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Washington may get its first smart city. Not sure what that means? Here's a primer.

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On 16 acres fronting the Dulles Greenway and adjacent to the future Ashburn Metro station, Minh Le has is putting together Gramercy District, a planned $500 million, 2.5 million-square-foot mixed-use project pitched as the "future of living.

MICHAEL NEIBAUER
Washington Business Journal

From his office in Ashburn's Brickyard co-working center, technologist Minh Le spells out his vision for a global operation with a dizzying flowchart and tech speak that just rolls off his tongue: "adaptive" and "secured virtual environments," "identity engine" and "rapid prototyping."

Behind the jargon is a grand aim, a smart city unlike anything else in Greater Washington, and a broader strategy for smart cities around the world anchored by his IT platform.

Le, chairman and founder of Ashburn-based 22 CityLink, has set a goal of marrying the disparate sectors of technology and real estate. Sure, the two have been known to get together – most new, market-rate developments incorporate smart appliances, automated package delivery, environmental sensors, sustainable building and other IT-driven features.

But wedding the pair, said the former Accenture managing director, demands much more than high-end amenities that a developer undertakes as a cost of doing business, just to keep up with the Joneses. The plan, he said, is truly "disruptive."

"Real estate is about entitlement, derisking, very complex financial capital stacks," Le said. "It's really not focused on local economic growth. It feeds off of it, but it's not focused on it. Technology, if you don't add value, you won't exist. It has to solve a real problem. It is about economic growth. To me, the biggest challenge is, we're making an attempt to merge these two things together."

On 16 acres fronting the Dulles Greenway and adjacent to the future Ashburn Metro station, Le has his test bed. It is called Gramercy District, a planned $500 million, 2.5 million-square-foot mixed-use project pitched as the "future of living." And he sees it as a means for real estate developers and tenants to profit much more off of even the most routine transactions within a mixed-use community.

"We are linking technology and a premier location together to drive economic development," Le said. "One without the other doesn't work really."

What is a smart city?

To the casual observer, it will look like any other city. It could be Reston Town Center or The Yards. It could be Shirlington or downtown Bethesda.

But at Gramercy, the idea is to build a city that evolves, not one that is content to stand still. Something for the young professionals, Le said, who thrive on a campus-like environment. "But not branded, like a Google," he said.

Here, Le said, IT startups based out of Gramercy's "Concept Foundry" accelerator and co-working space will have the freedom to develop products without worrying about the underlying tech infrastructure. Retailers will have access to gobs of data about their customers (assuming those customers allow it) before anyone steps up to the counter. Secure, individualized Wi-Fi signals will travel seamlessly from the apartment to the office to the bar.

"All of the space in Gramercy District is your place," Le said. "The bar, the open space, the co-working is the extension of your living room. The refrigerator is not what's in your house, but it's downstairs in that restaurant. The space for collaboration and ideation and execution should be much more free flowing from a business user's perspective. You should not be confined in your own environment."

The technology that will be built into Gramercy is still being worked out. It might not make sense cost-wise, for example, to invest too much in smart traffic control when Gramercy is home to only a handful of traffic lights, or to install geothermal technology under the roads to keep them warm during a snowfall, because it just doesn't snow that much.

That said, here is what we do know.

Gramercy residents will live in a highly connected, energy-efficient environment, one in which the lighting, the power and the temperature are controlled electronically, where rent and finances are managed from a single mobile app. Tenants, if they want, will serve as testers for future smart city technology developed and implemented on site by, for example, the companies working out of Gramercy's

Concept Foundry smart city accelerator.

"If you live in Gramercy," Le said, "everybody here are creators."

In the offices, businesses will have the option to bring in their own fiber and network or to pay monthly for the 22 CityLink "turnkey" package, which will include secure network and Wi-Fi access throughout Gramercy, a platform to build and integrate applications, tech training programs and more.

For retailers, Gramercy has partnered with FedBid to reduce the cost of operations, allowing multiple businesses to acquire back-of-the-house items in a group purchasing environment. National brand retailers will likely choose to use their own communications carriers, but 22 CityLink will offer "price competitive" monthly access, Le said, to Wi-Fi, customer analytics, event planning, coupons and social media marketing.

For customers, think efficiency: ordering and paying for a cup of coffee before leaving the office, for instance. And targeted specials – a system that learns what you like, what you've ordered before, what you might want the next time, and then makes it as easy as possible to obtain.

"Consumers are hungry for the benefits that these technologies deliver," said Philip Bane, managing director of the Smart Cities Council, a Reston-based trade association that advocates on behalf of companies that produce smart technologies. "There's a hunger for 21st Century cities. People don't want to give up green space. They don't want to give up their privacy. That's not the point. The point is that's what people want."

Who is Le?

Can Le pull it off? His bio touts years of experience trading on the oil and gas markets for ExxonMobil, his work as an Accenture managing director consolidating more than 90 installations for the Navy Installations Command, and his role as CEO or COO in several acquired technology companies.

Le graduated from the University of Maryland with a bachelor's of science, and from Georgetown University with an MBA in finance. His extensive resume says nothing of real estate. Considering what he's trying to do, that might be a good thing.

Real estate developers, Bane said, sit an era behind, largely failing to extract the inherent value in their projects, outsourcing their basic tech needs (and potential revenue) and disregarding consumer demand.

While he wasn't familiar with Le's Gramercy District, Bane said the concept was generally a good one, and the fact that it originated with a technologist, as opposed to a developer, suggests a better chance of success.

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Loudoun County officials are firmly behind Le, because his vision matches theirs: high-density, mixed-use development that incorporates residential in the right place – adjacent to Metro – but places a premium on the commercial side of the equation. Gramercy, Le said, will be "purpose built for the professional."

That's not to say Le won't make mistakes. He absolutely will, Bane said, but technology allows its practitioners to "experiment and fail quickly," make corrections and get back on their feet.

What is Gramercy District?

Gramercy District was originally part of Loudoun Station, a 42-acre project that Comstock Partners' first entitled more than a decade ago. But the ownership group that controlled the site disbanded and the property was ultimately split between two companies, one established and one new to real estate.

The 16 acres closest to the Dulles Greenway and the future Ashburn Metro station went to the fledgling 22 Capital Partners – the private equity company led by Le, which sits atop 22 CityLink and other affiliates – under a 99-year ground lease. Comstock retained roughly 26 acres to advance its multiphase 3.5 million-square-foot Loudoun Station project, the first phase of which included 357 apartments, retail and an AMC multiplex topped by 50,000 square feet of office.

Under a private concessionaire deal with Loudoun County, Comstock will build the 1,500-space Metro commuter parking garage at Loudoun Station. Meaning, potentially thousands of commuters daily will have to pass through Gramercy District to get to their cars, or from their cars to the Metro station platform. This is an opportunity, Le acknowledged.

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"He's not trying to be residential first," said Loudoun Supervisor Ron Meyer, R-Broad Run, who meets with Le every couple of months for updates. "He's trying to be tech and commercial first. As a county, we should be thanking heavens for that. It's refreshing. It's new. It's something that's fiscally sustainable for us."

What's the project's status?

The first phase of Gramercy District, dubbed 1A, will feature a single seven-story building, with up to 44,500 square feet of retail on the ground-floor topped by 55,000 square feet of office and then 350 apartments.

Much of the office space will be targeted toward small startups and the co-working environment.

Le has a pitch to that kind of prospective Gramercy District office user: He is convinced that every startup, at some point, will spend $2 million on the infrastructure needed to sustain the business – whether it's communications, server space or building a basic website.

Why not let 22 CityLink, Le says, do the heavy tech lifting? Don't worry about where to get fiber. Don't worry about the website. Pay a monthly fee for access to the 22 CityLink platform, he says, and it's all built in.

Invest that $2 million, instead, in the development of your product.

"We have built the framework to build any mobile application that can scale," he said. "I'm going to loan it to you, or we can do it for you, for you to be able to scale your business. We're sharing the kitchen."

Le claims to have three office tenants already locked up, and he expects to open the initial phase with "substantial" office users in place. JKH Holdings, it was recently announced, is one – it will take between 15,000 and 25,000 square feet in Phase 1A. Avaya appears to be another. International businesses, he said, are particularly interested given Gramercy's close proximity to Dulles International Airport, the home of the federal government and mass transit.

Skepticism, to an extent, is warranted. Le acknowledges as much. His company has yet to nail down its financing, or submit a site plan. He's got the big-name partners, but he's a relative unknown.

"We're having a lot of success getting a small number of real estate investors to believe," Le said, "but the masses say, 'I'll believe it when I see it.'"

The Gramercy site is zoned for high-density mixed-use, but it still must undergo site plan and other reviews before breaking ground. Le hopes to be permitted and shovel ready by the end of 2017, though there are six to nine months of "slack time" to still meet the goal of opening before the Silver Line. Le acknowledged he's still "contemplating different business models to bring to investors."

On the Gramercy District website, specifically the investment page, 22 CityLink writes enthusiastically that the "project builds momentum every day," making "significant strides with institutional investors."

About that financing

There's bad news and there's good news.

"He is an innovator but he hasn't proven himself in this market yet, in this real estate market," said Tamer Moumen, managing partner with Vienna-based Crescent Ridge Capital Partners, one of the earliest investors in Gramercy. "That said, he has put together the very best team you could put together to design and build this project."

Gramercy District might be a technological marvel, but as a real estate play, it also requires a literal foundation. It has to be built and that requires big money – the kind of checks tech-centric venture capitalists don't write.

"The 22 CityLink financing will be a traditional VC-led environment," Le said. "The Gramercy District Phase 1A is traditional financing. I think the challenge we have is we're merging the two. We are a new entity. That's why I went out and got very credible companies to build this. We're not going to reinvent the way real estate is financed.

"In the end, the basic fundamentals of business is the same," he continued. "Supply, demand, revenue, cost, is the same."

For a limited time, 22 CityLink is offering

JOANNE S. LAWTON

Minh Le has a long resume and plenty of business acumen, but he lacks direct real estate experience. "We're having a lot of success getting a small number of real estate investors to believe," Le said, "but the masses say, I'll believe it when I see it."

direct investment opportunities, with a target raise for the initial phase of $2.5 million. As of mid-January, the total amount funded was $1.758 million, much of which came from Crescent Ridge.

"The real estate funding piece is a big part of what Crescent Ridge is doing for Minh, and we've got some really good traction, as a matter of fact," Moumen said.

In his global search for capital, Le has one rule: He will not give up control or decision-making authority, which he hopes will prevent the Gramercy pace from slowing.

EagleBank Chairman Ron Paul, himself an investor and developer, expects the core physical work at Gramercy will require big institutional money. EagleBank is in talks to underwrite at least a portion of the loan for Gramercy's Phase 1A, and has already extended 22 CityLink a $3 million line of credit. The first phase is expected to cost upward of $70 million, of which roughly 65 percent will come from debt, and the rest from individual and institutional investors.

"I'm just not sure what the unbelievable marketing game-changer thing is with this," Paul said of Le's smart city. "I'm not going to be overly aggressive with my financing because of all the bells and whistles.

"You've got to create a really, really sexy marketing tool that just is a blown-away concept," he continued. "And I'm not sure what that is."

And therein lies perhaps Le's greatest challenge: how to sell his vision to a community that believes solidly in Real Estate 101. That is, once it's built, who's going to occupy the space, how much will they pay, is the technology worth a premium and what kind of return on investment can I expect?

There will be a rent premium compared to a traditional development at the same site, but Le says it's too early to estimate by how much.

"Our value proposition is, if you just want a trophy office, then we're no different from anyone else," Le said. "But if you want to have a differentiated environment based on technology, the ability to port someone else's technology on your own behalf outside of the location, come have a conversation with us."

What's the long-term vision?

If Gramercy is the flagship real estate piece of the 22 CityLink equation, then the company's "smart city in-a-box" is what will take the company national, even global if all goes according to Le's plan.

"It's completely mobile," Le said. "I can partner with a ground-up developer, or I can overlay it into an environment that exists today. That's what I'm architecting it for."

While Le plots the Gramercy strategy and crisscrosses the globe in search of money, the 22 CityLink technical team is 2,000 miles away readying one piece of the ambitious platform.

Specifically, the 1600 and 1700 blocks of Platte Street in Denver, home to a 22 CityLink office, a WeWork center, a Galvanize Inc. campus and software developer Pivotal, among a raft of other millennial-employing companies. Here, a host of eateries, shops and bars, including the Denver Beer Garden, are booming.

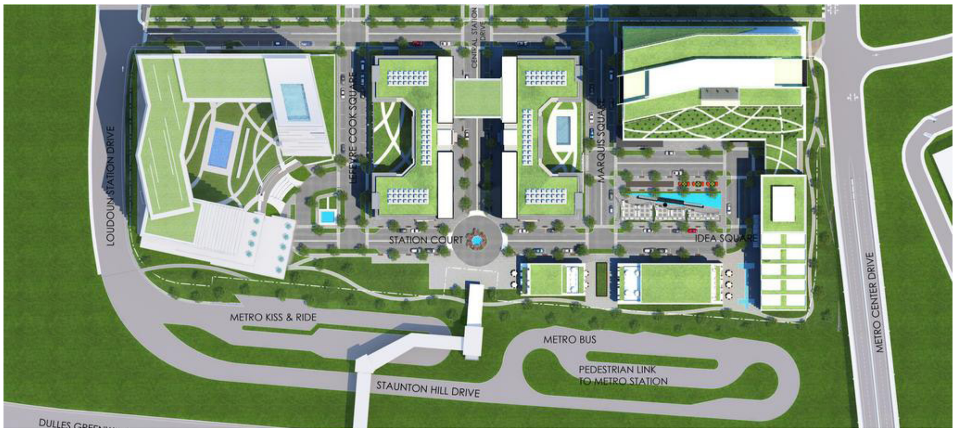
The details of what they will test yet are slim, but think along the lines of data collection and analytics for retailers and consumer payment apps. It's an ideal place, Le said, to test his smart retail technology platform, to ensure it can scale across multiple stores along a block. "That's kind of a mini-version of what Gramercy will be," he said.

Avaya is building the 22 CityLink network, while Westminster, Colorado-based Neon Mobile builds the mobile application. All of it will soon migrate from IBM Watson to Microsoft technology, using Cortana on the front end and linking back to Microsoft's Azure Cloud Computing Services.

Microsoft executives confirm they are working with Le on several fronts, including sponsorship of a Microsoft BizSpark Plus account, that will ultimately lead to what they call an "intelligent city blueprint" and the development of the Gramercy District.

But in the end, Le said, it must be a marriage of equals between the technology and bricks and mortar.

"Simply infusing technology into real estate," he said, "is a go-out-of-business strategy."



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Who are the partners?

Having invested three-plus years and much of his own capital into the effort, Le has had ample time to strategically roll out a promising set of partners – huge names in the real estate and tech sectors who will have key roles, and make key investments, in developing both Gramercy and the smart-city-in-a-box toolkit. "We didn't have to pick such a large builder," Le said. "We want to be able to build smart cities anywhere in the world." Here are those partners so far.

Technology: Avaya, Gravy Analytics, Microsoft Corp., Neon Mobile

Development: AECOM, Bowman Consulting, DVA Architects, Greystar, Interface, McGuireWoods, Tishman, The Lion'Esque Group (pop-up retail)

Education: George Washington University, Center for Innovative Technology

Other: JKH Holdings, Bendure Communications, Benton Potter Murdock P.C., Crescent Ridge Capital Partners LLC, Engel & Volkers, OM/E, SolutionStreet

Virginia's CIT partners to launch business accelerator at gramercy

What Gramercy wants to do is what the Herndon-based Center for Innovative Technology already does – using tech expertise, capital and office space to launch the next generation of tech companies and boost the economy.

So it made sense that the two get together.

"As we had the first couple of meetings and got talking, it was pretty obvious we shared a common vision about this particular corridor, innovation and the evolution of urban environments," said David Ihrie, chief technology officer with Herndon-based CIT.

CIT, the entity behind the Mach37 accelerator for cybersecurity companies, and 22 CityLink will soon launch a business accelerator focused on smart city technology. It will be housed initially at the CIT building, itself virtually adjacent to a future Silver Line station. And "as soon as Gramercy is built out, we would locate there," Ihrie said.

CIT and 22 CityLink will back these companies with an up-front cash investment and mentoring in exchange for an equity stake. They'll be supported from startup to first Series A investment, perhaps piloting some of their technologies – say, mobile apps focused on transportation or public safety – in the built environment at Gramercy or working it into the 22 CityLink platform.

Ihrie said CIT is working with private funds and organizations to fund the accelerator, and it's having no issue finding interest.

"Larger businesses," he said, "see this is in their strategic interest."

Behind the smart city buzz

From Charlotte to Dubai to Singapore to Sydney, smart cities are a booming industry deemed by the President's Council of Advisors on Science and Technology last February as a "multitrillion-dollar" worldwide opportunity. "In reality, the nations of the world are in a race to transform their cities and reap the rewards, many of which will be economic – new products, new companies, and new skilled jobs, which, along with improved urban quality of life, create a virtuous circle that attracts talented new residents and additional businesses from around the world," the 99-page report states. "This is a race the United States cannot afford to lose."

Smart Dubai

Where is it? Dubai, UAE

What is it? A smart district with the stated goal of making Dubai the "happiest city on earth" by embracing technology.

Who's behind it? UAE's prime minister and ruler of Dubai, Sheikh Mohamed bin Rashid al Maktoum, plus 11 strategic partners, including Dubai Health Authority, Dubai Electricity and Water Authority, Dubai Tourism and Dubai Police.

What makes it smart? The Dubai Data initiative is described as the "single most comprehensive city-wide" data effort, "guiding the opening and sharing of city data across the public and private sector." The Happiness Meter uses a centralized data dashboard to map happiness across Dubai. The Dubai Blockchain Strategy is an effort to continually explore and evaluate the latest technology innovations. LED-powered internet (LiFi) was to be installed in up to 100 streetlights by the end of 2016.

Envision Charlotte

Where is it? Charlotte, North Carolina

What is it? An environmental sustainability effort to make commercial buildings in Charlotte's urban core more energy efficient

Who's behind it? Duke Energy, Cisco and **Charlotte Center City Partners**

What makes it smart? It uses Charlotte's core as a living laboratory to foster programs geared toward sustainability and economic competitiveness. By June 2015, five years into the effort, energy consumption reductions amounted to 16.1 percent in 61 participating buildings, saving $17 million in energy costs.

Masdar City

Where is it? Abu Dhabi, UAE

What is it? Launched in 2008, the nearly 1,600-acre Masdar City is envisioned as the "world's most sustainable eco-city," pushing the bounds of sustainable design, innovation, and research and development. Progress has been slow, leading The Guardian newspaper to declare in 2016 that Masdar's "zero-carbon dream could become world's first green ghost town."

Who's behind it? Masdar, a subsidiary of Mubadala Development

What makes it smart? Masdar claims to be the Middle East's largest exporter of renewable energy and a leading developer of utility-scale, grid-tied projects. Photovoltaic solar power, concentrated solar power through such things as mirrors and lenses, wind power and desalination are all in use there, or will be. The Personal Rapid Transit system shuttles people between two stations in driverless vehicles.