



A NEW VISION FOR MARIUPOL

50-YEAR PLANNING PROPOSAL FOR PRIMOSRKY DISTRICT

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Summary

Mariupol's Primorsky District was destroyed in April 2022 with immense injury and death resulting from the full-scale invasion. As we look for an end to the war, this plan aims to create the physical, emotional, and logistic conditions for Mariupol's previous residents to ultimately return home.

Rebuilding the Primorsky District requires careful consideration of current challenges and historical lessons. This plan draws from Mariupol's pre-war planning while also considering effect of the war on the city's infrastructure and residents.

Our ambitious vision for the Primorsky District includes integration of the district's natural assets, safety measures, and high living standards that allow new and returning community members alike to feel at home.

Key pillars of the plan

Design for mental health – Sensorial planning interventions that prioritize post-war mental health.

Housing development + revitalization – Human-scale densification focusing on physical accessibility, sustainability, safety, and enclosed blocks that encourage social rejuvenation and repair social bonds.

Circulation within district – Local transportation options that increase mobility, activity, and community connectivity.

Waterfront access – Revitalizing and reclaiming Primorsky's post-industry waterfront as a space for all.

Industry + transport configuration – Making new space for industry while reclaiming 3.5km of waterfront.

Я на вбогім сумнім перелозі
Буду сіять барвисті квітки,
Буду сіять квітки на морозі,
Буду лить на них сльози гіркі.

І від сліз тих гарячих розтане
Та кора льодовая, міцна,
Може, квіти зійдуть — і настане
Ще й для мене весела весна.

Леся Українка

On this poor, indigent ground
I shall sow flowers of flowing colors;
I shall sow flowers even amidst the frost,
And water them with my bitter tears.

And from those burning tears will melt
The frozen crust, so hard and strong,
Perhaps the flowers will bloom and
Bring about for me a joyous spring.

Lesia Ukrainka

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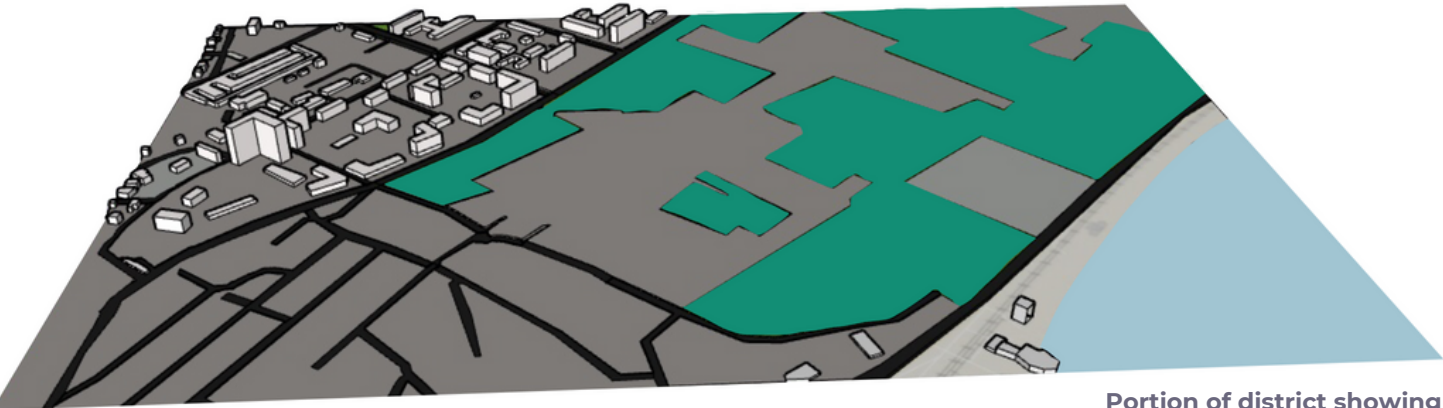
Design context

Located along the Sea of Azov in the southwest of Mariupol, the Primorsky District is the smallest of the city's four districts. Its population as of January 1, 2011 was 64,200 people, living in 18 residential areas. The Primorsky District is 23,014km2, and population density is 2789.6 people/km2. It originated as a workers' village around the Mariupol seaport in the 1920s, the centre of which remained the village of Mariupol-Port until the end of the decade.

Assets + infrastructure

The absence of heavy industrial plants makes Primorsky the most environmentally friendly area of Mariupol. Important amenities in Primorsky include the regional sanatoriums "Zdorovye" and "Chaika", the Regional Children's Bone Tuberculosis Sanatorium, City Hospital No. 9, Primorsky Park, as well as two libraries, museums, six schools, a college, and numerous city beaches and parks.

Primorsky has been called the transport umbilical cord of Mariupol, as it houses the Mariupol sea trade port, the Mariupol and Mariupol-Port railway stations, the Azov ship repair plant, and the Azov Shipping Company. Not far to the west is the Mariupol International Airport. Despite its obvious economic advantages, this transport infrastructure has created urban planning challenges for the city, as the port occupies 3.5 km of coastline.



Portion of district showing pre-war housing and shoreline

"In 2011, Mariupol was a purely industrial city. There were no normal places for recreation, the beaches were dirty, as well as the sea. Gradually, the ecological situation became better. City residents were promised changes, promised to install filters to reduce emissions of harmful substances."

—Kateryna, Mariupol resident

"Christmas and New Year 2022 were remembered as some kind of fairy tale. Looking at old photos from the time before the war, one realizes that we were happy, even though we constantly complained about some little things."

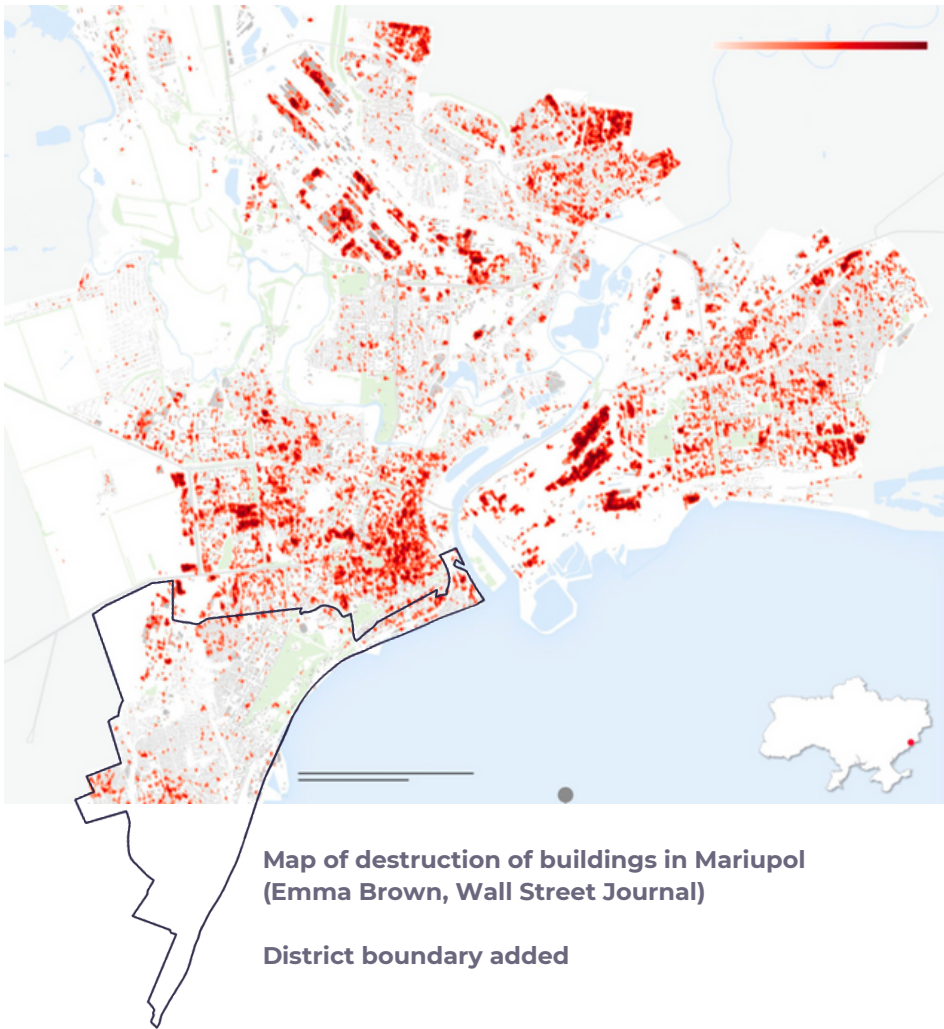
"Now there is no city, no people, no children and their smiles. Let Mariupol perish, but the enemy cannot break the whole of Ukraine."

—Kateryna, Mariupol resident

Impact of war

The 2021 military takeover of Mariupol significantly impacted the city's physical and social structure. 90% of Mariupol's vital infrastructure was damaged, half the apartment buildings were destroyed, and 40% of the private buildings were destroyed. Overall, 50-70% of Mariupol's buildings are destroyed or damaged beyond rebuilding.

The size and density of the population have critically dropped: of the city's pre-war population, it is estimated that less than 1/4 currently live in the city – some have died and others migrated to safer regions. 65% of internally displaced persons from Mariupol declare a desire to return, but actual future population of the city remains unknown.



Guiding principles

Familiarity
Then Mariupol’s displaced residents return to their home, it should be welcoming and familiar. While the scale of destruction makes bold moves possible, we have carefully designed recommendations that maintain what residents loved about the district before the war.

Identity and Tragedy
As a frontline city in the early days of the war, Mariupol’s identity will remain tied to this tragedy. Design elements that memorialize the war serve as gateways into key public spaces throughout the district.

Hope, Resistance, Regeneration
Following tragedy of such immense scale, it was essential that this design incorporate a hopeful view of the future. This plan prioritizes community-building and mental health, as Mariupol’s regeneration will stem from the well-being of each individual resident.

Core Elements

Accessibility Active transport corridors for all ages and abilities, accessibility requirements for housing, edible foliage in public greenspaces to improve food security

Mobility Key corridors shared between transit, bikes, pedestrians, and cars, active transportation network connecting seawall to city

Safety Clearings to organize defence, bunkers beneath apartment blocks, staggered rooftops for tactical potential

Sustainability Large natural park areas, active transportation, socially and environmentally sustainable housing development

Design influences

Mariupol has been home to a range of peoples over its long history. In imagining the future of Primorsky district, we interrogate how to support cultural expression and belonging within the built form.



Ukrainian design
Influences may be drawn from Ukraine’s long architectural history, including medieval elements of Kievan Rus and unapologetically modern lines of Ukraine’s more recent constructions.

Greek elements
As the largest ethnic minority in Mariupol, Azov Greeks deserve deliberate representation in the built form. New buildings across the region can easily include nodes to Greek culture with colourful doors, pillars, and brick work.



Soviet-era architecture
Brutalist structures and monuments are left over from the USSR. This proposal offers a new approach to soviet housing blocks, while rejecting overt celebration of this destructive time.

Nod to industry
Taking precedent from the Olympic Village development in Vancouver, Mariupol’s waterfront public spaces can reference the region’s industrial history.



A new vision for Mariupol



Planning for mental health



Housing development + revitalization



Circulation within district



Waterfront access



Managing industry + transport





Design for mental health

Combining and layering natural spaces, sensorial elements, and community gathering points to create areas that increase quality of everyday life.

Residents of Mariupol have faced significant trauma and the toll that this has taken on mental health is immense. Guiding this new vision for a post-war Mariupol is the idea that urban design can be used to improve the overall mental health and wellbeing of a city's residents through incorporating sensorial planning, community spaces, and green and blue design.

As awareness of mental health continues to grow and drive urban design considerations, targeted multi-purpose interventions can reduce overall stress among users of public spaces. This plan incorporates mental health planning throughout the district, while also designating two main nodes of mental health-driven design.

Node 1: Primorsky Park

The district's largest park will be retained and revitalized to create a truly regenerative space. The main park will be surrounded by smaller satellite parks and an active transportation look, with connections to nearby multi-unit residences and community amenities. In this signature space, residents can relax, play, and gather, subtly increasing mental health outcomes in an organic and well-used space.

Node 2: Seaside

Discussed further in section iv: Waterfront Access, Node 2 continues the active transportation network and facilitates pleasant sensorial experiences such as contact with water and sounds of music from a programmable waterfront stage.

Future planning will prioritize the mental health and well-being of new and returning residents by increasing accessibility for citizens to enjoy natural beauty and its therapeutic effects, and to form strong community connections.

Sensorially calming experience in Primorsky Park



Urban greenspace to improve water retention, regulate temperature, and reduce air pollution

Accessible paved paths for walking and rolling around park

Walkways connecting from seawall

Park clearings large enough for defence organization in war times

The following interventions will be scattered throughout the district:

- **Fountains and natural streams**
- **Urban greenspaces with fruit trees and other edible foliage**
- **Enclosed residential courtyards and public gathering spaces**
- **Active transportation corridors**
- **Murals and public art**
- **Local commercial and amenity spaces in residential areas.**

In the coming years, building community, fighting isolation, and celebrating natural beauty will be key to managing symptoms of trauma, PTSD, and grief. Creating spaces in Mariupol for people to return to and enjoy may also be an impetus for a further expansion of this thinking and better mental health outcomes in the Port District.

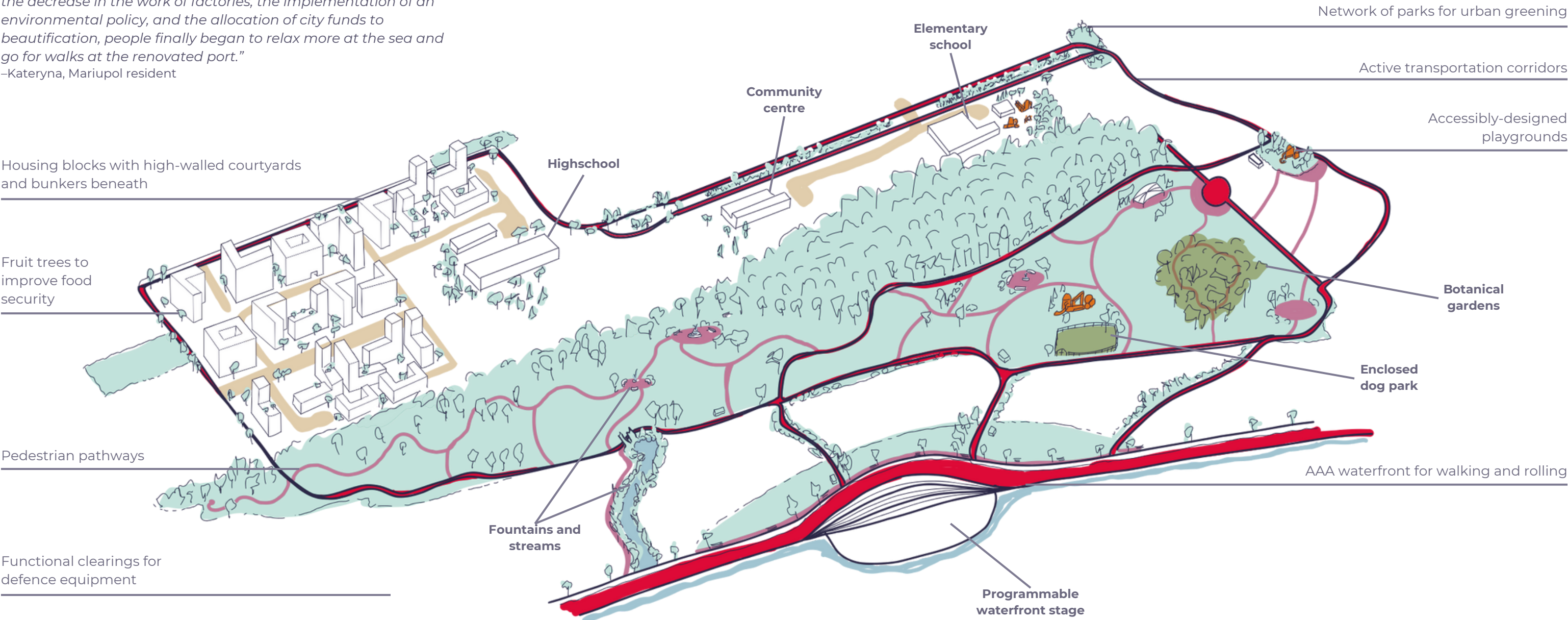
Rendering of a programmable gathering area fronting onto greenspace

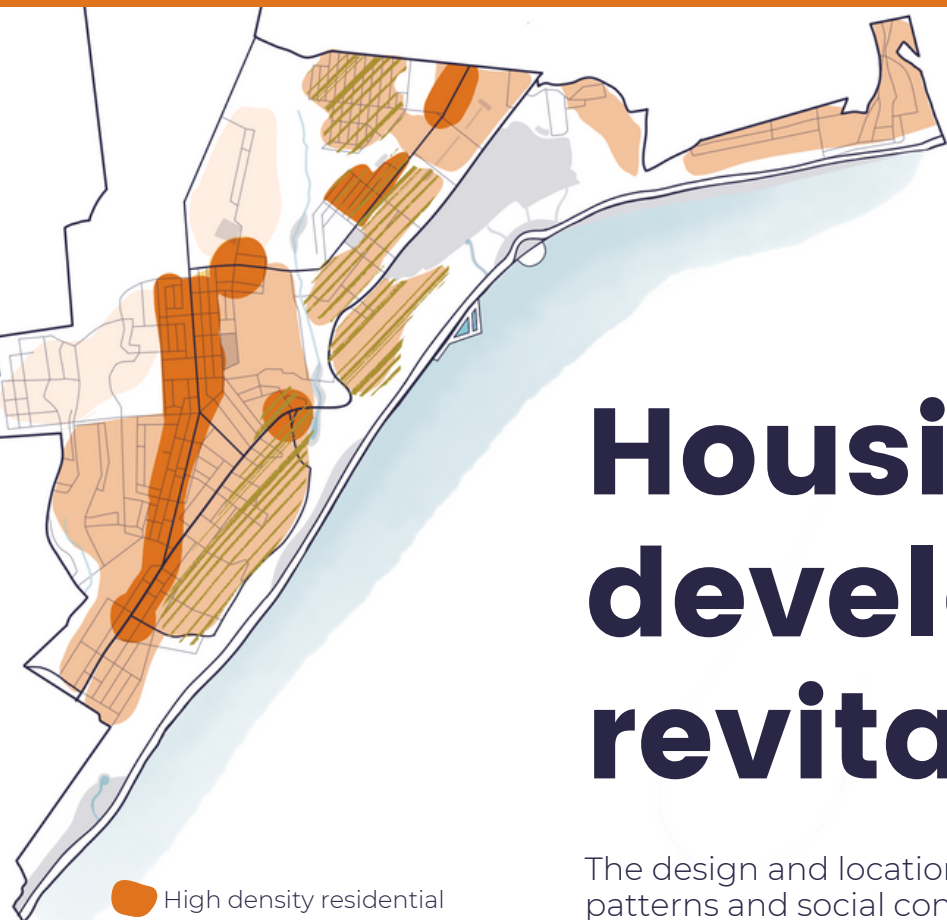


Planning for mental health

Node 1: Primorsky Park

“Mariupol was a port and tourist destination. In connection with the decrease in the work of factories, the implementation of an environmental policy, and the allocation of city funds to beautification, people finally began to relax more at the sea and go for walks at the renovated port.”
–Kateryna, Mariupol resident





- High density residential
- Medium density residential
- Single detached homes and row-houses
- Overlay zones: dispersed housing for veterans

Housing development + revitalization

The design and location of our housing shapes our daily patterns and social connections.

There are five facets to Primorsky's new housing approach:

1. Design **community-centred housing** through the integration of ground level amenities, pedestrian-centric neighbourhood blocks, and enclosed courtyards where residents can gather, garden, eat, and engage in chance interactions. Increasing density at human scale will preserve a sense of familiarity and approachability.
2. **Accessibility and air filtration requirements** should be implemented at this juncture to ensure old and new stock is accommodating to all.
3. **Designate housing for veterans** that considers mental health and helps tor reintegrate this at-risk group into the community. By employing overlay zones throughout the district, the city can require that 10-15% of all units in a zone's new or repaired buildings are set aside as affordable housing for veterans. The upper limit on this percentage will prevent disproportionate concentrations of veterans, mitigating any tendency for group isolation.
4. Maximizing **housing affordability** will be essential due to limited personal income as a result of the war. This will require limiting cost of construction through the strategic use of surviving structures and discouraging speculation through policy.
5. Improving overall **sustainability** of housing in both construction and ongoing building operations is a long-term goal. The city might offer reduced development costs for buildings aligned with LEED principles: "sustainable site development, water efficiency, energy efficiency, materials selection" and "indoor environmental quality".

"The construction of residential complexes was not carried out in the city. Old houses built during the time of the sovka were terrible. Almost nothing was done during the 30 years of independence. I would like to see something more aesthetic and safe."

—Kateryna, Mariupol resident



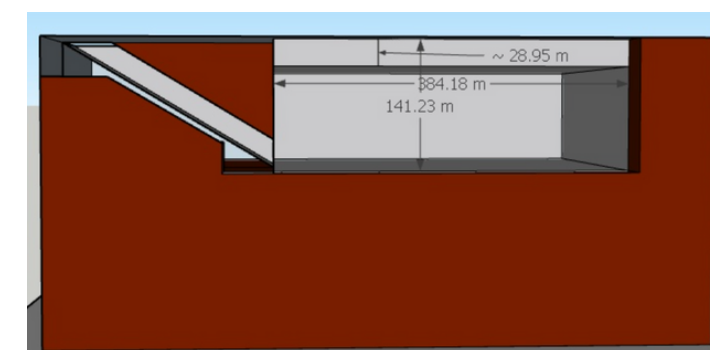
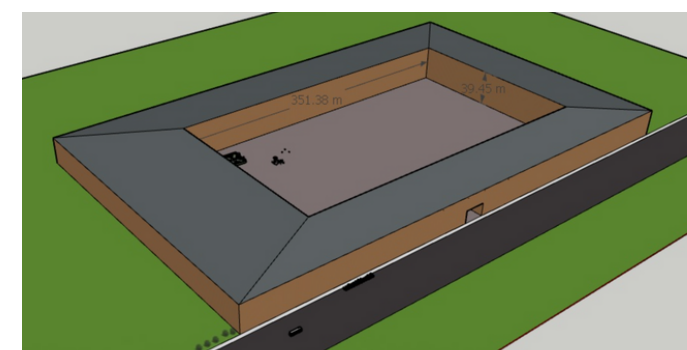
Convivial interior courtyard in apartment block development

All residential buildings retrofitted or newly built with elevators to improve physical accessibility

Fruit trees to improve food security and offer positive impacts of urban greening

Design flourishes can represent the many groups that call Mariupol home

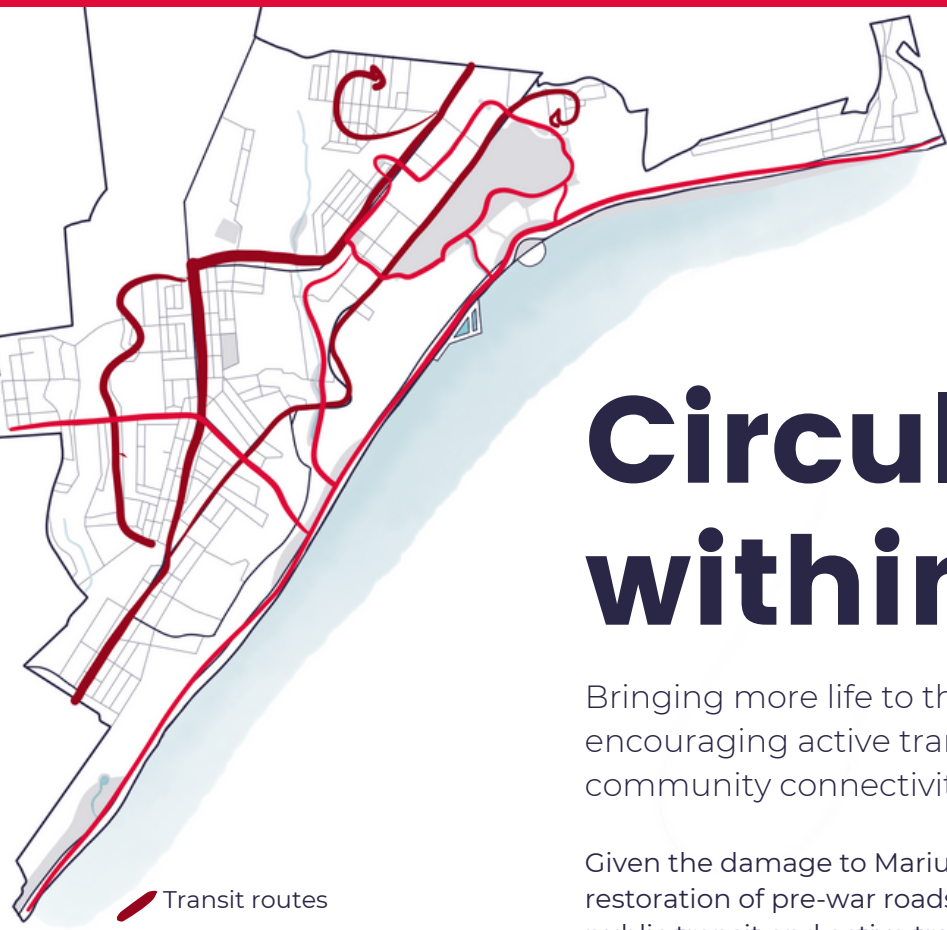
Communal courtyards encourage chance meetings between residents, reduce social isolation, and improve mental health





top left **Residential housing typology**
Block development surrounding courtyard

top right **Bunker constructed underneath apartment blocks** to ensure resident safety in emergency

bottom left **Residential building and courtyard**
Eight stories of residential with ground floor commercial/amenity



 Transit routes
 Active transportation corridors

Circulation within district

Bringing more life to the streets of the Primorsky District, encouraging active transportation, and improving community connectivity.

Given the damage to Mariupol, the circulation strategy balances restoration of pre-war roads with reallocation of road space towards public transit and active transportation. Inspiration can be taken from the redevelopment of Christchurch following the 2011 earthquake, which is comparable to the damage caused by the war in Ukraine.

Public transit

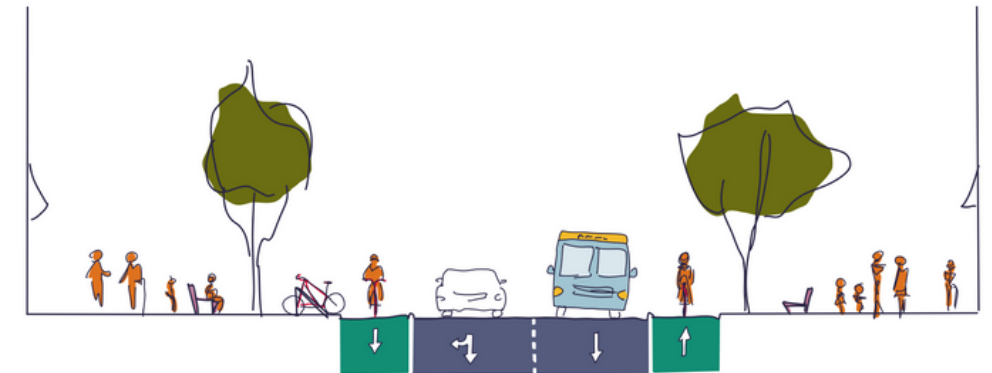
Prior to the war, Mariupol enjoyed some bus coverage, Marshrutkas (mini-buses or jitneys), and a trolley system. An expansion of all these modes will improve mobility in Primorsky and increase access to opportunities within a 10, 20, and 30 minute commute.

Active transportation

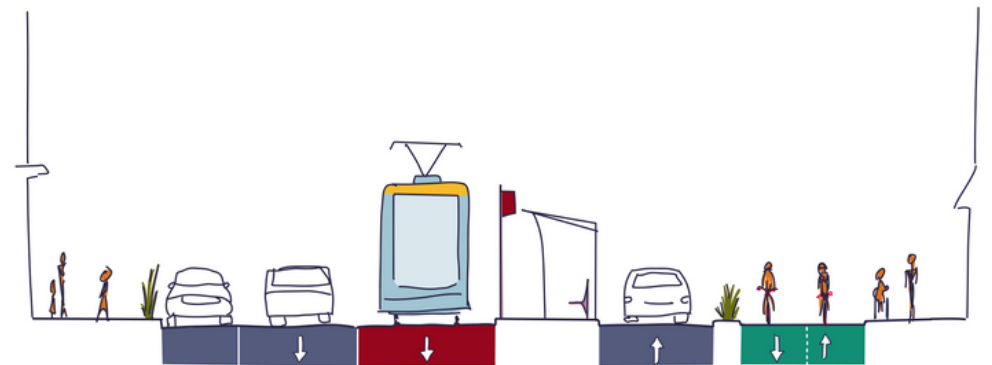
The future of Primorsky's transportation will be more multi-modal and environmentally friendly. A new "slowcore" approach to street design will deprioritize private vehicles by narrowing streets, making sidewalks places where groups could gather and meet and creating the interactions that make city living so beneficial.

Ensuring **accessibility** for active commuters of all ages and abilities will require implementing safety and accessibility measures, such as:

- Tactile strips at pedestrian crossings
- Traffic calming measures for private vehicles
- Ample resting space along pedestrian corridors
- Smooth, moderately-sloped surfaces, including along the seawall
- Curb cuts and clearly marked crossings



Chornomorska Street Slowcore concept reduces noise pollution and improves safety along pedestrian-oriented corridors



Kranova Street Improving mobility with bike lanes and rail transit along primary transportation corridors



Example of all ages and abilities active transportation design
from Vancouver, BC



Waterfront access

Improving access to the waterfront realizes a newly human-centered design and furthers a commitment to sensorial planning, prioritizing the mental health and daily experience of all residents.

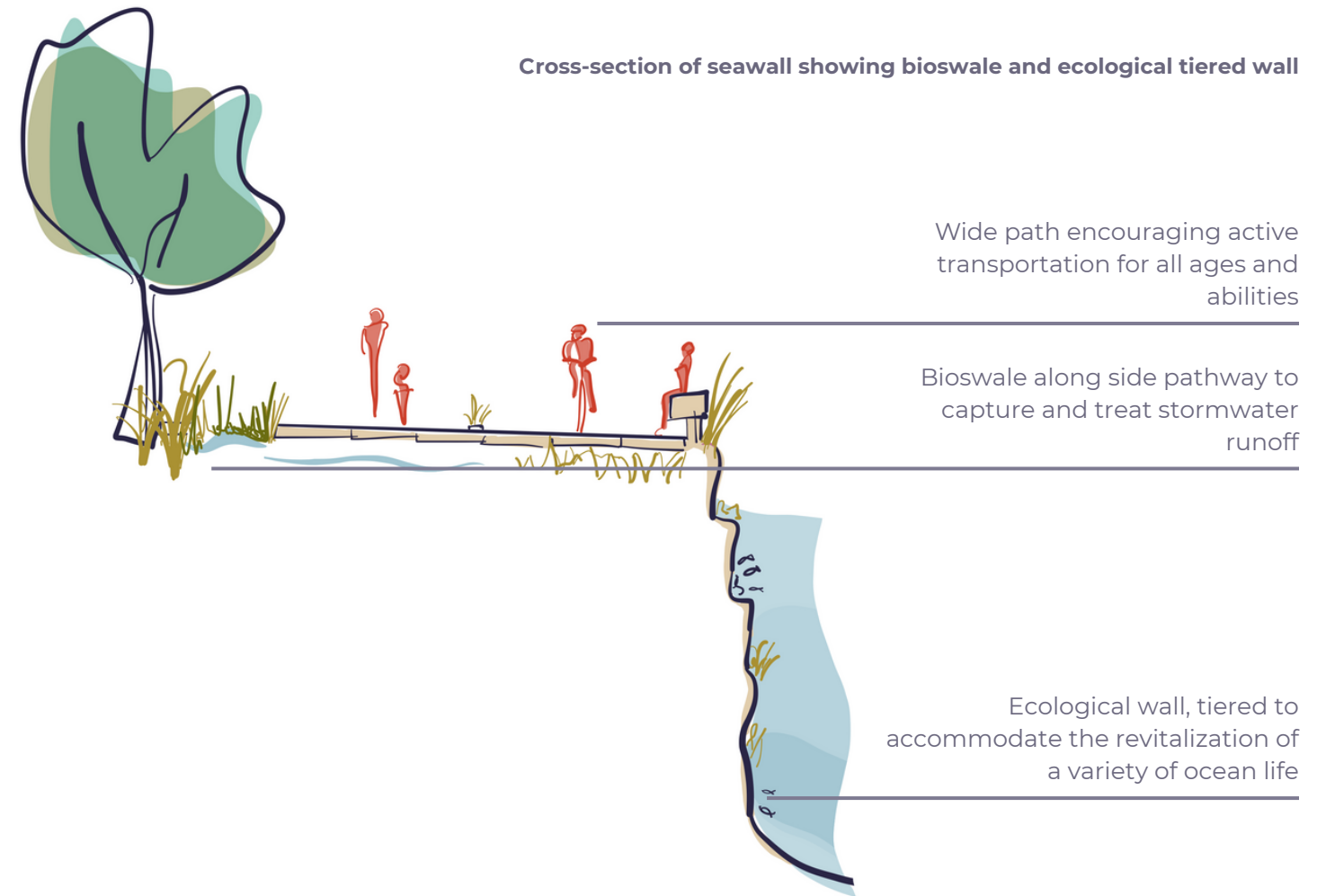
The waterfront will become an accessible active transportation seawall corridor, introduce a variety of uses along the seawall, and consider how ecological sustainability will factor into a post-industrial waterfront.

Unified seawall This all ages and abilities path connects with both the water's edge (through docks and a natural beach shore) and with pathways into the city. The complete unification hinges on industry relocation (pillar v: Managing industry + transport), but the northern half of the seawall can be more quickly built out.

Waterfront stage Along with market space and gathering space, the stage is one of many programmable nodes. Curved amphitheatre seating inland of the stage provides a space to enjoy the stage's many uses - concerts, buskers, classes, or informal gatherings.

Enclosed dock Allows safe swimming space with waterfront views for the enjoyment of all ages.

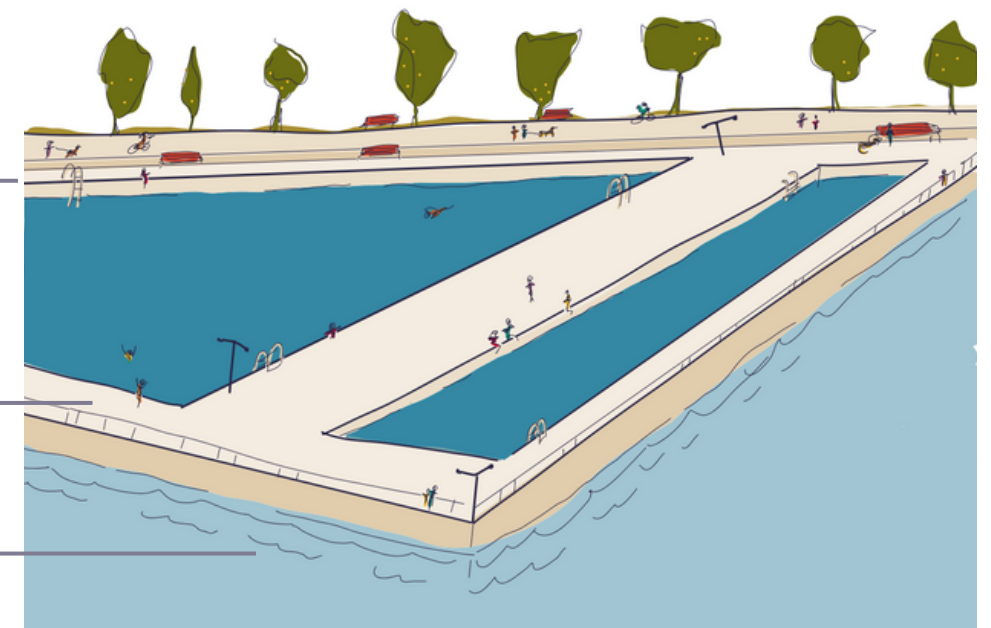
Ecological revitalization Recognizing the need for environmental amelioration due to the history of industry and current reality of war, an ecologically sensitive seawall with tiering will allow marine life to flourish just off the shore. A long bioswale inland of the seawall filters storm water runoff before it reaches the sea.



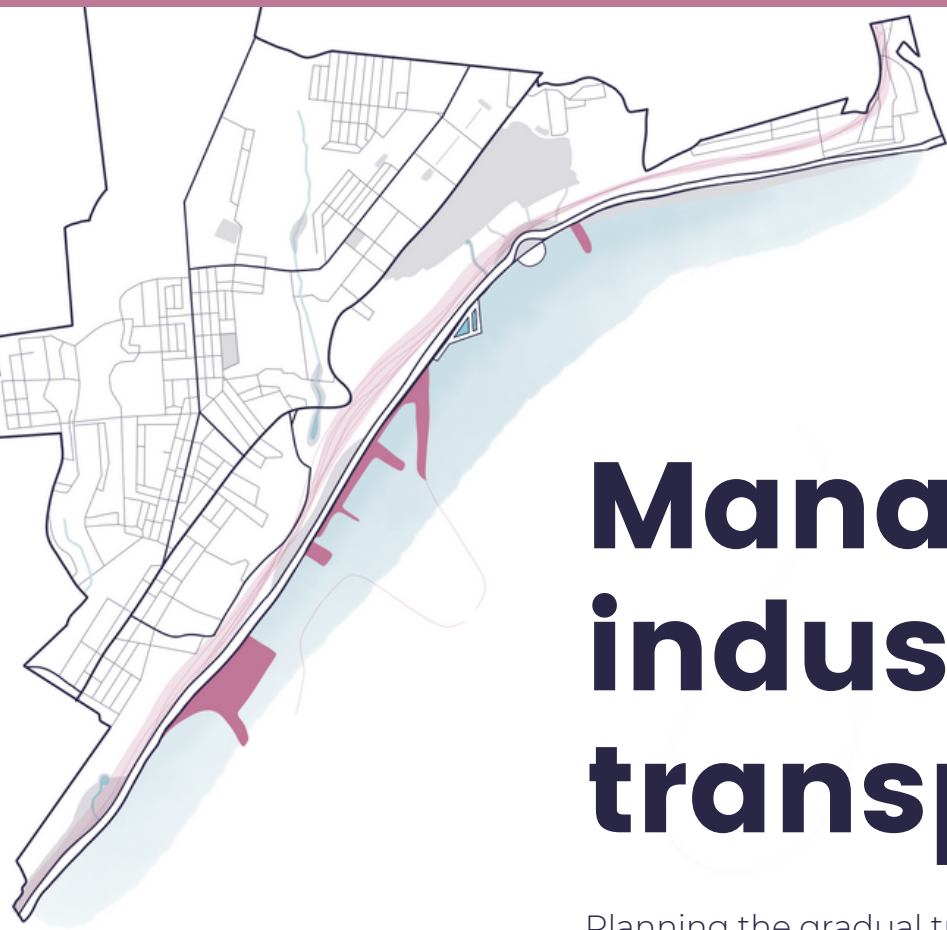
Incorporation of dock into seawall mobility network

Shared space along previously industrial waterfront improves social connection and sense of place.

Floating dock adapts to sea level rise and storms



Waterfront dock with enclosed swimming area



Managing industry + transport

Planning the gradual transfer of Mariupol's port infrastructure to less urban location by gradually reducing the area of the old port while building new infrastructure.

The intended location of the new port is on the slag mountain in the territory of Azovstal. This location is still within the city but is located in an industrial zone with access to the railway. The depth of the sea at this location will require dredging.

The sequence of berth movements is informed by the following a forecasts of shipping and transportation requirements:

Restoration of **export of agricultural products**, primarily unprocessed, in up to 3 years.

Gradual restoration of **metal exports** reaching full volume in up to 5 years.

Restoration of **coal transportation** in approximately 3-5 years. Current volumes of coal are several times smaller than before the war. This is a result of the closure of most Donbas coal mines due to the unprofitability of their restoration and further exploitation.

Gradual growth of **container transportation**.

Rendering of post-industry waterfront



Buildings refurbished for mixed use

Access to water

Gathering spaces along waterfront

Seawall connecting through previously industrial land

Phased Approach

The relocation of Mariupol’s port must be seamless with minimal interruption to the goods that can flow through this important waterfront access.

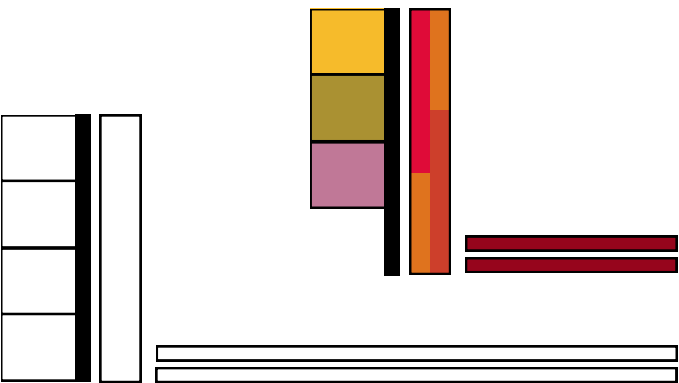
As the new port, located in the industrial Azovstal territory, is built up, Mariupol’s long-serving southern port and railway connection will be decommissioned in phases. Once the railway from the old port ceases operation, the final steps of waterfront integration (as proposed in pillar iv: Waterfront Access), can be completed.

Before relocation – Southern Port



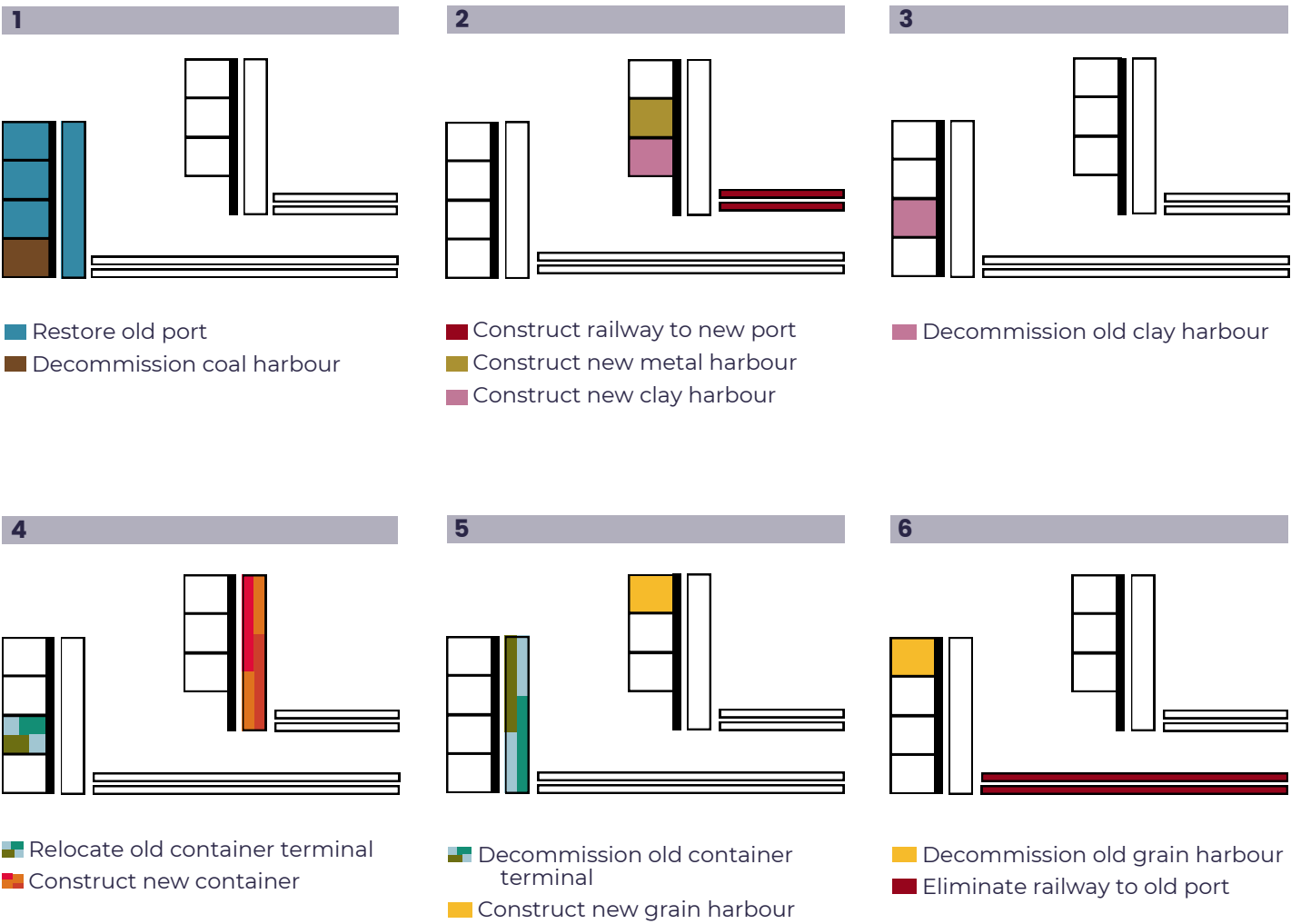
- Grain harbour
- Metal harbour
- Clay harbour
- Coal harbour
- Container terminal
- Railway from old port

After relocation – Northern Port



- Grain harbour
- Metal harbour
- Clay harbour
- Container terminal
- Railway from new port

Phases of relocation



Public Consultation

The success of this plan hinges on community buy-in. It requires that means of achieving a connected, social, and regenerative Primorsky aligns with what future residents desire. Determining who these residents will be and how to reach them is the primary concern of engagement planning for Mariupol.

Who makes up the community

Given the significant exodus of Mariupol's residents to other regions or countries in 2022, it is likely that many of those displaced will not return once the war ends. With the help of world agencies, our first step will be to reach out to displaced residents around the world and determine who still hopes to return to Mariupol. Particular consideration should be given to residents from ethnic minorities who intend to return. Those who remained in Mariupol will also be given a voice, but it is important that their concerns not outweigh the rest of the community.

Reaching a dispersed community

Information and consultation activities will be conducted with this anticipated future community, both in person and through remote means. While those living outside of Ukraine may be most reachable via online survey or virtual focus group formats, we also suggest leveraging the networks of organizations such as UNDP, potentially attaching engagement events to their existing in-person events.

Without knowledge as to the length of the war, it is difficult to propose a timeline for these events. However, beginning to inform and consult on this proposed plan in the near term may offer additional hope to displaced residents seeking to return to Mariupol.



FSU, 2015



Next City, 2017

