



Agenda Report

2725 Judge Fran Jamieson
Way
Viera, FL 32940

New Business - Development and Environmental Services Group

J.2.

1/28/2025

Subject:

Board Direction on Request from Space Florida Connection Sykes Creek Wastewater (Merritt Island) Treatment Facility (District 2)

Fiscal Impact:

Requesting \$130M from Space Florida for improvements to the Sykes Creek Wastewater Treatment Facility (WWTF) plus receiving monthly sewer user rates from each sewer account created within the specified sewer service area within Space Florida (see attachment A)

Dept/Office:

Utility Services Department

Requested Action:

Staff is requesting direction from the Board regarding the attached draft response letter to Space Florida created by Brevard County staff. The draft letter (see attachment B) states that the overall capital cost requested by Brevard County from Space Florida is \$130M for capital improvements to the Sykes Creek WWTF to accommodate the additional sewer flows from Space Florida and outlines key conditions requested by Brevard County to be included in any agreement.

Summary Explanation and Background:

Over the past 6 months, dialogue has been on-going between Space Florida and Brevard County regarding Space Florida's request to connect to the Sykes Creek sewer collection system located on Merritt Island. This dialogue was initiated by Space Florida due to the wastewater treatment plant capacity, operated by Cape Canaveral Space Force Station and serves the Space Florida area, is near its capacity causing Space Florida to seek alternative solutions for additional treatment plant capacity to serve continued growth in the space sector. Throughout our discussions, it was the County's prerogative to assure that no environmental mishaps would occur from accepting Space Florida sewer flows and to assure that there would be no financial burden to the County utility rate payers.

This matter was most recently brought forth to the Board at the December 3, 2024, Regular Board Meeting to update the Board on their request with a commitment from staff to update the Board on any progress made between Space Florida and the County. Since the mentioned Board meeting, dialogue between Space Florida and Brevard County has continued with the most recent meeting held on December 9, 2024, held with representation from Brevard County, Space Florida, State of Florida and Economic Development Commission. During this meeting it was expressed by Space Florida that they intend to make any investment needed without causing financial burden on the county's rate payers. Their request to the County is to evaluate what additional investment would be needed beyond the force main extension along North Courtney Parkway, which Space Florida has already committed to entirely paying for it, and to notify them of such amount.

In response to this request by Space Florida, this Department has evaluated what Space Florida estimates will be the additional flow to the County's sewer system: 0.3 million gallons per day (MGD) by 2027 and 0.7 MGD by 2034. Our evaluation was based on a buildout condition of Merritt Island due to the State law requirements of nutrient reduction in BMAP areas within the Indian River Lagoon in addition to the continued progress of septic-to-sewer projects on Merritt Island. Thus, any additional wastewater capacity needed to accommodate their additional flows were assessed and an evaluation of future investment in the collection system were tabulated with estimated total project costs (see attachment B which quantifies the projects and project costs). In total, this Department estimates that \$130M investment will be needed at the Sykes Creek WWTF to accommodate full buildout within Merritt Island and for the added flow demands which Space Florida has requested.

Per a letter from Space Florida dated January 10, 2025 (see attachment C), Space Florida has most recently requested any feedback from the County on a proposal with a goal to soon finalize an agreement. Thus, the County Staff has prepared a draft response letter (Attachment B) which is intended to address both Space Florida's request and protect the County and its rate payers.

Based on the forgoing, staff seeks to update the Board as to the progress in this matter and importantly seek the Board's direction on our response to Space Florida.

Of course, should Space Florida agree to the capital costs associated with the proposed expansion, any agreement will be brought before the Board of County Commissioners for its consideration and approval. All flow from Space Florida facilities coming to the County will be limited to qualifying sewage (complying with all FDEP permit requirements) and will have strict compliance measures, assurances, monitoring and violation indemnifications to protect the County and the County Utility rate payers.

Attachment A - Space Florida Service Area Map

Attachment B - Draft Letter to Space Florida prepared by Staff for Board Consideration

Attachment C - Space Florida letter dated January 10, 2025, requesting an agreement.

Clerk to the Board Instructions:

E-mail the Clerk memo to karina.perez@brevardfl.gov and mail the original to the Utility Services Department.



Kimberly Powell, Clerk to the Board, 400 South Street • P.O. Box 999, Titusville, Florida 32781-0999

Telephone: (321) 637-2001
Fax: (321) 264-6972
Kimberly.Powell@brevardclerk.us

January 29, 2025

MEMORANDUM

TO: Edward Fontanin, Utility Services Director

RE: Item J.2., Board Direction on Request from Space Florida for Connection to Sykes Creek Wastewater Treatment Facility in Merritt Island

The Board of County Commissioners, in regular session on January 28, 2025, approved the draft letter to Space Florida for connection to Sykes Creek Wastewater Treatment Facility in Merritt Island, which states that the overall capital cost requested by Brevard County from Space Florida is \$130 million for capital improvements to the Sykes Creek Wastewater Treatment Facility to accommodate the additional flows from Space Florida and outlines key conditions requested by Brevard County to be included in any agreement.

Please return a copy of the executed letter to this office for inclusion into the official record.

Your continued cooperation is always appreciated.

Sincerely,

BOARD OF COUNTY COMMISSIONERS
RACHEL M. SADOFF, CLERK

Kimberly Powell, Clerk to the Board

cc: Each Commissioner
County Manager
County Attorney
Finance
Budget



BOARD OF COUNTY COMMISSIONERS

County Manager's Office

2725 Judge Fran Jamieson Way
Building C, Room 301
Viera, Florida 32940

January 29, 2025

Space Florida
505 Odyssey Way
Suite 300
Exploration Park, FL 32953

Attention: Rob Long, President & Chief Executive Officer

Re: Space Florida Connection to Sykes Creek Wastewater Treatment Plant
Brevard County Proposal for Space Florida Connection to County System

Dear Mr. Long,

This letter serves as a continuation in dialogue between Brevard County and Space Florida regarding the connection to the Sykes Creek Wastewater Treatment Facility (WWTF). As discussed at the meeting held on December 9, 2024, which included representatives of Brevard County, Space Florida, Economic Development Commission and State of Florida representatives, the County committed to evaluate the estimated cost of improvements for Space Florida's contribution towards the County's wastewater system. Space Florida requested, and the County committed to providing, an estimate of the investment cost prior to February 1, 2025. Given the ambitious timeline, the estimated cost described below was prepared using existing reports, our hydraulic model, and discussion with County staff.

The estimated potential investment in Brevard County's wastewater system necessary to accommodate the needs of Space Florida, is based on flows to up to 0.27 MGD by 2027 and 0.691 MGD by 2034. These flows were inserted in the overall Merritt Island hydraulic model based on a Merritt Island build out condition to assure that the investments made would function long term.

The County analyzed the need of additional infrastructure improvements necessary to accommodate Space Florida's connection to the County's system. Our analysis identified the improvements and total project costs (engineering, permitting, construction, construction oversight) which are above and beyond the force main extension and lift station improvements originally proposed by Space Florida (see attachment of the proposed Space Florida force main project limits as provided by Space Florida to Brevard County). Of course, a full vetting and completed plans and permits will be required eventually, however, at this time the attachment is assumed to be conceptually complete and adequate for this level of cost estimating. All projects mentioned below per our analysis have been identified all within the Sykes Creek WWTF. The estimated cost for the additional infrastructure improvements necessary to accommodate Space Florida's connection to the County's system is \$130M. The following are the projects and costs are included in the estimate:

- Additional treatment plant capacity utilizing Advanced Wastewater Treatment (AWT) - \$65M
- Biosolids dewatering and storage building - \$17M
- Wetland mitigation, stormwater ponds and land preparation - \$14M
- Reuse storage and pumping improvements - \$14M
- Deep injection well pumps and generator upgrades / rehabilitation - \$10M

Phone (321) 633-2001 • Fax (321) 633-2115

Website: www.brevardfl.gov/home

- Installation of 24-inch force main from Courtney Parkway to the Sykes Creek treatment plant - \$3M
- Civil site improvements - \$3M
- Re-rating of the 2 existing deep injection wells - \$2M
- On-site operations facilities improvements - \$1M
- Florida Power and Light power - \$1M

Upon Space Florida's approval County Staff will begin drafting an agreement to reduce the arrangement to contractual language for the Board of County Commissioner's consideration. The County anticipates that in addition to other typical contractual matters, the following key items associated with the arrangement will be incorporated into the agreement:

Sewer connection fees – if Space Florida agrees to pay the County the \$130M for the capital investments to the Sykes Creek WWTF, then there will be no connection fees to be paid if the overall capacity needs do not exceed 700,000 gallons per day by Space Florida.

Sewer user rates – the County's commercial sewer user rates will be applied for Space Florida sewer flows. The rates will be updated annually as per the County's rate resolution. The monthly base charges need to be established per account and sewer flows will be based on water meter usage per account.

Industrial pretreatment – each sewer account within Space Florida will be responsible to report what industrial waste flow that they may have and prior to connection, provide the industrial pretreatment process / equipment that will be implemented to assure no distribution to the County's system. Further language will be added to provide frequency of sampling and penalties if out of compliance.

Ownership of the force main – it is the County's desire that Space Florida maintain ownership of the force main extending from Space Florida to the connection point to the County's system. This is due to the responsibility of ownership as stated in F.A.C. 62-600.410 (6).

We are optimistic that Space Florida will find the proposed arrangement mutually beneficial to both Space Florida and Brevard County. We look forward to Space Florida receiving the sewer capacity needed to continue to service its space sector growth while there is no impact to the utility user fees for Brevard County residents. Of course, as always, we are happy to meet with you to discuss in further detail.

We look forward to hearing back from you.

Sincerely,



Frank Abbate
County Manager

cc: Chairman Feltner, Brevard County Commissioner, District 4
Commissioner Delaney, Brevard County Commissioner - District 1
Commissioner Goodson, Brevard County Commissioner - District 2
Commissioner Adkinson, Brevard County Commissioner - District 3
Commissioner Altman, Brevard County Commissioner - District 5
Morris Richardson, Brevard County, County Attorney
John Denninghoff, PE, Brevard County, Assistant County Manager
Tad Calkins, Brevard County, Interim Assistant County Manager
Edward Fontanin, PE, Brevard County, Utility Services Director
Lynda Weatherman, EDC of Florida's Space Coast, President & CEO

Figure 4-1: Collection System Improvements

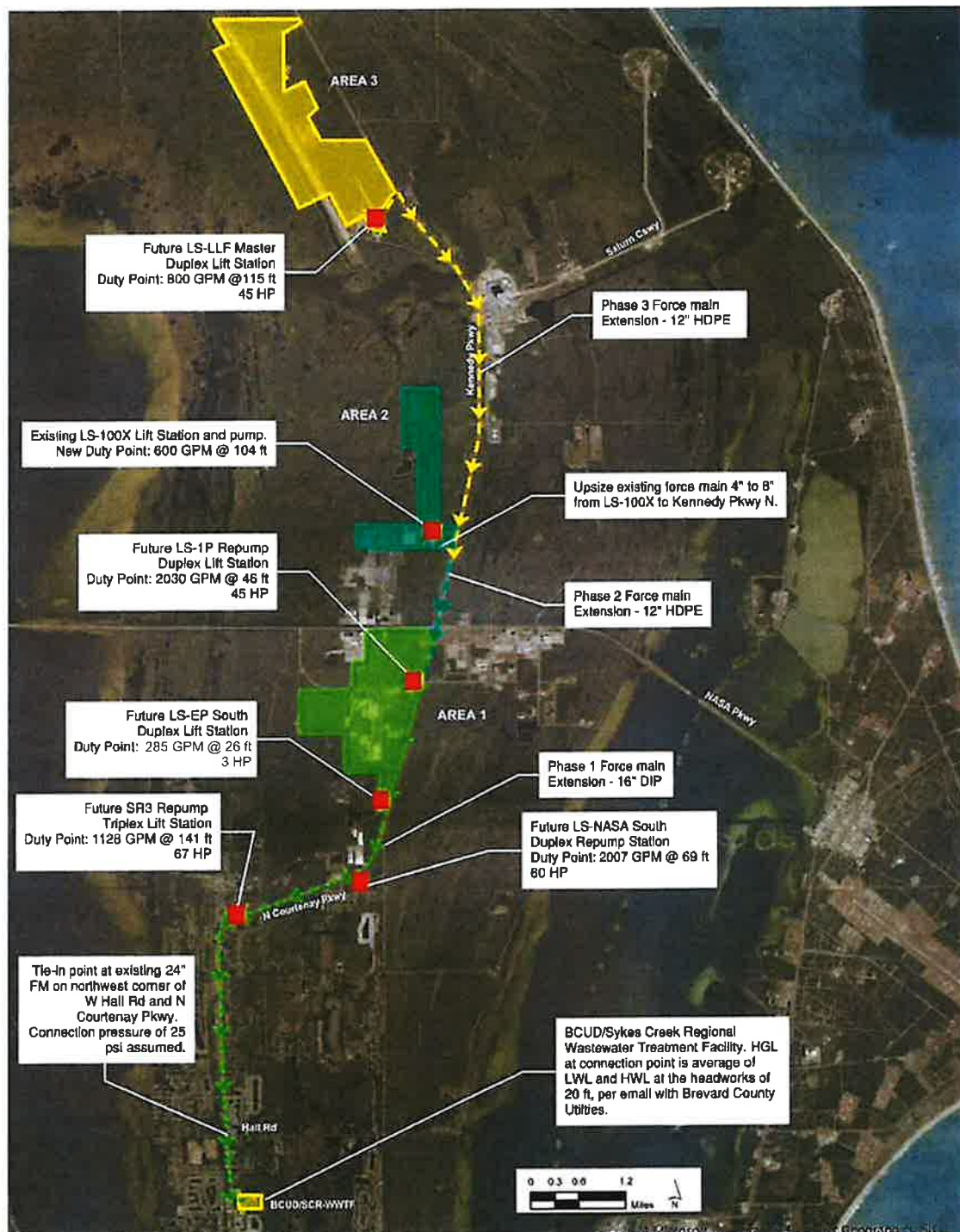
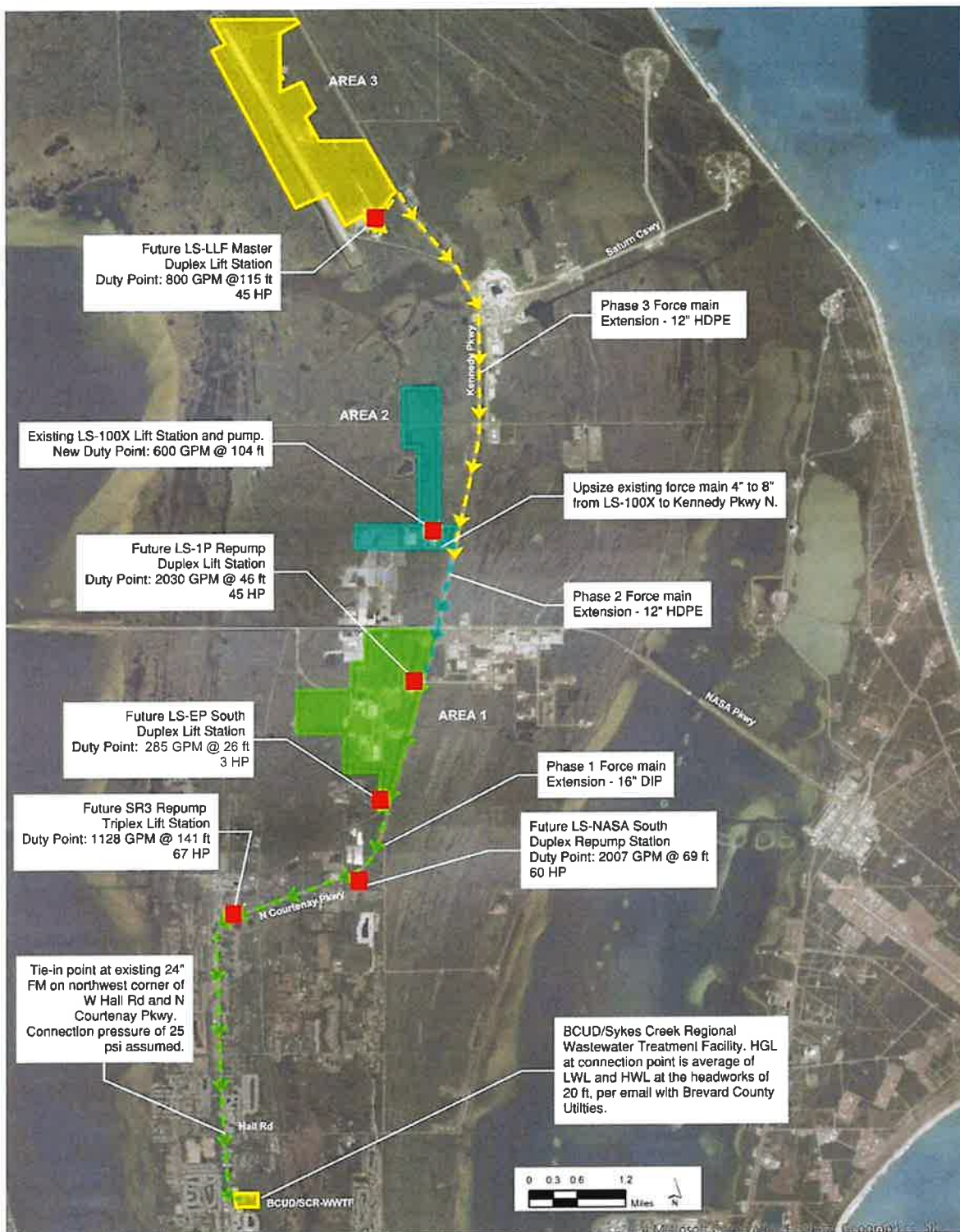


Figure 4-1: Collection System Improvements



BOARD OF COUNTY COMMISSIONERS

Utility Services Department

2725 Judge Fran Jamieson Way
Building A, Room 213
Viera, Florida 32940

January 15, 2025

Space Florida
505 Odyssey Way
Suite 300
Exploration Park, FL 32953

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President & Chief Executive Officer

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Frank Abbate
County Manager

Cc: Chairman Feltner, Brevard County Commissioner, District 4
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Edward Fontanin, PE, Brevard County, Utility Services Director
Lynda Weatherman, EDC of Florida's Space Coast, President & CEO

January 10, 2025

Brevard County
Board of County Commissioners
2725 Judge Fran Jamieson Way
Viera, FL 32940

RE: Request to Connect to Brevard County's Sykes Creek Wastewater System

Dear Chair Feltner, Vice Chair Goodson, Commissioners Delaney, Adkinson and Altman and Mr. Abbate:

Space Florida is currently seeking approval from Brevard County to connect to the Sykes Creek Regional Wastewater Treatment Plant (WWTP) without financial burden on county ratepayers, and we appreciate the continued dialogue on this issue. We value the productive discussions our organizations have had over the past six months and would like to request the following information to support our planning efforts.

As you know, we are requesting a treatment capacity of up to 0.3 million gallons per day (MGD) by 2027, increasing to 0.7 MGD by 2034. This request pertains solely to domestic wastewater as industrial wastewater will be pretreated and reused on-site. Any feedback to close on this request as soon as possible is appreciated so we can execute the funds allocated for this connection.

In addition, Space Florida intends to leverage our tools and resources at our disposal to help manage any impacts on the county wastewater system. We understand that expanding the Sykes Creek WWTP could be beneficial in accommodating growth in the near term. We would like to pursue options to support such expansion and appreciate any input on the most impactful investments into the Sykes Creek WWTP.

Finally, we remain committed to working with the County and local stakeholders to secure a long-term, resilient wastewater treatment system that can support Brevard County for decades to come. We are eager to continue our collaboration with the County and the Economic Development Commission (EDC) of Florida's Space Coast in creating a plan that benefits everyone in our community.

We look forward to continuing our discussions, resolving any issues, and working towards a mutually beneficial approach.

Sincerely,



Rob Long, President & CEO, Space Florida

CC:

Frank Abbate, Brevard County, County Manager
John Denninghoff, PE, Brevard County, Assistant County Manager
Edward Fontanin, PE, Brevard County Utility Services Department Director
Lynda Weatherman, EDC of Florida's Space Coast, President & CEO



Meet the new NORM in water management.

In most developments, used water from sinks, toilets, and showers is pumped and piped away to a city's centralized wastewater treatment plant. That takes a LOT of energy, and can burden the treatment plants. At Hassalo on Eighth, wastewater is handled in a way that makes much more sense for an eco-community...and really, for any community.

Say hello to NORM, Hassalo on Eighth's Natural Organic Recycling Machine. Unlike energy-intensive, conventional wastewater plants, NORM is a hybrid system that combines the best of natural processes, with the best of low-energy, simple mechanical processes to treat and recycle wastewater.

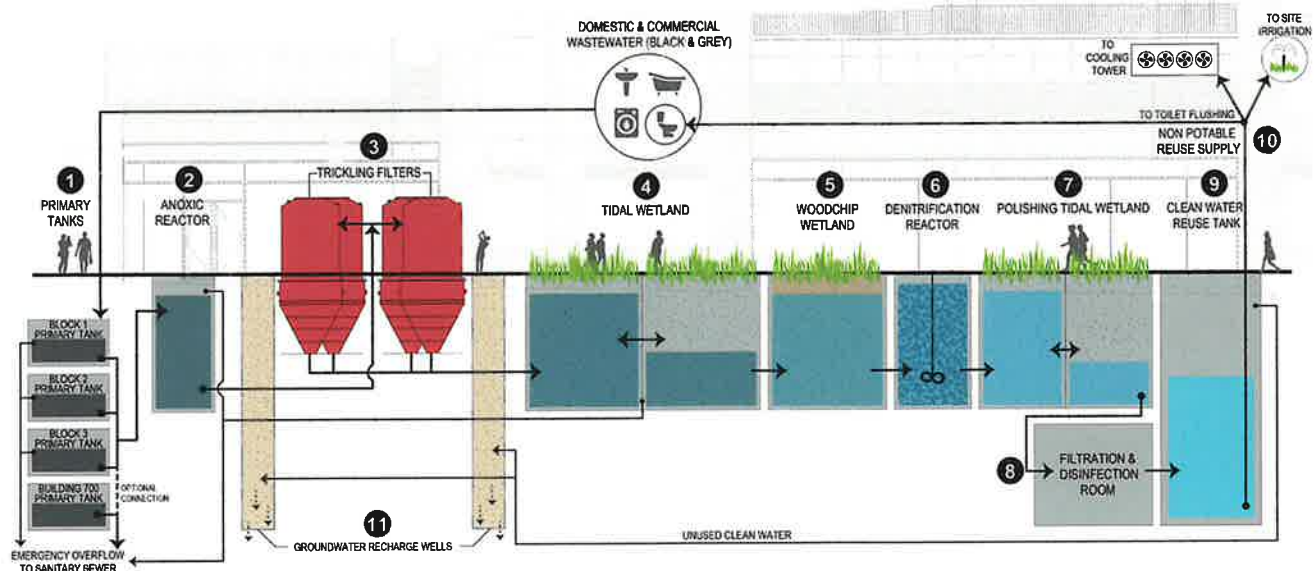
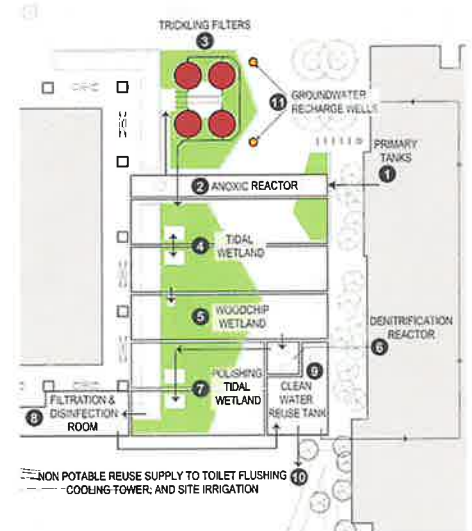
NORM recognizes water for the life-giving resource it is. Rather than whisking it away, NORM treats the water right here, and recycles it for use in toilet flushing, irrigation, and cooling towers at Hassalo on Eighth. NORM also recharges the local groundwater.

WHAT NORM DOES FOR HASSALO ON EIGHTH...AND FOR PORTLAND

- » Treats and recycles 100% of all wastewater from Hassalo on Eighth's three new buildings and reuses it to recharge groundwater and supply water for all of the toilet flushing, irrigation, and cooling demands.
- » Prevents up to 45,000 gallons of water per day from entering Portland's sewer system. This helps reduce the impact of combined sewer overflow during storms, and helps protect water quality in the Willamette River.
- » Saves up to 20,350 gallons of potable water per day and over seven million gallons per year!

HOW NORM WORKS

NORM is complex, but not complicated. It takes wastewater through an 11-step process.



Follow NORM
(@PortlandNORM)
on Twitter.



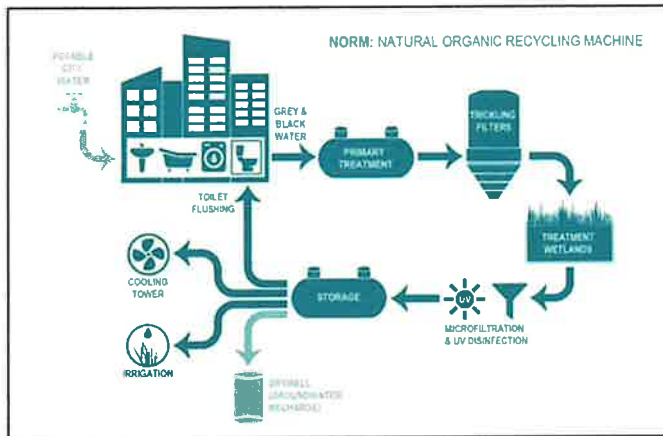
Biohabitats
CASCADIA BIOREGION

800.220.0919
www.biohabitats.com

AMERICAN ASSETS TRUST

Hassalo on 8th Wastewater Treatment & Reuse System

Portland, Oregon



"NORM is going to change the paradigm of large scale development"

— Kyle Andersen, AIA, LEED AP,
Design Principal, GBD Architects

Portland's Lloyd neighborhood is a dense cluster of office buildings with little residential space. The area is served by a combined sewer overflow system, in which rainwater is conveyed along with sewage and ultimately treated as wastewater. Envisioned as an "eco-district," Hassalo on 8th is a four-block, sustainable urban development. Pending LEED Neighborhood Development Platinum certification, Hassalo on Eighth boasts the highest level of certification in renewable, clean energy development, green roofs, a bike hub, access

An urban redevelopment project treats its wastewater for reuse onsite, redirecting it away from stressed city sewer infrastructure.

to mass transportation, and numerous other eco-friendly technologies and amenities. It is also one of the first urban neighborhoods to treat and recycle its wastewater on site.

Biohabitats designed an onsite wastewater system nicknamed NORM (Natural Organic Recycling Machine). This decentralized treatment and reuse system is designed to divert 100% of the wastewater generated in the three new buildings away from the municipal sewer. The project lessens the burden on this public utility, staving off costly repairs and infrastructure expansion, which garnered considerable support from the City as well as the Oregon Department of Environmental Quality. It is also a popular sustainability feature on the site.

The system, which was designed in collaboration with

GBD Architects, Glumac, and PLACE studio, treats 45,000 gallons per day to State of Oregon Class A reuse standards through a series of trickling filters and constructed wetlands. The trickling filters are integrated into the design of the park-like pedestrian corridor at the center of the project and the wetlands are an element of the landscaping. Treated, disinfected wastewater is reused for toilet flushing, running the buildings' cooling systems, and landscape irrigation. Excess, unused treated wastewater is injected into dry wells for crucial groundwater recharge in a largely impervious urban area, ensuring that no element of this new 'waste' stream is wasted.

SERVICES

Design
Green Infrastructure
Permitting

conservation planning
ecological restoration
regenerative design



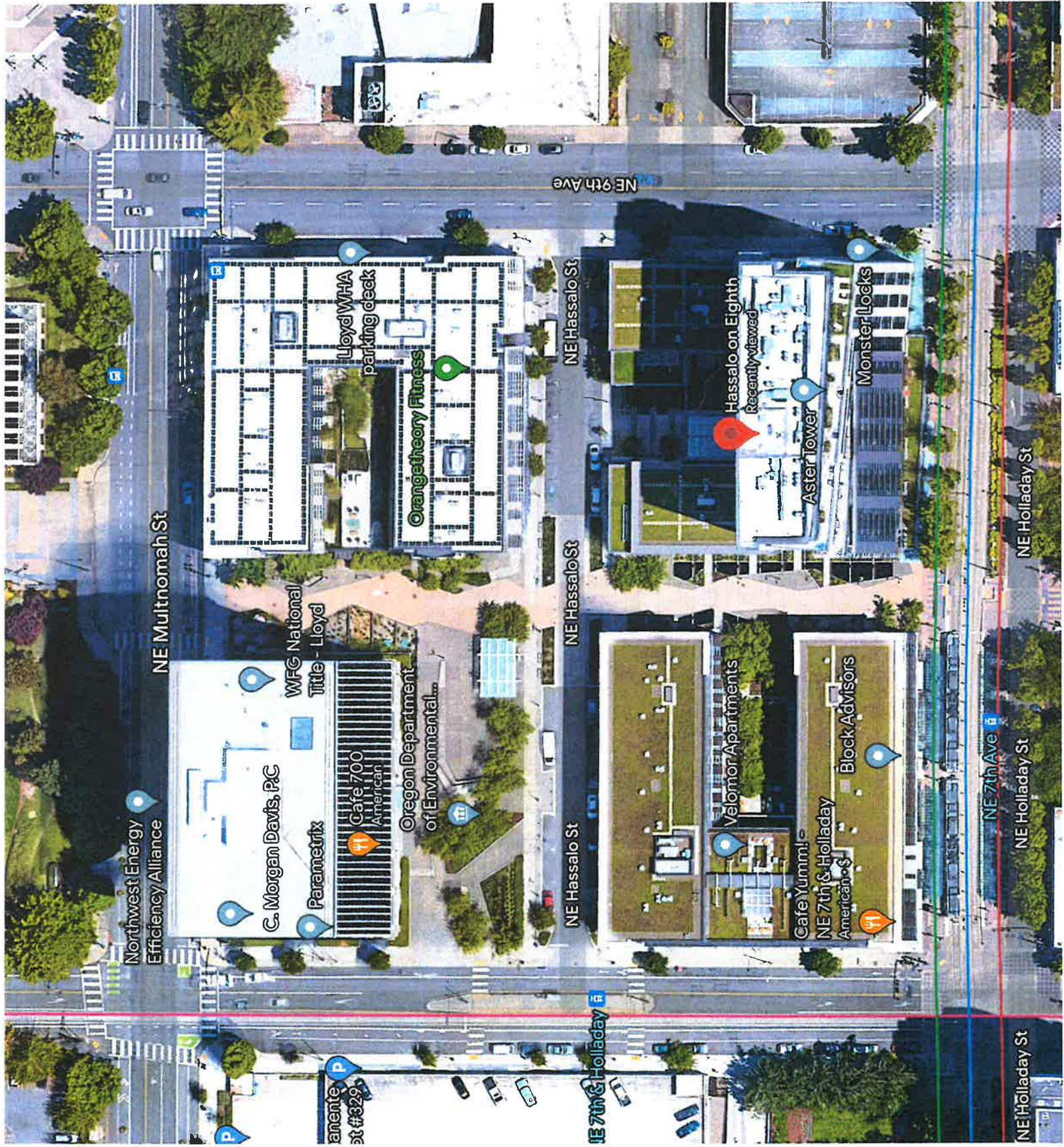
800.220.0919
www.biohabitats.com





Hassalo on Eighth in Portland, Oregon, capitalizes on the region's notably wet climate with a **rainwater harvesting system** that helps lower the district's demand on the city's water system.

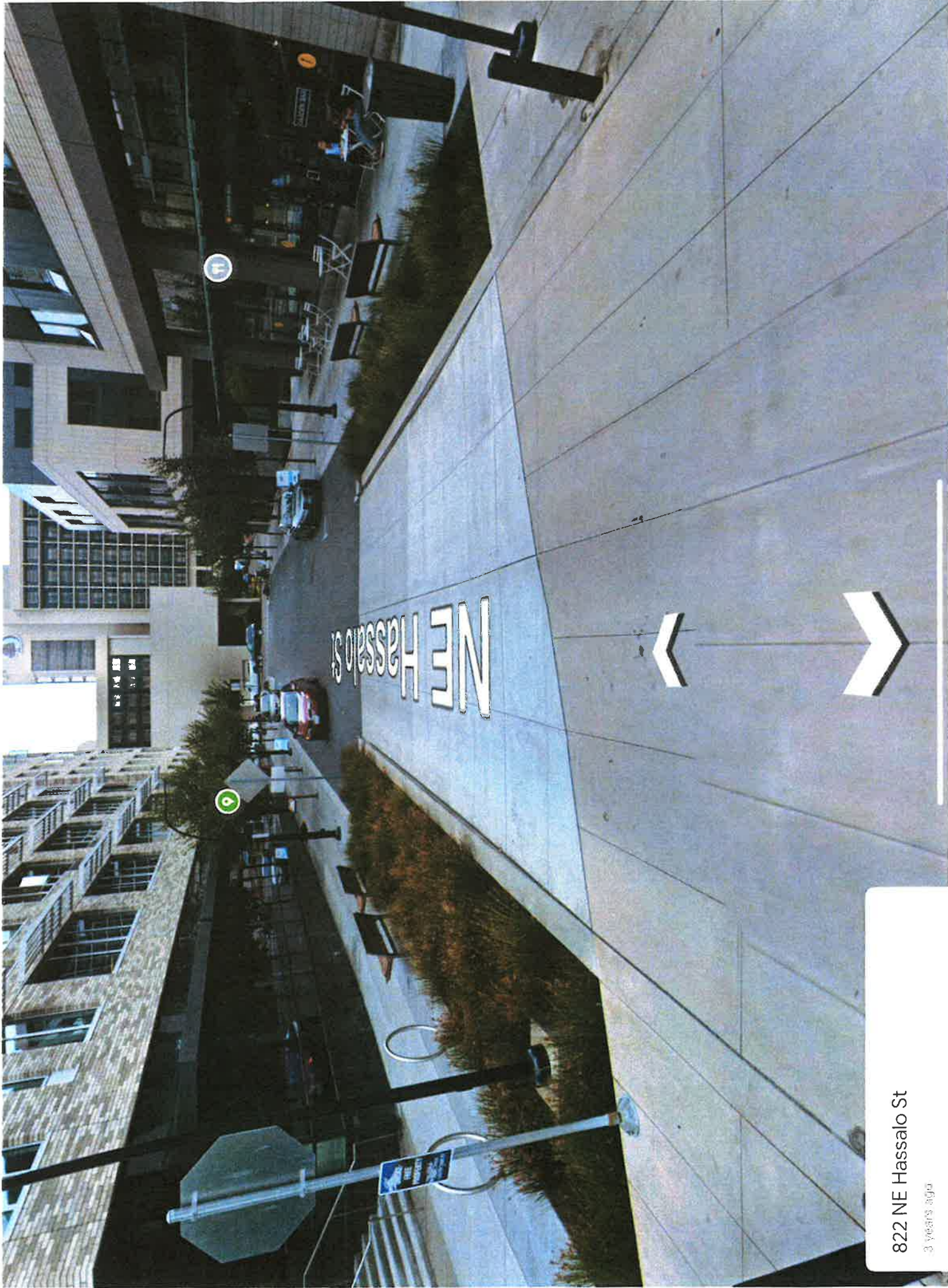






822 NE Hassalo St

3 years ago



822 NE Hassalo St

3 years ago



722 NE Hassalo St

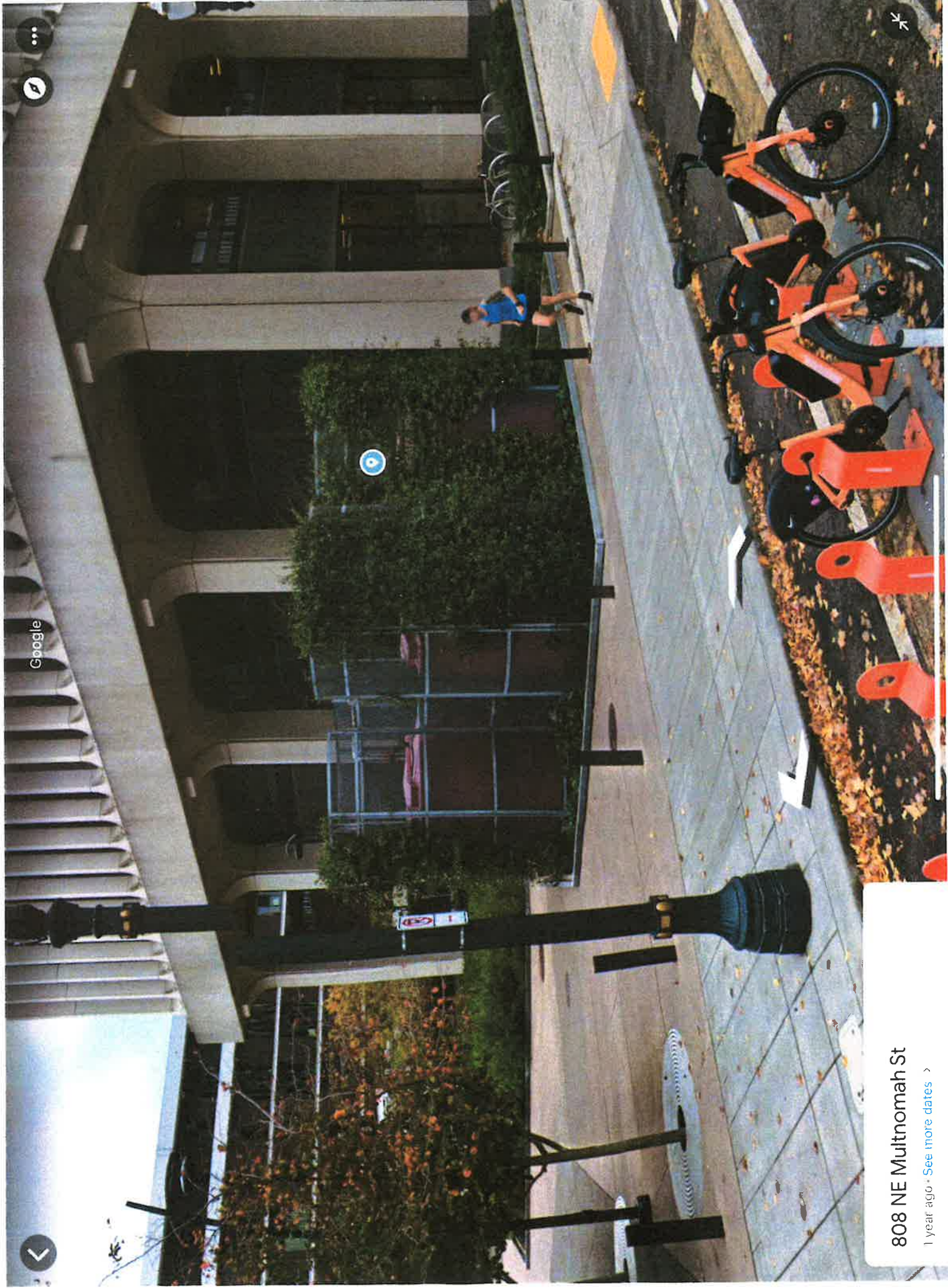
3 years ago





796 NE Multnomah St

1 year ago · See more dates >



808 NE Multnomah St

1 year ago · [See more dates](#) >

