

Implementing Quick-Build Projects to Support Physical Activity in Hawai‘i Communities: Lessons Learned about Community Engagement

L. Brooke Keliikoa¹, Lindsey K. Amina¹, Heidi Hansen Smith², Tammy Chase-Brunelle², CJ Johnson², Whitney N. Watts¹, Lance K. Ching², Ashley B. Yamanaka¹, and Meghan D. McGurk¹

¹University of Hawai‘i at Mānoa, U.S.A.

²Hawai‘i State Department of Health, Honolulu, HI, U.S.A.

Abstract

Quick-build projects aim to improve the safety and accessibility of streets, parks, and other public spaces using temporary, lower-cost materials. Community engagement (CE) is critical to ensuring quick-builds address community needs and fit community context. Between 2019-2021, 13 quick-build projects were implemented in Hawai‘i communities to support walking, rolling, bicycling, skateboarding, and park activation. The quick-build changes included creating curb extensions painted with street artwork and adding park features. This process evaluation study sought to understand how multisector partners engaged community members in quick-build projects and what they learned. The evaluation team conducted semi-structured interviews in 2021 with a purposive sample of 14 participants who had experience leading or coordinating quick-builds in Hawai‘i. Interviews were recorded and transcribed, then iteratively coded by two evaluators. Preliminary findings underwent a member-checking process with interviewees. Interviewees reported implementing a variety of CE activities tailored to the quick-build project’s goal, features, timeline, resources, and partners. Overall, CE efforts focused on the early planning and design phases of quick-build projects. Lessons learned about CE centered on the amount of time to build relationships, the importance of partnerships, ensuring any art component resonated with communities, involving youth, framing the quick-build as temporary and reversible, budgeting for CE resources, connecting through existing community structures, and keeping community volunteers safe. Community members need to be more meaningfully engaged in post-implementation efforts such as maintenance, evaluation, and deciding next steps.

Keywords: built environment; demonstration project; walking; bicycling; active transportation; partnerships; community participation

To increase population-levels of physical activity, the U.S. Centers for Disease Control and Prevention (CDC) encourage designing communities so that people have safe places to play and walk. One recommended community design strategy is quick-build demonstration projects (i.e., quick-builds) that aim to calm traffic, promote placemaking, and otherwise increase safety and accessibility (CDC, 2024). In contrast to more permanent infrastructure changes, quick-builds are well-suited to piloting improvements that are context-sensitive, timely, and affordable because they use low-cost, temporary materials that are quick to install and easy to modify (Carlson et al., 2019). Quick-builds are specific to community context and should be reflective of the community's needs, vision, and culture (Smart Growth America, 2024).

Ideally, quick-builds are community-driven, with the community actively engaged in a participatory process throughout planning, installation, and evaluation (Alta Planning + Design & California Bicycle Coalition, 2020). If community engagement (CE) is done well, the quick-build project is an opportunity to build community trust and create built environment changes that are reflective of and responsive to community voices (Smart Growth America, 2022). However, while CE is critical to quick-builds, there is no prescribed process for how to do it (Alta Planning + Design & California Bicycle Coalition, 2020).

To provide opportunities to learn from practice, the Hawai'i State Department of Health (HDOH) hosted monthly meetings with a variety of organizations involved in implementing quick-build projects across the state. Organizations included county government transportation and planning agencies, community-based nonprofits, and community coalitions. Meeting participants were

Evaluation Methods

Key informant interviews

To learn from people with experience engaging communities in quick-build implementation, we conducted key informant interviews following a thematic analysis approach (Braun & Clarke, 2006). The evaluation team developed a semi-structured interview guide to learn how key informants engaged community members in quick-builds, what worked well, what was challenging, and what lessons about CE were learned. The key informants were purposively selected for their knowledge of and experience with CE in quick-build implementation. The HDOH generated an initial list of potential key informants based on participation in the monthly quick-build meetings. In the initial interviews, the evaluation team also asked for additional names of people who would be able to provide insights into CE. Of the 17 people invited to participate, 14 were interviewed (82.4% participation rate). The evaluation team was unable to schedule interviews with two people in a timely manner and one person declined to participate for personal reasons. Interviews were conducted via

responsible for leading or managing quick-build implementation as part of their jobs (e.g., transportation planner or coalition coordinator), and the monthly meetings served as a space to share project updates and discuss challenges and successes. CE strategies and processes were a common area of interest, which served as the impetus for this evaluation study. In 2021, the HDOH partnered with the university-based evaluation team to conduct a process evaluation focused on CE. The evaluation purpose was to learn how community members were engaged in the planning, design, installation, and evaluation of quick-build projects in Hawai'i, from the multisector perspectives of the people who were leading or coordinating the projects.

The evaluation study focused on the lessons learned about CE from 13 quick-build projects that were implemented in Hawai'i between 2019–2021 (*Supplemental Table 1*). At least one quick-build was implemented in each of the four counties of Hawai'i. Over one-third (38.5%) were located in urban Honolulu on O'ahu island, the most densely populated region in the State. For the more rural islands of Kaua'i, Maui, and Hawai'i, quick-builds also tended to be located near the respective urban town centers of Lihu'e, Kahului, and Hilo. These islands tend to have fewer sidewalks and other infrastructure to support active transportation and physical activity. About half (46.1%) of the quick-builds were focused on streets around public schools; the other half were focused on making improvements to public parks to encourage physical activity, such as adding features like temporary skate ramps and artwork. The HDOH contributed funding to most quick-builds covered by the evaluation, but various organizations served as project leads, including county government transportation and planning agencies, community coalitions, and private consulting firms.

videoconferencing between October–December 2021. The primary interview questions (*Supplemental Table 2*) and informed consent sheet were emailed to interview participants prior to the interview. All interviewees provided verbal informed consent and were given a reusable, insulated tumbler. The interviews were recorded, then transcribed for analysis. This evaluation study was deemed Not Human Subjects Research by the University of Hawai'i Human Studies Program.

Thematic data analysis

After cleaning and reviewing the transcripts, two evaluation team members (LBK, LA) followed an iterative coding process to develop initial codes for project descriptions, partnerships, resources, community context, CE activities, challenges, lessons learned, and next steps. Transcripts were coded in Dedoose (Version 9; 2021). Each transcript was coded by one primary coder, then reviewed by a second coder; any disagreements were resolved through discussion. The coded extracts were then inductively analyzed and reviewed for themes related to CE processes and lessons learned.

The preliminary themes developed by the evaluation team underwent member checking (Creswell, 2013) by: (1) facilitating an online participatory workshop to support data interpretation; and (2) sending a draft report for feedback. Eight interviewees attended the online workshop in which the evaluation team presented preliminary findings, then asked interviewees to discuss and reflect on what was shared. In addition to discussion, interviewees helped to prioritize key lessons learned through a polling activity and shared additional thoughts on an interactive online whiteboard. Feedback from the workshop was incorporated into the draft evaluation report, which was shared with all interviewees for comments and suggestions.

Results

Of the 14 interviewees, almost half (42.9%) worked for community coalitions and other community-based organizations, 42.9% represented county government agencies (Planning, Public Works, and Transportation), and 14.3% were from private-sector consulting firms. Interviewees represented all four Hawai'i counties. Findings were organized around two evaluation questions: (1) How did interviewees engage community members in quick-builds; and (2) What were the important lessons learned about CE?

How community members were engaged in quick-build projects

Across the 13 quick-build projects, interviewees described an array of strategies that they used to engage the community. Both the type and level of CE varied for each project. Interviewees emphasized the importance of tailoring CE to the project's goals, timeline, features, resources, and community context. The majority of quick-builds had to adapt their activities due to the COVID-19 pandemic by shifting to virtual outreach and carefully coordinating in-person installation workdays. Other challenges included limited resources, such as lack of staff time to conduct community outreach and the need for skilled facilitators to lead CE.

For many quick-builds, cross-sector teams were formed to support implementation. While the composition of each team varied, commonly-involved sectors were government agencies (Planning, Public Works, Parks & Recreation, County Councils), private-sector consultants, public school officials and representatives, and various community groups (community associations, community-based organizations and coalitions, local artists and other community members). For example, on Kaua'i, the Get Fit Kaua'i coalition formed separate Action Groups that

consisted of community volunteers who led the planning, implementation, and sustainability of the quick-builds; the community coalition leader supported efforts by convening meetings, coordinating with government partners, and ensuring the action group stayed on task.

CE tended to occur during the initial planning and design stages of the quick-builds. Interviewees focused on building relationships with partners through meetings and informal "talk story" conversations, conducting outreach to understand community concerns and needs, and creating a shared understanding of project goals and expectations. Common strategies included creating educational materials to inform community members about the quick-build; disseminating online and paper surveys to get community input; conducting door-to-door outreach with residents and businesses; holding focus groups and "talk story" sessions with community groups; hosting design workshops and community meetings; presenting at existing community events like Neighborhood Board meetings; and gathering feedback through walk audits and Walk to School days.

Community volunteers played a key role in the installation phase. Interviewees reported recruiting volunteers through existing groups and organizations (e.g., school clubs, residential associations), as well as by leveraging their personal and professional networks. One local artist used a paint-by-numbers approach to effectively organize and guide volunteers in painting the street art designs. Interviewees also stressed the value of documenting the installation process through photos and videos for use in earned and social media promotion.

After the quick-builds were installed, community members remained engaged by: participating in programming that encouraged them to use the quick-build features; contributing to project maintenance (through formal or informal agreements); and providing evaluative feedback. While most evaluation efforts were not systematic, they included on-site observations (observing how people are using or behaving in the space), conversations with people using the space, and check-ins with businesses and residents.

Lessons learned about community engagement

Interviewees shared a range of valuable lessons about CE that they could apply to future quick-build projects. They helped prioritize the insights that they felt were important or meaningful for others to know. Eight of these key lessons are summarized below, with illustrative quotes presented in *Table 1*.

Table 1. Lessons Learned about Community Engagement from Implementing Quick-Build Projects in Hawai'i (2019-2021) with Illustrative Quotes from Interview Participants (n=14)

Lesson Learned	Illustrative Quote	Participant Type (ID)
Quick-builds are not so quick because they are about building relationships	“It’s super diverse, you know—a community is not a monolith. You can’t just come into any community and think that you know who’s there and what they want. And then through that process of just getting to know people and saying you support their ideas and support their input, just that process, is critical in creating more inclusion and access and equity in urban planning and having a public space reflect the people that live there and their experiences. And then you’re fostering more empowerment, identity, cultural identity, more pride. You’re building all these things or you’re creating space for all these things to kind of develop where there was none before...so I think that’s part of the hard sell sometimes, of like, what does this Quick-Build have to do with anything... It’s really the process and the relationship building that’s the most, I think, the most critical piece for any quick-build.”	Community-based organization (6)
Partnerships are key to success	“For the two skate parks, that Skate Park Action Group was really a partner with the County to be the skate experts and to provide the design, the construction, and the monitoring and maintenance. So, they’re this incredible volunteer group that is supporting the County Parks Department in providing this facility and service to the community. In the case of Kalena Park and that Action Group, I think it’s kind of the same thing that we were turning to them to help with design decisions, but also seeing them as kind of the liaison to the community—to get the word out, to generate interest in the long-term vision for this park.”	Government agency (9)
Artwork has to be meaningful and relevant to the community	“The artist did a great job of putting in all of his elements of the area and his ties to the area, that was like his grandpa’s house or something that was right there at the corner. So, it was a good chance for him to showcase his talent.”	Government agency (13)
Youth engagement is golden	“I think another thing, too, especially with these, if they’re around schools, like, I realized we should incorporate more youth and have them really be more of the focal and the voice because I just find it’s harder for people to argue with kids. And if kids and students are all for it, and they’re picking the art and painting or doing the outreach, too, and the engagement, I think it’d be less of something to argue about.”	Community-based organization (3)
Framing the quick-build project as temporary and reversible helps to overcome resistance to change	“What was really rewarding was I asked the community to frame it that this is a temporary project, that they have complete control to tell the County if they like this project or not. And I think sometimes when you live in a community where there’s change and you may or may not have input but sometimes you don’t feel like your input is heard, but you never get to see it undone. And so, I think there was a real embracement from the community, at least the participants in that meeting, that there’s a lot of control in their hands. That this is not being done to them...this change is being done with them, but it doesn’t have to stay permanent.”	Community-based organization (12)
Budget for community engagement resources	“I think door-to-door community engagement is by far the best, but, you know, the cost of staffing someone to do that is extremely expensive. The printing the hard copies is nothing compared to just the individual door-to-door, but it does add up when we do these printers or our mailers with the postage and the cardstock to make sure that what you’re sending them is doesn’t look fake. You know, you’re not going to receive something from the County that’s a flimsy piece of paper; it’s going to hopefully hold up. So, it does come at a cost. And then, what I suggested with the providing additional—a carrot out there for people to want to engage, you know, that is definitely part of best practices for community engagement. Providing that offer of money, food, what have you... Those little things are important, but they also can get in the way of contracting expectations or what money is even allowed to be used for. I can think of past projects where we’ve been forbidden to use certain monies for coffee or cookies and so those types of things hurt our ability to get greater engagement.”	Private sector consulting firm (2)
Connect through existing community organizations, meetings, and events	“This tends to work the best, is just like plugging into existing meetings that they already have. For example, the way we were able to...present to so many teachers is that they had monthly teacher meetings at the elementary school. So, the principal offered us to just be on the agenda for that. I think, had we made it like a separate meeting, we probably would have not gotten many responses. Especially for teachers, who are so burnt out right now. By just going into that meeting we were able to share the project with like 60 people who are required to be on that meeting, and same for the Community Association. They have, I think, bimonthly meetings so we’re able [to] ask the President of the Community Association if we can present on that. In general, that’s a good way,	Private sector consulting firm (8)

	whether it be like a neighborhood board or school meeting, is to just plug into these existing groups.”	
Keeping community volunteers safe requires thoughtful planning and coordination	“Besides the COVID safety, that safety [for community volunteers during installation] is so important. And then even, because we were doing our mural on the ground, like we made sure people had knee pads...so, we actually used the portion of our grant money to buy knee pads, I remember that. And the [safety] vests, thankfully were donated, that was great, by Safe Routes to School, so everybody was bright. And then, yeah...those [traffic] cones and everything, but yeah the safety is important.”	Community-based organization (5)

Quick-build projects are not so quick because they are about building relationships

While the physical installation of quick-build components is relatively quick, the groundwork of fostering the relationships that make them possible is not so quick. Relationship-building entailed learning about the community’s context and history, developing a shared understanding of project goals, and demonstrating how the community’s input is being used to shape the project.

Partnerships are key to success

CE involved schools, community groups, respected community leaders, and elected officials. Interviewees shared that they often built upon existing relationships formed through previous projects. It was important to have someone to maintain good communication among partners, and partners needed clearly defined roles and responsibilities for effective collaboration.

Artwork has to be meaningful and relevant to the community

Art elements such as painted curb extensions sparked interest and enthusiasm. To ensure the artwork resonated, interviewees recommended hiring a local artist with strong community ties and CE experience.

Youth engagement is golden

Interviewees successfully engaged youth through school clubs and youth-serving organizations. The youth participants contributed unique insights and valuable knowledge. In addition, interviewees found that emphasizing the benefits for youth, such as safer walking, biking, and rolling to school, helped communities see the project’s value.

Framing the quick-build project as temporary and reversible helps to overcome resistance to change

Interviewees emphasized the importance of transparent communication to build trust and set expectations about available resources, timelines, and next steps. Communities needed assurance that if the project were not working as intended, it would be modified or removed. Additionally, messaging needed to emphasize the project goals (e.g., improving safety) to help residents understand the potential benefits behind the proposed changes to streets or parks.

Budget for community engagement resources

Quick-build projects typically relied on multiple sources of funding, including grants, in-kind staff time, and private

donations of materials. Interviewees recommended using grant funding to hire consultants dedicated to CE activities, thereby alleviating the burden on government staff with limited capacity. Other critical resources to budget for included the professional artist, project champions who served as community liaisons, food for events, participation incentives, and outreach supplies.

Connect through existing community organizations, meetings, and events

Interviewees aimed to connect through existing community structures (e.g., neighborhood boards and community associations) to share information and gather feedback on the quick-builds. Based on the project location, partners identified which stakeholders’ buy-in was needed and used personal networks to connect with schools and community organizations. Building relationships with local champions helped secure spots on meeting agendas, as well as invitations to join other community events for outreach opportunities. These existing channels proved more effective for reaching residents than holding standalone quick-build-specific meetings.

Keeping community volunteers safe requires thoughtful planning and coordination

During in-person installation activities, such as painting street art, project partners had to ensure volunteer safety by carefully planning for traffic control and injury prevention. This included securing safety supplies (e.g., traffic cones, high visibility vests, knee pads) and obtaining the appropriate waivers and approvals. Interviewees also had to be responsive to emerging safety concerns, such as adhering to COVID-19 precautions in place during project implementation.

Discussion

This evaluation study examined how communities were engaged in Hawai’i quick-builds from the multisectoral perspectives of those with experience leading and coordinating the projects. The quick-builds were diverse in partners, processes, and community contexts, but the findings are only representative of the perspectives of the 14 key informants from government agencies, community organizations, and private-sector consulting firms.

We found that CE activities tended to take place in the planning and design phases. Additional CE was needed post-installation to ensure that community members were involved with decision-making about next steps. For example, community members should be involved in

evaluation efforts to determine if modifications were needed or the change should be made permanent (Alta Planning + Design & California Bicycle Coalition, 2020). At the time interviews were conducted, several projects had plans to systematically collect evaluation data through user counts and surveys. However, most evaluation efforts were acknowledged as anecdotal, relying on feedback received from community partners or by observation. Interviewees noted that evaluation data were needed to support funding for permanent, long-term built environment improvements. Participatory evaluation approaches, which engage community members in defining evaluation questions and collecting and analyzing data, should be considered for future quick-builds (Fawcett et al., 2003).

CE is often conceptualized along a continuum that can range from providing information to community members to sharing leadership and final decision-making (Clinical and Translational Science Awards Consortium, 2011). Interviewees expressed a desire to increase the level of community involvement and ownership in quick-builds. To empower communities to take the lead in future quick-builds, interviewees wanted to develop a resource guide that would help community organizations navigate the process of obtaining needed approvals (e.g., permits, liability, and insurance) and create more staff capacity within government agencies to provide technical assistance and support with quick-build implementation.

This evaluation study had several limitations that impact the generalizability of our findings. First, our evaluation aim was not to gather descriptive details about the quick-build projects, so we did not collect information about the project timeline or budget in a standardized way. Future evaluation studies could consider incorporating a document review or creating a worksheet to collect these details. We also did not ask interviewees for any demographic information, such as their age or whether they self-identified as community members from where the quick-builds were placed. Finally, and perhaps most significantly, the perspectives of community members who were involved in the quick-builds are missing from our evaluation, so we do not know if they felt meaningfully involved or were satisfied with project outcomes. Future studies should learn from community members, including youth, about their experiences with quick-build implementation and how to improve CE efforts.

In conclusion, this evaluation study gathered practice-based insights about ways to engage community members

in quick-builds. Quick-builds provide an opportunity to learn from the community, while working in partnership to create and pilot test built environment improvements.

Correspondence should be addressed to:

L. Brooke Keliikoa

Department of Public Health Sciences

1960 East-West Road, Biomed D210

Honolulu, HI 96822

lehuac@hawaii.edu

- L. Brooke Keliikoa: 0000-0002-2979-820X
- Lance K. Ching: 0009-0006-0145-732X
- Ashley B. Yamanaka: 0000-0003-1503-2032
- Meghan D. McGurk: 0000-0003-0960-1147

Author Contributions

Conceptualization: LBK, HHS, TCB, CJJ, LKC, ABY; Methodology: LBK, LKA; Investigation: LBK, LKA; Writing – original draft: LBK; Review & Editing: LKA, HHS, TCB, CJJ, WNW, LKC, ABY, MDM

Acknowledgements

This article is dedicated to CJ Johnson, in memory of his passion for and commitment to mobility justice. We thank all of the evaluation participants for generously sharing their quick-build experiences and insights about community engagement.

Conflict of Interest Statement

The authors declare no potential conflicts of interest with respect to the research, authorship, or publication of this article.

Funding:

This work was supported by funding from the Hawai'i State Department of Health, Chronic Disease Prevention & Health Promotion Division.

Creative Commons License

This work is [licensed](#) under a [Creative Commons Attribution-Noncommercial 4.0 International License \(CC BY-NC 4.0\)](#).

References

- Alta Planning + Design, & California Bicycle Coalition. (2020). *Quick Build Guide: How to Build Safer Streets Quickly and Affordably*. <https://altago.com/wp-content/uploads/Quick-Build-Guide-White-Paper-2020-1.pdf>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Carlson, J. A., Grimes, A., Green, M., Morefield, T., Steel, C., Reddy, A., Bejarano, C., Shook, R. P., Moore, T., Steele, L., Campbell, K., & Rogers, E. (2019). Impacts of temporary pedestrian streetscape improvements on pedestrian and vehicle activity and community perceptions. *Journal of Transport & Health*, 15, 100791. <https://doi.org/10.1016/j.jth.2019.100791>

Clinical and Translational Science Awards Consortium Community Engagement Key Function Committee Task Force. (2011). *Principles of Community Engagement (2nd Edition)* (NIH Publication No. 11-7782).

Creswell, J. W. (2013). *Qualitative inquiry and research design: Choosing among five approaches* (3rd Edition). SAGE.

Fawcett, S. B., Boothroyd, R., Schultz, J. A., Francisco, V. T., Carson, V., & Bremby, R. (2003). Building capacity for participatory evaluation within community initiatives. *Journal of Prevention & Intervention in the Community*, 26(2), 21–36.

Smart Growth America. (2022). *Shared Spaces and Health Equity: Lessons from a Pandemic*.
<https://smartgrowthamerica.org/resources/shared-spaces-and-health-equity-lessons-from-a-pandemic/>

Smart Growth America. (2024). *Quick-build demonstration projects*. Retrieved September 9, 2024, from:
<https://smartgrowthamerica.org/program/national-complete-streets-coalition/quick-build-demonstration-projects/>

U.S. Centers for Disease Control and Prevention. (2024). *Strategies for Physical Activity Through Community Design*. Retrieved August 30, 2024, from: <https://www.cdc.gov/physical-activity/php/strategies/increasing-physical-activity-through-community-design-prevention-strategies.html>

Supplemental Table 1. Brief Descriptions of 13 Quick-Build Projects Implemented in Hawai‘i Communities, 2019-2021
(Ordered by Island)

Project Name	Community Location	Setting	Quick-Build Elements	Community Engagement Activities
Keaukaha Community “Piko” Project	Keaukaha Hawaiian Homestead Community, Hawai‘i Island	Park, School, Street	<ul style="list-style-type: none"> • Install delineators around mobility path • Paint existing bulb-outs • Add street art at 3 primary corners 	<ul style="list-style-type: none"> • Led by cross-sector project team • Attended and presented at monthly homestead association meetings • Community walk audits • Community pop-up event including bike corral and bicycle lessons • Online and paper surveys distributed through Facebook and community events • Student involvement in artwork design
Hanapēpē Skate Park	Hanapēpē Town Park, Kaua‘i Island	Park	<ul style="list-style-type: none"> • Add small and large halfpipes 	<ul style="list-style-type: none"> • Led by community coalition action group whose members designed, constructed, and maintained skate facilities
Līhu‘e Skate Park	Līhu‘e Civic Center, Kaua‘i Island	Park	<ul style="list-style-type: none"> • Add skate ramp and other prefabricated skate features • Paint art mural 	<ul style="list-style-type: none"> • Led by community coalition action group whose members designed, constructed, and maintained skate facilities • Local artist designed mural
Kalena Park	Downtown Līhu‘e, Kaua‘i Island	Park	<ul style="list-style-type: none"> • Remove and replace fencing • Add “ALOHA” concrete art letters • Plant trees in pots • Lay rubber tiles and add ADA compliant picnic tables 	<ul style="list-style-type: none"> • Led by community coalition action group whose members were involved in design decisions, organizing, and monitoring and maintaining the park • Conducted focus groups and interviews with stakeholder groups • Volunteers participated in workday event • Hosted fitness week with events to promote park improvements
Kīlauea Safe Routes to School	Kīlauea, Kaua‘i Island	School, Street	<ul style="list-style-type: none"> • Use temporary markings and materials to create a shared street and designate area for walking/biking/rolling to school 	<ul style="list-style-type: none"> • Led by community coalition action group • Door-to-door outreach to residents of the project street • Community meetings, workshops, and talk story sessions held at various locations including the school and businesses • Walk to School Day
Onehe‘e Street	Kahului, Maui Island	Park, School, Street	<ul style="list-style-type: none"> • Pilot reverse-in angle parking • Paint bulb-outs • Add crosswalks and signage 	<ul style="list-style-type: none"> • Led by cross-sector project team • Walk audit

			<ul style="list-style-type: none"> • Add bike lane markings 	<ul style="list-style-type: none"> • Online and paper surveys distributed through social media ads, mailed postcards, and at senior housing • Volunteers helped paint bulb-outs • Surveyed those trying out pilot parking • Distributed flyers to residents
Lihikai Elementary School	Kahului, Maui Island	School, Street	<ul style="list-style-type: none"> • Pilot reverse-in angle parking • Paint curb extensions • Move/widen bike lane 	<ul style="list-style-type: none"> • Led by cross-sector project team • Project website with online survey • Postcards mailed to residents to promote online survey • Meetings with school administrators and staff to discuss the project • Flyers sent to school parents/guardians • Social media outreach that included a project video and educational materials • Local artist facilitated community participation in art installation
‘A‘ala Park	Urban Honolulu, O‘ahu Island	Park	<ul style="list-style-type: none"> • Paint artwork on utility boxes and bus stops 	<ul style="list-style-type: none"> • Led by cross-sector project team • Held listening sessions at the park with park users (residents and unhoused individuals) • Talk story pop-up events in the park • Online and paper surveys to vote on design • Volunteered with community organizations
Farrington High School	Urban Honolulu, O‘ahu Island	School, Street	<ul style="list-style-type: none"> • Paint curb extensions • Install protective delineators 	<ul style="list-style-type: none"> • Led by cross-sector project team • Engaged student group in project planning and design • Door-to-door outreach and passed out flyers to residents • Students and volunteers painted artwork
McCully Neighborhood	Urban Honolulu, O‘ahu Island	Street	<ul style="list-style-type: none"> • Use cones to pilot a pop-up lane for walking, biking, and rolling • Add shared street signage 	<ul style="list-style-type: none"> • Led by government agency • Created a neighborhood committee to discuss project planning and design • Informational materials given to residents and businesses • All project signage included a QR code to online evaluation survey
Old Stadium Park	Urban Honolulu, O‘ahu Island	Park, Street	<ul style="list-style-type: none"> • Paint art mural • Paint existing bulb-outs 	<ul style="list-style-type: none"> • Led by cross-sector project team • Online and paper surveys distributed at community exhibition • Presented to Neighborhood Board • Community workshops and community meetings held to discuss project • Focus groups with park users, families and residents, businesses, church groups • Shared information via flyers, earned media • Community group signed maintenance agreement
Papipi Road	‘Ewa Beach, O‘ahu Island	Street	<ul style="list-style-type: none"> • Paint artwork on curb extensions • Install protective delineators 	<ul style="list-style-type: none"> • Led by cross-sector project team • Met with multiple community groups to learn more about history and culture • Door-to-door outreach to residents • Volunteers engaged throughout implementation • Created video of implementation process to share on social media • Gained earned media on local news casts • Community group signed maintenance agreement and held workdays

Stevenson Middle School	Urban Honolulu, O'ahu Island	School	<ul style="list-style-type: none"> • Paint bulb-outs around crosswalk fronting the school 	<ul style="list-style-type: none"> • Led by cross-sector project team • Student leadership group involved with planning and outreach efforts • Parent survey • Information sent to students and parents • Volunteers helped to paint artwork
-------------------------	------------------------------	--------	--	---

Supplemental Table 2. Primary Interview Questions

1. Please tell me a little bit about your quick-build project(s) that have featured community engagement efforts.
2. From your perspective, how was the community engaged throughout the quick-build project?
3. Are there any community engagement methods or strategies that you think worked well? What did not seem to work well?
4. What type of input or feedback was gathered from the community? How did you apply that input or feedback?
5. What resources did you use in your community engagement efforts?
6. Thinking about your community engagement approaches before and during COVID-19, how did you adapt your efforts?
7. Looking back at the community engagement process, what are the most important lessons that you learned? What are some of your key takeaways that you will apply to future projects?
8. Do you have any additional thoughts or advice on community engagement in quick-build projects?