MTC Regional Mapping and Wayfinding Program

Program and Phase 2: Background

Contents

This document

This document provides background information about the current status of the MTC's 'Regional Mapping and Wayfinding' program. It has been supplied in January 2020 to provide context and reference for partners responding to an online questionnaire.

Supplied separately is a six-page Outreach Summary describing the next stages of this program.

Part 1
Program Background

Context

MTC initiated this effort to develop more cohesive regional transit information to encourage sustainable forms of movement, aided by improved pedestrian and transit information.

Program Goal

This program is designed to put the needs of regional users first in the design of future information products and services while bringing partners together to reflect and respond to the unique context and dynamics of the Bay Area.

Seamless Transit

SPUR published Seamless Transit in 2015. The document identifies five barriers "that our region needs to overcome in order to improve the transit experience for riders." The first of these barriers was "poor information about how to make a multi-operator trip" that "deters potential riders, who don't want to take the risk of being stuck at a transit station without knowing what to do next."

The proposed strategy to "help travelers understand the value of the region's transit system and how to use it" suggested that "public transit services should be marketed as one system." To increase regional ridership, "MTC should lead development of a commonly used region-wide transit map," which MTC agreed to undertake.

Urban Wayfinding

All stakeholders recognize the importance of walking and cycling within a more effective and sustainable movement network. The region's largest cities formally entered a 'commitment to collaborate' with MTC to develop Bay Area mapping and wayfinding. The aim is to provide residents and visitors with multi-modal information that allows them to comfortably and efficiently navigate through cities and the region using sustainable transportation modes. MTC saw the opportunity to merge this with the development of regional transit mapping to initiate this program.

This commitment has developed both the San José Downtown and San Francisco Ferry Building wayfinding pilots. Bay Area Bike Share (currently Bay Wheels) has also made use of emerging design language and resources. Each project supports the broader aim of creating a more seamless experience by enabling other partners to share and build on the design approach and resources developed.

Transit ridership

Since the publication of Seamless Transit in 2015, overall transit ridership continues to fall, despite increases in heavy rail and light rail ridership.[1] The fact that on average 29% of Bay Area residents cross a county boundary to get to work, highlights the likelihood that people will need to use multiple transit providers and decipher different information systems to understand their public transit options.[2]

Furthermore, as 75% of all Bay Area commuters use a private vehicle each day, the need to encourage greater public transit ridership, by supporting the use of and transfer between transit systems, remains critically important.[3]

As this program evolves, encouraging transit ridership on a regional scale – by revealing a more coherent movement network – becomes an ever more urgent goal.

1 http://www.vitalsigns.mtc.ca.gov/transit-ridership
2 https://www.spur.org/publications/spur-report/2015-03-31/seamless-transit
3 http://www.vitalsigns.mtc.ca.gov/commute-mode-choice

The program aims to reflect the needs of Bay Area residents and visitors, as well as to respond to the specific operational and management requirements of each organization.

The future of mobility

As we enter 2020, the pace of change within the mobility landscape continues to present new opportunities and challenges for the region's transit providers and users.

The impact of ride-hailing services and micro-mobility options on congestion and public transit ridership remains a matter of contention. Still, the diversification of mobility choices and providers is clear to see and requires a regional response.

Meanwhile, the growth of mobile technology and the emergence of Mobility as a Service (MaaS) propositions raise questions about the likely changes in user behavior and the role of regional agencies in providing clear and unbiased information to all parts of society.

Though focused on information provision (in all its forms), this program aims to garner consensus from regional partners on how to address these challenges. Ultimately, this program could assist in creating a more interconnected transit system that encourages increased transit ridership and the reduction of vehicle miles traveled.

Alongside changes in mobility service and technology offerings, Bay Area cities are declaring climate emergencies. Future-thinking documents - like Plan Bay Area 2050 - are also being developed. All of these seek collaborative planning at a regional level to make sustainable mobility options easier to interpret, understand, and access.

Collaboration

As SPUR highlighted, "improvements to the region's maps won't solve transit fragmentation, but they can help us start to knit the region and its transit together and be a catalyst for stronger coordination and cooperation among transit operators."[4]

A partnership is essential to achieving this, and the response to the first phase of this program was overwhelmingly positive and constructive. As we move forward with Phase 2, our focus is on building and formalizing these partnership relationships and evolving a more collaborative design process.

4   https://www.spur.org/publications/white-paper/2019-01-03/finding-transit

Phase 1

Harmonization aims to create cohesion between different forms of information so that people can understand and navigate the region with greater ease.

Research

In Phase 1, the team researched existing user experience and user needs, as well as organization operational considerations, highlighting key areas of opportunity that this program could address.

Workshops

Five interrelated propositions were developed and tested with management-level regional stakeholders through workshop activities.

The propositions outlined a series of high-level working processes and methods to help shape program direction. At the heart of these propositions was the need to achieve greater regional "harmonization" and operational efficiencies potentially through the development of a shared brand, products, and design resources.

There was significant support for a greater level of regional collaboration and harmonization achieved through a consistent, legible, and easier to use system of information. However, challenges and concerns were raised about how to balance service provider identities and how to achieve consensus on standardized parts.

Deliverables

At the end of Phase 1, the team shared a draft roadmap document. It recommended a program to develop a 'standard system' including shared brand, products, and design resources was necessary to achieve harmonization, but flexibility for transit agencies and cities regarding its adoption and degree of application.

Prototypes and pilots

The development of a prototype regional map as a priority exercise brought partners together and evolved a collaborative working methodology.

The result is a map that represents all parts of the Bay Area and all transit operators based on a hierarchy of modes and content selection criteria.

Though not finalized, the prototype demonstrates the potential for regional collaboration based on new working processes. It represents a more harmonized approach to presenting Bay Area transit options.
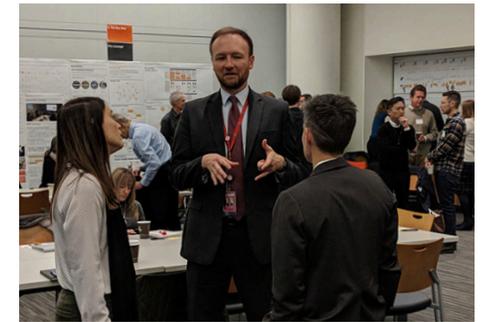
This program has also supported the ongoing development of the Downtown wayfinding pilot in San José and enhanced wayfinding at San Francisco Ferry Building.

These pilots and prototypes present opportunities to evolve further and test emerging strategies for achieving greater regional harmonization as well as the impact improved information has on user's mobility patterns and experience.

Phase 1: Propositions

Regional partners convened in San Francisco and San José in February 2018 to discuss five interrelated propositions:

1. Use an evidence-based approach to system development

2. Build together

3. Achieve greater regional harmonization

4. Achieve efficiencies and long-term sustainability

5. Communicate the program

Phase 1: Regional map

As a priority step, MTC, City ID, and regional partners worked on developing a regional map prototype in 2018 that was presented to the MTC's Operations Committee in early 2019.

Phase 1: Related pilots

In parallel, this program has supported the ongoing development of the Downtown wayfinding pilot in San José and enhanced wayfinding at San Francisco Ferry Building.
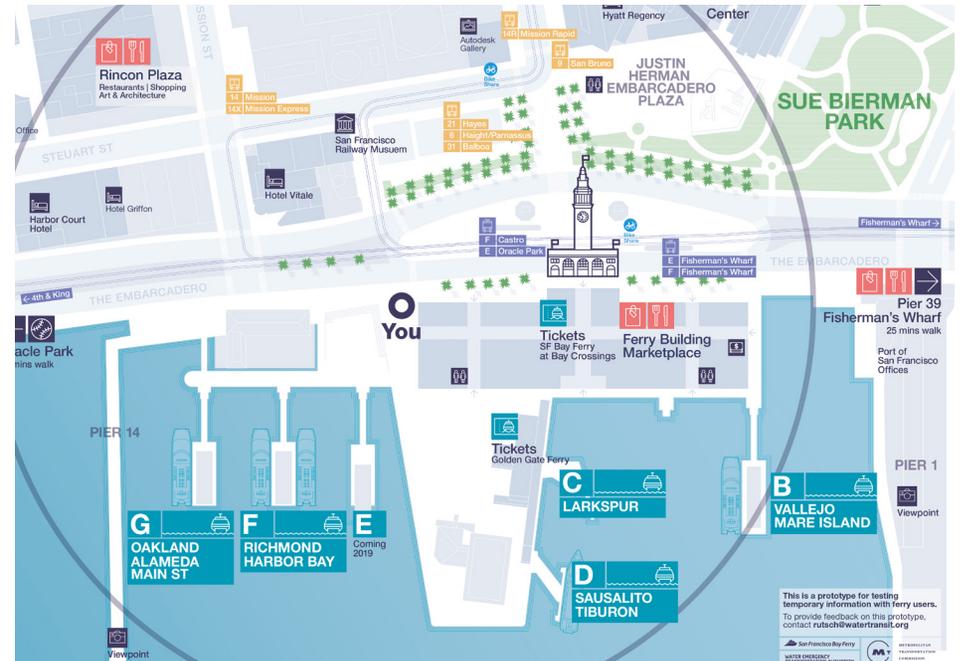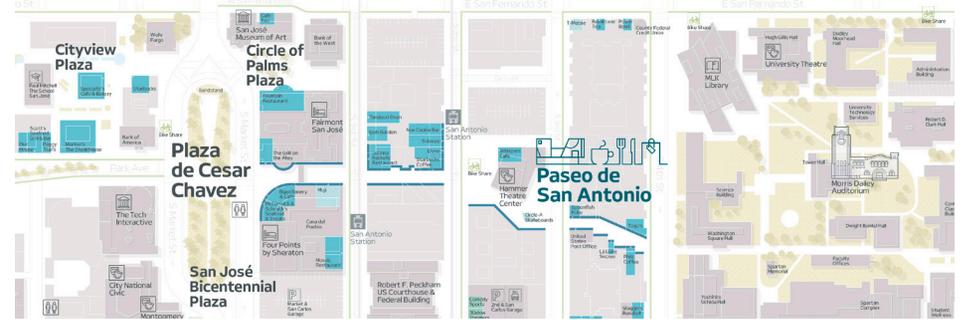
Phase 2

The key question for Phase 2 is:
How do we build a program that can be adopted by all stakeholders and supported across the region?

Outreach approach

Answering this requires further outreach with transit agencies and cities across the region.

The experience of using the regional network is considered fragmented. Still, the City ID team suggests that multiple transit operators are not the problem. Other places around the world demonstrate alternative models whereby various providers implement information that results in a more harmonized user experience.

The City ID team proposes that part of the solution is the need for a flexible blueprint for harmonization. This blueprint may specify optimal and alternative requirements to achieve the alignment of information across a variety of existing, as well as future, environments and situations. Through further outreach, the aim is that a shared vision for optimal harmonization and opportunities for incremental change will emerge.

Benefiting everyone

The team has proposed that the harmonization of information should benefit everyone.

1. For the user, harmonization should provide more reliable, predictable and familiar information

2. For the providers, harmonization should provide common parts, applications, and standards that support better ways of working

3. For the region, harmonization should support better social, environmental and economic outcomes

Phase 2

The first workshop of Phase 2 demonstrated that there is an appetite for a greater level of harmonization amongst stakeholders. Feedback during this session also highlighted that the program needs to assess the value and benefit of harmonization to gain public buy-in, as well as MTC and Agency board support.

Following this feedback, refined Phase 2 stages include more outreach with stakeholders, focus group feedback sessions, and the development of a Business Case for future growth.

The following section provides a summary of the activities and discussions from the first workshop in Phase 2. A summary document provided separately describes the immediate next steps in more detail.

Part 2
Workshop 1

Workshop 1
Achieving Visual Harmonization

Workshop 1: Achieving Visual Harmonization

In August 2019, partners explored five potential levels of harmonization (shown right) that could apply to the design of future transit and wayfinding information.

The levels spanned from a low degree of harmonization – updating maps only in Level 1 – through to a high degree of harmonization – updating maps and using standard displays and products in Level 3.

Two of these levels could include a Regional Graphic Identity specially developed to aid navigation across the Bay Area. This identity could be shared by MTC, Transit Agencies, Cities, and potentially private transportation providers in the future.

The collective graphic identity could harmonize all modes, services, and journeys. The name 'Bay' was used as an example to describe the potential of a shared visual identity.

Level 1

Update Maps

Level 2a

Update Maps + **Standard Displays**

Level 2b

Update Maps + **Standard Displays** + **Bay** Regional Graphic Identity*

Level 3a

Update Maps + **Standard Displays** + **Standard Products**

Level 3b

Update Maps + **Standard Displays** + **Standard Products** + **Bay** Regional Graphic Identity*

*Endorsed by provider brands

Activity questions

Following a presentation of the levels of visual harmonization, partners divided into five groups. Each group had a journey stage to consider and then asked to respond to the following questions:

1. **What are the typical "pain points" at this journey stage?**

2. **Which level of harmonization has the most benefit to customers in this situation, and why?**

3. **What are the challenges with delivering greater harmonization?**

4. **What support does your organization need to participate in regional harmonization?**
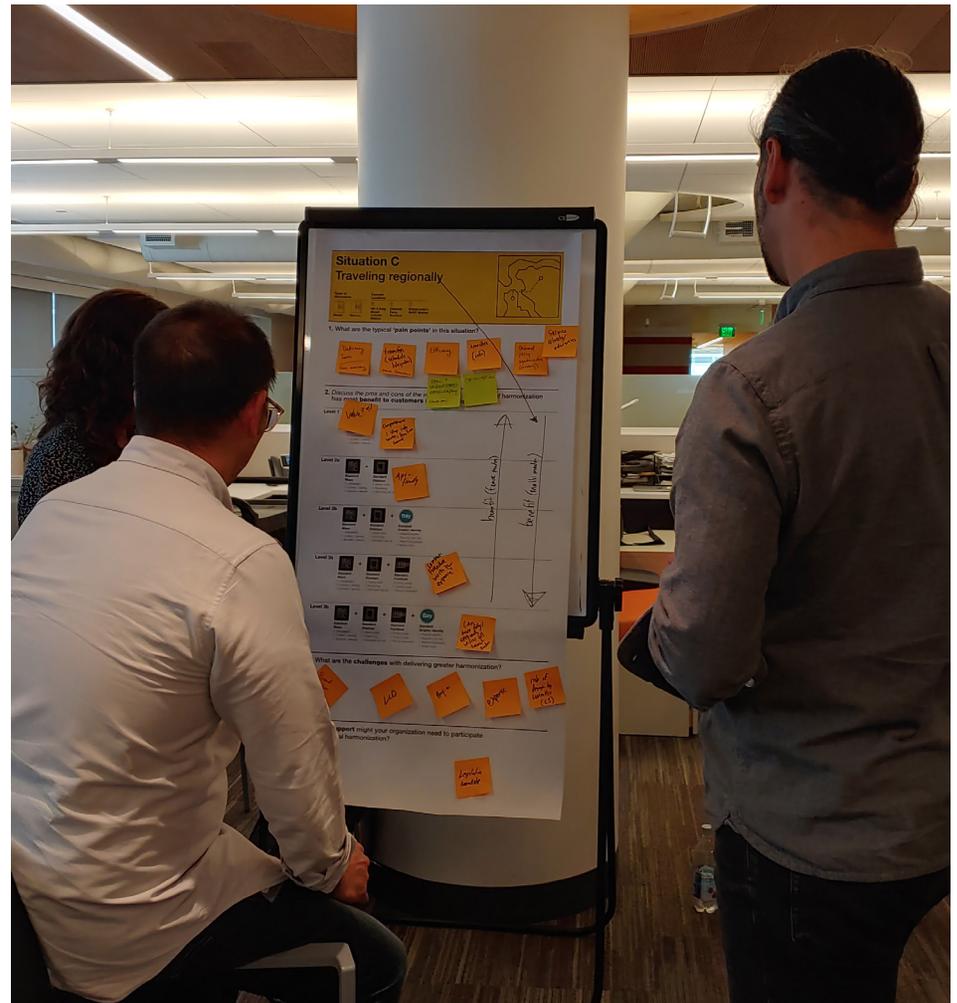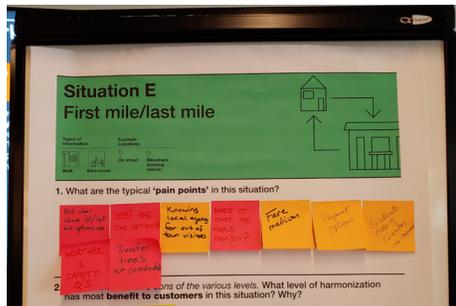
Workshop 1 Feedback Summary

Workshop 1: Achieving Visual Harmonization

Pre-journey, Traveling Regionally, Transferring at a Hub, and First & Last mile information should be harmonized to a high degree with a new network identity. When Traveling Locally, information should ideally feature standardized map and displays and that a Regional Graphic Identity may not be most beneficial in these situations.

Additionally, the activity brought up ten key topics that require further attention and exploration through a more collaborative design development process.

Key topics for further consideration and exploration

1. Political support

2. Funding

3. Planning

4. Resourcing

5. Responsibilities

6. Commissioning

7. Design processes

8. Value/benefits

9. Identity

10. Future readiness

Workshop 1 Feedback – Question 1

Journey stages	Pre-journey planning	Transferring at hubs	Traveling regionally	Traveling locally	First mile/last mile
1. What are typical "pain points" at this journey stage?	Knowing where to go for the best information? 511.org? Moovit? Apps/websites	Physical separation and distance between stops and stations	Determining fares and transfers	Different types and levels of information based on local agency	Lack of information generally
	Anticipating transfers	Multiple operators and information systems	Lack of service alerts	Not all agencies follow best practices	Unclear payment methods
	Over reliance on user owning a smart phone		Lack of transfer information	Different definitions for same term (E.g. express, rapid)	Unclear options
	Anticipating last mile mode options		Fare inconsistencies between agencies	Definition of high frequency in one area is different from others	511.org is no longer operating – there is no trip planner on the app
	Lack of integration with destination information		Schedule alignments		
	destination integration				

Workshop 1 Feedback – Question 2

2. Which level of harmonization has the most benefit to customers in this situation and why?

The groups determined that for pre-journey, transferring, and traveling regionally, a harmonized information system including the use of a regional graphic identity (Level 2b/3b) may be most beneficial to the user.

"It's easy for me to use. I'm in San Francisco but I'm going to Concord. Oh look, it (information) is the exact same in both locations, so it is probably going to tell me the same."

Therefore, at a regional level, the degree of harmonization may mean:

a. A common mapping style
b. A common identity, endorsed by provider brands
c. Standardized maps, formats & sizes
d. Applies to all information (not just maps)

When traveling locally, a flexible approach allowing for either the adoption of harmonized information (Level 2) or a harmonized information system (Level 3) would be most beneficial to the user.

"When traveling locally, we thought 2a made the most sense, it doesn't take away from the other benefits of graphic harmonization for other kinds of travel"

Therefore, at a local level, the degree of harmonization may mean:

a. A common mapping style
b. Neutral map color scheme
c. Standardized maps, formats & sizes (where possible)

The use of a regional graphic identity for local service providers may not be beneficial, though this could be explored further.

"If your brand isn't particularly liked, or hasn't got a good reputation then [a regional identity] could be a good thing, but if that's not the case then that's an opportunity cost."

For first/last mile, a harmonized information system including the use of a regional graphic identity (3b) would be most beneficial to the user.

"Having less things to learn is probably better"

As determined through pilot projects, local flexibility will allow for local expression through the use of colors and graphic styles.

A summary of the results of the levels is on the next page.

Workshop 1 Feedback – Question 2

Levels of harmonization

Each group selected the level of harmonization that they felt would have most benefit to customers. In some groups, two levels were considered.

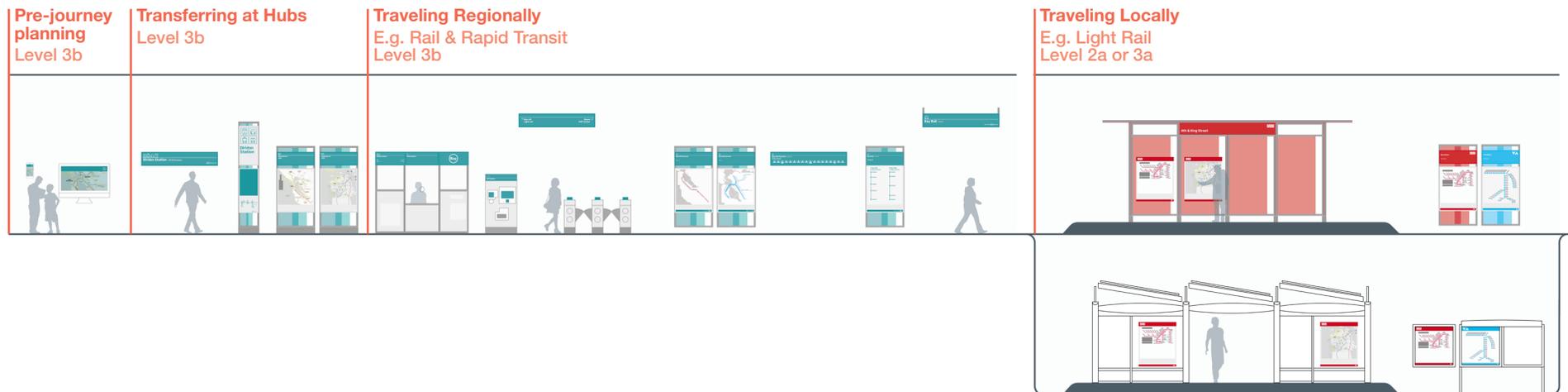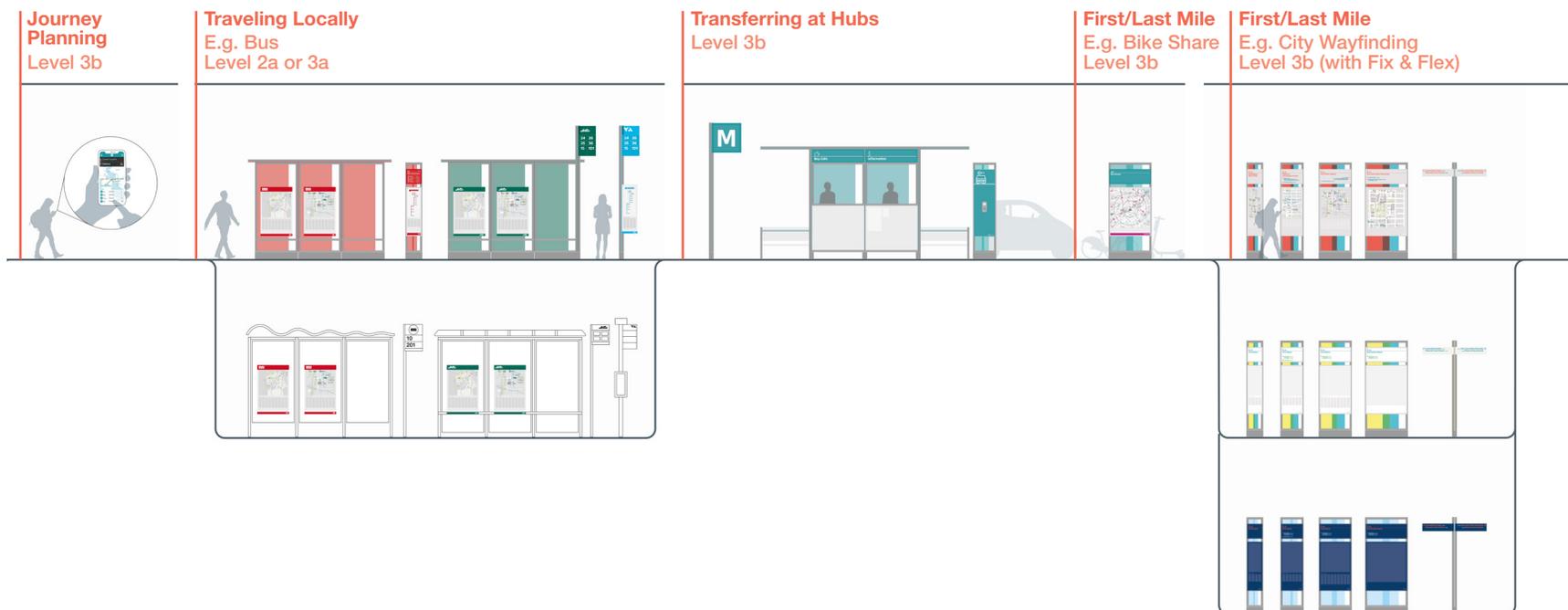|	**Pre-journey planning**	**Transferring at hubs**	**Traveling regionally**	**Traveling locally**	**First mile/ last mile**
Level 1					
Level 2a				Selected by Group 4	
Level 2b	Selected by Group 1				
Level 3a				Considered by Group 4	Considered by Group 5
Level 3b		Selected by Group 2	Selected by Group 3		Selected by Group 5

Workshop 1 Feedback – Question 2

Indicative approach

These results indicate a potentially workable approach to harmonization that will help inform the next stage of development. Feedback points to a method of achieving harmonization where consistency is most needed when transferring or traveling across jurisdictions. More flexibility is allowed where agencies have responsibility for a specific jurisdiction.

Pre-journey planning
Level 3b

Transferring at Hubs
Level 3b

Traveling Regionally
E.g. Rail & Rapid Transit
Level 3b

Traveling Locally
E.g. Light Rail
Level 2a or 3a

Indicative approach (continued)

Journey Planning Level 3b	Traveling Locally E.g. Bus Level 2a or 3a	Transferring at Hubs Level 3b	First/Last Mile E.g. Bike Share Level 3b	First/Last Mile E.g. City Wayfinding Level 3b (with Fix & Flex)

Workshop 1 Feedback – Questions 3 & 4

Challenges & support

A wide range of subjects were discussed in response to these two questions. The table shown below and on the following page organizes key areas of discussion into ten topics.

	1. Political support	2. Funding	3. Planning	4. Resourcing	5. Responsibilities
3. What are the challenges with delivering greater harmonization?	**Gaining top-down political support** "Top-down political support [is needed] in order for this to get as far in the system as we might want it to." **Agency board buy-in** "The buy-in from the board is often down to that local identity, that system that the board created 30-40 years ago, they're losing that identity."	**Cost of harmonization levels** "The benefit is very marginal between level 3 and 4, but the cost is extreme." **Funding responsibilities** "[We need] funding to update signage and harmonization"	**Development opportunities** "Every transit agency is at different stages of infrastructure life-cycles" [so region-wide change is difficult to implement] **Update and maintenance cycles** "Who will update all these signs?"	**Staff time** Staff time is needed, both locally and regionally. **Technical support** Reliable and accessible pathways to help maintain current information for public access	**Differing capacities between agencies** "The frequency levels in different areas are different. What is a very high frequency in Santa Rosa is a very low frequency in San Francisco." **Updates and maintenance** "Who updates all these signs?"
4. What support does your organization need to participate in regional harmonization?	**MTC coordination** "It would be great if we had a standard, more than just guidelines" **Board champions** "[We need] stakeholders who are external to board working with our board members to really advocate for this cause and demonstrate the potential benefit we can get from it."	**Board approval** "[Getting board approval] gets complex depending on what you ask, and how much money is involved.	**Coordination** Coordination is needed at a regional level to find opportunities for alignment.	**Staff support** Regional support and coordination for harmonization.	**Collaborate** "The agencies would have to come together in a truly collaboratively manner and individual agencies would need to be willing to make individual trade-offs for the common good to make this successful."

Challenges & support

A wide range of subjects were discussed in response to these two questions. The table shown below and on the previous page organizes key areas of discussion into ten topics.

	6. Commissioning	7. Design process	8. Value/benefit	9. Identity	10. Future readiness
3. What are the challenges with delivering greater harmonization?	**Procurement processes** "The procurement process, is not necessarily straightforward even within a single agency, let alone across 28 different agencies."	**Avoiding design by committee** "We've got 28 agencies, there's the trade-off between customization and harmonization." **Maintaining quality** "Some agencies may not provide or follow best practice"	**Return on investment** "we acknowledge there's benefit going down [to level 5b] but you can't ignore the cost in how much return on investment you're getting." **Weighing value, pros and cons of options** "Proof of value for people. Is it actually worth it to do this? Weighing the pros and cons of that [is required]"	**Retaining agency identities** "You risk agencies losing their individual accountability where people become broadly critical of 'the Bay', when maybe they should be critical of a single operator."	**Integration of new mobility** "Micro mobility is changing rapidly so what's happening right now might not be what's happening 5 months from now, definitely not 5 years from now. How do you plan for that?"
4. What support does your organization need to participate in regional harmonization?		**Design Standards** Detailed design standards are needed to maintain design quality.	**Business Case** A Business Case is needed to gain support.	**Flexibility** "We still covet our own brand identities."	**Readiness** "In our current economy and our current environment, we need more dynamic options for getting around"

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Glossary of Terms

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Glossary of terms

Harmonization
Creating cohesion between different forms of information so that people can understand and navigate the region with greater ease.

Pilot
An initial phase of implementation that may require review and refinement before establishing a standard.

Prototype
Temporary implementation for facilitating feedback and testing with users. Prototypes are typically developed before a pilot.

Standardization
The use of consistent (standard) design elements, including anything from colors and line weights, to products and placement.

Note: Levels of harmonization presented in Workshop 1 require the standardization of various design elements.