

THE REFINERY
AT DOMINO

2022 Colvin Case Study Challenge
Team #5

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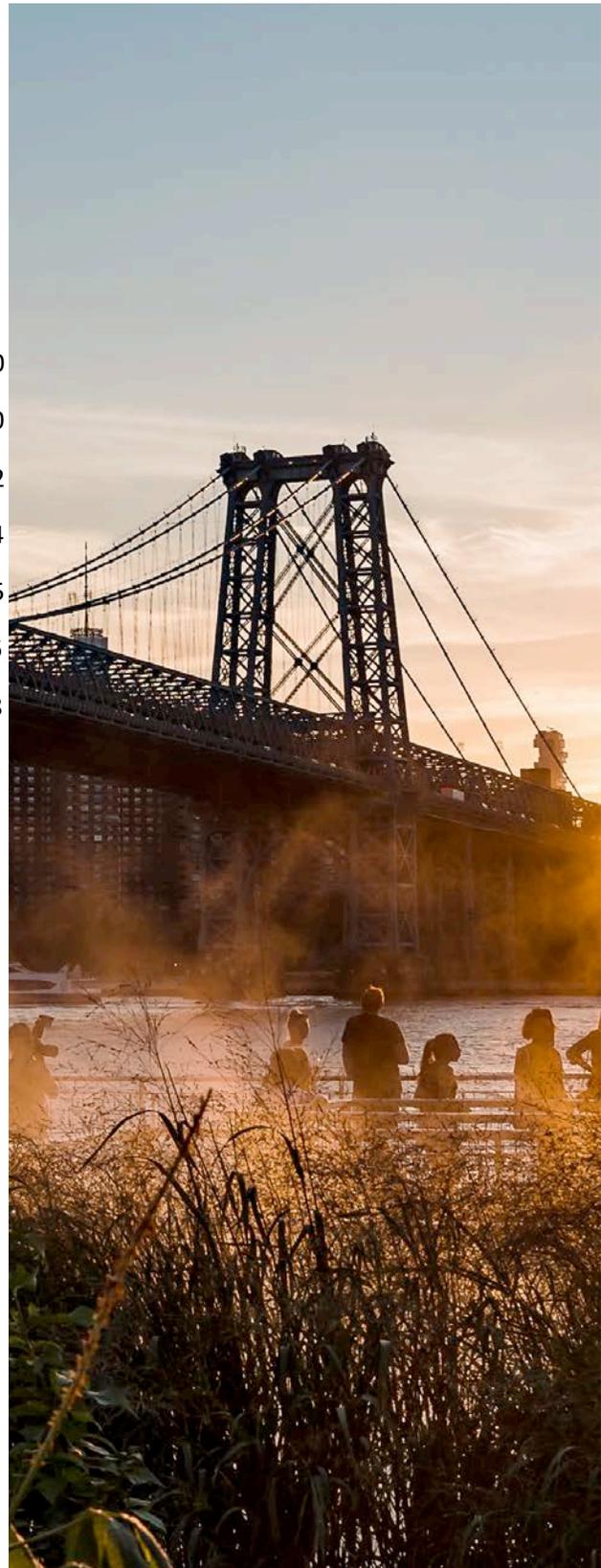
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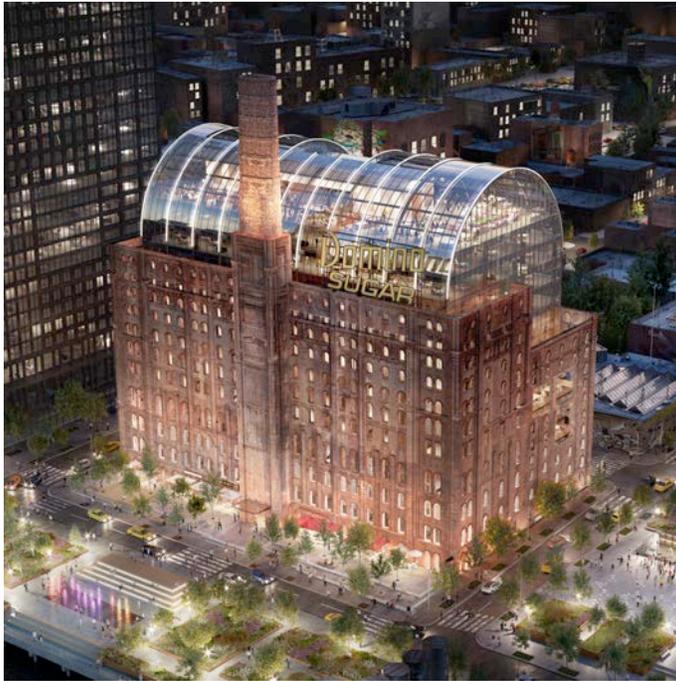
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Executive Summary

When David Walentas, the founder of Two Trees, moved to New York City in 1968, he was immediately inspired by the cityscape. Since founding the company almost 50 years ago, David's son, Jed, joined the family business and became the current CEO of Two Trees.

Two Trees is known for its singular role in transforming the Brooklyn neighborhood of DUMBO where the company's holdings include 12 buildings comprising more than 3 million square feet of commercial and residential space. Starting in 1974 with a 13-building purchase in DUMBO, Two Trees has built, rented, or sold more than 800 apartments, and invested over \$200 million into the neighborhood, including the development of Brooklyn Bridge Park and a donation of a public pavilion and restored carousel, contributing to the overall transformation of the area.

As a result of Two Trees' efforts, DUMBO has grown from a neglected industrial waterfront into a vital multi-use-community. A popular destination for New Yorkers and tourists alike, DUMBO is known for its boutique retail, innovative technology firms, luxury residences, art galleries and performance venues.

Quick Facts

Location

The Refinery at Domino, 292 Kent Avenue, Brooklyn, NY, 11249

Developer

Two Trees

Architect

Practice for Architecture and Urbanism (PAU)

Executive Architect

Densityworks
architecture

Landscape Architect

James Corner Field
Operations

Interior Design

Bonetti/Kozerski

Building Size

460,000 RSF, 15
Stories

Lobby & Access

Triple height atrium on
Kent Avenue with
24/7/35 access, full-
service front desk,
turnstile security

Project Vision

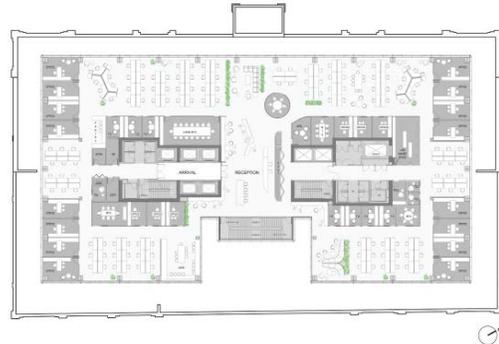
For a company looking to establish itself as culturally relevant in the epicenter of New York City’s most desirable neighborhood, The Refinery presents the opportunity to claim an iconic piece of the city’s skyline. Located in the heart of Domino Park in Williamsburg, Brooklyn, this 19th century landmark has been transformed into an unparalleled architectural masterpiece containing 460,000 rentable square feet of office space, a triple height atrium lobby, exceptional amenities, and acclaimed ground floor retailers.

The Refinery is scheduled to be ready for occupancy in the fourth quarter of 2023. Once completed, the Domino campus will feature 3,000 apartments, 600,000 RSF of office space, best in class retail and 6 acres of open space and parks.

Set within the building’s historic brick façade is a newly constructed 15-story glass building that provides efficient, virtually column-free floor plates with abundant natural light, operable windows, and spectacular views of the New York City skyline. This unique design allows for all the benefits of Class-A new construction with the character of a renowned and distinctive building. The Refinery’s location, amidst the world’s largest population of creative thinkers, will attract and retain the best talent while its position on the Domino Park waterfront will amplify the significance and identity of any company located here.

Full Floor Test Fit - Office Intensive

12th Floor: 31,414 RSF



Enclosed Rooms	Open Space	Total Headcount:
Perim. Office - 1 Seat	6' Workstation	202
Int. Office - 1 Seat	Open Collaboration	
Touch Down - 2 Seat		
Huddle		
Medium Meeting - 8 Seat		
Large Meeting - 16 Seat		
Telephone - Seat		
Total		38

Architectural Vision

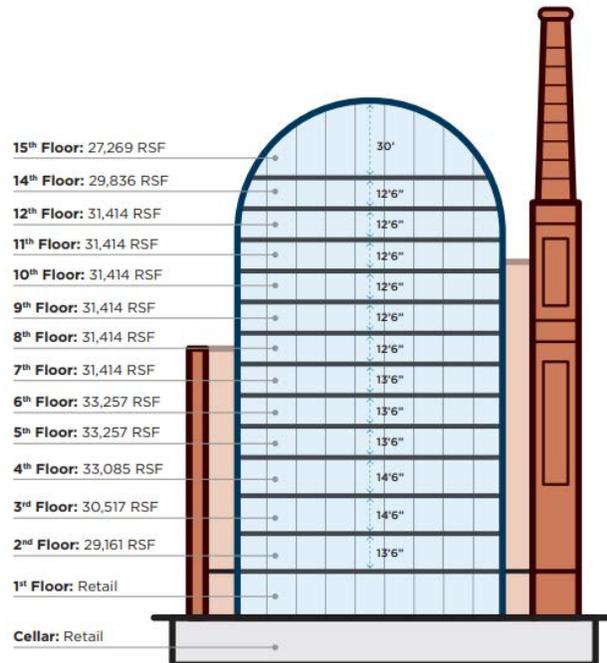
The Offices - A Modern Office Building Within a Landmark

Located in prime Williamsburg and the centerpiece of Domino Park, The Refinery combines the charm of a historic building with all the advantages of new construction.

- Expansive floorplates are virtually column-free.
- Ceiling height ranges from 12'6" to 14'6"; 30' clear at the penthouse.
- Ability to connect adjacent floors with dedicated interior circulation.
- Floor to ceiling interior glass façade with operable windows for outside air.



Floor Plates and Ceiling Heights



- Seven high-speed elevators controlled by destination dispatch.
- Large freight elevator with direct access to loading dock.
- Expansive triple height atrium lobby with full-service concierge and security.
- Dedicated lobby space for an anchor tenant can be made available.
- Options for pre-built and turnkey spaces of all sizes with flexible layouts.
- Exquisite indoor vines that provide a nature ambiance.

For a large-block tenant, the penthouse can be made available for exclusive use. A unique experience can be provided with a private lobby on the ground floor and dedicated elevators that open onto this one-of-a-kind space with breathtaking views of the city.

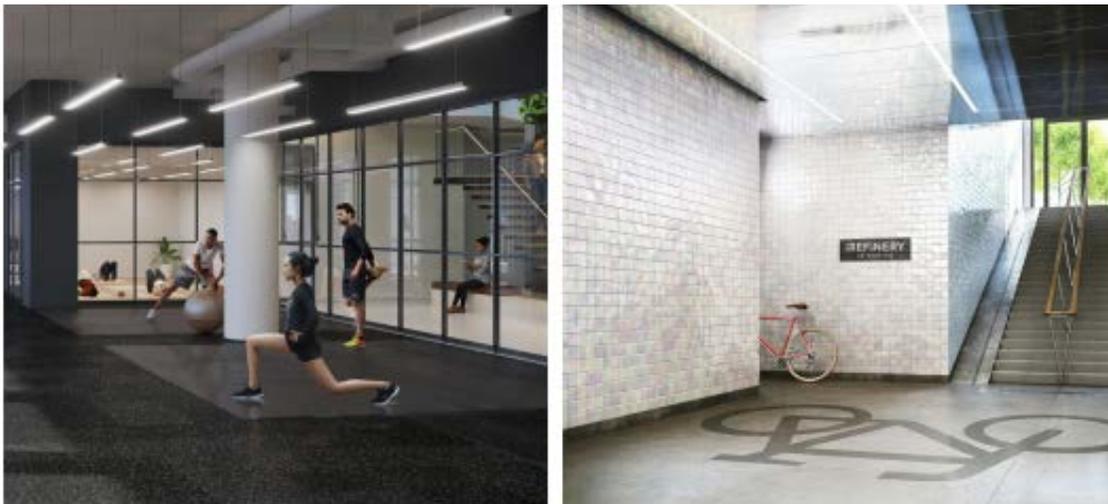


A View Unlike Any Other

The breathtaking 27,000-RSF glass dome penthouse that crowns the top of the building is the most compelling feature of The Refinery. Rising above the iconic yellow “Domino Sugar” sign, this 30’ high space makes a dramatic architectural statement and accommodates a variety of uses, including office, studio, private club, event space etc. Column-free and with sweeping 360-degree views in every direction, The Refinery penthouse is the single best space in New York City.

Amenities and Wellness

The Refinery offers a best-in-class variety of on-site amenities. Tenants will have access to a stunning shared amenity floor featuring open workspaces, multiple private conference rooms with advanced technological capabilities and gathering areas for collaboration and private events. With panoramic river views, the amenities are unmatched in New York City. To complement the expansive green space outside, The Refinery features a unique indoor vertical garden between the glass curtain wall and the building’s brick exterior. With mature trees, vines, and plantings, building occupants will be able to experience the natural environment while taking in breathtaking views of the river and the city. The building features a dedicated bicycle lobby with a separate entrance, ramp, and secure bike storage. The Refinery will house a 40,000 SF retail fitness club with an indoor pool and full-service gym. Collectively, these amenities have been designed to promote the health and wellbeing of The Refinery’s tenants and guests.



Nearby Two Trees Projects - Transforming the Waterfront

For the past decade, Two Trees has been working to execute an ambitious redevelopment of over half a mile of the Williamsburg waterfront, transforming it from an industrial enclave into Brooklyn's most coveted neighborhood. The Refinery is the heart of this transformation.

Once complete, the Domino Sugar Project and River Ring Project will collectively include over 4,000 residential units, 10 acres of world-class open space, 700,000 SF of office space and a myriad of independent retailers.



The complete project is portrayed above. River Ring buildings on the left corner of the photo

The Domino Sugar Project

With construction complete on the first 900 apartments, 150,000 SF of office space, and the award-winning Domino Park, the area has established itself as Brooklyn's most desirable neighborhood. The remainder of the development is anticipated to be completed by 2027.

The River Ring Project

Building upon the success of the Domino Sugar Project, Two Trees has obtained New York City approval for River Ring: Williamsburg's most innovative waterfront redevelopment located just two blocks north of The Refinery. Set to break ground in 2026, River Ring will be a model for urban waterfront resiliency and transform the way New Yorkers interact with the water. The project is anchored by an extraordinary 4-acre waterfront park that employs leading-edge sustainable design principles to restore and enrich the natural habitat while protecting the adjacent communities from flooding. The park will provide visitors with unprecedented access to the river's ecosystem and the unique ability to enjoy a natural setting that does not exist elsewhere on the Williamsburg waterfront. The buildings will contain over 1,000 housing units, a YMCA with an indoor swimming pool, office space and local retail—expanding what is already a thriving neighborhood.

Marketing Analysis

Neighborhood

Williamsburg is one of the most influential and unique neighborhoods in New York City. Dynamic and diverse, it is steeped in authenticity and rich history while standing at the forefront of the new. As one of the most sought-after destinations in the city, Williamsburg is home to a vibrant creative community. Typical residents in the area enjoy and appreciate the many celebrated restaurants, independent boutiques and iconic cultural institutions and events.

Incentives/Tax Breaks

Having an office at The Refinery qualifies companies for numerous financial benefits and incentives, allowing businesses to save millions of dollars. The developer



Two Trees has been involved throughout this process and has helped hundreds of businesses apply and get approved for the various programs below.

Relocation Employment Assistance Program (REAP)

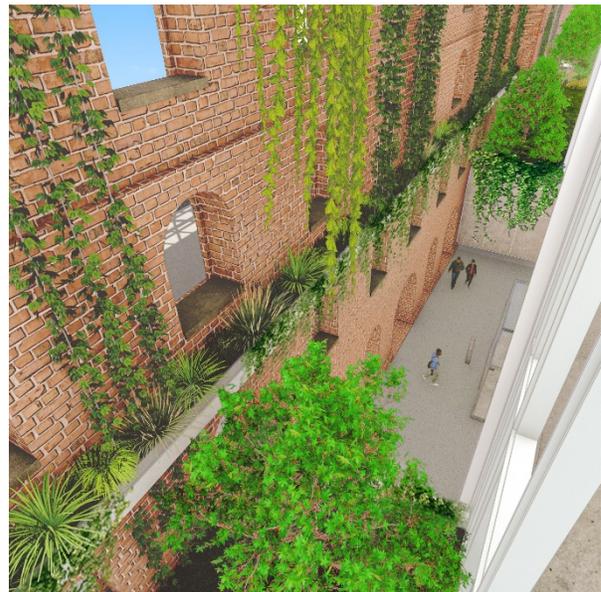
REAP benefits companies relocating to Brooklyn from Manhattan (below 96th St), or outside of NYC, by providing up to \$3,000 annually for each full-time employee, for up to 12 years.

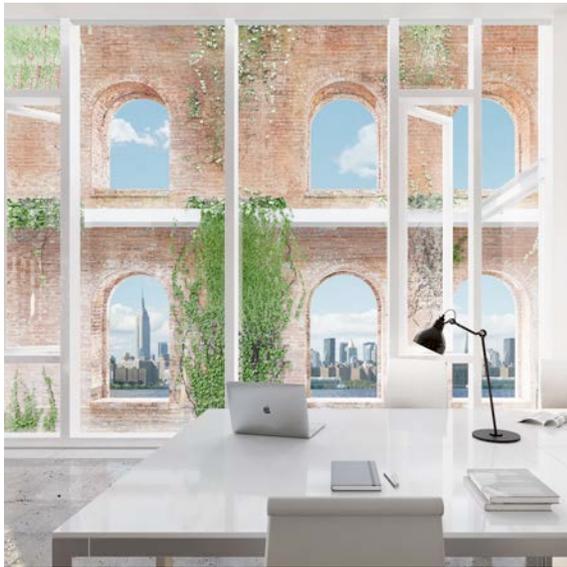


For example, a Manhattan-based company relocates its office with 250 full-time employees from Manhattan to Williamsburg. The asking price for the 30,000 RSF office is \$75PRSF, which is \$2,250,000 in rent a year. After submitting an annual NYC tax filing, the company receives a check from the city for \$750,000 ($\$3,000 \times 250$), thus reducing the rent from \$75PRSF to \$50PRSF and the annual rent total from \$2,250,000 to \$1,500,000. Assuming the company is in the space for five years, the total savings is up to \$3,750,000.

Green & Impact

The Refinery is one of the most sustainable, environmentally responsible office buildings in New York City. With a mechanical system that utilizes efficient, all-electric equipment, the building is one of only a handful citywide to have net-zero carbon emissions. The building is also part of an unprecedented private water reuse system located on the Domino campus. As a result, all the wastewater generated by The Refinery is treated and reused onsite, diverting polluted water from city outfalls, improving the quality of the East River and reducing stress on the city's burdened infrastructure.





These infrastructure investments, combined with the building's efficient design, set The Refinery apart from other office buildings in New York City, making it a true trailblazer and leader in sustainability (LEED Gold accreditation is anticipated). The Refinery has also been designed to maximize indoor environmental quality (IEQ). Large, operable windows provide access to outside air and lush vertical gardens. In addition, The Refinery's high ceilings, efficient and open floorplates, and floor-to-ceiling glass curtain wall maximize occupants' access to natural light and air.

Domino Park

Since opening in 2018, Domino Park has become a world-renowned attraction, hosting nearly 1 million visitors per year. The public park pays tribute to the site's history as America's largest sugar refinery. Designed by James Corner Field Operations and built and maintained by Two Trees, the park features a scenic elevated walkway, picnic area, dog run, playground, beach volleyball and bocce courts and Danny Meyer's Tacocina. Tenants of The Refinery will be only steps away from a perfect place to relax, take a break or socialize after work.

Refinery Plaza

The West side of The Refinery opens onto a 7,500 SF pedestrian plaza with unobstructed views of Domino Park, the East River, and the Manhattan skyline. Beautifully landscaped and generously furnished with seating, this space has been designed as an outdoor amenity for tenants of The Refiner and their clients.



Domino Square

A new addition to Domino Park, Domino Square is a 1-acre public plaza and flexible outdoor space, that will host programming such as farmer's markets, community gatherings, summer movie nights, arts and cultural performances and seasonal ice-skating. Located immediately to the south of The Refinery, it will provide tenants with optimal lunchtime seating areas and unparalleled views of the Williamsburg Bridge and the Manhattan skyline.



Project Financing

Overview

The total cost of Domino was \$250 million. Historically, Two Trees has financed projects throughout the Metropolitan area with loans and private equity, too. The financing of The Refinery at Domino was exceptional as it has combined the charm of a historic building with all the advantages of new construction. Furthermore, the breathtaking 27,000-RSF glass dome penthouse that crowns the top of the building is the most compelling feature of The Refinery. Rising above the iconic yellow “Domino Sugar” sign.

Loan

Two Trees Management has secured a finance package, a sum of \$80 million from M&T Bank to complete the improvement and construction of the landmark Domino Sugar Refinery in Williamsburg, Brooklyn. M&T will provide a \$43.6M project loan and a \$36M construction loan for the adaptive-reuse project, which is converting the 19th century refinery into a new 460K SF office campus.

To meet the demands of the Refinery, Two Trees took out another \$95 million construction loan from Bank of America at a 56% loan-to-value ratio (LTV), that

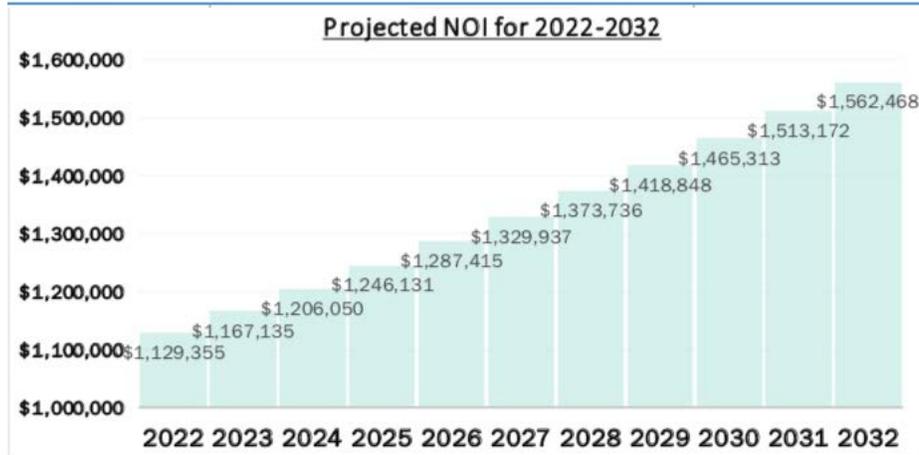
Project Budget: Refinery of Domino Sugar	
Soft Cost	Cost
Access Agreements/ Contracts	\$ 1,342,662.30
Inclusionary Housing Fees	\$ 1,553,565.09
Zoning Attorney	\$ 739,021.50
Building Surveys & Permit Fees	\$ 374,197.53
Geotechnical	\$ 1,672,112.60
Vibration Monitoring, Crack Gauge and Optical	\$ 309,790.38
Architect & Interior Design & Reimbursables	\$ 6,540,512.54
Consultants & Inspections (Structural)	\$ 5,130,494.18
Consultants & Inspections (Environmental)	\$ 3,457,659.19
Exterior Wall Art	\$ 1,279,370.29
NYSERDA Incentive	\$ 62,914.56
MEP & Structural Engineers	\$ 3,302,414.16
Passive House Academy	\$ 256,294.42
Project Management & Developer Fees	\$ 11,900,111.48
Expeditors/ Permits	\$ 875,150.20
General Contractor - Preconstruction	\$ 367,161.00
Jobsite Utility & Usage Fees	\$ 1,437,987.84
Bank Commitment Fee	\$ 82,172.13
Appraisal Fee	\$ 36,388.95
Title & Recording Fees	\$ 153,628.00
Building Taxes During Construction	\$ 107,058.92
Insurance (Builders Risk & Insurance Liability)	\$ 2,031,694.85
Marketing/ Advertising and Staging	\$ 1,776,752.90
Loan Interest (TBD)	\$ 8,196,791.41
Final Clean	\$ 164,167.58
Soft Cost total	\$ 53,150,074.00
Hard Costs	Cost
Direct CM & Subcontractor Building Costs	\$ 193,940,912.00
CM Costs (General Conditions, Fees, Insurance)	\$ 7,689,244.00
Hard Costs Total	\$ 201,630,156.00
Total Development Costs	\$ 254,780,230.00

Two Trees would tolerate. By doing that, Two Tress also incurred about \$4.5 million in unbudgeted financing costs.

The Refinery is expected to be completed next year and CBRE will be managing the leasing, with asking rents expected to range from \$55 to \$85 per square foot.

Sources & Uses

Sources		
Debt	Project Costs (\$)	Project Costs (%)
Loan	\$ 95,000,000.00	37.29%
Loan	\$ 80,000,000.00	31.40%
Equity		
Two Trees	\$ 79,780,230.00	31.31%
Total Sources	\$ 254,780,230.00	100.00%
Uses		
Acquisitions-Land	-	
Soft Costs	\$ 53,150,074.00	17.71%
Hard Costs	\$ 201,630,156.00	79.14%
Financing Cost	6848330.32	2.69%
Marketing	1184066.52	0.46%
Total Uses	\$ 254,780,230.00	100%



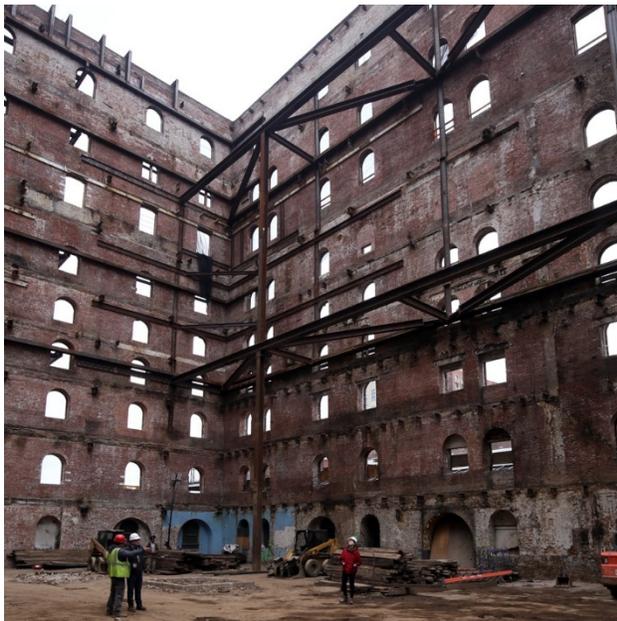
Two Trees are currently in the middle of the term for their construction loan and in the market for permanent financing. According to Two Trees, this is an extraordinary partnership between public and private agencies, the development is based upon a multi-layer financing model including grants, loans (sponsorships and bonds), equities and

other sources. There are various of funds from a broad source of public and private sources. The size and arrangement of such a funding was possible because of a unique blend of luxury rental and coop units within one project. However, this has also increased the complexity due to the number of entities involved.



Operational Issues

Retail Space & Offices:



Due of the COVID-19 pandemic, the demand for rental properties in NYC has dropped significantly and considerably reduced commercial leasing demand, and even though commercial leasing is up suddenly in the metropolitan area since 2022, it has not yet to reach the level before the pandemic.

The Refinery’s ground floor retail space is situated in a quiet side street, where located in Williamsburg, Brooklyn. Due to the market pressures and the adjustment of interest rate, they are still in search of potential tenants, renters, and buyers. Although they’ve had offer to bring down their rental fees for few months on retail restaurants spaces, the contractors hope to protect their residential & COOP tenants from the unwanted issues that come with ground-floor food and beverage retails—smells generate from food ventilation, and additional people loitering around the lobby from time to time. As such, the vendors are currently holding off renting the space as they wait for the right

tenant. It would be perfect if it could be a shop, a gallery, a “grab & go” places like bubble tea that does not do heavy cooking onsite.



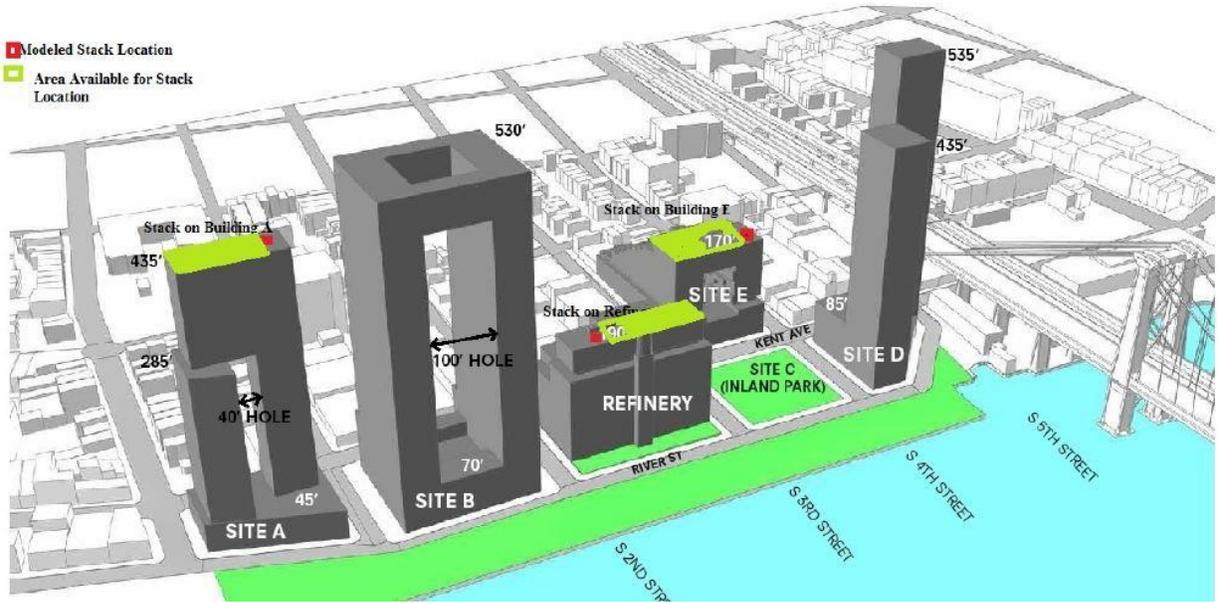
Exit Strategy

As a Greener Than Green: A Net-Zero Carbon Building with constant cash flows of over of multiple millions a year, Two Trees plans to hold The Refinery long-term as the Refinery features a unique indoor vertical garden between the glass curtain wall and the building’s brick exterior. With mature trees, vines, and plantings, building occupants will be able to experience the natural environment while taking in breathtaking views of the river and the city. Plus, The Refinery is ideally situated, making for a seamless commute from anywhere in and around New York City. Due to these benefits, making The Refinery having a high rate of competitive advantage in the metropolitan area.

APPENDIX

Figure 1
Massing Diagram for Domino Redevelopment

DOMINO// TWO TREES PROPOSED PLAN - OVERALL AXO



REVENUE	Projected											
	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Potential Gross Income	\$2,515,320	\$2,590,780	\$2,668,503	\$2,748,558	\$2,831,015	\$2,915,945	\$3,003,424	\$3,093,526	\$3,186,332	\$3,281,922	\$3,380,380	
-Vacancy	\$317,559	\$77,723	\$80,055	\$82,457	\$84,930	\$87,478	\$90,103	\$92,806	\$95,590	\$98,458	\$101,411	
Effective Gross Income	\$2,197,761	\$2,513,056	\$2,588,448	\$2,666,101	\$2,746,084	\$2,828,467	\$2,913,321	\$3,000,721	\$3,090,742	\$3,183,464	\$3,278,968	
EXPENSES												
Operating Expenses												
Real Estate Taxes	\$425,000	\$437,750	\$450,883	\$478,341	\$492,691	\$507,472	\$522,696	\$538,377	\$554,529	\$571,164	\$588,299	
Administrative	\$15,000	\$15,450	\$15,914	\$16,391	\$17,389	\$17,911	\$18,448	\$19,002	\$19,572	\$20,159	\$20,764	
Insurance	\$60,000	\$61,800	\$63,654	\$65,564	\$67,531	\$69,556	\$73,792	\$76,006	\$78,286	\$80,635	\$83,054	
Utilities	\$60,000	\$61,800	\$63,654	\$65,564	\$67,531	\$69,556	\$73,792	\$76,006	\$78,286	\$80,635	\$83,054	
Repairs & Maintenance	\$50,000	\$51,500	\$53,045	\$54,636	\$57,964	\$59,703	\$61,494	\$63,339	\$65,239	\$67,196	\$69,212	
Payroll	\$140,000	\$144,200	\$148,526	\$152,982	\$157,571	\$162,298	\$167,167	\$172,182	\$177,348	\$182,668	\$188,148	\$193,793
Management	\$75,460	\$75,460	\$77,723	\$80,055	\$82,457	\$84,930	\$87,478	\$90,103	\$92,806	\$95,590	\$98,458	\$101,411
Capital Expenditures												
Reserves	\$	\$325,000	\$334,750	\$344,793	\$355,136	\$365,790	\$376,764	\$388,067	\$399,709	\$411,700	\$424,051	\$436,773
Tenant Improvements	\$	\$130,000	\$130,000	\$130,000	\$130,000	\$130,000	\$130,000	\$130,000	\$130,000	\$130,000	\$130,000	\$130,000
Lease Commissions	\$	\$7,545.96	\$7,772.34	\$8,005.51	\$8,245.67	\$8,493.04	\$8,747.84	\$9,010.27	\$9,280.58	\$9,559.00	\$9,845.77	\$10,141.14
- Total Expenses	\$825,460	\$1,310,506	\$1,345,921	\$1,382,398	\$1,419,970	\$1,458,669	\$1,498,529	\$1,539,585	\$1,581,873	\$1,625,429	\$1,670,292	\$1,716,501
Net Operating Income	\$1,372,301	\$1,129,355	\$1,167,135	\$1,246,131	\$1,287,415	\$1,329,937	\$1,373,736	\$1,418,848	\$1,465,313	\$1,513,172	\$1,562,468	

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