “Leżajska 01” bus stops _____ **1,214 m²**
20. **RYŻOWA ST.** with the intersection with Jerozolimskie St. to the city border _____ **1,155 m²**
21. **MARYWILSKA ST.** in the area of the intersection with Kupiecka St. _____ **1,108 m²**
22. **F. PŁASKOWICKIEJ ST.** (northern side) from Komisji Edukacji Narodowej Av. to Dereniowa St. _____ **1,098 m²**
23. **INSTALATORÓW ST.** (southern side) from Równoległa St. to the building of 3 Instalatorów St. _____ **1,027 m²**
24. **T. BORA-KOMOROWSKIEGO ST.** (southern side) from A. E. Fieldorfa “Nila” St. to J. Meissnera St. _____ **1,010 m²**
25. **J. ROSOŁA ST.** (western side) from the exit at 6 Mandarynki St. to Belgradzka St. _____ **936 m²**
26. **RZĘDZIŃSKA ST.** from Człuchowska St. to Strąkowa St. _____ **872 m²**
27. **TRAKT LUBELSKI ST.** (eastern side) from Lucerny St. to the “Trakt Lubelski – Las 02” bus stop _____ **834 m²**
28. **WIDOCZNA ST.** (western side) from Lucerny St. to the “Solidna 01” bus stop _____ **823 m²**
29. **JANA PAWŁA II AV.** (eastern side) from Stawki St. to Zgrupowania AK “Radosław” Roundabout _____ **732 m²**
30. **KŁOBUCKA ST.** (eastern side) in the area of Stamma Roundabout _____ **721 m²**
31. **INTERSECTION OF ŻUPNICZA ST. AND CHODAKOWSKA ST.** as part of the roundabout construction _____ **651 m²**
32. **CHEŁMŻYŃSKA ST.** (eastern side) from the “Mebłowa 02” bus stop on an approx. 250-meter section towards the north _____ **574 m²**
33. **BORZYMOWSKA ST.** (southern side) from św. Wincentego St. to Gościeradowska St. _____ **570 m²**
34. **JANA PAWŁA II AV.** (eastern side) from Zgrupowania AK “Radosław” Roundabout to Błońska St. and the exit towards Maklakiewicza Roundabout _____ **506 m²**
35. **REMBIELIŃSKA ST.** (eastern side) from Wyszogrodzka St. to Poborzańska St. _____ **414 m²**

Greening the streets

Roadside greenery improves aesthetics of the area, and also positively affects the climate and air quality. We therefore strive to ensure that new plantings of trees and shrubs are also included in the works carried out. In 2022, we replaced redundant paving slabs and blocks with plants at more sites.



RAIN GARDENS

They revitalize the streets and their surroundings, and play an important retention role. They include hydrophytic (flood-tolerant) and moisture-loving plants. These are flowering grasses and perennials, and such a mix is visually appealing and at the same time resilient to adverse conditions. In 2022, we created **30** rain gardens. 18 were formed on the so-called beltway of Gocław, seven on Sokratesa St., four on A. E. Odyńca St., and one in the pocket park at the southeastern corner of the intersection of Powstańców Śląskich St. and Wrocławska St. The area of all the gardens reached **1,102 m²**.

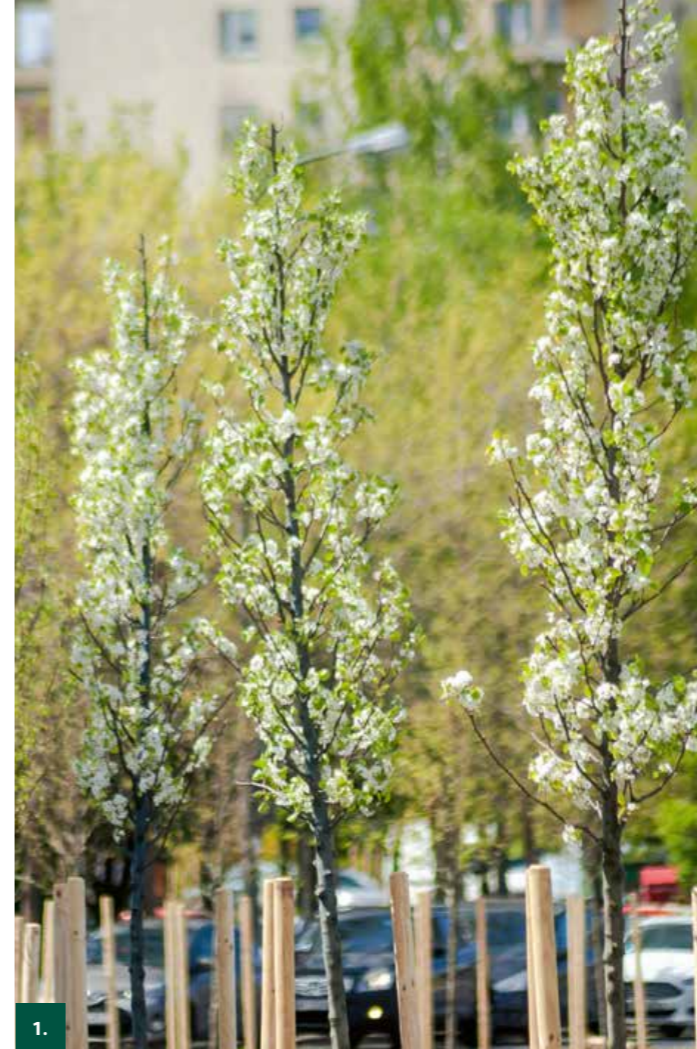
We care not only about the technical condition of roads, but also about the quality of public space. Along with purely transport-oriented infrastructure, an integral part of the street is greenery. It makes streets and squares complete – guaranteeing functionality and looking nice at the same time. However, plants in the city are not just for decoration. They affect well-being, absorb carbon dioxide from the atmosphere, and improve water retention and moderate the climate.

Therefore, acting in accordance with Warsaw's "Strategy of adaptation to climate change" ["Strategia adaptacji do zmian klimatu"] adopted in 2019, we aim to increase biologically active area on our streets. We plant new plants on occasions of reconstruction or renovation. We remove unnecessary paving slabs, blocks or sections of asphalt – in their place we plant trees, shrubs and perennials or create lawns.

In 2022, the area of planted shrubs reached 17,400 m². In turn, new perennials covered 4,300 m². If we planted both side by side, they would fill two Zamkowy Sq. We added most plants on the so-called beltway of Gocław. The streets that constitute it, J. Meissnera St., gen. R. Abrahama St., W. Umińskiego St. and Jugosłowiańska St., were enriched with more than 200 trees, 34,000 shrubs and 17,000 perennials.

4,700 NEW TREES

In 2022, we planted **597** trees. Yet they were not the only ones to appear in the right of way of the streets we manage. Trees were also planted by Warsaw Trams, Warsaw Metro and, most importantly, the Greenery Council – **154,567** and **3,258**, respectively. In addition, there were **158** trees planted by developers. Having added ours, the city was enriched by a total of **4,734** new trees.



"Green investments"

PLANTED TREES, SHRUBS AND PERENNIALS:

- 1. SO-CALLED BELTWAY OF GOCŁAW**
210 trees
51,000 shrubs with perennials
- 2. L. KONDRATOWICZA**
137 trees from 491 planned
21,400 shrubs
- 3. SEQUENCE OF K. S. RUDNICKIEGO ST., W. PERZYŃSKIEGO ST. AND B. PODCZASZYŃSKIEGO ST.**
61 trees
- 4. DMOWSKIEGO ROUNDABOUT**
33 trees
and nearly a half from 19,300 shrubs
- 5. S. STARZYŃSKIEGO ST.**
33 trees
7,500 shrubs and perennials
- 6. SOKRATESA ST.**
29 trees
5,500 shrubs
- 7. "FIVE CORNERS SQ."**
19 trees
- 8. CORNER OF POWSTAŃCÓW ŚLĄSKICH ST. AND WROCŁAWSKA ST. (POCKET PARK)**
18 trees, 1,700 shrubs and perennials
- 9. A. E. ODYŃCA ST.**
12 trees,
2,800 shrubs
- 10. STALOWA ST. (IN THE AREA OF THE SZWEDZKA METRO STATION AND THE TARGÓWEK RAILWAY STATION)**
12 trees
4,400 shrubs
940 m² of lawns
- 11. JANA PAWŁA II AV. (IN THE AREA OF STAWKI ST.)**
8 trees
- 12. STANÓW ZJEDNOCZONYCH AV. (NEXT TO MĘCIŃSKA ST.)**
8 trees
790 shrubs with perennials
- 13. SEQUENCE OF J. ZAMOYSKIEGO ST. AND TARGOWA ST.**
7 trees
1,100 shrubs with perennials

New bike routes

The last year saw 36 kilometers of bike routes constructed, renovated and designated with the help of changes in traffic organization. It abounded, above all, in a series of short but crucial sections. However, there were also large investments. At the end of 2022, Warsaw had about 736 kilometers of various types of bike routes. The vast majority of the new and renovated sections are those completed by the Public Roads Authority.



736 km
OF BIKE ROUTES
INCLUDING:

526.3 km
OF DEDICATED
BIKE PATHS

80.6 km
ROUTES
FOR PEDESTRIANS
AND CYCLISTS

51.5 km
OF BIKE LANES

77 km
OF CONTRAFLOW STREETS,
INCLUDING **4.4 KM**
OF CONTRAFLOW LANES

76%
OF BIKE PATHS
WITH ASPHALT
PAVEMENT

Warsaw's network of bike routes is currently at a stage consisting primarily in merging the existing sections, connecting them into a coherent whole by eliminating major "bottlenecks" or "black spots" that constitute barriers to the development of bike traffic. These are often just points, or short sections, but the change in quality felt when they are improved is usually disproportionate to their length. Two prominent examples of such investments can be found on both sides of the Vistula.

On the left bank, there is the long-awaited reconstruction of the Dmowski Roundabout at the junction of Marszałkowska St. and Jerozolimskie Av. Parallel to the crosswalks, three bike crossings and a bike path section connecting them were created. Together with the pre-existing system of bike paths, particularly along Marszałkowska St. and one-way streets with counter traffic allowed, this provided completely new opportunities for safe and comfortable cycling through the very center. An important element of this system is the limited traffic zone at the nearby Five Corners Sq., which is another project, besides the Dmowski Roundabout, implemented as part of the New Center of Warsaw program. On paper, however, that's only 400 meters more in the area of the roundabout and another 500 meters in the square and the streets adjacent to it.

On the right bank, the reconstruction of Starzyńskiego St. between Namysłowska St. and Żaba Roundabout was equally important. By shifting the roadway of the downtown bypass, it was possible to complete the last missing section of the bike path on the route that runs through Targówek and Praga straight to Śródmieście. The scope implied comprehensive changes – a completely new sidewalk layout, better lighting, dozens of new trees, a long parking bay and a number of bike racks. On the map, however, this section is shorter than 600 meters.

RECORD-BREAKING RENOVATIONS

This year, over 10 km of routes have been renovated. This is the highest number since detailed statistics were kept. In total, more than 80 kilometers of routes have already undergone renovations since 2012. This means that more than 80% of the entire network already has an asphalt surface. In addition to the aforementioned works it is worth highlighting, in this category, the renovations carried out on Broniewskiego, Grójecka and Rosoła St.



RESIDENTS' CHOICE

As part of the project implemented within the civic budget, a route along Jerozolimskie Av. running along the Pięciu Sióstr Park in Ochota changed its face. We have significantly improved the layout of pedestrian and bike routes and renovated both parts. This key bike route leading to the area of the West Railway Station has also been widened.

In 2022, we constructed, among others, a bike path on Grenadierów St. in Praga-Południe, on the section between Stanów Zjednoczonych Av. and Ostrobramska St. The section connected two long routes previously constructed with EU funds. This investment is a kind of "civic budget with a plus" – the project of painting bike lanes on the roadway, initially proposed by residents, turned, in cooperation with them, into a full-fledged bike path running among greenery.

A similar function of connecting existing routes is provided by the construction of the missing section of the route on Żwirki i Wigury St. between 1 Sierpnia St. and Hynka St., which was completed last year. This is an exceptionally picturesque section that runs along a historic avenue of linden trees. However, due to its proximity to the natural monument, it posed a certain challenge at the construction stage.

The bike route along Sokratesa St. has been completely reconstructed, and we have also designated a parallel shared route for pedestrians and cyclists on its other side. This is a minor, albeit important for cyclists, element of the whole package of changes improving safety on this Bielany artery.

Lighting

Lighting is an essential element of road infrastructure – or it directly affects the safety of all traffic participants. Therefore, we have been successively modernizing it for over the years. In 2022, we began the largest replacement in Poland of nearly 40,000 luminaires on our streets, and in 2023, we will move to municipal roads, where we will hang more than 35,000 new lamps.

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SAVA lamps

In 2022, we began one of the largest luminaire replacements in Europe. On all our roads, we replace old sodium lamps with LED lamps called SAVA. We have already hung 22,455 of them, and will eventually illuminate roadways and sidewalks with 38,414 units. In 2023, they will save about PLN 35 M, while in subsequent years figures could be higher.



SAVA LICENSE

The suspended lamp model is called SAVA and was designed specifically for Warsaw. The capital has a license to use it in the future. This allows us to order identical models on the market in future years from any manufacturers who apply for a given tender. This, in turn, will allow for the progressive standardization of lighting, which has a number of advantages: from aesthetics, through ease of lighting management, to its replacement and maintenance.

Since the lighting of most of Warsaw's streets was installed decades ago, we replaced poles and fixtures on successive roads every year. This was a gradual implementation, however, and the scale of modernization was not fully up to demand. This changed in 2022, when we started the installation of LED luminaires on all roads managed by ZDM where they were not yet present.

We made the first step in this direction in 2020. In the tender, we chose the Polish company LUG Light Factory, which was to manufacture and supply us with luminaires that would save two-thirds of electricity per year, while improving the quality of lighting in the city. These state-of-the-art devices were then designed and passed all the testing and certification. In December 2021, SAVA's debut luminaires – the first of 38,414 scheduled for delivery – were hung by the ZDM headquarters.

SAVAs from regular deliveries began to be assembled in February. **By the end of 2022, we had installed 22,455 luminaires on more than 350 streets.** After dark, they illuminate both main arteries and smaller single-lane streets in the center and outskirts of Warsaw. Roads with SAVAMI became safer because they were illuminated as needed – the light from the new lamps is definitely clearer. The beam of light can be properly directed, so the streetlights do not shine through the windows.

The cost of replacing the luminaires with energy-saving SAVAs is over **PLN 42 M**. As a result, the amount of energy consumed per year to light roads managed by ZDM will fall by as much as **56%** – from **49.6 GWh** to **21.8 GWh**. Thus, at a rate of **PLN 1,265.55 per MWh** for 2023, the city will save **PLN 35 M** per year. The final scale of savings will depend on electricity prices in a given year. So the investment will pay off within several months.

LED lamps will also illuminate all communal streets subordinate to districts. We plan to begin the replacement in 2023, and the entire process will be carried out by our unit – details on pages 56-57.

Replacement of luminaires – as at Dec. 31, 2022.

LEGEND:

STREETS WHERE
SAVAS WERE HUNG

STREETS WHERE
LUMINAIRES WILL
BE REPLACED



22,455
LUMINAIRES REPLACED

16,868.57 MWh
ESTIMATED ENERGY
SAVINGS PER YEAR

**MONEY SAVING
PER YEAR:**

PLN 14.7 M
AT A RATE
OF **PLN 873 PER MWh**
APPLICABLE IN 2022

PLN 21.3 M
AT A RATE OF
PLN 1,265.55 PER MWh
FOR 2023

Tunnels and underground passages

In 2022, we continued to replace lighting in tunnels and under viaducts. We have installed LED lights in 11 such locations in Warsaw. The largest modernization was carried out in the Wisłostrada tunnels, which will bring annual energy consumption down from 1,962 MWh to 613 MWh.



BETTER LIGHTING CONTROL

We also replaced emergency and evacuation lighting along with the entire installation in the Wisłostrada tunnels.

During the modernization, we installed special software that allows remote access to the lighting control system. This allowed the power of lighting to be controlled on an ongoing basis. This, in turn, helps to enhance safety in tunnels, e.g. by increasing the brightness of a few luminaires located closest to the one that was damaged.

Street lighting is not just streetlights and masts at road junctions. It's also about lamps in tunnels and underground passages. Since the luminaires there are lit 24 hours a day, we place much emphasis on replacing them.

We began installing LED luminaires to replace the sodium ones in tunnels and underground passages on a larger scale in 2018. By 2021 inclusive, 29 tunnels and passages gained modernized lighting. In 2022, we operated in another 11 locations.

The largest lighting operation was carried out in the tunnels along Wisłostrada. Before the replacement, 370 lamps provided light in the eastern tunnel, and 384 – in the western tunnel. There were 754 luminaires in total. **Now there are 386 LEDs – 179 in the eastern tunnel and 207 in the western tunnel.**

The tunnels became brighter, and the new equipment will at the same time provide savings. The replacement will reduce energy consumption by 1,349 MWh (megawatt hours) per year, which is about 69%. This is important in an era of rising electricity prices – in 2022, we paid PLN 873 per MWh, from 2023 the rate is already PLN 1,265.55 per MWh.

SAVINGS

- With the replacement of lighting in **11** tunnels and under viaducts in 2022, better light is provided by **649 LED luminaires** (instead of 1,219 sodium luminaires).
- Annual energy consumption in these locations will drop **2,508 MWh to 701.9 MWh**.
- The annual cost of consumed energy will be approx. **PLN 888,300**. With an electricity rate of 1,265.55 gross per Mwh for 2023, we will save as much as approx. **PLN 2.3 M**.

Tunnels and underground passages with lighting replaced in 2022

	BEFORE MODERNIZATION		AFTER MODERNIZATION		SAVINGS
	number of luminaires	annual energy consumption	number of luminaires LED	annual energy consumption	
two tunnels along Wisłostrada	754	1,962 MWh	386	613 MWh	69%
in a sequence of Żegańska St. and Zwoleńska St. under the railway tracks and under Patriotów St. and K. Szpotkańskiego St.	133	285.6 MWh	76	22.6 MWh	92%
Łazienkowska Route at the Statistics Poland building (underground passages)	190	149.8 MWh	63	18.2 MWh	88%
Prozy St. under Wybrzeże Gdynskie St. (three road tunnels)	35	10.2 MWh	35	4.2 MWh	59%
Farysa St. under gen. M. Wittek Av.	18	5.3 MWh	22	2.7 MWh	49%
płk. R. Kuklińskiego Av. under Modlińska St.	18	10.8 MWh	18	3.5 MWh	68%
Myśliborska St. under płk. R. Kuklińskiego Av.	18	26 MWh	10	8.3 MWh	68%
Świdowska St. under płk. R. Kuklińskiego Av.	22	23.9 MWh	13	5.6 MWh	77%
Trakt Nadwiślański St. under płk. R. Kuklińskiego Av.	10	14.5 MWh	10	4.6 MWh	68%
Książąt Mazowieckich St. under gen. M. Wittek Av.	4	11.7 MWh	8	9.7 MWh	17%
under 4 Czerwca 1989 Av. at the height of Świętej Rodziny St. (underground passage)	17	8.2 MWh	8	9.5 MWh	—
IN TOTAL	1,219	2,508 MWh	649	701,9 MWh	72%

Additional lighting at crosswalks

Proper lighting of crosswalks is a very important element that improves pedestrian safety. So we are successively providing more crosswalks with additional lighting. In 2022, 299 crosswalks became brighter after dark.



HOW IT WORKS

The additional lighting involves installing additional light sources in the crosswalk area. Their main task is to illuminate pedestrians at crosswalks and accesses to crosswalks. The lights are positioned precisely to make pedestrians as visible as possible while not blinding drivers.

We improve road safety in many ways. These include illuminating crosswalks. This is one of our main projects, and we have been implementing it on a large scale for seven years.

In 2016, installation of new poles and light luminaires at crosswalks started in the fall, so only 79 crosswalks became brighter at that time. From the following year, we were already operating in full swing. In 2017, we provided 353 crosswalks with additional lighting, in 2018 – 405, and in 2019 – 342. In 2020, we improved brightness in 272 locations, and in 2021 – in only 9 (under the civic budget). Such a small number is the result of an unresolved tender due to the pandemic-induced high prices.

In 2022, we returned to additional lighting and operated in 299 locations. These included those crosswalks that were on the list the year before. **In total, we brightened already 1,759 crosswalks.** To these should be added those that were improved during comprehensive street reconstructions and smaller projects carried out by district offices on local streets in residential developments.

TECHNICAL REQUIREMENTS

30 lux
THE MINIMUM AVERAGE VALUE OF VERTICAL ILLUMINANCE IN THE WAITING ZONE

50 lux
THE MINIMUM AVERAGE VALUE OF VERTICAL ILLUMINANCE AT THE CROSSWALK

5000-5700 K (cold color)
REQUIRED COLOR TEMPERATURE OF THE LED LUMINAIRE IT SERVES TO DISTINGUISH THE CROSSWALK FROM THE WARM-COLORED ILLUMINATED ROADWAY.

There are two ways to improve pedestrian visibility at crosswalks:



Extra lighting sources

This method involves installing extra light poles and luminaires that are designed to light up pedestrians crossing the crosswalk.



One-to-one replacement of poles

It involves removing the old streetlights located right next to the crosswalks and inserting new ones with double booms in their place.

Crosswalks provided with additional lighting in 2022

NUMBER OF CROSSWALKS WITH ADDITIONAL LIGHTING:

- 1
- 2
- 3
- 4



Plans for the future

The SAVAs hanging on Warsaw's main streets will be followed by further energy-efficient LED luminaires. They will hang on about 2,500 communal streets managed by districts. The replacement, which will begin in 2023 and continue for two years, will be coordinated by ZDM. More than 35,000 lamps will provide further multi-million savings for the city budget.



Lighting on the roads controlled by ZDM has been replaced since the beginning of 2022. Every week, we hang several hundred more SAVA lamps in place of the old sodium luminaires (details on pages 50-51). Since we thus gained the experience needed for this kind of project, the mayor of Warsaw entrusted us with its second part – the replacement of lighting on communal streets managed by districts.

This is motivated by the acceleration of the lighting modernization process. At the end of 2022, only 18 percent of the lamps that light up residential streets, which are mostly city district roads, were LED-based. The rest were primarily sodium luminaires. In addition, the replacement has not progressed equally everywhere so far – e.g. in Ochota, there were more than 50 percent LED luminaires, and in Wawer – only 4 percent.

Therefore, in the fall of 2022, we announced a tender for the replacement of lamps on city district roads. The winner will manufacture and deliver 35,341 LED luminaires, and their installation will begin in 2023 and will be a smooth continuation of the installation of LEDs on streets controlled by ZDM. We estimate that it will take 18 months to replace all the luminaires on the roads supervised by districts. LED luminaires should therefore light up all of Warsaw as early as at the turn of 2024 and 2025.

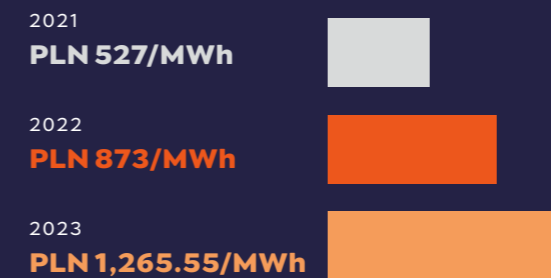
JUST LIKE SAVA

The LED luminaires that will be hung on communal roads will resemble the SAVA luminaires already known to Varsovians. Some of them (4,907 out of 35,341) will be smaller – they will be matched to the lower light poles that also stand along residential streets.

Multi-million savings



SYSTEMATIC INCREASE IN ELECTRICITY RATES:



ANNUAL ENERGY FEE

APPROX. PLN 50 M
LAST YEARS

TURN OF 2024 AND 2025:

APPROX. PLN 40 M
ESTIMATED AMOUNT
OF ENERGY BILLS
ONCE LUMINAIRES
ARE REPLACED

APPROX. PLN 120 M
WITHOUT REPLACING
LUMINAIRES AT
CURRENT ELECTRICITY
PRICE DYNAMICS

Safety

A good infrastructure is the one that ensures safety of all road users. So we are consistently making changes on managed streets – building traffic lights, providing more crosswalks with additional lighting and implementing new traffic organizations. We also conduct related analyses and measurements.

Did you know that...

As a result, in 2022, Warsaw was among the final three cities nominated for the prestigious **European Urban Road Safety Award**. The European Commission thus recognized our capital for the comprehensive audit of crosswalk safety conducted by ZDM and our successive implementation of the resulting recommendations.

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Road traffic analyses

Knowing what traffic is like is crucial when managing roads. Thus, ZDM conducts measurements of traffic volume and speed. We have just completed a major modernization and expansion of the automatic traffic measurement system.



127
TRAFFIC
MEASUREMENT POINTS



981,546
AVERAGE NUMBER
OF VEHICLES PER
MEASUREMENT DAY ENTERING
AND LEAVING THE CENTER
(DOWNTOWN CORDON)

673,446
AVERAGE NUMBER
OF VEHICLES PER DAY
PASSING FROM ONE BANK
OF THE VISTULA TO THE OTHER
IN BOTH DIRECTIONS

199,447
AVERAGE NUMBER
OF VEHICLES PER DAY ARE
CAPTURED ON THE MOST
CONGESTED SECTION
OF THE ROAD – ON THE
GROTA-ROWECKIEGO BRIDGE

Traffic volume data is one of the basic information used by the road manager. They are also useful to other institutions, such as the Traffic Management Office. They are used, among others, to model the impact of changes in the transportation system on traffic, to design new roads or to determine traffic light programs.

The system used for this is known as Automatic Traffic Measurement (APR). Its first version was based on the Warsaw Traffic Research (WBR), carried out in 1993. At that time, only the number of cars crossing all of Warsaw's bridges was measured. This was to test traffic recording devices in urban conditions. These were primarily RPP-2 type counters, which used pneumatic sensors. In simple terms, these were wires laid across the roadway that sent pulses when driven upon and thus counted the cars. The technology was not perfect as passing cars could break the sensors. Therefore, measurements were partly carried out with RPP-3 type recorders using induction loops. They were the basis for the first APR system, which was launched in 1998.

LARGEST SYSTEM IN THE COUNTRY

By then, the system had been in development for five years. ZDM was responsible for logistics thereof. At our request, the Warsaw Development Planning Office (BPRW) prepared an expert report, based on which locations of traffic measurement points were indicated. Their designation was supervised by, among others, a team headed by communications engineer Professor Wojciech Suchorzewski. Thus, so-called cordons and volume-counting screens were created at distinctive points of the city. The first cordon was the one based on the borders of Warsaw, the next one is close to the course of the city ring road. Closer to the center, research is conducted on a downtown cordon, based on the downtown ring road. We also measure traffic on a bridge screen (i.e., on all bridges over the Vistula) and a cross-city railway line screen. The system is complemented by an airport cordon in Okęcie and a cordon in Ursynów (selected as a representative residential district).



VARIOUS NUMBERS OF MEASUREMENT POINTS AND COUNTERS

The APR system consists of 127 measurement points with 198 counters. This is because in some wider sections, more than one device is needed to measure all traffic on the roadway.

Technological support for the system was provided by the Road and Bridge Research Institute VERUM. Its responsibility was to design and manufacture vehicle recorders. The result was the country's largest traffic measurement system, which initiated annual surveys.

Comparing it with the measurements conducted earlier, it was like a cell phone against a rotary dial phone. The system, developed in subsequent years, allowed not only counting vehicles driving in Warsaw, but also classifying them into 3 groups: cars, vans and short trucks, long trucks and buses. It also made it possible to obtain information on the speed of moving cars (this function is provided by RPP-5 counters). When used on sections between intersections (so-called inter-junction sections), it gave an answer to how much they are loaded.

Each year, the system expanded to include more measuring stations, i.e. devices with which we conducted measurements at predetermined points. The devices were getting better, too – the last used counters of the RPP-6 type (29 are still in operation) were equipped with a GSM modem, i.e. a module for sending data to the ZDM server. Previously, our employees had to drive up to the measurement points every month to save the results.



MAJOR REPLACEMENT OF RECORDERS

The APR operated unchanged until the end of 2019. At that time, it counted 114 points, including 18 locations where measurements were carried out around the clock throughout the year. In the others, measurements were taken in rotation – on selected weeks during measurement-relevant periods.

Since its infrastructure was heavily exploited, we decided to modernize the system as of 2020. This involved a major reconstruction of existing traffic measurement stations and construction of new one (there are 127 in total now). In the former case, we made new induction loops, provided a permanent 230V power supply at night from streetlights, and installed the necessary components to operate the points.

In 2021-2022, we equipped the previously prepared infrastructure of measuring stations with modern Feig recorders and MLR bike traffic counters manufactured by Smartmicro. **There are 169 Feig recorders and 39 MLR counters available.** This includes the 29 RPP-6 traffic recorders still in use, which will eventually be replaced by more Feigs. There are also 6 more MLRs to come.

With this comes another step in the development of APR – we pass from the cell phone into the smartphone era. The modernization, above all, has already expanded the generic structure of vehicles. The vehicles captured during the measurements are now classified by the system into 9 groups: cars, vans, cars with trailers, trucks, trucks with trailers, semi-trailer trucks, buses up to 12 meters in length, buses over 12 meters in length (articulated) and motorcycles. This allows us to know how many of the vehicles registered at a given measuring point are, e.g., cars, buses or motorcycles.

TIME FOR BIKE COUNTERS

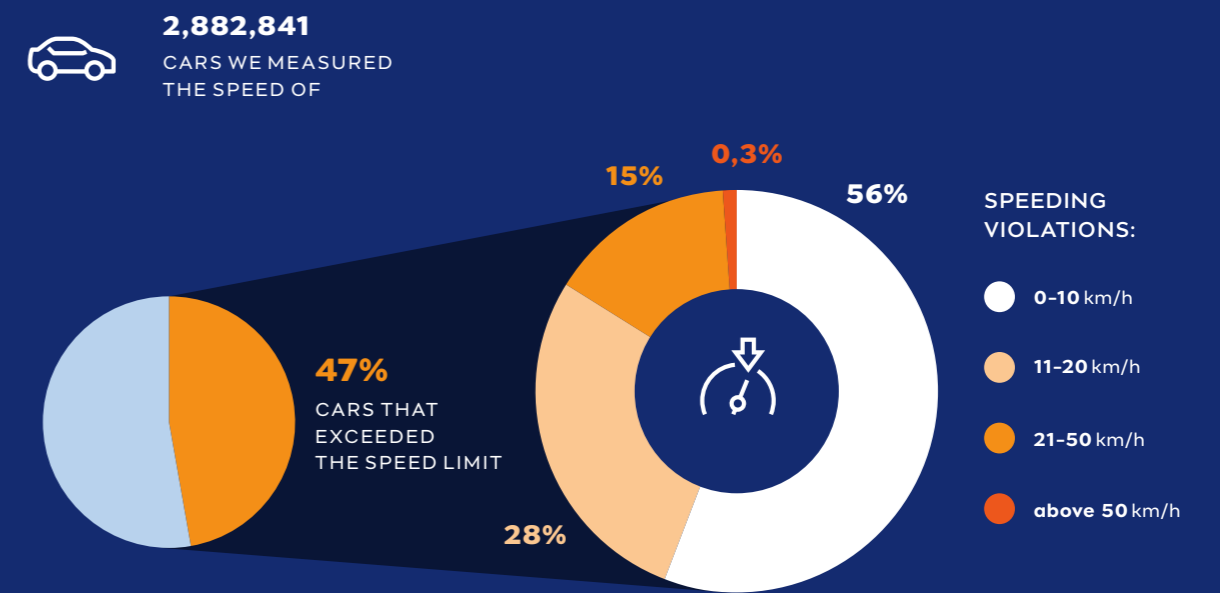
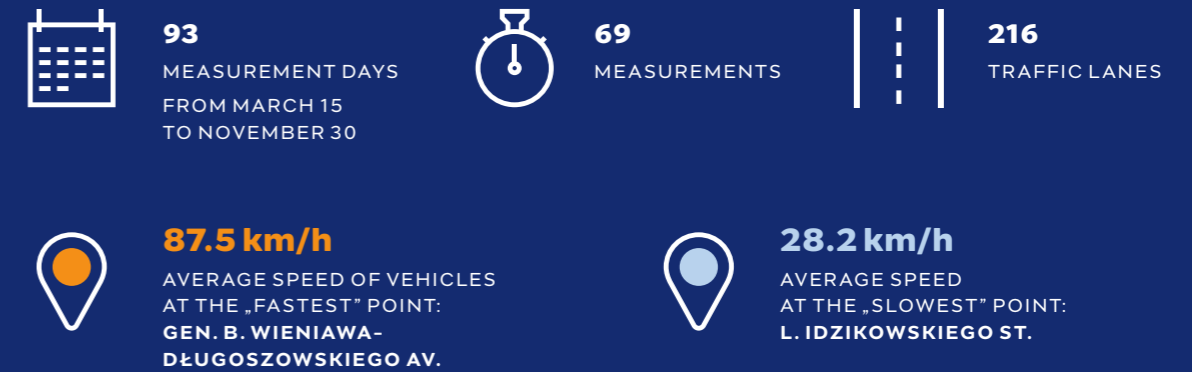
The new recorders have also enabled us to continuously measure traffic volume and survey speeds at all points. Previously, we conducted measurements in rotation – at least once a year at each point. Now the data comes to us online – it is delivered to our servers after each day.

Bike counters are an important complement to the system. They allow us to obtain information about the number of people more and more willing to choose their bicycles as a means of transportation.

Measurement data from last year can be accessed on the ZDM website zdm.waw.pl/dzialania/badania-i-analzy/analiza-ruchu-na-drogach/analiza-ruchu-na-drogach-2022. The next step of the system's development will be to make the data more widely available so that everyone can consult it on the ZDM website.



Surveys of instantaneous speed and traffic volume 2022



Exceeding the speed limit by drivers is one of the largest threats to traffic safety. The scale of the problem is shown by annual surveys of the instantaneous speed of vehicles on Warsaw streets. In 2020, due to the coronavirus-induced lockdown and looser streets, drivers sped up. In 2021, the pandemic situation began to improve, and we assumed that increasing traffic congestion would slow down the drivers. Unfortunately, they continued to often speed up too much. In 2022, however, they slowed down, and this was due to

the tightening of traffic regulations from January 1, including an increase in fines and penalty points for excessive speeding. This is confirmed by our measurements – in 2021, the speed limit was exceeded by 59% of registered vehicles, in 2022 they accounted for 47%. The percentage of exceedances of more than 50 km/h, for which the driving license is lost, decreased significantly. In 2021, nearly 35,000 (1.41%) such cars were reported, while in 2022 – only 4,000 (0.3%).

Changes in traffic organization

Changes in traffic organization contribute to the improvement of safety. We introduce them not only during major street reconstructions and renovations, but also individually – based on an audit of all crosswalks without traffic lights in the city. These include construction of refuge islands, installation of speed bumps and changes in roadway geometry. We also designate ground crosswalks.



4,093

CROSSINGS WITHOUT TRAFFIC LIGHTS ON ZDM ROADS IN WARSAW THAT PASSED THE AUDIT

481

CROSSINGS RATED LOWEST AND QUALIFIED FOR RAPID INTERVENTION

430

CROSSINGS WHERE WE MADE CHANGES IN ACCORDANCE WITH AUDITORS' RECOMMENDATIONS, INCLUDING 207 „ZEROS” AND „ONES”

56

CROSSINGS RATED 0 AND 1 WHERE WE WORKED IN 2022.

40%

OF THE MOST DANGEROUS CROSSINGS WERE RECONSTRUCTED

Ground crossings improve comfort and safety of pedestrians. They are created in dozens of locations in the city each year, but the most important are those that replace tunnels or footbridges, or make it unnecessary to travel long distances to legally cross the roadway.

Over the last 9 years (2014-2022), we created 54 such crossings that improve accessibility in Warsaw. In 2022, we designated them in 12 locations. The most important location – best demonstrating the usefulness of new ground crossings – is Dmowskiego Roundabout. We created 4 crosswalks around it – across Marszałkowska St. at the height of Widok St. and Nowogrodzka St. and across Jerozolimskie Av. at the height of Parkingowa St. and Poznańska St. Thanks to them, when traversing the very center of Warsaw, it is no longer necessary to go underground. They save time and, most importantly, make it easier to enter lengthened and widened tram stops, which was previously almost impossible for people with limited mobility (see page 15 for information on traffic measurements at the roundabout).

We also reconstruct existing crossings. We implement changes that are the result of a 2016-2020 audit of 4093 crosswalks without traffic lights – all on roads managed by ZDM. We first improve safety at those crossings that received a score of 0 or 1 on a scale of 0 to 5.

In 2022, we improved safety at another 105 crosswalks.

The first place was taken by gen. R. Abrahama St. While designating bike lanes and arranging parking space, we made improvements at 10 crossings, of which as many as eight were previously rated 0. We shortened all of them and eliminated parking in their immediate vicinity.

We applied a similar solution on Sokratesa St. and its cross-streets. When constructing roundabouts at the intersections with Kaliszówka St. and S. Petöfiego St., we reprofiled their entries along with crosswalks. In addition, we widened existing



refuge islands at crosswalks across Sokratesa St. In total, we improved safety at 13 crossings there.

We also widened the refuge island on Ujazdowskie Av. – at the height of the Chancellery of the Prime Minister. Pedestrians gained additional safe space to cross the roadway, and the traffic was calmed down. And in turn, we created an additional refuge island. by shortening the crossing, on Obozowa St. in the area of Radziew St. and Wawrzyszewska St. On both roadways, we installed prefabricated islands on the left lanes. Thus, pedestrians gained more space and after leaving the platform of the tram stop, they no longer enter the traffic lane directly.

In several places, the best way to improve safety proved to be the installation of speed bumps. We applied such a solution on L. Idzikowskiego, Wrocławska and K. Gierdziewskiego St., among others. On the latter street, we “pasted” speed limiters into the asphalt before reaching the intersection with Posag 7 Panien St. and Czerwona Droga St.

To calm down and organize the traffic, we also put bollards. They were erected where it became urgently necessary to protect sidewalks and crosswalks from parked cars – including on Globusowa St., Egipska St. and at the intersection of Namysłowska St. and S. Starzyńskiego St.

Traffic lights

Traffic lights calm down and order traffic and thus improve safety. Since they are an expensive solution, their construction is preceded by thorough analysis. In 2022, we equipped a total of 13 busiest intersections and crosswalks with traffic lights.

INTERSECTIONS AND CROSSINGS



881
WITH TRAFFIC LIGHTS



634
WITH ACCOMMODATIVE TRAFFIC LIGHTS – ADAPTING LENGTHS OF TRAFFIC LIGHTS TO THE TRAFFIC VOLUME



392
WITH TRAFFIC SIGNALS EQUIPPED WITH AUTOMATIC PEDESTRIAN DETECTION

There are 881 intersections and crosswalks with traffic lights in Warsaw. The so-called adaptive traffic lights amount to more than 630 already (excluding the oldest installations); they adjust their green signal length to the traffic volume. This makes it easier for all traffic participants to circulate.

We take care of the traffic lights consistently – to make safety and traffic flow the best they can be. To this end, in 2020, by signing a new contract with the light maintainers, we extended their scope of work as part of ongoing maintenance. Thanks to this, we not only remove defects, but also replace all obsolete elements to prevent failures.

In 2022, we erected or renovated traffic lights at 35 intersections and crosswalks throughout Warsaw. In places where it was necessary to calm down the traffic and increase safety, we constructed new traffic lights. This happened at 13 intersections and crosswalks. New traffic signals emerged at the intersection of L. Kondratowicza, Blokowa and Przy Grodzisku St. First of all, however, we put them at crossings – this was the result of the 2016-2020 audit of all crosswalks without traffic signals. We erected lights in places where, according to the auditors, no other solution would work. Pedestrians gained traffic signals, among others, at crossings on Człuchowska St. (at the height of Okoliczna St.), on B. Czecha St. at Wawerska St. and H. Wierchowskiego St.), on Żegańska St. (in the area of property 22c) and on W. Reymonta Av. at Żbikowianka St.

In places where the traffic signals were old and exploited, we carried out renovations. This was the case at the intersections of Grójecka St. and W. Korotyńskiego St., I. Krasickiego St. and A. Malczewskiego St., Wólczyńska St. and Sokratesa St., Gwiazdzista St. and Z. Krasińskiego St., Trakt Brzeski St. and 1 Praskiego Pułku St., Wilanowska Av. and Lotników St.

The total amount we allocated in 2022 for the construction, reconstruction, adaptation to the new traffic organization and maintenance of traffic signals was nearly PLN 43 M.



OTHERS ARE BUILDING TOO

In 2022, traffic lights were also built by other units and private investors. The General Directorate for National Roads and Motorways improved safety at two crosswalks on I. Gandhi St. – at the height of L. Teligi St. and L. Hirszfelda St. The installation of traffic lights (based on designs prepared by ZDM) in both locations involved adapting the sequence of I. Gandhi St. and J. Rosoła St. to the emergency detour of the S2 expressway tunnel. In turn, developers operated, among others, on Marywilka St. in the area of the intersections with Inowłodzka St. and Kupiecka St., where they erected traffic signals in four locations (details on pages 38-39).



The Integrated Traffic Management System

The Integrated Traffic Management System contributes to the smoothness and improvements of traffic in Warsaw. It's a network of cameras and sensors that grows every year and already covers more than 410 intersections.



In everyday life, the Integrated Traffic Management System (ZSZR) is almost unnoticeable. It is hidden in the form of video surveillance, detectors and kilometers of cables which, located in traffic lights masts and characteristic boxes near sidewalks, allow traffic control. This allows residents to travel safely and smoothly through the city.

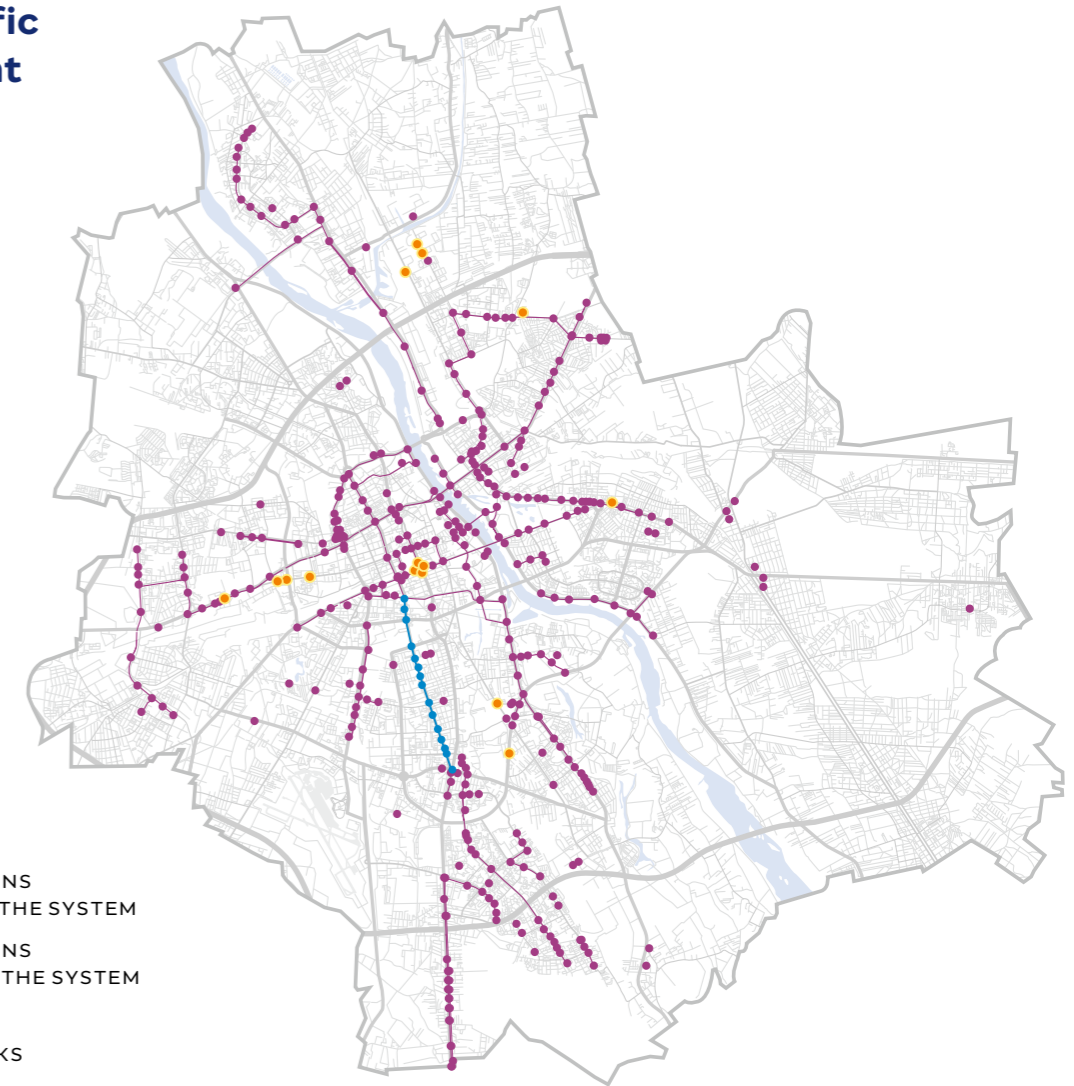
ZSZR has been operating since the fall of 2008. It was created to organize and control traffic in the supervised area, provide priority to public transport vehicles and inform road users about road incidents. When the system was launched, its list included 37 intersections: along Wiślostrada from the Gdański Bridge to W. Witosa Av. and on Jerozolimskie Av. from Waszyngtona Roundabout to Zawiszy Sq.

This was the basis for the creation of a modern and fully functional system for managing traffic in the city, which expanded every year to include more intersections and crosswalks with traffic signals. In 2022, it included another 16, such as four crosswalks designated around Dmowskiego Roundabout and the intersections of M. Kasprzaka St. with Płocka St. and Prymasa Tysiąclecia Av. In nearly 15 years, ZSZR expanded as much as elevenfold and already includes 411 locations.

Traffic improved at the intersections included into the system. In a day, more cars pass on them than before – between 10 and 20% according to our estimates. This is the result of a reduced number of cars stopped at traffic lights. The key here is the **Yuttraffic MOTION** algorithm, which operates over a considerable area of ZSZR. Reacting in real time, it controls the traffic signals connected to the system in such a way that as many cars as possible are let through.



Intersections covered by the Traffic Management System



LEGEND:

- INTERSECTIONS COVERED BY THE SYSTEM
- INTERSECTIONS INCLUDED IN THE SYSTEM IN 2022
- DESIGN WORKS

Based on the data it collects from detectors deployed on streets and intersections, **Yuttraffic MOTION** shows the current traffic and predicts the traffic that may develop. Using complex control algorithms, every 3 minutes, it generates triggerable signaling programs appropriate to the predicted situation on the street. This involves calculating the length of cycles that should be applied to ensure the best possible throughput at a given intersection (other parameters responsible for traffic control at the intersection are also calculated). The system analyzes the generated programs on an ongoing basis, and then selects for implementation the one that, based on the collected data, will work best, i.e. will allow more vehicles to pass through the intersection that begins to congest. Programs are changed every 5-15 minutes, depending on the traffic.

MORE INTERSECTIONS IN THE TRAFFIC MANAGEMENT SYSTEM (ZSZR)

ZSZR will expand to other locations in the years to come. The system will include 14 intersections along Niepodległości Av. We are preparing to renovate the traffic signals controlling the traffic there and to adapt them to operate in accommodation and coordination. To this end, we are drafting traffic organization projects to be approved by the Traffic Management Office.

Routine maintenance

Streets are hundreds of thousands of pieces of road infrastructure. Taking care of their maintenance, we control the technical condition of roadways, sidewalks and engineering facilities all year round and almost around the clock. We also inspect the right of way, e.g., for illegal advertisements.

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Emergency Breakdown Services

The ZDM's Emergency Breakdown Services is essential for the city to function as it should. Our employees watch over the condition of the road infrastructure 24 hours a day, seven days a week. In 2022, we secured nearly half a thousand failures that threatened traffic safety.



WARSAW 19115 CITY CONTACT CENTER

This is the most popular channel for reporting defects. Through it, we received more than half of the notifications for the repair of road infrastructure. In total, we received **48,652** reports on various cases.



SURFACE REPAIRS

The order of intervention depends on the scale of the failure. Priority is given to those that directly threaten the safety of road users – they are removed within **24 hours** after reporting. Others, depending on the road category, within **3, 6 and 9 days**.

We constantly monitor the streets under our control for defects. The interventions were primarily the result of our daily patrols and reports from residents and other units.

In 2022, as in previous years, we most often repaired defects in lighting (representing as much as 38% of all interventions) and traffic signals. We were called several thousand times to the damaged roadway surface. **To protect the spalling, we used 15,565 kg of cold mix.** This is nearly 623 bags of 25 kg, where such mix is most often packed. In this way, we temporarily secured the infrastructure. Ultimately, we commissioned our contractors to repair it permanently with mastic asphalt.

Not all of the reports were related to the roads that are managed by ZDM. In such cases, we immediately secured the failure site and forwarded the information to the relevant unit.

In 2022, we conducted mobile road scanning for the first time to automate defect detection. It was a pilot project – with the eyes of the cameras we recorded 150 km of selected roads (more on pages 88–89).

WE MADE 499 INTERVENTIONS THAT DIRECTLY THREATENED TRAFFIC SAFETY. MOST OFTEN THEY CONCERNED:

- | | |
|--|---|
| 145
DAMAGED SIDEWALK SURFACE | 64
DAMAGED ROADWAY SURFACE |
| 90
DAMAGED POST PREVENTING ENTRY TO THE SIDEWALK | 48
DEFICIENCIES IN ROAD SIGNS |



48,652 REPORTS REGISTERED IN 2022

 18,305 STREET LIGHTING	 1,318 ADVERTISEMENT IN THE RIGHT OF WAY	 515 GRAFFITI
 6,537 TRAFFIC LIGHTS	 1,282 DAMAGED POST PREVENTING ACCESS TO THE SIDEWALK	 412 DAMAGED SEWER MANHOLE
 6,058 DAMAGED ROAD SURFACE	 971 DAMAGED OBSTACLE POST (PYLON) on islands and refuges at crossings	 386 EMERGENCY OCCUPATION OF THE RIGHT OF WAY
 5,056 DEFICIENCIES IN ROAD SIGNS	 915 OCCUPATION OF THE RIGHT OF WAY	 312 FLOODED ROADWAY
 2,059 DAMAGED SIDEWALK SURFACE	 631 PARKING IN MPZ	 272 WORN-OUT HORIZONTAL MARKINGS



Bridge and engineering facilities

The road infrastructure also includes bridges, viaducts, footbridges, tunnels, underground passages and noise barriers. We take care of their good technical condition so that they continue to serve Varsovians and visitors. We also improve their accessibility.

KEY NUMBERS



83,100 m²

AREA OF CLEANED ENGINEERING FACILITIES

PLN 14.7 M

AMOUNT ALLOCATED FOR MAINTENANCE OF BRIDGE AND ENGINEERING FACILITIES

In Warsaw, there are 534 bridge and engineering facilities, including 65 bridges. We constantly inspect them so that residents can use them safely. The maintenance carried out includes local repairs to bituminous surfaces, replacement of prefabricated beams, repairs to concrete surfaces of spans or energy-intensive barriers. We provide anti-corrosion protection and clean noise barriers, cornices, railings and bridge facades.

In 2022, we finalized the refurbishment of the viaduct along Saska St. over Stanów Zjednoczonych Av. We renovated the stairs on the west side of the facility – we replaced the steps and railings. We completed the investment with the renovation of two elevators on the southern side of the bridge. We installed a new system to control the equipment, and also fitted new doors, buttons and displays.

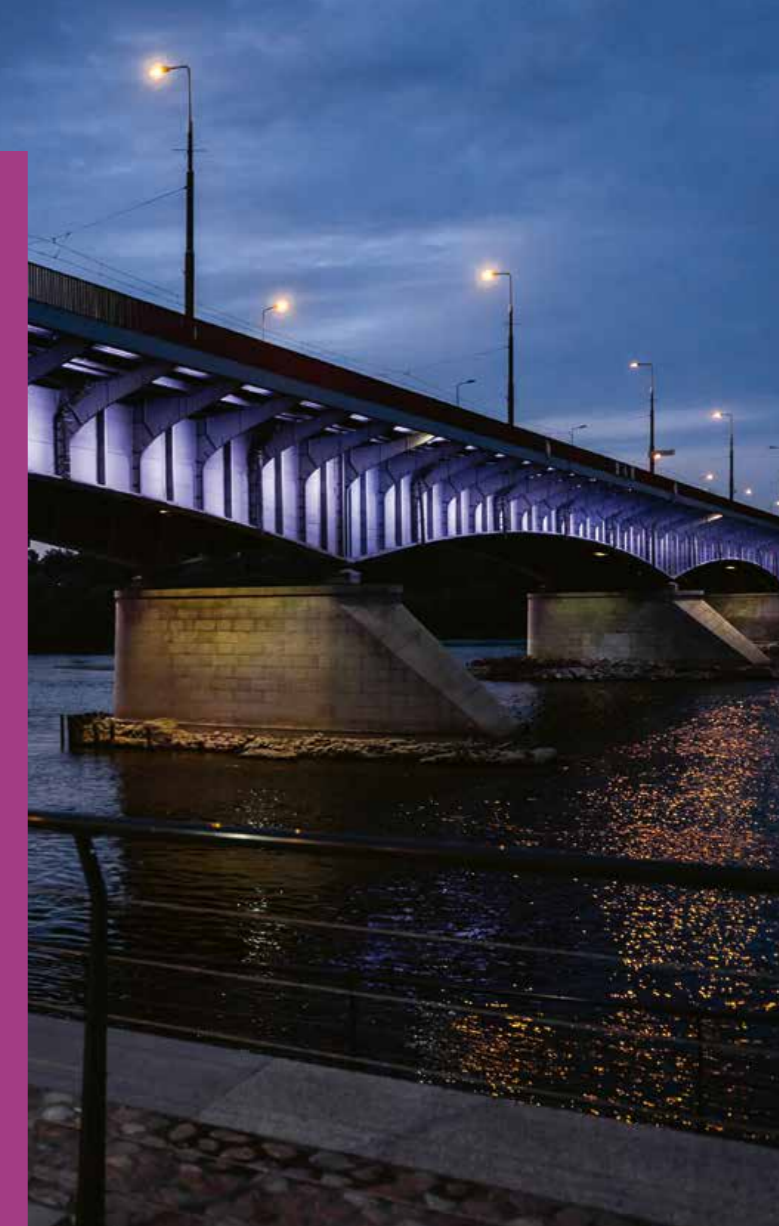
Our activities also involved new investments. **We started to renovate the viaduct along Marywilaska St.** The structure was scheduled for dismantling and reconstruction in its entirety. Despite an attempt to maintain traffic on it during the works, for safety reasons it became necessary to demolish it in its entirety instead of refurbishing it in halves. Thanks to the mild weather, it was possible to complete the structure of the new viaduct during the winter season.

In the fall, we settled two important tenders. The first relates to the renovation of the Poniatowskiego Bridge viaduct – the works will cover the entire structure of the viaduct and will consist in restoring concrete and stone elements and retaining walls. The second concerns the renovation of the viaduct in the sequence of Potrzebna St. and Świerszcza St. over Globusowa St. The facility will gain a new platform plate, and the supports (known as abutments) will be chipped and rebarred – thus adjusting them to the position of the plate. Both investments are scheduled to begin in 2023.



NUMBER OF BRIDGE AND ENGINEERING FACILITIES

65 BRIDGES	84 PLATFORMS
39 FLYOVERS	4 ESCALATORS
159 VIADUCTS	43 UNDERGROUND PASSAGES
73 FOOTBRIDGES	58 km OF NOISE BARRIERS
33 TUNNELS	56 RETAINING WALLS
122 CULVERTS	308 GANTRIES
37 ELEVATORS	2 HOISTS



CLOSED TUNNEL FILLED WITH CONCRETE

Sometimes we have to face unusual challenges. Under ZDM-managed Prosta St., there was an 84 m long tunnel. It consisted of three 2.05 m high sections and was used to transport the press. It was created in the 1950s or 1960s, but stopped being used decades ago. Since it had not undergone any renovations for years, its condition was dire. Renovation of the facility was not an option, and the only solution was to concrete it. We filled the tunnel space with 779 m³ of concrete. Thus, we secured the roadway of Prosta St. and the tram track. If the underground corridor still existed, its deteriorating condition could lead to cracking of the asphalt and slow collapse of the track.

Underground parking lots

ZDM has two underground parking lots for public use. Both are located in the city center and available for short-term parking. In 2022, we equipped them with a modern access control system.



BOARDS INFORM ABOUT VACANCIES

The new system allowed synchronization with electronic directional boards. Vehicles entering and leaving are carefully counted, and the information is immediately sent to boards located around the parking lots. There are four boards directing to the parking lot under Krasińskich Sq. and three – under L. Waryńskiego St. In addition, we installed new boards right above the entrance to both facilities – also displaying the current number of vacancies there.



NEW OPERATORS

In the fall of 2022, we selected new tenants for the garages to manage them from January 1, 2023. Its management consists in accepting parking fees from drivers, inspecting the garages' installations and technical equipment, paying utility bills, and carrying out minor repairs, the cost of which does not exceed PLN 6,000 at a time.

Underground parking lots under Krasińskich Sq. and L. Waryńskiego St. were constructed back in the 1990s. Recently, after many years, we decided to carry out the necessary renovation works. In November 2020, the parking lot under L. Waryńskiego St. gained new lamps and motion sensors, carbon monoxide detectors, video surveillance and electrical installation. Even more extensive works were carried out under Krasińskich Sq. – here, in addition to installing new energy-efficient lighting, we repaired the surface and sealed the walls and ceilings.

In 2022, we replaced the outdated parking system in both garages, which was responsible, e.g., for controlling access to the facility. The new devices are intuitive and easy to use. Drivers can use a large touchscreen to pay for a single stop (by debit card, cash or with BLIK) and a long-term subscription. When entering a parking lot, they do not need to collect a ticket – **precise cameras equipped with the Licence Plate Recognition (LPR) system automatically recognize license plates and open the parking barrier.** Holders of an active subscription can therefore enter and exit the parking lots freely, while others will pay for parking at one of the automated pay stations or at the exit terminal.

The system also allows for improved security. In the case of reporting the theft of vehicle keys or parking card, the operator has the option of putting the car on the “black” list, thanks to which the car will not be released by the parking system.

PARKING LOTS IN NUMBERS

407
PARKING SPOTS OF THE PARKING LOT UNDER KRASIŃSKICH SQ.

130
PARKING SPOTS OF THE PARKING LOT UNDER L. WARYŃSKIEGO ST.

Parking fees table

	PARKING LOT UNDER KRASIŃSKICH SQ.		PARKING LOT UNDER WARYŃSKIEGO ST.
Each commenced hour of parking	PLN 6		
24-hour parking	PLN 50	PLN 30	PLN 50
Weekend parking (Friday from 7 pm to Monday until 7 am)	PLN 100	PLN 50	PLN 100
24-hour monthly subscription	PLN 600	PLN 200	PLN 700
Monthly subscription, allowing parking up to 12 hours per day	PLN 450	—	PLN 500



Right of way

On the roads managed by ZDM, you can find many objects unrelated to the functions of the former. These are, e.g., commercial stands, kiosks and advertisements. To avoid decreasing the aesthetics and safety of the urban space, we ensure order in the right of way. We grant permission to occupy it based on clearly defined rules.



The restrictions introduced due to the coronavirus pandemic affected mainly those doing business. They were particularly experienced by those who use the urban space. Therefore, in 2020, on the initiative of the Mayor of Warsaw Rafał Trzaskowski, the city councilors lowered the rates for occupying the right of way. Those applying for a permit to set up a restaurant or cafe garden were given a 75% discount. The discount for those applying for permits for marketplaces, commercial pavilions, kiosks, signboards and awnings, poster pillars and information and advertising showcases amounted to 50%.

The reduced rates were also in force in the following year. In 2022, they returned to their pre-pandemic level, as did the season for catering gardens, which was longer than previously – it began on March 1 and lasted until October 31. Restaurateurs were already free to set up tables outdoors once the restrictions were lifted. Throughout last year, we issued 571 decisions for this purpose.

In total, in 2022, we issued 3,426 decisions permitting the operation of objects in the right of way that are unrelated to its function. The largest number of decisions concerned advertisements (975), followed by catering gardens (571), and commercial stands (542). Kiosks ranked fourth (454).

A significant part of the decisions issued concerns facilities related to the road function. These are mainly roadworks (including construction of connections and underground networks), but also commercial and social parking lots, car washes and petrol stations.

INCOME

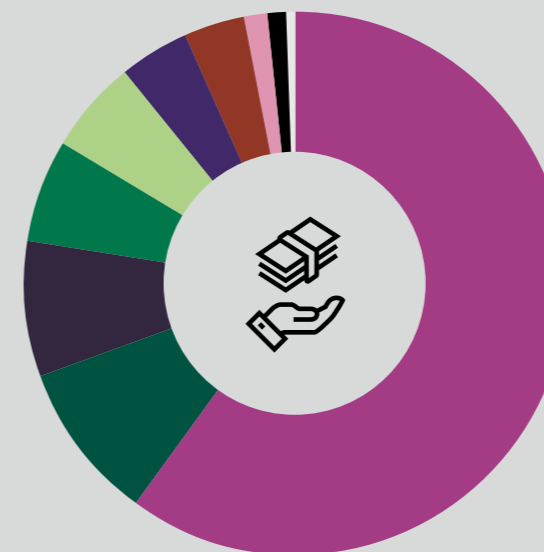
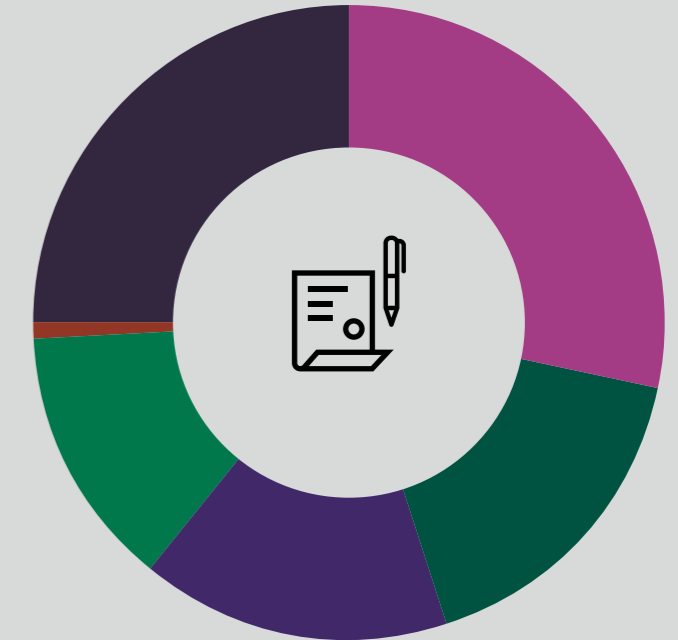
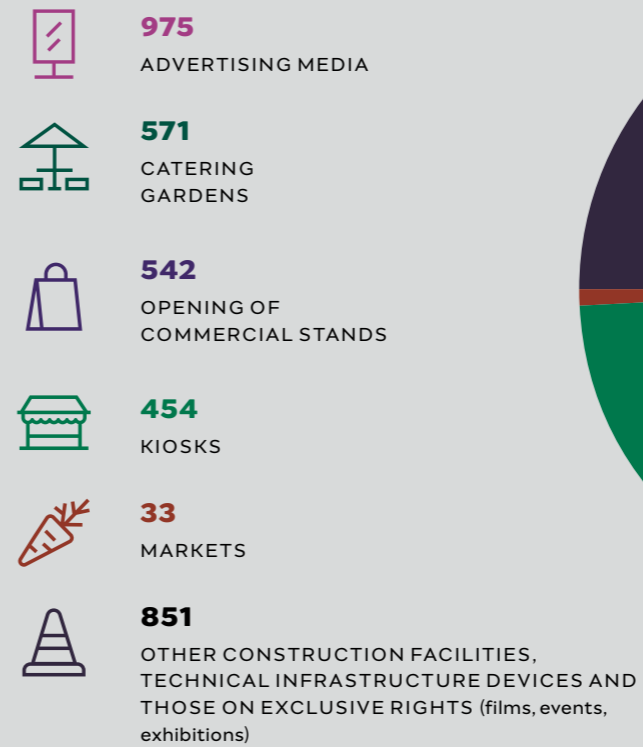
PLN 63.3 M

REVENUE FROM OCCUPYING THE RIGHT OF WAY IN 2022

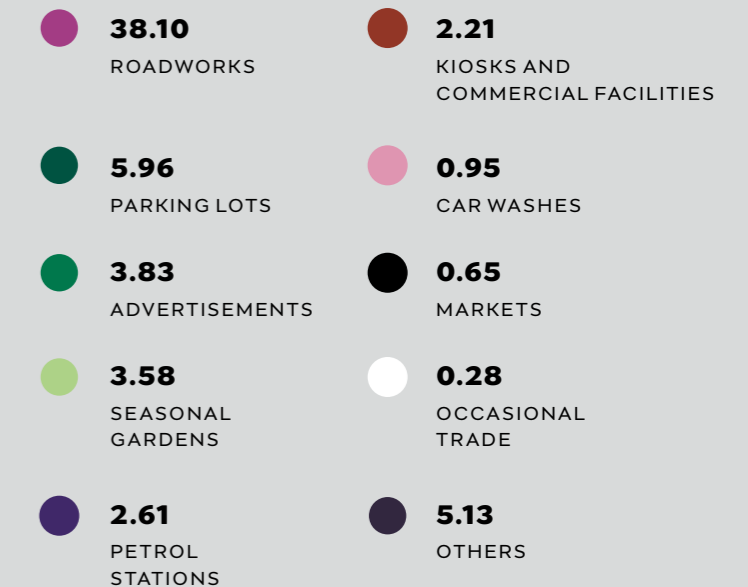
Right of way - balance sheet for 2022.

3,426 DECISIONS

PERMITTING THE OPERATION OF FACILITIES IN THE RIGHT OF WAY THAT ARE UNRELATED TO ITS FUNCTION ISSUED IN 2022, INCLUDING:



PLN 63.3 M REVENUE FROM OCCUPYING THE RIGHT OF WAY



Removal of illegal advertisements

Illegal advertisements disrupt the landscape and can even create a hazard by obstructing visibility. Therefore, we regularly inspect the right of way and remove advertisements that are placed without permission. In 2022, our employees carried out 16,700 inspections and removed 1,100 advertising media.



FINE

Pursuant to the Public Roads Act, a fine for occupying a right of way without the road operator's permit is ten times the fee for the period during which the advertisement was exposed. Fees for occupying a right of way by a medium vary and depend, i.a., on the size of advertisement, the time it was displayed and the road category. For example, a poviat right of way was occupied for 30 days by an advertisement with an area of 5 m², and the rate for occupying the right of way was PLN 3.10. By multiplying these values, the fine would be **PLN 4,650**.

Illegal advertisements not only adversely affect the aesthetics of public spaces, but can also decrease security. Sometimes advertising media limit the visibility for drivers and obstruct the passage for pedestrians. Therefore, the use of the right of way is constantly monitored by us for activities unrelated to the road function. We pay attention to whether the objects there, including advertisements, are located so that they do not hinder movement. We also check whether they have the necessary permit.

In 2022, we carried out a total of 16,723 inspections, including 11,584 related to advertisements. They resulted in the removal of illegal 613 advertising media and 518 other objects in the right of way. They included containers for used clothes and fencing.

Occupying the right of way without our permission comes with a fine. In 2022, we initiated 2062 administrative proceedings to fine owners of illegal objects (including 1145 proceedings related to advertisements) and issued 1304 administrative decisions imposing fines on owners of illegal objects (including 751 decisions related to advertisements).

IN NUMBERS

PLN 2,134,710

REVENUE FROM FINES FOR OCCUPYING THE RIGHT OF WAY IN 2022

613

REMOVED ADVERTISEMENTS

518

REMOVED OBJECTS IN THE RIGHT OF WAY, INCLUDING CONTAINERS FOR USED CLOTHES AND FENCING

Inspection of trucks

Truck traffic in the city is inevitable. However, one such overloaded vehicle can damage the road surface more than all the passenger cars traveling down a given street over a week. Therefore, together with the municipal police and the police, we inspect trucks.



2,149

TRUCKS INSPECTED

119

OVERLOADED TRUCKS DETAINED

101

ADMINISTRATIVE DECISIONS ISSUED TO FINE THE CARRIER

964,100

TOTAL AMOUNT OF FINES IMPOSED BY ADMINISTRATIVE DECISIONS

We started inspecting trucks in 2016, when we took over this task from the Road Transport Inspection. Unfortunately, as of March 2019, we had to suspend it – after the Court of Justice of the European Union repealed the regulations on the permissible axle load on Polish roads. Two years later, the necessary amendment to the Public Roads Act and the Traffic Law Act came into force, making Polish regulations consistent with those of the EU. Thus, we could resume inspections.

We conduct them in conjunction with the Municipal Police and the police, whose officers are authorized to stop cars. Vehicle load is measured using special mobile scales, deployed at one of seven inspection points. It is also within our competence to conduct administrative proceedings, aimed at imposing a fine on the carrier and, importantly, preventing the vehicle that is exceeding the standards from continuing transportation.

Fines range from PLN 1,500 to as much as PLN 15,000.

Their amount depends on the type of exceedances of dimensional-weight parameters.

Compliance with truck standards is one of the key elements in improving traffic safety. Overloaded trucks damage our roads – one such vehicle can damage the surface more than all the passenger vehicles traveling down that street over a week.

By cutting down on this, we save money on renovations, and we can allocate the money thus collected to investments.

We also improve traffic flow (overloaded vehicles are prone to breakdowns), protect the environment (by inspecting whether the vehicle pollutes the road), and improve the competitive environment between transport companies (by punishing unfair carriers).

IMPORTANT

According to the law amended in 2021, the default limit for trucks is **11.5 tons of load per axle**. Road operators may introduce additional stricter limits with special signage. Vehicles that are structurally adapted to a higher axle load can only travel with such a load with a special permit. Those who do not have such a permit can expect inspections and heavy fines.

Sale of removed vehicles

The aesthetics of the streets are adversely affected not only by advertisements, but also by abandoned cars. Therefore, we remove such cars, and if they are not taken back by the owner within 6 months, those in better condition are directed to auction instead of scrap. In 2022, we sold 45 towed cars for more than PLN 360,000.



THREE AUCTIONS

We issued the first tender to sell towed cars in the fall of 2021. At that time, we put 8 vehicles up for auction. 7 found new owners, and the amount we obtained for them was PLN 92,700. Taking into account the two consecutive auctions, we received **PLN 457,353** for the total of **53** cars sold so far.



14,664

IMPROPERLY PARKED CARS REMOVED IN 2022 (ART. 130A OF PoRD).

1,740

WRECKS TOWED AWAY IN 2022 (ART. 50A OF PoRD)

Vehicles from the capital's roads are removed only on the basis of instructions issued by authorized entities – the municipal police, the police or persons commanding a rescue operation. This is based on Art. 130a and 50a of the Traffic Law Act [PoRD].

In the case of Art. 130a, vehicles are removed when, i.a., they are left in a place where it is forbidden and they obstruct traffic or otherwise threaten safety. Under Art. 50a, vehicles left without registration plates or those whose condition indicates that they are not used are removed. Vehicles towed under Art. 50a – at the request of the municipal police or the police – go to the parking lots of companies with which we have contracts. There they wait for the owner or the person authorized to pick up the vehicle. If no one claims the car within six months, it becomes the property of the city by the virtue of law.

We sent unclaimed cars to scrap until 2021. However, there were exceptions – vehicles that did not require many repairs to get back on the roads. Therefore, we recognized that some abandoned cars, although classified as wrecks, do not have to be scrapped. In 2022, we put a total of 57 such cars up for sale through a tender procedure. **45 found new owners, and the amount we obtained for them was PLN 364,600.** This is a considerable amount, enough to renovate approx. 300 m of roadway. A total of 619 valid bids were received during two auctions. The most expensive car turned out to be a BMW 320D, sold for PLN 38,101. At the same time, it also attracted the most interest – as many as 111 people wanted to buy it. The second most popular car turned out to be a Nissan Juke with 74 bids. We sold several cars for an amount significantly above their starting prices. A Renault 5 put up for PLN 1,000 found a new owner for PLN 3,100, and a Saab 900 with a starting price of PLN 10,000 was bought for PLN 18,888.

The idea of holding such tenders proved to be a great success. Every year we plan at least one auction for the sale of cars that became the city's property after being towed pursuant to Art. 50a of PoRD. It is possible that in the future we will put up for sale cars removed pursuant to Art. 130a of PoRD.



MOST EXPENSIVE CARS SOLD IN 2022

PLN 38,101
BMW 320D

PLN 36,152
NISSAN JUKE

PLN 25,100
LAND ROVER FREELANDER

PLN 21,790
DODGE RAM

PLN 20,540
RENAULT MASTER



Municipal Information System

Good signage allows residents and tourists to smoothly navigate the city. Therefore, every year we update, modernize and maintain the nearly 96,000 elements that make up the Municipal Information System. With it, Warsaw became the first capital city in Europe to be so comprehensively marked.



722
NEW SIGNS INSTALLED
IN 2022

403
TRAFFIC ORGANIZATION
PROJECTS WE PROVIDED
OPINIONS ON
(for MIS items)

2,600+
CASES IN THE DEPARTMENT
DEALING WITH MIS

Today, virtually everyone has a map on their smartphone. However, a coherent and clear address information system is still essential for good orientation in the city's space. In Warsaw, this role has been played by the Municipal Information System for a quarter of a century. It's a set of signposts and plates with the names of streets and housing estates that, since the mid-1990s, still help people reach the desired address. Before that, Varsovians and visitors had to resort to a variety of plates with the numbers of tenements and blocks of flats, hidden in the shadows of store signs.

Sorting out the chaos began with the appointment of a large team of urban planners, varsavianists and officials operating at the City Hall. Their task was to divide the city within districts into areas corresponding to housing estates. The reason for this was that the administrative division of Warsaw at the time into municipalities and districts was too general to be used in an information system to facilitate orientation in the city. In parallel, in addition to the ongoing spatial analysis of the capital, the City Hall prepared a questionnaire, which was sent to dozens of cities around the world, including London, Boston and Tokyo. The respondents were city councils or departments dealing with city information. They answered questions about the creation of systems on a scale similar to MIS, how they are financed, costs and scheduling of their operations. They also explained how accurate the systems operating in their metropolises are and what elements of municipal information integrate the local community.

Subsequently, residents were given the floor, with whom the prepared proposals were consulted and, to a small extent, revised. Eventually, they were voted on by district councilors – this is how **143 MIS areas were created in a few years, the creation of which was the first step to ease getting around the city.**



REPAIR, MAINTENANCE, REPLACEMENT AND UPDATING OF **8,551 SIGNS**, INCLUDING:



6,361
STREET AND PEDESTRIAN
TRAFFIC DIRECTIONAL
PLATES



212
VEHICLE TRAFFIC
DIRECTIONAL BOARDS



379
PAID
INFORMATION
POINTS



427
MODULES ABOUT STREET
PATRONS AND IMPORTANT
HISTORICAL SITES



1,172
ILLUMINATED INFORMATION
POINTS AND COFFERS IN
UNDERGROUND PASSAGES





The second step was to implement MIS. Hanging of the plates, the design of which was prepared by Towarzystwo Projektowe [Design Company], began in 1996. The distinctive plates did not begin to appear in the entire city at once. First, only a few hundred were hung in the very center of Warsaw. These were demonstration versions, as the point was to gather opinions. Residents reported whether they are located on buildings at the right height, and whether the technical parameters used allow for proper perception and reception of signage.

It turned out that the plates and the font used needed to be slightly enlarged. In a revised form, they began to be installed in parallel in successive districts, with the direction leading from Śródmieście to the capital's border. Since Warsaw is the largest city in Poland, the process of filling it with MIS items was long and finally ended in 2005.

The result is the first such consistent signage system in Europe. Although it **was developed more than 25 years ago**, it has brilliantly stood the test of time. In terms of aesthetics, it has not aged at all and is completely unrelated to the era in which it was created. And it's a huge success - after all, many things designed in the 1990s are going out of fashion and look fusty and musty. **Meanwhile, the MIS plates proved to be virtually timeless, and no one imagines that they could be changed.**

From the very beginning, the system aroused admiration and interest in other large cities in the country. Their authorities began contacting capital officials about this matter. - Our system gave the hosts of other cities an impulse to organize public space and improve signage - admits Andrzej Przybyliński, head of the Municipal Information System department at ZDM.

Other urban settlements gradually began to implement similar systems. The first were large cities, mainly regional capitals. - Wrocław decided to rely on MIS to develop its own plates. On the other hand, Łódź adapted the Warsaw system almost one-to-one. When marking the street names, it used plates of the same size, layout and font. The only difference is the color scheme of the carriers themselves - admits Andrzej Przybyliński.

Over time, smaller cities created their own plates. They have also called on municipalities that, while renovating their streets, also wanted to make them easier for visitors to find. Today, e.g., many towns near Warsaw are marked in this way.



95,960
NUMBER
OF MIS ITEMS



Our projects

We do not limit ourselves to maintaining the infrastructure at an appropriate level. It is also important for us to contribute to the development of the city. We improve and modernize the Metered Parking Zone and the city bike system. We also undertook to automate the work of clearing defects in the right of way.

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Metered Parking Zone development

Some of the changes to the Metered Parking Zone [Strefa Płatnego Parkowania Nierozreżonego] adopted by the Warsaw City Council came into effect in 2022. The rates for parking in the zone were revalued and the additional fee for not paying for parking increased. By equipping foot patrols with an e-inspection system, drivers no longer have to put a parking ticket behind their windshield.

NUMBERS 2022

10,991,873

PARKED VEHICLES INSPECTED BY E-INSPECTION CARS

207,180

KILOMETERS TRAVELED BY E-INSPECTION CARS

331,964

ADDITIONAL FEE DOCUMENTS ISSUED BASED ON THE PASSAGE OF E-INSPECTION CARS

27,935

ADDITIONAL FEE DOCUMENTS ISSUED BY FOOT PATROLS

MOBILE PAYMENTS

As of November 2, 2022, drivers can use the services of another, already the third mobile payment operator in the MPZ. The companies SkyCash and Mobile Traffic Data (MobiParking and moBILET apps) were joined by Flowbird Group (Flowbird app). The new operator, like the others, provide the option of paying for parking without looking for a parking meter, paying for a specific parking time, or personalized notifications of impending ticket expiration. Detailed instructions on how to use the app at zdm.waw.pl.

On January 13, 2022, foot patrols inspecting parking in the MPZ stopped issuing printed fines and leaving them behind the windshield wiper of cars whose drivers had not paid for parking. On that day, they started using smartphones and the "e-Kontroler" app. With it, they scan and read license plates, and then – already in the office – verify them. This is how inspectors check whether the driver paid for parking.

Pedestrian patrols complement the routes traveled by e-inspection cars. Thus, the whole process became simpler and there was no longer any real need to put a parking ticket behind the windshield. Therefore, this obligation, along with the obligation to mark the car with information on the use of the mobile payment application, was lifted by the Warsaw City Council.

It was part of the package of changes to the MPZ adopted by the capital's councilors. On August 15, 2022, new rates for parking in the zone came into effect. **The first hour costs PLN 4.50, the second – PLN 5.40, the third – PLN 6.40, and the fourth and each subsequent hour – PLN 4.50.** The rates were revalued to 0.15% of the minimum wage (this is the limit imposed by the Public Roads Act). Thanks to valorization, they continue to fulfill their intended role, encouraging the shortest possible stop.

A consequence of these changes was also an increase in the additional fee for not paying for parking. This fee is PLN 300, with a reduction of PLN 100 if paid within 7 days.

Other changes included the inclusion of new areas in Praga-Północ and Mokotów into the MPZ as of January 2, 2023. On the right bank of the Vistula, the zone encompassed the area around Hallera Sq. On the left side, the expansion covered two areas – in Górny and Dolny Mokotów, up to the line of Różana St. and J. Gagarina St.

MPZ in Warsaw

AS OF JANUARY 2, 2023

48.6 km²
OF AREA

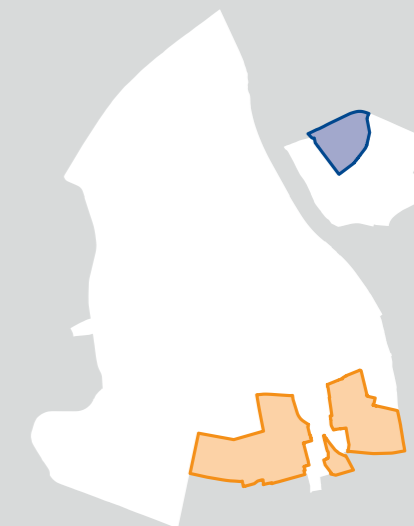
9.39%
OF THE CITY AREA

56,800
PARKING SPOTS

402.5 km
OF STREETS

85 streets
approx. 30 km
IN THE MPZ IN MOKOTÓW.

63 streets
approx. 9 km
IN THE MPZ
IN PRAGA-PÓŁNOC



PLN 7.01

AVERAGE VALUE OF ONE PARKING TICKET



PLN 7.31

AVERAGE VALUE OF MOBILE FEE



251 days

OF VALIDITY OF THE PAID ZONE IN 2022



PLN 199,769,000

PARKING REVENUES

including:

PLN 151,938,000

REVENUE FROM PARKING IN THE MPZ

PLN 3,222,700

REVENUE FROM A FLAT FEE FOR PARKING IN RESTRICTED PARKING SPOTS (marked with white envelopes)

PLN 40,728,000

REVENUE FROM ADDITIONAL FEES

PLN 2,536,000

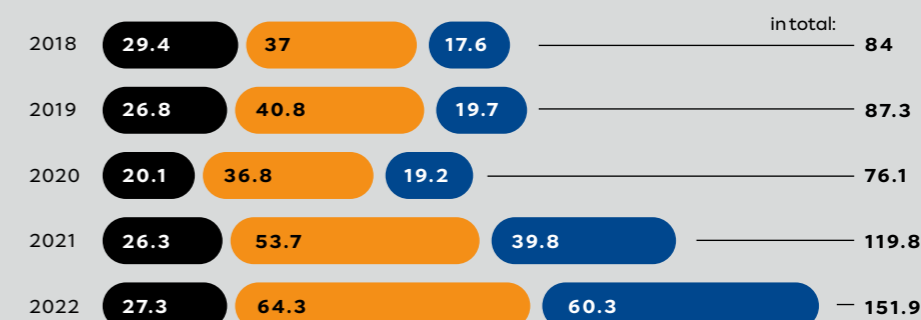
REVENUE FROM RESIDENT SUBSCRIPTIONS

PLN 1,345,000

REVENUE FROM UNDERGROUND PARKING LOTS

Payment methods in MPZ

in PLN millions



CASH



CARD



MOBILE

Mobile road scanning

In 2022, we were the first in Poland to conduct mobile scanning of roads. By means of car-mounted cameras, we piloted 115 sections of 93 streets, or 150 kilometers in total. The tests were promising – it turned out that up to 10 times more infrastructure failures could be picked up from behind the desk on the computer screen than while patrolling.



REPORTS FROM RESIDENTS

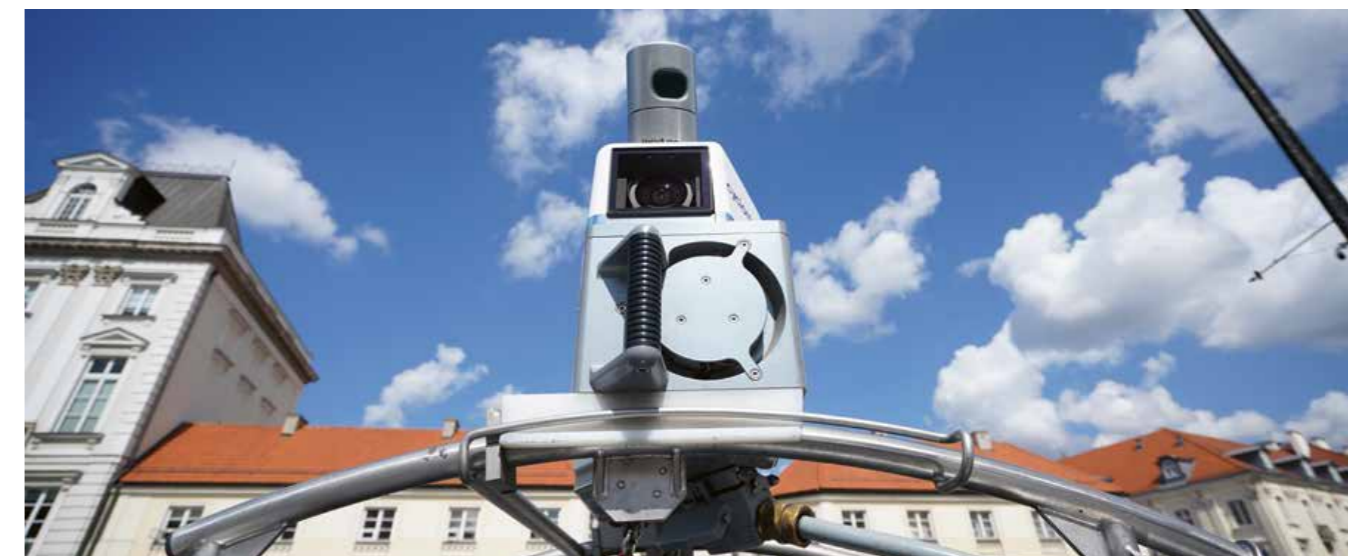
Failures in the right of way in Warsaw are detected not only by the patrols of the ZDM's Emergency Breakdown Services. The inspections that our employees conduct are very often the result of previous reports from residents. The easiest and also the most effective way to submit a report is through the Warsaw 19115 City Contact Center – via the app, website or by phone. We invite you to use this very method.

Employees of ZDM's Emergency Breakdown Services, divided into two-man teams, patrol assigned areas on a daily basis, and note any spotted deficiencies – fallen road signs, defects in the roadway, knocked-out bollards or illegal advertisements – in a special surveillance card. Then, on the computer, they enter them into a program and, in the form of a report, submit them to the relevant entities for repair.

One patrol per day will inspect 40-50 kilometers of roads, but will do so from behind the car window. The patrolman will not capture all deficiencies, and will pay attention especially to such incidents that have the largest impact on traffic safety.

Therefore, we decided to see if it is possible to automate this task. We performed laser scanning of 150 km of roads in Warsaw – with cameras installed on the roof of the patrol car, we recorded 115 sections of 93 streets. Afterwards, we transferred the exact model of the roads along with the infrastructure onto the computer screen, and selected employees began to review it. Patrolling from behind their desks, they worked on material that looked just like Google Street View, but much more accurate and up-to-date.

It turned out that in a day one person behind their desk is able to inspect 10-15 km of streets. This is on average four times less than during the tour, but analyzing the entirety, i.e. 150 km of scanned roads, the inspectors found and reported 1,032 defects to be fixed. One car patrol, throughout a 50-kilometer tour, captures about 30 defects. Thanks to the digital model, we spotted ten times more things to be fixed in the urban space than under previous practices.



Veturilo

In 2022, the Veturilo public bike served residents and tourists for the eleventh season. It scored nearly 4 M rentals this season. As of 2023, the system will undergo an evolution – there will be brand new bikes, stations without electric locks and new rules of use.



4,733
NUMBER OF BIKES
IN 2022

**FROM 2023,
VETURILO MEANS:**

- complete abandonment of computer terminals, which up to now were one of the ways to register in the system, rent and return bikes
- no need to attach bikes to electric locks

The refreshed Veturilo in its maximum version is to have up to 5,500 bikes. The backbone of the system will be 3,000 bikes assigned to 300 stations throughout Warsaw. The two-wheelers will be brand new – more durable to withstand frequent use, and “vandal-proof,” that is, with as few moving and easily unscrewed parts as possible.

Warsaw Public Bike is the largest system of this type in Central and Eastern Europe. In 2012, when it first hit the streets, there were just over a thousand bikes and 55 stations. Since then it developed strongly, with 4733 standard bikes, 100 electric bikes and 60 Veturilko children’s bikes available to two-wheel enthusiasts in 2022. They could rent and return two-wheelers at 350 stations – 316 city stations and 34 sponsored stations, set up, e.g., under office buildings and shopping centers.

Interest in Veturilo in 2022 increased compared to the previous year. **Bikes were rented 3,904,917 times – by over 570,000 more times than in 2021.** For the first time since 2019, i.e., even before the pandemic, we also recorded days with more than 30,000 rentals. June turned out to be the best month with 648,625 rentals, and the best day was June 5 with 30,552 rentals.

In 2022, each bike was rented on average 821 times. Over 189,000 people used two-wheelers. The average duration of one rental was 30 minutes, but most rides were within the free 20 minutes. The fee for the first hour is a symbolic PLN 1. From March 1 to November 30, Varsovians and tourists cycled 2,146,368 hours 28 minutes and 50 seconds in total. We estimate that the bikes traveled more than 14 M kilometers during this time.

As of 2012, Veturilo was rented nearly 34 M times in total, with 1.5 M people registered in the system. Throughout this time, the rental formula remained basically unchanged. From 2023, the system is undergoing an evolution. This is the result of the settled tender to manage the system up to and including 2028. We obliged the operator selected in the tender to introduce a number of useful novelties.



Most popular in 2022:



ROUTES
Number of round trips

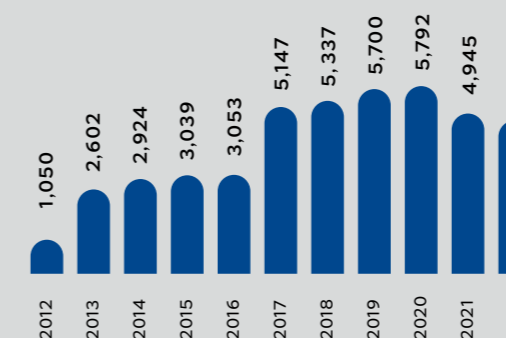
- 8,994**
MARYMONCKA ST. – DEWAJTIS ST. – UKSW
- 8,039**
NIEPODLEGŁOŚCI AV. – BATOREGO ST. – BANACHA ST. – UW
- 7,256**
JASTRZĘBOWSKIEGO ST. – SGGW – URSYNÓW METRO STATION



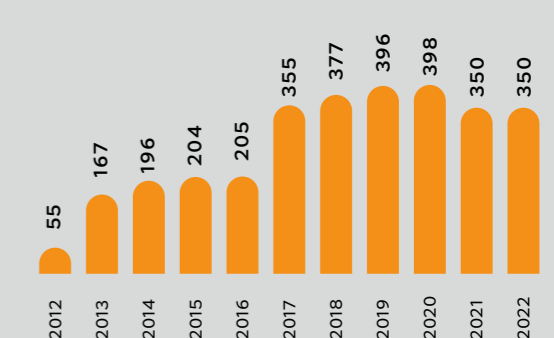
STATIONS
Number of returns and rentals

- 88,809**
COPERNICUS SCIENCE CENTRE
- 79,362**
ARKADIA SHOPPING MALL
- 68,446**
ONZ ROUNDABOUT
- 63,438**
PRYMASA TYSIĄCLECIA AV. – KASPRZAKA ST.

Number of bikes in 2012–2022



Number of stations in 2012–2022



Winter illumination

Christmas illumination is a symbol of Warsaw. So every year we decorate the city with it for winter. In 2022, the decorations traditionally lit up the Royal Route and, for the first time, the reconstructed so-called Five Corners Sq.



FIVE CORNERS SQ.

It gained Christmas illumination for the first time in 2022. With the use of innovative electronic devices and switching the illumination to "eco" mode, the lights in the square (additional 30,000 eco-LEDs) consumed 40 percent less energy, and the daily cost of their operation was as low as PLN 22.



COST-EFFECTIVE LEDS

In total, all elements of the Warsaw decoration were made up of 1,150,000 energy-saving eco-LEDs that are made of the highest quality materials and use 10 times less electricity than traditional light bulbs. As a result, the cost of powering the decoration in 2022 fluctuated around PLN 1,000 per day, and electricity expenses for the Christmas lights accounted for only 0.5% of the cost of powering all the city's streetlights.

In 2022, the city illumination again beautified the very center of Warsaw. The decorations installed by Multidekor under a three-year contract were hung on Zamkowy Sq. and Krakowskie Przedmieście St. for the third time. In the early days of the 2020 pandemic, when we selected a company for Christmas illumination, we had to limit its scope. Previously, Christmas decorations also covered Marszałkowska St., Jerozolimskie Av., Ujazdowskie Av. and a number of Warsaw squares.

We didn't give up on the illumination, as it's a winter showcase of Warsaw. Decorations on the Royal Route attract Varsovians and tourists every year. This is of great importance for the shops and restaurants located there. Great enough that every year it is the merchants and shopkeepers who finance its part along Nowy Świat St.

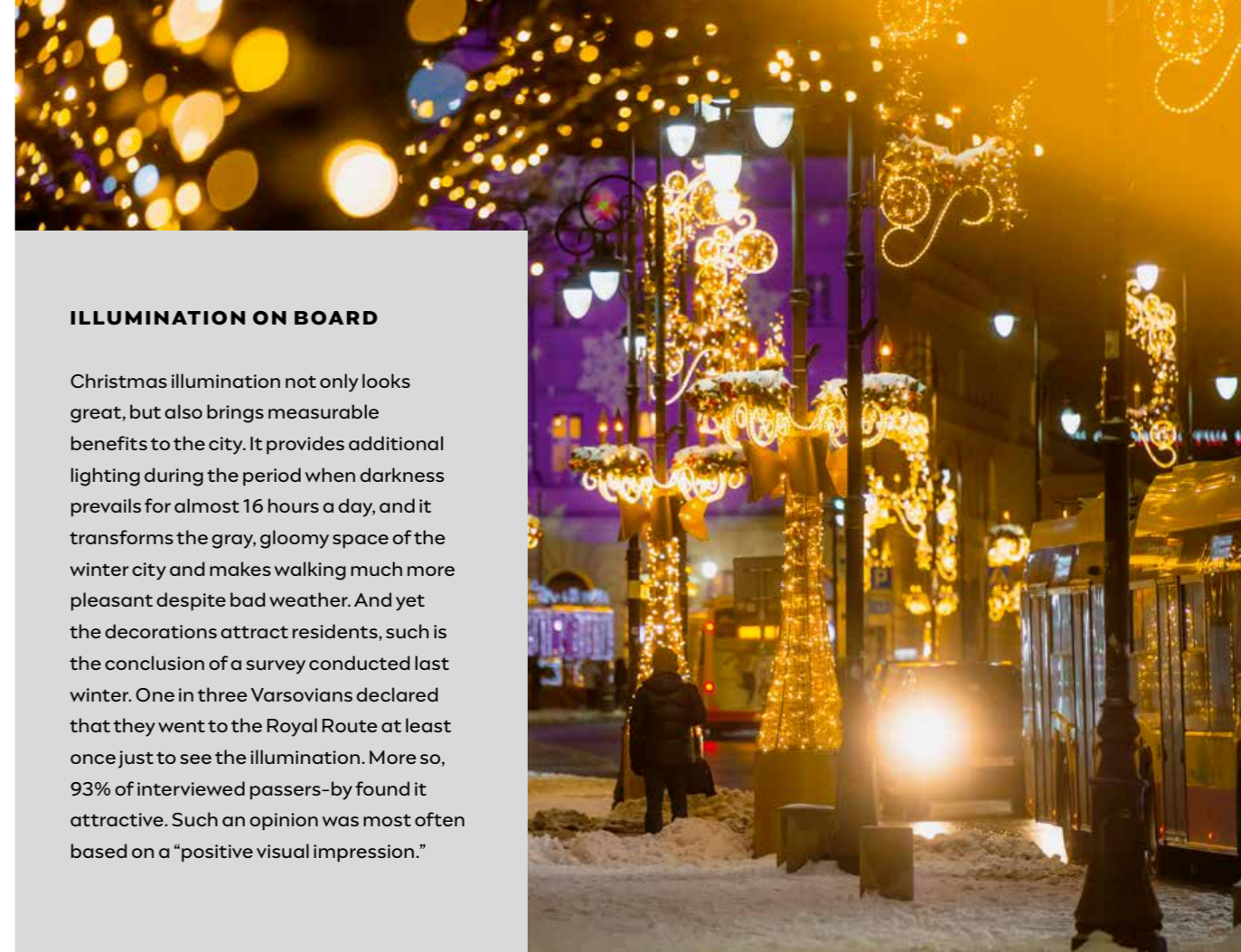
Due to the energy crisis, in 2022, the mayor of Warsaw, Rafał Trzaskowski, decided to turn off the illumination every day before midnight. It had a symbolic meaning because the illumination has relied on energy-efficient eco-LEDs for many years, so the savings in electricity consumption were small. Every day, the winter lights used as much electricity as it takes to charge three electric cars. Thus, over the entire season, the savings reached dozens of thousands PLN.

The illumination was still spectacular. Nine free-standing decorations were placed on Zamkowy Sq. and Krakowskie Przedmieście St. The main one was a 27 m tall Christmas tree that stood near the Royal Castle. The others were a 'balloon seller', 'Warsaw barrel organ', 'horse tram', 'chess pieces on a chessboard', 'rotating carousel', 'lovers' gazebo', 'greeting card' and a 54-m-long 'light tunnel'.

As every year, we decorated the streetlights. **Christmas decor was given to 108 lighting poles on Krakowskie Przedmieście St. and 15 – on Zamkowy Sq.** We also decorated 63 trees.

ILLUMINATION ON BOARD

Christmas illumination not only looks great, but also brings measurable benefits to the city. It provides additional lighting during the period when darkness prevails for almost 16 hours a day, and it transforms the gray, gloomy space of the winter city and makes walking much more pleasant despite bad weather. And yet the decorations attract residents, such is the conclusion of a survey conducted last winter. One in three Varsovians declared that they went to the Royal Route at least once just to see the illumination. More so, 93% of interviewed passers-by found it attractive. Such an opinion was most often based on a "positive visual impression."



We are here for you

Good contact with residents is fundamental. We therefore conduct public campaigns and consultations, and also implement projects submitted by Varsovians under the civic budget. The most popular forms of contact are the platform Warsaw 19115 City Contact Center and social media, where we help solve reported problems and inform about our actions.

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Cycling May

After a two-year pause due to the pandemic, we are back with the Cycling May [Rowerowy Maj] campaign. In 2022, for the fifth time, we encouraged children to commute actively to educational institutions – by bike, scooter, roller blades and skateboards. This time the action was conducted under the slogan “For the climate.”

NUMBERS 2022

1,732,322

ACTIVE COMMUTES TO SCHOOLS AND KINDERGARTENS BY BIKES, ROLLERBLADES, SKATEBOARDS OR SCOOTERS

75,007

ACTIVE CHILDREN FROM ALL 18 DISTRICTS OF WARSAW

1,817

CHILDREN CAME BY BIKE EACH SCHOOL DAY IN MAY
100% ATTENDANCE

184 kindergartens

» 100% PARTICIPATION IN 414 GROUPS
(IN THESE GROUPS ALL PRESCHOOLERS TOOK PART IN THE CAMPAIGN AT LEAST ONCE)

156 schools

» 100% PARTICIPATION IN 582 CLASSES
(IN THESE CLASSES ALL PUPILS TOOK PART IN THE CAMPAIGN AT LEAST ONCE)

40%

“BIKE TURNOUT” FOR THE ENTIRE MONTH OF MAY

The campaign returned to schools and kindergartens to re-energize young Varsovians to be active on their way to and from classes. The campaign promotes a healthy lifestyle and aims to change transport habits among children and their parents. In addition, it emphasizes the importance of our daily choices of means of transport in terms of caring for the planet. It therefore ran under the slogan “For the climate.”

Cycling May has attracted a large number of participants since its first edition. In 2022, as many as 340 establishments – 184 kindergartens and 156 elementary schools – took part. This was the highest turnout ever. For the first time, kindergartens outnumbered schools.

These were not the only top results of Cycling May.

The campaign involved over 75,000 children, who in total traveled actively to their facilities as many as 1.7 M times.

Thus, participants achieved an activity turnout of almost 40%. This means that for every five students and preschoolers commuting to their morning classes, two of them arrived on a bike, scooter, roller blades or skateboard.

However, Cycling May is not only of educational value. What also counts is fun, with elements of competition mixed in. We measured attendance at each facility and, on this basis, handed out stickers that could be exchanged for attractive prizes. The leader in Warsaw was the Ks. J. Chrościcki Elementary School No. 66, with a 93.1% attendance rate. The podium was shared by the Zawiszacy Proporca “Victoria” School Complex No. 17 (85.5%) and the Akademia Pana Kleksa Kindergarten No. 77 (with an attendance rate of 81%).

As part of the campaign, we organized a cycling training workshop attended by nearly 2,000 students. We also took care of the campaign participants’ equipment – we prepared a Mobile Bike Service, where children could give their bikes for inspection and minor repairs.



ECOLOGICAL PICNIC

The campaign culminated with an ecological picnic at the “Kamień” [“the Stone”] Educational Pavilion. Participants got there after a joint ride on two wheels through the streets of Warsaw. We hope that the next, sixth edition of Cycling May, will encourage students and preschoolers to actively commute in even higher numbers.



A-Grade Road

2022, we continued the A-Grade Road [Droga na Szóstkę] program. We created “School Streets” at two more elementary schools in Warsaw. A total of three such streets are already functioning – they become car-free in the mornings in the immediate vicinity of the facilities so that children can safely and comfortably get to their classes.



THE PROGRAM AIMS TO IMPROVE THE SAFETY OF CHILDREN ON THEIR WAY TO SCHOOL.

The program is based on cooperation between city units and the school community. The changes implemented are based on discussions, observations, measurements and audits. Participation in the program is voluntary – it is decided by principals of elementary schools and kindergartens. The final decision is made after an inventory in the area and based on accident data.

“School Street” is a response to the problem of increased car traffic in the morning, observed in many places, which poses a threat to pupils on their way to their classes. The large number of cars near the school compromises the safety of the youngest traffic participants. In addition, cars maneuvering near the school generate noise and pollute the air the children breathe.

“School Street” is a temporary restriction of car traffic in the immediate vicinity of the school. This makes the last section traveled by children risk-free. We implemented such a solution for the first time in 2021 around Elementary School No. 323 and Kindergarten No. 50 in Ursynów – on L. Hirszfelda St. The pilot implementation worked well, so it’s time for more facilities.

In 2022, “School Streets” were introduced in Praga-Południe – around Elementary School No. 375, and in Ursus – around Elementary School No. 381. Car traffic was closed on school days between 7:30 and 8:30 a.m.

Each change we introduce is preceded by an analysis: we conduct traffic measurements and field observations. Problems are discussed with the school community: parents and the principal. On this basis, we prepare a tailor-made solution, which we then consult with the school. With an open, data-based process, the solutions introduced are met with approval.



In **Praga-Południe**, the last section of the route to the school was dominated by cars every morning – they clogged the entire length of the sidewalk and maneuvered into the narrow space directly at the school entrance. During the restriction, the internal road leading to the school cannot be entered. Children can be dropped off safely on the other side of the school by the Wodnik swimming pool. To this end, the school opened a so-far closed gate. At the request of residents, we also installed a mirror to facilitate exit from the internal road to gen. R. Abrahama St., and improved pedestrian traffic conditions on the sidewalk near the school by preventing illegal parking.



On the other hand, in **Ursus**, an approx. 250-meter section of M. Drzymały St. was closed off to traffic. In addition, safety was improved at the crosswalk at the intersection of Kompanii AK Kordian St. and M. Drzymały St. This makes the last section of the road to school safer and, according to parents, calmer. At this location, the change in traffic organization was temporary. A month after implementation, we asked parents for their opinions: the vast majority see improvements in traffic safety and are in favor of maintaining the implemented solutions.



Consultations with residents

We prioritize direct contact with Varsovians. Based on the pandemic experience, we complement live consultations with remote meetings. Meetings with residents addressed the expansion of the Metered Parking Zone in Praga-Południe and related changes in traffic organization.



2 events:

CONSULTATION STANDBY AND ONLINE MEETING



299

VIEWS OF YOUTUBE BROADCAST (by the end of the consultation)



76

PEOPLE ATTENDING MEETINGS



67

EMAILS WITH QUESTIONS AND OPINIONS

Consultations on parking in Kamionek lasted from April 8 to 28. Due to the epidemic situation, we held two events during this time – **we invited residents to participate in an open meeting and an online meeting** (streamed on YouTube). Those taking part had the opportunity to learn about the concept of changes in the traffic organization and parking on Kamionka streets, and also about the results of measurements of parking spots and their turnover.

Before the meetings took place, we released drafts of the new traffic organizations on our website. Residents were able to download them and take a close look at our proposed new regular traffic organizations. This made the discussion of changes go more smoothly. Participants discussed, e.g., introducing one-way traffic on given streets and replacing parallel parking with perpendicular parking and vice versa. They also discussed locations to put up bollards and separators to prevent illegal parking.

Residents could also submit remarks over the Internet. We created a special email address where they sent their opinions and adjustments to our proposals.

The consultation on the eastern part of Kamionek echoed a similar process in Praga-Południe in the fall of 2021. At the time, information meetings concerned changes in the traffic organization on the streets of Saska Kępa and the western part of Kamionek with regard to their possible inclusion into the Metered Parking Zone. At the time, many voices were raised in favor of extending the SPPN also to the eastern area of Kamionek. ZDM then committed to hold consultations for this area too.

Civic budget

The civic budget empowers residents to change their environment. It allows them to submit and select investments that improve the safety and aesthetics of public spaces. Over the course of nine years, Varsovians submitted several thousand ideas to be realized with funds from the city budget. A large part of these was related to road infrastructure.

PLN 9,545,879
COST OF PROJECTS COMPLETED IN 2022

21
NUMBER OF PROJECTS COMPLETED IN 2022

 **7**
BIKE INFRASTRUCTURE

 **4**
SIDEWALKS

 **3**
ROAD INFRASTRUCTURE

 **3**
LIGHTING

 **3**
CHANGES IN TRAFFIC ORGANIZATION

 **1**
GREENERY

So far, ZDM carried out 270 projects under the civic budget. In 2022, we completed 21 tasks indicated by residents. Some of them were complementary to our investments.

An example is the construction of lighting in Żoliborz and Ursynów. In the former district, we lightened the sidewalk on the southwest side of W. Broniewskiego St., while in the latter we eliminated a dark spot on the pedestrian and bike path along the park adjacent to J. Rosoła St. We installed a total of 51 LED streetlights at both locations. The completed projects were part of our lighting endeavor, which consists primarily of replacing luminaires with energy-efficient SAVAs.

Among the ideas realized with the civic budget, minor investments, yet eagerly awaited by residents, predominated. They mainly involved improving infrastructure for pedestrians and cyclists, and enriching public spaces with greenery. At the same time, they were associated with improved comfort and safety for traffic participants. These include renovations of sidewalks along Szczęśliwicka St. and Radiowa St.

We have still 75 more projects indicated by Varsovians to complete. These include construction or renovation of sidewalks, additional lighting for more pedestrian crossings and new bike routes.

Dealing with inquiries

This is the ninth year the Warsaw 19115 City Contact Center makes it easier for residents to report failures or ideas. In 2021, the number of reports sent to the Public Roads Authority increased to 32,248. This is almost 18 percent more than the year before. On average, we handled them within 4.2 days - in this respect, this represents an acceleration of as much as 46 percent. Reports mostly concerned damaged streetlights, traffic lights, sidewalks and roadways.



The Warsaw 19115 City Contact Center is a platform through which residents can submit failures, applications or inquiries in any area of the city life. Many of them end up in our unit. In 2022, on average 104 reports were submitted to the Public Roads Authority every day. This is as much as 18 percent more than the year before.

As in previous years, the reports were mainly related to failures and repairs of road infrastructure. Most of the signals concerned lighting – we received 10,117 reports of damaged streetlights. Next, residents most often indicated problems with operation of traffic lights and a poor condition of sidewalks, bike paths and roadways. Varsovians also submitted applications to change traffic organization, lay out new sidewalks, erect parking-limiting bollards or remove advertisements of questionable legality.

Those reporting often paid attention to improving safety. They called for installation of warning plates at crosswalks or adjustment and lowering of too high curbs. There were also signals about flooded roads or abandoned car wrecks that take up parking spots or, due to their technical condition, may pose a threat. There were also various inquiries and free applications. Residents asked e.g. about the functioning of the Metered Parking Zone or our renovation plans.

In total, we received 38,020 reports in 2022. We received the most of them in February (4,116) and the fewest in March (2,507). We treat residents' reports as one of the sources of information about failures and defects in the road infrastructure, as a result of which the Breakdown Services can react faster, thus reducing road safety hazards. Every day, around the clock, our employees send maintenance technicians to the intervention sites to repair defects.



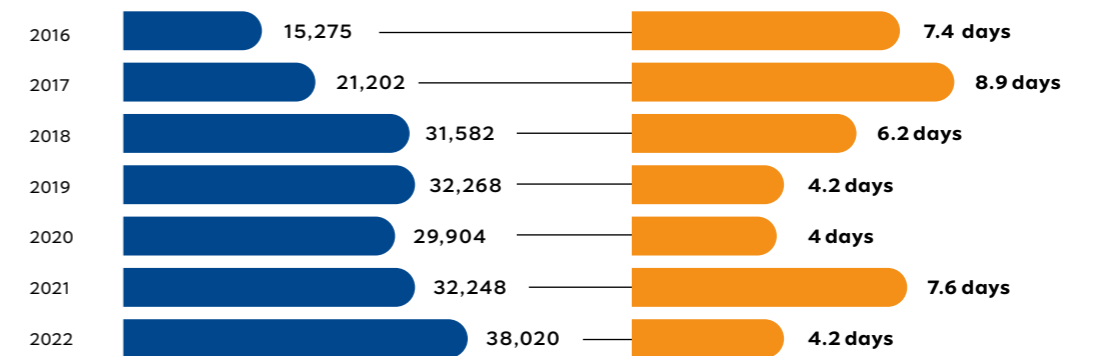
EFFICIENT HANDLING OF NOTIFICATIONS

Despite the general increase in the number of reports, we managed to significantly reduce the time needed to handle them. In 2021, it was 7.6 days, and in 2022 – only 4.2 days.



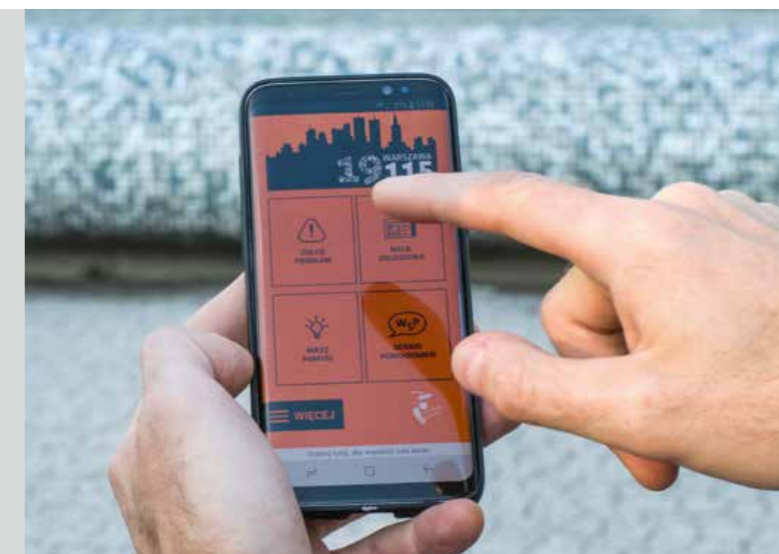
Number of reports

Average time of handling reports



24/7 SERVICE

Reports can be submitted to the Warsaw 19115 City Contact Center not only via the app and by phone, but also via the portal warszawa19115.pl, e-mail address kontakt@um.warszawa.pl or chat warszawa19115.pl/czat. The city service is available 24 hours a day, seven days a week.



Behind the scenes

ZDM has **609** employees in **6** divisions and **31** departments. We face a myriad of tasks every day, but we do not forget to be kind and smile to each other and the residents. In line with the **#NotOnlyAsphalt** slogan, we also engage in unconventional projects whenever possible.



PLAYING WITH GOCC

Last year, we supported the goal of the 30th Finale of the Great Orchestra of Christmas Charity. The lucky winner of the auction bid for "Słupek Szwagra", a rubber replica of a cast-iron road post with the Warsaw Mermaid engraved thereon.



SUPPORTING ART

We also contributed to the 14th edition of the "Warsaw Under Construction" festival. At the request of one of the artists, we lent materials that were used to create an installation referring to the theme of last year's Independence March, which took place during the reconstruction of Dmowskiego Roundabout.



Annual report 2022

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