**Future of Infrastructure podcast**

**Detail: Episode 8**

**Jeremy Goldberg [host]**

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**JEREMY GOLDBERG:** Welcome to the *Future of Infrastructure*, a part of Microsoft’s Public Sector Future series. I’m Jeremy Goldberg, Worldwide Director of Critical Infrastructure at Microsoft. And I’m on a journey to learn more about how infrastructure is being built around the world by talking with public servants, philanthropists, artists and place-makers who have spent their lives working in the public interest. This is a series to help us build things and plan for the future while putting people first.

Today, my guest is Ratna Amin, Strategy Advisor at Infrastructure Garden and former Policy Director for Transportation at SPUR in San Francisco. Ratna, welcome to the show, and great to reconnect with you.

**RATNA AMIN:** Thanks, Jeremy. I’m so excited to be here and connect with you again.

**JEREMY GOLDBERG:** Briefly, for our audience, introduce yourself and tell us a bit about some of your places in Oakland, your hometown or the Bay Area.

**RATNA AMIN:** Yeah, absolutely. I live in the Bay Area in Oakland, California, and I’ve been here over 20 years, came out for graduate school at U.C. Berkeley, where I studied transportation, engineering and city planning. and I’ve always been drawn to public service. I’ve tried a lot of different kinds of public service after my undergraduate at Penn in Philadelphia. I did Teach for America. I was a teacher for two years. I’ve done –

**JEREMY GOLDBERG:** Was that in Philadelphia?

**RATNA AMIN:** Philly, University of Pennsylvania in Philadelphia, Pennsylvania. Go, Philly! It’s a great city.

I was drawn to transportation because it was just so interesting. In transportation, you get this mix of social issues, and technical issues and big projects, really big scale. and I’ve been kind of trying to find my place in that field, honestly, for a while.

And a lot of people think I have this really fascinating and unique career, and that’s true. I have moved around, trying to find the sweet spot, and I had worked as a chief of staff in the city of Oakland, where we touched all kinds of projects. and you and I met when I was the transportation director at Spur, which was a leading nonprofit in the Bay Area, the leading nonprofit in the Bay Area working on urban policy and urban planning.

I decided, after I left there, that operations is where the future is at and – and also big networks. and so, I had the opportunity to be a principal with Deutsche Bahn Engineering and Consulting, an affiliate of the German Railways, which is a massive 300,000 or 400,000 person global organization. It was an incredible experience.

And I am now back at Oakland City Hall because I want to be local. I want to work locally, and I’m really interested in leadership and some assets of governance, and how we bring design and bring foresight and better process into government and decision making.

**JEREMY GOLDBERG:** Well, it’s truly outstanding. I mean, you’ve got this, you know, what people have called this tri-sector athlete background of industry. You’ve been in the classroom through Teach for America. You’ve spent time in the classroom getting advanced degrees. You’ve put yourself right in the middle, in the heart of some of the most challenging and complex transportation, political, cities oriented issues, like, in the Bay Area.

And I think you probably kind of cut your teeth, skinned your knees in Philly, honestly, on the East Coast, it kind of helps you prepare, I think, for maybe some of the ground game in SF or Oakland. But, like, what is it that – you know, because what I’m hearing, what the audience is probably hearing is, like, this general desire, right, that you have for service to help people, to help places. Is there an event or a moment that stands out to you that motivated your choice to pursue these paths, which is really service oriented?

**RATNA AMIN:** Yeah, that’s a great question. I will say first, a lot of it was just inside of me, born with it. I bet you feel the same way and many of your listeners, you just have the drive to serve. You’re not here to do something else, or it might just be a hobby. You’re here to serve the public and make the future better and make things better for everybody, not just a small group of people.

But I’d say more recently, the event that helped me commit to this field was when we did a scenario planning exercise when I was at Spur. I’m a big believer in scenario planning, visiting all the possible futures that we have. and it was so clear that the role of government will determine everything, whether government is strong or weak, whether our infrastructure works for everybody or not. What we invest in, whether services are good and fair for everybody, clean water for everybody, broadband for everybody, or if it’s for a select few, that – those decisions and the competence of our public institutions will determine the future. and I feel very happy to work in this field and very lucky to help shape that future.

I’ve been really fortunate to get involved with an incredible organization called Transit Center, based in New York City. Transit Center is a foundation that works on research and advocacy for public transportation. and it’s been around in its current form for nearly 10 years. and I recently became the board chair, and I’m really proud of the work that we’re doing (naturally?).

[05:00]

**JEREMY GOLDBERG:** Congratulations, that’s great. So, you know, I think that this is a perfect segue in terms of going a little bit deeper. and you touched on these topics already around the role of government and you talked a bit about equity, topics around, like, broadband or water and air quality. and something that’s top of mind for – for a lot of us is – is the people centered part of this, right, and what is the role that civic groups like the Transit Center or Spur and so many of those others that you’ve worked alongside of and worked with over the years in infrastructure.

Convey, you know, kind of share with us, like, the role, the importance of those groups and, you know, how those groups help to advance the mission and the type of infrastructure that is equitable, that is fair, that is built for people, and maybe a couple of examples of – that you’d want to highlight.

[05:52]

**RATNA AMIN:** I can’t understate the importance of civic organizations, especially in this moment. and wherever you are listening to this, there probably is one or many, many civic organizations, non-profits, advocacy groups. It could be a single person, it could be a huge organization that are shaping the future of your city or infrastructure. I was fortunate to work at SPUR, which has been around for over 100 years working on housing originally, but then other important issues such as water, energy, food access, transportation, building, planning, etcetera.

The way I describe these organizations is that they’re kind of the scale of change. They are people’s scaled, which means that if somebody has a better idea. Somebody notices something is going wrong, we can actually act on it and bring up that conversation, and say, hey, have you thought about this, or, hey, it would be better if you do this, or, hey, in another city they figured out a way to pick up trash faster. Why don’t we try that here?

And unfortunately, institutions can’t bring up new conversations very easily. It’s an extremely formal process. Things are… have to be legislated. You need agreement. Staff, the career staff tend to need to be conservative and timid, or they could lose their job if they disrupt a process with a change. and so, these outside groups have to be the leaders of change and have that opportunity.

We could not need more change right now. A lot of our systems were built for another era where the climate was stable, where it was okay to leave out some populations, where there’s a lot more open space to just pave. But we have to change how we make decisions, how we spend money, who’s at the table, a lot of changes. So, you’re going to need that outside business group or advocacy group to lead that change, to lead the conversation and show up, literally show up.

**JEREMY GOLDBERG:** Let’s talk about basic services, right, just for a second, if we could. Like, those basic services are the things that matter most to people on an everyday basis, right?

So, when you reflect back and you think of where those changemakers, where Spur, yourself and others really engaged, what’s something you look to as a win where the change makers came together, advocated for something maybe that were deemed sort of the basic services, before we dive into more of the bigger, larger infrastructure projects part of the conversation?

[08:20]

**RATNA AMIN:** During my tenure at Spur was when Silicon Valley had a big boom. Over the last six or eight years, you have Facebook growing from small to ginormous. You have Google adding thousands of employees to (inaudible) techs, Stanford University, on and on, Apple. It’s one corridor and traffic got incredibly bad. Businesses are saying, what is wrong? I want it – I want my people to take transit. Where’s the transit? That corridor is three counties, numerous jurisdictions. There was not actually a cohesive plan.

So, we had the opportunity to partner with Stanford University, with several of the tech employers and other civic institutions to create a Caltrain Corridor vision plan. Caltrain is the rail line through this quarter. It’s existed for over 150 years, but was not delivering what it could. It’s moving a certain number of people each day, but why couldn’t this train move more people up and down the corridor through these cities?

We developed the vision plan that was, in the end, a document, but also a lot of shared conversations that has now turned into a business plan. Now that train runs far more frequently every day. Unfortunately, the pandemic has slowed down ridership, but the fundamentals of that railroad are so much better.

And so, what we have done is take something that already existed, this railroad, as a civic group and say, let’s invest in this and make it work for today. and now, that institution and the other civic partners are carrying that idea forward and continuing to fund change, continuing to be at the table as partners.

[10:00]

**JEREMY GOLDBERG:** That’s a great example, and I think what you’ve already highlighted here, you talked a bit about some of the desired impacts and also, you know, shared a little bit about success and evaluating that as part of this project. And, you know, I think that’s a lot of what we hear from, you know, our audience is, like, how are we sure in terms of scope and focus with a project like this, which is about basic services, too? It’s about on-time schedules, frequency, mobility, equity. You know, how are people, as you learn from this project, what are some best practices around the scoping, right, to attain that impact and to evaluate success through something like this?

**RATNA AMIN:** Scoping up project and evaluating success is complicated. It can get overly complex. You can add all kinds of KPIs and measures and metrics, and then no one really knows what’s going on, actually, except the insiders. It can get really complicated. I would say you can look at this transit line and are people riding it? Are the people riding it have a good, safe experience? Is it actually helping them get where they want to go? We can look at what the customers are experiencing to know if we are successful.

We also need to see if the institutions are successful through the change. I’m really pleased with what has unfolded at this particular institution because when COVID hit, we stopped and did some scenario planning, actually. I’m really pleased with the staff there. We’re open to that. The executive team said, yeah, let’s do this process where we can look at a lot of possible futures far beyond this pandemic. Nobody knew how long the pandemic would go on for.

As a result, the institution is nimble. It’s ready for multiple possibilities. Like, if job growth does not come back, if the riders don’t come back, we’re a little bit more prepared. We’ve rehearsed that future. and so, adaptability, having some fundamentals in place, but then the ability to scale up and down on the service, scale up and down on funding is really critical in this day and age.

And so, I would say that’s a measure of success. Are you nimble for what’s happening next or when the next crisis hits? Will everything fall apart and will you have to go back to the drawing board? I don’t think we want that. I don’t think we have time for that.

[12:15]

**JEREMY GOLDBERG:** Is it true in this case, which you’ve highlighted is something very important about buy in from within an entity and an institution, the openness to propose scenario forecasting or the openness to have this growth mindset, like that doesn’t happen in all organizations, right? That’s not something that’s typical of government, too, right, and our institutions?

**RATNA AMIN:** Yeah. Unfortunately, being open to saying you were wrong or we didn’t see that coming is hard for organizations. There’s something called the official future and most organizations feel they have to stick with the official future, the one on paper, the one we said we are funding. This is particularly common in an infrastructure where projects take so long. We’re building this, we’re building this even though everyone in the room knows that it’s probably not the right project anymore.

And this is where I’m really excited about the role of civic organizations, because they have the space to be honest. I wish more people in the system had space to be honest and forthcoming and say what’s on their mind. We are still humans and say, like, I don’t think this makes sense anymore. and listen, if you revisit the plan, we’ll still support you. We all support a revised plan. We’re going to come together and say thank you for taking another look at that. Maybe it doesn’t need to be so big anymore. Maybe, you know, it needs to go faster or slower, whatever the case may be.

Let’s revisit things because we’re at a kind of dangerous moment that if we spend billions of dollars on the wrong projects, we are both wasting our precious talent and resources, but we’re missing out on what we might actually be needing to serve people on the ground, whether it is clean water, simply more bus service, or a little bit more safety. Today’s needs are more known and we should meet them.

[14:08]

**JEREMY GOLDBERG:** So, in a place like in your home, like in Oakland and the Bay Area, there are many civic organizations with storied histories of powerful impact and advocacy efforts, both at the city level and certainly at the state level. and a lot of times, what happens is what happens in San Francisco, right, that sets the tone and sets a standard for what happens across the nation and throughout the world.

So, with all of that said, there are lots of agendas of a variety of types. and so, within infrastructure projects, maybe you can highlight how do you coordinate across those to really define these agendas for what matters for some of these larger infrastructure, multibillion dollar, let’s say, projects? How do you actually do this?

[14:55]

**RATNA AMIN:** Alliances among advocacy groups and civic organizations is a fascinating topic unto itself. and what I’ve seen here in the Bay Area is some shifting alliances. Sometimes, all the business groups are together on something. Sometimes, all the business groups and all the rider groups and the environmental groups and the labor groups can agree on something because it’s so universal or it’s so obvious.

An example of the big tent is often the revenue measures. The folks championing a revenue measure, going to the ballot box, asking for more money, which you can do in California and several other states, requires a lot of support. You usually need 67% to win. So, you want a big tent coalition supporting that revenue measure. Well, those are advocacy groups who have somehow been brought to the table, say, what do you want to see? More bus service? Okay. Business group, what do you want to see? Oh, a new rail line into this corridor where you have offices? Okay. So, it’s negotiated.

The big tent does fall apart sometimes, once you get to implementation, because there are actual tradeoffs. Those are not necessarily equal or compatible or meeting the same customer’s needs. The bus service might be more for low-income folks or people who don’t have a car, other ways of getting around. Whereas that rail line – I’m giving you a very cliche example – might just be surveying knowledge workers who have now become more fickle and are like, I’m just going to stay home, actually. You know, meanwhile, the bus rides don’t have what they need.

So, these groups will start to segment and cluster around different topics, and I think that is fine. It’s a complicated world that we live in.

So, I also want to mention the work that Transit Center is doing nationally. Starting about one or two years ago when the infrastructure bill was being discussed in Washington, D.C., we were able to put together a lot of our grantees and partners on the ground who are transit advocates and make a national transit justice advocacy network that was able to influence the infrastructure bill.

So, when you bring all these advocates together from different cities, even if they’re not part of a big coalition in their own region, they’re part of a national coalition that has not previously been organized, at least in the world of transit, maybe in other fields. And that’s really powerful.

[17:15]

**JEREMY GOLDBERG:** So, that is a great example of the influence and the impact, you know, of your work, the work of the transit center. and so, now that, you know, there’s this progress toward the – through the IIJA, the bipartisan infrastructure law, grants are rolling out policies are, you know, in effect, there are operational challenges to kind of putting these things into implementation.

And based on maybe some prior examples, what are some things that you’ve seen or you’ve worked on that would be useful for people to be aware of and to consider, as they go forward to overcome those operational challenges, which, you know, you’re an operations junkie, is what it sounds like, too? So, I kind of share that with you. (Laughter.)

**RATNA AMIN:** Yeah, it comes down to operations and implementation and what happens day to day. What we’re seeing with the money coming down, which is very exciting and very, very much needed, is that we now have a bottleneck with staffing. Each one of these grant programs is a lot of work to participate in, to put together a grant to apply, but also to do with proper process. and a lot of cities or jurisdictions would want to do more outreach to make sure that what we’re getting funding for is what the community actually needs and what the community has actually agreed to or supports and doesn’t feel blindsided. So, that’s one thing I’m seeing.

And again, I’ll say your civic groups and your advocate advocacy groups tend to have really good communication, in many cases with the staff, with people working on these issues. and so, they’re known. A really fascinating operational issue and a really sad one is that we have a bus operator shortage across the country in transit. So while we now have some more transit funding coming, we can’t get enough buses out today for today’s funded service. You’re seeing this in Los Angeles. You’re seeing this in San Francisco. We have money to put transit service out, but we can’t even put the buses out today.

So, what that speaks to, and our advocates are working on this, is solving a problem around workforce. So, while we think infrastructure is a new, exciting thing, what we really have is a workforce problem. So, you’ve got to be willing to look at this from a lot of different angles.

Something that’s been in the headlines lately, but we want to dig deeper into is the workforce shortages in this field. and this is very operational today’s problems, today’s opportunities. We have a bus operator shortage and across the country. These are the people who drive buses and drive and trains as well and all kinds of transit. We have huge shortages of operators and maintenance workers, so we can’t put out service today.

For example, in Los Angeles, they developed a great new plan, next generation network over the next 25 years to get buses within 10 minutes of every Angelino. Meanwhile, they’ve had to cut service by 12% not because of funding, not because of the pandemic exactly, but because there are 3,300 operators working today, but they need 600 more to put all of the service out.

Similarly, in San Francisco, the MUNI system, there should be about 6,000 employees total across maintenance workers, operators, professional classes, and there are 1,200 employees short. This was kind of a foreseeable problem, but it’s hit in a huge wave because of the pandemic, because of opportunities in the private sector and commercial driving that were somewhat foreseeable, but have grown at a really fast scale. and the pay isn’t good enough. Some of these bus operators are starting at $18 an hour and maybe working at night in split shifts, having to commute to their jobs and concerned with their safety.

So, if we’re excited about building new infrastructure and improving our cities, we’ve got to look at what’s actually happening on the ground and solving today’s problems, like the workforce issue.

[21:10]

**JEREMY GOLDBERG:** When you look at this issue, what are the conversations or what are the topics of the – on these topics that are happening in city hall or that need to happen in order to solve this, because the plans are in place? But what are we going to do now, right? What is it we’re going to do to confront these issues? and what’s the real talk that needs to happen with leadership and with civic groups?

**RATNA AMIN:** So, I’m really excited about the research that Transit Center has done around bus operator needs and what we need to do is actually bring the operators to the table and talk about their experience. This sounds so obvious, but we actually don’t do it.

There is a class system in a lot of these fields. You have people who are at the top making decisions who have comfortable salaries, who can work from home. and I’m not trying to criticize anybody. This is a system we have, and I’m one of those fortunate people who can work from home a lot at my computer. and then you have folks on the ground who are doing the building, who are doing the driving, who are doing the cleaning, the maintenance.

And we need to ask ourselves if the people who are actually delivering the service are part of the decision making themselves. Also, you have labor unions at work here, and even within a labor union, do you have the folks who are doing the work at the table who are the new employees at the table?

I was on BART yesterday and saw an ad from AC Transit to recruit bus operators, advertising that they have gyms and that they can help enhance the health of their employees. That was really exciting for me to see because it showed that the agency is actually connecting with the needs of its employees and seeing if it can meet them at work, and then actually communicating that back out to the world.

[22:55]

**JEREMY GOLDBERG:** Excellent, excellent. So, I have – I have one final question for today. And, you know, what’s something you’ve read? I mean, you just pointed out a really interesting ad around fitness and health and wellness, which I think is great. But what’s something else you’ve read, you’ve watched or listened to lately that’s had an impact in the way that you’re thinking about this moment in infrastructure and this – this recovery phase that we’re in here in our – in the U.S.?

**RATNA AMIN:** What I’m really excited about that I’ve been reading in several places is using our imaginations, because we have to imagine that the future is different than the current and the past. and I’ll give you an example.

I just read an article in *The Atlantic* about how the city of Oslo in Norway is trying to cut its carbon emissions through a carbon budget for each department in the city to figure out how they can reduce what they’re doing. It sounds, again, sort of obvious, but it’s maybe a newer method of being really surgical about reducing carbon emissions and really iterative.

And they started the story with a description of a construction project with all electric construction vehicles. So, it could happen in the daytime in front of people. They didn’t have to shut down the road because there wasn’t pollution and there wasn’t noise. and just imagine how our construction projects would change if they didn’t have those noxious impacts.

And what this story told me is that’s actually foreseeable. We can imagine an electric construction project in the middle of our cities. They could work 24 hours a day. Maybe there will even be less displacement, less land needed. Like, let’s imagine something that’s radically different and better in the world of infrastructure like that.

**JEREMY GOLDBERG:** Thank you so much for providing these insights from real experience and these efforts that are underway. There’s so much more work to do and this is such an important time in our country and around the globe, and look forward to continuing to follow the work that you’re doing along the way.

And so, thank you, Ratna, for your time. and thanks to our audience. This is the – the Future of Infrastructure.

**RATNA AMIN:** Thanks, Jeremy. It’s so great that you’re hosting such important conversations. It was a pleasure to be here today.

[Music]

**JEREMY GOLDBERG:** Thanks for listening to this episode and being a part of the Future of Infrastructure, and for joining me on this journey to meet and learn from the people improving life in their communities. If you liked today’s episode and want to help other people find it, please take a moment to share, rate and review the show. To learn more, visit us at **wwps.microsoft.com**, or find me on LinkedIn and Twitter at **JeremyMGoldberg**.