



Video

ULI Nashville Resilient Land Use Cohort Technical Assistance Panel

Presentation

Date: June 11, 2021

00:00:04 --> 00:00:08: Well, welcome everybody. Good morning or afternoon depending on where

00:00:08 --> 00:00:08: you are.

00:00:08 --> 00:00:11: Thank you so much for joining us today and welcome

00:00:11 --> 00:00:15: to the ULI National Nashville Virtual Technical Assistance Panel's final

00:00:15 --> 00:00:19: presentation of their recommendations on how to equitably address extreme

00:00:19 --> 00:00:22: heat will get started in just a few moments here.

00:00:22 --> 00:00:24: But before we kick it off,

00:00:24 --> 00:00:28: just want to provide a quick reminder to please stay

00:00:28 --> 00:00:28: muted.

00:00:28 --> 00:00:30: And if you have any questions,

00:00:30 --> 00:00:34: we look forward to answering them just after.

00:00:34 --> 00:00:36: The presentation is over and will end our chair.

00:00:36 --> 00:00:40: John Vick will start to answer them at that time.

00:00:40 --> 00:00:44: To get us started I'm I'm very honored to welcome

00:00:44 --> 00:00:47: Mayor Cooper to provide some opening remarks.

00:00:47 --> 00:00:47: Mayor Oh

00:00:47 --> 00:00:51: well. Leah, thank you very much and welcome to everybody.

00:00:51 --> 00:00:56: I'm grateful to join the conversation to grateful to hear

00:00:56 --> 00:00:58: your report in conclusions.

00:00:58 --> 00:01:00: As all of us in Nashville,

00:01:00 --> 00:01:05: now we're building a. Change city and billions of dollars

00:01:05 --> 00:01:08: of permits are happening every year,

00:01:08 --> 00:01:13: so the ability to build for a sustainable future is

00:01:13 --> 00:01:18: extremely important and is opportunity we have to seize.

00:01:18 --> 00:01:21: So with that, I want to thank everybody for their

00:01:21 --> 00:01:25: participation and hard work on this and it'll be exciting

00:01:25 --> 00:01:28: to hear the conclusions 'cause we we have a mission

00:01:28 --> 00:01:31: here. That's just right in front of us.

00:01:31 --> 00:01:33: This is happening right now.

00:01:33 --> 00:01:36: How do we? How do we get that done?

00:01:36 --> 00:01:38: And how do we build and create a safe,

00:01:38 --> 00:01:42: sustainable future? It has to be foremost on everybody's thinking.

00:01:42 --> 00:01:44: So thank you, Leah, grateful to be here.

00:01:46 --> 00:01:50: Thank you, mayor. Uhm, and now hand it over to

00:01:50 --> 00:01:53: Kim Hawkins to welcome us on behalf of ULI National

00:01:53 --> 00:01:54: District Council.

00:01:54 --> 00:01:58: OK, thanks Leah and and thank you Mayor Cooper for

00:01:58 --> 00:02:01: joining us today and I can't tell you how meaningful

00:02:01 --> 00:02:04: it is for you to be here and to have

00:02:04 --> 00:02:07: the support of the city for this effort.

00:02:07 --> 00:02:09: So good morning to all of you.

00:02:09 --> 00:02:12: And welcome to ULI Nashville's presentation of you,

00:02:12 --> 00:02:14: think Nashville's hot just wait,

00:02:14 --> 00:02:18: so our recommendations for an equitable development and design responses

00:02:18 --> 00:02:18: to extreme heat.

00:02:18 --> 00:02:22: I'm Kim Hawkins. I'm the chair of ULI Nashville for

00:02:22 --> 00:02:26: just three more weeks until Ed Henley takes my place

00:02:26 --> 00:02:28: and grateful for that.

00:02:28 --> 00:02:31: And I'm happy to welcome you as we explore these

00:02:31 --> 00:02:34: recommendations of utilized technical assistance.

00:02:34 --> 00:02:38: Panel of experts. I think I'd be safe to assume

00:02:38 --> 00:02:42: that all of us have been affected by the impacts

00:02:42 --> 00:02:43: of extreme heat.

00:02:43 --> 00:02:46: I know it is hit very close to home for

00:02:46 --> 00:02:50: me with our office experiencing two events.

00:02:50 --> 00:02:53: The 2010 downtown flood and just last year in March

00:02:54 --> 00:02:54: of 2020,

00:02:54 --> 00:02:58: a tornado that destroyed our office and there have been

00:02:58 --> 00:03:02: about a dozen other hundred year flood events and Davidson

00:03:02 --> 00:03:04: County since the 2010 flood,

00:03:04 --> 00:03:07: including just a few months ago.

00:03:07 --> 00:03:11: Uhm, my family felt the first hand impact of Hurricane

00:03:11 --> 00:03:14: Katrina in 20 in 2005 and the hurricane season and

00:03:14 --> 00:03:18: this year a week before hurricane season even started.

00:03:18 --> 00:03:22: We had our first name storm and it's expected to

00:03:22 --> 00:03:26: be another above average season due to the higher sea

00:03:27 --> 00:03:28: surface temperatures.

00:03:28 --> 00:03:32: And we also know that our most vulnerable communities feel

00:03:32 --> 00:03:34: these impacts even more,
00:03:34 --> 00:03:39: not just through weather, but also through health impacts.
00:03:39 --> 00:03:41: So how do we change the tide?
00:03:41 --> 00:03:45: Today we'll hear from 8 national and local experts who
00:03:45 --> 00:03:47: are convened by you,
00:03:47 --> 00:03:51: lies, Urban Resilience Center. Over the past three days,
00:03:51 --> 00:03:55: that technical Assistance Panel has really worked diligently
together to
00:03:55 --> 00:03:58: consider equitable responses through land use,
00:03:58 --> 00:04:03: development design. New construction and retrofits to
mitigate extreme heat
00:04:03 --> 00:04:07: and the health threats on our community and its people.
00:04:07 --> 00:04:11: Our panel is chaired by Uline National member Doctor John
00:04:11 --> 00:04:11: Vick,
00:04:11 --> 00:04:14: who has done a remarkable job.
00:04:14 --> 00:04:16: Thank you so much, John.
00:04:16 --> 00:04:19: The evaluation, he's the evaluation and assessment director
for the
00:04:20 --> 00:04:23: Office of Primary Prevention at the Tennessee Department of
Health.
00:04:23 --> 00:04:27: John works at the intersection of public health and the
00:04:27 --> 00:04:30: built environment and facilitating the development of health,
00:04:30 --> 00:04:35: promoting equitable, livable communities. So he's just the
right person
00:04:35 --> 00:04:36: for this job.
00:04:36 --> 00:04:40: He was uniquely positioned to do this and to pull
00:04:40 --> 00:04:42: together this blue chip panel.
00:04:42 --> 00:04:44: Uhm, all of our panelists will be introduced in this
00:04:44 --> 00:04:46: morning's presentation,
00:04:46 --> 00:04:49: but I really want to personally thank them all for
00:04:49 --> 00:04:53: their dedication to excellence and their willingness to share
their
00:04:53 --> 00:04:57: time and their insights and their expertise with our
community.
00:04:57 --> 00:05:01: This tap was made possible through a grant from JP
00:05:01 --> 00:05:05: Morgan Chase and the Urban Land Institute and has had
00:05:05 --> 00:05:09: the valuable support of core development Mayor Cooper's
office within
00:05:09 --> 00:05:13: Metro Nashville and the GNRC.
00:05:13 --> 00:05:17: They will be receiving the final panel report and
recommendations.
00:05:17 --> 00:05:22: Annually remains ready to support implementation of those
tap recommendations,
00:05:22 --> 00:05:25: which are thoughtful, innovative and action oriented.

00:05:25 --> 00:05:30: RULI National member advisory team worked through the pandemic for

00:05:30 --> 00:05:34: nearly a year as they applied for the grant that

00:05:34 --> 00:05:37: supported art app identified the scope of it,

00:05:37 --> 00:05:41: shared their expertise and framing the process,

00:05:41 --> 00:05:45: and developed a comprehensive. Briefing materials and virtual tour for

00:05:45 --> 00:05:48: our panel so they could get quickly up to speed.

00:05:48 --> 00:05:51: So now join me in welcoming the ULI National Technical

00:05:51 --> 00:05:56: Assistance Panel on Equitable Development and Design responses to extreme

00:05:56 --> 00:05:57: heat threats,

00:05:57 --> 00:06:01: and I'm always amazed at how much incredible work can

00:06:01 --> 00:06:04: get done by these teams of UI experts and a

00:06:04 --> 00:06:07: remarkably short bit of time.

00:06:07 --> 00:06:09: So I'll go back to Leah.

00:06:11 --> 00:06:13: Thank you so much Kim.

00:06:13 --> 00:06:16: So if you aren't familiar with who you will lie,

00:06:16 --> 00:06:20: is the Urban Land Institute is a nonprofit membership organization

00:06:20 --> 00:06:23: with more than 45,000 members worldwide within you alive their

00:06:23 --> 00:06:25: urban resilience program focuses on how buildings,

00:06:25 --> 00:06:28: communities and cities can be more resilient to the to

00:06:29 --> 00:06:33: the impacts of climate change considering preparedness for climate risks

00:06:33 --> 00:06:36: and the role of the real estate sector in addressing

00:06:36 --> 00:06:39: them these resilience, technical assistance panels leverage the expertise and

00:06:39 --> 00:06:41: perspectives of the ULI membership to provide.

00:06:41 --> 00:06:46: Land use development strategies. Assess policy opportunities and craft strategies

00:06:46 --> 00:06:49: for implementation and funding for resilience going forward.

00:06:49 --> 00:06:54: Next slide please. The National Virtual Technical Assistance Panel is

00:06:54 --> 00:06:57: part of a larger series of Resilience,

00:06:57 --> 00:07:00: technical assistance and learning opportunities called the Resilient Land use

00:07:00 --> 00:07:00: cohort.

00:07:00 --> 00:07:04: The cohort has been generously supported by JP Morgan Chase

00:07:04 --> 00:07:07: through the UI Foundation and our luck brings together 8

00:07:07 --> 00:07:10: ULI District Councils to work with city and agency partners

00:07:10 --> 00:07:13: on enhancing resilience and equity through land use and

development

00:07:13 --> 00:07:14: strategies.

00:07:14 --> 00:07:17: With that I'll hand it over to Doctor John Vick,

00:07:17 --> 00:07:20: our chair to kick off the panel's recommendations.

00:07:20 --> 00:07:32: Thank you. John, I think you're muted.

00:07:32 --> 00:07:32: Thanks,

00:07:32 --> 00:07:35: sorry about that happens all the time.

00:07:35 --> 00:07:37: Thanks Leah. Good morning everyone.

00:07:37 --> 00:07:39: Thank you for being here.

00:07:39 --> 00:07:42: I did want to extend a thank you again to

00:07:42 --> 00:07:44: our sponsors.

00:07:44 --> 00:07:47: JP Morgan Chase the Greater Nashville Regional Council,

00:07:47 --> 00:07:51: Metro Nashville government and courted element without whom our technical

00:07:51 --> 00:07:53: assistance panel would not have been possible.

00:07:53 --> 00:07:59: So thank you. So a little bit about what our

00:07:59 --> 00:08:01: panel was tasked with.

00:08:01 --> 00:08:05: Our scope was to think about building and site scale

00:08:05 --> 00:08:08: landscape design for heat resilience strategies.

00:08:08 --> 00:08:11: We want to make sure that as we're making

00:08:11 --> 00:08:12: recommendations

00:08:12 --> 00:08:15: for Nashville,

00:08:15 --> 00:08:18: particularly about around building retrofits and land use,

00:08:18 --> 00:08:21: that were also thinking about equity,

00:08:21 --> 00:08:22: and we want to make sure that our recommendations reflect

00:08:22 --> 00:08:25: that,

00:08:25 --> 00:08:27: and that implementation happens in an equitable manner.

00:08:27 --> 00:08:31: And we'll talk a little bit.

00:08:31 --> 00:08:35: More about that later were also thinking about longer term.

00:08:35 --> 00:08:38: A benchmarking for a heat mitigation and energy efficiency

00:08:38 --> 00:08:41: goals,

00:08:41 --> 00:08:42: and then also thinking about the financing mechanisms,

00:08:42 --> 00:08:45: which of course is a critical piece of this as

00:08:45 --> 00:08:50: well,

00:08:50 --> 00:08:53: and then also just how future city policy can encourage

00:08:53 --> 00:08:57: local property owners and developers to mitigate extreme

00:08:57 --> 00:09:02: heating cold

00:09:02 --> 00:09:05: in their projects and in open spaces in Nashville in

00:09:05 --> 00:09:10: order to focus our panel a little bit on the

00:09:10 --> 00:09:15: task at hand.

00:09:15 --> 00:09:20: Our sponsor team decided to focus in on one portion

00:09:20 --> 00:09:25: of the city where we could wrap our head around

00:09:25 --> 00:09:30: what these recommendations might look like for specific sites

and

00:09:10 --> 00:09:13: at the neighborhood scale with the goal of ultimately making

00:09:13 --> 00:09:16: recommendations for the entire city and the region,

00:09:16 --> 00:09:19: our group chose to focus on an area of South

00:09:19 --> 00:09:23: Nashville just South of downtown that includes the Chestnut Hill

00:09:23 --> 00:09:24: neighborhood,

00:09:24 --> 00:09:27: the Wedgewood Houston neighborhood, and the Fairgrounds redevelopment site.

00:09:27 --> 00:09:30: And we chose. The site for two reasons.

00:09:30 --> 00:09:33: One was data we looked to find out what parts

00:09:33 --> 00:09:37: of the city were most vulnerable to extreme heat.

00:09:37 --> 00:09:39: We looked at the socio economic variables.

00:09:39 --> 00:09:43: We looked at the health risk and we also looked

00:09:43 --> 00:09:46: at tree cover and surface temperature and we zeroed in

00:09:47 --> 00:09:50: on this part of the county because we felt like

00:09:50 --> 00:09:54: this is an area that could really benefit from some

00:09:54 --> 00:09:57: of these interventions that we can implement.

00:09:57 --> 00:10:00: We also know that this area of town,

00:10:00 --> 00:10:02: like many areas of town in Nashville,

00:10:02 --> 00:10:05: is experiencing rapid development. There are a lot of large

00:10:05 --> 00:10:09: scale projects and small scale projects happening all at once

00:10:09 --> 00:10:12: and so it gave us the opportunity as a panel

00:10:12 --> 00:10:14: to think about some of these adaptive reuse projects.

00:10:14 --> 00:10:17: Single family home development and the fairgrounds redevelopment.

00:10:17 --> 00:10:20: Many different scales of development that are happening to

00:10:20 --> 00:10:21: help frame our recommendations.

00:10:24 --> 00:10:29: So next slide please. So this is our panel.

00:10:29 --> 00:10:32: I'm deeply honored and humbled to be chairing this panel.

00:10:32 --> 00:10:36: It's been great working with and getting to know each

00:10:36 --> 00:10:38: of them throughout this week.

00:10:38 --> 00:10:41: We've had some long days working fast and furious and

00:10:41 --> 00:10:43: they've really come through.

00:10:43 --> 00:10:47: There's a a diverse set of perspectives and backgrounds represented

00:10:47 --> 00:10:47: here.

00:10:47 --> 00:10:50: I represent the the public health department and the public

00:10:50 --> 00:10:52: health perspective.

00:10:52 --> 00:10:53: We also have Kevin Augustine,

00:10:53 --> 00:10:57: who is with DBRS Morningstar in Chicago.

00:10:57 --> 00:11:01: We have Clay Hines who is the founder of public

00:11:01 --> 00:11:03: square here in Nashville.

00:11:03 --> 00:11:06: Jillian Burgess with RWD I in Philadelphia.

00:11:06 --> 00:11:10: We have Adam Freda, principal with Bloomberg Associates.

00:11:10 --> 00:11:13: Albina, or just Ohio director of Housing and community resilience.

00:11:13 --> 00:11:16: In Tallahassee. Sadhu Johnston, who is the recently retired city

00:11:16 --> 00:11:18: manager of Vancouver,

00:11:18 --> 00:11:21: BC and Erica Weeks, also here in Nashville with Hastings

00:11:21 --> 00:11:24: architecture so you can see we have a diverse set

00:11:24 --> 00:11:25: of backgrounds,

00:11:25 --> 00:11:29: expertise and perspectives. Some of us are here in Nashville

00:11:29 --> 00:11:30: and some of us are not,

00:11:30 --> 00:11:34: but we all dedicated our time to thinking about how

00:11:34 --> 00:11:37: we can address heat mitigation here in the city.

00:11:40 --> 00:11:43: I also sincerely want to thank the UI staff Leah

00:11:43 --> 00:11:44: Kelly and Aaron,

00:11:44 --> 00:11:47: who have made all of this possible and they've worked

00:11:47 --> 00:11:50: incredibly hard to help us to craft these recommendations and

00:11:50 --> 00:11:53: this presentation and the forthcoming report for you.

00:11:53 --> 00:11:56: I'm also, of course, a huge thanks to Rose and

00:11:56 --> 00:11:58: Kate hide here with you all.

00:11:58 --> 00:12:02: I Nashville. And of course we want to thank our

00:12:03 --> 00:12:08: stakeholders so our panel interviewed this week over 40 local

00:12:08 --> 00:12:11: stakeholders who represent government,

00:12:11 --> 00:12:13: academia, nonprofits, the business sector,

00:12:13 --> 00:12:17: and a variety of different sets of expertise from planning

00:12:17 --> 00:12:20: and architecture and design to environmental justice,

00:12:20 --> 00:12:25: sustainability and resilience. We're very thankful for each stakeholder who

00:12:25 --> 00:12:28: took a few minutes of their time this week to

00:12:29 --> 00:12:29: talk with us,

00:12:29 --> 00:12:32: share their expertise and their perspectives.

00:12:32 --> 00:12:34: And help us to understand what they see is the

00:12:34 --> 00:12:38: priorities around mitigating heat and climate impacts here in Nashville.

00:12:38 --> 00:12:43: So thank you stakeholders. So now I want to turn

00:12:43 --> 00:12:46: it over to my fellow panelists.

00:12:46 --> 00:12:49: Saudi Johnston, who's going to talk a little bit about

00:12:49 --> 00:12:50: the problems that we were facing.

00:12:52 --> 00:12:55: Great thanks John. So yeah we just a couple of

00:12:55 --> 00:12:58: slides to set the context here.

00:12:58 --> 00:13:01: Uh, because Nashville is not alone in dealing with these
00:13:01 --> 00:13:02: issues.
00:13:02 --> 00:13:05: 70% of cities across the globe are dealing with the
00:13:05 --> 00:13:08: impacts of climate change be they flooding,
00:13:08 --> 00:13:10: urban heat Island Air quality,
00:13:10 --> 00:13:13: that sort of thing. And so cities are really stepping
00:13:13 --> 00:13:17: up its world class cities are embracing these strategies and
00:13:17 --> 00:13:20: from our perspective and not being from Nashville but getting
00:13:20 --> 00:13:23: to look at what's happening there.
00:13:23 --> 00:13:26: Nashville is becoming a world class city and has the
00:13:26 --> 00:13:29: opportunity to really embrace these approaches as well.
00:13:29 --> 00:13:32: Cities are taking this on in two ways.
00:13:32 --> 00:13:35: The first is to reduce their impact on climate change.
00:13:35 --> 00:13:37: So that's called the mitigation,
00:13:37 --> 00:13:40: and they can reduce climate emissions and help to prevent
00:13:40 --> 00:13:42: climate change impacts.
00:13:42 --> 00:13:45: The second is adaptation, and that's really preparing for the
00:13:45 --> 00:13:46: impacts of climate change.
00:13:46 --> 00:13:48: And we're already seeing them.
00:13:48 --> 00:13:52: Kim mentioned a number of the impacts that are that
00:13:52 --> 00:13:54: are happening for Nashville.
00:13:54 --> 00:13:56: And it's really jeopardizing the viability of our communities.
00:13:56 --> 00:14:00: And so cities are recognizing they need to step up
00:14:00 --> 00:14:02: and take this on directly next slide,
00:14:02 --> 00:14:05: please. So how is that?
00:14:05 --> 00:14:09: How how is climate change impacting our cities,
00:14:09 --> 00:14:13: and in particular, with extreme heat and the built
environment?
00:14:13 --> 00:14:17: You know, you can see that the the bottom graphic
00:14:17 --> 00:14:19: there it is getting hotter.
00:14:19 --> 00:14:22: It's that heat disproportionately is impacting cities,
00:14:22 --> 00:14:25: and that is producing widespread public health risk,
00:14:25 --> 00:14:29: and that risk can be mitigated to some extent by
00:14:29 --> 00:14:34: taking proactive steps to address the concerns and by taking
00:14:34 --> 00:14:35: these on you.
00:14:35 --> 00:14:37: Really help your own city to be more resilient to
00:14:37 --> 00:14:40: all of the different impacts that might might come as
00:14:40 --> 00:14:42: a result of climate change.
00:14:42 --> 00:14:45: Next slide. So the good news is that most of
00:14:45 --> 00:14:49: the solutions are pretty readily available.
00:14:49 --> 00:14:52: It's not rocket science, and they have been tested.
00:14:52 --> 00:14:55: I was in the mayor's office in Chicago right after

00:14:55 --> 00:14:57: we had a pretty extreme heat wave.

00:14:57 --> 00:14:59: We had over 700 deaths,

00:14:59 --> 00:15:01: and so the mayor at the time and and the

00:15:01 --> 00:15:05: Council were really committed to finding solutions to reduce the

00:15:05 --> 00:15:07: impact of urban heat island.

00:15:07 --> 00:15:10: And there you can see the rooftop of City Hall,

00:15:10 --> 00:15:12: the green roof on one side.

00:15:12 --> 00:15:14: The county building was that.

00:15:14 --> 00:15:16: The black roof there and you can see the temperature

00:15:16 --> 00:15:17: difference.

00:15:17 --> 00:15:20: The green roof is about 70 degrees and the black

00:15:20 --> 00:15:21: roof is about 150 degrees.

00:15:21 --> 00:15:24: So simple solutions like that can really help to reduce

00:15:24 --> 00:15:27: the temperature in the city and you see the graphic

00:15:27 --> 00:15:28: there.

00:15:28 --> 00:15:30: What happens is during the day the sun heats up

00:15:30 --> 00:15:31: the asphalt,

00:15:31 --> 00:15:34: the black groups all of the materials heat up normally

00:15:34 --> 00:15:35: at night.

00:15:35 --> 00:15:37: That heat then dissipates in the city.

00:15:37 --> 00:15:39: Can cool down. People can kind of recover,

00:15:39 --> 00:15:42: but what what's happening is that all the black materials,

00:15:42 --> 00:15:44: the asphalts and whatnot are.

00:15:44 --> 00:15:47: Absorbing that heat and then letting it out at night,

00:15:47 --> 00:15:49: which doesn't allow that the city to cool.

00:15:49 --> 00:15:51: So a lot of the simple,

00:15:51 --> 00:15:52: simple solutions are readily available.

00:15:52 --> 00:15:56: Green roofs. Reflective roofs on the buildings can really help.

00:15:56 --> 00:15:59: Reflective pavements and you'll see some images of these strategic

00:15:59 --> 00:16:01: landscaping solutions and then thinking.

00:16:01 --> 00:16:04: Neighborhood wide about St reallocations and greening on in

00:16:05 --> 00:16:05: the neighborhood,

00:16:05 --> 00:16:08: so a lot of these solutions are readily available.

00:16:08 --> 00:16:11: Our first recommendation as a panel.

00:16:11 --> 00:16:13: We had a chance to take a look at Mayor

00:16:13 --> 00:16:17: Cooper's sustainable advisory committees report and we understand it's embargoed

00:16:18 --> 00:16:18: at this point,

00:16:18 --> 00:16:21: but our first recommendation is to adopt it.

00:16:21 --> 00:16:24: It's got a lot of great stuff in it and

00:16:24 --> 00:16:27: it'll really help to move Nashville.

00:16:27 --> 00:16:29: Forward, so kudos to you Mayor Cooper for bringing that

00:16:29 --> 00:16:30: group together.

00:16:30 --> 00:16:33: Our first recommendation is adopt that report and then you'll

00:16:33 --> 00:16:35: see in the upcoming slides.

00:16:35 --> 00:16:38: We've got a number of other recommendations that will help

00:16:38 --> 00:16:41: Nashville to really be a global leader in this topic,

00:16:41 --> 00:16:43: so I'm going to hand it over now to Adam

00:16:43 --> 00:16:45: Freid with Bloomberg Associates.

00:16:46 --> 00:16:49: Great thanks, I do and the exciting thing about you

00:16:49 --> 00:16:51: know the work that we had before us is that

00:16:51 --> 00:16:55: Assad who said the solutions are known in relatively simple

00:16:55 --> 00:16:58: and just to summarize, adding greenery and shade to areas

00:16:58 --> 00:16:59: throughout the city,

00:16:59 --> 00:17:02: lightning, the color of pavement and rooftops and adding

00:17:03 --> 00:17:06: water

00:17:06 --> 00:17:07: features for people so that you can provide opportunities

00:17:07 --> 00:17:10: from

00:17:10 --> 00:17:13: the cool off.

00:17:13 --> 00:17:14: Now these are common sense solutions that enhance the

00:17:14 --> 00:17:16: communities

00:17:16 --> 00:17:20: and economic competitive of Nashville and add tremendous

00:17:20 --> 00:17:23: value even

00:17:23 --> 00:17:24: without climate change.

00:17:24 --> 00:17:27: They make sense and it will be particularly.

00:17:27 --> 00:17:29: Critical is Nashville. Summertime temperatures are predicted

00:17:29 --> 00:17:31: to increase 5

00:17:31 --> 00:17:34: degrees over the next 30 years and it'll last year

00:17:34 --> 00:17:37: and the year before.

00:17:37 --> 00:17:40: You're already breaking records of days over 90 degrees and

00:17:40 --> 00:17:43: that trend is going to be continuing now.

00:17:43 --> 00:17:46: One of the mayors that I've worked with,

00:17:46 --> 00:17:47: and I had the fortune of spending four years with

00:17:47 --> 00:17:50: Nashville as a client in previous administrations.

00:17:50 --> 00:17:53: But another mayor that I've worked with has said that

00:17:53 --> 00:17:54: every action that their city takes is a climate action.

00:17:54 --> 00:17:56: And you know anything that they do either reduces

00:17:56 --> 00:17:57: greenhouse

00:17:57 --> 00:17:58: gas emissions.

00:17:58 --> 00:17:59: In climate risks, or it increases them inadvertently or

00:17:59 --> 00:18:00: deliberately,

00:18:00 --> 00:18:01: and that's certainly true in the case of all the

00:18:01 --> 00:18:02: recommendations,

00:18:02 --> 00:18:03: we're going to be discussing today.

00:17:56 --> 00:17:58: So for new constructions you know,
00:17:58 --> 00:18:00: we recommend that you require or incentivize features to cool
00:18:00 --> 00:18:02: neighborhoods and protect residents,
00:18:02 --> 00:18:05: and this is being done in cities throughout the world.
00:18:05 --> 00:18:08: Chicago and Vancouver require green roofs and new large scale
00:18:08 --> 00:18:09: developments,
00:18:09 --> 00:18:12: or at least it assessment of the opportunities for that
00:18:12 --> 00:18:14: Los Angeles in New York City,
00:18:14 --> 00:18:17: where I spent about 20 years working on urban.
00:18:17 --> 00:18:20: Sustainability issues require cool roofs on new buildings.
00:18:20 --> 00:18:23: Oftentimes they'll exempt high slope roofs or single family homes,
00:18:23 --> 00:18:26: but in many cases it makes sense to include those
00:18:26 --> 00:18:28: when it comes to cool roofs.
00:18:28 --> 00:18:31: Louisville offers a cool roof incentives to new developments,
00:18:31 --> 00:18:33: so there are ways. If you're not going to require
00:18:34 --> 00:18:37: them to incentivize it and get developers to look at
00:18:37 --> 00:18:38: the opportunities,
00:18:38 --> 00:18:41: many of which will save the money over the lifespan
00:18:41 --> 00:18:42: of the building.
00:18:42 --> 00:18:44: I'll talk pass this on to Erica who's going to
00:18:44 --> 00:18:47: talk about how to retrofit existing buildings.
00:18:47 --> 00:18:48: With many of these features.
00:18:51 --> 00:18:55: Thanks, Adam. As as important as it is to to
00:18:55 --> 00:18:57: focus on our new new construction,
00:18:57 --> 00:19:00: existing building stock still makes up a huge percentage of
00:19:00 --> 00:19:03: our building energy use and many of the things that
00:19:03 --> 00:19:06: we're doing on new construction can be implemented on existing
00:19:06 --> 00:19:09: buildings as well. So looking at reflective coatings or green
00:19:09 --> 00:19:09: roofs,
00:19:09 --> 00:19:12: so here we see an image of the of Chicago
00:19:12 --> 00:19:14: City Hall that green roof that said,
00:19:14 --> 00:19:17: who mentioned earlier? That's a fantastic project.
00:19:17 --> 00:19:20: Graders aren't always possible on existing buildings,
00:19:20 --> 00:19:23: you know, for for load regions or other retrofit reasons.
00:19:23 --> 00:19:25: So a simple cool roof coating.
00:19:25 --> 00:19:28: Here you can see a building in New York City
00:19:28 --> 00:19:32: where they're just painting on a reflective coating that helps
00:19:32 --> 00:19:35: cool everything in in the immediate area that he was
00:19:35 --> 00:19:38: mentioning earlier. And these things this is we're showing a

00:19:38 --> 00:19:41: commercial building here where this reflective coatings being installed,

00:19:41 --> 00:19:44: but these could be installed on single family and duplex

00:19:44 --> 00:19:47: is particularly in in these neighborhoods.

00:19:47 --> 00:19:48: In Nashville that we're looking at,

00:19:48 --> 00:19:51: there's a huge swath of these starting to age.

00:19:51 --> 00:19:54: Aging, single family and duplex homes with residents who have

00:19:54 --> 00:19:56: been living there for a long time,

00:19:56 --> 00:19:59: and so a pilot program painting these roofs with a

00:19:59 --> 00:20:02: reflective coating could go a long way to reducing their

00:20:02 --> 00:20:03: utility bills,

00:20:03 --> 00:20:07: specially their cooling bills. Aging homes also weren't built at

00:20:07 --> 00:20:10: a time where we needed as much insulation or as

00:20:10 --> 00:20:11: much air tightness,

00:20:11 --> 00:20:14: and so we want to focus on on making these

00:20:14 --> 00:20:18: buildings more airtight and better thermally insulated to help reduce

00:20:18 --> 00:20:19: their utility bills.

00:20:19 --> 00:20:22: But there's also a term we talked about in resiliency,

00:20:22 --> 00:20:24: which is called passive survivability,

00:20:24 --> 00:20:27: and that is how long can somebody stay in their

00:20:27 --> 00:20:31: home during a critical weather event or a catastrophic event.

00:20:31 --> 00:20:33: Short term power outages during peak loads?

00:20:33 --> 00:20:36: Are there rolling utility? How to do his work,

00:20:36 --> 00:20:38: where where air conditioning is going to go off,

00:20:38 --> 00:20:41: particularly at the hottest times of the day,

00:20:41 --> 00:20:44: and so a really well insulated or really airtight home

00:20:44 --> 00:20:45: is going to stay cool for longer,

00:20:45 --> 00:20:47: particularly during those peak times.

00:20:47 --> 00:20:49: It's also going to go a long way as we

00:20:49 --> 00:20:51: start to upgrade this.

00:20:51 --> 00:20:53: This existing building stock to reducing those utility bills for

00:20:53 --> 00:20:54: long term residents,

00:20:54 --> 00:20:56: and that money is it can be better spent on

00:20:56 --> 00:20:58: upgrading their heating and cooling systems,

00:20:58 --> 00:21:01: and so the third thing we want to start to

00:21:01 --> 00:21:04: think about is after we've tightened up the building,

00:21:04 --> 00:21:07: we've made it really. Energy efficient in a passive way.

00:21:07 --> 00:21:10: We want to incentivize some of those high efficiency heating

00:21:10 --> 00:21:12: and cooling systems like heat pumps.

00:21:12 --> 00:21:15: Heat pumps also moved heating and cooling back onto the

00:21:15 --> 00:21:16: electric grid,

00:21:16 --> 00:21:20: which is something that we can start to pursue cleaner
00:21:20 --> 00:21:21: energies.
00:21:21 --> 00:21:23: As we start to reach intensifies,
00:21:23 --> 00:21:25: those high high efficiency heating and cooling,
00:21:25 --> 00:21:26: we tighten up the envelope.
00:21:26 --> 00:21:28: We're going to reduce the peak loads.
00:21:28 --> 00:21:31: It will reduce the reliance on the utilities and on
00:21:31 --> 00:21:32: the grid,
00:21:32 --> 00:21:35: particularly during peak times when that when the grid is
00:21:35 --> 00:21:37: really strained and when we start to see those rolling
00:21:37 --> 00:21:39: rolling power outages during heat waves.
00:21:39 --> 00:21:42: Really at the critical time when when you need your
00:21:42 --> 00:21:43: the most air conditioning,
00:21:43 --> 00:21:46: the grid can get overwhelmed and we start to see
00:21:46 --> 00:21:47: outages,
00:21:47 --> 00:21:49: and so reducing our reliance on that,
00:21:49 --> 00:21:51: reducing making that grid more resilient by.
00:21:51 --> 00:21:55: Making all of the end building uses more resilient will
00:21:55 --> 00:21:59: help help ease those peak times and help everybody can
00:21:59 --> 00:22:03: have a more reliable heating and cooling and electric grid.
00:22:03 --> 00:22:05: So there are sort of a Fitbit scale of the
00:22:05 --> 00:22:08: building recommendations I'm going to hand it back to Adam
00:22:08 --> 00:22:10: is going to start to take us up into the
00:22:10 --> 00:22:13: up into the site scale and to the neighborhood scale
00:22:13 --> 00:22:13: of recommendations.
00:22:13 --> 00:22:17: Thanks Jillian. And I I apologize for calling out Erica
00:22:17 --> 00:22:19: instead of you.
00:22:19 --> 00:22:20: So we want to, you know,
00:22:20 --> 00:22:24: make sure that within Nashville were thinking outside of the
00:22:24 --> 00:22:26: box and the four walls of our buildings to the
00:22:26 --> 00:22:27: broader site,
00:22:27 --> 00:22:30: which offers a really tremendous opportunity to cool
00:22:30 --> 00:22:33: provide a number of amenities that address equity concerns
00:22:33 --> 00:22:36: as
00:22:36 --> 00:22:38: well as well as the economic competitiveness of the cities.
00:22:38 --> 00:22:41: So cities like Washington DC,
00:22:41 --> 00:22:41: Philadelphia and Detroit are requiring on site stormwater
00:22:41 --> 00:22:43: management for
00:22:43 --> 00:22:46: new developments,
00:22:46 --> 00:22:47: which is helping reduce flood risk.
00:22:47 --> 00:22:47: But all also adding a lot of greenery and D
00:22:47 --> 00:22:47: paving sites,

00:22:47 --> 00:22:50: New York City actually has a separate green parking standards

00:22:50 --> 00:22:52: for parking lots that introduces St trees,

00:22:52 --> 00:22:54: stormwater management and permeable surfaces,

00:22:54 --> 00:22:57: and other things that can help reduce flood risks.

00:22:57 --> 00:23:01: And again cool neighborhoods and improve air quality where you

00:23:01 --> 00:23:02: may have a lot of traffic.

00:23:02 --> 00:23:06: Cities like LA in Phoenix or using cool pavements and

00:23:06 --> 00:23:09: you can see a picture here of a pilot that

00:23:09 --> 00:23:12: was being done in LA by their streets department that

00:23:12 --> 00:23:16: not only cool streets, but they're creating cool quarters throughout

00:23:16 --> 00:23:19: neighborhoods and can lower surface temperatures by over 20 degrees.

00:23:19 --> 00:23:22: So a really significant impact that can have within the

00:23:22 --> 00:23:26: neighborhoods that are happening there and increase the lifespan and

00:23:26 --> 00:23:28: ability to keep infrastructure operating.

00:23:28 --> 00:23:31: So I'll now actually pass it to Erica to talk

00:23:31 --> 00:23:35: about how to take these actions into a neighborhood scale.

00:23:36 --> 00:23:39: Thanks Adam. We know that there are many factors in

00:23:39 --> 00:23:43: selecting a project site and that the site design effects

00:23:43 --> 00:23:46: our need to account for many factors like public access,

00:23:46 --> 00:23:48: parking needs and stormwater management.

00:23:48 --> 00:23:51: But if we're only thinking about what happens on our

00:23:51 --> 00:23:53: own unique individual site,

00:23:53 --> 00:23:56: we may be a little short sighted to how we

00:23:56 --> 00:23:56: are

00:23:56 --> 00:23:59: affecting neighborhood properties and downstream water conveyance.

00:23:59 --> 00:23:59: So

00:23:59 --> 00:24:00: by thinking about

00:24:00 --> 00:24:03: each site, design features synergistically within this broader context,

00:24:03 --> 00:24:06: then we can evaluate not only how cooling.

00:24:06 --> 00:24:09: Our own individual

00:24:08 --> 00:24:09: with reflective materials,

00:24:09 --> 00:24:09: the

00:24:09 --> 00:24:10: site

00:24:09 --> 00:24:10: vapro

00:24:10 --> 00:24:14: transpiration from durable plants and the use of infiltration measures

00:24:14 --> 00:24:14: to

00:24:14 --> 00:24:18: capture water versus convey it can work as a system.

00:24:18 --> 00:24:18: A

00:24:18 --> 00:24:20: means for having multipurpose infrastructure,

00:24:20 --> 00:24:22: creating

00:24:20 --> 00:24:21: bike and pedestrian

00:24:21 --> 00:24:22: green shaded

00:24:22 --> 00:24:26: pathways between all of the amazing destination developments that we're

00:24:26 --> 00:24:30: creating within our city and the communities that surround us.

00:24:30 --> 00:24:33: These and become links in the greater chain that make

00:24:33 --> 00:24:36: up our neighborhoods and communities.

00:24:36 --> 00:24:43: Lakeside please. One example of a neighborhood scale recommendation would

00:24:43 --> 00:24:46: be in New York City over 2000.

00:24:46 --> 00:24:49: Areas that are sort of these in between areas have

00:24:49 --> 00:24:53: been replanted to be able to have underutilized areas of

00:24:53 --> 00:24:55: pavement taken over by green,

00:24:55 --> 00:24:59: durable landscape. I'm going to hand it back to Adam.

00:24:59 --> 00:25:00: Right,

00:25:00 --> 00:25:03: thank you. Now we know trees have been a heated

00:25:03 --> 00:25:04: topic in Nashville,

00:25:04 --> 00:25:07: particularly with the 2019 update to the Tree Ordinance,

00:25:07 --> 00:25:10: but there's a lot more work that still needs to

00:25:10 --> 00:25:11: be done in some regards,

00:25:11 --> 00:25:14: Nashville is ahead of the game than other cities,

00:25:14 --> 00:25:15: but the root national campaign.

00:25:15 --> 00:25:18: This is the public private partnership to plant 500,000 trees

00:25:18 --> 00:25:21: across the city already with a data driven focus on

00:25:21 --> 00:25:24: neighborhoods that are hotter than average and with higher concentrations

00:25:24 --> 00:25:27: of vulnerable populations. And this is a program I use

00:25:27 --> 00:25:30: as a best practice when talking to other cities around

00:25:30 --> 00:25:31: the world.

00:25:31 --> 00:25:34: There's actually an inspiration for a program that started in

00:25:34 --> 00:25:34: Milan,

00:25:34 --> 00:25:36: but that program needs to be funded and so who

00:25:36 --> 00:25:40: talked about not only adopting sustainability plan and the city's

00:25:40 --> 00:25:41: climate adaptation plan,

00:25:41 --> 00:25:44: but funding needs to be brought behind those efforts to

00:25:44 --> 00:25:47: make sure that they can be implemented quickly and at

00:25:47 --> 00:25:49: a scale to have impact for residents.

00:25:49 --> 00:25:52: There's also a lot more that needs to be done

00:25:52 --> 00:25:53: to bring your tree ordinance.

00:25:53 --> 00:25:56: More in line with what other cities are requiring of

00:25:56 --> 00:25:57: their developers.

00:25:57 --> 00:26:00: This means requiring more from developers in terms of the

00:26:00 --> 00:26:01: number of trees.

00:26:01 --> 00:26:04: That they're planting and as well as the size of

00:26:04 --> 00:26:07: the trees that are being planted and fees that are

00:26:07 --> 00:26:10: paid in lieu of planting trees or for penalties when

00:26:10 --> 00:26:14: clear cutting occurs. Particularly bringing in and addressing the gap

00:26:14 --> 00:26:15: with single family and duplex homes,

00:26:15 --> 00:26:18: which is a huge gap in an area where the

00:26:18 --> 00:26:21: city is losing a lot of trees given the real

00:26:21 --> 00:26:24: estate demand in Nashville and the strong local economy,

00:26:24 --> 00:26:27: we think that you have a very strong hand and

00:26:27 --> 00:26:30: an urgent need to ask more from developers.

00:26:30 --> 00:26:33: And despite what folks? May tell you they're being asked

00:26:33 --> 00:26:36: to do this in other cities and are very willing

00:26:36 --> 00:26:38: to do it in places that have less of a

00:26:38 --> 00:26:40: strong market in the natural.

00:26:40 --> 00:26:43: So we we think that there is an expectation that

00:26:43 --> 00:26:44: they can do more,

00:26:44 --> 00:26:46: and a willingness if they're asked to do it.

00:26:46 --> 00:26:48: Jillian will talk about how this can apply within the

00:26:48 --> 00:26:50: building code environment.

00:26:52 --> 00:26:52: Thanks

00:26:52 --> 00:26:54: Adam, right so following with Adam said a lot of

00:26:54 --> 00:26:58: these developers are following these building codes requirements in other

00:26:58 --> 00:27:01: cities and so many of these recommendations that we've already

00:27:01 --> 00:27:04: made actually exist in one way or another in the

00:27:04 --> 00:27:07: code in your building code or in your zoning code

00:27:07 --> 00:27:07: already.

00:27:07 --> 00:27:10: Maybe developers are getting around by variances or?

00:27:10 --> 00:27:13: Or maybe it's just because as codes have been updated

00:27:13 --> 00:27:14: rapidly over the past few years,

00:27:14 --> 00:27:18: it's very difficult for code reviewers and code enforcement to

00:27:18 --> 00:27:20: keep keep up with all of the various sort of

00:27:20 --> 00:27:23: subtleties that are that are within the building.

00:27:23 --> 00:27:26: Particularly when it comes to the energy Code,

00:27:26 --> 00:27:30: energy code updates have gotten incredibly complex with energy modeling

00:27:30 --> 00:27:34: and all kinds of various ways of methods of compliance.

00:27:34 --> 00:27:37: It can be very difficult for code reviewers to understand

00:27:37 --> 00:27:39: all of those nuances.

00:27:39 --> 00:27:42: Some things that other jurisdictions are doing are

00:27:42 --> 00:27:45: implementing third

00:27:45 --> 00:27:49: party permit reviews or additional oversight.

00:27:49 --> 00:27:52: For larger projects. This brings in professionals and peers to

00:27:52 --> 00:27:53: review the documents were a lot more familiar with some

00:27:53 --> 00:27:56: of the nuances.

00:27:56 --> 00:27:59: Of the energy code and all of the different modeling

00:27:59 --> 00:28:02: capabilities to meet those requirements.

00:28:02 --> 00:28:05: Other things are looking at variances and how hard do

00:28:05 --> 00:28:07: developers really need to get those variants?

00:28:07 --> 00:28:09: Approvals other things are incentive programs.

00:28:09 --> 00:28:14: Upping the requirements for incentive programs to get

00:28:14 --> 00:28:17: developers really

00:28:17 --> 00:28:20: to to engage in the neighborhood and engage in the

00:28:20 --> 00:28:23: needs of the city for the long term.

00:28:23 --> 00:28:24: And then finally, metering and reporting is becoming very

00:28:24 --> 00:28:26: popular

00:28:26 --> 00:28:29: in many major cities.

00:28:29 --> 00:28:30: Here you can see an image of a current snip

00:28:30 --> 00:28:33: from a from the website of Fillet of the Sustainability

00:28:33 --> 00:28:36: Office in Philadelphia.

00:28:36 --> 00:28:39: You can look up most large buildings and find out

00:28:39 --> 00:28:42: their current energy use for the past year and up

00:28:42 --> 00:28:46: to up to five or ten years depending on the

00:28:46 --> 00:28:49: age of the building. And you can look at their

00:28:49 --> 00:28:51: utility use byte by type and by square footage.

00:28:51 --> 00:28:54: So many cities are implementing this metering and reporting

00:28:54 --> 00:28:58: to

00:28:58 --> 00:29:00: make that knowledge public,

00:29:00 --> 00:29:03: so you can find out about who the biggest energy

00:29:03 --> 00:29:06: hogs,

00:29:06 --> 00:29:09: the biggest emitters are who's polluting our city the most,

00:29:09 --> 00:29:12: and making that our temperatures go up.

00:29:12 --> 00:29:16: New York City is actually taking this a step further

00:29:16 --> 00:29:18: and starting in 2024 they've they've set a cap on

00:29:18 --> 00:29:21: percentage of energy use by square footage,

00:29:21 --> 00:29:24: and so any building owner that uses over their allotted

00:29:24 --> 00:29:27: amount of energy will start to incur fees or additional

00:29:27 --> 00:29:30: fines.

00:29:30 --> 00:29:33: Above and beyond their their initial cap,

00:29:18 --> 00:29:21: so building owners in New York City are looking at
00:29:21 --> 00:29:22: this and saying,
00:29:22 --> 00:29:25: hey, I gotta tighten things up and and this will
00:29:25 --> 00:29:28: in the end reduce my utility bills and so investing
00:29:28 --> 00:29:31: now to reduce my utility bills is just a common
00:29:31 --> 00:29:33: common sense return on investment.
00:29:33 --> 00:29:37: But this is really just putting putting dollars to sense
00:29:37 --> 00:29:40: in terms of the energies of those buildings.
00:29:40 --> 00:29:42: I'm going to now turn it back to John,
00:29:42 --> 00:29:44: who's gonna take us? Take us up a scale and
00:29:44 --> 00:29:47: look at the health and equity requirements in in the
00:29:47 --> 00:29:48: Community empowerment.
00:29:50 --> 00:29:53: Great thanks Julie and so our group also wanted to
00:29:53 --> 00:29:58: think about health and equity when we're thinking about
mitigating
00:29:58 --> 00:29:59: heat and so you know,
00:29:59 --> 00:30:03: I want to mention first what we mean by equity
00:30:03 --> 00:30:05: within the context of heat mitigation.
00:30:05 --> 00:30:08: So when we're talking about equity,
00:30:08 --> 00:30:12: we mean that certain populations are more vulnerable to the
00:30:12 --> 00:30:16: health and the economic and the safety impacts that can
00:30:16 --> 00:30:20: happen as a result of extreme heat and climate change.
00:30:20 --> 00:30:22: If you are a senior,
00:30:22 --> 00:30:24: if you are low income,
00:30:24 --> 00:30:27: or if you're at a black and brown community,
00:30:27 --> 00:30:30: you are much more likely to feel the effects and
00:30:30 --> 00:30:33: have negative health impacts or economic impacts,
00:30:33 --> 00:30:35: or have your safety put at risk.
00:30:35 --> 00:30:38: And so we want to think about how can we
00:30:38 --> 00:30:43: empower and protect those communities as we're making
these recommendations.
00:30:43 --> 00:30:46: So First off, we're looking at a community empowerment
recommendations.
00:30:46 --> 00:30:50: So one thing that we heard when we talked with
00:30:50 --> 00:30:51: our stakeholders.
00:30:51 --> 00:30:55: The importance of education. So this is education for
developers
00:30:55 --> 00:30:58: for nonprofits and for community members about urban heat
issues
00:30:58 --> 00:30:59: and solutions.
00:30:59 --> 00:31:01: We heard from developers who said,
00:31:01 --> 00:31:03: we know this is important,
00:31:03 --> 00:31:06: but it's really not on our radar when we're

00:31:06 --> 00:31:07: developing projects.

00:31:07 --> 00:31:10: And, you know, we would do more if we knew

00:31:11 --> 00:31:14: what to do and we we had it elevated as

00:31:14 --> 00:31:15: a priority for us.

00:31:15 --> 00:31:19: And so I think you online Nashville is uniquely positioned

00:31:19 --> 00:31:21: to do that and to educate developers.

00:31:21 --> 00:31:24: About heat mitigation strategies. Similarly,

00:31:24 --> 00:31:28: we can educate nonprofits and foundations about the importance and

00:31:28 --> 00:31:32: urgency of this to make it a priority for them,

00:31:32 --> 00:31:34: and then also community members.

00:31:34 --> 00:31:38: Of course, we need to educate community members about how

00:31:38 --> 00:31:42: heat issues are impacting them and potential solutions which leads

00:31:42 --> 00:31:44: into our second recommendation,

00:31:44 --> 00:31:48: which is around using citizen science as a teaching tool

00:31:48 --> 00:31:52: for community members about heat impact and solutions.

00:31:52 --> 00:31:54: So this is a way that we can engage citizens

00:31:55 --> 00:31:58: on the ground in their neighborhoods and empower them with

00:31:58 --> 00:32:02: data and knowledge around the the different design issues and

00:32:02 --> 00:32:05: their neighborhoods and how that may be increasing temperatures in

00:32:05 --> 00:32:06: their neighborhoods.

00:32:06 --> 00:32:10: And what are some potential solutions for those so that

00:32:10 --> 00:32:13: they can advocate for those solutions?

00:32:13 --> 00:32:16: And 3rd, we also wanted to acknowledge a development rubric

00:32:16 --> 00:32:20: that was developed in our study area about a Wedgewood

00:32:20 --> 00:32:21: Houston neighborhood.

00:32:21 --> 00:32:24: This is a rubric you can see it here to

00:32:25 --> 00:32:25: the right.

00:32:25 --> 00:32:28: It's fairly straightforward, but it's very powerful,

00:32:28 --> 00:32:32: and this was something that was created by the neighborhood

00:32:32 --> 00:32:36: to help empower residents to shape development in their neighborhoods.

00:32:36 --> 00:32:39: So as developers come to the neighborhood and look for

00:32:40 --> 00:32:42: support for their development.

00:32:42 --> 00:32:46: The The Neighborhood Association shares this with the developers and

00:32:46 --> 00:32:49: says this is how we're going to score your project

00:32:49 --> 00:32:51: to see if we want to support it as the

00:32:51 --> 00:32:53: neighborhood. Because if it doesn't score well,

00:32:53 --> 00:32:56: we don't feel like it's going to be something that

00:32:56 --> 00:32:59: we want to support and so you can see here.

00:32:59 --> 00:33:02: If you look at the 4th row on the rubric,

00:33:02 --> 00:33:05: there's a section specifically around sustainability and this would be

00:33:06 --> 00:33:09: a great place to incorporate something like heat mitigation strategies

00:33:09 --> 00:33:12: into a scoring to make sure that developers are aware.

00:33:12 --> 00:33:15: And could think about ways that they could mitigate heat

00:33:16 --> 00:33:17: in their development.

00:33:17 --> 00:33:19: We feel like this is something that could be replicated

00:33:19 --> 00:33:22: in other neighborhoods around the city as a way to

00:33:22 --> 00:33:25: empower communities to advocate for heat negation strategies and so

00:33:25 --> 00:33:27: we wanted to share that.

00:33:27 --> 00:33:29: And for our next slide,

00:33:29 --> 00:33:30: I'm going to pass it over to Abina to talk

00:33:30 --> 00:33:32: about neighborhood response recommendations.

00:33:35 --> 00:33:35: Alright.

00:33:36 --> 00:33:39: Thank you John, and so as we continue to talk

00:33:39 --> 00:33:41: about health inequity,

00:33:41 --> 00:33:44: well, we all know in our line of work is

00:33:44 --> 00:33:48: that the best way to ensure lasting changes to bring

00:33:48 --> 00:33:52: as many people as long as possible and the way

00:33:52 --> 00:33:55: we do that is to bring these efforts closer to

00:33:55 --> 00:33:56: their home.

00:33:56 --> 00:34:00: And so a series of our recommendations following this one

00:34:00 --> 00:34:03: would be focused on how we can bring the impacts

00:34:03 --> 00:34:07: of adaptation and the effects and all the benefits.

00:34:07 --> 00:34:10: As close as possible to the people we found in

00:34:10 --> 00:34:12: the work that we do.

00:34:12 --> 00:34:14: That investing at the neighborhood level,

00:34:14 --> 00:34:16: whether it's through programming or infrastructure,

00:34:16 --> 00:34:19: really is some of the fastest ways we can advance

00:34:19 --> 00:34:23: equity and and we can improve the quality of life

00:34:23 --> 00:34:24: for more residents.

00:34:24 --> 00:34:27: And so we wanted to highlight three opportunities for Nashville.

00:34:27 --> 00:34:30: The first is also recognized in some of the work

00:34:30 --> 00:34:33: that the advisory councils have already done and that is

00:34:33 --> 00:34:36: to establish neighborhood resilience hubs.

00:34:36 --> 00:34:39: These are really effective. Ways to not only enhance a
00:34:39 --> 00:34:42: public asset that already exists in the Community,
00:34:42 --> 00:34:46: but to layer on multiple benefits and services that can
00:34:46 --> 00:34:49: really bring up the quality of life in the surrounding
00:34:49 --> 00:34:50: neighborhoods.
00:34:50 --> 00:34:54: We will highlight a little bit more of what that
00:34:54 --> 00:34:57: looks like in some examples and the next slide.
00:34:57 --> 00:35:01: But the second recommendation is to implement a
Community focus
00:35:01 --> 00:35:02: Volunteer resilience program.
00:35:02 --> 00:35:06: You may have seen examples of work for emergency
response
00:35:06 --> 00:35:07: for disaster recovery.
00:35:07 --> 00:35:11: Where we empower individuals to be part of the recovery
00:35:11 --> 00:35:14: and to be part of bringing it on vulnerable residents
00:35:14 --> 00:35:17: and those that have a high health risk,
00:35:17 --> 00:35:18: particularly for extreme weather events.
00:35:18 --> 00:35:23: Volunteer Resilience program would intentionally pair up
individuals that are
00:35:23 --> 00:35:25: willing to be leaders in this area and pair them
00:35:26 --> 00:35:28: up with those that are vulnerable and to check on
00:35:28 --> 00:35:31: them and to ensure that they are part of the
00:35:31 --> 00:35:35: recovery and the response effort and and they're not left
00:35:35 --> 00:35:35: behind.
00:35:35 --> 00:35:38: This works really well at the neighborhood.
00:35:38 --> 00:35:42: Association level or you can train trainers and they can
00:35:42 --> 00:35:45: pass it on and it can live on for many
00:35:45 --> 00:35:46: many years.
00:35:46 --> 00:35:50: It is also very cost effective way to translate the
00:35:50 --> 00:35:52: benefits of your resilience planning.
00:35:52 --> 00:35:56: Thirdly, we want to encourage misting stations in public
spaces
00:35:56 --> 00:35:59: and these are small ways that we can introduce reprieve
00:35:59 --> 00:36:02: and and cooling throughout neighborhoods.
00:36:02 --> 00:36:06: And of course we would want you to prioritize vulnerable
00:36:06 --> 00:36:08: areas in your community.
00:36:08 --> 00:36:11: We know that those that are vulnerable may not have
00:36:11 --> 00:36:14: the best options in their own home,
00:36:14 --> 00:36:17: or maybe spending a lot of their working days outside,
00:36:17 --> 00:36:20: and so having as many access points to cool down
00:36:20 --> 00:36:23: throughout the city is going to be a great benefit
00:36:23 --> 00:36:25: to the community.
00:36:25 --> 00:36:28: Next, we wanted to just highlight the Resilience Hub idea.

00:36:28 --> 00:36:31: I'm I'm from Tallahassee and one of the ways that
00:36:31 --> 00:36:34: really had been a game changer for us in terms
00:36:34 --> 00:36:36: of our resilience,
00:36:36 --> 00:36:38: planning and adaptation is to implement these resilience.
00:36:38 --> 00:36:40: Pops and as I mentioned,
00:36:40 --> 00:36:44: the idea of resilience hubs is that they are key
00:36:44 --> 00:36:44: assets.
00:36:44 --> 00:36:48: Before a crisis happens, they serve the community well
during
00:36:48 --> 00:36:51: a crisis and they come in play immediately after,
00:36:51 --> 00:36:53: and and sometimes long after.
00:36:53 --> 00:36:56: So imagine your typical recreational center.
00:36:56 --> 00:36:59: You layer on top of that health and social services
00:36:59 --> 00:37:03: that are beneficial and a normal day year round.
00:37:03 --> 00:37:07: You enhance the asset itself with sustainable features and
climate
00:37:07 --> 00:37:09: responsive design to make the building.
00:37:09 --> 00:37:12: Itself safe and secure and in a place that you
00:37:12 --> 00:37:15: can trust to be available to the community when they
00:37:15 --> 00:37:16: are meeting it.
00:37:16 --> 00:37:19: And then you add services and resources,
00:37:19 --> 00:37:20: even materials for emergency preparedness,
00:37:20 --> 00:37:23: and altogether you build an asset that is again trusted
00:37:23 --> 00:37:26: that it is proximate to neighborhoods,
00:37:26 --> 00:37:29: and it is a place that will serve them much
00:37:29 --> 00:37:31: better than a lot of times.
00:37:31 --> 00:37:33: What we do with our public assets.
00:37:33 --> 00:37:36: They serve one time, or therefore particular seasonal period,
00:37:36 --> 00:37:38: and they are no longer in use,
00:37:38 --> 00:37:42: or they're vacant. For a significant portion of time,
00:37:42 --> 00:37:44: so this really maximizes those assets,
00:37:44 --> 00:37:47: and they're also a great opportunity to leverage partnerships
across
00:37:47 --> 00:37:48: different sectors.
00:37:48 --> 00:37:51: School districts with public with the municipality.
00:37:51 --> 00:37:54: We've seen this even in church facilities,
00:37:54 --> 00:37:56: and so it's a great way.
00:37:56 --> 00:38:00: And we've also found some success leveraging financial
opportunities through
00:38:00 --> 00:38:03: FEMA through HUD to really enhance these assets.
00:38:03 --> 00:38:06: And so we encourage you to implement that part of
00:38:06 --> 00:38:07: your recommendation.
00:38:07 --> 00:38:11: Next slide. We wanted to highlight of course the the

00:38:11 --> 00:38:15: biggest part about advancing equity is to ensure that those
00:38:15 --> 00:38:19: that are already there in your neighborhoods get the
advantage
00:38:19 --> 00:38:23: and the benefits of all the investments that you're making
00:38:23 --> 00:38:26: that they are not displaced that they're not left with
00:38:26 --> 00:38:28: less resources than they started with,
00:38:28 --> 00:38:31: and they are empowered to pass these benefits on to
00:38:31 --> 00:38:33: future generations.
00:38:33 --> 00:38:36: And so these three recommendations highlight ways that you
can
00:38:36 --> 00:38:38: use strategic investments to prevent displacement.
00:38:38 --> 00:38:42: First is to provide. Resources that will allow vulnerable
residents
00:38:42 --> 00:38:44: to take advantage of energy efficiency upgrades,
00:38:44 --> 00:38:47: regardless of how how much you can do at the
00:38:47 --> 00:38:50: utility scale or at the commercial building scale if it
00:38:50 --> 00:38:52: doesn't translate at home.
00:38:52 --> 00:38:55: And if it's not taken advantage of with high efficient
00:38:56 --> 00:38:56: homes,
00:38:56 --> 00:38:59: it won't make the debt that you were expecting,
00:38:59 --> 00:39:02: and so we encourage you to support and invest in
00:39:02 --> 00:39:05: ways where a low income households can also take
advantage
00:39:05 --> 00:39:07: of energy efficiency.
00:39:07 --> 00:39:10: Second, there will be a need and we found this.
00:39:10 --> 00:39:14: Across the nation for financial assistance for certain
household.
00:39:14 --> 00:39:17: So that as you invest in these improvements,
00:39:17 --> 00:39:19: the property values would do go up.
00:39:19 --> 00:39:21: And that's a great thing.
00:39:21 --> 00:39:24: We want that wealth creation to happen.
00:39:24 --> 00:39:27: However, we do not want that improvement to force some
00:39:27 --> 00:39:29: homeowners to be displaced,
00:39:29 --> 00:39:33: and so you might consider financial assistance that allows
that
00:39:33 --> 00:39:34: to happen.
00:39:34 --> 00:39:37: And we'll share an example right after this of how
00:39:37 --> 00:39:39: Atlanta is doing that.
00:39:39 --> 00:39:42: And lastly, acquiring land in strategic locations.
00:39:42 --> 00:39:45: It's a really key way for the public sector to
00:39:45 --> 00:39:48: ensure that assets that support cooler cities that improve the
00:39:49 --> 00:39:50: quality of life remain public.
00:39:50 --> 00:39:53: They remain available to as many people as possible,
00:39:53 --> 00:39:57: and so you have to position your organizations with the

00:39:57 --> 00:40:00: resources to be able to acquire land when that opportunity
 00:40:00 --> 00:40:01: is there,
 00:40:01 --> 00:40:05: but also to do it intentionally placed throughout the
 Community
 00:40:05 --> 00:40:08: in such a way that benefits all we want to
 00:40:08 --> 00:40:11: really highlight the wisdom that has come already from your
 00:40:11 --> 00:40:15: sustainability. Advisory Council on equity and that is to
 always
 00:40:15 --> 00:40:18: consider the procedural equity and bring folks along as
 you're
 00:40:18 --> 00:40:23: planning and implementing this work to ensure that there's
 distributional
 00:40:23 --> 00:40:26: equity, meaning that you pay attention to where resources
 are
 00:40:26 --> 00:40:28: going and coming from.
 00:40:28 --> 00:40:31: And make sure that those nobody is left behind.
 00:40:31 --> 00:40:35: And lastly, to really start to breakdown those structural
 elements,
 00:40:35 --> 00:40:38: those things that are deeply embedded in the way we
 00:40:38 --> 00:40:39: do business,
 00:40:39 --> 00:40:43: such that we can start to really bring households up.
 00:40:43 --> 00:40:45: And to correct historical wrongs.
 00:40:45 --> 00:40:48: And now I'll pass it on to Adam,
 00:40:48 --> 00:40:50: who will talk about the Westside future fund.
 00:40:50 --> 00:40:51: Great,
 00:40:51 --> 00:40:53: thanks for being, and I just put a finer point
 00:40:53 --> 00:40:57: on what you were saying and emphasizing with the direct
 00:40:57 --> 00:41:01: connection between some of the systemic racism issues that
 we've
 00:41:01 --> 00:41:03: seen in cities, and in particular where a number of
 00:41:03 --> 00:41:07: studies have been done that show neighborhoods that were
 historically
 00:41:07 --> 00:41:11: redlined can be 20 degrees hotter than comparable
 neighborhoods within
 00:41:11 --> 00:41:14: their city because of the types of design.
 00:41:14 --> 00:41:18: And infrastructure, that's who brought their one of the
 examples
 00:41:18 --> 00:41:20: we want to lift up because we know many of
 00:41:20 --> 00:41:24: the things we've talked about today can bring fears of
 00:41:24 --> 00:41:27: displacement as property values and rents increase because
 of investments
 00:41:27 --> 00:41:28: in neighborhood amenities.
 00:41:28 --> 00:41:32: In Atlanta. Westside Future Fund is a philanthropic effort that
 00:41:32 --> 00:41:35: actually has an anti displacement tax fund for legacy
 residents

00:41:35 --> 00:41:39: of particular neighborhoods that will pay in some cases up
00:41:39 --> 00:41:42: for 20 years. Any of the property tax increases that
00:41:42 --> 00:41:44: happen for income qualified families.
00:41:44 --> 00:41:47: That are legacy homeowners in that neighborhood so that
they
00:41:47 --> 00:41:50: can continue to stay in and benefit from the changes
00:41:50 --> 00:41:52: that are occurring in their neighborhood.
00:41:52 --> 00:41:55: The quality of life improvement happening without being
displaced as
00:41:55 --> 00:41:57: other people recognize the tremendous value of those
communities.
00:41:57 --> 00:42:00: There are a lot of different examples of things like
00:42:00 --> 00:42:01: this.
00:42:01 --> 00:42:04: Most of them require public private partnerships and
engagements of
00:42:04 --> 00:42:07: philanthropic community to help expand the scope and
breadth of
00:42:07 --> 00:42:09: what government can do on their own.
00:42:09 --> 00:42:12: And this one really stands out as one of the
00:42:12 --> 00:42:12: best,
00:42:12 --> 00:42:15: so I'll pass it on to Kevin to talk.
00:42:15 --> 00:42:17: But other ways of leveraging financing for these efforts.
00:42:19 --> 00:42:23: Thanks Adam. I wanted to cover a few of the
00:42:23 --> 00:42:28: financing strategies that we came up with in the course
00:42:28 --> 00:42:31: of our work over the last few days,
00:42:31 --> 00:42:34: and I'd like to first introduce this idea of corporate
00:42:34 --> 00:42:35: sponsorship.
00:42:35 --> 00:42:39: Nashville is fortunate to have a growing corporate presence
with
00:42:39 --> 00:42:44: increased employee base employed by those corporations
and many of
00:42:44 --> 00:42:47: the OR at least some of the suggestions that we've
00:42:47 --> 00:42:51: made would be really. Excellent candidates for adoption by a
00:42:51 --> 00:42:54: corporation and spearheading a corporate initiative.
00:42:54 --> 00:42:59: And this is not a concept that is particularly new.
00:42:59 --> 00:43:05: Many of these companies have similar programs and funding
mechanisms
00:43:05 --> 00:43:08: to take care of this work in other communities.
00:43:08 --> 00:43:13: So there are some things that would be just frankly
00:43:13 --> 00:43:18: beneficial to be have a corporate sponsorship behind them,
00:43:18 --> 00:43:21: and so we encourage the development.
00:43:21 --> 00:43:25: Of these programs, in conjunction with the corporations as
well
00:43:25 --> 00:43:30: as coming up with realistic budgets and funding mechanisms

00:43:30 --> 00:43:30: to
00:43:30 --> 00:43:34: do those,
00:43:34 --> 00:43:35: the second thing I'd like to talk about is the
00:43:35 --> 00:43:38: original.
00:43:38 --> 00:43:43: The implementation of a CPS program.
00:43:43 --> 00:43:47: CPS is an acronym that stands for commercial property
00:43:47 --> 00:43:51: assessed
00:43:51 --> 00:43:55: clean energy and this is a financing mechanism that is
00:43:55 --> 00:43:56: put in place by a local taxing authority to fund
00:43:56 --> 00:43:59: energy efficiency. Improvements in both new construction
00:43:59 --> 00:44:02: and renovation of
00:44:02 --> 00:44:04: buildings,
00:44:04 --> 00:44:08: so I don't want to go into a lot of
00:44:08 --> 00:44:13: detail detail about this,
00:44:13 --> 00:44:16: but the way these work is,
00:44:16 --> 00:44:21: it's a national program, but it doesn't become operative in
00:44:21 --> 00:44:23: a state until the state adopts a broad enabling legislation.
00:44:23 --> 00:44:27: So the first step is to have the state adopt
00:44:27 --> 00:44:31: the enabling legislation for CPS program that's done on a
00:44:31 --> 00:44:34: state by state basis.
00:44:34 --> 00:44:36: Happy to report that the Tennessee has has done that
00:44:36 --> 00:44:40: recently.
00:44:40 --> 00:44:44: Has passed the state enabling ordinance and so now it's
00:44:44 --> 00:44:48: the responsibility of the local taxing authorities.
00:44:48 --> 00:44:51: I think in our cases that would be the the
00:44:51 --> 00:44:54: the county or Metro Nashville as well as the surrounding
00:44:54 --> 00:44:59: counties that we've been working with who adopt A program
00:44:59 --> 00:45:03: at the local level and the way this works simply
00:45:03 --> 00:45:09: is the local municipality works with an owner of a
00:45:09 --> 00:45:13: building to determine a budget.
00:45:13 --> 00:45:17: For energy efficient improvements, the municipality provides
00:45:17 --> 00:45:20: an assessment against
00:45:20 --> 00:45:25: the property and the loan amount for that is funded
00:45:25 --> 00:45:29: by.
00:45:29 --> 00:45:29: Typically, an institutional investor. The proceeds are given to
00:45:29 --> 00:45:29: the.
00:45:29 --> 00:45:29: Owner of the property to do the work and then
00:45:29 --> 00:45:29: the owner pays that loan back through the assessment
00:45:29 --> 00:45:29: process
00:45:29 --> 00:45:29: over a typically 20 or 25 year period.
00:45:29 --> 00:45:29: These have been worked very well in other states.
00:45:29 --> 00:45:29: And it's exciting to have this program in place in
00:45:29 --> 00:45:29: Tennessee,

00:45:29 --> 00:45:33: and it is a great source of financing for all
00:45:33 --> 00:45:35: types of energy upgrades.
00:45:35 --> 00:45:41: The third thing that we'd like to mention as.
00:45:41 --> 00:45:45: As a priority would be the development of a financing
00:45:45 --> 00:45:46: resourcing hub.
00:45:46 --> 00:45:50: The number of financing sources that are available to
00:45:50 --> 00:45:53: developers
00:45:53 --> 00:45:56: and municipalities for economic development incentives.
00:45:56 --> 00:45:58: Energy incentives are like a patchwork quilt.
00:45:58 --> 00:46:03: They don't come from one place.
00:46:03 --> 00:46:04: There are as listed in the slide programs that come
00:46:04 --> 00:46:07: out of HUD.
00:46:07 --> 00:46:10: There are a host of tax credits,
00:46:10 --> 00:46:15: historic tax credits, low income tax credits,
00:46:15 --> 00:46:17: new market tax credits, and other QQ funding mechanisms
00:46:17 --> 00:46:20: that
00:46:20 --> 00:46:24: you don't go to one place.
00:46:24 --> 00:46:28: To learn about these and implement these,
00:46:28 --> 00:46:29: so we're recommending developing of financing resourcing
00:46:29 --> 00:46:32: hub where people,
00:46:32 --> 00:46:37: developers, missile Paletti could come not only to learn about
00:46:37 --> 00:46:38: these,
00:46:38 --> 00:46:41: but also provide technical assistance and how they would be
00:46:41 --> 00:46:46: applied to a specific project and then finally public buildings
00:46:46 --> 00:46:49: are very important,
00:46:49 --> 00:46:53: but public buildings don't often have available to them the
00:46:53 --> 00:46:54: same incentives that commercial properties or residential
00:46:54 --> 00:46:58: properties have,
00:46:58 --> 00:47:02: so we are in a unique part of.
00:47:02 --> 00:47:04: History where we have significant funds available from the
00:47:04 --> 00:47:08: CARES
00:47:08 --> 00:47:10: Act,
00:47:10 --> 00:47:14: and significant funds available from the American Rescue
00:47:14 --> 00:47:15: plan that
00:47:15 --> 00:47:17: we are advocating the allocated and used to fund resiliency
00:47:17 --> 00:47:20: programs of public buildings.
00:47:20 --> 00:47:24: So those are our four ideas that could be implemented
with relative ease and they,
for the most part do not really conflict with with
each other.
The benefit of, for example,
at CPS program is that a CPS.
Program does not preclude the use of tax credits or

00:47:24 --> 00:47:25: other financing,

00:47:25 --> 00:47:30: financing incentives, and the opportunity get corporations involved on specific

00:47:30 --> 00:47:31: projects that.

00:47:31 --> 00:47:34: Benefit the overall community would be it would be a

00:47:34 --> 00:47:35: wonderful thing,

00:47:35 --> 00:47:38: so thanks and I'd like to turn it over to

00:47:38 --> 00:47:42: Clay who will talk about some specific development recommendations.

00:47:42 --> 00:47:43: Thanks,

00:47:43 --> 00:47:46: Kevin. One of our panelists said earlier that every action

00:47:46 --> 00:47:48: is a climate action,

00:47:48 --> 00:47:51: and I'd like to take that down to the UI

00:47:51 --> 00:47:55: scale and really say that every building is a climate

00:47:55 --> 00:47:55: action.

00:47:55 --> 00:47:59: And this axiom is equally true for the larger commercial

00:47:59 --> 00:48:02: developments as well as single family homes.

00:48:02 --> 00:48:05: I'd also like to draw attention to a number of

00:48:05 --> 00:48:08: the local developments that are already accounting for many of

00:48:09 --> 00:48:11: the suggestions that we have in this report,

00:48:11 --> 00:48:15: like the core and Hines Mass timber project called P3.

00:48:15 --> 00:48:18: That's in the study area and it really just showcase

00:48:18 --> 00:48:22: that many developers aren't waiting to be told what's required.

00:48:22 --> 00:48:24: They're leading the way and its nucleus.

00:48:24 --> 00:48:28: Our recommendations are in alignment of policy with development to

00:48:28 --> 00:48:32: encourage the widespread adoption of many of these strategies.

00:48:32 --> 00:48:35: It's incumbent upon the development community to make a conscious

00:48:35 --> 00:48:38: decision about how we want to contribute to the built

00:48:38 --> 00:48:39: environment,

00:48:39 --> 00:48:41: as well as the planet as a whole.

00:48:41 --> 00:48:45: But we shouldn't just take this action because it's the

00:48:45 --> 00:48:46: right thing to do.

00:48:46 --> 00:48:49: I also personally believe that it's good for your bottom

00:48:49 --> 00:48:49: line.

00:48:49 --> 00:48:52: Most of these solutions aren't necessarily more expensive,

00:48:52 --> 00:48:55: they're just a little bit of a different approach.

00:48:55 --> 00:48:58: I believe that a green roof and a comfortable environment

00:48:58 --> 00:49:01: with well utility bills and more trees should be considered

00:49:01 --> 00:49:02: amenities.

00:49:02 --> 00:49:06: Particularly when you look at the next generation of consumers

00:49:06 --> 00:49:08: and how hot Nashville will become.

00:49:08 --> 00:49:10: Over the last three days,

00:49:10 --> 00:49:14: I personally learned a tremendous amount from this group of experts and one action coming out of this is to

00:49:14 --> 00:49:16: connect our local chapter with the resources and knowledge that

00:49:16 --> 00:49:20: we need to be a leader in the issues of

00:49:20 --> 00:49:23: heat mitigation,

00:49:23 --> 00:49:24: equity and climate change. Nashville is clearly growing up as

00:49:24 --> 00:49:28: a city.

00:49:28 --> 00:49:28: As such, we're attracting attention and more global stage in

00:49:28 --> 00:49:32: bringing in global companies that are mandating action on climate

00:49:32 --> 00:49:35: change if we're to achieve our full potential as a

00:49:35 --> 00:49:38: city. Developers have a tremendous opportunity to step up to

00:49:38 --> 00:49:42: this challenge and address our extreme heat in an equitable

00:49:42 --> 00:49:45: way.

00:49:45 --> 00:49:46: This was echoed by the national panelists today.

00:49:46 --> 00:49:49: John, I'll turn it back over to you.

00:49:49 --> 00:49:51: Great,

00:49:51 --> 00:49:55: thank you so much clay.

00:49:55 --> 00:49:57: So we have too many recommendations to put on a

00:49:57 --> 00:50:00: single slide here to share with you today you've heard

00:50:00 --> 00:50:04: them.

00:50:04 --> 00:50:05: Our panel has organized all of our recommendations.

00:50:05 --> 00:50:09: At. Either the building or site scale,

00:50:09 --> 00:50:12: the neighborhood scale, city and regional scale,

00:50:12 --> 00:50:15: and then also finance and development,

00:50:15 --> 00:50:17: so that will be in the forthcoming report.

00:50:17 --> 00:50:19: There will be more information than we shared with you

00:50:19 --> 00:50:23: today in that report that comes out in September,

00:50:23 --> 00:50:26: so be sure to look for that.

00:50:26 --> 00:50:29: But I did want to emphasize and give you a

00:50:29 --> 00:50:32: sneak preview that most of the recommendations that we

00:50:32 --> 00:50:37: have.

00:50:37 --> 00:50:40: Our short term recommendations. And that's because as

00:50:40 --> 00:50:44: Clay said,

00:50:44 --> 00:50:47: we really can't wait to implement these recommendations.

00:50:47 --> 00:50:50: Climate change and extreme heat are happening now.

00:50:50 --> 00:50:50: Extreme weather events are increasing now and we may never

00:50:50 --> 00:50:54: see change at this scale in our cities built environment

00:50:54 --> 00:50:58: again in our lifetimes with all the development that's happening

00:50:58 --> 00:51:01: in Nashville. Uhm, it's so critical for us now to

00:51:01 --> 00:51:04: be thinking about how we're building our city.

00:51:04 --> 00:51:07: Are we building it in a way that's setting us

00:51:07 --> 00:51:10: up for success and not for disaster in the future?

00:51:10 --> 00:51:12: 'cause in the end, fundamentally,

00:51:12 --> 00:51:14: this is really all about health and livability,

00:51:14 --> 00:51:16: and the viability of our city.

00:51:16 --> 00:51:19: You've heard it mentioned twice today already and I'm I'm

00:51:19 --> 00:51:21: going to say it one more time.

00:51:21 --> 00:51:24: 'cause I think it's worth mentioning that every action is

00:51:24 --> 00:51:25: a climate action.

00:51:25 --> 00:51:27: Every building is a climate action.

00:51:27 --> 00:51:29: We say something similar in public health,

00:51:29 --> 00:51:31: which is that. All policy is health policy and it

00:51:31 --> 00:51:35: just means that everything that we're doing when we're making

00:51:35 --> 00:51:38: decisions about policies and the ways that we build our

00:51:38 --> 00:51:41: cities are impacting health and impacting climate in some way,

00:51:41 --> 00:51:44: either positive or negative, and so it's important for us

00:51:44 --> 00:51:46: to have that front and center in our minds as

00:51:46 --> 00:51:49: we're deciding what kind of city we want to build.

00:51:49 --> 00:51:51: Nashville is a world class city now,

00:51:51 --> 00:51:54: and we need to do what other world class cities

00:51:54 --> 00:51:56: are doing is Sadu said.

00:51:56 --> 00:51:58: It's not rocket science. These things are out there.

00:51:58 --> 00:52:00: Other cities are doing them.

00:52:00 --> 00:52:02: And we can do them as well.

00:52:02 --> 00:52:03: You are the development community,

00:52:03 --> 00:52:05: you're the builders and shapers of our city,

00:52:05 --> 00:52:07: and your leadership can get us there.

00:52:07 --> 00:52:09: So thank you for attending today and I'm going to

00:52:09 --> 00:52:12: turn it over to our sponsored team to see if

00:52:12 --> 00:52:14: they have thoughts or questions for our panelists.

00:52:22 --> 00:52:25: So I really like the panel is recommending short term

00:52:26 --> 00:52:26: actions,

00:52:26 --> 00:52:28: actions that are attainable now.

00:52:28 --> 00:52:31: I think that things like considering passive passive survivability.

00:52:31 --> 00:52:33: You know trying to help our residents stay in the

00:52:33 --> 00:52:37: house is particularly in the Chestnut Hill neighborhood,
00:52:37 --> 00:52:41: which has been one of the poor neighborhoods in the
00:52:41 --> 00:52:43: city is super important.
00:52:43 --> 00:52:46: I do like the thought of acquiring land strategically and
00:52:46 --> 00:52:49: again in that neighborhood which borders Browns Creek.
00:52:49 --> 00:52:53: There's a lot of strategic opportunities to create parks that
00:52:53 --> 00:52:56: will help with comfort and health and well being,
00:52:56 --> 00:52:59: but also help with resiliency.
00:52:59 --> 00:53:03: You know some of the things that you guys recommended
00:53:03 --> 00:53:05: or already in place like Route Nashville,
00:53:05 --> 00:53:10: planning 500,000 trees, but thinking about doing that faster
and
00:53:10 --> 00:53:12: planning larger does make a difference.
00:53:12 --> 00:53:16: And I think something I think was recommended as identified
00:53:16 --> 00:53:17: the biggest energy hogs,
00:53:17 --> 00:53:21: and I know that siding when he became city manager
00:53:21 --> 00:53:25: identified Molson Brewery up in Vancouver and figured out a
00:53:25 --> 00:53:28: way to turn their hops into a new energy grid.
00:53:28 --> 00:53:30: Help, not just fun, you know,
00:53:30 --> 00:53:33: with the energy in that plant reducing its energy use,
00:53:33 --> 00:53:35: but also helping the entire neighborhood.
00:53:35 --> 00:53:38: So I think we can look at things sort of
00:53:38 --> 00:53:40: synergistically like that.
00:53:40 --> 00:53:43: I do like the citizen.
00:53:43 --> 00:53:46: You know, comparing the citizens in creating neighborhood
resiliency hubs?
00:53:46 --> 00:53:51: I just think that's a great community building tool that's
00:53:51 --> 00:53:52: super useful for.
00:53:52 --> 00:53:54: This neighborhood that we're studying,
00:53:54 --> 00:53:55: but other urban neighborhoods in Nashville.
00:53:55 --> 00:53:58: And then I like some of the finance options,
00:53:58 --> 00:54:00: taking advantage of things like cares,
00:54:00 --> 00:54:03: Act and American rescue plan funds that are available right
00:54:03 --> 00:54:06: now and be thinking how we can pull that together
00:54:06 --> 00:54:07: to make big change now.
00:54:07 --> 00:54:10: So I think the panelists and you guys did a
00:54:10 --> 00:54:11: great job.
00:54:16 --> 00:54:18: Great thank you Mark. Well,
00:54:18 --> 00:54:20: I think we will open it up for some Q&A.
00:54:20 --> 00:54:23: We have a little bit of time left.
00:54:31 --> 00:54:33: And that Q&A is open to anyone.
00:54:44 --> 00:54:46: And Kate mentioned in the chat that you can put

00:54:46 --> 00:54:48: your question in the chat or feel free to unmute
00:54:48 --> 00:54:49: yourselves as well.
00:54:56 --> 00:55:01: This is Doug Sharp then the recommendations came across
in
00:55:02 --> 00:55:06: your report is a citywide for the most part.
00:55:06 --> 00:55:11: Recommendations that were drawn from the study of what
would
00:55:11 --> 00:55:14: Houston and Chestnut Hill?
00:55:14 --> 00:55:20: What might be some specific recommendations that were
drawn from
00:55:20 --> 00:55:23: your study area that you can point to?
00:55:27 --> 00:55:29: Yeah, this is audio. Here.
00:55:29 --> 00:55:30: I can jump in UM,
00:55:30 --> 00:55:34: one thing that really struck us as folks that are
00:55:34 --> 00:55:36: working kind of globally.
00:55:36 --> 00:55:41: Is firstly there are some great great developments that are
00:55:41 --> 00:55:44: happening clearly in that neighborhood.
00:55:44 --> 00:55:47: And it felt like there was some real gaps in
00:55:47 --> 00:55:50: the connectivity between them and you know,
00:55:50 --> 00:55:52: felt like you kind of needed to get in your
00:55:52 --> 00:55:56: car to drive from one great development to another rather
00:55:56 --> 00:55:59: than one of the recommendations that we had was to
00:55:59 --> 00:56:01: have some green corridors to connect the neighborhood.
00:56:01 --> 00:56:05: It really felt like the connectivity between the neighborhood is
00:56:05 --> 00:56:08: missing and even simple things like sidewalks are missing
and
00:56:08 --> 00:56:11: they should be sidewalks that are shaded and and allow
00:56:11 --> 00:56:14: people to walk through the neighborhood to buy their
groceries.
00:56:14 --> 00:56:17: 'cause recognize that. The neighborhood is a food desert,
00:56:17 --> 00:56:19: so that was one major one.
00:56:19 --> 00:56:20: The other is, you know,
00:56:20 --> 00:56:24: we we really saw the concern for displacement and really
00:56:24 --> 00:56:27: saw that there are a good number of developments that
00:56:27 --> 00:56:31: have been approved and that will continue to risk more
00:56:31 --> 00:56:33: people being displaced from from the neighborhood.
00:56:33 --> 00:56:37: And, you know, here in Vancouver we've seen just
astronomical
00:56:37 --> 00:56:40: increases in property prices and a lot of people being
00:56:40 --> 00:56:41: displaced,
00:56:41 --> 00:56:44: and it feels like there is the risk that that
00:56:44 --> 00:56:46: could really happen.
00:56:46 --> 00:56:48: In this neighborhood, and so we really felt like it

00:56:48 --> 00:56:51: was important to protect the legacy residents as well as
00:56:51 --> 00:56:54: to find ways like energy retrofits and weatherization to keep
00:56:54 --> 00:56:57: people in their homes and to enable them to be
00:56:57 --> 00:57:00: there and be to be comfortable and be able to
00:57:00 --> 00:57:02: afford their energy there.
00:57:02 --> 00:57:04: So those are a couple of the specific things I'm
00:57:04 --> 00:57:07: sure that other panelists can highlight others.
00:57:09 --> 00:57:09: Yeah,
00:57:09 --> 00:57:12: if I may I would just add that from our
00:57:12 --> 00:57:16: own resilience planning effort here and I think it resonates
00:57:16 --> 00:57:18: with a lot of other communities.
00:57:18 --> 00:57:21: We begin with the question of vulnerability,
00:57:21 --> 00:57:23: who's vulnerable and who's most vulnerable.
00:57:23 --> 00:57:26: And once we start to develop strategies for them,
00:57:26 --> 00:57:30: we realize that the outcome is better for everyone and
00:57:30 --> 00:57:31: so it is.
00:57:31 --> 00:57:33: It's been really insightful for us to look at one
00:57:33 --> 00:57:37: particular neighborhood and develop strategies that we
00:57:37 --> 00:57:39: imagine would benefit
00:57:39 --> 00:57:42: and serve those residents.
00:57:42 --> 00:57:44: Well, and we're pretty confident that if you expand on
00:57:44 --> 00:57:48: these same ones across the entire city,
00:57:48 --> 00:57:48: you will have really great options and solutions for everyone
00:57:48 --> 00:57:48: else.
00:57:48 --> 00:57:51: And so that's that's the equity lens that is so
00:57:51 --> 00:57:54: critical in the work that you do.
00:57:54 --> 00:57:57: But really, as you prioritize projects where you begin to
00:57:57 --> 00:57:58: ask yourself questions,
00:57:58 --> 00:58:01: it's highly recommended that you begin with who is the
00:58:01 --> 00:58:04: most vulnerable and and the benefits will play out really
00:58:04 --> 00:58:06: well for everyone else.
00:58:07 --> 00:58:10: Thing I was struck by is in some ways
00:58:10 --> 00:58:12: it's an amenity rich area.
00:58:12 --> 00:58:14: Uh, you know with with the the stadium that's there
00:58:15 --> 00:58:18: with Brown Creek with schools there we saw some pictures
00:58:18 --> 00:58:21: of some pocket parks and weren't able to travel to
00:58:21 --> 00:58:24: them. But most of that infrastructure and amenities are single
00:58:24 --> 00:58:24: use.
00:58:24 --> 00:58:27: So how do you take that school and convert the
00:58:27 --> 00:58:28: school yard into a,
00:58:28 --> 00:58:31: you know, a cool space in the summer that's open
00:58:31 --> 00:58:32: to the community?

00:58:32 --> 00:58:35: How do you marry that with the idea on community
00:58:35 --> 00:58:36: hubs and resilience hubs?
00:58:36 --> 00:58:39: How do you think? About the connectivity between those and
00:58:39 --> 00:58:40: and you know,
00:58:40 --> 00:58:43: even with roadways, there where do you make sure there
00:58:43 --> 00:58:46: are bike lanes in to add to the connectivity that
00:58:46 --> 00:58:48: Soto is talking about so that you don't have single
00:58:48 --> 00:58:51: use pieces of infrastructure but multi use for new and
00:58:51 --> 00:58:54: existing residents and to really enhance the resilience of the
00:58:54 --> 00:59:03: community. Great
00:59:03 --> 00:59:06: thanks. So we do have a few questions coming through
00:59:06 --> 00:59:07: in the chat.
00:59:07 --> 00:59:10: I don't know if we'll have time to get to
00:59:10 --> 00:59:10: everything,
00:59:10 --> 00:59:13: but I didn't want to read out the ones that
00:59:14 --> 00:59:16: I can and see if we can answer a few
00:59:16 --> 00:59:18: of these before we wrap up.
00:59:18 --> 00:59:21: So we did have one question around us from Kim.
00:59:21 --> 00:59:24: Might the incentives for the recommended cool pavements,
00:59:24 --> 00:59:27: green roofs, additional trees, etc be developed similar to the
00:59:27 --> 00:59:30: bonus hike potentials that are included in the downtown
code,
00:59:30 --> 00:59:32: and I don't know if anybody.
00:59:32 --> 00:59:33: Wants to tackle this one.
00:59:33 --> 00:59:35: Is this something that you've seen in other places that
00:59:35 --> 00:59:35: we could
00:59:35 --> 00:59:40: do here? Short interesting yeah short answer is yes.
00:59:40 --> 00:59:43: Other cities have done that either for density bonuses,
00:59:43 --> 00:59:46: height bonuses can offset minimum parking requirements.
00:59:46 --> 00:59:49: There's a lot of creative ways to do that.
00:59:51 --> 00:59:54: Yeah, just to to build off of that.
00:59:54 --> 00:59:57: I mean, typically what we'll do is start an incentive
00:59:57 --> 00:59:59: program to get the new approaches going.
00:59:59 --> 01:00:02: Jillian mentioned passive, for instance passive certification.
01:00:02 --> 01:00:05: We will create some incentives and then once the industry
01:00:05 --> 01:00:08: is familiar with it and people are doing it more
01:00:08 --> 01:00:09: than we mandate it.
01:00:09 --> 01:00:13: And now passive House certification is mandated for most
construction
01:00:13 --> 01:00:13: in Vancouver.
01:00:13 --> 01:00:16: And so it's a way to kind of get people
01:00:16 --> 01:00:19: familiar with it and feel comfortable and through incentives.
01:00:19 --> 01:00:22: And you can deploy that strategy.

01:00:22 --> 01:00:24: With most of the things that we talked about today.

01:00:28 --> 01:00:28: Great

01:00:28 --> 01:00:30: thank you both come so.

01:00:30 --> 01:00:33: We also have a question from Eric.

01:00:33 --> 01:00:36: I often see developers scraping a site before construction in

01:00:36 --> 01:00:38: his neighborhood and Wedgewood Houston.

01:00:38 --> 01:00:42: Perhaps we can encourage developers to evaluate the existing trees

01:00:42 --> 01:00:46: and greenery on site before construction and work with designers

01:00:46 --> 01:00:48: to maintain as much as possible.

01:00:48 --> 01:00:52: So is this something that that we've seen in other

01:00:52 --> 01:00:53: places as well?

01:00:53 --> 01:00:54: Cisada nodding

01:00:56 --> 01:00:58: yeah, definitely. I mean, I,

01:00:58 --> 01:01:01: the tree protection you know you plant a tiny tree

01:01:01 --> 01:01:03: that's about this this wide.

01:01:03 --> 01:01:06: It has zero ecological benefit for probably a few years.

01:01:06 --> 01:01:09: And then a decade or more until it's actually cooling

01:01:09 --> 01:01:10: the city.

01:01:10 --> 01:01:13: If you can protect one of those trees by designing

01:01:13 --> 01:01:13: around it,

01:01:13 --> 01:01:17: people will like the development more 'cause it'll have mature trees.

01:01:17 --> 01:01:17: trees.

01:01:17 --> 01:01:20: But it will also have all of those ecological benefits

01:01:20 --> 01:01:23: of cooling the community and actually cooling the building.

01:01:23 --> 01:01:25: And so there are pretty tree protection bylaws.

01:01:25 --> 01:01:29: I understand that. Your new ordinance has some tree protection

01:01:29 --> 01:01:29: bylaws.

01:01:29 --> 01:01:32: It just need to make sure it's being enforced,

01:01:32 --> 01:01:35: and developers designers can design around most of those trees

01:01:35 --> 01:01:36: if they're being creative,

01:01:36 --> 01:01:39: and so we have. Tree protection is absolutely critical if

01:01:39 --> 01:01:41: you want to save your tree canopy and

01:01:41 --> 01:01:43: very specifically for national tire.

01:01:43 --> 01:01:46: Remember reading at some point there's an estimation of losing

01:01:46 --> 01:01:48: about 50,000 trees a year from development.

01:01:48 --> 01:01:51: It needs to apply to single family and duplex properties

01:01:51 --> 01:01:53: where you're seeing a lot of the loss,

01:01:53 --> 01:01:57: particularly out of the downtown area and those big

properties
and the.

01:01:57 --> 01:01:57: In lieu fee, if you tear down a tree or
01:01:57 --> 01:01:59: don't follow the rules,
01:01:59 --> 01:02:01: the penalties are just very very low so developers can
01:02:01 --> 01:02:04: factor that into the price in Nashville and it's cheaper
01:02:04 --> 01:02:07: for them just to cut it down and either pay
01:02:07 --> 01:02:09: into the tree mitigation bank and not plant trees,
01:02:09 --> 01:02:11: or just pay the fine.
01:02:11 --> 01:02:13: Yeah, and and this did come up in our conversations
01:02:15 --> 01:02:17: as well the importance of preserving the existing tree canopy
01:02:17 --> 01:02:20: because even if you do have a strong ordinance that
01:02:20 --> 01:02:23: requires more tree planting, a lot of times those trees
01:02:23 --> 01:02:26: are fairly small and it can take years,
01:02:26 --> 01:02:28: maybe decades for them to grow to the point where
01:02:28 --> 01:02:30: they're really providing the shade and the environmental
01:02:30 --> 01:02:33: benefits they

01:02:33 --> 01:02:36: that you were getting with the those original trees that
01:02:36 --> 01:02:38: were taken out. So very important.
01:02:38 --> 01:02:44: Uhm? Let's see Leah. Do we have time for another
01:02:44 --> 01:02:45: question?
01:02:45 --> 01:02:45: Now.
01:02:46 --> 01:02:48: Let's take one or two more questions,
01:02:48 --> 01:02:49: great. So
01:02:49 --> 01:02:51: we have another question from Kim.
01:02:51 --> 01:02:54: Could some of the funding for ideas for the future
01:02:54 --> 01:02:57: fund be housed through the Barnes Housing Fund or a
01:02:57 --> 01:02:58: separate entity?
01:02:58 --> 01:02:59: So the Barnes Housing Fund,
01:02:59 --> 01:03:03: of course, is our local Housing Trust fund here in
01:03:03 --> 01:03:04: Nashville.
01:03:04 --> 01:03:06: And that's a good question.
01:03:06 --> 01:03:09: I actually don't know the answer to that.
01:03:09 --> 01:03:11: Does anyone know if that's something?
01:03:11 --> 01:03:15: Have any? Has anyone seen Housing Trust funds and
something
01:03:15 --> 01:03:19: like the future fund combined together to provide support for
01:03:19 --> 01:03:23: not just housing construction but also support for keeping
people
01:03:23 --> 01:03:24: in their homes?
01:03:25 --> 01:03:28: Yeah, we come in my work with the city.
01:03:28 --> 01:03:31: We also have an affordable Housing Trust fund and there
01:03:31 --> 01:03:35: was originally seated with local resources and the way it's

01:03:35 --> 01:03:35: designed.

01:03:35 --> 01:03:38: And it's a really important thing to do is to

01:03:38 --> 01:03:40: have a policy for investment.

01:03:40 --> 01:03:43: And even if it's very high level general guidelines of

01:03:44 --> 01:03:45: how you will use those funds,

01:03:45 --> 01:03:48: we've also been able to bifurcate the fund itself,

01:03:48 --> 01:03:52: and so we found several projects out of the Trust

01:03:52 --> 01:03:52: Fund,

01:03:52 --> 01:03:55: and each of those can have different guidelines or rules.

01:03:55 --> 01:03:58: About how that can be so just sort of think

01:03:58 --> 01:03:59: of it as a subproject,

01:03:59 --> 01:04:02: but it's absolutely possible because it's also a local fund.

01:04:02 --> 01:04:05: We have a lot of flexibility with the source of

01:04:05 --> 01:04:06: the fund that we seeded with,

01:04:06 --> 01:04:09: and once it goes in there sort of changes the

01:04:09 --> 01:04:10: flavor of the money,

01:04:10 --> 01:04:12: and you can do with it as you want,

01:04:12 --> 01:04:15: especially if you can do recurring funded type of programs,

01:04:15 --> 01:04:17: you pay for something, it does it's work,

01:04:17 --> 01:04:18: you get some program income,

01:04:18 --> 01:04:21: and you're able to put that back in and recycle

01:04:21 --> 01:04:21: it.

01:04:21 --> 01:04:24: So there's a lot of creativity that you have the

01:04:24 --> 01:04:26: issue that you might run into.

01:04:26 --> 01:04:29: Our federal funds and a lot of those federal funds

01:04:29 --> 01:04:32: have really cleared guidelines of what they will and will

01:04:32 --> 01:04:35: not pay for and and they require a separation of

01:04:35 --> 01:04:37: funding that really makes it easier to audit.

01:04:37 --> 01:04:39: But aside from that, you can get a lot of

01:04:40 --> 01:04:43: creativity with your local fund and make sure to create

01:04:43 --> 01:04:45: some guidelines so that after you're gone,

01:04:45 --> 01:04:48: somebody else can use it as a waste intended.

01:04:52 --> 01:04:56: Great, well, I don't see any other questions in the

01:04:56 --> 01:04:56: chat.

01:04:56 --> 01:04:59: Do we have any other questions?

01:04:59 --> 01:05:02: Before we wrap up. Alright,

01:05:02 --> 01:05:05: I think that is a no so Leah I'm going

01:05:05 --> 01:05:05: to turn

01:05:05 --> 01:05:07: it back over to you.

01:05:07 --> 01:05:10: Hey great. Well thank you everyone for joining us today.

01:05:10 --> 01:05:12: As John said, keep an eye out for the final

01:05:12 --> 01:05:15: report that will come up a around in September that

01:05:15 --> 01:05:19: will detail these recommendations in a further way and provide
01:05:19 --> 01:05:21: a lot of the best practices and examples that our
01:05:21 --> 01:05:24: panelists cited for their reasoning behind the recommendations,
01:05:24 --> 01:05:27: the PowerPoint slides will also be available online.
01:05:27 --> 01:05:30: Just check out you lie Nashville site and will try
01:05:30 --> 01:05:33: to send you a link as soon as we have
01:05:33 --> 01:05:34: it available.
01:05:34 --> 01:05:36: Thank you all very much and if the panel and
01:05:36 --> 01:05:39: our sponsors could stay on for a few minutes,
01:05:39 --> 01:05:40: we'd appreciate it. Thank you.

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