8080 S. DuSable Lake Shore Drive and IQMP Informational Meeting

October 29, 2024



AGENDA

> Welcome and Recap

Tom Anderson; Director, Economic Development, Chicago Mayor's Office Mo Green; Head of Market Development and Community and Government Affairs, PsiQuantum

Quality of Life Plan

Rosa Ortiz; Founder and Principal, 3e.studio

Development Updates

Kelly Conolly; Associate, Sam Schwartz Ann Thompson; Executive Vice President, Related Midwest Yanet Garcia; Vice President Construction, Related Midwest

> Open House

Representatives across teams

What We've Heard

Continue and Expand Transparent Communication and Information Sharing

Including the environmental conditions of the site, quantum computing and its operational impacts, the selection process, the project timeline, impacts to local parks, among others.

Community-Centered Development

This project must prioritize the interests of local residents in the development plans. Jobs must be attainable locally and youth need an educational pathway to participate. Action needs to be taken to address systemic community challenges.

Inclusive, Meaningful Engagement

Frequent and accessible meetings. The ability to brainstorm and share ideas early in the decision-making process. Consider mechanisms for longer-term engagement with the IQMP and broader development.

How can I learn more about what has been shared already?

Visit the IQMP homepage at: https://www.intersectillinois.org/illinois-quantum-park/



Core Tenets of the Park

Collaboration is Key Quantum technology is complex, and requires a joint effort between scientists, entrepreneurs, engineers, and end users across the entire value chain

- Esta página también está disponible en:
- Español (Spanish)

I WHAT

Access previous meeting materials and FAQs

IQMP Meetings

Join the IQMP at an upcoming community meeting to learn more about the campus.

Date: Tuesday, October 29, 2024 Time: 6:30-8:00 PM (Doors open at 6:00 PM) Location: New Sullivan Elementary School, 8331 S Mackinaw Ave, Chicago, IL 60617

RSVP

Previous Meeting Materials

Community Meeting Materials: 9/26/24	+
Community Meeting Materials: 8/28/24	-
8/28/24 Meeting Presentation 🔝	
8/28/24 Meeting Recording	

Frequently Asked Questions

Quantum Computing

What is quantum computing?	+
What are the benefits of quantum computing?	+

The Illinois Quantum and Microelectronic Park

What is the IQMP?	+
What is the purpose of the IQMP?	+
What will the IQMP include?	+
Why was this site chosen?	+

How will the IQMP impact Chicago and Illinois?

The IQMP represents an unprecedented opportunity to be at the forefront of a technology revolution. The park will spur economic growth in the coming years and will create hundreds of construction and permanent jobs, attract new partners and suppliers, and lead to additional amenities coming to the local community, while enhancing lakefront access and creating additional greenspace.

Visit the IEPA IQMP website to learn more about environmental topics

Visit the IEPA IQMP homepage at: https://epa.illinois.gov/topics/community-relations/sites/iqmp.html

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General Information	Business	Government	Educators	About IEPA						
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Illinois Quantum and Microelectronics Park

The <u>Illinois Quantum and Microelectronics Park (IQMP)</u> is a planned, 128-acre quantum computing technology campus, located at the southern end of the former U.S. Steel South Works site on the south side of Chicago. IQMP will be a global center for quantumenabled research and technology development which will be managed and operated by a University-Related Organization (URO) LLC established by the Board of Trustees of the University of Illinois. The site will connect government, universities, national labs, and industry to facilitate the development of quantum technologies. In the first phase of development, the campus will include the



What portion of quantum jobs require a PhD?

- A. More than 90%
- B. More than half
- C. More than a third
- D. Less than a third

What portion of quantum jobs require a PhD?

Correct Answer: D. Less than a third

For 2022 and 2023, **55% of the jobs only required a bachelor's degree, an associate's degree, or did not require a degree at all.** By comparison, about 14% of jobs in those years required a master's degree and about 31% required a PhD.

<u>Fast-growing quantum tech industry has well-paid jobs – and most don't</u> <u>require a graduate degree</u>

True or False?

This project will not limit park access.

True.

This project will have no impact to Steelworkers Park, Park 566, Rainbow Beach Park, or Schafer Park.

True or False?

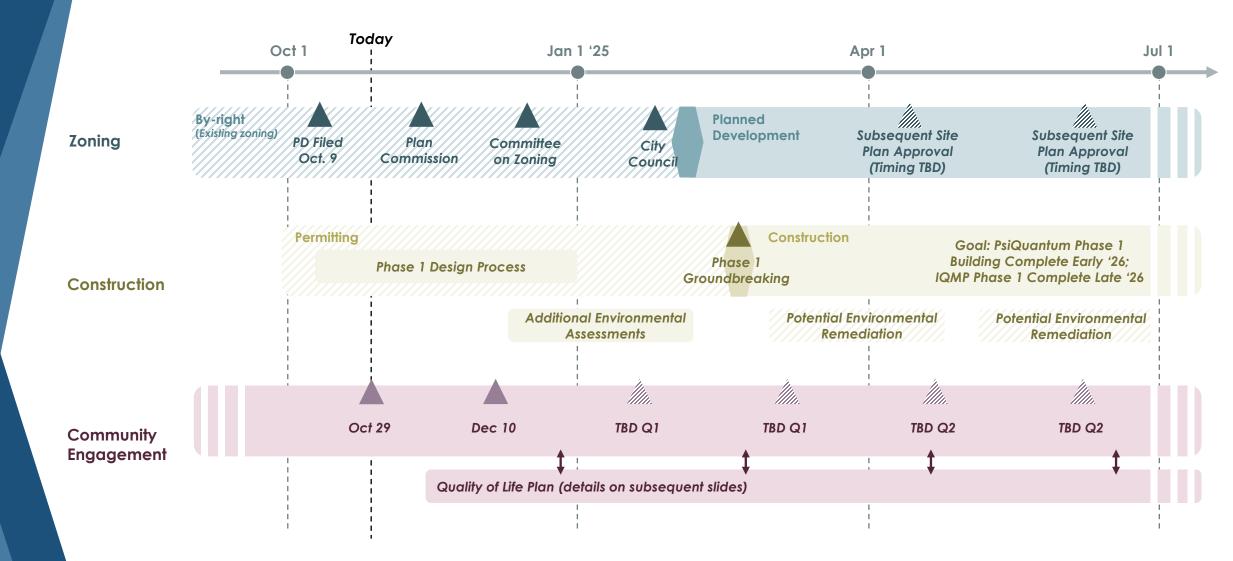
To achieve the ultra-cold temperatures required for quantum computing, the IQMP will use the same common gases that make up our atmosphere and are used in balloons.

True.

The cooling process for this project uses nitrogen and helium.

Nitrogen and helium are both common, safe gases. Nitrogen makes up about 78% of the atmosphere and helium has a variety of everyday uses, including party balloons. These gases would dissipate back into the atmosphere if spilled.

Timeline Overview



Environmental considerations of the site

What environmental remediation is required?

- The entire site was issued a **No Further Remediation (NFR) letter** in 1997 after significant remediation under the prior ownership.
 - This NFR letter **meets the most stringent site-specific cleanup standards** developed in accordance with state law.
- The Illinois Environmental Protection Agency (IEPA) has reviewed this letter and determined that the site is **safe for occupation**.
- The IQMP developers, Related Midwest and CRG, **are expected to perform further assessment of the site** and enroll the property in the Site Remediation Program (SRP) to conduct further investigation and remediation as needed to meet state standards for the future use of the site and thereby obtain further NFR letters from the Illinois EPA.

Environmental considerations of the site

What will remediation look like?

- Remediation will depend on the nature of the contamination. Potential remediation measures include:
 - Reduce chemical concentrations to meet established objectives through active remediation (e.g., removal of contaminated soil, soilvapor extraction system);
 - Restrict exposure to contaminated soil or groundwater or both by using engineered barriers or institutional controls;
 - Take no action, if chemical concentrations are not above the remediation objectives; or
 - Use a combination of the options above.

Environmental impacts from construction

How will the developer and general contractor mitigate environmental impacts during construction?

- Follow all **EPA, OSHA, and local regulations** in managing the site.
- Establish **approved trucking routes** to limit residential street use.
- Silt Fences & Sediment Barriers: Install around the site to catch soil runoff.
- Regular Sweeping: Use sweeping equipment to remove debris and dust from roads and paved surfaces.
- Noise:
 - 8am-8pm per the City of Chicago Noise Ordinance and weekly noise monitoring activities
- Dust:
 - Water Trucks: On site for overall site dust control during earthwork or demolition activities and as needed until the ground is stabilized
 - Vehicle Speed Limits: Impose speed limits for vehicles to reduce dust generation on unpaved areas.
 - Construction Fence: Install fence and screen to mitigate dust/particulate from getting airborne

Environmental impacts from operations

What will the environmental impact be once the quantum computer is operational?

- The utility scale quantum computer will have **essentially zero emissions** and will use 100% carbon-free electricity.
- The cryogenic cooling facility (similar to a large refrigerator) will not use any traditional refrigerant. Instead, the cryoplant will use helium, which is the same safe and inert gas we know from balloons.
- There will be **no water pollution**.
 - Depending on the final design of the cooling system, there may be a modest amount of water from the lake or the river used in the cryoplant cooling system, but **water will never come into direct contact** with the machinery in the plant.
 - If there is any water returned to the lake or river, the facility will abide by IEPA discharge regulations.

Local participation

How will residents and local companies be able to participate in this project?

Local Residents:

- Quality of Life Plan
- Construction Workforce Training

Local Companies:

- Contractor Outreach Fair
- Professional Services
- Local Businesses



What requirements are there for minority - or women-owned business participation?

Certified with

- City of Chicago
- Cook County
- State of IL

Local participation in Construction

What are the participation goals for minority - or womenowned business?

- Of the total contract trade value:
 - 26% Minority Business Enterprise (MBE)
 - 6% Woman Owned Business Enterprise (WBE)

What requirements are there for minority - or women-owned business participation?

- Contractors and subcontractors need to be Certified with
 - City of Chicago or
 - Cook County
- Assistance in getting Certified with the three agencies

Education and job pipelines

What steps are being taken to ensure southeast youth are able to participate in the quantum industry and IQMP site?

- CPS teachers have participated in regional programs like Teach Quantum, Quantum Academy, and workshops at FermiLab and Northwestern University.
 - We are in the process of **scaling these programs** across elementary and high schools in southeast Chicago.
- City Colleges of Chicago (CCC) is **expanding its College of Engineering in 2025 and 2026** to build pathways to quantum-related careers, including potential quantum engineering tracks in collaboration with the University of Illinois Urbana-Champaign (UIUC).
- The Chicago Quantum Exchange (CQE), along with Argonne National Laboratory, has **facilitated workshops and events** like the Quantum Game Night at Bowen High School, aimed at making quantum science accessible to local students and families.
- In FY24, Governor Pritzker also launched a new \$3 million grant program at the Illinois State Board of Education aimed at advancing equity in computer science education across the state.

Community Engagement Update

Mo Green

Head of Market Development and Community and Government Affairs, PsiQuantum





PsiQuantum Founder Pete Shadbolt Meets with Local Leaders



Lunch with Ald. Chico & Birrieria Octolan Owner Andres Reyes





Workforce Development Roundtable with local K-12 principals at Bowen High School



Rosa Y. Ortiz

Founder and Principal, 3e.studio



Overview of the QLP Initiative

Goal

Lead an inclusive and meaningful process with residents, and stakeholders to create a community-wide plan to guide South Chicago's future.

Deliverable

Quality of Life Plan

Participants

Everyone

Convener

Claretian Associates





Why is this an important process?

- Engage and build strong connections with a broad range of community members and stakeholders
- Come together to identify collective strengths, challenges, and priorities
- Collectively gather and analyze community-wide data
- Create a unifying vision for the future
- Identify approaches to nurture strengths and address challenges
- Create a central document to guide work and track progress across the next 5-7 years
- Use the plan as a tool to advocate for resources, funding, and services
- Bring people, organizations, and entities together to maximize resources and positive impact
- Ultimately, improve the quality of life of people in South Chicago

Community-Level Milestones of Quality-of-Life Plans

Economic Development



Estimated more than \$65M leveraged for community capital improvements

Little Village • South Lawndale Quality of Life Plan

1,800 local businesses and 100 restaurants contribute to over \$900 M in annual sales

Safetv

34 %

Reduction in violence

Reduction in all shooting victimizations in '22-'23 with fluctuations throughout the past 10 yrs.

Green Space + Recreation





School outdoor recreational space upgrades

1 new park 1 new award-winning community garden 1 new + 3 rehabilitated playlots 1 new acre of green space

Immigration



From 1 to 3

Increase of free legal providers in the community + coordinated efforts to support new arrivals

Education



High School graduation rate increased from 78% to 84%

College enrollment rate increase from 46% to 84%

Housing

Owner occupancy increase from

11% reduction in vacant units

Increase in new housing units from

28% to 41%

.6% to 1.9%





Increased in insured rates from 64 % to 82 %

Higher COVID vaccination sequence completion rate than the city average

Arts and Culture



Annual large-scale, community led arts and culture events

Designation of community as a state cultural district

Engagement

Goal: Meaningfully engage as many residents and stakeholders as possible

- Survey: English and Spanish and in digital and paper formats
- Community gatherings, churches, organization events, games, schools, kermesses, etc.
- Engage individuals and organizations to serve as active guides for this process in various capacities
- Community meetings, steering committee, and advisory group meetings



Small group discussions

September - December

1. Community Meetings - Participation

- 🗸 Sep. 26
- October 29
- December 10

2. Survey

English and Spanish and in digital and paper formats

3. Meetings with Key Community Entities

Schools, religious institutions, businesses, social service providers, not-for-profit organizations

4. Engage individuals and organizations

To serve as active guides for this process in various capacities including committees

5. Participate in community gatherings

- Resident meetings
- Religious events
- School events
- Holiday gatherings
- Other community-wide events

 Collectively identify strengths, challenges, and priorities

 Gather, analyze, and consolidate data

 Identify goals, strategies, outcomes, and metrics

South Chicago Quality Of Life Plan

Survey: English and Spanish



Community Events

What are upcoming gatherings you would like for us to be a part of?



Let's connect!

Claretian Associates

Claretian Associates 3039 East 91st Street Chicago, IL. 60617

www.claretianassociates.org Office: 773-734-9181

3e.STUDIO

Rosa Y. Ortiz, AICP, LEED AP rosayortiz3e@outlook.com rortiz@3eglobalstudio.com www.3eglobalstudio.com Mobile: 312-391-5021

Sign up to receive information





Traffic Update

Z

E 92nd St

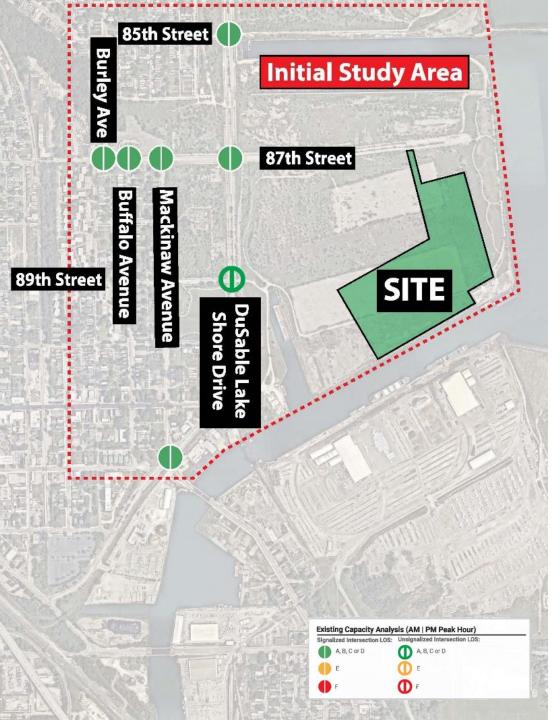
What is a traffic study?

Calumet

Initial Findings

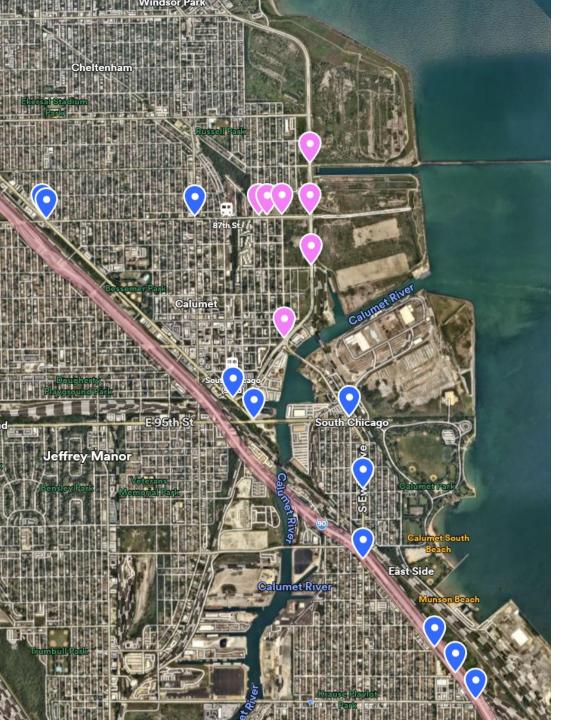
Expanded Scope

Findings



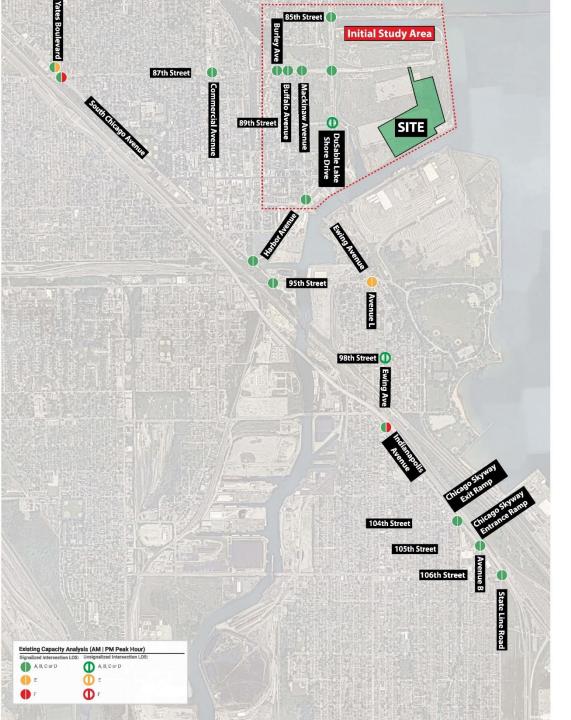
Initial Findings

- Initial study included key intersections near site
- Analysis revealed:
 - Heavy commuter pattern to/from Indiana
 - Acceptable peak hour LOS at all intersections
 - Excess capacity on the majority of roadways
- Approved by CDOT



Expanded Traffic Study

- Based on community feedback, expanded catchment area to include:
 - Routes to/from Indiana
 - Routes to/from the west (Dan Ryan)
 - Routes to/from the north (Loop & other)



Traffic Study Findings

- Acceptable LOS for most of the expanded study area
- Three locations that require attention:
 - 87th/South Chicago/Yates
 - Signal timing adjustments
 - Cut-thru traffic calming on Yates
 - Ewing/Indianapolis
 - Signal timing adjustments
 - Ewing/95th/Avenue L
 - Highly complex, 5-leg intersection
 - Requires further input from CDOT

Development Team Update

- 1. Urban Design Guidelines
 - Regional and Neighborhood Connectivity
 - Edges adjacent to the Residential Neighborhoods and Parks
 - Environmental Design Considerations
 - Cultural Interpretation
- 2. IQMP Subarea
- 3. PsiQuantum Phase 1 Preliminary Design
- 4. Development Impact Plan

Urban Design Guidelines Regional and Neighborhood Connectivity

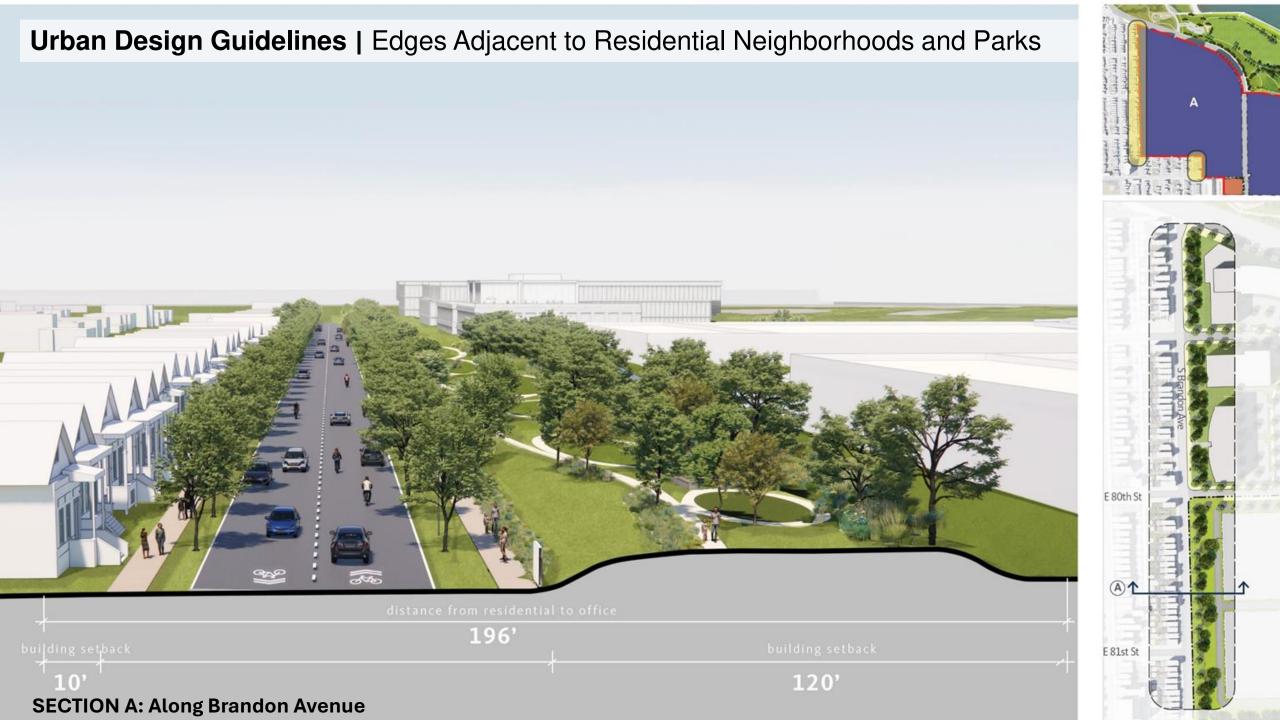
Prioritize ALTERNATIVE MODES OF TRANSPORTATION and connect to existing bike lane network Maintain and strategically IMPROVE EXISTING CONNECTIVITY to Lake Michigan, Steelworkers Park, & Park 566 ACTIVATE UNDEVELOPED PARCELS for interim uses such as recreational open space, farmers markets, and spaces for community interaction

Urban Design Guidelines | Regional and Neighborhood Connectivity



Urban Design Guidelines Edges Adjacent to Residential Neighborhoods and Parks

Create **MEANINGFUL LANDSCAPE SETBACKS** from adjacent residential neighborhoods and park spaces Use **HIGH-QUALITY BUILDING MATERIALS** and diverse architectural expressions



Urban Design Guidelines | Edges Adjacent to Residential Neighborhoods and Parks

March and a start of the start



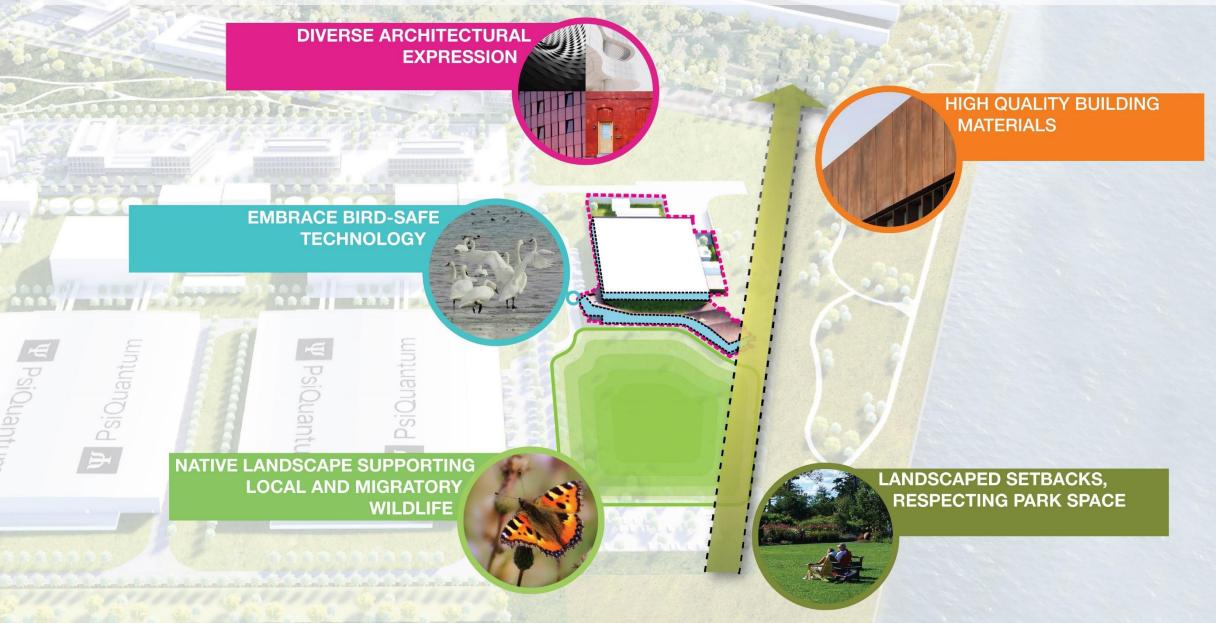
DIVERSE ARCHITECTURAL

HIGH QUALITY BUILDING MATERIALS

Urban Design Guidelines Environmental Design Considerations

All buildings should EMBRACE BIRD-SAFE TECHNOLOGY AND DESIGN Plantings should EMPLOY NATIVE AND ADAPTED FLORA, supportive of migratory birds, butterflies, bees, and other local species

Urban Design Guidelines | Environmental Design Considerations



Urban Design Guidelines Cultural Interpretation

Use Interpretive signage to CELEBRATE THE RICH CULTURAL CONTEXT AND HISTORY OF THE SITE ENGAGE THE PUBLIC with street furnishings, landscape, and public art throughout open spaces INCORPORATE EXISTING HISTORIC STRUCTURES into the design and master planning

8080 Urban Design Guidelines | Cultural Interpretation









PSIQUANTUM PHASE 2



PsiQuantum Phase One PRELIMINARY DESIGN ONLY



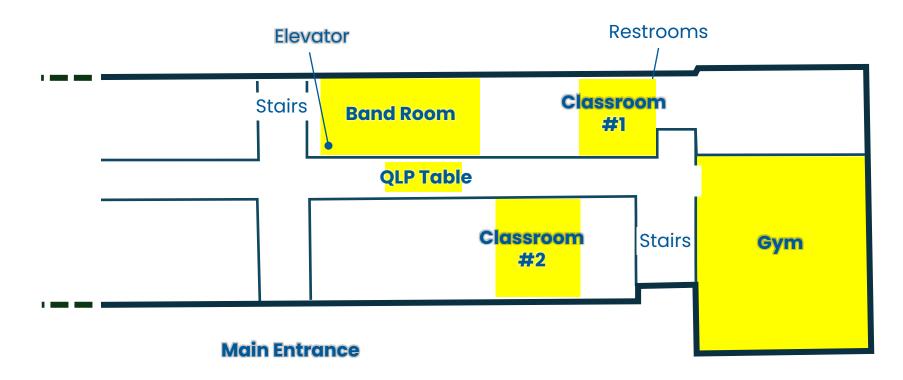
Development Impact Plan

After listening to the community, we have **identified 7 areas** that will frame our community impact.

Development Impact Plan

- 1. Building new housing in the community.
- 2. Temporary activations for undeveloped parcels.
- 3. Access to open space and creation of new park facilities.
- 4. Maintaining the unique attributes of the North Slip and the Ore Walls.
- 5. Sustained, ongoing investment in new projects within both Alderman Chico's and Alderman Mitchell's Wards.
- 6. Job creation and future hiring opportunities on the site.
- 7. Educational programs for students and current residents to learn more about Quantum Computing and Microelectronics.

"Open House" Locations



• Development Gym

- Environment
 Classroom #1
- Community Impact
 Classroom #2
- Quantum / IQMP
 Band Room

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THANK YOU

Note: the next meeting will be on 12/10

To learn more, ask additional questions, share comments, and sign up to receive more information, please visit:

www.intersectillinois.org/illinois-quantum-park/

