

# PD-R04

## PEDESTRIAN FRIENDLY DESIGN BEST PRACTICES



Small-scale iterative pedestrian friendly examples in low-middle income countries that influenced significant improvements in the area.

*Type: Reference Document*



**Disclaimer:** The Transit-Orientated Development Implementation Resources & Tools knowledge product is designed to provide a high-level framework for the implementation of TOD and offer direction to cities in addressing barriers at all stages. As the context in low and middle-income cities varies, the application of the knowledge product must be adapted to local needs and priorities, and customized on a case-by-case basis.  
© 2021 International Bank for Reconstruction and Development / The World Bank



## MATUNGA FLYOVER, MUMBAI, INDIA



### + PROJECT FACTS



**Location:** Mumbai, Maharashtra, India

**Project Size:** 600m x 12 metres

**Total Project Cost:** 50 million (INR)

**Funding:** Municipal Corporation (Govt.)

**Timeline:** 5 Years

**Project Settings:** Mixed-Use  
(Residential/Commercial) Main Street

### Overview:

Mumbai, the capital city of Maharashtra, is the most populous city in India and the fifth most populous city in the world. The city accounts for only 1.1 square meters of open space—gardens, parks, recreation grounds (RG) and playgrounds (PG)—per person (Open Mumbai, 2012). The site is located in one of the planned areas of Mumbai.

## PROJECT STORY



2011-2013

**1.5-km long and 17m wide flyover** was built at a cost of 700 million(INR) from the Maheshwari Udyan to Tulpule Chowk flyover.



The space under the flyover **turned into a hangout zone for hawkers, gamblers, drug addicts** as well as encroached by illegal parking



Residents requested the **Municipal Corporation (BMC)** for **barricading the entire stretch**



2011-2013

About **40 people** crowd-sourced funds and hired **24X7 private security** for two years.



**Engaged 10-12 BMC sweepers** to clean the stretch to avoid dumping and encroachment.



#### + DESIGN DETAILS

**Walkway:** Designed 600m long pathway in blue color to resemble River Narmada with some stretches designed as Narmada ghat where people can sit.

**Safety:** The stretch is equipped with rotatable CCTV cameras, colorful lights and security officials.

**Public Convenience:** Art installation, small plants and dustbins are lined up on both sides of the space.

**Events:** Activities are organized on Sunday morning dividing the area below the flyover into different zones like health, live performance, traditional games, indoor games and outdoor games zone.

#### + APPLICABILITY

**Context:** Underutilized spaces under the elevated transit corridors

**Scale:** Corridor | Station Area | Site



2013-2014

Residents formed a group 'One Matunga' and designed a children's park with 600-meter long and 12-meter wide meandering jogging track that is shaped like the Narmada river.



The group presented the idea to various government authorities for developing a small garden in that space.



2014-2016

After successful petitioning, it got the final approval and in June 2015, BMC began to redevelop the area.



Embroiled in some political differences, the park was finally inaugurated in June 2016





Image: Nigel Burgher (Flickr)  
Reproduced under CC-BY2.0 License



## MEDELLIN, COLOMBIA, LATIN AMERICA

### + PROJECT FACTS



**Location:** Medellín, Colombia, Latin America

**Project Size:** Not Available

**Total Project Cost:** Approx 3.5 million USD

**Funding:** Government (City funding)

**Timeline:** 7 Years

**Project Settings:** Residential Neighborhood  
(Transit Connections - Streets & Plazas)

### Overview:

Comuna 13 also known as San Javier, is one of the 16 barrios (neighborhoods) in Medellín. The neighborhood is built on steep hills outside of the main city consisting of tiny houses and cottages connected by streets, paths and stairs. Access to the barrio was a perennial challenge, making the provision of security as difficult as accessibility to schools.

## PROJECT STORY



1980's-2000s

Known as one of the most violent cities in the world, Comuna 13 had an invisible territorial boundary set by a dominating group that led to strong social tensions, large class differences, and unemployment in the area.



2002

The Colombian army, police, air force and paramilitary groups launched the biggest military intervention **Operation Orion** to fight against illegal activities displacing and impacting displaced local residents



2002's

Residents **protested against the violence in the area** with white rags raised for peace and solidarity.



Image: Bertahan Luxing (Flickr)  
Reproduced under CC-BY2.0 License



#### + DESIGN DETAILS

**Street Art:** The Streets were painted with graffiti depicting the authentic history of Comuna 13, and the huge impact on people's lives.

**Escalators:** The installation of six sections of a giant 384 meters outdoor orange-roofed escalator was built into the mountainside for accessing neighborhoods on the hillside.

**Shaded streets:** Harvestable fruit trees are planned on the courtyard and along the pedestrian walkway to provide shade and comfort and to cool down the atmosphere in summer.

**Public Space:** Location for installation of six set of escalators were selected to connect libraries, schools, kindergartens, open sports facilities and public places.

#### + APPLICABILITY

**Context:** Creative solution to overcome accessibility challenges to transit stations in hilly regions.

**Scale:** Station Area | Corridor



2002-2008

Residents and local artists started **painting walls with beautiful mural graffiti** in memory of innocent people who died in the conflict.



2008

The elected mayor invested a huge amount of money in a **new cable car line in San Javier Station** to integrate this Comuna with other surrounding communities.



2011

The city **created electric escalators to allow people to reach the station in 6-minutes instead of a 25-minutes climb**. The escalators have decorative metal canopies, air-conditioning and connect to public plazas, terraces and amphitheaters.





## BOGOTA, COLOMBIA, LATIN AMERICA



### + PROJECT FACTS



**Location:** Jimenez Avenue, Bogota, Colombia

**Project Size:** Not Available

**Total Project Cost:** Not Available

**Funding:** Government Funded

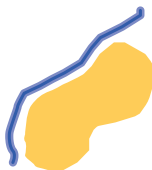
**Timeline:** 11 years (1996-2007)

**Project Settings:** Mixed-Use (Institutional/Commercial) Main Street

#### Overview:

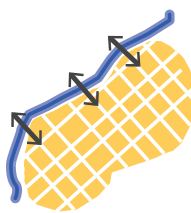
The street originally built over the San Francisco River into a brick-paved paseo featuring native trees, ribbon-like water fountains running along the sloping course, and brick pavement for the Transmilenio. The effect was to create a friendly relationship between public transport and pedestrian traffic while revitalizing the public spaces.

### PROJECT STORY

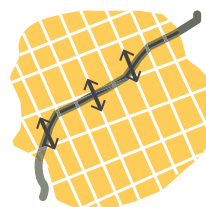


#### COLONIAL PERIOD

San Francisco River (today Jimenez Avenue) defined the City's northern limit.



When the city started to grow beyond these natural limits, urban planners adapted the orthogonal geometry of the city to the river's meandering path.



#### 1990's

By the early twentieth century, the San Francisco River was essentially a sewer and a garbage dump.



#### + DESIGN DETAILS

**Public Place:** The highly congested street was transformed into a partially pedestrian way equipped with street furniture to serve the Transmilenio system

**Landscaping:** construction of a watercourse along the avenue, consisting of a continuous descending line of small basins or pools, makes reference to the San Francisco River.

**Street Vendors:** Accommodates many mobile vendors providing livelihood assistance.

**Safety:** The site is supervised by a dozen of security guards who are recognizable by their uniforms gives certain people an ambiguous status of the place

**Urban Redevelopment:** The old historical buildings were renovated along this axis for high-end housing, hotels and commerce.

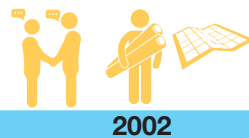
#### + APPLICABILITY

**Context:** Urban Redevelopment, creating pedestrian-only streets

**Scale:** Station Area | Corridor



For reviving the old city center, the city first planned infrastructure investment for the new public transportation system (Bus Rapid Transit, named Transmilenio).



A decision was made to hire a renowned architect to design the segment that would enter the city center, through the Av. Jimenez.



The road was closed for private vehicles, creating a pedestrian plaza using cobblestone as opposed to asphalt and recovering the water element that was lost with development.





Bogota, Colombia