



**INDIA
CYCLES 4 CHANGE
CHALLENGE**

ONLINE WORKSHOP 3

**Do's & Don'ts:
Designing
Streets for
Cycling**

**4th September'20, Friday
3.00PM - 4.30PM IST**

INTRODUCTION

by Mr. Rahul Kapoor,
Director, Smart Cities Mission,
Ministry of Housing and Urban Affairs (MoHUA)

PANEL DISCUSSION WITH CITIES

LEARNINGS FROM HANDLEBAR SURVEYS
by Aizawl, Nagpur & Rajkot

PRESENTATION + Q&A SERIES

Moderated by ITDP India Programme

DESIGNING THE PILOT

COLLABORATING WITH THE COMMUNITY

BUILDING THE MOMENTUM

We will start the
session at 3PM IST





INDIA CYCLES 4 CHANGE CHALLENGE



CONGRATULATIONS CITIES!

On phenomenal and diverse engagement for
India Cycles4Change Challenge

In the last few weeks, cities have conducted...

Rallies



Campaigns



Surveys



Meetings



Celebrating stories of independence

Cities launched the campaign

with stories from children, elderly, women

in MULTIPLE languages!



INDIA CYCLES 4 CHANGE CHALLENGE

आज मुझे साइकिल चलाना बहुत पसंद है। बचपन में हमारे पास साइकिल नहीं थी, हमने आगे किराने की दुकानों को देकर और पसना पीकर हमारे भी साइकिल की और एक दिन मैं साइकिल चलाने शुरू करने में मेरी मित्रिका बहू को देती हूँ और साइकिल के कुछ एप्लेंट्स दे देती हूँ। जिससे वह इसे के लिए तैयार हो जाती है। वह साइकिल को ब्रह्मण्ड और खूब अच्छे तरीके से साइकिल चला कर साइकिलिंग करना ही नहीं। वह एक दिन में चलाने लगी थी और मैं इन चालों से उन्हें तो पकड़ाने शुरू कर चुकने में थक चुकी हूँ। मैंने साइकिल से बहुत अच्छे तरीके से साइकिलिंग के मज़े चकते चकते हैं। साइकिल से मैं और भी तेजी से साइकिल चलाऊँ। साइकिल से मैं जो भी जाऊँ वह आसानी से चलाने में आसानी है और साइकिल से मैं आसानी से जाऊँ।

रीतावती साहू, B.Tech (C.S.), Karm (M.E.)

#Cycle2Freedom
#Cycles4Change
#ResetWithCycling




INDIA CYCLES 4 CHANGE CHALLENGE

साइकिलों की खोज करने के बाद मुझे इससे प्यार आ गया। 2001 की वो यादगार घड़ियाँ अब भी हैं, वो यादगार घड़ियाँ मैंने रोटी सवारी साइकिल पर कहीं भी नहीं देई। हर एक मोड़ पर मैं कभी कभी अपने दोस्तों के साथ मिलकर साइकिल चलाऊँ। मैंने साइकिल से बहुत मज़ा लिया है। साइकिल से मैं जो भी जाऊँ वह आसानी से चलाने में आसानी है और साइकिल से मैं आसानी से जाऊँ।

रमेश चंद्र, रायपुर

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INDIA CYCLES 4 CHANGE CHALLENGE

पापा ने साइकिल दिया, साइकिल में मैंने जो मज़ा लिया उसे कहीं भी नहीं दे पाऊँगी। साइकिल पर मैंने बहुत मज़ा लिया है। साइकिल से मैं जो भी जाऊँ वह आसानी से चलाने में आसानी है और साइकिल से मैं आसानी से जाऊँ।

-Avani, Student, Agra

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INDIA CYCLES 4 CHANGE CHALLENGE

Cycling for me is like meditation that liberates my soul and energizes me to a different level. Each time I hit the road on my beloved cycle, I feel like a curious kid paddling for the first time. It gives me some much needed "Me" time amidst all the chaos we live in. It is not an activity, for me, it is an adventure I take periodically to rejuvenate.

- RJ Rocky, Amdavad

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#ResetWithCycling



INDIA CYCLES 4 CHANGE CHALLENGE

Cycling, to me, sums up the feeling of excitement, the swiftness of wheels, the trustful gripping of handlebar, the bumping and rolling of tracks, both off or on-road...these are the moments that give me life...everyday!

- Dr. Laldiniana, Associate Professor, Mizoram University Director, MZU Incubation Centre

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#Cycles4Change
#ResetWithCycling



INDIA CYCLES 4 CHANGE CHALLENGE

Thianta nena cycle khali te a nuaan a, borak thianghlim te han dawng a, khsa a lum in cycle kan khali hian thi a thaw a, kan taksa hrai nan te a tha a.

-Lalrauzanga Sailo, Student, Aizawl

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#Cycles4Change
#ResetWithCycling



INDIA CYCLES 4 CHANGE CHALLENGE

We spent our childhood cycling around the town, exploring the farms, lakes and mountains - which was a liberation in true sense. Cycling was our only way to commute, yet a powerful medium that connected us. Today, twelve years later, we are doing it all again - reliving our childhood, catching up and creating new memories.

-Anuj Dhole, Pune

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#Cycles4Change
#ResetWithCycling



INDIA CYCLES 4 CHANGE CHALLENGE

My work takes up quite a huge portion of the day. With a wife and three kids most of my days are spent away from my bike. But on the days I get to ride, I capitalize on it and take in as much scenery as I can, and always never disappointed. Every ride makes me happier, more energetic and fresh to take up any other challenges.

-Mr. Rinzuala, Managing Director, MIZOFED

#Cycle2Freedom
#Cycles4Change
#ResetWithCycling



INDIA CYCLES 4 CHANGE CHALLENGE

Cycling has helped me a lot in different ways. Growing up there has been lots of stresses and pressures not only the ones given by school and college works but also mental stresses and pressure given sometimes by parents and society. Just getting on the bike, peddling, choosing the route and the speed I want to go at makes me feel so much at ease.

-Kevinthozo Casavi, Engineering Student

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#Cycles4Change
#ResetWithCycling



INDIA CYCLES 4 CHANGE CHALLENGE

With feet in the pedals and head in the clouds, cycling liberated me from the usual daily concerns. Besides its numerous health benefits, it is a soulful experience, the finest test of human endurance. It has given me a sharper mind, better mental and physical health.

-Lalramzanga (Tete), Assistant Branch Head, Bandhan Bank Ltd, Aizawl Branch.

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#Cycles4Change
#ResetWithCycling



INDIA CYCLES 4 CHANGE CHALLENGE

I used my cycle to attend classes everyday, and during our holidays my friends and I would get on our cycles, roam around and explore places whilst having the time of our lives. The belief that cycling is unhealthy for women is completely false and more awareness should be made.

-Lalrauzfeli, Pharmacist, Aizawl.

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#ResetWithCycling



INDIA CYCLES 4 CHANGE CHALLENGE

As I get on my cycle, I feel the pasts arrival, The joy, the innocence of a boy, The mischief of health and wellness flow, The beauty of houses in a row, Of roads that glow, and people also, Of blossoms, the sun God above, For the help I could render to people in a border, All on my way to making myself better.

-Lalrimingiana Hlawndo, Teacher, Aizawl.

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#Cycles4Change
#ResetWithCycling



INDIA CYCLES 4 CHANGE CHALLENGE

Riding a wheeler with manual push of the pedals is pure joy, I would also feel I am doing a great service to life whenever I get on a bike that burns calories and not gas, cycling liberates, is healthy and a thing of change, indeed!

-Henry C.Lalrawnkima (MCS), State Protocol Officer

#Cycle2Freedom
#Cycles4Change
#ResetWithCycling



INDIA CYCLES 4 CHANGE CHALLENGE

Cycling has completely changed my life. I started cycling about three years ago, going out of the city in the early morning hours. I get a rush of adrenaline andendorphins every time I go out cycling. The feeling of freedom you get is irreplaceable. I'm 50 yrs old but cycling has made me fit not only physically but mentally too!

-Dr. Franklin Lalrimingtha, Medical Doctor & Entrepreneur

#Cycle2Freedom
#Cycles4Change
#ResetWithCycling



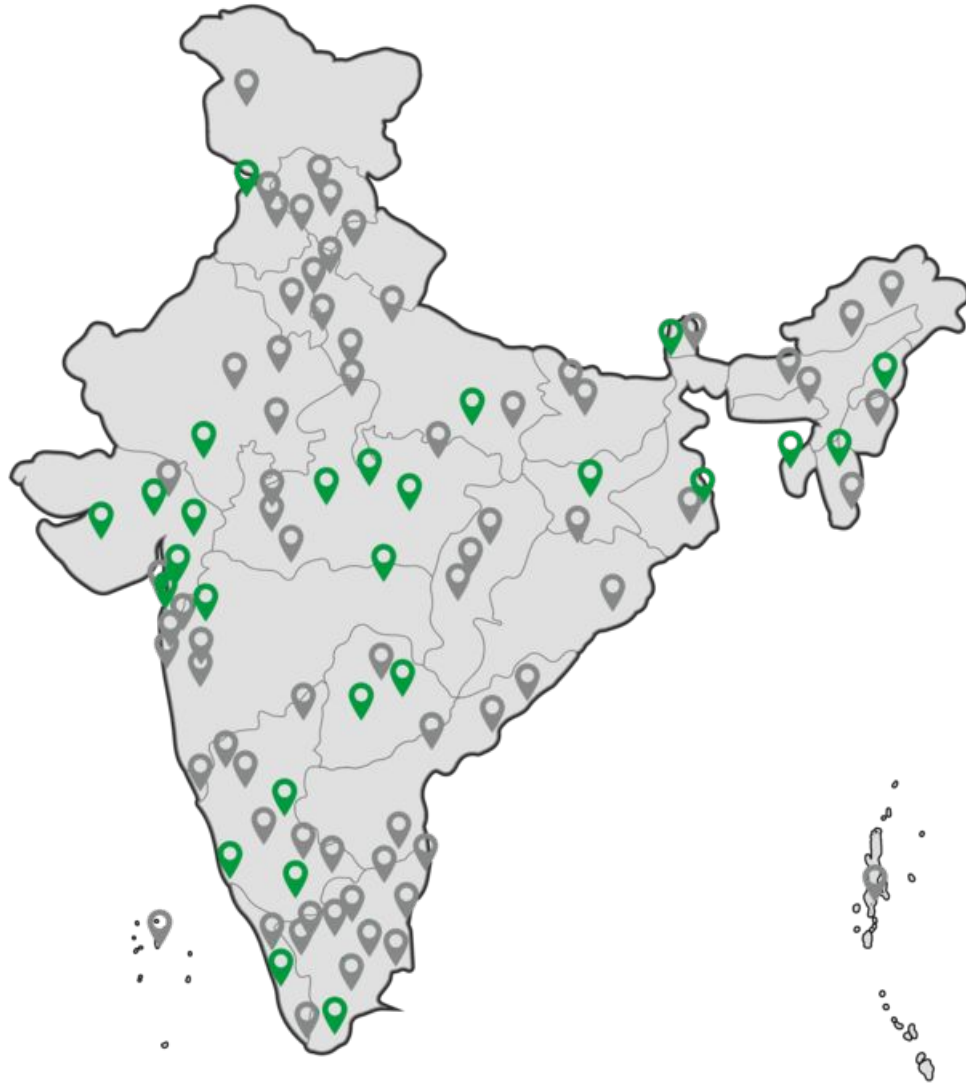
INDIA CYCLES 4 CHANGE CHALLENGE

My partner and I picked up cycling again during this pandemic. Each trip has been longer than the last one, and it's always been a rush of happiness! The feeling of freedom while exploring new trails and shaping memories on the way. Cycling, to us, has been a reminder to find joy in the smallest of things.

- A V Venugopal, Chennai

#Cycle2Freedom
#Cycles4Change
#ResetWithCycling

Handlebar surveys across India...



26

**cities have
completed surveys**

19

**cities included
women and children**

... with diverse teams



Prayagraj



Udaipur



Hyderabad



Kohima



Mysore



Mangaluru

India Cycles4Change Challenge submission date extended to December 14th!

Workshop 4	25th September
Workshop 5	16th October
Workshop 6	6th November
Workshop 7	27th November

PANEL DISCUSSION

with

Aizawl, Nagpur, Rajkot

Aizawl



Nagpur

NAGPUR UPDATES

SHASHANKGATTEWAR_NAGPUR

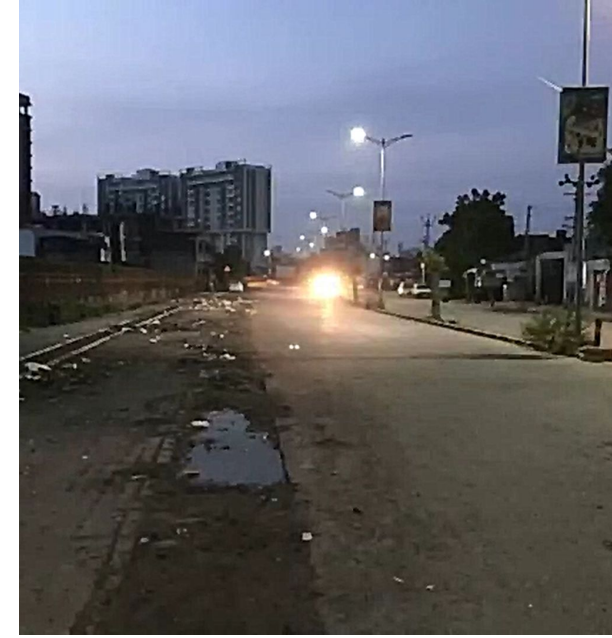
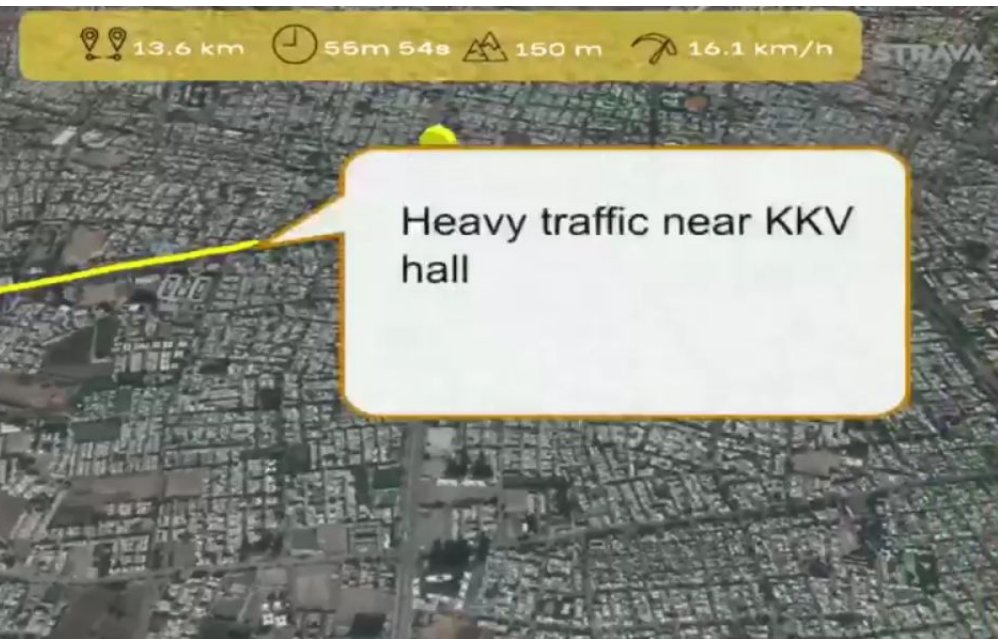
#LetsCycleNagpur

AS A PART OF
'INDIA CYCLES FOR CHANGE CHALLENGE',
NAGPUR SMART CITY HAS IDENTIFIED
SEPARATE BICYCLE LANES OF
APPROXIMATELY 17 KMS INSIDE THE
CITY. THE LANES SURROUND THE WEST
REGION OF NAGPUR COMPLETING A LOOP
STARTING AND ENDING FROM LAW
COLLEGE SQUARE.

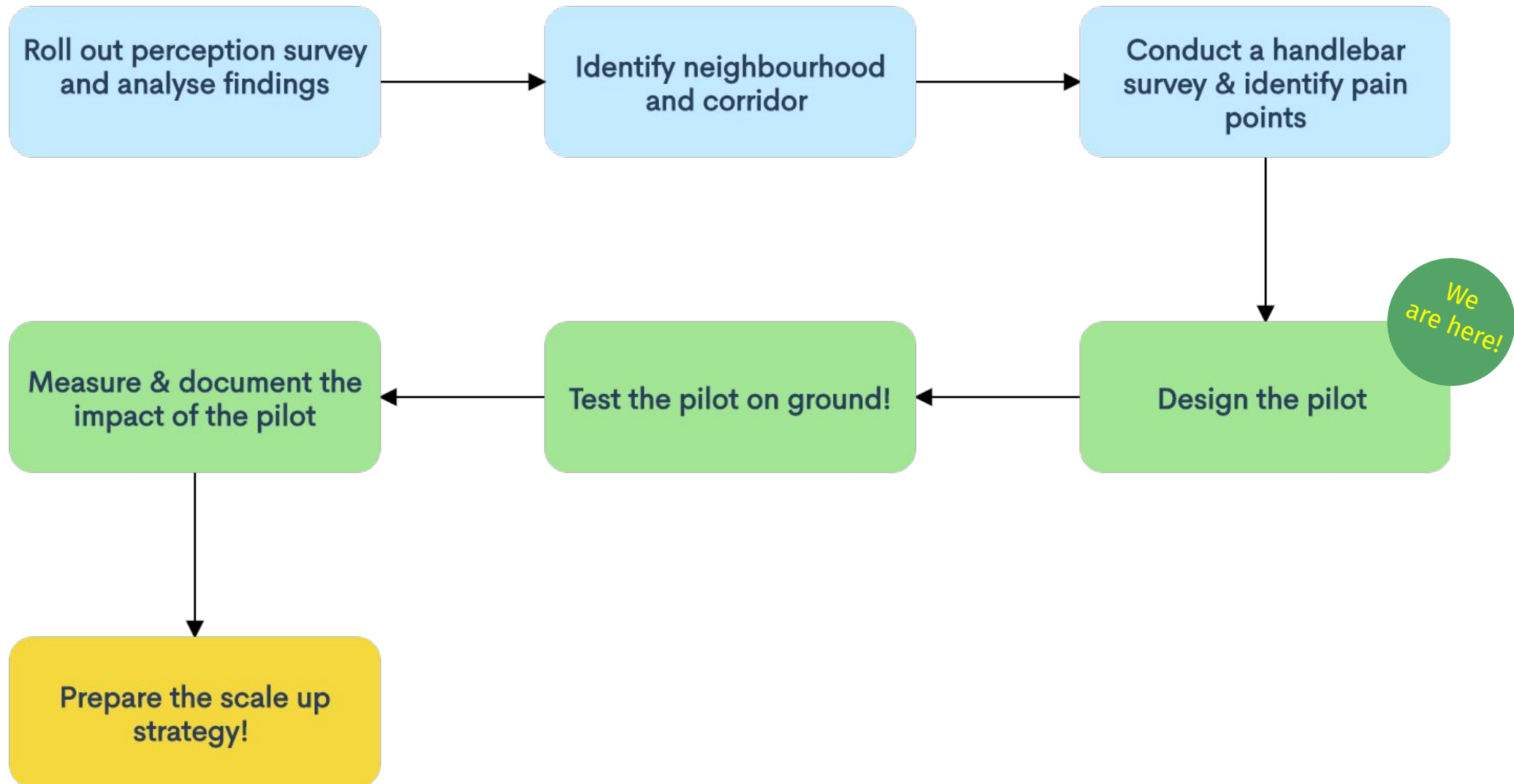
Law college square - Bhole - Petrol Pump
- VIP Road - Alankar Square - Swargiya
Annabhau Sathe chowk - NEERI Chowk -
Back to Bhole Petrol Pump - Maharaj Bag
square - Akashwani Square - VCA Square -
Mason Square - Japanese Garden Square
- Seminary Hills (via WCL ghat road) -
Vayusena Nagar - Hanuman Tekdi Road -
Walker's street - Ladies Club Square - Law
College Square



Rajkot



Challenge map



Today's Session

1. The process of testing pilots
2. Designing the pilot
3. Building the momentum

1. The Process of Testing Pilots

Process for the pilot



Source: GDCI

**Document
the site**



**Develop
the design**



**Organise
community
reviews**



Source: Street Plans

**Test
designs on
ground**



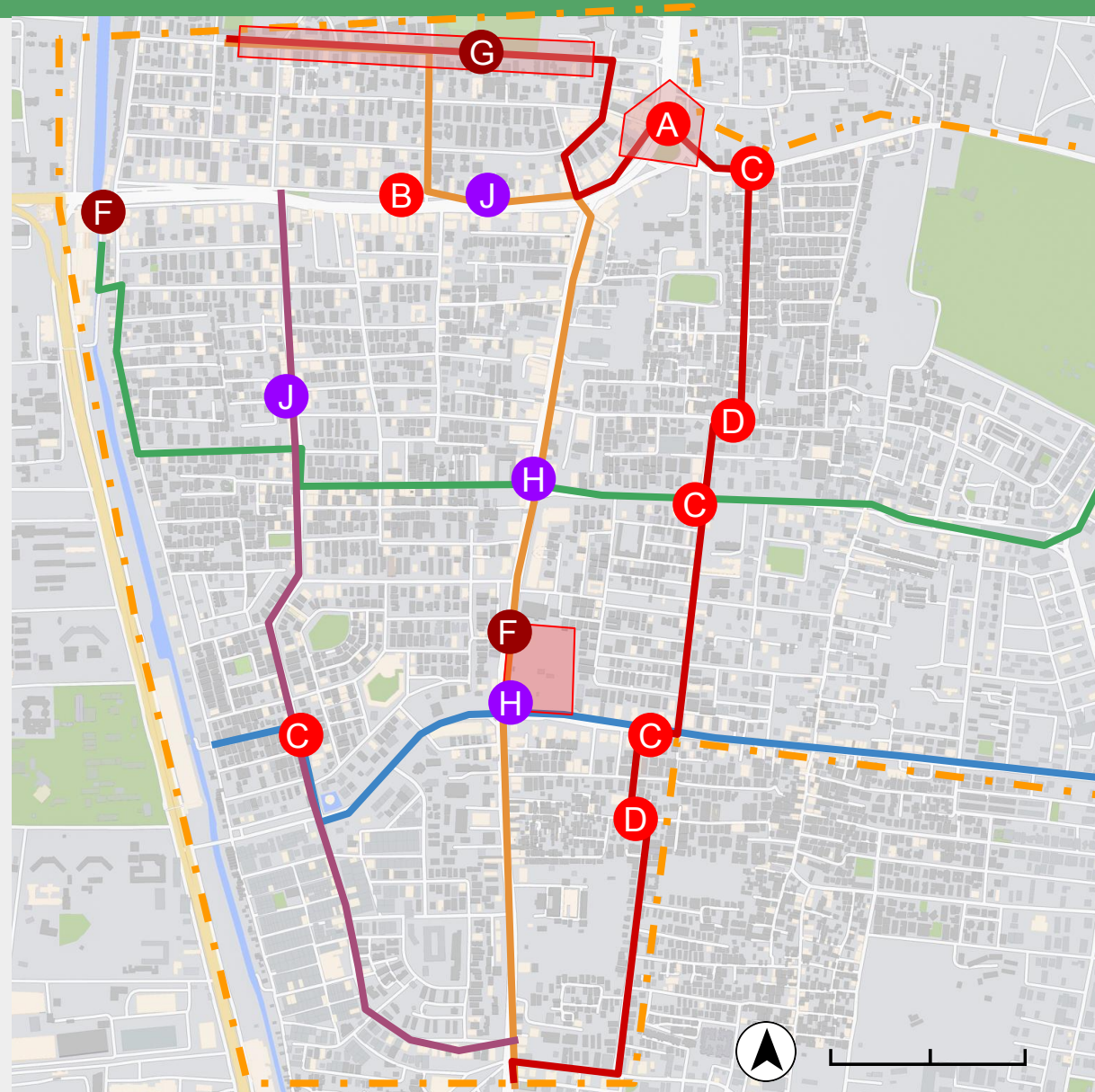
**Measure
the impact**

TEST-LEARN-SCALE throughout

Map the pain points

After completing the handlebar survey, cities must-

- Map handlebar survey routes**
- Map the pain points**
- Map other data** such as traffic flow etc.



- A** Fast moving traffic
- B** Wrong side traffic
- C** Dangerous junction
- D** Blind turns
- F** Lack of visibility (lighting)
- E** Fear of encountering stray animals
- G** Undesirable activities
- H** No waiting space at traffic signals
- I** Obstruction by utilities
- J** Obstruction by parking

What is a deal breaker?

A deal breaker is a pain point that would **make cyclists completely avoid cycling on that route!**

Identify your deal-breakers



Unsafe intersections and dangerous traffic movement

Source: African Celebs on India Crossroads



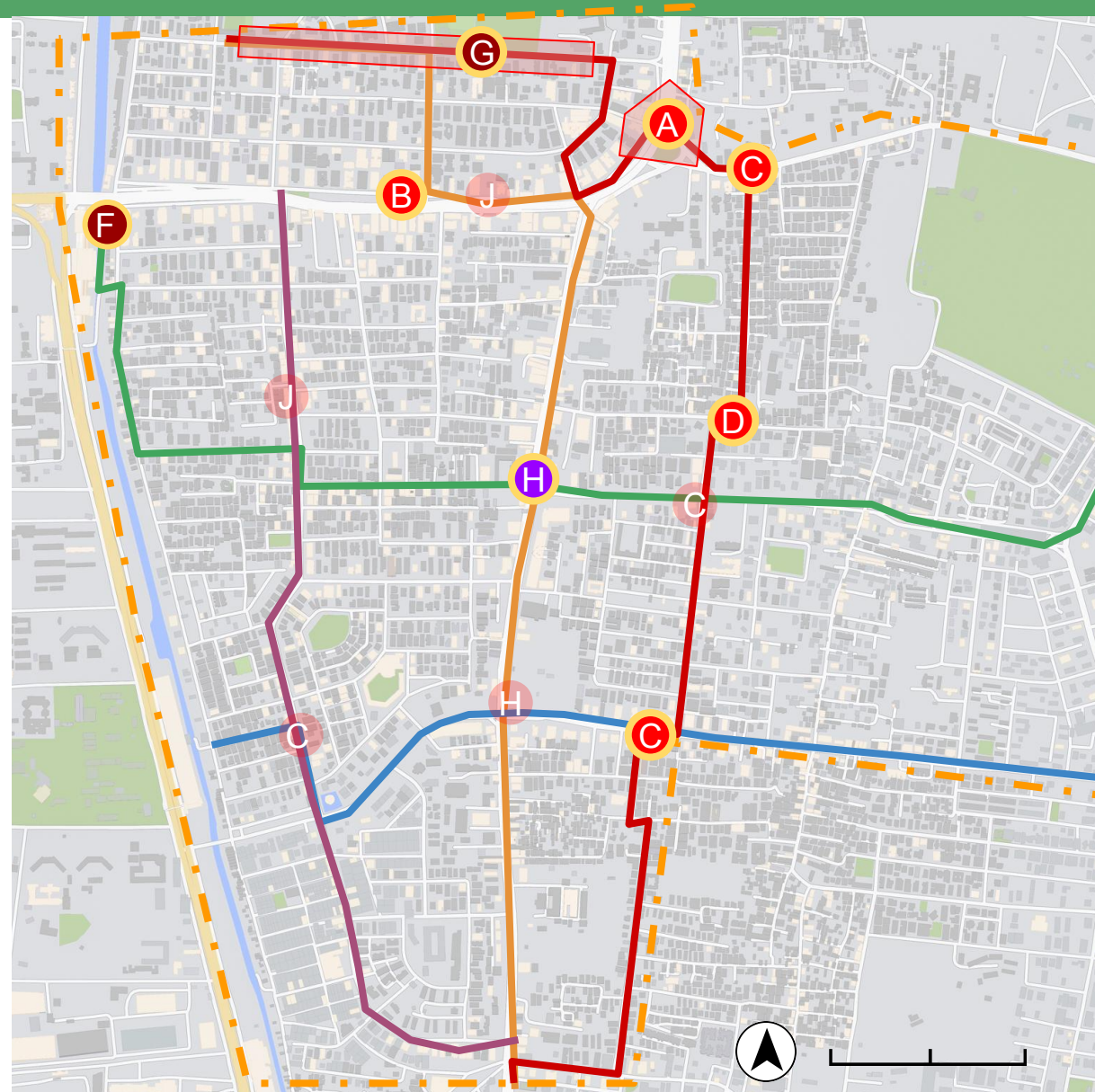
Unsafe night-time activities

Source: Nottingham Post



Fast moving vehicles

Map the deal-breakers



- A** Fast moving traffic
- B** Wrong side traffic
- C** Dangerous junction
- D** Blind turns
- F** Lack of visibility (lighting)
- E** Fear of encountering stray animals
- G** Undesirable activities
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- I** Obstruction by utilities
- J** Obstruction by parking

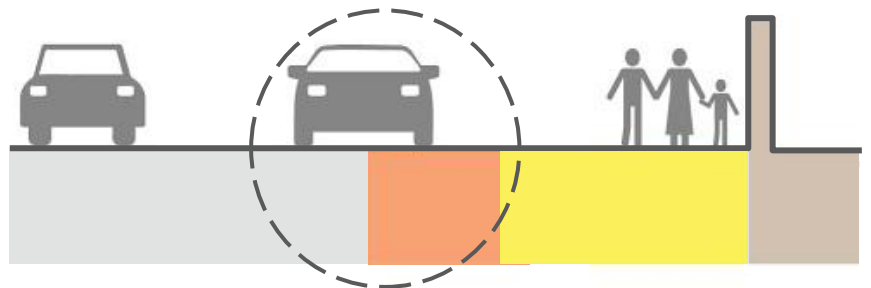
2. Designing the Pilot

- Cycle track basics
- Calming the neighbourhood
- Other design elements

Cycle track basics

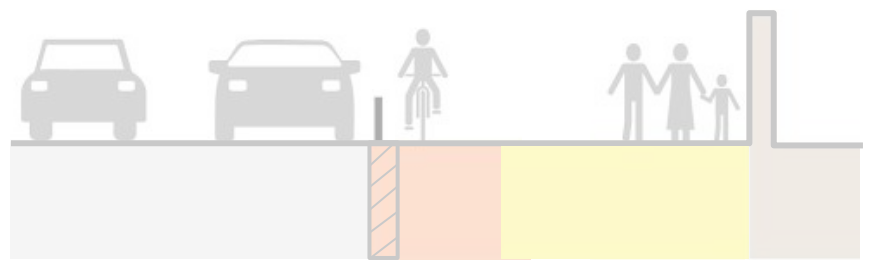
A Segregate the Cycle Track

✗



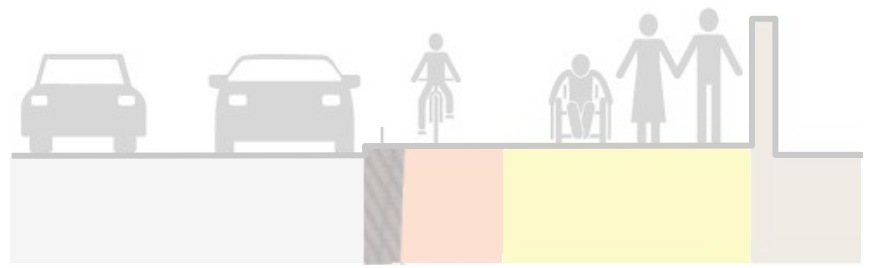
Wrong design

✓



Temporary intervention

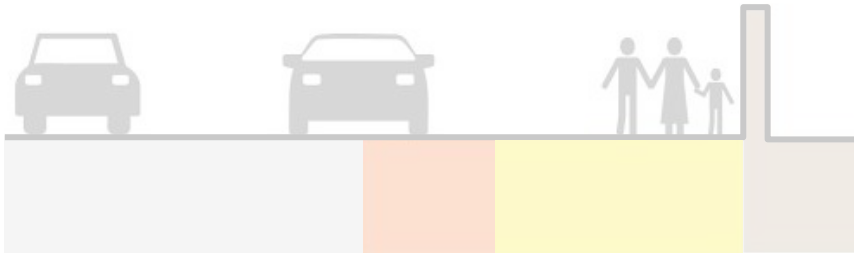
✓



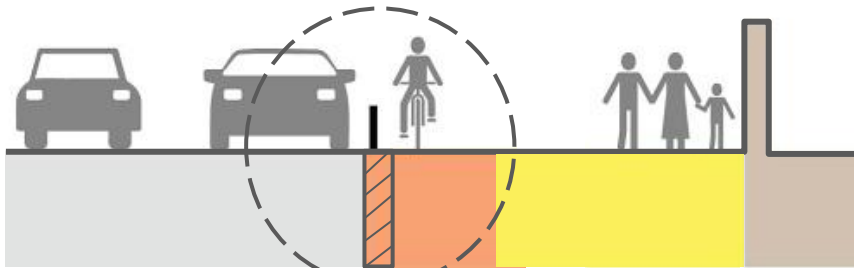
Permanent intervention



A Segregate the Cycle Track

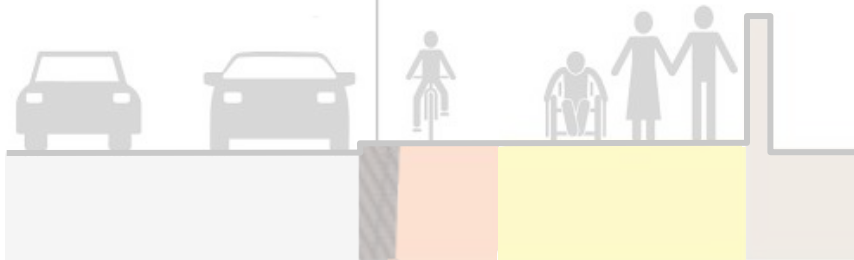


Wrong design



Temporary intervention

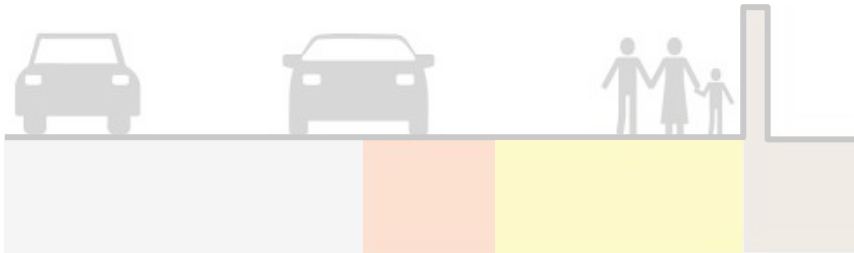
0.5 m



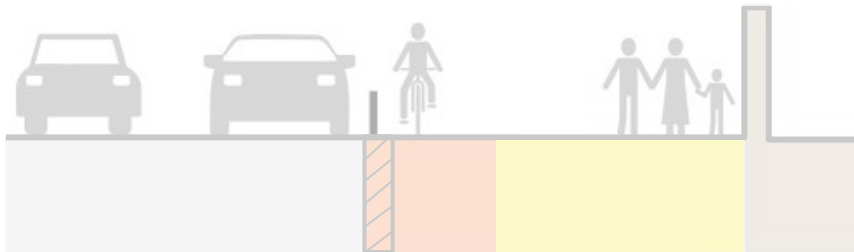
Permanent intervention



A Segregate the Cycle Track

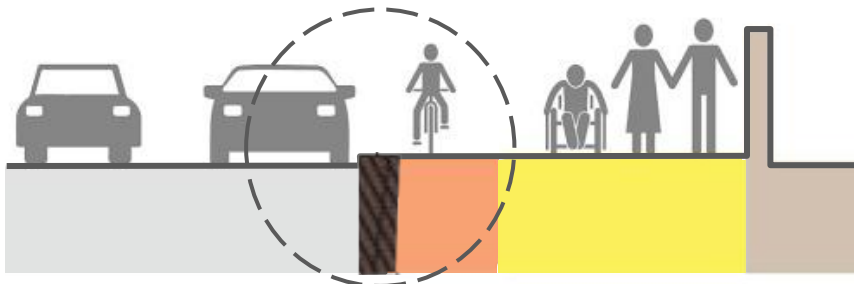


Wrong design



Temporary intervention

0.5 m

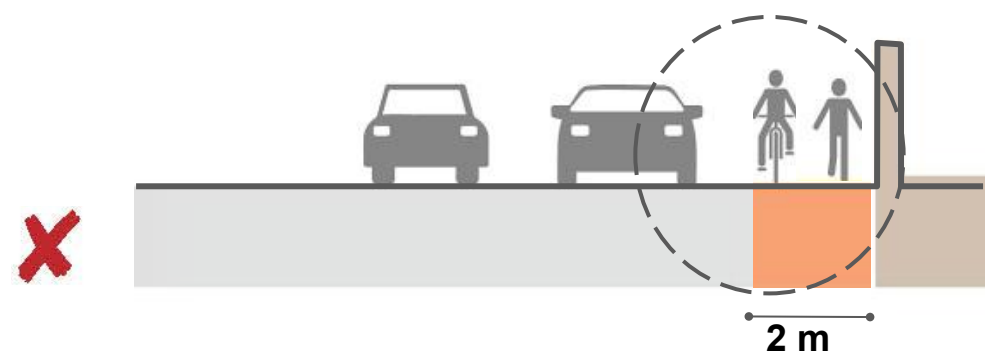


Permanent intervention

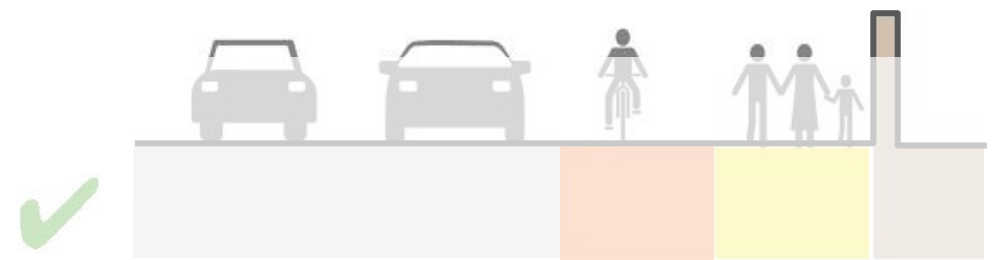


Source: Department of transport - Dutch

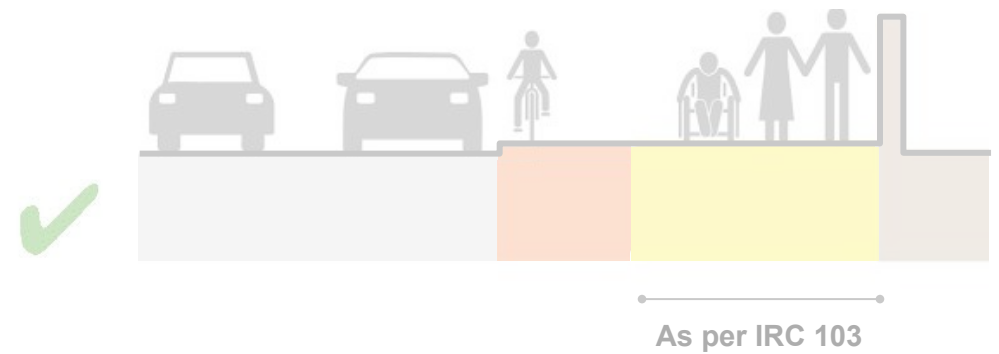
B Without footpaths, cycle tracks fail



Wrong design



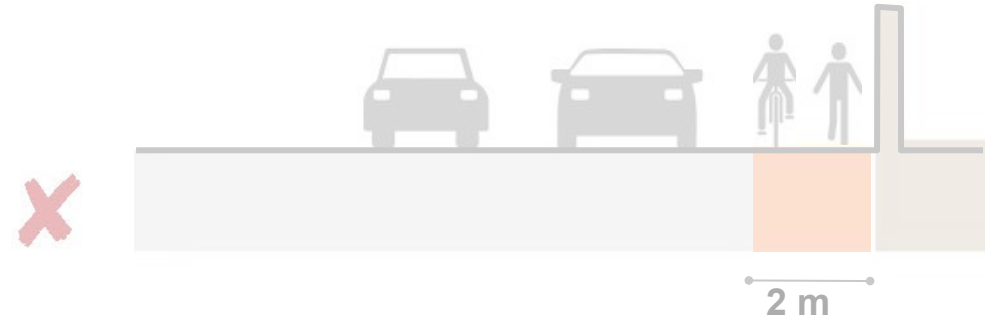
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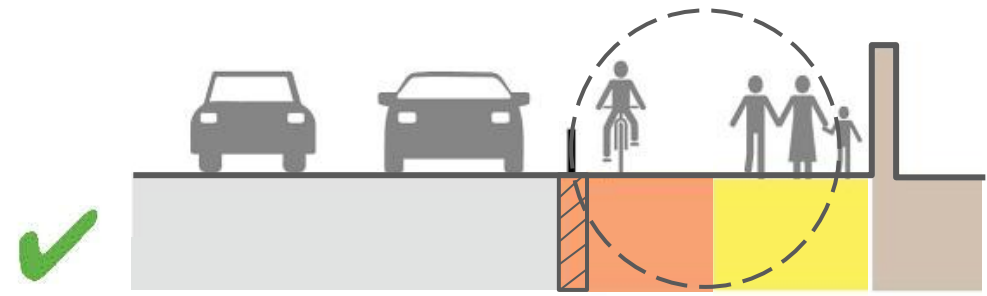
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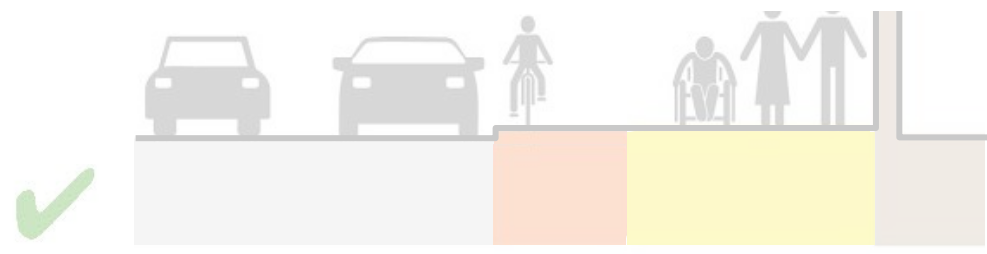
B Without footpaths, cycle tracks fail



Wrong design



Temporary intervention



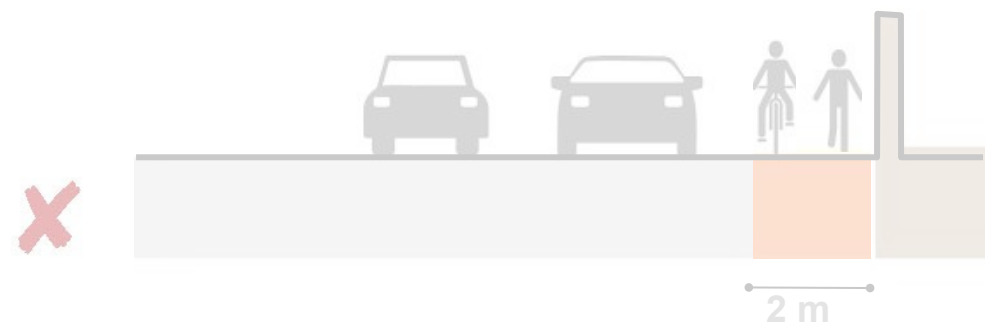
Permanent intervention

As per IRC 103

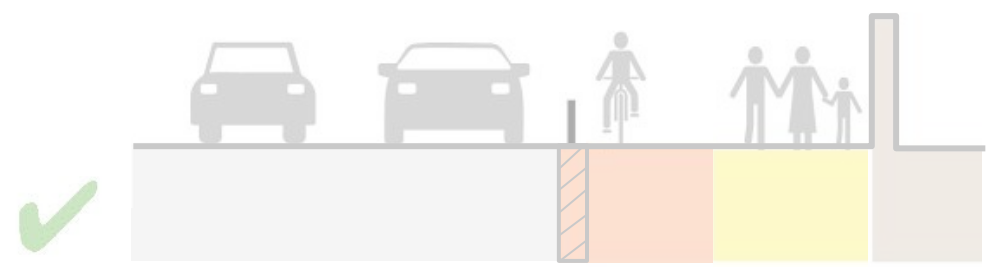


Source: tooledesign.com

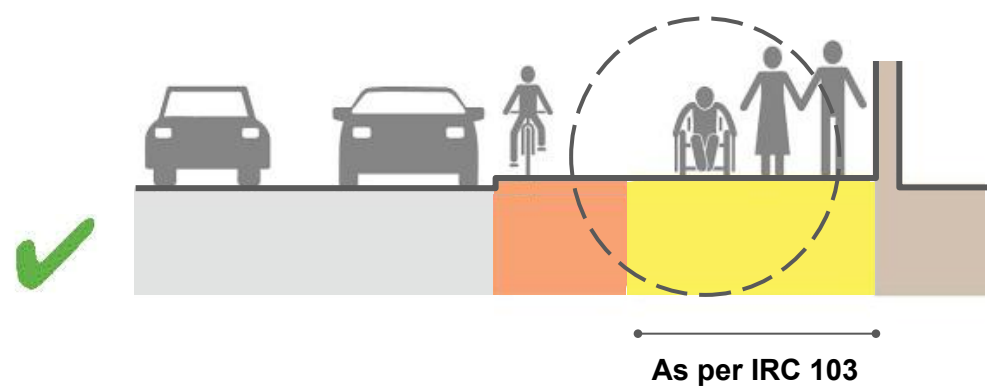
B Without footpaths, cycle tracks fail



Wrong design



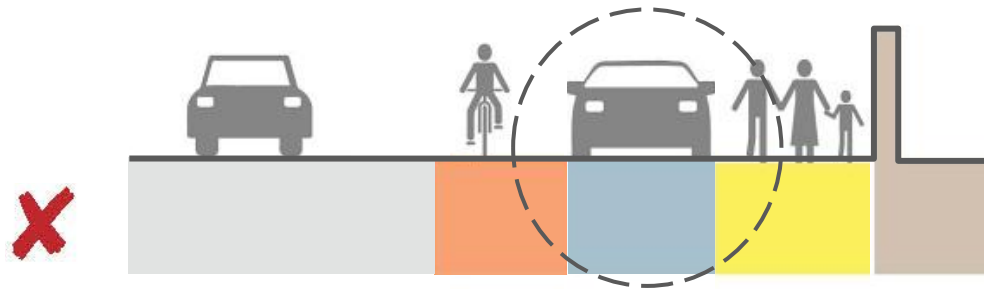
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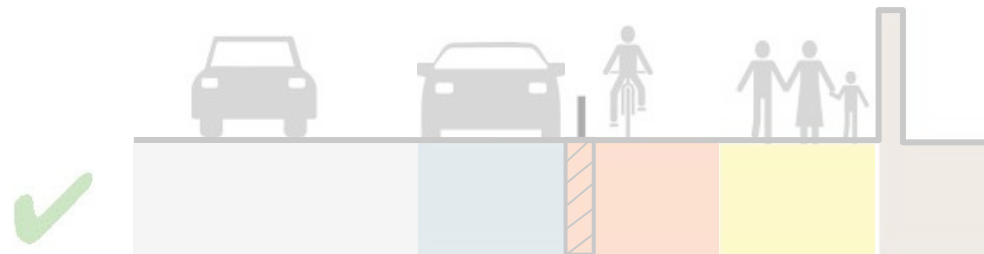
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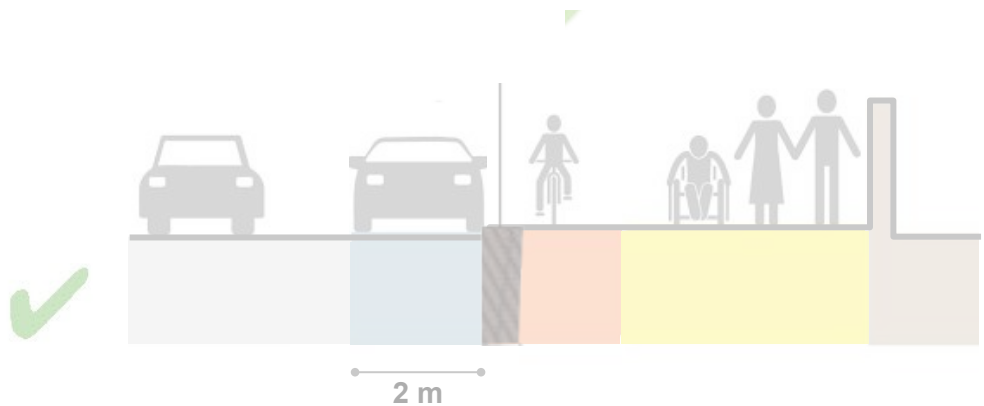
C Place parking next to carriageway



Wrong design



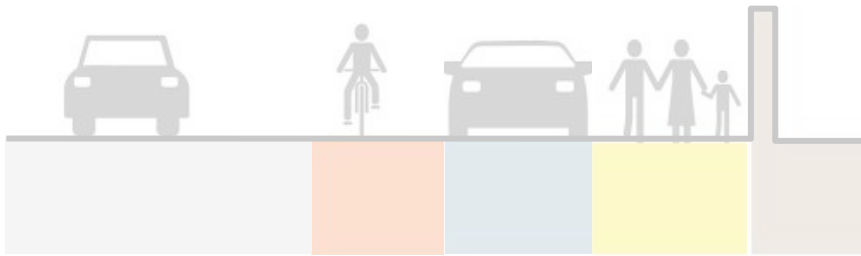
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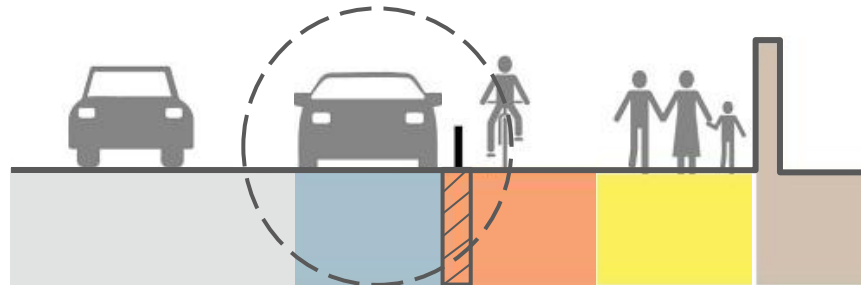
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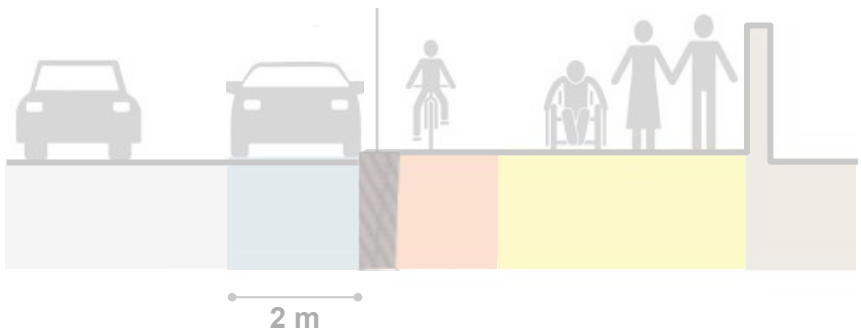
C Place parking next to carriageway



Wrong design



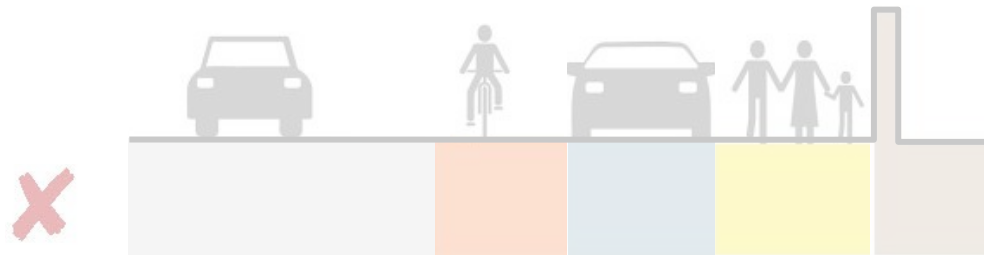
Temporary intervention



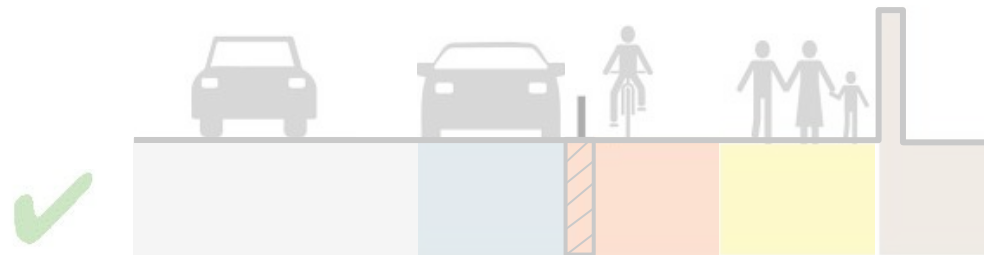
Permanent intervention



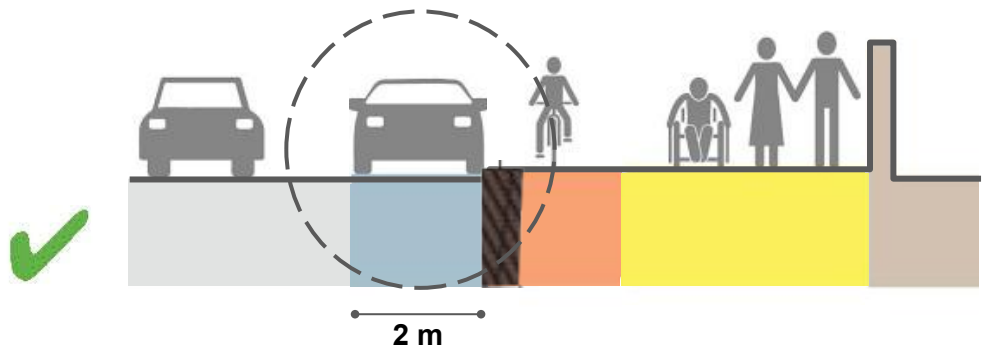
C Place parking next to carriageway



Wrong design



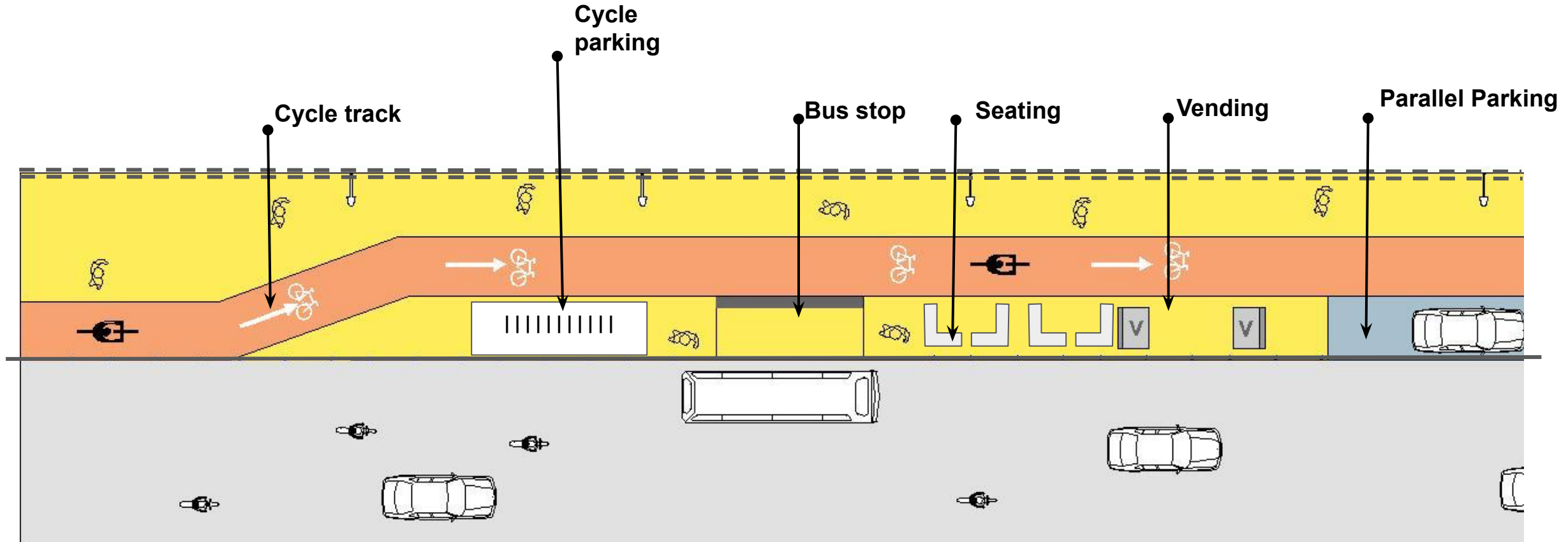
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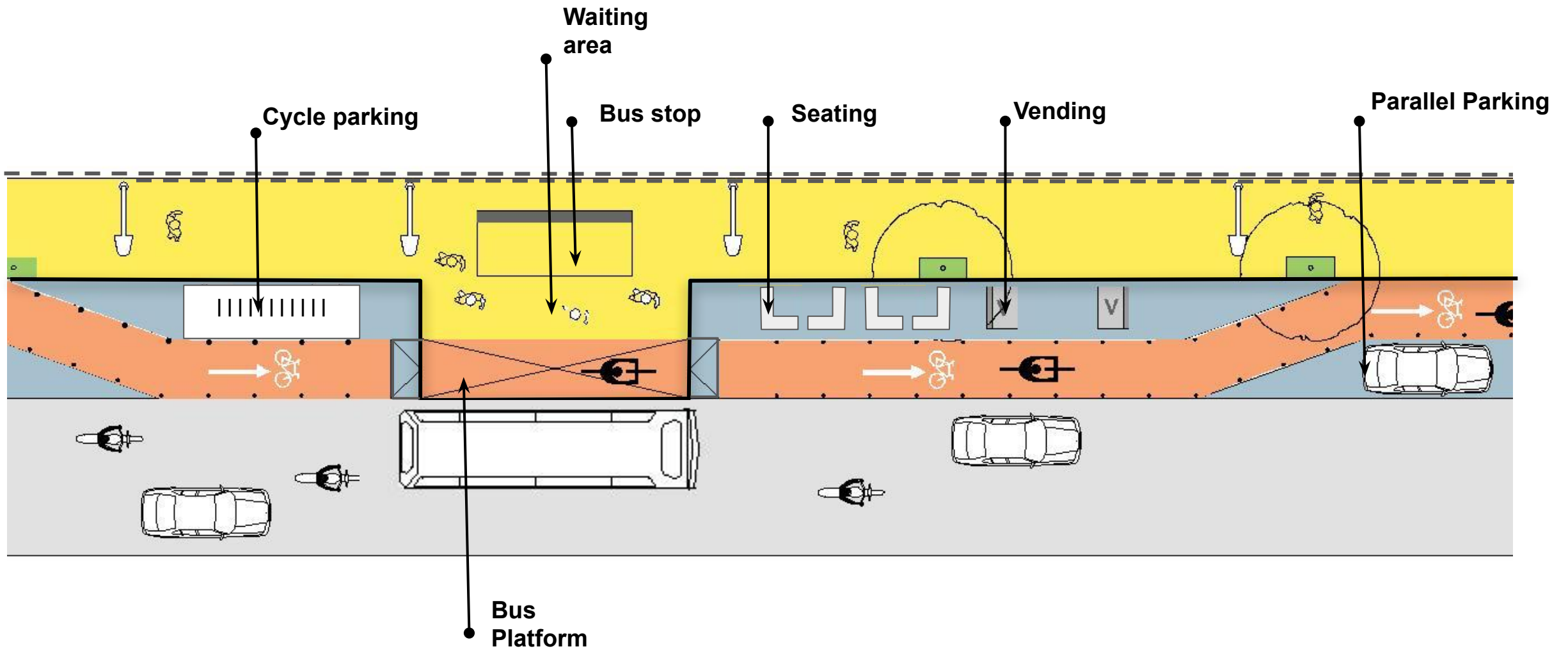
Permanent intervention



Managing the kerb (Permanent)

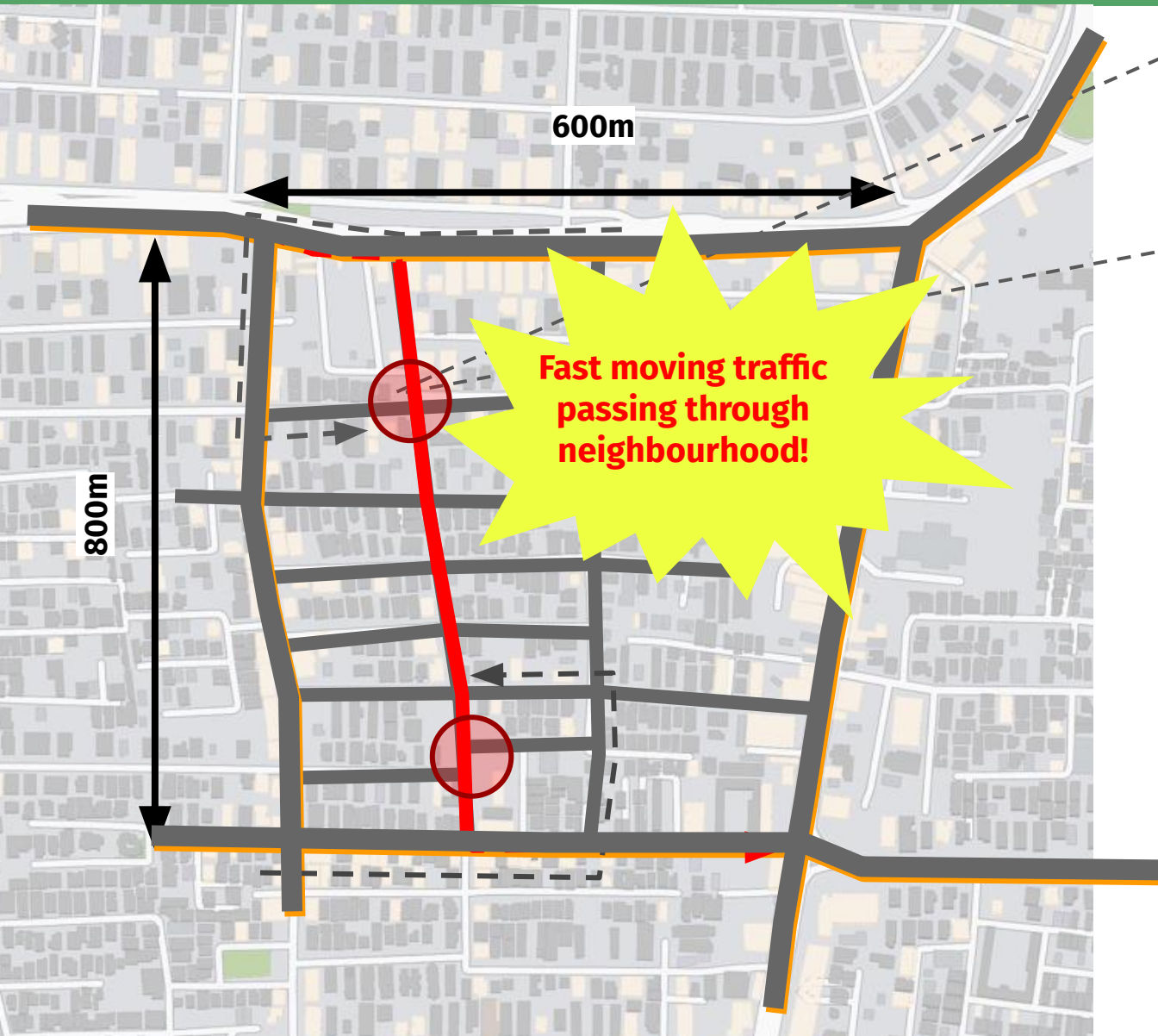


Managing the kerb (Temporary interventions)



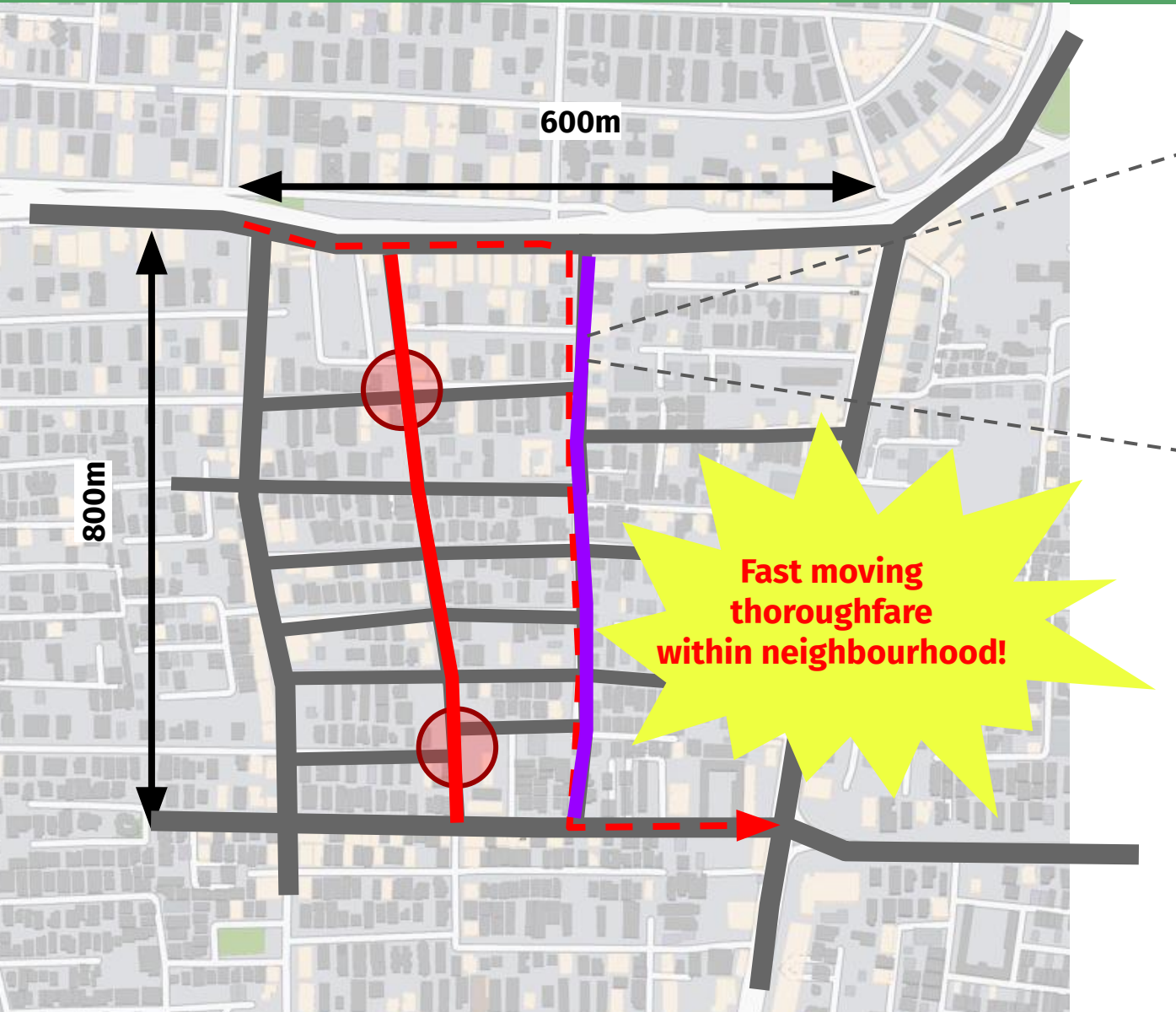
Calming the Neighbourhood

Reroute traffic to make streets safer and liveable



- Streets with public transport
- Local streets
- 15kmph street not permitting thoroughfare

Traffic calming to reduce speed






Traffic Calmed Streets with table tops & speed bumps

-  15kmph street not permitting thoroughfare
-  30kmph traffic calmed streets

Traffic calming to reduce speed

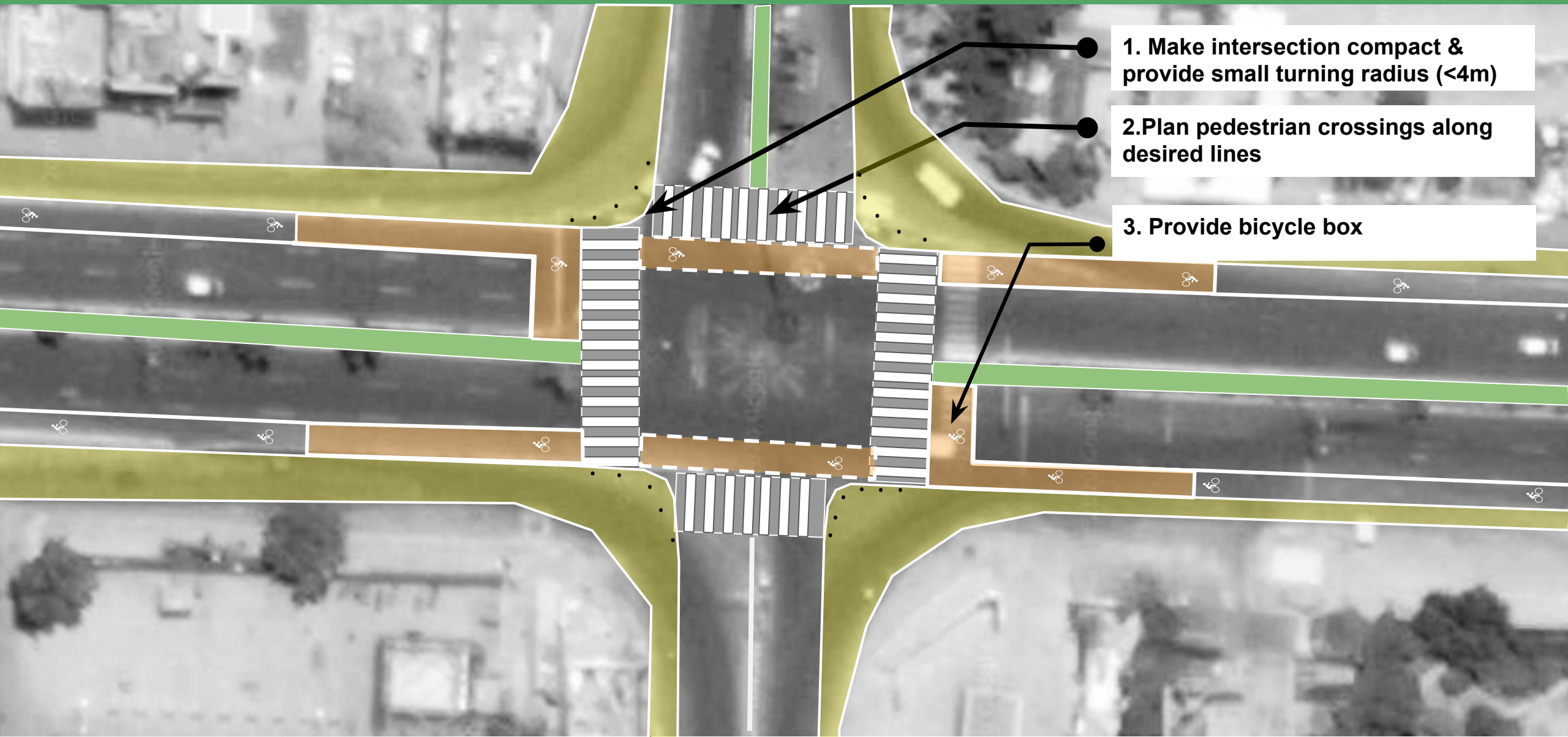


Slow Zones with Chicanes - using barricades and planters

-  15kmph street not permitting thoroughfare
-  30kmph traffic calmed streets
-  15kmph Local Streets

Other Design Elements

Safe Intersections

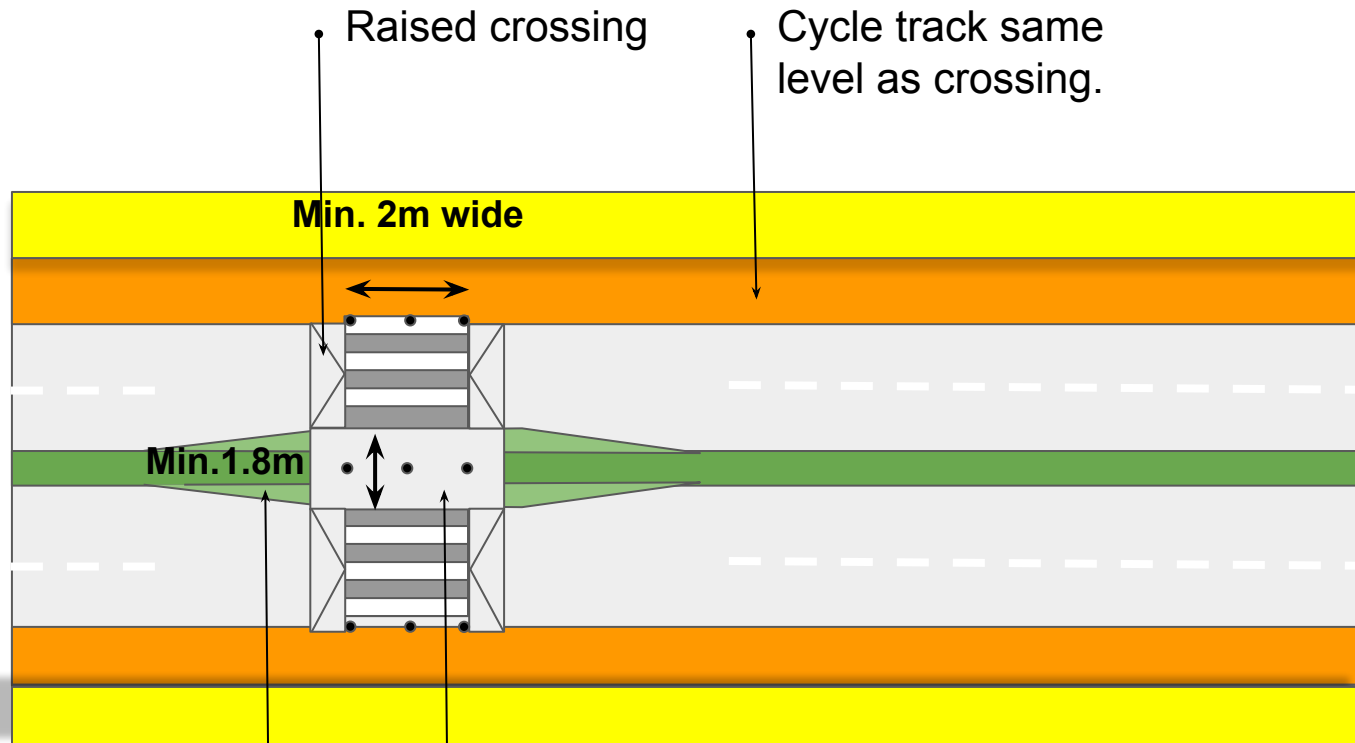


1. Make intersection compact & provide small turning radius (<4m)

2. Plan pedestrian crossings along desired lines

3. Provide bicycle box

Create frequent and safe crossing opportunities



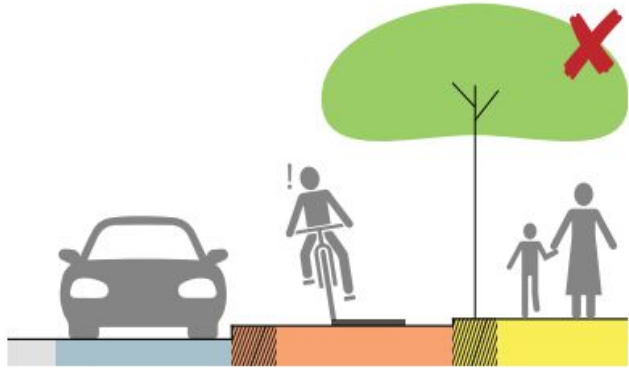
Narrowing width to reduce speeds
Space for cyclists to wait

Provide crossings every 200-250m

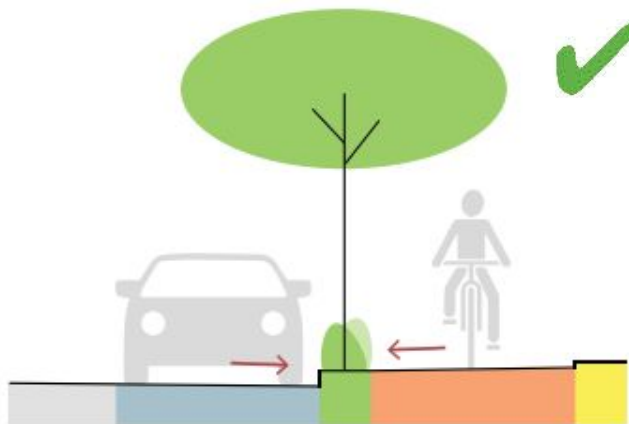
Median refuge is at same level as carriageway, when there is no raised crossing.



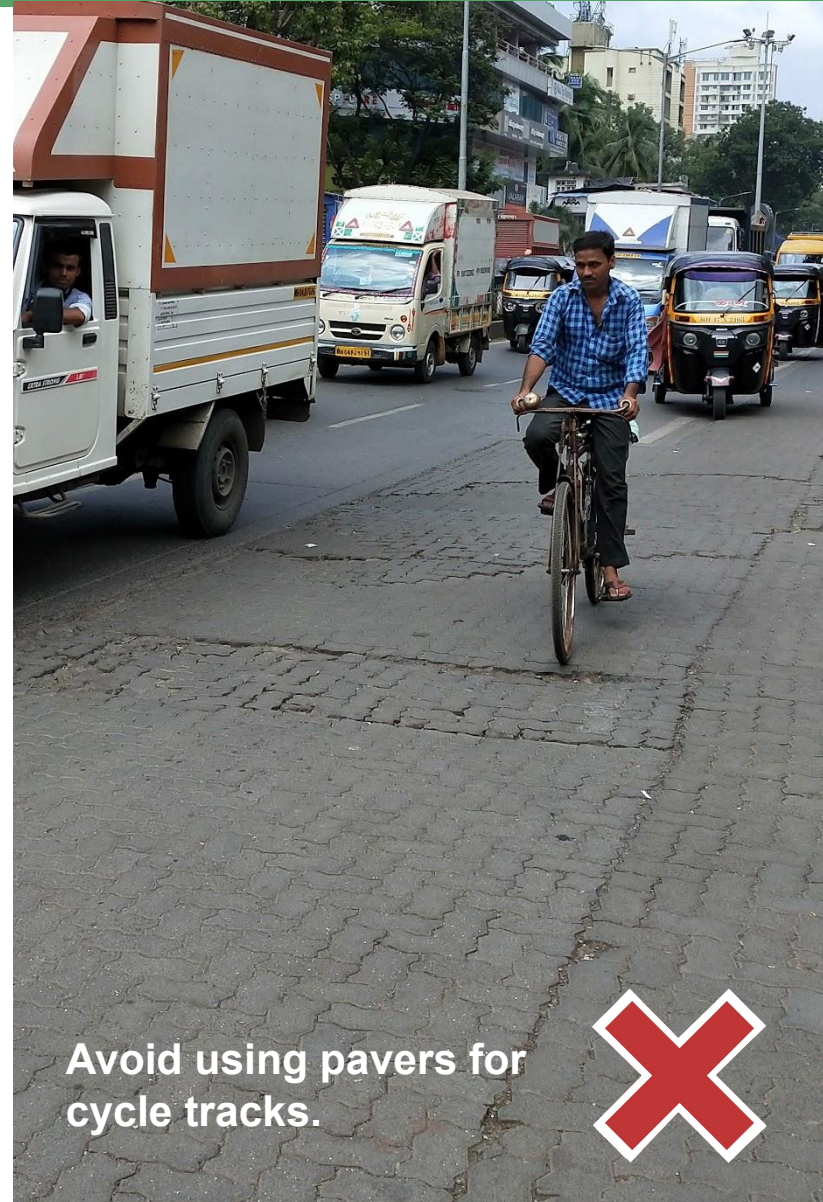
Provide even riding surface



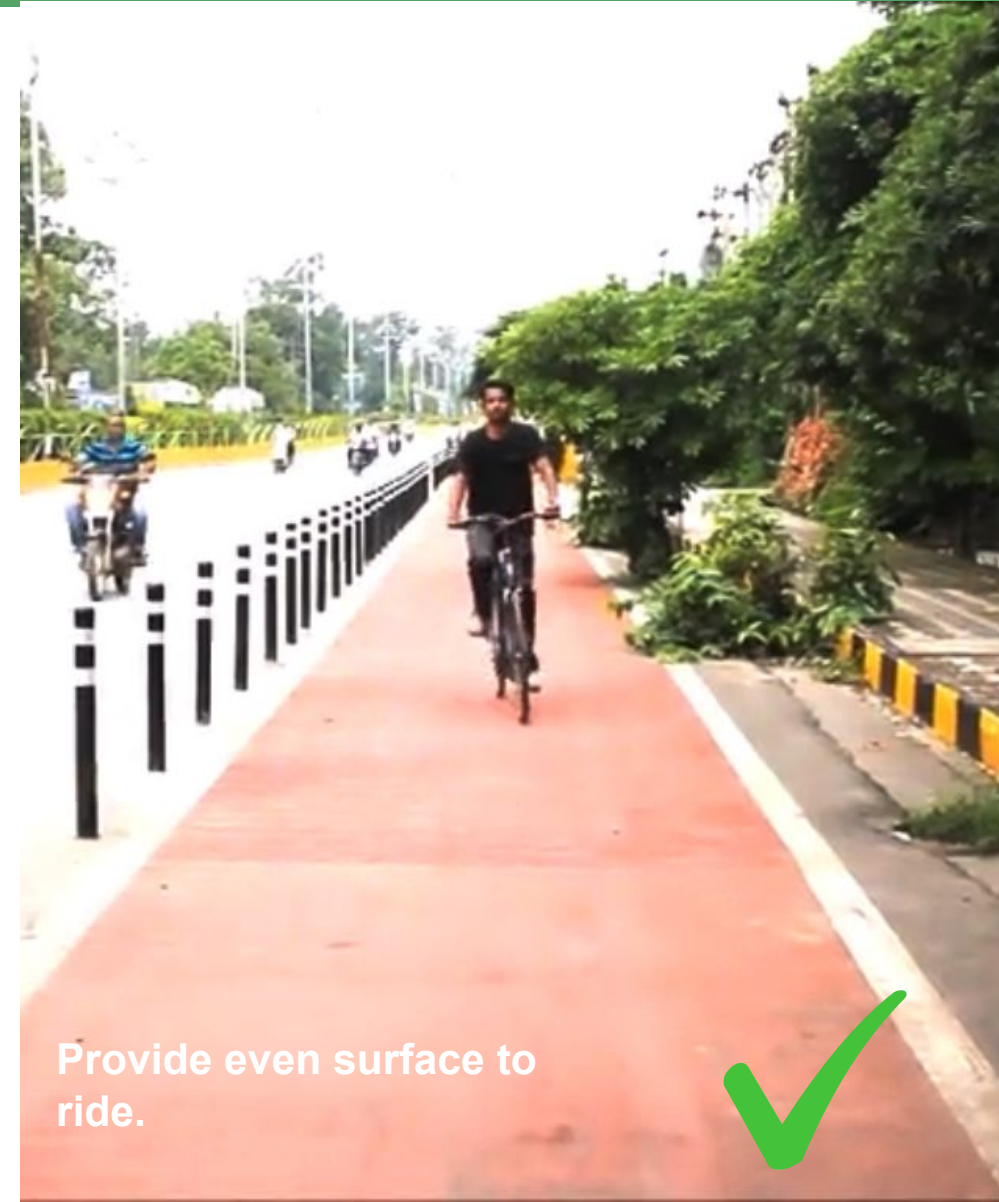
Avoid uneven surface
& service covers



Ensure the surface is
well-drained.



Avoid using pavers for
cycle tracks.



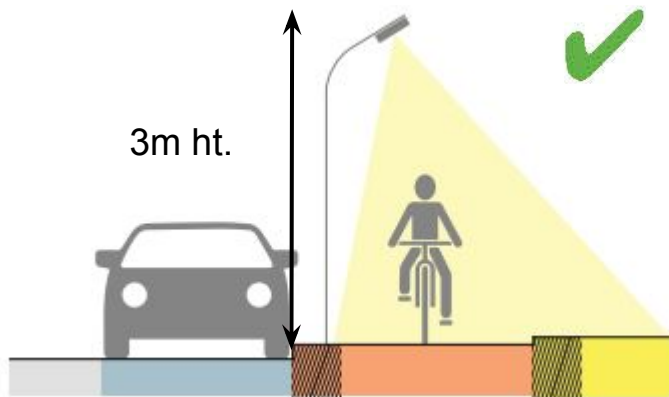
Provide even surface to
ride.



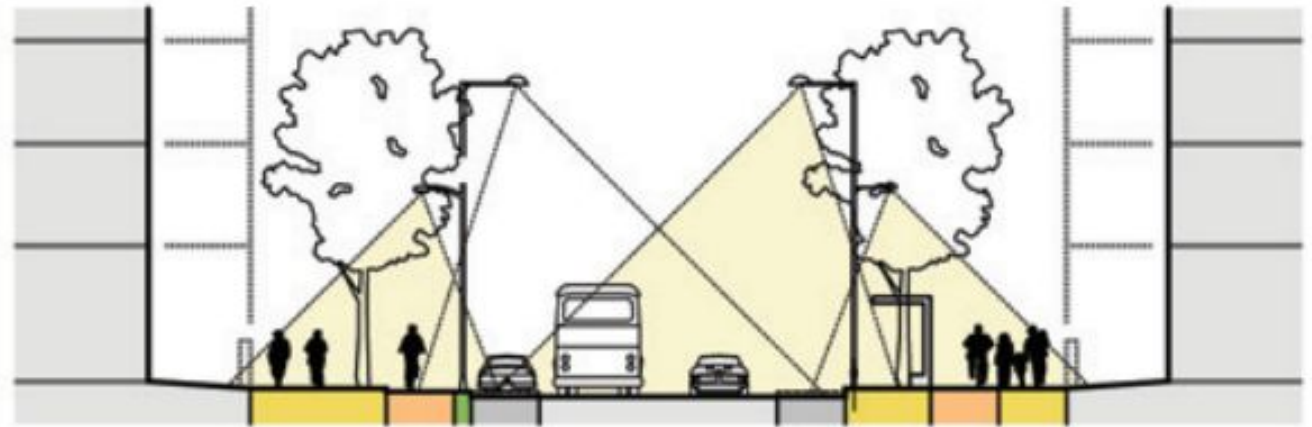
Light it right: for road safety and personal security



Tall lights obstructed by trees.



Human-scale lighting



Ensure the entire right of way is well-lit.

3. Building the Momentum

Online- Expand the Cycles2Freedom campaign!

- **Get stories from commuter cyclists and women cyclists**, who cycle everyday despite the odds to reach their place of work (or study)
- **Start speaking with the cyclists who serve you** vegetable vendors, watchmen, delivery persons, etc.
- **Ask the right questions!** Find out how cycling has made a difference to their lives.



Online- Expand the Cycles2Freedom campaign!

Ideas for questions-

- When did you get your cycle?
- How many years have you been cycling for?
- What is your favourite memory with your cycle?
- What would you do if you didn't have the option of cycling?
- What can the city do to improve cycling for you?



INDIA
CYCLES 4 CHANGE
CHALLENGE



My son bought me this second-hand cycle after I told him that I wanted to start working as a house-help. It was difficult to walk 4kms everyday. I really like cycling, and now I work at 4 homes in a day. If not for the cycle, I think I would have to depend on my son to drop and pick me up. Buses don't go to the interior streets. It would have been too difficult.

-Pushpa, Malgudi

#Cycle2Freedom

#SheCycles4Change

#ResetWithCycling



Offline- Closed streets for cycle training camps!

Close streets or parts of streets **along the pilot stretch to -**

- **Encourage women, children and beginners** to cycle in a safe outdoor environment
- **Train them** to cycle with confidence on the streets
- **Build support of the residents** along the pilot stretch



Do Cycling.Safely

26m · 🌐



First ever cycle training camp held today. At NKDA football ground. Every Sunday. Theory lectures too on parts of a cycle, traffic rules etc.

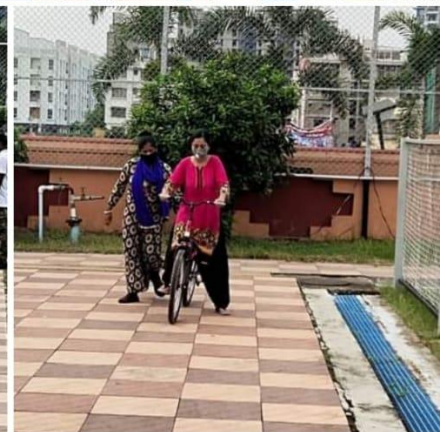


Do Cycling.Safely

20h · 🌐



Cycle training at NKDA Football ground, Every Sunday, 4pm to 6 pm



How to conduct the closed streets campaign?

1. **Identify a prime location** near pilot stretch to close the street
2. **Release an official circular** and inform the locality about the event
3. **Spread the word** to register for event through social media
4. **Include cycle groups and other experts** to teach cycling
5. **Use barricades / planters / bollards** etc to close the street
6. **Document the event** and put out highlights post event



Source: lbhf.gov.uk



Source: John Faulk

Until Workshop 4, let us

1. **Design** the pilot stretches
2. Refine the designs through **expert review sessions**
3. **Organise community design reviews**
4. **Build the momentum** through campaigns

C4C team will share

- Presentation and video of Workshop 3
- Design solutions and Implementation details
- Perception survey outreach
- Qualitative survey template
- Guide for site documentation
- Templates for outreach
- Guidance on using Streetmix

Thank you

Website - <https://bit.ly/3ju3ZCY>

Facebook - India Cycles4Change

A programme of



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